



QUALITY TOOLS, EQUIPMENT & LINE MATERIALS FOR THE ENERGY INDUSTRY

PULLING & HAULING



A1-A60

HYDRAULICS



B1-B52

FIBREGLASS EQUIPMENT



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SAFETY & PPE



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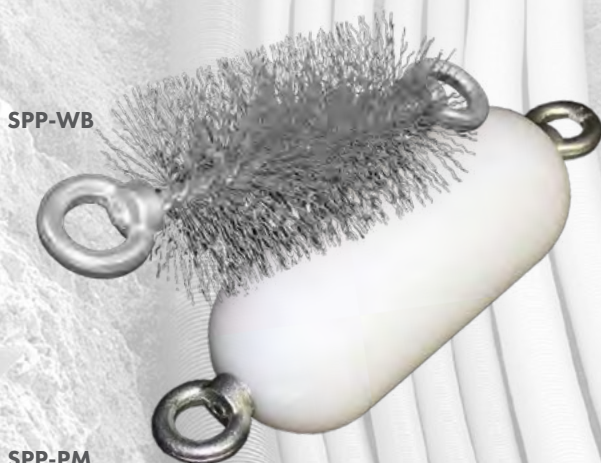
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Underground Range



SPP-PM



SPP-2A

CONDUIT ENTRY

Cable Feeding Sheave

- Made from Zinc Plated Steel with Aluminium Roller
- Split design allows easy removal after cable installation
- Designed to suit Cable Exit or Entry
- Lockable to conduit by expansion screw

Cable Feeding Bell Mouth

- Made from Zinc Plated Steel
- Split design allows easy removal after cable installation
- Designed for **cable entry** applications
- Allows multi-direction entry into the conduit

DUCT CLEANING AND PROVING

Wire Brushes

- Clean debris from the inside of conduits or ducts (50 to 200mm) before cable hauling/pulling
- Welded eyes for rope attachment
- Galvanised

DUCT Proving Mandrels

- Manufactured standard with Stainless-Steel Wire Rope and Thimbles or Stainless-Steel Eye Nuts & Threaded Rod attachments to secure ropes for cable hauling
- Ideal for testing NBN & Telstra ducts or conduits
- Tests electrical and communications conduits
- Made from high quality HDPE material for long life and lubricity

TRENCH ROLLERS

Flat Trench Roller - SPP

- Flat trench roller with 140mm nylon or aluminium roller
- Can be pinned on side for corner bends
- Galvanised finished frame
- Replacement nylon and aluminium rollers available

See PULLING & HAULING section for further information



PULLING & HAULING



TEN offers an extensive range of equipment for Overhead and Underground Distribution construction.

- ▶ Wire Grips, Socks and Swivels
- ▶ Hoists and Dynamometers
- ▶ Stringing Roller and Hand Line Blocks
- ▶ Dyneema, Double Braid and Polypropylene Rope
- ▶ Cable Pullers and Winches
- ▶ Underground Trench, Corner and Manhole Rollers
- ▶ Conduit Proving and Cleaning
- ▶ Cable Pulling Lubricant
- ▶ Duct Rodders
- ▶ Cable Stand and Reel Rollers



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OVERHEAD PULLING AND HAULING

Grips, Wire / Conductor

Used to grip Conductors (AL, Cu, ACSR), Wire Rope, Steel, ABC and CCT during tensioning

Grips



NGK Grip
AL-MIDDLE-GRIP



Riganti OPGW Grip
IR3112



KLEIN GRIP
S1613-40H

IMPORTANT

The “SAFETY” of your personnel and the longevity of your equipment depends on the Correct use, Inspection, Cleaning and Maintenance.

Correct use

- Operators should be trained in the relevant job at hand
- Read and understand the Instruction/Operators Manual
- Ensure you have selected the correct grip for the conductor type, size and tension, as well as the ancillary equipment. (e.g. max tension of hoist).



For more information on the care and maintenance of your Grips, **CLICK** or **SCAN** the QR-Code

Contact TEN for cleaning equipment

NAGAKI

RIGANTI

TESMEC

KLEIN TOOLS

Manufacturers Grips Supported by TEN - “Nagaki (NGK), Riganti, Tesmec & Klein”

Grips - Nagaki (NGK)

- Made in Japan from Quality Japanese materials
- Manufactured from high tensile alloy steel, hot forged, heat-treated, precision machined and zinc-plated
- Safety latch on all models
- Locking nut option available on some models
- Special shaped pulling eyes suit all brands of pullers

NAGAKI



SD-L-GRIPL/W

AL-2TON-GRIP-L*



AL-10TON-GRIP



ABC-GRIP



Grip Selection Chart - Nagaki (NGK)

Part No.	Min - Max Dia. (mm)	WLL (kN)	Jaw Length (mm)	Jaw Type	Wt (kg)	Safety Latch	Suitable for Wire/Cable	Eye Width (mm)	Notes
MINI-GRIP	1 - 10	5	NA	Serrated	0.3	No	Steel Rod, Barbed & Catenary Wire	16	Curved Jaw
SD-L-GRIP/W	2.6 - 15	10	34	Serrated	0.6	Yes	Steel Rod/Wire, Bare Cu & Catenary Wire	26	Large Eye
MESSEN-L-GRIP-L	4 - 12	10	50	Serrated	0.7	Yes	Steel Wire, Bare Cu, AL Clad Steel & Catenary Wire	26	Double Lock Nut
SS-GRIP	5 - 12	10	160	Slight Serrations	1.6	Yes	Telephone Cable	26	-
1TON-L-GRIP	4 - 22	10	60	Serrated	1.4	Yes	Bare Cu, Covered Conductor & Catenary Wire	32	Large Eye
2TON-L-GRIP	4 - 22	20	60	Serrated	1.4	Yes		32	Large Eye
MIDDLE-L-GRIP	5 - 25	20	110	Serrated	1.8	Yes		32	Large Eye
CCT-GRIP	5 - 25	20	110	Serrated	1.8	Yes	CCT Up to 180mm ² (11kV) Up to 80mm ² (22kV)	32	Large Eye
2TON-W-GRIP	5 - 16	20	100	Serrated	1.8	Yes	Stay Wire, Bare Cu, Wire Rope, Catenary Wire & Rail Contact Wire	32	Large Eye
3TON-GRIP	8 - 22	30	120	Serrated	3.1	Yes		34	-
4TON-GRIP	13 - 28	40	150	Serrated	5.0	Yes		50	-
6TON-GRIP	13 - 28	60	150	Serrated	5.2	Yes		25	-
10TON-GRIP	18 - 32	100	180	Serrated	10.0	Yes		60	-
AL-L-GRIP	5 - 22	10	60	Smooth	1.1	Yes	ACSR & Bare AL	32	Fine smooth jaw, less chance of conductor damage
AL-2TON-GRIP-L	5 - 20	20	100	Smooth	1.7	Yes		32	
AL-MIDDLE-GRIP*	5 - 25	20	110	Smooth	1.8	Yes		32	
AL-MIDDLE-GRIP-L	5 - 25	20	110	Smooth	2.9	Yes		32	
AL-LARGE-GRIP*	16 - 32	20	110	Smooth	2.0	Yes		32	
AL-3TON-GRIP	8 - 22	30	120	Smooth	3.0	Yes		34	
AL-4TON-GRIP	20 - 35	40	140	Smooth	3.7	Yes		34	
HOT-M-GRIP	5 - 25	20	110	Smooth	2.0	Yes	ACSR, Bare AL & Bare Cu	32	Hot Stick Rings
HOT-L-GRIP	16 - 32	20	110	Smooth	2.0	Yes		32	
AL-10TON-GRIP	32-46	100	300	Smooth	14	Yes	Bare Al & ACSR	63	Smooth jaw
TROLLEY-GRIP1L-S	5 - 16	20	100	Serrated	1.5	Yes	Rail Contact Wire, Bare Cu, Catenary Wire & Wire Rope	32	Large Eye
TROLLEY-GRIP-2-L	8 - 20	20	150	Serrated	2.8	Yes		25	Large Eye
TROLLEY-GRIP-4-L	13 - 28	40	150	Serrated	5.2	Yes		32	Large Eye
ABC-GRIP-S	2x16 & 4x35mm ²	6.0	130	Serrated	1.8	Yes	ABC - 2 x 16mm ² to 4 x 35mm ²	32	Large Eye
ABC-GRIP	4x35 & 4x95mm ²	8.5	190	Serrated	3.3	Yes	ABC - 4 x 35mm ² to 4 x 95mm ²	35	Large Eye
ABC-GRIP-L	4x95 & 4x150mm ²	20	190	Serrated	3.3	Yes	ABC - 4 x 95mm ² to 4 x 150mm ²	35	Large Eye

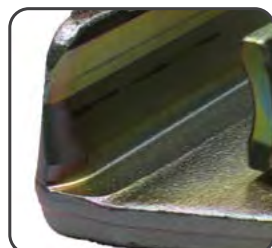
"L" Suffix denotes Locking

* Add "TB" Suffix for Bent Eye Option

Serrated Jaw



Smooth Jaw



Locked open in Notch



ABC Jaw





Grips - Klein

Part No. Various

KLEIN TOOLS

- Klein wire grips are suitable for pulling various conductors and cables
- All Klein Grips are manufactured from drop-forged steel that is machined and heat treated for excellent durability



Haven's
1625-20



Chicago
S1613-40H

Part No.	Min - Max Ø (mm)	WLL (kg)	Jaw Type	Jaw Length (mm)	Suitable for	Wt (kg)
S1613-40H	3 - 9.4	2041		106	Aircraft Cable, EHS, Messenger and Guy Strand. With hot latch and spring	1.4
1604-20L	3.2 - 12.7	2268		-	Messenger and Guy Strand (Knurled Jaw may damage cable)	1.0
1684-5F	4 - 14	3629		127	Aircraft Cable, EHS, Messenger and Guy Strand	2.9
1685-20	4 - 22	2041		64	Bare AL, Cu, ACSR	1.3
1625-20	7.1 - 19	3636		-	Wire Rope - where damage is not an issue	1.8
1656-40	13.5 - 18.8	3629		140	Ideal for Bare AL and ACSR	3.8
1685-31	16 - 32	3409		114	Bare AL, Cu, ACSR	2.3

Grips and Liners - Riganti

Part No. Various

RIGANTI

Made in Switzerland by
Powercom



Riganti's self-gripping comealongs are available for aluminium, ACSR, steel earth-wire, anti-twisting rope, copper and OPGW conductors.

Made of high tensile alloy steel, hot forged, heat-treated, precision machined and zinc-plated with a complete range of interchangeable liners. This means working at lower costs on conductors of different materials and diameters only by changing the liners.

The liners are available in aluminium for aluminium or aluminium/steel conductors and bronze for copper conductors, steel anti-twisting rope and steel earth-wire.

For OPGW conductor the lower liner is made of Adiprene, whereas the upper liner is made of aluminium.

All Riganti self-gripping clamps comply with European safety standard CE. Special clamps with exact diameters available on request with or without liners.

Refer Transmission Section for further information on Grips and Liners

Part No.	Working Load Limit (kN)	Min Breaking Load (kN)	Liners	Al, ACSR & Cu (mm)		Steel, Earth-wire (mm)		Anti-twist Steel Rope (mm)		Wt (kg)
				Min	Max	Min	Max	Min	Max	
IR-3109	19.6	49	✗	2.5	15	2.5	15	2.5	15	1.5
IR-3111 *	21.2	64	✓	7	16	7	13	7	13	2.5
IR-3108 *	39.5	110	✓	Lifting suspension conductors 7 - 38mm						5.5
IR-3106	50	125	✗	7.5	18	7.5	18	7.5	13	7
IR-3107 *	49	180	✓	6	23	6	16	6	16	7
IR-3112 *	49	180	✓	OPGW 6 - 23mm						7
IR-3105-S *	88	275	✓	8	35.2	8	22	8	24	13.5
IR-3104-S *	117	310	✓	10	45	10	34	8	28	17

* Exact size required for manufacture of liners



Hoists

Web Strap Ratchet Hoists - Nagaki NGK

Part No. Various

NGK web strap hoists feature insulated super-strength 32mm wide web straps, insulated Fibreglass handles and a special handle neck that will bend if the unit is overloaded to prevent damage to the puller and injury to the operator.

- Convertible series with 3 hooks
- Lightweight
- Insulated handles rotate 360°
- Controlled smoother release of load
- Made in Japan from Japanese components - BEWARE OF IMITATIONS!

Part No.	WLL (T)	Min Pull (mm)	Max Pull (mm)	Handle Length (mm)	Wt (kg)
N-1000P	1.0	440	1940	400	3.3
N-1500P	1.5	470	1970	460	4.6
N-1500P-EX	0.75 Single 1.5 Double	500	2000 Double 3500 Single	460	5.0
N-1500P-EX-L	Pulling: 0.75 Single 1.5 Double Lifting: 200kg Single 400kg Double	500	2000 Double 3500 Single	460	5.0

Rated for lifting. Requires annual inspection/service.

Favoured by
line crews
for its compact
size and weight



Wire Rope Hoists - Nagaki NGK

Part No. Various

- Steel handle rotates 360°
- Made in Japan from Japanese components
- Convertible and Standard Configuration available



Part No.	WLL (T)	Min Pull (mm)	Max Pull (mm)	Handle Length (mm)	Wt (kg)
P-1500-C (Convertible)	0.75 Single 1.5 Double	460	1870 Double 3280 Single	430	4.1
P-1500-EX	0.75 Single 1.5 Double	500	3500 Double 6500 Single	430	5.0

P-1500-EX



NAGAKI

NAGAKI NGK QUALITY

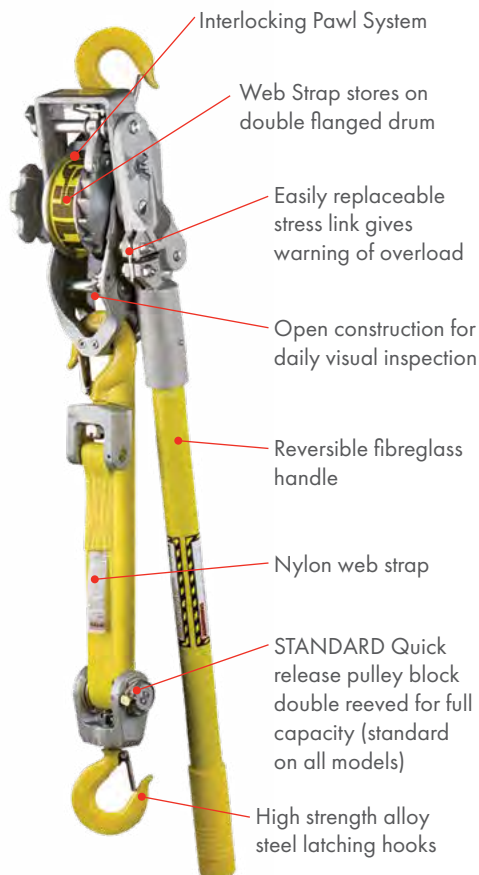
Nagaki utilise Japanese Technology to protect the quality stipulated by their company standards

Constant research and development to meet the demands and expectations of the professionals that operate their products everyday.





LUG-ALL® THE ORIGINAL & THE BEST



Web Strap Hoists - Lug-All

Part No. Various

- Positive Load Holding in all Environments – Interlocking pawl mechanism, no load brakes to slip or foul
- Ease of Operation – Self lubricating bearings throughout housing and on pulley assures smooth operation
- Stress Link – Signals operator by breaking replaceable link before overloading hoist
- Double Flanged Drum – Prevents web strap from coming in contact with ratchet teeth
- Open Frame Construction – Ease of cleaning, greasing and visual inspection
- All Lug-All's meet the current (2014) ANSI/ASME B30.21-2014 standard for "manually operated lever hoists"

**4.7m
single pull
distance**

Contact TEN
for replaceable
Stress Link



35-A-1300-ANZ
Medium Frame
Lightweight

Lug-All Standard & Lightweight Models

Part No.	Frame Size	Feature	Single Line		Double Line		Handle Length (mm)	Net Wt (kg)
			Capacity (kg)	Max (m)	Capacity (kg)	Max (m)		
Standard Models								
2-A-1300-ANZ	Small	Standard	450	2.9	900	1.3	420	4.6
25-A-1300-ANZ	Small	Lightweight	680	2.1	1360	1.1	330	4.5
3-A-1300-ANZ	Medium	Standard	680	3.4	1360	1.03	510	6.3
35-A-1300-ANZ	Medium	Lightweight	680	4.7	1360	2.2	760	5.8
40-A-ANZ	Medium	Lightweight	900	2.8	1814	1.2	910	6.0
Lightweight Models								
500-A-FH-ANZ	Small	Lightweight	226	5.0	-	-	508	3.3
1000-A-ANZ	Small	Lightweight	450	2.9	-	-	445	3.1
1500-A-ANZ	Small	Lightweight	680	2.3	-	-	508	3.2





LUG-ALL®

Wire Rope Hoists - Lug-All

Part No. Various

LUG-ALL® Cable Hoists have been the most popular product for the last 6 decades as the leading tool for industrial uses.

Ideal for hundreds of tasks, including lifting, lowering, pulling, tensioning, stretching and bending, Construction & Renovation, Road & Bridge Construction & Repair, Structural Steel Erection, Welding Alignment, Pump & Motor Installation & Overhaul, Rigging, HVAC, Conveyor Repairs, Fence Tensioning, Tree Service, and Landscaping.

LUG-ALL Cable Hoists can be used virtually anywhere a completely dependable, durable, industrial strength come-along/hoist is needed.

Easy-to-handle when wearing gloves: super flexible, 133-strand aircraft cable and fast-connecting, 360° swiveling hooks with safety latches for quick, positive, loading and unloading.

- Lug-All wire rope hoists for lifting or pulling applications
- Reversible handle designed to bend on overload
- Use the entire cable length! The exclusive LUG-ALL swaged, ball-shank anchor locks the cables end into the drum
- Self lubricating bearings
- Quick release will not function when the cable is under load
- Non-slip interlocking pawl system
- Open Design – Easily inspected
- Marine-grade models available
- Aluminium alloy frame and drop forged steel hooks



2250-20-ANZ
Small Frame

Part No.	Frame Size	Single Line		Double line		Net Wt (kg)
		Capacity (kg)	Lift /Pull Distance (m)	Capacity (kg)	Lift /Pull Distance (m)	
Standard Model						
2250-20-ANZ	Small	500	6.0	1000	3.0	4.2
3000-30-ANZ	Medium	680	9.0	1360	4.5	6.3
4000-20-ANZ	Medium	900	6.0	1800	3.0	7.0
6000-15-ANZ	Large	1360	4.5	2720	2.2	15.4

2250-20-ANZ
Small Frame



3000-30-ANZ
Medium Frame



4000-20-ANZ
Medium Frame



6000-15-ANZ
Large Frame





PULLING & HAULING

[Return to Contents](#)



Cable Hoist 500 to 3200kg - Yaletrac ST

Part No. Various

The portable Yaletrac ST cable puller is a versatile tool for pulling, lifting, lowering, tensioning and securing loads over long distances.

- Rope diameters from 6 to 16mm
- Various wire rope lengths available

Contact TEN for further information



USA MANUFACTURED QUALITY

NAGAKI



Chain Hoists 0.75 and 1.5T - Nagaki (NGK)

Part No. RICKY-2 & RICKY-3

- Lightweight aluminium housing with 5mm OD alloy chain link & forged hooks
- 1.5m pull
- 360° rotating handle of 230mm length
- Safety hook attachment
- All models manufactured under ISO9001 and ISO 14001 standards

Suitable for
Pulling/
Tensioning

Part No.	Style	WLL (T)	Chain length (m)	Min Pull (mm)	Max Pull (mm)	Handle Length (mm)	Wt (kg)
RICKY-2	Safety Hook	0.75	1.5	300	1800	230	4
RICKY-3	Safety Hook	1.5		350	1850	230	5

Chain Hoists 3, 4 and 6T - Nagaki (NGK)

Part No. Various

- Lightweight aluminium housing with 5mm OD alloy chain link & forged hooks
- 360° rotating handle of 430mm length
- Safety hook attachment
- Special length chains available on request
- Model2000C with Torque Handle

Suitable for
Pulling/
Tensioning



Part No.	Style	WLL (T)	Chain length (m)	Min Pull (mm)	Max Pull (mm)	Handle Length (mm)	Wt (kg)
MODEL2000C-1.5	Safety Hook	2	1.5	480	2000	430	6.6
MODEL3000-1.5	Safety Hook	3		480	2000	430	8
MODEL4000H-1.5	Safety Hook	4		580	2180	430	12
MODEL6000-1.5	Clevis	6		650	2250	430	19

Other chain lengths available - Contact TEN for further information

Model 4000 lightweight & ideal for
Transmission tensioning



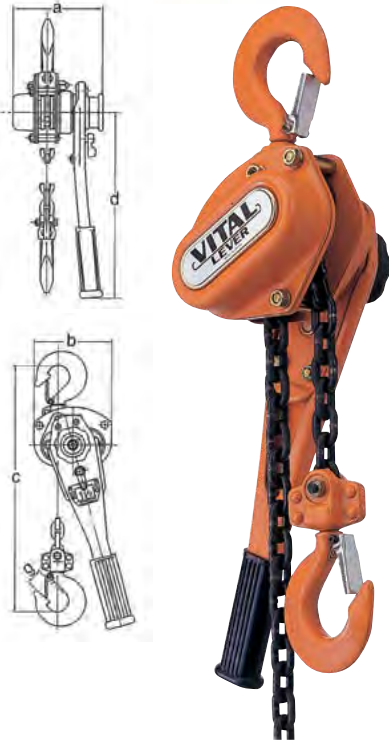
Chain Hoists - Vital

Part No. Various



- Manufactured in Japan using high quality steel
- All Vital models are manufactured to comply with AS1418.2
- Unique design of bottom hook prevents slipping and ensures safe operation
- Easy two-step operation to prevent accidental free-wheeling
- Hardened alloy steel load chain with embossed identification, marked as to the relevant standards
- Standard lift height 1.5, 3.0 & 6.0m
- Load Chain Exceeds Australian Standards with 5:1 Safety Factor
- The Vital VLB series are suitable for all pulling & lifting applications

Part No.	Rated Capacity (T)	Pull to Lift Load (kg)	Dimensions (mm)					No. Chain Falls	Wt (kg)
			A	B	D	G	C		
VLB115L	1.6	18	163	148	370	34	355	1	9.7
VLB130L	3.2	38	191	181	370	43	405	1	16.3
VLB160L	6.3	39	191	244	370	47	550	2	26.7



Chain Hoists - KITO

Part No. Various



- Advanced high-frequency heat treating process ensure uniform hardness on all key load bearing part
- Unique patented 'Free Wheeling Hub' mechanism.
- Smaller, lighter, high grade, alloy steel frame construction.
- All KITO models are manufactured to comply with AS1418.2
- Double brake pads with four braking surfaces.
- Low headroom design
- Double Pawl & Double Spring Assemblies
- KITO manufactured Nickel plated Grade 100 load chain
- Needle and Ball roller bearings allow maximum mechanical efficiency with minimum effort.
- Available with load signal as overload indication
- Also available with overload limiter which prevents hoist overload and protects the operator
- Optional hook for special tip-loading applications
- The KITO series are suitable for all pulling & lifting applications

Part No.	WLL (T)	Chain length (m)	Max Pull (mm)	Handle Length (mm)	Wt (kg)
44202	0.8	1.5	1800	245	5.7
44204	1.6		1850	265	8.0
44206	3.2		2000	415	15.0
45890	0.8	3.0	2180	245	6.8
45891	1.6		2250	264	9.7
45892	3.2		2250	415	18.5

6.3T & 9T Capacities available in both 1.5m & 3.0m Chain Lengths
Contact TEN for further information



Dynamometers

Mechanical Dynamometers - Nagaki (NGK)

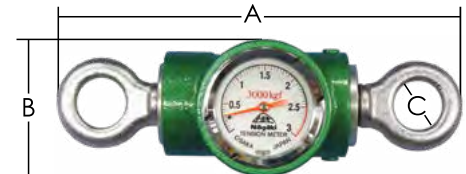
Part No. Various

NGK Dynamometers are lightweight, compact and plated to resist corrosion. All models feature a large face dial for easy reading of measurements.

**Trust only the Original
Established in 1946**



- Made in Japan from Japanese components
- Precise measurement of tension and loads
- Kilogram/force (kN) dial display
- Accuracy $\pm 3\%$
- Plated to resist corrosion
- Leather Storage case included
- Supplied with In-Service Date sticker



Part No.	Capacity (kN/T)	Graduation (Gauge Increments) (N)	Dimensions (mm)			Wt (kg)
			A	B	C	
AS-3	3/0.3	50	110	65	16	0.7
A-10	10/1	200	135	65	28	1.2
A-20	20/2	500	135	65	28	1.6
A-30	30/3	500	150	80	28	2.0
A-50	50/5	1000	260	95	28	3.0



A-30 Model

**All models now
with large 28mm eye**

DILLON

Mechanical Dynamometers - Dillon

Part No. Various

It is used for such diverse jobs as suspended weighing, mounting cables for bridges, adjusting tension on guy wires, tensioning conductor.

- Accuracy $\pm 0.5\%$ of full range
- Max hold feature
- Accurate readings from varying sight lines with fog and scratch resistant dial
- All units include calibration certificate and manual
- Corrosion resistant
- Option of 125mm or 250mm dial size
- Supplied with rugged ABS plastic carry case
- Supplied with In-Service Date sticker

Generous shackle openings mate with most hooks and hardware.

Maximum hand retains peak load point and is easily reset.

High strength case resists heavy blows.

Official certificate of calibration, dated and signed, accompanies each new Dillon Model AP dynamometer. This is your guarantee that every unit is within the stated accuracy tolerances before it leaves the factory.



**Optional Extra
Klaxon signal alarm
– mounted on back of
meter, can sound at
preset load point**



Part No.	Capacity (T)	Kg Division	Ultimate Safety Factor
30006-0134	0.5	5	5:1
30006-0159	1.0	10	5:1
30006-0126	2.0	20	5:1
30006-0167	4.0	25	5:1



DILLON



Digital Dynamometers - EDJunior - Dillon

Part No. Various

- Accuracy 0.2% of capacity
- Easy to read wide angle 26mm Back-lit LCD with max hold feature
- Soft key interface with programmable functions
- Rounded edges prevent binding or snagging
- Manufactured from aircraft grade aluminium alloy
- Calibration certificate, manual and batteries included
- Corrosion resistant and supplied with carry case
- 7:1 factor of safety at all capacities
- IP Rating IP55
- Supplied with In-Service Date sticker

**EDX & EDJ IP55
designed for weather
& water resistance**

Part No.	Capacity (T) (0.2% Accuracy)	Increments (kgf)	Dimensions (LxWxDmm)	Wt (kg) with Shackles
EDJR-1T	1	1	312 x 127 x 52	1.8
EDJR-2T	2	2	269 x 127 x 75	3.9
EDJR-5T	5	5	289 x 135 x 102	6.5

Other sizes available. Contact TEN for further information

Digital Dynamometers - EDXtreme - Dillon

Part No. EDXtreme



- Accuracy 0.1% of capacity
- Sturdy aircraft-quality aluminum, corrosion resistant and supplied with carry case
- High-resolution dot-matrix back-lit LCD display offers large 26mm numbers
- Soft-key interface allows easy and intuitive operation and configuration
- Injection molded, thick Lexan panels offer superior impact protection
- All units include calibration certificate, manual and batteries
- Radio or Hardwire Communication (RS-232 or RS-485)
- Models include Remote Configuration, Data Acquisition and Single Point Monitoring of Multiple Units. This is possible with hardwired or radio communications & optional remote Communicator II
- Supplied with In-Service Date sticker

Part No.	Capacity (T) (0.1% Accuracy)	Increments (kgf)	Dimensions LxW (mm)	Wt (kg) with Shackles
EDX-1T*	1	1	269 x 127	3.9
EDX-2T*	2	2	269 x 127	3.9
EDX-5T*	5	5	289 x 135	6.0
EDX-10T*	10	10	291 x 133	17.0
Communicator II - (Includes case & batteries)			241 x 127	2.0

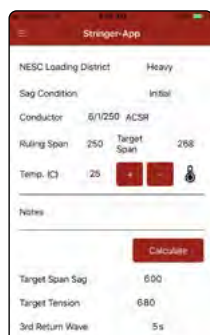
* EDX-Models are supplied Radio Ready and include Rated Shackles

Stringer APP for EDXtreme and Quickcheck Tension meter



DILLON EDX and QUICKCHECK paired with the "STRINGER APP" gives Line-workers and Riggers the target tensions to build Utility Power-lines and tension Communication Towers to design specifications

Contact TEN for further information



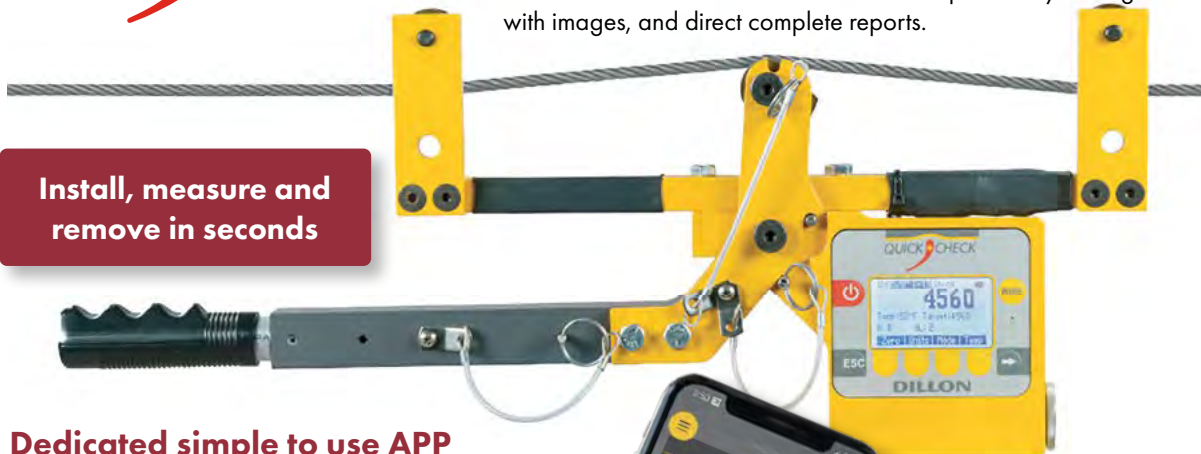


Tension Meter - Dillon

Quick-Check "T" Tension Meter - Dillon

The Dillon Quick Check-T Tension Meter makes a difference. It quickly measures tension in cable tower guy wires, overhead lines and road barrier cables. It reduces time on the job site by not having to change sheaves, and the need to thumb through charts to figure out target tensions. This unit also reduces time off the job site by having automatic site form completion, with images, and direct complete reports.

Install, measure and remove in seconds



Dedicated simple to use APP

All the data in the palm of your hand

Heavy Duty Carry Case



WHY Dillon Quick Check "T"? What's the Difference?

- Bluetooth® enabled
- Custom mobile app
- Multi-wire single sheave
- Calibration check rod
- Automatic report generation with photos
- Automatic target tension calculations
- Ability to capture pre and post tension readings
- Inbuilt image capture

Part No.	AWT05-100370	QC-T
No. of Callibrations	16 Tower guy + Test Rod	1 x Test Rod
Callibrations (")	(1x7) 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 (1x19) 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 1	1 only, for test rod. Specify wire sizes
Tension capacities (kN/kg)	45 /4500	
Wire sizes mm (")	4.75 to 25.4 (3/16 to 1)	
Accuracy	+ 3% instrument capacity (calibrated to specific wire size and type)	
Communication	Bluetooth®	
Display	Dot-graphic LCD display supports full text and 25mm high digits	
Data Export	Via mobile app	
Sheave range	One Sheave, two positions	
Wire calibrations	Up to 20	
Environment protection	Suitable for continued outdoor use	
Operating range °C	-20 to 70	
Tension units of measure	Pound-force, Kilogram force, Newtons	
Resolution	Configurable low/med/high (5000 resolutions)	
Size (mm)	220 x 610 x 90	
Weight (kg)	5	
Recalibration	Every 12 months. More frequently with heavy use	



Quick Check "T" shown testing tower guy with phone APP



Quick Check "T" shown with Test Bar and phone APP



slingco

**Non-conductive
Aramid Fibre**



**Recommended
for stringing ABC**

Socks and Grips, Cable

NS Non-Metallic Aramid Socks - Slingco

Part No. Various

Non-metallic cable socks are made of plastic coated Aramid fibres that are light weight, yet much stronger than steel wires. Aramid are a class of heat-resistant and strong synthetic fibres used in aerospace and military applications. These grips are traditionally used in overhead ABC applications or when pulling fibre optic cable.

- Non conductive
- Much lighter yet stronger than steel grips
- Easier to apply and remove
- No frayed wires
- UV Resistant
- Strong enough to last in salt water

Part No.	Cable Range (mm)	UTS (kN)	Mesh Length (mm)	OAL (mm)
ZCS1040	10-20	11.16	552	725
ZCS1022	20-30	15.89	600	696
ZCS1023	30-40	43.84	642	840
ZCS1024	40-50	52.86	523	775
ZCS1179	50-65	70.71	636	817
ZCS1180	65-76	70.71	908	1086
ZCS1181	76-101	70.71	1029	1239

Determining Working Load Limit is dependent on your application and company/client safety factors

Non-Conductive Nylon Socks - NCG

Part No. Various

- Double or Triple ply
- Soft Eye
- LV models for LV ABC - Single Eye with Alloy Ferrule
- HV models for HV ABC - Double Eye with Alloy Ferrule



Scan or Click to View or
Download Grip Inspection
Selection & Application

Part No.	Suits	Grip Length (mm)	UTS (kN)	Working Load Limit (kN)
LV225	2x25mm ² LV	600	15	5
LV235	2x35mm ² LV	600	15	5
LV250	2x50mm ² LV	600	15	5
LV295	2x95mm ² LV	600	15	5
LV335	3x35mm ² LV	600	15	5
LV395	3x95mm ² LV	600	25	8.3
LV425	4x25mm ² LV	600	15	5
LV435	4x35mm ² LV	600	15	5
LV450	4x50mm ² LV	600	15	5
LV470	4x70mm ² LV	600	17	5.6
LV495	4x95mm ² LV	800	25	8.3
LV4150	4x150mm ² LV	800	25	8.3
HV335	3x35mm ² HV	800	25	8.3
HV350	3x50mm ² HV	800	25	8.3
HV370	3x70mm ² HV	800	25	8.3
HV395	3x95mm ² HV	900	31	10.3
HV3120	3x120mm ² HV	900	31	10.3
HV3150	3x150mm ² HV	900	31	10.3
HV3185	3x185mm ² HV	900	31	10.3



Cable Pulling Grips - Slingco

Part No. ZCS-Range

For the installation of overhead conductors and cable in conduits, ducts and trenches. The MU Type grip's triple-weave construction is ideal for heavy loads.

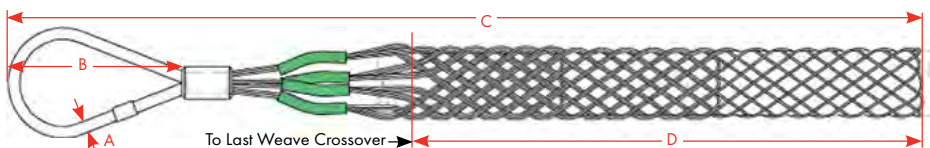
- Hand-Woven with quality Galvanised Steel
- Perfect for stringing overhead transmission and distribution lines and heavy load pulls of any kind and ideal for new or old conductors
- The flexible eye connects with line pulling swivels for trouble free pulling applications

Key Features

- Heavy duty multi-weave construction
- High strength grip used for heavy duty pulling
- Suitable for bare steel, AL, CU & covered conductor
- Colour coded for easy identification

IDEAL FOR STEEL CONDUCTOR

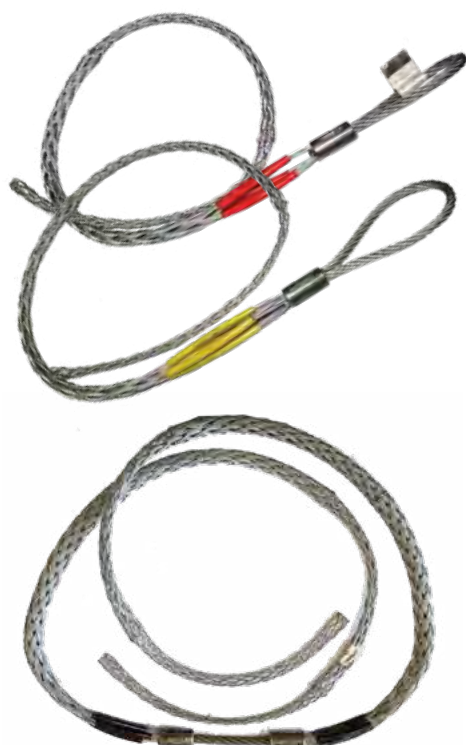
*Type tested on 3/4/2.5 ACSR and 3/2.75 SC/AC & SC/GZ as per AS1154.3-2009 Section 2.3.3 (Mechanical Strength Type Tests)



Dimensions: The figures shown are indicative only. Fully dimensioned data-sheets are available upon request. Nominal figures/actuals are as per data-sheet with tolerances of +/-5%.

Part No. Colour Code	Conductor Range (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Breaking Load (T)
ZCS1710	6-12	7	102	965	720	3.17
ZCS1711	12-19	8	127	1263	978	4.76
ZCS1712	19-25	9	156	1537	1162	6.39
ZCS1713	25-32	13	165	1909	1470	11.34
ZCS1714	32-38	13	165	1725	1291	14.06

Important Note: Ensure fitting instructions are followed and always apply the recommended Steel Band for maximum grip of the conductor. SCAN or CLICK the QR Code above for fitting instruction. Refer Hand Tool Section for Banding Tools & Accessories.



Heavy Duty Large Eye Cable Socks - Tesmec

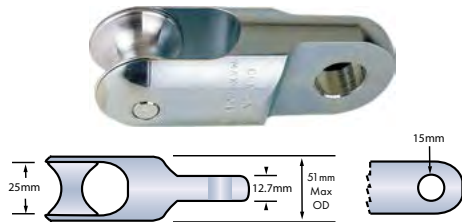
Part No. Various

- Ideal for underground and overhead work
- Suitable for Transmission & Distribution AL, CU & ST
- Colour coded plastic bands at ferrule to identify range and capacity
- Steel wires with protective finish and alloy ferrule
- Long mesh length provides additional gripping surface area

Part No.	Suitable Swivel	Conductor OD Ø (mm)	Colour	UTS (kN)	Mesh Length (mm)	Wt (kg)
GCT001	GGT001	8 - 17	Yellow	35	1100	0.7
GCT010	GGT010	17 - 29	Red	85	1360	1.3
GCT020	GGT020	29 - 38	Green	130	1470	2.1
GCT030	GGT020, GGT030	38 - 50	Black	180	1820	2.7

Double Head Socks - Tesmec

Part No.	Conductor OD Ø (mm)	Colour	UTS (kN)	OAL (mm)	Wt (kg)
GCT500	8 - 17	Yellow	35	2680	1.15
GCT510	17 - 29	Red	85	3240	2.3
GCT520	29 - 38	Green	130	3540	3.6
GCT530	38 - 50	Black	180	4240	4.8



**Contact TEN for
information on the range of
Round Slings & Shackles**

Joists and Swivels

Standard Swivels - Tesmec



Part No. Various

- Swivels for connecting pulling rope to cable sock
- For Overhead or Underground application
- Made from high tensile galvanised and corrosion protected steel
- Chamfered edges allowing smooth passing through rollers or conduit
- Special design can bear high radial loads. Thrust bearings designed to avoid torsion strain accumulation

Part No.	Max Rope Size OD (mm)	Break Load (kN)	Diameter OD (mm)	Overall Length (mm)	Wt (kg)
GGT001	10	70	28	106	0.3
GGT010	13	110	40	143	0.9
GGT020	18	220	54	184	2.1
GGT030	24	360	60	234	3.4
GGT040	28	750	77	322	8.2

Rope to Swivel Connector - Condux

Part No. 08091230



- To connect swivels to rope up to 25mm OD
- Suits swivel GGT010 above
- Precision machined stainless steel construction with 44kN work load
- Ideal for utilising larger diameter ropes on smaller swivels where the WLL allows
- Contact TEN for further information on swivel/connector combinations

Fixed Joints - Tesmec

Part No. Various

- High tensile steel with galvanised finish, for joining steel draw wire

Part No.	Break Load (kN)	Rope Size (mm)	Wt (kg)
GFT001	70	10	0.1
GFT010	110	13	0.3
GFT020	160	16	0.5
GFT030	220	18	0.8
GFT040	360	24	1.0

Lifting Gin - Hastings

Part No. 5800-5-V1

- For lifting transformers and heavy objects
- Stamped with load rating (WLL)
- High strength aluminium alloy
- High strength web attachment strap

Part No.	5800-5-V1
WLL (kg)	860
Fits Over X-Arm (mm)	95 x 120
Dimensions (mm) "A"	270
Weight (kg)	4

Cross-Arm Slings

Part No. Various

- Load Rated Flat Webbing Sling
- Steel "D" Rings both ends

Part No.	Length (mm)	WLL /WLL in Choke (kg)	Wt (kg)
CAS1	1000	750/600	0.65
XAS-600	600	600/480	1.50





*Ball Socket



*Centre Tab



Stringing Rollers and Attachment Brackets

Universal Stringing Roller - SPP

Part No. SPP-1A

- Suitable for distribution and ABC
- Aluminium sheave
- Lightweight high strength heat treated aluminium
- Versatile attachment fittings include side and bottom tags and top ball socket fitting
- Side gate latch can be locked open
- Sheave is profile machined permitting precise sagging of conductor
- High quality permanently lubricated high temperature precision bearings

Part No. SPP-1A-DI

- Same Specifications as SPP-1A
- Ductile Iron sheave (SPP-1A-DI)
- Ideal for Pulling Steel conductor (e.g. 3/12 Steel) or steel catenary



Part No.	Sheave Material	Maximum Conductor OD (mm)	WLL* (kg)	Weight (kg)	Bottom of Groove Diameter (mm)	Overall Height (mm)	Overall Width (mm)
SPP-1A	Aluminium	50	1130	4	110	370	205
SPP-1A-DI	Ductile Iron	50	1130	5	110	370	205

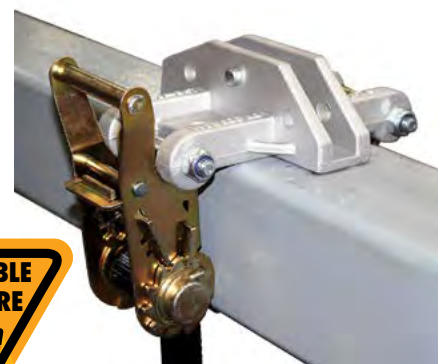
*WLL 1130kg when suspended from ball socket fitting or mounted on centre tab



Universal Roller Bracket - SPP

Part No. SPP-1A-BKT

- Versatile mounting bracket for cross-arms and poles
- Frame made from Cast Aluminium
- Lightweight, easy to install
- Heavy Duty Strap and Zinc Plated Ratchet Assembly
- 3 Mounting holes for various configurations
- Ball pin to secure roller
- Suits SPP-1A & SPP-1A-DI Rollers



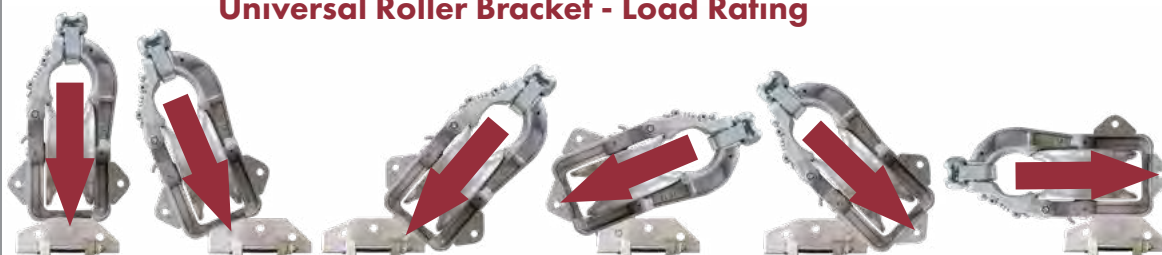
Part No.	Min Cross Arm (mm)	Poles OD (mm)	WLL (kg)	Wt (kg)
SPP-1A-BKT	100 x 100	200-470	Refer Load ratings below*	2.0

SPP-1A & SPP-1A-DI Rollers sold separately to SPP-1A-BKT Roller Bracket

Universal Roller Bracket - Load Rating



LOAD DIRECTION



	SPP-1A-BKT* (WLL - kg)	1A-2A* (WLL - kg)	SPP-1A-CAB* (WLL - kg)
500	500	500	500
1130	1130	1130	1130
1130	1130	1130	1130



Shown mounted on
SPP-1A-CAB
Cross Arm Bracket

Universal Stringing Roller

Part No. SPP-1A-SB

- "Pull & Turn" style release gate
- Suitable for distribution & ABC
- Sealed ball bearings



[Click to view
Pull & Turn
Release Gate](#)

Part No.	Maximum OD Conductor (mm)	WLL (kg)	Wt (kg)	Bottom of Groove Diameter (mm)
SPP-1A-SB	50	1130	4.1	110



Cross Arm bracket

Part No. SPP-1A-CAB

- Crossarm mount bracket to suit up to 127mm wide x 152mm deep Cross-arms
- Includes pin for securing universal roller
- NOTE: Refer Load ratings on adjacent page*



Ball Clevis Socket Fittings

Part No. Various



Part No.	SPP-1-UC	BEL-70	T12	SPP-1-YC
Description	Ball Clevis	Oval Eye Ball	Safety Hook	Y Ball Clevis
WLL (kN)	70	70	70	70
Weight (kg)	0.55	0.4	0.55	0.85



T12 Safety Hook

Tie Top Post Insulator Bracket

Part No. 1A-2A

- Manufactured from cast aluminium with urethane jaws
- Easy to operate reverse twist knobs
- Suits maximum insulator 123mm OD neck

Part No.	Max Insulator Throat (mm)	WLL** (kg)	Wt (kg)
1A-2A	123	Refer Load ratings on adjacent page*	2.6

** Refer Insulator minimum failure load when considering the WLL

Pin Insulator Roller - SPP

Part No. SPP-PIR Series

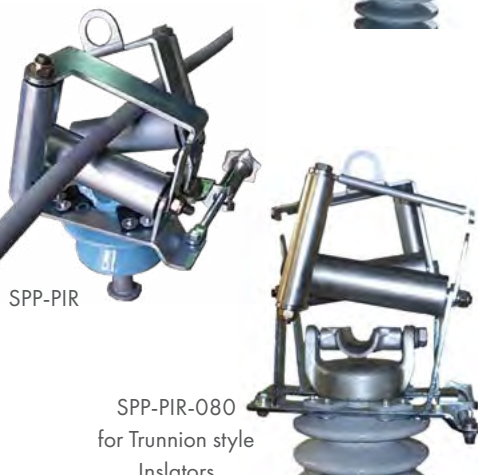
- Easily lower the conductor into the insulator after stringing
- Simply rotate 90° and loosen tension screw to "open" the rollers
- Prevents workers manually lifting conductor in to place
- Suits Conductors up to 50mm OD
- Moulded PVC inserts prevent damage to insulator



Part No.	Insulator** Throat (mm)	Horizontal Roller (mm)	WLL (kg)	Wt (kg)
SPP-PIR*	55-100	40 OD	250	6.1
SPP-PIR-080*	55-100	50 OD	250	6.5

*SPP-PIR Rollers are designed for use when stringing in a straight run on intermediate poles

** Refer Insulator minimum failure load when considering the WLL



SPP-PIR

SPP-PIR-080
for Trunion style
Insulators



Angle Insulator Roller - SPP

This unique angle insulator roller has 2 adjustable angle rollers and 2 support rollers that allow the conductor to be brought in at final installation height and adjusted to any required angle alongside the insulator.

The conductor is fully enclosed at all times during the stringing operation and cannot fall out. When stringing & tensioning is complete, the locking pins are opened and the roller removed, leaving the conductor in its correct position on the insulator.

The sealed bearing assists smooth running of the conductor.

The clamps are specially treated with rubber so as not to damage the insulator.

The roller fits all styles of ceramic insulators. See below table for suitable neck diameters



Specifications

Part No.	Insulator Neck diameter range		Max Conductor Diameter (mm)	Conductor Type	WLL (kg)	Weight (kg)
	Min (mm)	Max (mm)				
SPP-IE-AR	46	86	50	AL/CU/ACSR/ST*/ABC/CCT	300	7.4



SPP-CARR-100

Cross-arm Roller - SPP

Part No. SPP-CARR-Series

In-line Cross-Arm roller

- Suitable for Wood, Steel & Composite cross-arm
- Ratchet strap attachment
- Rubber mounts will not damage composite material
- Zinc plated mild steel



SPP-CARR-080

Part No.	Description	Suits Cross Arm (mm)	Wt (kg)
SPP-CARR-080	1 Large Horizontal roller	Wood, Steel & Composite up to 150	4.0
SPP-CARR-100	2 x Vertical & 2 x Horizontal rollers	Wood, Steel & Composite up to 150	5.7



Part No. SPP-TCAR-Series

In-line Cross-Arm roller

- Suitable for Wood cross-arm

- "T" Screw handle
- Zinc plated mild steel

Part No.	Description	Suits Cross Arm (mm)	Wt (kg)
SPP-TCAR-100	2 x Vertical & 2 x Horizontal rollers with "T" Screw handle	Wooden up to 100	4.2
SPP-TCAR-150		Wooden up to 150	6.0



Hand-Line and Rope Blocks

Hand Line Blocks

Part No. Various

- Hand rope blocks used for hauling and lifting
- Made of high strength aluminum alloy
- Side gate opening with detent pin
- High strength steel rotating swivel hook with safety latch
- Free running sheaves with shielded bearings

**High
Strength
Steel**



Part No.	Max Rope Ø (mm)	Sheave Size (mm)	Wt (kg)	WLL (kg)
SPP-HLB	14	75	1.4	560
AHB-4	22	100	2.8	1130



Single Non-Conductive Hand-line Block

Part No. 3550

- Non-conductive hand-line rope block used for hauling or lifting
- Side gate opening with captive screw pin
- High strength forged steel swivel hook
- 75mm diameter free running sheave with shielded bearings

- Block and sheave constructed of rugged nylon Fibreglass reinforced high dielectric material
- Suits Rope >15.8mmOD
- 450kg WLL
- Weight 0.8kg

**Contact
TEN for
available
hand-lines**

Hand-line Hook

Part No. 10060

- Used in hauling line assemblies
- Bronze alloy hook

- WLL - 272kg
- Weight - 227g

Service Line Tensioners

Part No. Various

- Used to tension ABC house services
- Made with high quality yachting components
- Sold with detailed tag including WLL

Part No.	Rope Diameter (mm)	Rope Length (m)	WLL (kg)	Pulley System	Wt (kg)
ID015458-ROPEKIT	8	5	100	3:1	2.2
ID017049-ROPEKIT	12	5	300	2:1	2.5



Pole Platform - Steel, Concrete & Wooden

Part No. Various

- For wood, concrete or steel poles
- Steel painted frame and support bar
- Locking chain and zinc plated hardware
- Wooden deck with anti-slip grooving and tread bars
- Suits poles 300mm - 600mm

Part No.	WLL (kg)	Deck Length (mm)	Wt (kg)
KL-2	200	700	8.1
KL-4	200	1100	12.1
KL-15	Chain assembly		3.1





Blocks - Multipurpose

Multipurpose snatch-block - OX Block™

Part No. 50061 (Swivel Eye) 50063 (Clevis)

The OX BLOCK™ is a rope snatch-block with an integrated friction bar used for:

- Raising and lowering Equipment (Hauling Line Block)
- Rescue
- Snubbing loads

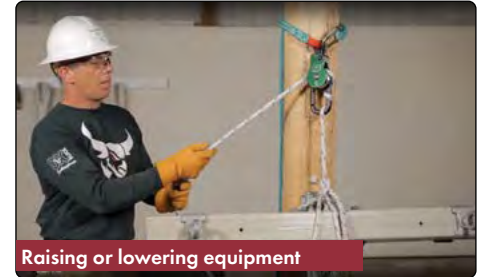
It allows the rigging professional to handle loads with greater control. When lowering loads, tension is transferred from the worker to the OX BLOCK™.

- The patented OX BLOCK™ replaces standard hand-line blocks, parted blocks and various snatch blocks.
- Has a greater WLL than blocks of similar size.
- When configured with optional pulleys, the OX BLOCK™ can be used to create a 2:1 up to 6:1 mechanical advantage reducing the amount of force needed to lift heavy loads.
- The advantage of the pulleys used by Buckingham is the swivel side plate that allows for quick and easy rope installation without removing the pulley from the connecting device.
- ASME B30 Compliant

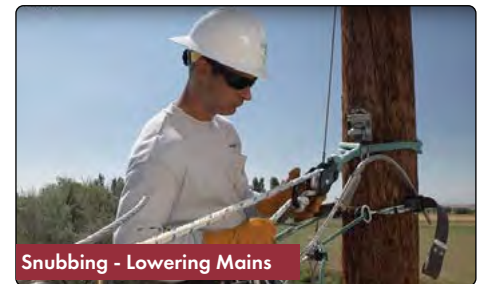
Replace many of the older style pulleys and tackle with the lighter Ox Block system, making rescue, lowering and raising and snubbing workloads easier

Part No.	Attachment	Material	Rope Dia. (mm)	Length (mm)	Width (mm)	Wt (kg)
50061	Swivel Eye	6061 Alloy	16 (max)	267	51	1
50063	Clevis					

Ox Block includes metric markings to comply with relevant Australian Standards



Raising or lowering equipment



Snubbing - Lowering Mains



Rescue

Our OX BLOCK Clevis Top hand-line assembly features a 1.2m x 19mm adjustable sling, hook and a 16mm hand-line at 24 or 30 metres



Ordering Information

Part No.	Hand-line Length (m)
50062K14-4-80	24
50062K14-4-100	30

For further Ox-Block options and information, contact TEN

Sheave to Clevis Top
Manufacturer Breaking Strength 4536kgs

Working Load Limit 1134kgs

Hook to Clevis
Manufacturer Breaking Strength 2720kgs

Working Load Limit 680kgs



Quick Release Buck Pin

50063 OX Block shown



Click or Scan above to see the OX BLOCK™ Video



OX Block™ Friction Assistance

For lowering loads with friction assistance, wrap the rope around the friction bar in the direction shown.

Two times through the gate (2 audible clicks) provides one full wrap.

Three times through the gate (3 audible clicks) provides two wraps.

On average, one wrap will reduce hauling line tension by a factor of 4:1. Two wraps will reduce hauling line tension by a factor of 10:1. For example, if lowering a 100kg load with the hauling line only over the sheave, the user would be holding the entire 100kg weight. If using 1 wrap, the ratio would be 4:1 and the user would be holding 25kg. Using 2 wraps (10:1 ratio), the user will be holding 10kgs.

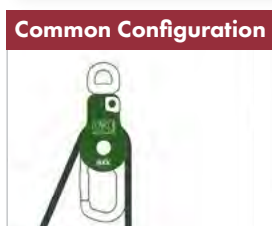
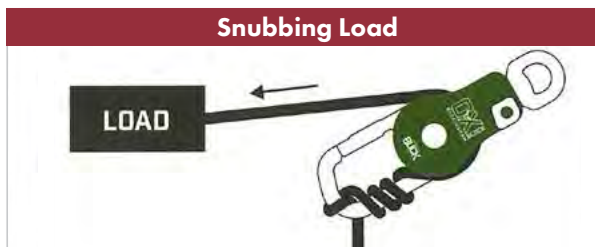
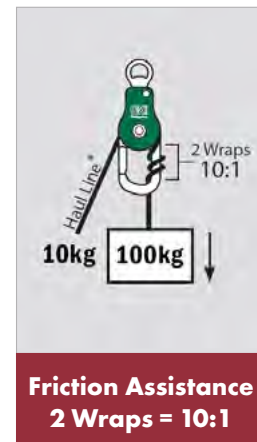
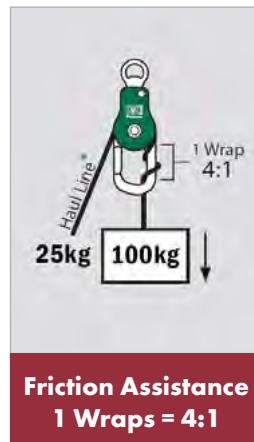
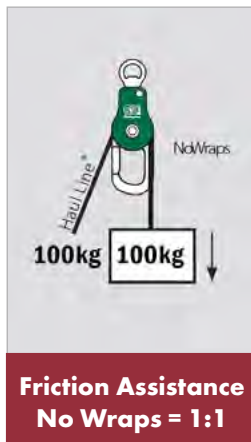
Heavy loads require additional rope wraps on the friction bar or additional mechanical advantage.

Friction assistance can be used to the users advantage with the Ox Block when:

- The load must be lowered under controlled conditions and/or needs to be periodically stopped during descent.
- The weight ground personnel must hold back needs to be minimised.
- The load can be transferred to the Ox Block without having to first lift the load, or the load can be safely lifted by one person and transferred to the Ox Block.
- Avoiding damage to trees, fences, vehicles is required.
- Ergonomic benefits are desired for personnel that regularly work with ropes, blocks and rigged loads.



Friction Assistance Factor





Ox Block Accessories

Ox Hook (Part No. 24065) gate and mechanism operation



Depress the lock mechanism



Depress the gate (keeper)



Release the lock mechanism



Release the gate (keeper)



The gate (keeper) is locked in the open position

Single and Double Sheaves



Ox Block accessories are designed to compliment the Ox Block and provide greater control in raising and lowering equipment in an efficient and safe process



Single sheave pulley with a swivel side plate and swivel eye. 12mm rope capacity.



Double sheave pulley swivel side plates and swivel eye. 12mm rope capacity.

Part No	Description	Rope	WLL
KIT48	Sliding Pulley	12.7mm	816kg

Part No	Rope	WLL
5007R1	12.7mm	816kg

Part No	Rope	WLL (kg)
5007R2	12.7mm	816kg

Heavy Duty Single Sheaves



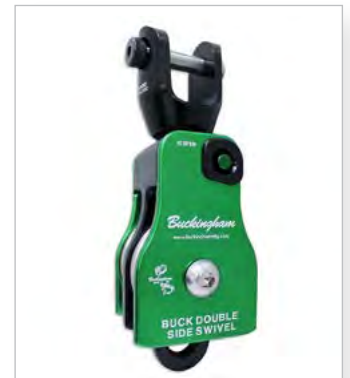
Heavy Duty single sheave aluminium pulley with side swivel plate and eye.



Heavy Duty double sheave aluminium pulley. 16mm (max) rope capacity



Heavy duty single sheave pulley with clevis top for additional attachment options



Heavy duty double sheave pulley with a swivel side plate and swivel clevis.

Part No	Rope	WLL
50071B1	16mm	1134kg

Part No	Rope	WLL
50071B2	16mm	1134kg

Part No	Rope	WLL
50072B1	16mm	1134kg

Part No	Rope	WLL
50072B2	16mm	1134kg



Pole Handling

Pole Stands - Flat Stack - TEN

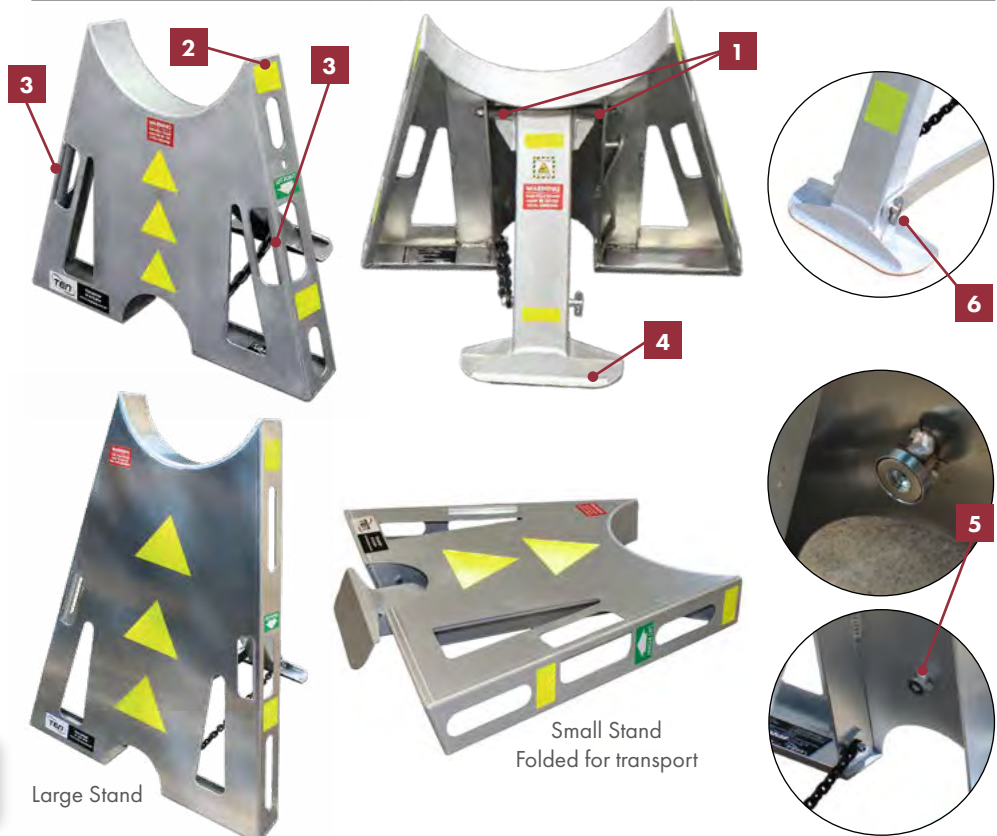
Part No. Various

- Foldable for easy storage
- Brushed aluminium
- All stands come with load rating tags and serial numbers
- Reflective tape for improved visibility
- Position locking arm - improved stability
- Safer with reduced pinch points

Part No.	PS-AF-4T-S	PS-AF-4T-L
WLL (kg)	4000	4000
Dimensions (mm)	500 (H) x 100 (D)	850 (H) x 100 (D)
Finish	Aluminium	Aluminium
Weight (kg)	10.4	16.2



- 1 Reduction of potential pinch points through design
- 2 Day and night reflective tape for improved customer safety on public sites
- 3 Balanced and ergonomic built in handles for gloved hands
- 4 Large rear foot for stability and load spread
- 5 Magnetic latch for leg stowage. Prevents inadvertent swinging out of leg while maneuvering on site
- 6 Lock leg with positive locking mechanism



Easy storage and portability



Strong & Durable

Pole Stands - Lightweight

Part No. Various

- Lightweight aluminium construction with no moving parts minimises the risk of manual handling injuries
- Powder Coated finish
- Unique data plate on each stand with option of company logo

Part No.	FSLPSP-01-2	FSTPSP-02
WLL (kg)	4000	4000
Dimensions (mm)	500 (H) x 700 (D)	900 (H) x 1000 (D)
Finish	Powder Coated Yellow	Powder Coated Yellow
Weight (kg)	7.1	7.9



See our Cant Hooks in the Fibreglass section



Vertical and horizontal configurations



Bevelled Teeth Provide Better Grip



Conductor Triple Line Lifter - LineWise

Part No. TLL-500A (series 1 & series 2 models)



The phase lifter is an insulated crane attachment used to support up to three energized lines. The Triple Line Lifter replaces the need for temporary structures and tag lines while giving positive control of the live lines

- Hydraulic articulation, extension & retraction
- Conductor spacing: 2.4 –4.8m
- Quick Attach Insulators & Wire Holders
- Insulators lab tested
- Insulator spacing adjustable with torque gun (Series 2)
- Vertical and horizontal construction
- High Strength Steel fabrication
- Holding valves on all cylinders
- Manual override control valve
- Handheld Radio Remote Control
- Installed at ground level
- Unit weight: 524kgs.
- Mounted in skid: 941kgs

Voltage (kV)	Conductors	Phase spacing Max (mm)	Phase spacing Min (mm)	Capacity per phase / total (kg)
33	3	4877 Outside-Outside	2388 Outside-Outside	227 / 680
66		2438 Centre-Outside	1194 Centre-Outside	227 / 680

Hydraulic Pole Pullers

56T Pole Puller, Hydraulic

Part No. PP-60-XHD

- Dual Cylinder Pole Puller
- 600mm hydraulic cylinder stroke
- High capacity, hydraulic powered
- Pulling utility poles up to 700mm diameter
- Force of 56 Tonne
- Grips the pole with cam-action heads with bevelled teeth to provide a better grip
- Use with open-centre or closed-centre hydraulic systems
- Fitted with 7.5m hydraulic hose
- Built-in fork pockets, 2 lifting points on the head & high strength alloy chains
- Increased stability due to larger footprint
- Increased gripping capability ensures chain does not slip up pole
- Utilises existing low pressure tool circuit on lifter borer-crane
- Hydraulics: Required flow rate 5-15gpm @ 2,250 psi max.

Performance	Pull 56 Tonne at 155 bar
Maximum Pole Size (mm)	710 Diameter, 2230 Circumference
Cylinder (mm)	Stroke 600
Head (mm)	Chain 2 x 20mm Grade 100
Footprint (mm)	Exterior 1168 x 1168, Interior 711 x 711
Height (mm)	Retracted 1500, Extended 2100
Weight (kg)	680
Lifting Points (mm)	830 x 184 x 1168

22T Pole Puller, Hydraulic - Reliable

Part No. REL-LP-P

The REL-LP-P will make Pole Pulling with a Lifter Borer a thing of the PAST. Reduce damage and potential for injury related to pole pulling. Simple installation and operation.

Kit Includes:

- Hydraulic Cylinder with Flush Face Coupler Set
- Swivel Chain Hook Assembly
- Chain (12.7mm x 1830mm Alloy)
- Base Plate & Back Plate

Operating Pressure (PSI)	2800
Recommended Flow	15-30 lpm
Lift at Max Pressure	22734kg

Part	Wt (kg)
Cylinder	25.85
Base Plate	11.34
Back Plate	11.34
Swivel Chain Hook Assy	16.32
Chain	6.8



Twistarp Lifting Tarps



Time saved filling holes, moving materials and cleaning up

- Used when digging, setting poles and backfilling
- Keep footpaths, property and worksites clean and tidy
- Overcomes manual handling
- Converts to ground mat when required
- Repair kits available
- Supplied with instructions and certification

Part No.	Size (m)	WLL (kg)	Dirt/Gravel (m³)
TWIST6x6RP	1.8 x 1.8	1814	2
TWIST7x7RP	2.1 x 2.1	1814	3
TWIST8x8RP	2.4 x 2.4	2268	4
TWIST10x10RP	3.0 x 3.0	2268	6



Pulling Rope

Prima Dyneema Rope - Hampidjan

Part No. Various



Polyester Cover available on request

PRIMA rope is an ultra-high strength, low cost solution that meets the need for light but strong ropes in cost driven environment. Prima rope is stronger than steel in the same diameter. PRIMA ropes are made from HMPE fibre produced by DSM Dyneema.

Characteristics

- Extremely high strength
- Light weight
- Abrasion resistant
- Low stretch
- Neutral buoyancy
- Splicable
- Flexible

Applications

- Alternate to wire rope
- Winch lines
- Tow lines
- Rigging lines
- Utility line



Part No.	OD (mm)	Wt per metre (g)	Max Break Force (T)
29081035	6	23.29	4.0
29081040	8	38.81	6.7
29081050	10	54.34	10.7
29081061	12	93.15	16.0
29081070	14	103.25	18.7
29081080	16	137.67	24.9

Specify Length in metres

3 Strand Polypropylene Rope - Hampidjan

Part No. Various



- Higher breaking strength
- Abrasion resistance
- Excellent shock absorption
- Better grip
- Minimal elongation
- Durable and ultraviolet stabilized
- Excellent shape retention
- Strength: wet/dry 100%
- Floats/sinks: Floats
- Elongation: Moderate
- Water absorption: None
- Chemical Resistance
 - Acids: Excellent
 - Alkalis: Excellent
 - Oil/Gas: Very Good

Part No.	OD (mm)	Wt per 100 m (kg) 250m Standard (Coil)	Max Break Force (T)
PPR-12	12	7.0	2.84
PPR-14	14	9.0	3.91
PPR-16	16	12.0	4.90
PPR-18	18	15.0	5.50
PPR-20	20	18.0	7.52
PPR-22	22	22.0	8.45
PPR-24	24	26.0	10.20
PPR-26	26	31.0	11.87

Specify Length in metres



Meets or exceeds the dry or wet electrical requirements of: IEC 62192:2009
Arc-Flash rated: Resistant to 40 cal/cm² (category 4)

**ARC-FLASH
RATED**



Tag Line & included Storage bag



Live Line Rope



Optional Storage bag for Live Line and Rescue Ropes



Rope Link & included Storage bag



Dielectric Ropes - D.E.W Line™ - Barry

Insulating Live Line Rope offers a unique coating and excellent dielectric properties and can be knotted. This live line rope is designed for performing live work on or near AC or DC energized lines and apparatus.

Features

- Unique insulating properties
- Knottable
- Cleanable and easy to maintain and test
- Exceptionally low leakage current, whether dry or wet
- Protection from high fault current
- High strength
- Low elongation
- Lightweight and low volume
- Fully sealed and hydrophobic
- Smooth surface
- High abrasion resistance
- Easy to deploy
- Excellent resistance to changing weather conditions, UV, corona effect and temperature extremes
- Sealed termination at each end
- Easy storage in optional transport bag with desiccant

Tag Line

Part No. HL-NK1000

Insulating Rope Tool serves as a Fibreglass tool replacement during temporary installations on or near AC or DC energized lines and apparatus.

Ordering Information

PART No.	OD (mm)	WLL (kg)	Standard lengths (m)	Colour
HL-NK1000**	6	90	6.1-9.1-12.2**	Black w/orange terminations

Other lengths, diameters and WLL available. Contact TEN or further information

Live Line Rope

Part No. HL-NP

Insulating Live Line Ropes offers a unique coating and excellent dielectric properties and can also be knotted. This live line rope is designed for performing live work on or near AC or DC energized lines and apparatus.

Ordering Information

PART No.	OD (mm)	Breaking Load (T)	Standard Lengths (m)	Colour
HL-NP2800**	13	2.85*	15-30-45**	Orange
HL-NP4500**	14	4.53*	15-30-45**	Orange

Live Line Rope Link

Part No. HL-NK1900

Insulating Rope link serves as a Fibreglass tool replacement during temporary installations on or near AC or DC energized lines and apparatus.

Ordering Information

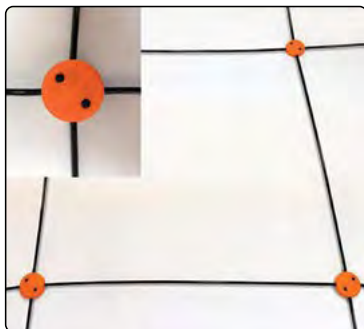
PART No.	OD (mm)	WLL (T)	Lengths (m)	Colour
HL-NK1900**	22	3.175	Nominate**	Black

** Nominate Length Required

Other diameters and lengths available. Contact TEN for further information.



Rescue Rope



See Test Section for
Rope Tester

Rescue Rope

Part No. HL-NF3400

High Angle Rescue Rope for evacuation of workers in energised fields on AC or DC.

Ordering Information

PART No.	OD (mm)	Breaking Load (T)	Length (m)	Colour
HL-NF3400 **	12	3.4 *	Nominate **	Orange w/tracer

* Reduce the Break Load by 50% when using knots

** Nominate Length Required

Safety Nets

Part No. HL-NK1000C

Insulating safety nets are constructed using Barry's proprietary D.E.W. Line® rope and their specially designed clips. They have excellent dielectric properties and are designed to serve as a safety barrier or guard structure installed on hurdle poles or infrastructures for power lines, road and railway crossings.

Protects and secures apparatus while performing hot/live work under AC or DC condition.

Ordering Information

PART No.	OD (mm)	Mesh Breaking Load (T)	Standard Sizes (m)	Colour
HL-NK1000C	6	2.85	21 x 30.5 21 x 45.7 21 x 61.0	Black Rope with Orange Junction Clips

Other widths, lengths and mesh sizes available. Contact TEN for further information.

The dielectric safety nets are extremely durable and offer reliable dielectric properties similar to those of Fibreglass tools and hot sticks. They are completely jacketed and sealed in order to eliminate contamination of the fibres which could otherwise permanently trap conductive dirt and moisture. They are easy to inspect and maintain.

Extensive range of Barry Rope Products available Contact TEN for further information

- HELICOPTER LONGLINES
- LIFTING BEAMS
- BARRY D.E.W. LINE® DIELECTRIC WINCH LINES
- BARRY D.E.W. LINE® LINEMAN RESCUE KIT WITH RETRIEVABLE ANCHOR STRAP

Insulating Rope - 3 Strand

Part No. Various

- Dry tested to 100kV/300mm in humid conditions
- To IEC 62 912, European Directive 98/37/EC
- Technical specification HTB-71B-2
- Manufactured under ISO9001 & ISO9002
- Low water absorption coefficient

**Rope Tester also available
See Test and Measurement
section for details**

Part No.	OD (mm)	Wt per metre (g)	Break Force (kg)
13400-08 *	8	30	929
13400-10 *	10	50	1421
13400-12 *	12	70	2111
13400-14 *	14	90	2903
13400-16 *	16	120	3483
13400-18 *	18	150	4630
13400-20 *	20	180	5588

* Specify length in metres

Eye splices available



UNDERGROUND PULLING AND HAULING



Joists and Swivels

Standard Swivels - Tesmec



Part No. Various

- Swivels for connecting pulling rope to cable sock
- For Overhead or Underground application
- Made from high tensile galvanised and corrosion protected steel
- Chamfered edges allowing smooth passing through rollers or conduit
- Special design can bear high radial loads. Thrust bearings designed to avoid torsion strain accumulation

Part No.	Max Rope Size OD (mm)	Break Load (kN)	Diameter OD (mm)	Overall Length (mm)	Wt (kg)
GGT001	10	70	28	106	0.3
GGT010	13	110	40	143	0.9
GGT020	18	220	54	184	2.1
GGT030	24	360	60	234	3.4
GGT040	28	750	77	322	8.2

Breakaway Swivels - Condux

Part No. Various

- Ensure fibre optic or coaxial is not pulled in excess of rating
- Available in 16mm, 22mm and 32mm diameter swivels
- Break loads from 90kg to 800kg, Replacement pins available
- Contact TEN with your job specifications.

Common Stocked Sizes					
Part No.	Swivel Diameter (mm)	Max Rope Size (mm)	Break Away Load (kN)	Replacement Pin	Colour
08021500	32	14	5.3	08021505	Brown/ White
08019400	32	14	8.4	08019405	Violet/ Black

More Breakaways sizes available

Rope to Swivel Connector - Condux

Part No. 08091230



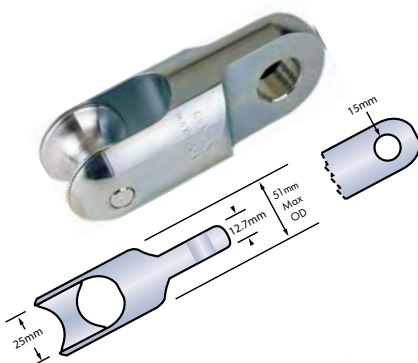
- To connect swivels to rope up to 25mm OD
- Suits swivel GGT010 above
- Precision machined stainless steel construction with 44kN work load
- Ideal for utilising larger diameter ropes on smaller swivels where the WLL allows
- Contact TEN for further information on swivel/connector combinations

Quick Links

Part No. MRG Series

- Suitable for simple connection of rope to rope, socks, pulling eye or accessories
- Zinc Plated Steel

Part No.	Diameter (mm)	Internal Opening (Rope Capacity)(mm)	Break Load (T)	OAL (mm)
MRGOZ08.0	8	17.5	3.25	88
MRGOZ10.0	10	20.5	5.0	105
MRGOZ12.0	12	23.5	6.25	124





Cable Socks and Grips

Heavy Duty Underground Cable Socks - Tesmec

Part No. Various

- Suitable for single and multiple core underground cables
- Longer socks give extra pulling force - larger surface area gives better grip
- Steel wires with protective finish and alloy ferrule offering durability and longevity

Part No.	Conductor OD Ø (mm)	Length (mm)	UTS (kN)	Wt (kg)
GCL180	46-60	1600	50	2.0
GCL194	61-80	1800	80	2.5
GCL200	81-100	2000	100	3.0
GCL210	101-140	2000	100	3.5

Heavy Duty Cable Socks - NCG

Part No. Various

- Suitable for heavier cable hauling applications
- Soft eye for fitting in tight spaces
- Made from durable galvanised wire and swaged with an aluminium alloy ferrule.

Part No.	To suit cable O.D (mm)	Grip Length (mm)	Min Breaking Load (kN)	Working Load Limit (kN)
CHD1006	6-11	350	8	2.6
CHD1010	10-14	350	15	5.0
CHD1014	14-19	400	20	6.6
CHD1019	19-28	500	37	12.3
CHD1028	28-40	600	54	18.0
CHD1040	40-55	800	62	20.6
CHD1055	55-75	900	80	26.6
CHD1075	75-95	1000	180	60.0
CHD1095	95-120	1000	215	71.6
CHD1120	120-150	1800	287	95.0
CHD1150	150-190	1800	287	95.0

Standard Duty Cable Socks - NCG

Part No. Various

- Suitable for general hauling applications
- Soft eye for fitting in tight spaces
- Made from durable galvanised wire and swaged with an aluminium alloy ferrule.

Part No.	To suit cable O.D (mm)	Grip Length (mm)	Min Breaking Load (kN)	Working Load Limit (kN)
C1006	6-12	350	5	1.6
C1010	10-14	350	5	1.6
C1014	14-19	400	9	3.0
C1019	19-28	500	15	5.0
C1028	28-40	600	24	8.0
C1040	40-55	800	35	11.0
C1055	55-75	900	62	20.0
C1075	75-95	1000	98	32.0
C1095	95-120	1200	133	44.0
C1120	120-150	1400	187	62.0
C1150	150-190	1600	283	94.0



Scan or Click to View or
Download Grip Inspection
Selection & Application



PULLING & HAULING

[Return to Contents](#)



Triplex Socks - NCG

Part No. Various

- Three socks swaged into a single eye
- For hauling multiple and Triplex cables

All references of 3:1 safety factor is a guide only, consult your work practices



Part No.	To suit cable O.D - each leg (mm)	Grip Length (mm)	UTS (kN)	Working Load Limit (kN)
C1019X3-1000	19-28	1000	15	5
C1028X3-1000	28-40	1000	24	8
C1040X3-1000	40-55	1000	35	11

Non-conductive Aramid Fibre

Non-Metallic Aramid Socks - Slingco

Part No. Various

Non-metallic cable socks are made of plastic coated Aramid fibres that are light weight, yet much stronger than steel wires. Aramid are a class of heat-resistant and strong synthetic fibres used in aerospace and military applications. These grips are traditionally used in overhead ABC applications or when pulling fibre optic cable.



- Non conductive
- Much lighter yet stronger than steel grips
- Easier to apply and remove
- No frayed wires = no wire cuts or contusions
- UV Resistant
- Strong enough to last in salt water



Ideal for light & Fibre-optic cables

Part No.	Cable Range (mm)	UTS (kN)	Mesh Length (mm)	OAL (mm)
ZCS1040	10-20	11.16	552	711
ZCS1022	20-30	15.89	600	724
ZCS1023	30-40	43.84	642	1245
ZCS1024	40-50	52.86	523	1245
ZCS1179	50-65	70.71	636	1245
ZCS1180	65-76	70.71	908	1460
ZCS1181	76-101	70.71	1029	1460
ZCS4079	101-127	70.71	3048	1460

Determining Working Load Limit is dependent on your application and company/client safety factors

Rollers - Underground

Flat Trench Roller - SPP

Part No. Various



- Flat trench roller with 140mm nylon or aluminium roller
- Can be pinned on side for corner bends
- Galvanised finished frame
- Replacement nylon and aluminium rollers available

Part No.	Roller Material	Max cable Dia. (mm)	Dimensions (mm)			Wt (kg)
			Length	Width	Height	
SPP-2A-140	Nylon	150	330	170	180	1.2
SPP-2A-140A	Aluminium	150	330	170	180	2.6

Flat Trench / Cable Tray Roller - SPP

Part No. Various

- Zinc plated frame
- Nylon and Aluminium rollers available
- Legs can be attached for cable tray /ladder work
- Replacement rollers available

Part No.	Roller Material	Max cable Dia (mm)	Dimensions (mm)			Wt (kg)
			Length	Width	Height	
SPP-3A-140	Nylon	150	210	260	150	2.2
SPP-3A-140A	Aluminium	150	210	260	150	3.2

Raised Trench Rollers - SPP

Part No. SPP-2A-RTR

- Quality aluminium roller complete with bearings
- Galvanised steel frame
- Can be arranged over existing cables in trench

Part No.	Roller Material	Max cable Dia. (mm)	Dimensions (mm)			Wt (kg)
			Length	Width	Height	
SPP-2A-RTR	Aluminium	150	290	230	260	2.6

Nylon Raised Trench Rollers - Lancier

Part No. 14211



- Lightweight and impact resistant
- Can be secured and connected using anchor pins (SPP-PIN)
- Versatile - Numerous connection configurations
- Maintenance free sealed ball bearings to stop water and dirt ingress
- Stackable for easy storage and transport
- Frame made of hard wearing polypropylene

Part No.	14211
Max Load (kg)	500
Dimensions (mm)	345 (L) x 229 (W) x 195 (H)
Max Cable Capacity (mm)	132 Ø
Weight (kg)	2.2



Easily stackable



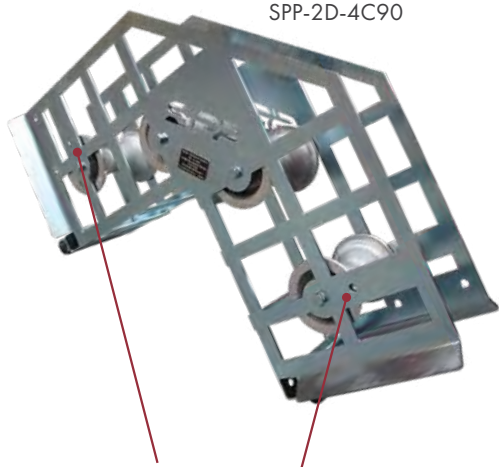


Corner & Curve Rollers - SPP

Part No. Various

- Solid construction trench roller guides
- Provisions to peg units down and join units together
- Supplied with internal bearings
- Zinc plated finish
- Replacement rollers available

SPP-2D-4C90

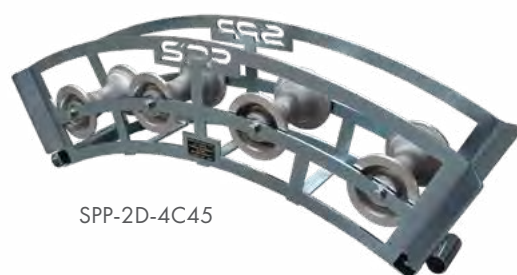


Versatile 90° four corner roller with dual radius capabilities by simply moving bolts to other positioned holes on frame

Part No.	Dimensions (mm)	Angle	Bend Radius (mm)	No. of Rollers	Rollers	Max. Cable OD (mm)
SPP-2D-4C90	700 (L) x 170 (W)	90°	350, 600 & 700	4	Aluminium	150
SPP-2D-3C45	550 (L) x 170 (W)	45°	500	3		150
SPP-2D-4C45	800 (L) x 170 (W)	45°	900	4		150



SPP-2D-3C45



SPP-2D-4C45



Corner Rollers - SPP

Part No. Various

- Ground cable laying corner roller/ trench roller
- Corner guide trench roller
- 1 x Horizontal & 2 x Vertical 60mmOD rollers
- Easily pinned together with star pickets or pins
- 1000kg WLL
- Inverted model also available (SPP-2B-TCR-IN)



Part No.	Max. Payload (kg)	Dimensions (mm)	Wt (kg)
SPP-2B-TCR	1000	450 (L) x 300 (W) x 310 (H)	12.0
SPP-2B-TCR-IN			14.0

SPP-2B-TCR



SPP-2B-TCR

SPP-2B-TCR-IN

Looking for Cable Hauling Equipment see our Underground Catalogue



Trench Feed In Rollers - SPP

Part No. SPP-2B

- Feed-in roller guides for underground applications
- Sealed roller bearings
- All units have fixing points

Part No.	Roller & Frame	Roller Length (mm)	Dimensions (mm)	Wt (kg)
SPP-2B-1000	Zinc Plated Steel	1000	1105 (L) x 220 (W) x 125 (H)	15.71
SPP-2B-2X45	Zinc Plated Steel	2 x 600	1040 (L) x 220 (W) x 520 (H)	14.7

Manhole Roller Guides - SPP

Part No. SPP-MRG

- Right angle corner to assist with laying cables into manholes and cable pits
- Anchoring points in base plates if required
- 140mm aluminium rollers

Side profile

Part No.	Roller Configuration	Bend Radius (mm)	Wt (kg)
SPP-MRG-1	Single Fixed	-	6.5
SPP-MRG-2	Double Fixed	260	8.5
SPP-MRG-3	Triple Fixed	320	12.7
SPP-MRGP-3	Triple Pivoting	320	13.0

Bell-Mouth, Cable Feeding - Lockable - SPP

Part No. SPP-BM

- Made from Zinc Plated Steel
- Split design allows easy removal after cable installation
- Designed for cable entry applications
- Allows multi-direction entry into the conduit

Part No.	Neck OD (mm)	Suits Conduit Nominal Diameter (mm)	Split Feature	Dimensions (mm)	Wt (kg)
SPP-BM-050E	42	50 Electrical	Dual Wingnut	255 (L) x 120 (W) x 115 (H)	1.1
SPP-BM-050T	48	50 Telco		255 (L) x 130 (W) x 115 (H)	1.3
SPP-BM-063E	48	63 Electrical		255 (L) x 140 (W) x 115 (H)	1.3
SPP-BM-063T	60	63 Telco	Hinged	250 (L) x 117 (W) x 110 (H)	1.3
SPP-BM-080	74	80		250 (L) x 130 (W) x 140 (H)	1.6
SPP-BM-100	98	100		250 (L) x 177 (W) x 155 (H)	2.8
SPP-BM-125	118	125		250 (L) x 200 (W) x 165 (H)	3.4
SPP-BM-150	138	150		250 (L) x 220 (W) x 175 (H)	3.8
SPP-BM-200	190	200		300 (L) x 297 (W) x 260 (H)	9.4

Require Pulling Lubricants? Refer pages A44 & A45 for a complete range.

Design safe and efficient cable pulls. Contact TEN for information on the Pull-Planner™ 4.0.



Sheave, Cable Feeding - Lockable - SPP

Part No. SPP-LFS

- Made from Zinc Plated Steel with Aluminium Roller
- Split design allows easy removal after cable installation
- Designed to suit Cable Exit or Entry
- Lockable to conduit by expansion screw



Part No.	Neck OD (mm)	Suits Conduit ID (mm)	Split Feature	Dimensions (mm)	Wt (kg)
SPP-LFS-080	74	80	Hinged	375 (L) x 190 (W) x 160 (H)	4.15
SPP-LFS-100	98	100		365 (L) x 190 (W) x 190 (H)	5.30
SPP-LFS-125	118	125		390 (L) x 195 (W) x 200 (H)	6.05
SPP-LFS-150	138	150		380 (L) x 225 (W) x 220 (H)	6.60
SPP-LFS-200	190	200		460 (L) x 310 (W) x 300 (H)	14.85

Rollers - Cable Tray

Cable Tray Roller - SPP

Part No. SPP-3A

- Quality aluminium roller complete with bearings
- Easily adaptable for a variety of uses, low profile
- Ideal for cable or ladder tray work
- Suits cable up to 150mm diameter
- Remove legs to convert to "Flat Trench Rollers"

Part No.	Roller Material	Max cable Dia. (mm)	Dimensions (mm)	Wt (kg)
SPP-3A-140L	Nylon	150	600 (L) x 260 (W) x 150 (H)	3.8
SPP-3A-140AL	Aluminium	150	600 (L) x 260 (W) x 150 (H)	4.7

4-Way Cable Tray Roller - SPP

Part No. SPP-TR-605R

- 5 bar rollers with sealed bearings
- Mounting bracket suits cable ladder and cable tray (1mm to 50mm)
- Large wind in dials for easy opening and closing
- Zinc plated
- 200kg WLL

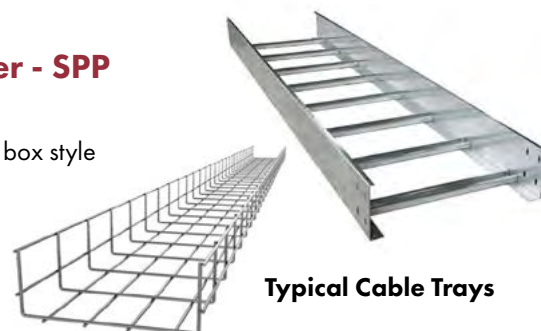


Part No.	Max cable Dia (mm)	Dimensions (mm)	Wt (kg)
SPP-TR-605R	80	125 (L) x 260 (W) x 360 (H)	4.45

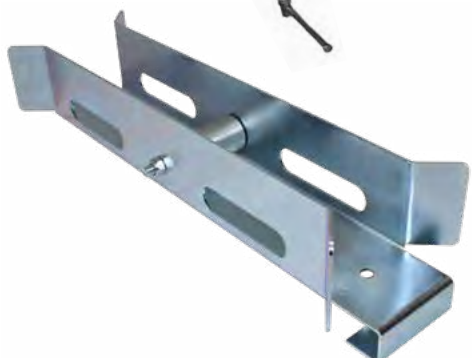
Box Style Cable Tray Roller - SPP

Part No. SPP-3A-100

- Aluminium box style cable tray roller box style
- 42mm x 100mm roller



Typical Cable Trays



**MADE IN
THE USA**



Sheaves and Guides, Hook - Current Tools

Hook Type Sheaves

Part No. Various

- 1814kg capacity
- Forged steel hooks with 25mm opening
- Welded steel frames
- 127mm wide aluminium sheaves with self-lubricating bearings
- EZ* opening - See QR-Code

Part No. 812

- 3628kg capacity
- Forged steel hooks with 35mm opening
- Heavy duty welded steel frames
- Self-lubricating bearings



Current Tools
FOR THE PROFESSIONAL ELECTRICIAN

Part No.	Diameter (mm)	Width (mm)	Wt (kg)
412EZ*	305	127	8.4
418EZ*	457		12.7
424EZ*	610		17.2

Part No.	Diameter (mm)	Width (mm)	Wt (kg)
812	305	127	10.9

EZ Opening for easy cable installation & removal.
See QR-Code below



Scan or Click to View
EZ* opening video

Right Angle Twin Yoke Sheave

Part No. 4424

- 1814kg capacity
- Forged steel hooks with 25mm opening
- Yokes rotate independently for various setups
- Welded steel yoke frames
- 127mm wide aluminium sheave with self lubricating bearings
- Weight 22.7kg

Triangle Sheave Cable Guide

Part No. 333

- 2950kg capacity
- Adjustable center sheave to vary pulling radius from 495mm - 915mm
- Pinned steel yoke for easy removal
- Aluminum frame for light weight
- Weight 11.8kg
- EZ* opening - See QR-Code

Radius Sheaves

Part No. Various

- 1814kg capacity
- Heavy duty design with aluminium sheaves and frame for light weight
- Sheaves spaced to prevent cable damage
- Aluminum sheaves 127mm wide with self-lubricating bearings
- EZ* opening - See QR-Code

Part No.	Sheave Radius (mm)	Number of Sheaves	Wt (kg)
12036EZ*	915	9	32.6
12048EZ*	1220	12	52.1



Conduit Proving Mandrels - SPP

DUCT Proving Mandrels

Part No. SPP-PM-Series

Used for testing circular integrity of Conduits before cable Hauling



Features

- Manufactured standard with Stainless-Steel Wire Rope and Thimbles or Stainless-Steel Eye Nuts & Threaded Rod attachments to secure ropes for cable hauling
- Ideal for testing NBN & Telstra ducts or conduits
- Tests electrical and communications conduits
- Made from high quality HDPE material for long life and lubricity

Supplied
with
Stainless Steel
Fittings



50mm Proving
Mandrel
SPP-PM-50E



80mm Proving
Mandrel
SPP-PM-080

Stainless Steel Wire Rope,
Thimble & Ferrule



Stainless Steel Eye Nut
& Threaded Rod



STAINLESS STEEL eye fittings means extended service life

Part No.	Conduit Size (mm)	Conduit Type	Mandrel Length (mm)	Mandrel OD (mm)	Overall Length (mm)	Wt (kg)	Eye Fitting (mm)
SPP-PM-18		Telco	40	18	115	0.05	2 ¹
SPP-PM-24		Telco	40	24	115	0.05	2 ¹
SPP-PM-28		Telco	60	28	160	0.05	3.2 ¹
SPP-PM-32		Telco	60	32	180	0.05	3.2 ¹
SPP-PM-38		Telco	60	38	180	0.07	3.2 ¹
SPP-PM-50T	50	Telco	80	47	145	0.15	6 [*]
SPP-PM-63T	63	Telco	100	60	180	0.30	8 [*]
SPP-PM-50E	50	Electrical	80	40	200	0.10	3.2 ¹
SPP-PM-63E	63	Electrical	100	52	180	0.25	8 [*]
SPP-PM-080	80	Electrical	180	74	260	0.75	8 [*]
SPP-PM-100	100	Electrical	180	90	275	1.10	10 [*]
SPP-PM-125	125	Electrical	245	113	340	2.20	10 [*]
SPP-PM-150	150	Electrical	245	130	340	2.85	10 [*]
SPP-PM-200	200	Electrical	280	184	375	5.80	10 [*]

1 = Stainless Steel Wire & Thimble - * = Stainless Steel Eye-Nut



Conduit Cleaning - Wire Brushes and Squeegees



Wire Brushes - SPP

Part No. Various

- Clean debris from the inside of conduits or ducts (50 to 200mm) before cable hauling/pulling
- Welded eyes for rope attachment
- Galvanised

Part No.	Description	Approx Equipment OD (mm)	Suit Conduit Size (mm)
SPP-WB-050	Wire Brush	55	50 Electrical
SPP-WB-063		70	63 Electrical
SPP-WB-080		90	80
SPP-WB-100		110	100
SPP-WB-125		130	125
SPP-WB-150		160	150
SPP-WB-200		230	200

Contact TEN for Telecommunications Duct Cleaning Needs



Rubber Conduit Cleaner - SPP

Part No. Various

- Cleans finer dirt and debris from conduits or ducts (50 to 200mm). For larger or stubborn debris, use wire brush (SPP-WB) first
- Welded eyes for rope attachment.
- Galvanised finish with 5 rubber squeegees

Part No.	Description	Approx Equipment OD (mm)	Suit Conduit Size (mm)	Wt (kg)
SPP-RCC-050E	Rubber Conduit Cleaner	46	50 Electrical	0.35
SPP-RCC-063E		58	63 Electrical	0.40
SPP-RCC-080		85	80	0.95
SPP-RCC-100		105	100	1.50
SPP-RCC-125		130	125	2.35
SPP-RCC-150		155	150	2.90
SPP-RCC-200		205	200	5.05



See pages A44 & A45 for the range of Polywater Lubricants

Rubber Lubricant Spreader - SPP

Part No. Various

- Used to spread Lubricant through conduits or ducts (50 to 200mm)
- Galvanised finish with rubber squeegees

Part No.	Description	Approx Equipment OD (mm)	Suit Conduit Size (mm)	Wt (kg)
SPP-RLS-050E	Rubber Lubricant Spreader	46	50 Electrical	0.15
SPP-RLS-063E		58	63 Electrical	0.20
SPP-RLS-080		85	80	0.45
SPP-RLS-100		105	100	0.60
SPP-RLS-125		130	125	0.75
SPP-RLS-150		155	150	0.95
SPP-RLS-200		205	200	1.30



**3 Motor System
for complete control
and maximum distance**

Conduit Blowing

Condux Power Dart Blower

Part No. 08030004

The Condux Power Dart Blower is a pneumatic rodding system especially suited for long duct runs.

A three-motor system allows you to choose the correct pressure output for your needs. With all three motors engaged, the Power Dart Blower will deliver a market leading 300cfm (8.5m³/min) of air at 3psi maximum pressure.

- Compressed air system for long duct runs in up to 152mm diameter conduit
- Blow 13mm line or measuring tape over 610m
- Three-motor system allows choice of speed
- Can deliver up to 300cfm/8.5m³/min of air at 3psi/0.2bar maximum pressure
- Main unit weighs only 14kg
- Operates at 220V



Line Carriers

Part No. Various



Flexible rubber duct projectile cones are durable for many repeated uses. These projectiles are fast & efficient for long runs with easy pull back.



Fast and efficient plastic missile line carriers for conduit fishing with high speed blowers even in/out of round duct.

Duct Projectile Options	
Part No.	Size (mm)
08031820	51
08031830	76
08031840	102
08031850	127
08031860	152
08031880	203

Line Carrier Options	
Part No.	Line Carrier Size (mm)
08067900	51
08030100	76
08030300	102
08030400	127
08030500	152

Foam Carriers

Part No. Various



Lightweight foam conduit line carrier easily blows through duct. Best suited for short runs and runs with multiple bends.

Foam Carrier Options	
Part No.	Foam Carrier Size (mm)
08032200	25
08033600	30
08039800	38
08032400	51
08032500	76
08032100	90
08032600	102
08059100	127
08059200	152

Chute Carriers

Part No. Various



Tie a line or webbing to a chute, insert the chute into the conduit or duct, and blow compressed air propelling the chute to the end of the duct.

Cable Chute Line Carrier Options	
Part No.	Carrier, Chute (mm)
08033532	51 Nylon
08033548	76 Nylon
08033564	102 Nylon
08033580	127 Nylon
08033596	152 Nylon

Accessory Bag

Part No. 08030060

A convenient canvas bag holds the power dart hose, and an additional inner bag holds the Line Carriers, Foam Carriers, Seal-off Body and Seal-offs.



Part No.	Description
08030060	Power dart blower accessory bag

Poly Blowing Line

Part No. Various

Blow through conduit attached to darts

Part No.	Description
08561285	Poly Line Pail 1981m, 890N BL
08561297	Poly Line Pail 762m, 2002N BL
08073900	Poly Tape 914m, 578N BL



Duct Rodders - SPP

Traceable Duct Rodder - 4.5, 6, 9 & 11 mm

Part No. SPP-DR-Series



Utilised to prepare for cable installations in Electrical & Telecommunication conduits ranging from 20 to 200mm OD.

The tough flexible rod is ideal for pushing or pulling draw ropes and small cables through conduits / ducts.



11 mm Rod
& Reel



9 mm Rod
& Reel



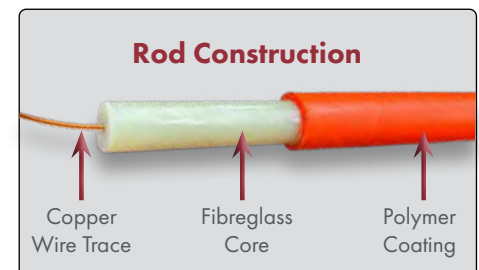
6 mm Rod
& Reel



4.5 mm Rod
& Reel

Features

- Quality Fibreglass rod coated with abrasion resistant UV stable polymer
- All sizes supplied standard with an internal copper wire for traceability.
- Supplied with Stainless Steel End Fitting & Removable Pulling Eyes for 6, 9 & 11 mm
- Brass End Fitting & Removable Pulling Eyes for 4.5 mm
- 9 & 11 mm Reels are Powder-coated and fitted with a Drag Brake and Wheels
- 4.5 & 6 mm Reels are Galvanised
- All Rodders include a Jointing/Repair Kit in pouch attached to the Reel (details below)
- Full range of Accessories available (detail below)



Ordering Information

Rodder Part No.	Rod OD (mm)	Rod Length (m)	Replacement Rod Part No.	Jointing Kit Part No.	Jointing Kit Components
SPP-DR4.5-60	4.5	60	SPP-DR-ROD4.5-*	SPP-DR-JK4.5	1 x Joiner
SPP-DR6-60	6	60	SPP-DR-ROD6-*	SPP-DR-JK6	1 x Rod End
SPP-DR6-100	6	100	SPP-DR-ROD6-*	SPP-DR-JK6	1 x Pulling Eye
SPP-DR9-100	9	100	SPP-DR-ROD9-*	SPP-DR-JK9	2 x Allan Keys - 6, 9, 11 mm Rod
SPP-DR9-200	9	200	SPP-DR-ROD9-*	SPP-DR-JK9	1 x Glue
SPP-DR11-200	11	200	SPP-DR-ROD11-*	SPP-DR-JK11	1 x Rubber Rod Grip
SPP-DR11-300	11	300	SPP-DR-ROD11-*	SPP-DR-JK11	

*Nominate Length of rod required - Supplied with Rod Ends

Jointing Kit Components (Included with Rodder)



Accessory & Jointing Kit Pouch (Included with Rodder)

Accessories

	Rod Grip	Rod End	Pulling Eye	Swivel Rod End	Rod Joiner	Flexible Guide	Roller Guide
Part No.	SPP-DR-RG	SPP-DR-RE-*	SPP-DR-PE-*	SPP-DR-SRE-*	SPP-DR-RJ-*	SPP-DR-FG-*	SPP-DR-RG-*
Image				 not available in 4.5mm			

*Nominate Rod Size

Other Accessories Available, Contact TEN for further information



Cable stands and Reel Rollers

Drum Jack Stands - Scissor - SPP

Part No. SPP-DJ-Series

Features

- Collapsible design for easy transport and storage
- Bolt-down points for secure and permanent fixing
- Can be set-up on uneven ground, as drum can be leveled with by adjusting one side
- Nylon wheels and handle for easy maneuverability
- Significant reduced pinch points
- Reinforced retaining cup and sealed bearing for threaded spindle
- Jacks labeled with ratings
- Easy wind up design with handle or hex head for fast winding with rattle gun
- Powder-coated finish
- Supplied with two spindles
 1. Jack joining spindle for rigidity during operation
 2. Drum spindle and placement collars to hold drum during operation



4T Jack shown
Part No. SPP-DJ-4T

SPP
SCOTT POWER PRODUCTS



Wheels and
handle for easy
maneuverability

Bolt-down points
for secure and
permanent fixing



Easy wind design with handle and hex head for
a faster winding action with rattle gun



Jack shown folded
for transport

Ordering Information

Part No.	Spindle OD (mm)	Min/Max Drum Diameter (mm)	Max Drum Width (mm)	WLL (kg)	Suitable for	Wt per Set (kg)
SPP-DJ-2T	60-76	1800	1180	2000	1 to 2T Drums	90
SPP-DJ-4T	60-76	1400/2400	1180	4000	2 to 4T Drums	180



Cable Drum Stands



- Various sizes, styles available
- 1.5 Tonne up to 30 Tonne
- Power pack and braking options
- Contact TEN with your requirements



Reel Roller - Current Tools

Part No. 610

- Easy set-up for ground level cable reel payout
- Integral ramp for reel loading
- Roller lock for reel removal
- 5-position roll adjustment for various reel diameters
- Heavy duty permanently lubricated ball bearing rollers
- Made in the USA



Sold individually
Two required

Part No.	Dimensions (mm)	Max Drum Dia. (mm)	Max Drum Width (mm)	Max Drum Wt (kg)	Reel Roller Wt (kg)
610	267 x 642	-	1065	900per pr	18.2 ea

Reel Roller - Current Tools

Part No. 613

- Easy set-up for ground level cable reel payout
- Integral ramp for reel loading
- Roller lock for reel removal
- 5-position roll adjustment for various reel diameter s
- Heavy duty permanently lubricated ball bearing rollers
- Made in the USA



Part No.	Dimensions (mm)	Max Drum Dia. (mm)	Max Drum Width (mm)	Max Drum Wt (kg)	Reel Roller Wt (kg)
613	806 x 940	-	762	1100	34

Cable Reel Roller - Current Tools

Part No. 615

- Heavy duty all welded construction
- Handles up to 13.6 Tonne cable reels
- One roller adjusts for various reel sizes
- Speed control adjustment
- Foot control for remote operation
- Heavy duty 10 amp. motor* for long service life
- Convenient fork sockets on sides
- Made in the USA



Part No.	Dimensions (mm)	Max Drum Dia. (mm)	Max Drum Width (mm)	Max Drum Wt (kg)	Unit Wt (kg)
615	3100 x 1550	3650	2400	13,600	1275

* 110v motor - Transformer required



Polywater®
Solutions at work.

Specific Lubricants Available

- Fibre Optic
- Low-Smoke Zero halogen
- High Water Environments
- Cable Blowing
- Winter Conditions

FULL RANGE OF CABLE LUBRICANTS TO SUIT ALL APPLICATIONS

Polywater®
Solutions at work.



Cable Pulling Lubricant - Polywater

J Lubricant

Part No. Various

Polywater Lubricant J is a high performance, clean, slow-drying, water-based gel lubricant. Lubricant J provides maximum tension reduction in all types of cable pulling. It is especially recommended for long pulls, multiple-bend pulls and pulls in a hot environment. Lubricant J dries to form a thin lubricating film which retains its lubricity for months after use.

Polywater Lubricant J is a specification-grade lubricant that does not promote flame propagation when used with fire-retardant cables and systems. It is harmless to humans, environmentally safe, compatible with common Australian cable jacket materials, and can be easily applied as part of the unique Polywater® Lubricant Application System.

Features

- High performance cable lubricant for heavy cable installations
- Maximum Friction Reduction
- High Cling Factor
- Compatible with common Australian cables
- Temperature Stable
- Non-Combustible Residue
- Specification Grade "J" - The lubricant contain no waxes, greases, silicones, or polyalkylene glycol oils
- Application System available in 'Front End Packs'
- Complete cleanup is possible with water

J Front End Pack™ Lubricant

Part No. J-99 & J-110

The front end pack is a conduit-sized polyethylene bag of lubricant. The Front End Pack™ travels through the conduit on the winch line prelubricating the conduit ahead of the cable being pulled.

Part No.	Description
J-DRUM	208L Drum
J-640	18.9L Drum
J-128	3.8L Bucket
J-110	1.9L Front End Pack
J-99	950ml Front End Pack



CLICK or SCAN for
Polywater J Application
Video

Polywater® Front End Packs lubricate ahead of the cable during the pull




[Return to Contents](#)


Bulk 208 litre Drum
PR-DRUM

PR Lubricant

Part No. Various

Polywater® PR Power Cable Lubricant is a complex polymer liquid lubricant that provides excellent friction reduction.

Perfect for installing cables from the transformer to the service entrance of businesses or homes.

Polywater PR is a stringy, silicone-enhanced liquid that can be poured or pumped into duct.

Pourable 3.8litre Bottle
PR-128



Universal, Pourable Underground Cable Pulling Lubricant

Features

- Field Friendly: Packaging designed for the installer
- High Shear Resistance: Allows friction reduction even under high sidewall pressure in bends
- Slow Drying: The residue is a thin, slippery film that retains lubricity for months after use
- Compatible with Common Cables: Suitable for use on many cable jackets

Part No.	Description
PR-128	3.8 litre bottle
PR-DRUM	208 litre drum



LZ Lubricant

Part No. Various

Polywater® LZ offers proven cable compatibility, superior combustion resistance, and an inherently low coefficient of friction.

Polywater LZ should be specified for installations of LSZH/LSHF cable in ducts and where fire propagation is a concern.

Features

- Low Friction Coefficient: Maximum tension reduction on all types of cable jackets
- Universal: Suitable for all types of jackets and cable
- Specification Grade: Meets the performance requirements of power and petrochemical plants, mass transit systems, airports, and high-occupancy buildings
- Compatible: Tested on LSZH/LSHF thermoplastic and thermo-set jackets
- Safe: Suitable for use on CSPE and CPE fire-retardant cable jackets

Suitable for use on
CPE and CSPE Fire-Retardant
Cable Jacket

Tested on Low Smoke - Zero
Halogen Thermoplastic &
Thermoset jackets



Lubricant Pump

Part No.	Description
LZ-640	18.9L Drum
LZ-DRUM	208L Drum
LP-D5	Lubricant Pump



Cable Pull Planning Software - Polywater

Pull-Planner™ 4.0

Design Safe and Efficient Cable Pulls with Pull-Planner™ 4.0

Pull-Planner 4.0 makes the planning of small or complex, large-scale cable pulling projects easier and more efficient.

Providing coefficient of friction (COF) guidance to reduce risks during cable pulls.

Calculates maximum pulling and sidewall tensions to reduce joints and avoid cable damage

Benefits

- Calculate pulling tensions and sidewall loadings during your job planning
- Provide a detailed pull plan to your client for sign off
- Understand your coefficient of friction and maximise the length of run, based on using a high quality or specification grade lubricant*
- See the difference in varying coefficients of friction and determine the significant value created using a specification grade lubricant from Polywater
- Resource your job with the most suitable equipment
- Designers can minimise the number of pulling pits required in a cable run, saving considerable time and money
- Calculate the impact of bends, multiple cables, rollers/sheaves, pushing devices and back tension off drums and direction of pull
- Ability to provide a field based COF once the cable pull is complete

Typical Pull-Planner™ Report

Pull-Planner™ Report

Pull Name: 1C 630mm ² 132kV HDPE Cable 150mm Conduit Conduit ID: 150 millimeter(s) Conduit Fill: 42.4% Total of 1 cable(s) of 1 different type(s) being pulled. Type #1 1 Cable(s) O.D. of 97.6 mm weight of 12.8 kgs/m Total cable weight: 12.8 kgs/m Weight correction factor set to: 1 Configuration: Single Cable Jam/Clearance Analysis: Jamming Not Possible		Polywater® J with Jacket: HDPE and Conduit: PVC Pull Detail Summary Total (Cumulative) Bend: 211.6 degrees Total Length Including Bends: 909 meters Conduit Fill 42.4 % Total Cable Weight: 12.8 kgs per meter Conduit Condition: Good	Recommended Quantity : 185 Liters Lubricant Notes Lubricant Best COF Value: 0.090 Un-Lubricated COF Value: 0.390 * Additional lubricant in recommended quantity based on long pull length. * Additional lubricant in recommended quantity based on total degree of bend.
--	--	--	---

Incoming Tension: 0 kN

Pull COF: 0.11

Seg #	Straight Section Slope (°)	Slope Direction	Straight Section Length (m)	Straight Section COF	Tension (kN)	Bend Type	Bend Direction	Bend Radius (m)	Bend Angle (°)	Bend Length (m)	Bend COF	Tension (kN)	Sidewall Pressure (kN/m)
1	--	--	100.0	0.11	1.38	Horizontal	--	6.00	11.3	1.2	0.11	1.42	0.24
2	--	--	55.0	0.11	2.17	Horizontal	--	6.00	90.0	9.4	0.11	2.61	0.43
3	--	--	212.0	0.11	5.53	Horizontal	--	6.00	33.0	3.5	0.11	5.90	0.98
4	--	--	115.0	0.11	7.49	Horizontal	--	6.00	33.0	3.5	0.11	7.98	1.33
5	--	--	80.0	0.11	9.08	Horizontal	--	6.00	33.0	3.5	0.11	9.68	1.61
6	--	--	215.0	0.11	12.65	Horizontal	--	6.00	11.3	1.2	0.11	12.93	2.15
7	--	--	110.0	0.11	14.45	None	--	--	--	--	0.11	14.45	--

The Pull-Planner™ 4.0 Software uses the cable pulling (tension estimation) equations common in technical studies and included in a number of industry standards. The friction coefficients in the software database are laboratory measurements. A number of field factors can influence the effective coefficient of friction. Engineering judgement and experience should be used in the selection of appropriate friction coefficients for use in the calculations.

Program for Cable Pulling Tension Calculation and Conduit System Design



* See previous pages for Polywater's range of Cable Lubricants

SCAN or CLICK to view Polywater's Cable Jacket Coefficient of Friction Test methods



Contact TEN for further information on how the Planner can help your cable pull work better.



Duct / Conduit Sealing Systems

FST™ Duct Seal is a “closed cell foam”, with high density properties, this keeps water, acids, greases, gases, insects and rodents out of the conduit.

The foam has good wetting and adhesion to metals, plastics, and concrete.

Features

- FST Duct Sealant™ has 98% closed-cell content for increased strength and resiliency
- FST Duct Sealant™ resists 6.7m of water-head pressure
- FST Duct Sealant™ is compatible with cable and duct materials
- FST Duct Sealant™ is chemically resistant to gasoline, oils, dilute acids and bases, and most unsaturated hydrocarbons
- Prevents the passage of gas; does not sag; will not dry out; and is re-alterable
- Quick: Foam expands and cures quickly even when water is present
- Multi-Use: Packages are resealable

FST-250KIT1 Duct Sealant - Polywater

Part No. FST-250KIT1

FST™ Quick setting Duct Sealant in a 2 part 250ml field ready cartridge kit.

Recommended for conduits 50 to 200mm

Part No.	Kit Includes
FST-250KIT1	1 x 240g two-part Foam Sealant caulking tube style with resealing cap 3 x Mixing nozzles, 4 x 600m Foam damming strips 1 x Position rod, 1 x Pre-treating wipe, Instruction Sheet



FSTBP™ Duct Sealant Burst Pack - Polywater

Part No. FSTBP-200KIT1

FSTBP Duct Sealant comes in an easy to use, self-dispensing burst pack.

Ideal for the protection of conduits 125mm to 200mm.

Part No.	Kit Includes
FSTBP-200KIT1	1 x FSTBP-200KIT1-200 Burst Pack 1x Pair of gloves, 1 x Sanding cloth 4 x Foam Strips, 1 x Prep. Wipes, 1 x Instructions



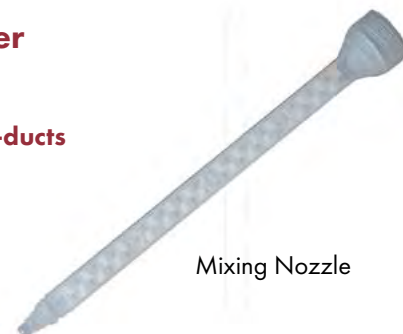
FST MINI Duct Sealant - Polywater

Part No. Various

Effectively Seals Small Conduits and Inner-ducts

Polywater® FST™ MINI is 50ml field ready kit.

Recommended for small conduits 20 to 50mm.



Mixing Nozzle

Part No.	Description
FST-MINI	1 x 50ml FST Cartridge, 2 x Mixing Nozzles, 6 x Foam Discs 1x Pair of gloves, 1 x Instructions
TOOL-50-11	Application Tool



Rope - Overhead and Underground

Telstra/Parramatta Rope

Part No. Various



- Polypropylene rope, Telstra certified
- 6mm in diameter with 2 Blue and 1 Yellow strand
- Tangle free uncoiling to coil end, no waste



Part No.	OD (mm)	Length (m)	Colour	Break Force (kN)
ROS0614	6	400	Blue/ Yellow	602
ROS0652	6	500		

Prima Dyneema Rope - Hampidjan

Part No. Various



PRIMA rope is an ultra-high strength, low cost solution that meets the need for light but strong ropes in cost driven environment. PRIMA rope is stronger than steel in the same diameter. PRIMA ropes are made from HMPE fibre produced by DSM Dyneema.

Characteristics

- Extremely high strength
- Light weight
- Abrasion resistant
- Low stretch
- Neutral buoyancy
- Splicable
- Flexible

Applications

- Alternate to wire rope
- Winch lines
- Tow lines
- Rigging lines
- Utility line

**More sizes available
Contact TEN**

Part No.	OD (mm)	Wt per metre (g)	Max Break Force (T)
29081035	6	23.29	4.0
29081040	8	38.81	6.7
29081050	10	54.34	10.7
29081061	12	93.15	16.0
29081070	14	103.25	18.7
29081080	16	137.67	24.9

Specify length in metres

Double Braided Hauling Rope - Hampidjan

Part No. DBPR-Series



- Manufactured in Australia with a braided polyester cover over a braided Polyester core
- Ideal for use as winch and tow lines and for pulling cable

Characteristics

- High strength
- High UV resistance
- Flexible & Splicable

Applications

- Winch, Tow & Rigging lines
- Pulling and stringing line

Lifting Rope with Clevis eyes available - Contact TEN

Part No.	OD (mm)	Wt per 100 m (kg)	Max Break Force (T)
DBPR-12*	12	11.10	3.49
DBPR-14*	14	13.90	4.36
DBPR-16*	16	18.25	5.75
DBPR-18*	18	22.20	6.98
DBPR-20*	20	27.30	8.59
DBPR-22*	22	33.30	10.48
DBPR-24*	24	41.60	13.10
DBPR-26*	26	46.30	14.56

*Specify length in metres

3 Strand Polypropylene Rope - Hampidjan

Part No. Various



- Higher breaking strength
- Abrasion resistance
- Excellent shock absorption
- Better grip
- Minimal elongation
- Durable and ultraviolet stabilized
- Excellent shape retention
- Strength: wet/dry 100%
- Floats/sinks: Floats
- Elongation: Moderate
- Water absorption: None
- Chemical Resistance
 - Acids: Excellent
 - Alkalis: Excellent
 - Oil/Gas: Very Good

Part No.	OD (mm)	Wt per 100 m (kg) 250m Standard (Coil)	Max Break Force (T)
PPR-12	12	7.0	2.84
PPR-14	14	9.0	3.91
PPR-16	16	12.0	4.90
PPR-18	18	15.0	5.50
PPR-20	20	18.0	7.52
PPR-22	22	22.0	8.45
PPR-24	24	26.0	10.20
PPR-26	26	31.0	11.87

Specify length in metres



EKR350



EKR700



Cable Pusher - Lancier

Part No. Various

- Used for underground cable pushing
- Installation forces are applied evenly across cable with caterpillar track pusher, rather than being pushed via wheel
- Suitable for narrow trenches
- Can be linked in series
- Optional multiple unit control available

Benefits

- Providing supplementary pulling and pushing force when laying heavy cables
- Optimum and gentle transmission of power to the cable
- Suitable for narrow trenches
- No cabling winches necessary in cascade connection
- Length measuring device
- Electric switch for reversing direction of push
- Integrated Disc brake

Field of use

The caterpillar cable-roller is used for laying delicate underground cables which are sensitive to pulling-tension and surface pressure. It may be used as a cable forward feeding roller either in association with a cabling winch, to reduce the pulling tension on the cable, as a cable-laying roller on its own or to assist in drum payout.

Several EKR's are needed at intervals along the cable track to provide an effective reduction in the pulling tension experienced by the cable. The number required will depend upon how sensitive the cable is to pulling tension and the difficulty of the track.

Part No.	EKR 350	EKR 700
Max Pulling/Pushing (kN)	3.5	7kN
Max Speed (m/min)	10	10
Cable Ø (mm)	30 - 150	30 - 150
Engine Type	Electric	Electric
Engine Output (kW)	1.1	1.5
Operating Voltage	400 V, 3-phase, 50Hz 220 V, 50Hz (optional)	400 V, 3-phase, 50Hz
Dimensions (mm)	1100 (L) x 450 (W) x 930 (H)	1720 (L) x 550 (W) x 1100 (H)
Options	Series connection with switch board + cable remote control Cable length measuring device	
Weight (kg)	115	185

7 & 10kN Hydraulic and 7kN Petrol versions available
Contact TEN for further information

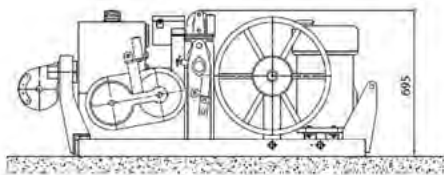


Electric Cable Feeder - Current Tools

- Hinged upper drive to allow for easy side loading
- Dual drive motors for maximum grip on cables
- Cable separator guides cables to ensure positive grip on tires
- Heavy duty transport caster with quick release mechanism
- Variable speed control
- Operate with remote pendant or optional foot switch
- Self-lubricating drive chains

Part No.	Model 99
Cable Capacity (mm)	6.3 to 88.9
Total width of all cables (mm)	152.4
Maximum Pushing Force (kg)	Single cable: 113 All cables: 452
Feeding speed (m/ min)	0.0 to 11
Wt (kg)	156.5

Requires 110v Transformer



Hydraulic Pullers

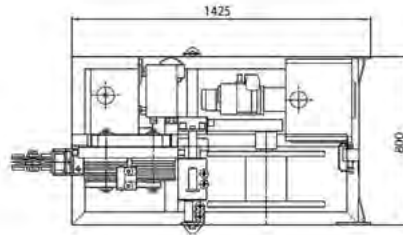
15kN Puller, Hydraulic - Tesmec

Part No. ARS200

The ARS200 Hydraulic Puller is suitable to string one rope.

The bull wheel grooves are made of heat treated steel

- Negative self-acting hydraulic brake
- Hydraulic dynamometer with set-point and automatic control of maximum pull
- On board reel winder with automatic level wind and special reel BOF370 for 500m of 8mm rope



PERFORMANCE

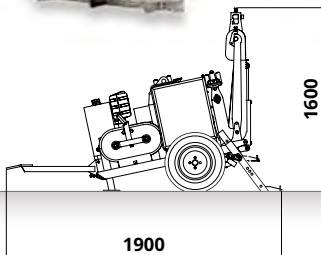
Max pull (kN)	15
Speed at max. pull (km/hr)	0.7
Max speed (km/hr)	3.6
Pull at max. speed (kN)	4

Hydraulic Transmission

Closed hydraulic circuit for stepless speed variation in both rotating directions

CHARACTERISTICS

Bull Wheel dia. (mm)	200
Max. rope dia. (mm)	8.0
Mass (without rope) (kg)	500
Engine	
Petrol (kW)	13 (18hp)
Cooling System	Air
Electrical System (V)	12



35kN Puller, Hydraulic - Tesmec

Part No. ARS403

The ARS403 Hydraulic Puller is suitable to string one rope. The bull wheel grooves are made of wear proof thermally treated steel.

- Used for overhead and underground pulling
- Negative self-acting hydraulic brake
- Hydraulic dynamometer with set-point and automatic control of max. pull
- Hydraulic oil cooling system
- Control instruments for hydraulic system and diesel engine
- Rigid axle for towing at max speed of 30km/hr
- Built-in reel winder with automatic level wind, suitable for standard reel BOF010 and BOF020 (AXR001 included)
- Electronic pull and speed recorder kit (instrument not included)
- Pull pre-setting system
- Mechanical front stabiliser
- Grounding connection point

PERFORMANCE

Max pull (kN)	35
Speed at max. pull (km/hr)	1.2
Max speed (km/hr)	3.6
Pull at max. speed (kN)	12

Hydraulic Transmission

Closed hydraulic circuit for stepless speed variation in both rotating directions

CHARACTERISTICS

Bull Wheel dia. (mm)	325
Max. rope dia. (mm)	13
Mass (without rope) (kg)	980
Engine	
Gasoline (kW)	25 (34hp)
Cooling System	Water
Electrical System (V)	12

Contact TEN for further information on Australian Roadworthy Trailer options





Cleaner | Quieter | Greener

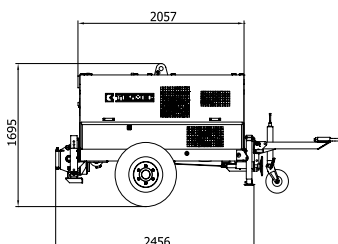
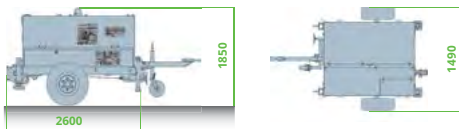


NEW DIGITAL HMI*

The 178mm (7") color display indicates machine working parameters, maintenance records and has integrated pull and speed recorder.

REMOTE CONTROL

The radio remote control provides total user machine control while integrating with the new digital user interface.



30 & 50kN Puller, Electric - Tesmec

Part No. PE1150 & PE1250

The Tesmec PE1150 & PE1250 all-electric pullers are an industry exclusive. With an electric motor, they eliminate the need for hydraulic components such as hydraulic motors, pump and valves, and requires no oil. The unit's silent operation makes it ideal for almost any location, while the electric power system generates zero emissions. The PE1150 & PE1250 delivers a maximum pull force of 30kN & 50kN respectively and offer an advanced user interface and remote control.

Features

- Setting pull value
- Setting reel winder value
- Control of direction and speed of bull-wheels
- Display to check stringing parameters
- Stop Operation push button
- Negative self-acting electrical brake
- Lockable sound proof integrated covers
- Automatic reel winder with automatic level wind
- Earthing connection point
- Mechanical front and rear stabilizers
- Free-wheel device
- Electronic pull value limitation control
- Integrated warm-up system

50kN Puller, Hydraulic - Tesmec

Part No. PM1250

The PM1250 Hydraulic Puller is suitable to string one rope and operates using the latest in technology from Tesmec.

Features

- Utilises New Tesmec digital HMI*
- Automatic reel winder
- Lockable sound proof integrated covers
- Negative self-acting hydraulic brake
- Rigid axle - 30km/h
- Earthing connection point
- Mechanical front and rear stabilizers
- On board reel winder with automatic level wind and reel for 700m of 14mm dia. rope
- Free wheel device
- Electronic pull value limitation control
- Hydraulic Transmission: Closed hydraulic system for stepless speed variation in both directions

The perfect Machine for Urban Underground Pulling

PERFORMANCE	PE1150	PE1250
Max pull (kN)	30	50
Speed at max pull (m/min)	15	10
Max speed (m/min)	70	70
Pull at max speed	5	5
Free wheel max speed (m/min)	70	70

CHARACTERISTICS	PE1150	PE1250
Bull-wheel diameter (mm)	250	300
Max rope diameter (mm)	11	13
Weight (without rope) (kg)	2350	2500
Number of grooves	8	8
Suitable for	1 rope	1 rope
Layout	Single	Single

ELECTRIC POWER PACK	PE1150	PE1250
Battery Pack (V)	96	350
Charge Time (Hr @ 230V)	5	5

BATTERY STORAGE CAPACITY	PE1150	PE1250
Rope length recovered		
Working Cycle (Average) (m)	5000	7000
Working Cycle (Max Pulling Force) (m)	1300	1400

PERFORMANCE	
Max pull (kN)	50
Speed at max. pull (m/min)	17
Max speed (m/min)	67
Pull at max. speed (kN)	12.5
Free wheel max speed (m/min)	150

CHARACTERISTICS	
Bull Wheel dia. (mm)	350
Max. rope dia. (mm)	14
Mass (without rope) (kg)	2000
Number of grooves	7
Suitable for	1 rope
Layout	Single

ENGINE	
Diesel (kW)	42 (56hp)
Emission level	tier 4f/Stage IIIB
Cooling System	Water
Electrical System (V)	12

* See Transmission Stringing for further information on "Digital HMI"



Winches - Overhead - Chance

Capstan Winches - 454kg

CHANCE[®]



Hydraulic Winch shown with Rope Lock
(sold separately)



Petrol Winch shown with Foot Switch (included)

Chance Capstan Winches - 454kg Capacity

Chance Capstan Winches are available for all on-site situations.

Hydraulic - Powered by 700bar (10,000psi) Hydraulic Pump

230V AC - Plug into any single phase power outlet or a truck inverter

Petrol - Utilise independently of all other power supplies

Improved design features a multi-planetary drive/backstop clutch, assembled on the centre shaft of the steel gear-case with full-length internal teeth.

This design handles more rugged conditions, extends life and reduces maintenance

For improved load control, steel capstan drum features nickel-plated rope surface, larger radius at load-line wrap and rope hook.

Versatile Application

Lightweight, powerful portable winches move heavy weights and tackle difficult to access tasks, including:

- Pulling underground and indoor cable
- Stringing and tensioning conductors
- Lifting transformers
- Hoisting heavy insulator strings
- Tower erection
- Pulling wheeled equipment over obstacles



Honda 35cc
4 Stroke Engine

Hydraulic Winch - 700bar (10,000psi)

Part No. C308-1180

Capacity (kg)	Speed at Max Load (m)	Source required for speed	Wt (kg)
454	28.3	30lt per min @ 10,000psi	12.9

Foot Switch not Included - see accessories on next page

Electric Winch - 230V AC

Part No. C308-1171

Capacity (kg)	Speed at Max Load (m)	Source required for speed	Wt (kg)
454	6.4	7 amps motor current	22.5

Includes Foot Switch

Petrol Winch - Honda 35cc 4-Stroke

Part No. C308-1190

Capacity (kg)	Speed at Max Load (m)	Source required for speed	Wt (kg)
454	12.2	7,000rpm	20.9

Includes Foot Switch

See following page for available accessories

Chance Winch Accessories



Rope Lock Device

Part No. C308-0856

- Automatically supports load if rope is released
- Accepts 12.7mm to 19.0mm rope
- Includes 2 mounting bolt, washers and lanyard



Universal Mounting Bracket

Part No. C308-0925

- Recommended for petrol Winch
- Can be bolted down or uses two C417-0346 Chain Clamps (below) for mounting on poles, angles and beams



Chain Clamp

Part No. C417-0346

- Recommended for above Universal Bracket
- Use two Chain Clamps for Universal Bracket (above)
- 2.15m long



Swivel Base Truck Mount

Part No. T308-1506

- Recommended for Electric and Hydraulic Winches
- Weight: 10.4kg



Swivel Base Truck Mount & Hitch Mount

Part No. PSC3081563

- Recommended for Electric and Hydraulic Winches
- Weight: 28.1kg



Foot Switch - Hydraulic

Part No. C308-0685

- Use for Hydraulic Winch
- Weight: 10.9kg





Winches - Overhead and Underground

Portable Petrol Capstan Winch - Docma

Part No: VF-Series

Docma offer a highly innovative range of Winches for Pulling and lifting loads for the Power Utilities, Telecommunication, Railway, Mining, Oil & Gas industries.

They combine Italian quality materials, modern and functional design to achieve excellent Performance, Speed and Portability. Perform these tasks in remote locations or areas where power is not yet available.

The portable winches are designed to handle all of your day-to-day conductor pulls from loads of 800 to 1150kg (2300kg via single pulley)

The Innovative built-in rope accelerator, controlled by the operator, simply tug on the rope to start the pull/lift.

Features

- Italian Quality
- Pulling from remote locations no longer a challenge
- Ready for immediate use on site
- Over 1 tonne pulling capacity
- Built-In Rope Accelerator Switch
- Quickly mobilised and placed in working position
- 2 or 4 Stroke options (Honda 4 stroke HGX50)
- No tilt restrictions (Honda 4 stroke HGX50)
- Balanced Cast Carry Handle
- Wide range of attachment & accessories

DOCMA

MADE IN ITALY

Honda 4
Stroke
model
shown



Balanced, strong cast Handle



Rope Accelerator



VF900-4



VF105-2

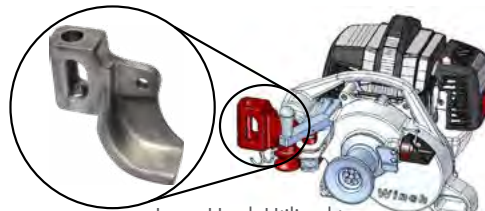
Part No.	Capacity (kg)			Engine type	Pull Speed (m/pm)	Engine (cc)	Rope		Wt (kg)
	Pulling	Double Rope	Lifting				Size (mm)	Wraps on Drum	
VF900-4	865	1730	200	Honda 4 Stroke	14	50	10 / 12*	4/5	10.85
VF105-2	1050	2100		2 Stroke	20	50.8	10 / 12*	4/5	10.50

* 10 and 12mm Double Braid Polyester Hauling Rope available in a variety of lengths. Contact TEN for further information.

Docma Capstan Winch Accessories



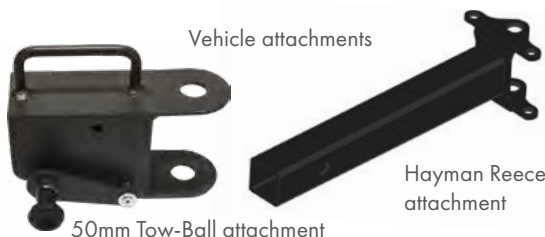
Double Hook
Assembly
Utilised to attached
Winch to Slings



Loop Hook Utilised to
attached Winch to all Accessories



Vertical Anchor - For Poles, Posts & Towers
or Anchor with bolts through anchor holes



Vehicle attachments

50mm Tow-Ball attachment

Hayman Reece
attachment



Lifting attachment



Ground attachment

Contact TEN for further information on the Winch Pulling & Lifting attachment equipment and set-up

Portable Petrol Drum Winch - Docma

Part No: VF-Series

Docma offer a highly innovative range of Winches for Pulling loads for the Power Utilities, Telecommunication, Railway, Mining, Oil & Gas industries.

They combine Italian quality materials, modern and functional design to achieve excellent Performance, Speed and Portability. Perform these tasks in remote locations or areas where power is not available.

The portable Drum winches are designed to handle all of your day-to-day pulls from loads of up to 1485kg (2970kg via single pulley)

Features

- Italian Quality
- Pulling from remote locations no longer a challenge
- Ready for immediate use on site
- Quickly mobilised and placed in working position
- Over 1.4 tonne capacity
- Innovative quick release system for free-wheel unwinding
- Textile rope
- Balanced Carry Handle
- Wide range of accessories
- Steel Rope version available upon request



VF155-AUTO



Auto Rewind Guide



Hook or Tow-Ball Attachment

Part No.	Pull Capacity (kg)	Dimensions (mm)	Pull Speed	Engine (cc)	Rope Dia & Length	Rope Type	Wt (kg)
VF155-AUTO	1485	595 x 385 x 360	20m/min	50.8	5mm x 80m	Textile	25.0

Docma Capstan & Drum Winch Accessories

Docma offers a wide range of accessories to handle all of your day-to-day pulling, from poles, trees and towers to vehicle tow-balls.

Slings & Ratchet Strap



Double
Ended Sling



Ratchet Strap



16kN Steel Pulley



16kN Steel Pulley



40kN AL Pulley



40kN AL Pulley

Hooks & Shackles



Rated Hooks and Shackles

Replacement Ropes for Drum Winches



Textile Rope



Steel Rope

Wide range of other accessories available, including equipment bags & back-packs and pole, tree & equipment sleighs & trolleys



Ideal for Overhead & Underground Pulling



Safety Rope Diversion allows Operator to stand out of pulling line



Powered by Milwaukee Batteries



Battery Capstan Winches, 1360kg - iTOOLco

Ideal for Industrial/Commercial applications.

Pulling from remote locations is no longer a challenge.

This portable 1360kg puller is intuitively designed to handle all of your day-to-day pulls.

Features

- Pulling from remote locations no longer a challenge
- Built-In Rope Engagement Capstan Switch
- Wide angle Dual Head Adjustment
- Ready for immediate use on site
- Quickly mobilised and placed in working position
- Pulling from remote locations
- 5 Conduit adaptors with built-in carry rack

Performance

Pull Speed:

Up to 15m p/m 1360kg small Capstan

Up to 33m p/m 680kg large Capstan

Max pulling Capacity: 1360kg

Pull at max speed: 680kg

Powered by: Milwaukee M18 drive unit

Battery: Milwaukee M18 - 18V 6.0Ah



Versatile Dual Capstan



Battery Cannon Puller

Part No. CM3K

Speed, Versatility, and Performance are all yours with iToolco's Battery Capstan Winch.

This portable 1360kg puller is intuitively designed to handle all of your day-to-day conductor pulls.

The built-in capstan switch automatically turns the puller on and off.

Simply tug on the rope to start the pull and back off to shut it down.

Delivers dynamic performance in remote locations or areas where power is not yet available.

iTOOLco.

Battery Utility Puller

Part No. UPM3K

Ideal for Utility Applications

Includes Tow-bar Mount

Get high-speed performance and a unique set-up with iToolco's 3K Utility Puller™.

Designed for quick set-up, the 3K Utility Puller's articulating receiver adapter can be positioned 180 degrees vertically or horizontally at the precise angle needed to get the job done.

With this hardworking puller you can transfer heavy pulling loads to the ground within centimeters of the conduit you're pulling through.

For overhead pulls, line guide rollers keep the rope centered on the capstan.

Part No	Ordering information	Dimensions Collapsed (mm)	Dimensions Extended (mm)	Wt (kg)
CM3K	Winch, Conduit Adaptors & Rack Motor, 2 x Batteries, Charger	2121 (H) x 914 (W) x 686 (L)	Extends up to 3.0m	62.3
UPM3K		1905 (H) x 508 (W) x 508 (L)		74.1

Ideal for Overhead & Underground Pulling



Versatile Dual Capstan

Electric Capstan Winches, 2727kg - iTOOLco

Ideal for Industrial/Commercial applications. Take your cable pulling to the next level with these tough but versatile Electric Capstan Winches. When 2T is not quite enough and you don't want to drag a big puller around on the back of your vehicle, the iTOOLco winch is the ideal puller.

Features

- Pulling from remote locations no longer a challenge
- Built-In Rope Engagement Capstan Switch
- Ready for immediate use on site
- Quickly mobilised and placed in working position
- Pulling from remote locations
- 5 Conduit adaptors with built-in carry rack (C6K.2 Model)

Performance

Pull Speed:

Up to 8.5m p/m 2727kg small Capstan

Up to 21m p/m 1360kg large Capstan

Max pulling Capacity: 2727kg

Pull at max speed: 1360kg

Powered by: 230v Milwaukee 2 Speed motor

Electric Cannon Puller

Part No. C6K.2

The Cannon 6K is two wire pullers in one with dual capstans that can pull 2.4m and 8.5m per minute on low speed and 6.0m and 21m per minute on high speed.

This versatile wire puller is lightweight and easy to transport, making it the puller of choice for many electrical contractors and electricians.

Features

- 4 Speed dual capstan
- Self contained– ready to pull
- Quickly change from side pull to overhead, underground or truck hitch
- Pulls out 2.7m of extra wire



- No anchoring required
- Easy to transport
- Telescoping

Electric Utility Puller

Part No. UP6K

Ideal for Utility Applications

Tackle unique set-up challenges with precision and performance using iTOOLco's Utility Puller 6K™.

Designed for faster set-up, the Utility Puller 6K's articulating receiver adapter can be positioned 180 degrees vertically or horizontally at the precise angle needed to get the job done.

With the hardworking Utility Puller 6K, you can transfer heavy pulling loads to the ground within centimeters of the conduit you're pulling through. For overhead pulls, line guide rollers keep the rope centered on the capstan.



Part No	Description	Dimensions Collapsed (mm)	Dimensions Extended (mm)	Wt (kg)
C6K.2	Electric Capstan Winch	1220H x 546W x 546L	Extends up to 3.0m	59
UP6K	Electric Capstan Winch	1905H x 609W x 609L		59



Electric Capstan Winches, 4545kg & 5454kg - iTOOLco



iTOOLco's Cannon 10 & 12K pullers are the strongest wire pullers available.

These versatile cable pullers are easy to maneuver, and can be changed quickly from side pulls to overhead or underground.

Features

- Self-contained – ready to pull
- Quickly change from side pull to overhead, underground or truck hitch
- Adjustable counter-balance for easy setup
- Universal adapter – the universal adapter sits on the conduit lock nut, fits a wide range of sizes, and often eliminates the need to use the conduit adapters on lighter pull
- Easily maneuvers into tight spaces
- Rear swiveling casters for job site transportation and precise conduit positioning
- Pulls out 3.9m of extra wire from conduit opening to capstan
- Foot switches included

Part No. C10K.2

- Up to 5.5m (per min.) on low speed, Up to 12.0m (per min) on high speed
- 4545kg pulling capacity
- 4 Speed dual capstan

Part No. C12K

- 5454kg pulling capacity
- Pulling Speed up to 4.5m (per min.) on low speed, Up to 10.1m (per min) on high speed
- Customized motor with reverse gear
- 6 Speed dual capstan
- Extra 835mm & 375mm extensions allow for longer reach

Contact TEN for further information on the iTOOLco 10 & 12K Pullers

Running Line Tension Gauge - Safe Pull - iTOOLco

Part No. SPRLT20K

Accurately Monitor Cable Tension & Customer Overload Limits

Accurately monitor & save cable tension while preventing damage. Increase safety ensuring that cable is being pulled at a safe tension level by integrating the Safe Pull RLT. The lightweight design & included carrying case allows for easy transportation on the job-site. Track every pull remotely via your mobile device with the Safe Pull™ RLT application. Set load limits and get audible alarms on pulls with loads measuring up to 88kN (9T).

Features

- Easy Rope Installation with quick release pins
- Accepts rope sizes 4mm to 19mm
- Overhead & Right Angle Pulls
- GPS capability
- Smart-Phone App available for Apple and Android platforms
- Light-weight and Durable - Constructed from anodized aluminium.
- No structural Plastic parts
- Mounting Kit Included
- Reads in kN - kg - t - lb
- Accepts AA Batteries (500hr battery life)
- IP67 Rated

**Contact TEN for information
on the Smart Phone APP**



Part No	Description	Dimensions (mm)	Wt (kg)
SPRLT20K	Running Line Tensioner	422 (L) x 35 (W) x 152(H)	4.6

TENHIRE

Our Fleet, Your Projects.



**SERVICE
REPAIR/REFURB
TRAINING**



TEN Hire offers its customers access to the largest specialised cable hauling and stringing equipment fleet in Australia. The range includes hydraulic pullers (skid and trailer mounted), brake units (tensioners), puller-tensioners, capstan winches, drum stands, pole pullers and a large range of associated equipment such as presses and pumps, stringing rollers and wire rope. In 2020, TEN expanded its offering to include SRT (Service, Repair & Refurb, Training) – our specialist service and training division.

Why partner with **TEN HIRE & SRT?**

- ▶ Leverage our fleet of specialised stringing and cable hauling equipment – our fleet, your projects
- ▶ We have extensive experience in matching customer stringing requirements to machinery
- ▶ Be flexible in scaling up or down as your workload demands
- ▶ Use the latest technologies and innovative stringing methods to drive productivity and profitability
- ▶ Meet your compliance and risk management objectives
- ▶ Ensure the safety of your operators through competency based training
- ▶ Get the back up and breakdown support of Australia's leading stringing equipment provider



Service

Servicing and preventive maintenance is key to ensure a long, productive working life for your capital assets. Whether it's a Tesmec stringing machine or a battery hydraulic hand tool, SRT can assist with your preventative maintenance program to keep your equipment online. We have an experienced group of hydraulic technicians who can support your maintenance program for Tesmec equipment or your hydraulic and mechanical tooling.

Repair

Breakdowns are inevitable, but when they happen, you need a partner that is prepared and capable to get your fleet back up and running. TEN Hire stocks a wide range of parts for Tesmec Machinery, hydraulic hand tools and hoist repair. We are the only company that can provide a regional service technician for stringing equipment (trained by the manufacturer) and in a suitable timezone for efficient customer service for trouble shooting and for fast, efficient repair if needed. Our SRT technicians can assist with fault diagnosis and troubleshooting over the phone and we can mobilise technicians on short notice for on site repairs as required.



Refurbishment

Extend the life of your valuable Tesmec stringing assets through refurbishment through our SRT Team. Our team provides a customised refurbishment proposal based on the machinery's age, working hours, general condition and any specific repairs or parts replacement required. Machines can be upgraded with additional guarding and safety features developed for newer machines, helping meet your WH&S compliance requirements around high risk plant. Machines can be calibrated prior to delivery to your yard or site.

Training

Our stringing machine operator training is delivered by approved trainers who have undertaken training direct from the manufacturer. Participants in our training programmes receive a detailed training manual with theory and practical assessments designed to build and confirm operational competency. Our trainers are Cert IV qualified in training and assessment and deliver our training package at our site or yours to AQTF standard. This training package has been developed, delivered and improved over years of deployment to Australian utilities and contractors alike. TEN have trained over 1000 operators in the use of high risk stringing plant.





Designed to drill the toughest Australian hardwoods

Woodpecker impact auger bits are engineered to deliver fast, clean cut holes in Australian hardwood power poles.

- ✓ Designed to drill cleaner and faster holes in Australian hardwood poles
- ✓ 7/16" Quick change hex shank – suitable for electric drills or impact wrenches
- ✓ Optimum shaped wide cutting flute ensures a faster chip ejection, less friction and a longer lasting cutting edge
- ✓ Solid core for added strength, auger stability and extended tool life
- ✓ Supplied in a protective storage case



**PROTECTIVE
STORAGE CASE**

See HYDRAULICS section page B43 for further information



TEN Group offers an extensive range of quality Hydraulic Tools and Accessories.

- ▶ Long Reach Foam Filled Chainsaws
- ▶ Pole Pullers and Tampers
- ▶ Hydraulic Impact Wrench
- ▶ Battery Powered, Hand Operated & Remote head Crimpers
- ▶ Battery Powered, Hand Operated & Remote head Cutters
- ▶ Compression Dies and Metal Hole Punches & Dies
- ▶ Wood Augers
- ▶ Hydraulic Pumps and HP & LP Hoses
- ▶ Deep & Long Tube Impact sockets



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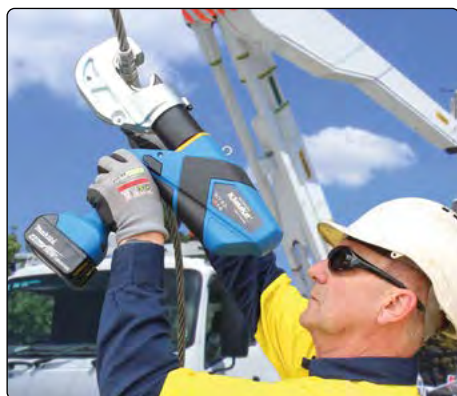


Klauke i-press

Crimping Data Now at Your Fingertips

Klauke Next Generation Features

- Innovative LED display
- Robust Construction
- Data transmission via Bluetooth
- Crimping data storage
- Free i-press[®] software and i-press app



Making quality work easier

Klauke tools guarantee effortless operations: With its low weight and the pistol grip shape the Next Generation Crimpers provide balanced and efficient operation. The 2-stage hydraulic system ensures fast operations with fast feed and power stroke. The one-button control concept for all tools with automatic retraction.

Guarantees Quality

The Automatic Retraction Stop (ARS) stops the automatic retraction when a crimp is complete. All relevant tool data is immediately in view on the tool's integrated LED display. In the event of a fault, you are warned by a visual and audible signal from the tool. Provide written proof of the quality of your work with i-press - now simply and conveniently connect the tool to the computer via Bluetooth.

i-press software

Klauke Next Generation records your crimping operations; these can then be transmitted by Bluetooth. i-press software uses this data to create a project report enabling a record of quality of operation. You have control over your quality.

Visit www.tengroup.com.au to download the i-press software

Use the i-press app to check and control your tool data on the go. Individual tool settings, warning tones for an incorrect crimp or the double-click function for increased user safety, help make your day-to-day work simpler and more reliable - just as you need it.

The new standard - Klauke Next Generation Crimping Tools

To guarantee the quality, you can check the tool data from the display or via ipress app at any time.

You can easily make this information available to your customers as project documentation at the touch of a button.

The balanced design ensures effortless and continuously high-quality operations up to the end of each working day.

NEXT Generation Klauke Tools provide German build quality with the versatility of a Makita battery.

Klauke[®]
**NEXT
GENERATION**

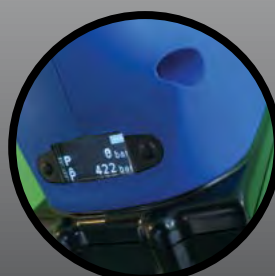
Klauke Next Generation Performance

Quality build and reliability from Klauke - durable, hard-working and tough

Check the tool status using the display or via the i-press app

Powerful Makita battery ensuring consistent operation

Effortless operations thanks to the modern, ergonomic design





Australia OH&S
Pinch point free ram

Crimping Tools, Battery Powered

12 Tonne Crimper

Part No. EK12042FSCFM

Klauke®
**NEXT
GENERATION**



- Crimp range from 6 to 400mm²
- Head rotates 360°
- 2 speed unit which advances the dies at high speed until crimping force is encountered - then low speed to allow positioning of tool
- Manual return possible in all positions
- Bright LED illuminates work area
- Shock resistant plastic housing
- Accepts standard Australian and International 12 tonne die sets
- Makita 18V DC Lithium-Ion battery with high capacity output and quick charging time
- Battery level indicator
- Operating pressure 10,000PSI

Red LED display with acoustic signal for tool status

Features

- C-Head with 42mm opening and wide crimping range up to 400mm²
- Crimps Lugs, Links, Full & Non-Tension sleeves to a variety of conductors, including Copper (CU), Aluminium (AL), ACSR, ABC and a variety of other cables
- All tool crimping data can be viewed on the tool LED display and can be read via Bluetooth connection

Order Information

Part No.	Description
EK12042FSCFM-O	Tool skin and case
EK12042FSCFM-K	Crimping Tool, 2 x 4.0Ah batteries, charger and case*

- Visual and audible signals
- One-button operation, controlling all tooling functions
- Balanced centre of gravity for easy handling and effortless operations
- High-performance Makita 18V 4.0Ah Li-Ion battery* with high capacity for extended operating time
- Quick motor stop for high user safety
- Automatic retraction when operation is complete.
- Automatic Retraction Stop (ARS) for positioning control in case of multiple crimping

Crimps (mm ²)	Cu 400, Al 240, ACSR 185
Crimping Force (kN)	120
Stroke/Opening Width (mm)	42
Crimping Range (mm ²)	6 - 400
Charging Time (min)	36
Weight (kg)	7.1 including battery

* See page B37 for battery and charger information

12 Tonne Dies

Part No. K12-AF

- Crimping dies to suit battery, remote head and hand hydraulic 12T "C" type crimpers.
- Commonly referred to as "C" or "U" type dies.
- Dies colour coded to material type for easy identification.
- Across Flats diameter marked on die face for size identification on crimped lug or sleeve.

**Full Range of 12T Dies available -
see pages B12 & B13**





Crimping Range
10 to 630mm²

13.5 Tonne Crimper

Part No. EK135FTCFM

Klauke
NEXT
GENERATION

- Crimp range from 10 to 630mm²
- Powerful crimping force of 13.5t
- All tool data can be viewed using on-tool display and i-press app



SCAN or CLICK
to View
Operation Video



Features

- Makita battery system
- All data can be easily read via Bluetooth
- Closed Bolt interlock head, rotatable 360°
- Visual and audible signals
- One-button operating controlling all tool functions
- Automatic retraction after operation completed
- 2 stage hydraulic system with fast feed and power stroke
- Automatic retract stop saving time for multiple crimps
- Balanced centre of gravity
- LED for work area illumination
- LED display for showing tool data
- Battery charge and service display

**Also suitable for
12T Dies with the
below adapter
(included)**



Part No. UA15-12T Die Adaptor Included

Order Information

Part No.	Description
EK135FTCFM-O	Tool skin, 12T Die Adaptor and case
EK135FTCFM-K	Crimping Tool, 12T Die Adaptor, 2 x 4.0Ah batteries, charger and case

Crimping Force (kN)	135
Stroke opening Width (mm)	50.8
Crimping Range (mm ²)	10-630
Number of Crimps	approx. 85 at 240
Battery	Makita 18V 4.0Ah, Li-Ion*
Charging Time (min)	36
Weight (kg)	8.15 including battery

* See page B37 for battery and charger information

Full Range of 12T Dies available - see pages B12 & B13

Dies - 15 Tonne

Part No. VARIOUS

- Various styles available, compatible with most brand tools, contact TEN for more information

Copper

Part No.	Type	Across Flats (mm)	Size (mm ²)	Crimp Width (mm)
For 300 & 400mm ² CU Dies see equivalent 12T Dies on page B13				
K15-31.0-CU	Cu	31.0	500	7
K15-37.0-CU	Cu	37.0	630	7

Aluminium

Part No.	Type	Across Flats (mm)	Size (mm ²)	Crimp Width (mm)
K15-39.0-AL	Al	39.0	400/500	15



15T Crimping Dies



5 Tonne Crimper & Cutter

Part No. EK425CFM

- Suitable for ABC, 6 to 240mm² Cu & 10 to 300mm² Al
- One handed ergonomic design with single push button operation
- Automatic retraction once crimp is completed
- Autostop function
- LED Light Illuminates working space
- Red LED display and acoustic signal
- High performance 18V Lithium-Ion battery
- Crimp head rotates 360°
- Multi-functional LED indicates maintenance and battery control
- Manual retraction does not rely on battery power

Klauke®
**NEXT
GENERATION**

Order Information

Part No.	Description
EK425CFM-O	Tool skin and case
EK425CFM-K	Tool, 2 x 1.5Ah batteries, charger and case

Ideal for ABC

Multi-function lightweight tool of only 2.6kg

Crimps (mm ²)	Cu/Al 240, ACSR 185
Crimping Force (kN)	50
Stroke/Opening Width (m)	40
No of crimps per charge	140 @ 70
Battery	Makita 18V, 1.5Ah, Li-ion*
Charging Time (min)	15
Weight (kg)	2.6 including battery

* See page B37 for battery and charger information

Takes 6T Round Dies

Interchangeable heads - easily change from crimping to cutting

Head Rotates 360°

Ergonomic single push button operation

LED Illumination of workspace

Genuine Makita Li-Ion Battery

Red LED display and acoustic signal in case of error



CJCU



CJACSR



6T Dies available see page B11

Available Interchangeable cutting heads

Part No.	Capacity (mm)	Length (mm)	Weight (kg)	Cuts
CJACSR	17.5 OD	145	1	ACSR/Steel
CJCU	20 OD	140	1	CU/AL

**Also Available in 1000V Insulated Version -
For more information see page B36**





Klauke®
**NEXT
GENERATION**

Uses Series 50 Cembre
interchangeable dies
Head Rotates 360°

Single push button
operation

LED Illumination of
workspace

Genuine Makita
Li-Ion Battery



5 Tonne Crimper

Part No. EK50CFM

- Crimps 10 to 185mm²
- ARS means faster crimp cycles (Automatic Retraction Stop)
- All tool data in view thanks to display and ipress app

Features

- All data can be easily read via Bluetooth
- Open head, rotatable 330°
- Visual and audible signals
- One-button controlling all tool functions
- LED for work area illumination

Order Information

Part No.	Description
EK50CFM-O	Tool skin and case
EK50CFM-K	Tool, 2 x 1.5Ah batteries, charger and case

- Simple and safe: Automatic retraction when operation is complete
- Automatic Retraction Stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

Crimping Force (kN)	50
Crimping Range (mm ²)	10 - 185
Stroke/Opening Width (mm)	17
Battery	Makita 18V - 1.5Ah*
Charging Time (min)	15
Weight (kg)	2.8 including battery

* See page B37 for battery and charger information

See Page B11 for Series 50 Cembre Die information

Klauke®
**NEXT
GENERATION**

Uses 4 Series
interchangeable dies

Flip top
Head Rotates 360°

Single push button
operation

LED Illumination of
workspace

Genuine Makita
Li-Ion Battery



3.5 Tonne Crimper

Part No. EK354CFM

- Crimps 6 to 150 mm²
- Slim crimping head - ideal for confined work areas
- All tool data view on display and using ipress app

Features

- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable 330°
- Visual and audible signals in case of error
- One-button controlling all tool functions
- 2.4kg total weight

Order Information

Part No.	Description
EK354CFM-O	Tool skin and case
EK354CFM-K	Tool, 2 x 1.5Ah batteries, charger and case

- LED for work area illumination
- Always ready-to-use thanks to battery charge and service display
- Simple and safe: Automatic retraction when operation is complete

Crimping Force (kN)	35
Crimping Range (mm ²)	6-150
Stroke/Opening Width (mm)	9
Number of Crimps	approx. 145 at 120 Cu
Battery	Makita 18V 1.5Ah*
Charging Time (min)	15
Weight (kg)	2.4 including battery

* See page B37 for battery and charger information

See Page B11 for Series 4 Die information

**Klauke®**

**Lightweight -
Tool including
battery <1kg**



*IS5071 Die
Included with tool



50 Series Mini Crimper, Electromechanical

Part No. EK50MLAU

- Lightweight Compact design
 - ideal for high volume work
 - switchboard manufacturers
 - automotive wiring harnesses
- High speed crimping time <1.5 seconds
- Automatic retraction

Order Information

Part No.	Description
EK50MLAU	Tool, case, battery, charger and IS5071 die

Crimping Force (kN/T)	15/1.5
Crimping Range (mm ²)	0.14 - 50
Crimping Time (s)	<1.5
Battery	Klauke 1.5Ah/10.8V Li-ion (RAML)*
Crimps per Charge	300 @ 10 Cu
Charging Time (min)	40
Weight (kg)	0.96 incl. battery

*See page B37 for battery and charger information



SCAN or CLICK
to View Operation
Video

Dies, 50 Series

Part No.	Use	Size (mm ²)
AE5071	Bootlace lugs	0.14-6
AE5072	Bootlace lugs	10-25
AE5073	Bootlace lugs	35-50
BNC501	Stud & shielded sleeves	Coax 58, 59, 62, 71
CR501	Non insulated receptacles	0.25-6
IS501	Insulated lugs, double crimp	0.5-6
IS502	Insulated lugs, single crimp	10-16
IS503	Insulated lugs, double crimp	0.1-1

Part No.	Use	Size (mm ²)
IS5071 *	Crimping, pre-insulated terminals	0.5-6
M50154	Cu tubular lugs - solid conductor	1.5-4
M50610	Cu tubular lugs - solid conductor	6-10
Q501	Cu soulderless & pin term	0.5-10
R501	Cu tubular lugs	0.72 -2.5
R502	Cu tubular lugs	4-10
SB501	Turned pin receptacle, pin connector	0.1-4



Klauke®
**NEXT
GENERATION**



No Separate Dies required

5.5 Tonne Crimper - Indent

Part No. EK60VPCFM

- Crimps 10 to 240mm²
- Crimps optimised at all times due to the patented centering system
- All tool data in view thanks to display and ipress app

Features

- All data can be easily read via Bluetooth
- Quad-point indent crimping feature, no dies required
- Visual and audible signals
- One-button controlling all tool functions
- Open head, rotatable

Order Information

Part No.	Description
EK60VPCFM-O	Tool skin and case
EK60VPCFM-K	Tool, 2 x 4.0Ah batteries, charger and case*

- LED light
- Ergonomic balanced centre of gravity
- Fast 2-stage hydraulic system
- Automatic retraction when operation is complete

Crimping Force (kN)	55
Crimping Range (mm ²)	10-240
Charging Time (min)	36
Weight (kg)	5.0 including battery

*See page B37 for battery and charger information

Dies, Crimp

Dies, 6 Tonne Suits EK425FSCFM



Part No.	Size (mm ²)	Across Flats (mm)	Crimp Width (mm)
Copper			
K6-04.4-CU	6	4.4	5.0
K6-05.7-CU	10	5.7	5.0
K6-06.3-CU	16*	6.3	6.0
K6-07.7-CU	25*	7.7	12.0
K6-09.2-CU	35*	9.2	12.0
K6-10.4-CU	50*	10.4	9.0
K6-11.5-CU	70*	11.5	9.0
K6-14.2-CU	95*	14.2	6.0
K6-16.5-CU	120*	16.5	6.0
K6-18.3-CU	150*	18.3	5.0
K6-20.0-CU	185*	20.0	5.0
K6-23.1-CU	240*	23.1	5.0
K6CUSET-16-240	* 16 to 240 (10 Dies) including 20 compartment metal box		

Aluminium

K6-09.0-AL	10-35	9.0	5.0
K6-13.2-AL	50-70	13.2	12.0
K6-17.3-AL	95-120	17.3	12.0
K6-18.0-AL	150	18.0	12.0
K6-22.0-AL	150-185	22.0	9.0
K6-28.4-AL	240-300	28.4	5.0

ABC

K6-14.0-ABC	25	14.0	9.0
K6-17.3-ABC	35-70	17.3	9.0
K6-21.5-ABC	95-150	21.5	9.0

Part No.	Size (mm ²)	Across Flats (mm)	Crimp Width (mm)
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Copper

K3.5-C6	6	4.4	5.0
K3.5-C10	10	5.7	5.0
K3.5-C16	16	6.3	5.0
K3.5-C25	25	7.7	5.0
K3.5-C35	35	9.2	5.0
K3.5-C50	50	10.4	5.0
K3.5-C70	70	11.5	5.0
K3.5-C14	Insulated Sleeve	14.0	5.0
K3.5-C95	95	14.2	5.0
K3.5-C120	120	16.5	5.0
K3.5-C150	150	18.3	5.0

Aluminium K3.5 Dies available - Contact TEN for further information

Part No.	Size (mm ²)	Across Flats (mm)	Die Style
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Copper

M57-50	10	5.7	Cembre
M63-50	16	6.3	Cembre
M77-50	25	7.7	Cembre
M92-50	35	9.2	Cembre
M104-50	50	10.4	Cembre
M115-50	70	11.5	Cembre
M142-50	95	14.2	Cembre
M165-50	120	16.5	Cembre
M200-50	185	20.0	Cembre

ABC

M173-50	35-70	17.3	Cembre
M215-50	95-150	21.5	Cembre

Cutting Die

MB52-50	Cutting Die	10.0	Cembre
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Dies, Series 4 Suits EK354CFM



Dies, Cembre Style Suits EK50CFM





12 Tonne Dies, Aluminium - K12 Series

Aluminium

Part No.	Size (mm ²)	Across Flats (mm)	Crimp Width (mm)
K12-09.0-AL	6-35	9.0	22.0
K12-13.2-AL	50-70	13.2	22.0
K12-17.3-AL	95-120	17.3	22.0
K12-22.0-AL	150-185	22.0	18.0
K12-28.4-AL	240-300	28.4	18.0

Overhead

K12-14.0-AL	7/2.25	14.0	22.0
K12-14.5-AL	7/2.50	14.5	22.0
K12-14.8-AL	19/2.00-19/2.11	14.8	22.0
K12-18.0-AL	7/3.00-7/3.75	18.0	22.0
K12-19.0-AL	7/4.50	19.0	22.0
K12-22.0-AL	19/3.25	22.0	18.0
K12-25.4-AL	19/3.75 Cabac	25.4	18.0
K12-26.2-AL	19/3.75 Utilux	26.2	18.0
K12-30.3-AL	19/4.75	30.3	18.0

ABC

K12-14.0-ABC	10-35	14.0	9.0
K12-17.3-ABC	50-70	17.3	9.0
K12-21.5-ABC	95-120-150	21.5	9.0

Special

K12-16.6-AL	SPECIAL	16.6	22.0
K12-21.5-AL	SPECIAL	21.5	18.0
K12-23.1-AL	SPECIAL	23.1	18.0
K12-24.2-AL	SPECIAL	24.2	18.0
K12-24.9-AL	SPECIAL	24.9	18.0
K12-25.0-AL	SPECIAL	25.0	18.0
K12-30.0-AL	SPECIAL	30.0	18.0

Steel

K12-06.8-ST	Inner Steel ACSR	6.8	10
K12-07.5-ST	Inner Steel ACSR	7.5	10
K12-09.5-ST	Inner Steel ACSR	9.5	10

Nest & Indent UG - Aluminium Sector

Conductor Size (mm ²)	3 Core		4 Core	
	Nest Part No.	Indent Part No.	Nest Part No.	Indent Part No.
120mm ²	K12-ANEST12	K12-A-INDENT-16	K12-ANEST14	K12-A-INDENT-16
150mm ²	K12-ANEST12	K12-A-INDENT-18	K12-ANEST14	K12-A-INDENT-18
185mm ²	K12-ANEST12	K12-A-INDENT-18	K12-ANEST15	K12-A-INDENT-18
240mm ²	K12-ANEST12	K12-A-INDENT-19	K12-ANEST15	K12-A-INDENT-19
300mm ²	K12-ANEST12	K12-A-INDENT-19	K12-ANEST15	K12-A-INDENT-19

NOTE: Sector Rounding Dies available - Contact TEN for further information

Please Note: This die selection chart is produced as a guide only.

Please check with your Lug/Link manufacturer for AF sizes and tonnage.

Cutting Die 12 Tonne Cutting

Part No. 00949

Material	Size (mm) OD
Guy Wire/Soft Steel/ Steel Rod	16.0
ACSR/AL/CU	17.5

Features

- Can be used on all 12 Tonne "C-Head" style Crimpers
- Heavy duty design

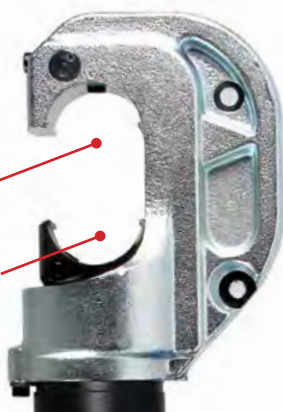
Benefits

- Lower cost than standard dedicated cutting tools

Material Capture Half



Cutting Half



Suitable for all brands of 12T battery, manual and remote head hydraulic compression tools

Custom 12 Tonne Die Kits available
Contact TEN for further information



Nest Die Half
(K12-ANEST**)



Indent Die Half
(K12-A-INDENT-**)



**12 Tonne Die Kits available
Contact TEN
for further information**



20 Compartment Metal Die Box
Part No. 54439-A

**Suitable for all brands of
12T battery, manual and
remote head hydraulic
compression tools**



**12T Crimping Head
Part No. PK12042FPC**



**12T Crimping Tool
Part No. EK12042FSCFM**



**12T Manual Crimping Tool
Part No. HK12042**

12 Tonne Dies, Copper - K12 Series

Copper

Part No.	Size (mm ²)	Across Flats (mm)	Crimp Width (mm)
K12-04.4-CU	6	4.4	6.35
K12-05.7-CU	10	5.7	6.35
K12-06.3-CU	16*	6.3	17.5
K12-07.7-CU	25*	7.7	17.5
K12-09.2-CU	35*	9.2	17.5
K12-10.4-CU	50*	10.4	17.5
K12-11.5-CU	70*	11.5	17.5
K12-14.2-CU	95*	14.2	17.5
K12-16.5-CU	120*	16.5	14.0
K12-18.3-CU	150*	18.3	14.0
K12-20.0-CU	185*	20.0	14.0
K12-23.1-CU	240*	23.1	10.0
K12-26.0-CU	300*	26.0	10.0
K12-28.1-CU	400*	28.1	10.0

Copper Die Set * Indicates Dies included in the set below

K12CUSET-16-400	16mm ² to 400mm ² (12 Dies) Including 20 Compartment Metal Box
K12CUSET16-400NB	16mm ² to 400mm ² (12 Dies) No Box

Overhead

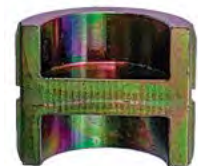
K12-08.3-CU	7/1.63 & 7/1.70	8.3	9.0
K12-09.2-CUOH	7/2.00 - 7/2.03	9.2	9.0
K12-11.5-CUOH	7/2.62	11.5	9.0
K12-13.0-CU	37/.064 - 19/2.11	13.0	17.5
K12-13.2-CU	19/1.70	13.2	17.5
K12-14.8-CU	19/2.00 - 19/2.11	14.8	9.0
K12-19.3-CU	19/2.75	19.3	14.0

Special

K12-08.2-CU	SPECIAL	8.2	9.0
K12-19.0-CU	SPECIAL	19.0	22.0
K12-22.0-CU	SPECIAL	22.0	10.0
K12-CSFLAT9	FLAT Face half only	**Determined by lug size	9.9

** Contact Lug manufacturer for hex half

**Flat Face Half
K12-CSFLAT9**



Copper Screen

Part No.	Across Flats (mm)	Crimp Width (mm)
K12-07.5-CS	7.5	16.0
K12-12.7-CS	12.7	14.0
K12-14.0-CS	14.0	18.0

Dies for "C" Style Earthing Connectors

Part No.	Burndy Part No.	Cabac Part No.
K12-U1011	U1011	HT130-C1011
K12-U997	U997	HT130-C997
K12-UC	UC	HT130-CC
K12-UO	UO	HT130-CO

Please Note: This die selection chart is produced as a guide only.
Please check with your Lug/Link manufacturer for AF sizes and tonnage.



Klauke®



HK6022

HK12042



REL-510



See page B38 to B40 for
Hydraulic Pumps &
Page 36 for Hoses

Crimpers, Hand Operated - Hydraulic

- Two stage double acting hydraulics
- Manual pressure release at any stage
- Ram extends during up & down operation
- Tools supplied with case

Part No.	HK6022	HK12042	REL-510
Head Rotation	360°	360°	180°
Crimping Force (T)	6	12	10.8
Pressure (PSI)	10,000	10,000	10,000
Safety Valve	Yes	Yes	Yes
Length (mm)	460	560	635
Max Crimp (mm ²)			
Cu	300	400	380
Al	240	240	380
Specific Features	Auto-Retract, Locking Handle Mechanism	Auto-Retract, Locking Handle Mechanism	Magnetic Reservoir Traps Contaminants
Accepts Die Type	Standard 6 T "C"/"U" Type dies	Standard 12 T "C"/"U" Type dies	Standard 12 T "C"/"U" Type dies
Storage Device Supplied	Steel Box with Die Compartments	Steel Box with Die Compartments	Steel Box with Die Compartments
Weight (kg)	3.3	5.9	6.6

Crimpers, Remote Head - Hydraulic

12 Tonne Crimpers, Remote Head - Hydraulic



LOW
PRESSURE

	12T Crimping Head	Multi Head	12T Crimping Head
Part No.	PK12042FPC	PK120UNVC	LPK1240-A
Force (T)	12	12	12
Head Type	"C"	Flip Top	"C"
Pressure (PSI)	10,000	10,000	2,250
Jaw Opening (mm)	42	42	42
Length (mm)	302	330	515
Accepts Die Type	Standard 12T "C"/"U"	Standard 12T "C"/"U"	Standard 12T "C"/"U"
Die Capacity (mm ²)			
Cu	400	400	400
Al	300	300	300
Specific Features	No Pinch Point on Ram	See Page 31 for Multi Tool adaptors	Low Pressure
Weight (kg)	4.4	3.4	8.9



25 Tonne Crimp Head - Single Acting

Part No. PK252C

- Crimps CU to 630mm² & AL to 500mm²
- Twist-lock die retaining pin hold die in place
- Strap on pin prevents loss of die retainer
- High Pressure Coupler included

Klauke®


Force (T)	25
Head Type	"U"/"H"
Pressure (PSI)	10,000
Length (mm)	335
Accepts Die Type	25T Dies
Weight (kg)	5.3
Die Capacity (mm ²)	
Cu	625
Al	500

Dies, 25 Tonne

Aluminium Dies

Part No.	Type	Across Flats (mm)	Conductor	Crimp Width (mm)
K25-30.0-AL	Al	30.0	19/3.75 AAAC	25
K25-39.0-AL	Al	39.0	400/500	25

Copper Dies

Part No.	Type	Across Flats (mm)	Conductor	Crimp Width (mm)
K25-18.3-CU	Cu	18.3	150	16.0
K25-20.0-CU	Cu	20.0	185	16.0
K25-23.1-CU	Cu	23.1	240	16.0
K25-26.0-CU	Cu	26.0	300	16.0
K25-28.1-CU	Cu	28.1	400	16.0
K25-31.0-CU	Cu	31.0	500	16.0
K25-37.0-CU	Cu	37.0	630	12.2

ACSR Dies

Part No.	Type	Across Flats (mm)	Crimp Width (mm)	Conductor
K25-28.5-AL	ACSR	28.5	27.0	30/7/2.50 GRAPE

ACSR Dies Inner Steel Dies

Part No.	Type	Across Flats (mm)	Crimp Width (mm)	Conductor
K25-16.0-ST	ACSR	16.0	17.0	Inner for GRAPE

25T Crimping Dies



12T Die Adaptor



Die Adapter, 25T to 12T

Part No.	Description
AU230-130D	Adaptor for 25T crimpers to suit 12T Dies

[See pages B12 & B13 for 12T Dies](#)

Please Note: This die selection chart is produced as a guide only.
Please check with your Lug/Link manufacturer for AF sizes and tonnage.



45 Tonne Crimp Head - Single Acting

Part No. HP45T-SA-A

This lightweight head is utilised for crimping larger overhead joints, terminations and underground lugs or connectors.

(Supplied with leather die locating pin strap not a carry handle)

Features

- High pressure 10,000PSI, Single Acting
- Spring Return
- 20mm Stroke
- Quick coupler for easy disassembly
- Dimensions 360 x 175 x 210mm
- Crimping capacity Cu 800 Al 630mm²
- Steel AF Ø 20mm



Output Force (T)	45
Crimping Capacity (mm ²)	800 Cu/630 Al
Working Pressure (PSI)	10,000
Weight (kg)	11.0

Dies, 45 Tonne

Aluminium

Part No.	Across Flats (mm)	Conductor	Crimp Width (mm)
K45-28.3-AL	28.3	240/300	50.0
K45-39.0-AL	39.0	400/500	50.0
K45-43.2-AL	43.2	630	50.0

ACSR/AAC/AAAC

Part No.	Across Flats (mm)	Conductor	Crimp Width (mm)
K45-22.0-AL	22.0	ACSR/AAC/AAAC	50.0
K45-28.5-AL	28.5	ACSR/AAC/AAAC	50.0
K45-30.0-AL	30.0	ACSR/AAC/AAAC	50.0
K45-34.5-AL	34.5	ACSR/AAC/AAAC	50.0
K45-40.0-AL	40.0	ACSR/AAC/AAAC	50.0
K45-44.5-AL	44.5	ACSR/AAC/AAAC	50.0
K45-47.5-AL	47.5	ACSR/AAC/AAAC	50.0
K45-48.0-AL	48.0	ACSR/AAC/AAAC	45.0

ACSR Inner Steel

Part No.	Across Flats (mm)	Conductor	Crimp Width (mm)
K45-9.5-ST	9.5	Inner Steel	19.0
K45-16.0-ST	16.0	Inner Steel	19.0
K45-17.0-ST	17.0	Inner Steel	19.0
K45-19.0-ST	19.0	Inner Steel	19.0
K45-18.0-ST	18.0	Inner Steel	19.0
K45-20.0-ST	20.0	Inner Steel	19.0

Copper

Part No.	Across Flats (mm)	Conductor	Crimp Width (mm)
K45-23.1-CU	23.1	240	25.0
K45-26.0-CU	26.0	300	25.0
K45-28.1-CU	28.1	400	25.0
K45-31.0-CU	31.0	500	25.0
K45-37.0-CU	37.0	630	25.0
K45-43.2-CU	43.2	800	25.0
K45-48.0-CU	48.0	1000	25.0



45T Copper Die



45T Aluminium Die

Please Note: This die selection chart is produced as a guide only. Please check with your Lug/Link manufacturer for AF sizes and required tonnage.



60 Tonne - Crimp Head - Single Acting

Part No. HP60T-SA-A

Lightweight, single acting 60T press head/crimper for use with standard 60T C Dies

Features

- Crimping capacity Cu/Al 1000mm²
- Crimping capacity Steel AF Ø 26mm High pressure 10,000PSI, Single Acting
- Spring Return
- Quick coupler for easy disassembly
- Top of the head rotates 90 degrees and can be lifted off to remove completed connection

Output Force (T)	60
Working Pressure (PSI)	10,000
Crimping Capacity	Cu/Al 1000 mm ² & Steel 26mm Across Flats
Weight (kg)	22.0
Packing	Steel case

Dies, 60 Tonne

- Commonly referred to as "C" or "U" type dies
- Rectangular Dies also available

Copper

Part No.	Type	Conductor	Across Flats (mm)	Width (mm)
K60-23.1-CU	Cu	240	23.1	25.0
K60-26.0-CU	Cu	300	26.0	25.0
K60-28.1-CU	Cu	400	28.1	25.0
K60-31.0-CU	Cu	500	31.0	25.0
K60-37.0-CU	Cu	630	37.0	25.0
K60-43.2-CU	Cu	800	43.2	25.0
K60-48.0-CU	Cu	1000	48.0	25.0

Aluminium

Part No.	Type	Conductor	Across Flats (mm)	Width (mm)
K60-28.3-AL	Al	240-300	28.3	50.0
K60-39.0-AL	Al	400-500	39.0	50.0
K60-43.2-AL	Al	630	43.2	50.0
K60-52.5-AL	Al	800-1000	52.5	40.0

AAC/AAAC/ACSR

Part No.	Type	Across Flats (mm)	Width (mm)
K60-28.5-AL	Al	28.5	50.0
K60-34.5-AL	Al	34.5	50.0
K60-40.0-AL	Al	40.0	50.0
K60-44.5-AL	Al	44.5	50.0
K60-47.5-AL	Al	47.5	45.0
K60-48.0-AL	Al	48.0	45.0

ACSR Steel Inner

Part No.	Type	Across Flats (mm)	Width (mm)
K60-16.0-ST	Steel Inner	16.0	19.0
K60-17.0-ST	Steel Inner	17.0	19.0
K60-18.0-ST	Steel Inner	18.0	19.0
K60-19.0-ST	Steel Inner	19.0	19.0



60T Aluminium Die

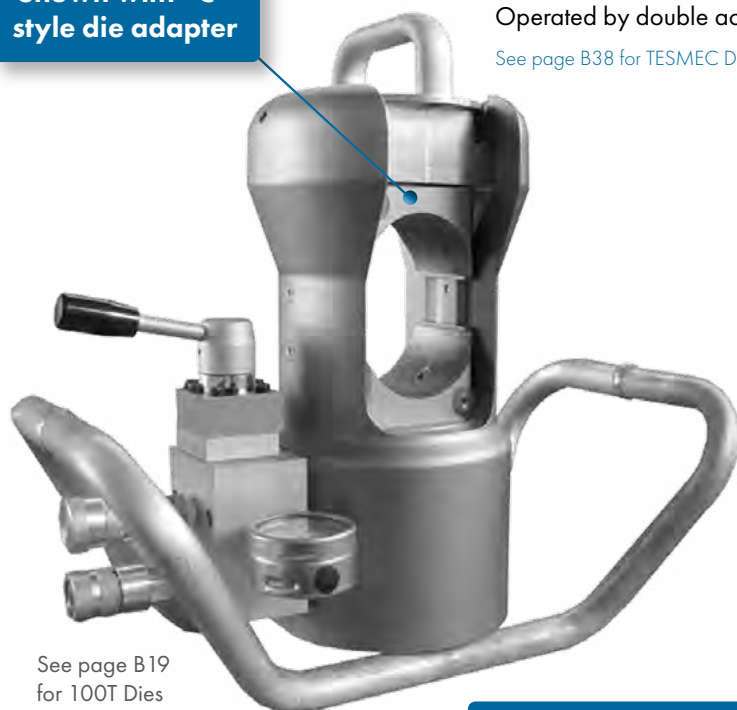


60T Steel Die

Please Note: This die selection chart is produced as a guide only. Please check with your Lug/Link manufacturer for AF sizes and required tonnage.



Part No. PRT510
Shown with "C"
style die adapter



See page B19
for 100T Dies

100 Tonne Crimp Head - Double Acting - TESMEC

Part No. PRT510

Lightweight, double acting high pressure 100T press head/crimper for use with 100T Dies. Includes Directional Valve and pressure gauge, which allows the operator to control the crimp at the crimp head.

Operated by double acting hydraulic pump.

See page B38 for TESMEC Double Acting Hydraulic Pumps



Features

- Excellent power/weight ratio
- Very short pressing cycle
- Includes adaptor for Izumi Dies

Output Force (T)	100
Rated Pressure (PSI)	10,000
Crimping Capacity (mm ²)	Max Cu/Al 1000 Max Steel AF 36(mm)
Dimensions (mm)	480H x 255W x 405L
Weight (kg)	34.5 Including Valve & Frame

Lightweight



100 Tonne Crimp Head - Double Acting

Part No. HP100T-DA-A

Double acting high pressure 100T press head/crimper for use with 100T Dies

Features

- High pressure 10,000PSI, Double Acting Hydraulic
- Accepts 100T Izumi Style Dies
- Quick couplers for easy hydraulic assembly and disassembly
- Top of the head rotates 90 degrees and can be lifted off to remove completed connection



Output Force (T)	100
Rated Pressure (PSI)	10,000
Crimping Capacity (mm ²)	Max Cu/Al 1000 Max Steel AF 36(mm)
Weight (kg)	31 Crimp body only
Packing	Steel case

See page B19 for 100T Dies

100 Tonne Crimp Head - Single Acting - Klauke

Part No. PK1000C

- Single acting crimping head for connection with hydraulic drive units
- Crimps cable lugs and connectors of up to a maximum cross section of 1600mm²
- The nickel plated surface of the crimping head is resistant against environmental conditions
- Quick coupling
- Robust and compact design
- Lightweight with excellent stability even under load

Crimping Capacity (mm ²)	Up to 1600
Output Force (T)	100
Rated Pressure (PSI)	10,000
Stroke (mm)	25
Weight (kg) without dies	27
Weight with dies (kg)	33

Dies, 100 Tonne

- Commonly referred to as "C" or "U" type dies
- Rectangular Dies also available

Aluminium

Part No.	Type	Across Flats (mm)	Crimp Width (mm)
K100-21.0-AL	Al	21.0	75.0
K100-25.6-AL	Al	25.6	75.0
K100-28.3-AL	Al	28.3	75.0
K100-28.5-AL	Al	28.5	75.0
K100-30.0-AL	Al	30.0	75.0
K100-34.5-AL	Al	34.5	75.0
K100-36.22-AL	Al	36.22	75.0
K100-37.0-AL	Al	37.0	75.0
K100-39.0-AL	Al	39.0	75.0
K100-40.0-AL	Al	40.0	75.0
K100-40.21-AL	Al	40.21	75.0
K100-43.2-AL	Al	43.2	75.0
K100-44.5-AL	Al	44.5	75.0
K100-47.5-AL	Al	47.5	75.0
K100-48.0-AL	Al	48.0	75.0
K100-49.71-AL	Al	49.71	75.0

Steel

Part No.	Type	Across Flats (mm)	Crimp Width (mm)
K100-07.5-ST	Steel Inner	7.5	35.0
K100-09.5-ST	Steel Inner	9.5	35.0
K100-11.0-ST	Steel Inner	11.5	35.0
K100-16.0-ST	Steel Inner	16.0	35.0
K100-17.0-ST	Steel Inner	17.0	35.0
K100-18.0-ST	Steel Inner	18.0	35.0
K100-19.0-ST	Steel Inner	19.0	35.0
K100-20.0-ST	Steel Inner	20.0	35.0
K100-20.22-ST	Steel Inner	20.22	35.0
K100-26.0-ST	Steel Inner	26.0	35.0

Please Note: This die selection chart is produced as a guide only.
Please check with your Lug/Link manufacturer for AF sizes and tonnage.



100T Aluminium Die

Custom Sizes available upon request





The new standard **Klauke** **Next Generation** Cutting Tools

Next Generation battery-powered hydraulic cutting tools from Klauke offer impressive power, excellent balance, sturdy construction and renowned reliability.

Nothing less than what you would expect from Germany's premier hydraulic tool manufacturer.

Every tool is designed to effortlessly cut, with features designed to ensure comfort, balance and ease of operation.

Improvements with handling and power delivery, along with data recording and operational feedback ensure Klauke Next Generation offer the best engineered cutting tools for today and tomorrow.

Klauke ESGM452CFM

Cuts ACSR, Al, Cu and Steel

Efficient and powerful cutting jaws

Cuts material up to 45mm

See page B25 for details



Klauke®
**NEXT
GENERATION**

Klauke Next Generation Performance

Quality build and reliability from Klauke

Check the tool status using the display or via the i-press app

Powerful Makita battery ensuring consistent operation

Effortless operations through innovative design



Klauke
NEXT
GENERATION



**Efficient 8mm
Cutting Capacity**

**FAST Ideal
for cutting
cable tray**



SCAN or
CLICK
to View
Operation
Video



Cutters - Battery Powered

8mm Bolt Cutter

Part No. EBS8CFM

- For cutting cable trays, bolts and medium-hard steel wire
- Ideal in confined areas: narrow cutting head
- All tool data can be viewed using on-tool display and i-press app

Features

- Makita battery system
- All data can be easily read via Bluetooth
- Open head, rotatable 330°
- One-button controlling all tool functions

Order Information

Part No.	Description
EBS8CFM-O	Tool skin and case
EBS8CFM-K	Tool, 2 x 1.5Ah batteries, charger and case

Technical Data

Cutting Force (kN)	15
Cutting Range (mm)	max 8 diameter
Cutting Time (s)	approx. 1 (depending on material thickness)
No. of Cuts	approx 300 for bolts 5mm diameter
Battery	Makita 18V 1.5Ah, Li-Ion*
Charging Time (min)	15
Weight (kg)	1.55 including battery

*See page B37 for battery and charger information

12mm Bolt Cutter

Part No. EBS12CFM

- For cutting, shipping container seals, cable trays, bolts and medium-hard steel wire
- Ideal in confined areas: narrow cutting head
- All tool data can be viewed using on-tool display and i-press app

Features

- Makita battery system
- All data can be easily read via Bluetooth
- Open head, rotatable 330°
- One-button controlling all tool functions
- Ergonomic balanced centre of gravity

Order Information

Part No.	Description
EBS12CFM-O	Tool skin and case
EBS12CFM-K	Tool, 2 x 1.5Ah batteries, charger and case

Technical Data

Cutting Force (kN)	45
Cutting Range (mm)	max 12 diameter
No. of Cuts	approx 300 for bolts 5mm diameter
Battery	Makita 18V 1.5Ah, Li-Ion*
Charging Time (min)	15
Weight (kg)	2.05 including battery

*See page B37 for battery and charger information



**Ideal for cutting
shipping
container seals**

**12mm
cutting
capacity**



**Klauke®**
NEXT
GENERATION**Compact**
Ideal for confined
work areas
i.e switchboard &
domestic UG pits**Also Available in 1000V**
Insulated Version -
For more information
see page B34**20mm Cutter, ACSR/AL/CU****Part No. ES20CFM**

- For cutting Al/St conductors (ACSR), solid Cu cables and laminated copper bus bars
- Extremely robust design and lightweight
- Slim cutting head - ideal when space is critical
- All tool data can be viewed using on-tool display and i-press app

Features

- Makita battery system
- All data can be easily read via Bluetooth
- One-button controlling all tool functions
- Ergonomic balanced centre of gravity
- Open head, rotatable 330°

Technical Data

Cutting Force (kN)	23
Cutting Range (mm)	Max 20 dia. dependent on cable type
Battery	Makita 18V 1.5Ah, Li-Ion*
Charging Time (min)	15
Weight (kg)	2.15 including battery

*See page B37 for battery and charger information

Suitable for
ACSR,
Al & Cu**Order Information**

Part No.	Description
ES20CFM-O	Tool skin and case
ES20CFM-K	Tool, 2 x 1.5Ah batteries, charger and case

- LED Display
- Automatic retraction when operation is complete
- LED for work area illumination
- Visible and audible signals
- Battery charge and service display

20mm Remote Control Cutter, ACSR/AL/CU**Part No. ES20RMCCFM**

When cutting overhead lines, there is always the risk of coming into contact with the tool or an electric arc from a live adjacent conductor. With the new Klauke remote controlled cutting tool you remain on the ground at a safe distance.

Features

- Sunrise Adaptor suits universal heads & telescopic sticks
- Can be switched between manual & remote
- Open head is rotatable 330°
- Ergonomic balanced centre of gravity, even when used with a telescopic hot-stick pole
- LED for work area illumination
- Quick motor stop for high user safety
- Automatic retraction when operation is complete
- Saves energy: motor stops after the operation
- Simple one-hand control via remote control
- Powerful Makita battery enables longer on-site operation between charges

Order Information

Part No.	Description
ES20RMCCFM-O	Tool skin and case
ES20RMCCFM-K	Tool, 2 x 1.5Ah batteries, charger and case

Technical Data

Head Type	Open
Battery	Makita 18V 1.5Ah, Li-Ion*
Bluetooth Range (m)	20
Weight (kg)	2.15 including battery

*See page 37 for battery and charger information

Perfect for cutting
away lightning
arrestor leads

Remote

SCAN or
CLICK to see
the Remote
Cutter in
action



Suitable for
Stay wire
& ACSR



SCAN or
CLICK to see
the Cutter in
action



Also Available in 1000V
Insulated Version -
For more information
see page 34



25mm Cutter, ACSR/Stay Wire/AL/CU

Part No. ESG25CFM

- Suitable for cutting Stay Wire, Al/St cables (ACSR), Cu, Al, St as well as armoured cables & solid structural steel
- Lightweight robust design
- Slim cutting head - ideal when space is critical
- All tool data can be viewed using on-tool display and i-press app

Order Information

Part No.	Description
ESG25CFM-O	Tool skin and case
ESG25CFM-K	Tool, 2 x 1.5Ah batteries, charger and case



SCAN or CLICK for correct use video

Features

- All data can be easily read via Bluetooth
- Closed flip top head style, rotatable 350°
- One-button controlling all tool functions
- Balanced Centre of Gravity
- Automatic retraction when operation is complete
- LED Display
- LED for work area illumination
- Manual retract stop (MRS) for efficient operations
- Visible and audible signals
- Battery charge and service display

Technical Data

Cutting Force (kN)	60
Cutting Range (mm)	Max 25 dia. dependent on cable type
Battery	Makita 18V 1.5Ah, Li-Ion*
Charging Time (min)	15
Weight (kg)	2.35 including battery

*See page 37 for battery and charger information

25mm Cutter, ACSR/AL/CU

Part No. ESM25CFM

- For cutting open wires AL/CU/ACSR & stay wires
- Slim Parrot Beak cutting head ideal when space is critical
- All tool data can be viewed using on-tool display and i-press app

Features

- All data can be easily read via Bluetooth
- One-button controlling all tool functions
- Balanced Centre of Gravity
- Parrot Beak Head, rotatable 350°
- Automatic retraction when operation is complete
- LED for work area illumination
- Visible and audible signals
- LED Display

Technical Data

Cutting Force (kN)	67
Cutting Range (mm)	ACSR Max 25 dia. Stay wires Max 12 dia.
Battery	Makita 18V 1.5Ah, Li-Ion*
Charging Time (min)	15
Weight (kg)	2.9 including battery

*See page 37 for battery and charger information

Suitable for
ACSR,
Al & Cu

Order Information

Part No.	Description
ESM25CFM-O	Tool skin and case
ESM25CFM-K	Tool, 2 x 1.5Ah batteries, charger and case

**Klauke®**
NEXT
GENERATION**Suitable
for Al & Cu
conductors**

32mm Cutter, AL/CU

Part No. ES32CFM

- Extremely robust design and lightweight
- Slim cutting head - ideal when space is critical
- All tool data can be viewed using on-tool display and i-press app
- Suitable for Al and CU conductors only

Features

- Makita battery system
- All data can be easily read via Bluetooth
- One-button controlling all tool functions
- Effortless working due to balanced centre of gravity
- Open head, rotatable 330°

Order Information

Part No.	Description
ES32CFM-O	Tool skin and case
ES32CFM-K	Tool, 2 x 1.5Ah batteries, charger and case

- Automatic retraction when operation is complete
- LED for work area illumination
- LED display for showing tool data including visible and audible signals
- Battery charge and service display

Technical Data

Cutting Force (kN)	15
Cutting Range (mm)	Max 32 dia. dependent on cable type
Battery	Makita 18V 1.5Ah, Li-Ion*
Charging Time (min)	15
Weight (kg)	2.15 including battery

*See page B37 for battery and charger information

32mm Remote Control Cutter, AL/CU

Part No. ES32RMCCFM

When cutting overhead lines, there is always the risk of coming into contact with the tool or an electric arc from a live adjacent conductor. With the new Klauke remote controlled cutting tool you remain on the ground at a safe distance.

Features

- LED Display
- Sunrise Adaptor suits universal & telescopic sticks
- Operation can be switched between manual / remote
- Open head is rotatable 330°
- Ergonomic balanced centre of gravity, even when used with a telescopic hot-stick pole
- LED for work area illumination
- Quick motor stop for high user safety
- Automatic retraction when operation is complete
- Saves energy: motor stops after the operation
- Simple one-hand control via remote control
- Powerful Makita battery enables longer on-site operation between charges

Order Information

Part No.	Description
ES32RMCCFM-O	Tool skin and case
ES32RMCCFM-K	Tool, 2 x 1.5Ah batteries, charger and case

Technical Data

Head Type	Open
Cutting Range (mm)	Max 32 dia.
Battery	Makita 18V 1.5Ah, Li-Ion*
Bluetooth Range (m)	20
Weight (kg)	2.30 including battery

*See page B37 for battery and charger information

Scan or Click below
to see the Remote
Cutter in action**Perfect for cutting
away lightning
arrestor leads****Suitable
for Al & Cu
conductors****Also Available in 1000V Insulated Version**
For more information see page B35



45mm Cutter, ACSR/Stay Wire/Armoured/AL/CU

Part No. ESGM452CFM

- High cutting force cuts armoured CU and AL cables, ACSR & Stay Wires
- Cuts stranded copper cables
- Extremely robust design and lightweight
- Slim cutting head - ideal when space is critical
- All tool data can be viewed using on-tool display and i-press app

Features

- All data can be easily read via Bluetooth
- Closed head with bolt interlock, flip top style, rotatable 330°
- One-button controlling all tool functions
- Effortless working due to balanced centre of gravity
- Automatic retraction when operation is complete
- Manual Retract Stop (MRS) for efficient operations
- 2 stage hydraulic system with fast feed

and power stroke

- LED for work area illumination
- LED display for showing tool data including visible and audible signals
- Battery charge and service display

Order Information

Part No.	Description
ESGM452CFM-O	Tool skin and case
ESGM452CFM-K	Tool, 2 x 1.5Ah batteries, charger and case

Technical Data

Cutting Force (kN)	70
Cutting Range (mm)	Max 45 diameter
Battery	Makita 18V 4.0Ah, Li-Ion*
Charging Time (min)	36
Weight (kg)	4.6 including battery

*See page B37 for battery and charger information

45mm Cutter, ACSR/Stay Wire/AL/CU

Part No. ESG45CFM

- High cutting force cuts armoured CU and AL cables, ACSR & Stay Wires
- Also suitable for round material made of Al, Cu and steel
- Extremely robust design and lightweight
- Slim cutting head - ideal when space is critical
- All tool data can be viewed using on-tool display and i-press app

Features

- All data can be easily read via Bluetooth
- Closed head with bolt interlock, flip top style, rotatable 350°
- One-button controlling all tool functions
- Effortless working due to balanced centre of gravity
- Manual Retract Stop (MRS) for efficient operations
- 2 stage hydraulic system with fast feed and power stroke

- Automatic retraction when operation is complete
- LED for work area illumination
- LED display for showing tool data including visible and audible signals
- Battery charge and service display

Order Information

Part No.	Description
ESG45CFM-O	Tool skin and case
ESG45CFM-K	Tool, 2 x 4.0Ah batteries, charger and case

Technical Data

Cutting Force (kN)	70
Cutting Range (mm)	Max 45 diameter
Battery	Makita 18V 4.0Ah, Li-Ion*
Charging Time (min)	36
Weight (kg)	5.9 including battery

Quick release
Flip Top Cutting Head

The most powerful
cutter in its class.
Armoured/Al/
ACSR/Cu
up to 45mm



Suitable for
ACSR



SCAN or
CLICK
to see the
Cutter in
action



Klauke
NEXT
GENERATION

Suitable for
Al & Cu

Streamline design
makes the ESM50
ideal for cutting
larger cables in
confined spaces



50mm Cutter, AL/CU

Part No. ESM50CFM

- For cutting copper and aluminium cables
- Very high cutting capacity thanks to innovative cutting geometry
- All tool data can be viewed using on-tool display and i-press app



Features

- Makita battery system
- All data can be easily read via Bluetooth
- Open head, rotatable 350°
- One-button controlling all tool functions
- Ergonomic balanced centre of gravity
- Automatic retraction when operation is complete
- Manual Retract Stop (MRS) for efficient operations

- LED for work area illumination
- LED display for showing tool data including visible and audible signals
- Battery charge and service display

Order Information

Part No.	Description
ESM50CFM-O	Tool skin and case
ESM50CFM-K	Tool, 2 x 4.0Ah batteries, charger and case

Technical Data

Cutting Force (kN)	38
Cutting Range (mm)	Max 50 diameter
Battery	Makita 18V 4.0Ah, Li-Ion*
Charging Time (min)	36
Weight (kg)	3.0 including battery

*See page B37 for battery and charger information

Suitable
for Al & Cu
& ACSR

55mm Cutter, ACSR/AL/CU

Part No. ESG55CFM

- High cutting force cuts armoured CU and AL cables, ACSR & Stay Wires
- Also suitable for round material made of Al, Cu and steel
- All tool data can be viewed using on-tool display and i-press app

Features

- Makita battery system
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, flip top style, rotatable 350°
- One-button controlling all tool functions
- Effortless working due to balanced centre of gravity
- Automatic retraction when operation is complete
- Manual Retract Stop (MRS) for efficient operations

- 2 stage hydraulic system with fast feed and power stroke
- LED for work area illumination
- LED display for showing tool data including visible and audible signals
- Battery charge and service display

Order Information

Part No.	Description
ESG55CFM-O	Tool skin and case
ESG55CFM-K	Tool, 2 x 4.0Ah batteries, charger and case

Technical Data

Cutting Force (kN)	120
Cutting Range (mm)	Max 55 diameter
Battery	Makita 18V 4.0Ah, Li-Ion*
Charging Time (min)	36
Weight (kg)	8.2 including battery

*See page B37 for battery and charger information

One of the most versatile
and strongest 55mm cutters
on the market

120kN Cutting Force





Cutters, Battery Operated - 85mm & 105mm

Klauke®
**NEXT
GENERATION**



ES85CFM



ESG85CFM



ES105CFM



ESG105CFM

Cuts AL/CU/SWA

Features

- Powerful Makita battery system
- All data can be easily read via Bluetooth
- Open style head, rotatable 350°
- One-button controlling all tool functions
- Effortless working due to balanced centre of gravity
- Automatic retraction when operation is complete
- Manual Retract Stop (MRS) for efficient operations
- 2 stage hydraulic system with fast feed and power stroke
- LED for work area illumination
- LED display for showing tool data including visible and audible signals
- Battery charge and service display

85mm Battery Cutters

Part No. ES85CFM

- Large cutting capacity up to 85mm diameter
- Scissor style cutting head

Order Information

Part No.	Description
ES85CFM-0	Tool skin and case
ES85CFM-K	Tool, 2 x 4.0Ah* batteries, charger and case

**Cuts
AL/CU**

Part No. ESG85CFM

- Large cutting capacity up to 85mm diameter
- Suitable for CU, AL & SWA

Order Information

Part No.	Description
ESG85CFM-0	Tool skin and case
ESG85CFM-K	Tool, 2 x 4.0Ah* batteries, charger and case

**Cuts
AL/CU/SWA**

105mm Battery Cutters

Part No. ES105CFM

- Extremely large cutting area up to 105mm diameter
- Suitable for CU, AL & Lightweight SWA

Order Information

Part No.	Description
ES105CFM-0	Tool skin and case
ES105CFM-K	Tool, 2 x 4.0Ah* batteries, charger and case

**Cuts AL/CU/
Lightweight
SWA**

Part No. ESG105CFM

- Extremely large cutting area up to 105mm diameter
- Guillotine style cutting head
- Suitable for CU, AL & SWA

Order Information

Part No.	Description
ESG105CFM-0	Tool skin and case
ESG105CFM-K	Tool, 2 x 4.0Ah* batteries, charger and case



SCAN or
CLICK
to see the
ESG105 Cutter
in action

Technical Data

Part No.	ES85CFM	ESG85CFM	ES105CFM	ESG105CFM
Cutting Force (kN)	30	60	74	120
Cutting Range (mm)	Max 85 OD AL & CU	Max 85 OD AL, CU & SWA	Max 105 OD AL, CU & Lightweight SWA	Max 105 OD AL, CU & SWA
Battery	Makita 18V 4.0Ah, Li-Ion*			
Charging Time (min)	36			
Weight (kg)	6.9 including battery	6.8 including battery	9.6 including battery	10.7 including battery

* See page B37 for battery and charger information



Cutters, Battery Operated - Ratchet Style

Battery Operated Ratchet Cutters, designed for cutting a variety of OH Conductors & UG cables, including CU, AL & ACSR. Supplied with or without batteries and charger. Versatile Makita platform

**Cuts
ACSR**



Features

- Ergonomically designed
- One handed operation
- Makita 18V 3.0Ah Li-ion Battery & 230VAC Rapid Charger

52mm Cutter - ACSR

SUITABLE FOR ACSR

Part No. RCB-52-ACSR

- Cuts ACSR - Up to Max 300mm²
- Harden steel blade
- 52mm Jaw opening
- Popular Makita Battery Platform

Plastic Moulded case included



Order Information

Part No.	Description
RCB-52-ACSR-0	Tool skin & case
RCB-52-ACSR-K	Tool, 2 x 3.0Ah* Makita batteries, charger and case

50mm Cutter - AL/CU

SCISSOR STYLE OPEN JAW

Part No. RCB-50Y

- Scissor Style Head
- Ideal for Confined spaces
- Max 630mm²
- 50mm Jaw opening

Plastic Moulded case included



Order Information

Part No.	Description
RCB-50Y-0	Tool skin & case
RCB-50Y-K	Tool, 2 x 3.0Ah* Makita batteries, charger and case

65mm Cutter - AL/CU

IDEAL FOR LARGER CABLES

Part No. RCB-65N

- 65mm Jaw opening
- Max 1000mm²
- Ideal for larger UG cables
- Forward & Reverse mechanism

Plastic Moulded case included



Order Information

Part No.	Description
RCB-65N-0	Tool skin & case
RCB-65N-K	Tool, 2 x 3.0Ah* Makita batteries, charger and case

Technical Data

Part No.	Head Style	Cuts	Jaw opening (mm)	Capacity (mm)			Dimensions (mm) (L x W x H)	Wt (kg) Inc. Battery
				CU	AL	ACSR		
RCB-52ACSR	Ratchet	ACSR	52	-	-	22.5	190 x 110 x 320	3.9
RCB-50Y	Scissor Ratchet	AL / CU	50	32	32	-	160 x 110 x 370	4.4
RCB-65N	Ratchet	AL / CU	65	41.5	41.5	-	175 x 110 x 320	3.5



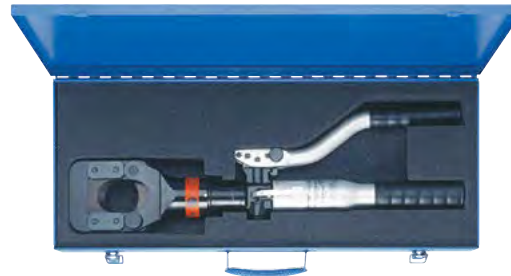
REL-58MC

REL-2000MC

Cutters, Hand Operated up to 85mm

- Two stage double acting hydraulics
- Ram extends on both open and closed operation
- Manual pressure release at any stage
- Flip top latch head
- Replaceable blades

Klauke®



HSG45

HSG85

Part No.	REL-58MC	REL-2000MC	HSG45	HSG85
Head Rotation (°)	180	360	360	360
Cutting Force (T)	5.3	8.8	6	6
Safety Valve	Yes	Yes	Yes	Yes
Length (mm)	400	610	560	680
	Maximum Cut OD (mm)			
Cu / Al	25	50	45	85
ACSR	25	50	45	X
Wire Rope	25	25	25	X
Standard Guy Wire	22	19	22	X
ReBar, Ground & Anchor Rods	16	19	20	X
Soft Steel Bolts	16	32	20	X
Specific Features	Auto-Retract, No Disassembly to Replace Moving Blade	Magnetic Reservoir traps contaminants, Release at any Stage	Auto-Retract, Handle Locking Mechanism	Auto-Retract, Handle Locking Mechanism
Storage Device Supplied	Carry Bag	Carry Bag	Steel Case	Steel Case
Weight (kg)	1.8	8.2	4.9	6.8

Cutters, Remote Head up to 105mm



Part No.	SDG105C	SDG852C	SDG45C	SDK20P33MC	SDK85C
Type	AL/CU/SWA	AL/CU/SWA	ACSR/AL/CU	ACSR/AL/CU	AL/CU/SWA
Cutting Range (mm)	max. 105 OD	max. 85 OD	max. 45 OD	max. 20 OD	max. 85 OD
Cutting Force (T)	12	6	6	1.5	3
Operating Pressure (PSI)	10,000	10,000	10,000	10,000	10,000
Length (mm)	432	445	340	202	450
Weight (kg)	7.7	4.3	3.8	2	5.2

* See Page B38 for Hydraulic Pumps - See page B47 for Hydraulic Hoses



Universal Tools, Battery Powered - Crimp/Cut/Punch

Klauke Next Generation Universal Tools - One tool for all your needs

Crimping, cutting or punching: Replaceable adapter and dies quickly adapt the tool to individual tasks. Lightweight and powerful: Crimping up to 400 mm², cutting up to 40 mm diameter or punching up to 92 x 92 mm, no problem at all for the Klauke Multi.

Crimping

Can be used with Series 5, 18 and 22 Series dies (6T)

Wide range crimping with Series 13 dies (12T)

Cross sections up to 400mm²

Simple adapter replacement

Cutting

A wide range of materials can be cut including aluminium, copper, threaded rods, profile rails, railway catenary wires

Cutting dies available for each application

Cutting range up to 40mm

Punching

Versatile punching with hole punch adapters available

Punch holes up to 64mm diameter (EK60 & EKM60)

NEXT GENERATION

All your
hydraulic
battery tools in
one box



SCAN OR CLICK TO VIEW VIDEO

SCAN or CLICK
to see Universal
Tool in action





Klauke®
**NEXT
GENERATION**

12 Tonne Universal Tool - Pistol Grip

Part No. EK120UNVCFM

- One head for crimping, cutting and punching - one tool for all
- Ideal for field operations where all common jobs can be carried out with just one tool
- Very large crimping range

Features

- Makita battery system
- All data can be easily read via Bluetooth
- Universal head with flip top style, rotatable
- One-button controlling all tool functions
- Automatic retraction after operation completed
- 2 stage hydraulic system with fast feed and power stroke
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- LED display for showing tool data
- Battery charge and service display

Quick release
flip-top head

12 Tonne
Die Adapter (included)

Rotatable Head

Ergonomic single
push button operation

LED Illumination of workspace

Genuine Makita Li-Ion Battery

LED display

Order Information

Part No.	Description
EK120UNVCFM-0	Tool skin, 12 Tonne Die Adapter and case
EK120UNVCFM-K	Tool, 12 Tonne Die Adapter, 2 x 4.0A batteries, charger and case

Technical Data

Crimping Force (kN)	108
Crimping Range (mm)	10-400
Number of Crimps	approx. 110 at 150mm Cu DiN
Cutting Range (mm)	max. 40 diameter
Punching Capacity (mm)	Up to 144 dia. round**
Battery	Makita 18V 4.0Ah, Li-Ion*
Charging Time (min)	36
Weight (kg)	7.35 including battery

*See page B37 for battery and charger information

10-400mm² Crimping capacity
40mm dia. Cutting Range
144mm dia. round punching

Universal Tool Adaptors

Accessories/Tool	EK120UNVCFM	EK60UNVCFM	EKM60UNVCFM
12 Tonne Die Adapter (included)	UA12T	Not Applicable	Not Applicable
6 Tonne Die Adapter (included)	Not Applicable	UA22	UA22
Cutter 40mm ACSR	UCASR	UCASR	UCASR
Cutter 40mm Al/Cu	UC40	UC40	UC40
Punch Adapter	UA12P (Up to 144mm)	UA12P (Up to 64mm)	UA12P (Up to 64mm)
Cutter - Rail Catenary	Upon Request	Upon Request	Upon Request
Cutter - Threaded Rod	Upon Request	Upon Request	Upon Request

**Square Punch & Dies available upon request

12T Die Adapter
Part No. UA12T



Cutting Die
Part No. UCACSR



Cutting Die
Part No. UC40



Punch Adaptor
Part No. UA12P

**Punch Dies and Draw studs
available - See Page B50**



Klauke®
**NEXT
GENERATION**



6-300mm² Crimping capacity
40mm mod. Cutting Range
64mm dia. Round punching

*See Page B31 for Accessories

6 Tonne Universal Tool - Pistol Grip

Part No. EK60UNVCFM

- One head for crimping, cutting and punching
- Ideal for field operations where all common jobs can be carried out with just one tool
- All tool data can be viewed using on-tool display and i-press app

Features

- Makita battery system
- All data can be easily read via Bluetooth
- Universal head with flip top style, rotatable 350°
- One-button controlling all tool functions
- Safety: Automatic retraction after operation completed
- 2 stage hydraulic system with fast feed and power stroke

Order Information

Part No.	Description
EK60UNVCFM-O	Tool skin and case
EK60UNVCFM-K	Tool, 2 x 4.0Ah batteries, charger, and case

- Balanced centre of gravity
- LED for work area illumination
- Battery charge and service display
- LED Display

Technical Data

Crimping Force (T)	6
Crimping Range (mm ²)	6-300
Cutting Range (mm)	max. 40 diameter (See page 31 for adapter)
Punching Capacity (mm)	Up to 64 dia. round (See page 31 for adapter)
Battery	Makita 18V 4.0Ah, Li-Ion*
Charging Time (min)	36
Weight (kg)	4.8 including battery

Klauke®
**NEXT
GENERATION**

6 Tonne
Die Adapter (included)

6-300mm² Crimping capacity
40mm mod. Cutting Range
64mm dia. round punching



6 Tonne Universal Tool - In-Line

Part No. EKM60UNVCFM

- One head for crimping, cutting and punching 330°
- Ideal in the assembly field where all common jobs can be carried out using one tool
- All tool data in view thanks to display and i-press

Features

- All data can be easily read via Bluetooth
- Quality assurance via visual and audible signals
- One-button controlling all tool functions
- Universal head flip top style, rotatable
- Balanced centre of gravity

Order Information

Part No.	Description
EKM60UNVCFM-O	Tool skin and case
EKM60UNVCFM-K	Tool, 2 x 1.5Ah batteries, charger, and case

- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Automatic retraction when operation is complete
- LED Display

Technical Data

Crimping Force (T)	6
Crimping Range (mm ²)	6-300
Cutting Range (mm)	max. 40 dia. (See page 31 for adapter)
Punching capacity (mm)	up to 64 dia. round (See page 31 for adapter)
Battery	Makita 18V 1.5Ah, Li-ion*
Charging Time (min)	15
Weight (kg)	3.0 including battery

*See page B37 for battery and charger information

Insulated Battery Tools

Your Safety is our priority

Klauke's Orange Line series of battery powered hydraulic cutting and crimping tools are the world's first of their kind, offering protection from electric shocks up to 1000 V. The TRI-INSULATION BARRIER, developed in-house, prevents voltage discharging between tool head and tool body. Every single tool is tested for compliance with the electrical requirements of IEC 60900 in their production process. This guarantees voltage protection up to 1000V.

TRI-INSULATION BARRIER



- 1. CREEPAGE DISTANCE**
CLEVER DESIGN ENSURES
MINIMUM 12.5MM DISTANCE
BETWEEN NON INSULATED PARTS
- 2. PA6 INSULATION**
PLASTIC HOUSING MATERIAL
WITH EXCELLENT INSULATING
PROPERTIES
- 3. DIELECTRIC OIL**
HYDRAULIC OIL WITH HIGH
DIELECTRIC INSULATING PROPERTY

- VDE tested and certified up to 1000V in accordance to the electrical requirements of IEC 60900.
- Insulation from the head provides protection for the operator.
- Bright Orange rubberised body provides non slip protection and differentiates from standard tools.

Working on or near live low-voltage parts up to 1000V is often part of every day work in certain sectors. The use of insulated manual hand tools in tight workspaces and exerting the force required to operate insulated manual hand tools poses a safety risk to the operator.

Klauke Orange tools offers battery-powered cutting and crimping that can significantly reduce operator risk by improving precision and safety in these hazardous work conditions.

**Klauke Insulated Tools
provide a safer option**




Klauke®
NEXT
GENERATION

Endless Rotating Head

Cuts
Cu, Al
& ACSR


1000V Insulated Battery Powered Tools

20mm Cutter, ACSR/AL/CU

Part No. ES20ISM

- Orange body for easy differentiation
- Insulated and VDE certified to 1000V for increased safety
- For cutting Al/St conductors (ACSR), Al/Cu cables and laminated copper bus bars
- All tool data in view thanks to the LCD display and Klauke i-press software

Features

- All data can be easily read via Bluetooth
- Visual and audible signals
- One-button controlling all tool functions
- Balanced centre of gravity
- Endless Rotatable head
- LED for illuminating work area
- Automatic retraction when operation is complete
- LED Display

Order Information

Part No.	Description
ES20ISM-O	Tool skin and case
ES20ISM-K	Tool, 2 x batteries, charger and case

MEETS
IEC 60900

Technical Data

Cutting Force (kN)	23
Cutting Range (mm)	Up to 20 dia (dependent on cable/wire type)
Battery	Makita 18V 1.5Ah, Li-ion*
Charging Time (min)	15
Weight (kg)	2.1 including battery

*See page B37 for battery and charger information

Klauke®
NEXT
GENERATION

Endless Rotating Head

Cuts
Cu, Al,
ACSR &
Stays


25mm Cutter, ACSR/AL/CU

Part No. ESM25ISM

- Orange body for easy differentiation
- Insulated and VDE certified to 1000V for increased safety
- For cutting Al/St wires (ACSR), (Cu, Al, St) cables as well as armoured cables, and stay wires
- All tool data in view thanks to the LCD display and Klauke i-press software

Features

- All data can be easily read via Bluetooth
- Visual and audible signals
- One-button controlling all tool functions
- Balanced centre of gravity
- Endless Rotatable head
- LED for illuminating work area
- Automatic retraction when operation is complete
- LED Display

Order Information

Part No.	Description
ESM25ISM-O	Tool skin and case
ESM25ISM-K	Tool, 2 x batteries, charger and case

MEETS
IEC 60900

Technical Data

Cutting Force (kN)	67
Cutting Range (mm)	Open wire (ACSR) to 25 dia., stay wires to 16 dia., high-tensile stay wires to 12 dia.
Battery	Makita 18V, 1.5Ah, Li-ion*
Charging Time (min)	15
Weight (kg)	2.9 including battery

*See page B37 for battery and charger information

Endless Rotating Head

**Cuts
Cu & Al**



32mm Cutter, AL/CU

Part No. ES32ISM

- Orange body for easy differentiation
- Insulated and VDE certified to 1000V for increased safety
- Slim cutting head - ideal when space is critical
- All tool data in view thanks to the LCD display and Klauke i-press software

Features

- All data can be easily read via Bluetooth
- Visual and audible signals
- One-button controlling all tool functions
- Balanced centre of gravity
- Endless Rotatable head
- LED for illuminating work area
- Automatic retraction when operation is complete
- LED Display

Order Information

Part No.	Description
ES32ISM-O	Tool skin and case
ES20ISM-K	Tool, 2 x batteries, charger and case

**MEETS
IEC 60900**

Technical Data

Cutting Force (kN)	15
Cutting Range (mm)	max. 32 dia
Battery	Makita 18V, 1.5Ah, Li-ion*
Charging Time (min)	15
Weight (kg)	2.1 including battery

* See page B37 for battery and charger information

50mm Cutter, AL/CU

Part No. ESM50ISM

- Orange body for easy differentiation
- Insulated and VDE certified to 1000V for increased safety
- High cutting force for cutting copper and aluminium cables
- Saves time due to innovative opening mechanism design
- All tool data in view thanks to display and i-press

Features

- All data can be easily read via Bluetooth
- Visual and audible signals
- One-button controlling all tool functions
- Balanced centre of gravity
- Endless Rotatable head
- LED for illuminating work area
- Automatic retraction when operation is complete
- LED Display

Order Information

Part No.	Description
ESM50ISM-O	Tool skin and case
ESM50ISM-K	Tool, 2 x batteries, charger and case

**MEETS
IEC 60900**

Technical Data

Cutting Force (kN)	38
Cutting Range (mm)	max. 50 dia
Battery	Makita 18V, 1.5Ah, Li-ion*
Charging Time (min)	15
Weight (kg)	3.1 including battery

* See page B37 for battery and charger information

Klauke®
NEXT
GENERATION

Endless Rotating Head

**Cuts
Cu & Al**





Klauke
NEXT
GENERATION

Endless Rotating Head

Crimps
up to
240mm²
Cuts up to
20mm



5 Tonne Crimper & Cutter

Part No. EK425ISM

- Orange body for easy differentiation
- Insulated and VDE certified to 1000 V for increased safety
- All tool data in view thanks to the LCD display and Klauke i-press software

Features

- All data can be easily read via Bluetooth
- Visual and audible signals in case of error
- One-button controlling all tool functions
- Balanced centre of gravity
- Endless Rotatable head
- LED for illuminating work area
- Automatic retraction when operation is complete
- LED Display

Order Information

Part No.	Description
EK425ISM-O	Tool skin and case
EK425ISM-K	Tool, 2 x batteries, charger and case

**MEETS
IEC 60900**

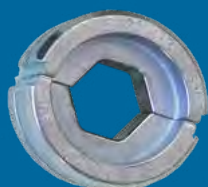
Technical Data

Crimping Force (kN)	53
Application	5 Tonne Crimping
Crimping Capacity (mm ²)	Cu/Al 240, ACSR 185
Battery	Makita 18V, 1.5Ah, Li-ion*
Charging Time (min)	15
Stroke/Opening Width (mm)	40
No of crimps per charge	140 @ 70mm ²
Dimensions (mm)	430(H) x 110(W) x 80(D)
Weight (kg)	2.6 including battery

*See page B37 for battery and charger information

53kN force in a lightweight tool of only 2.6kg

6T Style Dies
Available see page B 11



Available cutting heads

	CJACSR	CJCU
Capacity (mm)	17.5 OD	20 OD
Length (mm)	145	140
Weight (kg)	1	1
Cuts	ACSR/Steel	CU/AL



CJACSR



CJCU

Batteries, Chargers and Accessories

Makita 18V Charger

Part No. DC18RC

Features

- Integrated L.E.D.
- Battery charge level indicator allows user to monitor battery charge.
- Impact-resistant outer case and shock-absorbing inner-liner are engineered to protect the battery.
- Sixteen contact terminals maintain a constant connection with the tool to help prevent power loss or fluctuation, even during high-vibration applications.
- Battery resists self-discharge and remains ready for use even after long periods of storage.

- Star protection computer controls - includes overload protection, over-discharge protection and over heat protection.
- If the battery reaches a certain level of heat it will cut power to the tool, protecting the tool and battery from overheating.
- Forced air cooling fan - cools the battery to minimise charging time.
- Digital power display identifies the condition of the battery and charging condition.
- Warranty: 2 Years Warranty Covered By Makita Australia.

Makita 230VAC Rapid Charger
Part No. DC18RC



Klauke



Klauke 10.8V Charger

Part No. LGML1AU

Charger for Klauke Battery RAML1

Features

- 230VAC Charger
- Charges Klauke 10.8V batteries

EK50MLAU
Mini Crimper



Makita & Klauke Batteries

Older Style KLAUKE Batteries available on request

Battery	Makita BL1815N-L	Makita BL1830B	Makita BL1840B	Makita BL1850B	Klauke RAML
Voltage (V)	18	18	18	18	10.8
Amp (Ah)	1.5	3.0	4.0	5.0	1.5
Charge Time (min)	15	22	36	45	40
Weight (kg)	0.6	0.7	0.7	0.7	0.3

Adaptor, Makita Platform to Milwaukee Battery



Makita Battery
Platform

Adaptor

Milwaukee
Battery



Tool Strap

Part No. TENM703

- Quality Tool Strap Ideal for Battery Tools
- 2m Web Strap complete with Snap Hook





Pumps, HP Hydraulic 700bar (10,000psi)

Electric - Single Acting

Part No. PH240V-SA-A

- High pressure electric hydraulic pump Gives the operator portability and complete control with simple push button operation.
- 700Bar/10,000PSI
- Corded Pendant Remote
- Single phase (230V)



Technical Data

Engine	Single phase electric - 230V 50Hz
Motor Power (kW)	0.75
Max Pressure (PSI)	700 bar (10000)
Flow Rate (lt/min)	Low pressure: 6
	High pressure: 0.7
Oil tank Capacity (lt)	5
Weight (kg)	Approx. 28 Inc. Oil
Dimensions (mm)	315 (L) x 255 (W) x 460 (H)



Petrol - Double Acting - TESMEC

Part No. CPP001050

- A high pressure petrol motor driven hydraulic pump suited for use where compact, efficient, portable machinery is required.

- High pressure - 700Bar/10,000PSI
- Compact size for portable use.
- Tesmec build quality

Technical Data

Engine	4 stroke petrol
Motor Power (HP)	5.5
Max Speed (rpm)	3600
Max Pressure (PSI)	700 bar (10000)
Low Pressure (lt/min)	(0-60 bar) 5
Max Delivery (min)	1.8
Tank Capacity (lt)	10
Weight (kg)	54
Dimensions (mm)	530 (W) x 340 (L) x 370 (H)



Electric - Double Acting - TESMEC

Part No. CPP004010

- A high pressure electric motor driven hydraulic pump suited for use where compact, efficient, portable machinery is required.

- High pressure - 700Bar/10,000PSI
- Compact size for portable use.
- Tesmec build quality

Technical Data

Engine	Single phase electric - 230V 50Hz
Motor Power (kw)	2.2
Max Speed (rpm)	2880
Max Pressure (PSI)	700 bar (10000)
Low Pressure (lt/min)	(0-60 bar) 5
Max Delivery (min)	1.8 l
Tank Capacity (lt)	10
Weight (kg)	50
Dimensions (mm)	530 (W) x 340 (L) x 370 (H)



See page B47 for
Hydraulic Hoses

Battery Pump - Single Acting - Klauke

Part No. AHP700LC

**One Pump
Multiple Heads**

The Remote Controlled AHP700LC-W shown above with optional crimping head and a non-conductive hydraulic hose

Order Information

Part No.	Description
AHP700LC	Battery Pump, 2m Black Conductive Hose 2 x batteries, charger
AHP700LC-W	Battery Pump, Wireless Remote, 2m Non-Conductive Hose 2 x batteries, charger & Carry Bag for batteries & charger
AHP700LC-A	SPIKING/CUTTING KIT Battery Pump, 105mm Cutting Head, Wireless Remote, 5m Non-Conductive Hose, 2 x batteries & charger

Technical Data

Battery Voltage (V)	18
Battery Capacity	2 x 3.0Ah. Li-ion*
Charging Time (min)	22
Weight (kg)	6.4 inc battery
Operating Pressure (PSI)	max. 700bar (10000)
Max Oil Volume (ml)	approx. 800ml
Dimensions (mm)	330 (L) x 160 (W) x 280 (H)

*See page B37 for battery and charger information



SCAN or
CLICK
to View
Operation
Video

- Compact and lightweight design for mobile field application
- Suitable for operating high pressure single acting 700 bar crimping and cutting tools
- Selector switch for crimping, cutting and punching operations
- Fibreglass reinforced polyamide shock proof housing
- Large display indicates function selection, pressure readings, battery condition and diagnosis information
- Automatic retraction
- Remote control
- All high pressure hoses are supplied with coupling plug and coupling sleeve, filled with oil
- Two powerful Makita 3.0Ah, 18V Li-Ion batteries
- Cushioned shoulder strap for optimum wearing comfort
- LED for maintenance control, charge level indication of batteries and for data transmission via USB adapter

Cutting



7.7kg

105mm Armoured Cutting Head
Part No. SDG105C



4.3kg

85mm Armoured Cutting Head
Part No. SDG852C



3.8kg

45mm Armoured Cutting Head
Part No. SDG45C



5.2kg

85mm Cutting Head ACSR/Steel
Part No. SDK85C



2kg

Cutting Head
Part No. SDK20P33MC

**See Page B29
for further information
on Cutting Heads**

Crimping



4.5kg

12T Crimping Head
Part No. PK12042FPC



5.3kg

25T Crimping Head
Part No. PK252C



**100T
Crimping
Head**
Part No.
PK1000C

33kg with dies

**See Page B14-19
for further
information on
Crimping Heads**

Multi Tools



3.5kg

**Multi Head
Crimping/Cutting/Punching**
Part No. PK120UNVC

**See Page B31
for further information
on Multi Tool adapters**



Spiking/Cutting, Cable Systems

Klauke®

Spiking/Cutting, Cable system - Remote Controlled 1000V Insulated Hydraulic Pump

Part No. ASSGL-Series Pump


SCAN or
CLICK
to View
Operation
Video



Technical data

Battery Voltage (V)	18
Battery	2 x 4.0Ah, Li-ion*
Charging Time (min)	36
Weight (kg)	6.4 inc battery
Operating Pressure (PSI)	700bar (1000)
Usable Oil (ml)	800
Dimensions (mm)	330 (L) x 160 (W) x (H) 280

Order Information

Part No.	Description/Components
ASSGG105LC	Safety Pump (ASSGL), Remote Kit, 2 x Batteries, 10m Non-conductive Hose, 105mm Cutting Head ** (SDG105C), & Earth Spike with copper lead
ASSGG852LC	Safety Pump (ASSGL), Remote Kit, 2 x Batteries, 10m Non-conductive Hose, 85mm Cutting Head ** (SDG8525C), & Earth Spike with copper lead

*See page B37 for battery and charger information

**See page B29 for specifications



Safely perform your cutting/spiking operations on unproven cables from

A SAFE
DISTANCE

Spiking/Cutting, Cable System - Remote Controlled

Part No. ESG105RMCCFM - ESG65RMCCFM

- Large (105mm) & Medium (65mm) diameter remote controlled cable cutter
- Same performance as the standard (105) counterpart but adds a safe work environment
- Ideal for hard to access trenches and manholes by creating adequate distance between possible live conductors and the operator

Features

- Unique End Position Control - Emits a sound on the remote to indicate a successful cut. Safer than relying on the Maximum Hydraulic pressure indicator or gauge
- Remote control will only operate when the tool trigger is locked by the Spring Ring
- Double Click on the remote to start the

Order Information

Part No.	Description
ESG105RMCCFM-K ESG65RMCCFM-K	Tool, Remote Control, 2 x Batteries, Charger and case

cut (safety feature against unintended operation)

- Single Click on the remote for retraction



ESG105RMCCFM



Unique
Cutting
Sensor

Technical Data

Part No.	ESG105RMCCFM	ESG65RMCCFM
Cutting Force (T)	120	60
Cable Type	AL/CU/SWA/ACSR	AL/CU/ACSR
Cutting Range (mm)	Max 105 dia. dependent on cable type	Max 65 dia. dependent on cable type
Battery	Makita 18V 4.0Ah, Li-Ion	Makita 18V 4.0Ah, Li-Ion
Charging Time (min)	36	36
Weight (kg)	10.5 including battery	6.0 including battery

80 SNAKEGUNS



Rattlegun - Snakeguns

Part No. AUS1000

The Rattlegun is a battery powered impact wrench which will allow Line-workers to safely install and remove bolted connections / hardware with an insulated Hot Stick.

- Portable impact wrench for use around energized conductors
- Designed and tested for use on systems up to 500 kV AC (Phase-to-Phase system) for overhead and underground applications
- Communicates wirelessly with remote via linked digital radio
- Up to 90m operating distance between the Rattlegun and remote
- Full function Variable speed and forward/reverse
- Rechargeable battery
- Conductive rubber safety boot



Rattlegun	Weight inc. battery pack	Dimensions (mm)	Power Source	Max Output Torque	Size
	2.2kg	246(L) x 100(W) x 188(H)	18V Ni-CAD Battery, 2.2A/h	195Nm (145ft.-lbs)	½" square drive

Wrench, Hydraulic Impact - Low Pressure

Part No. Various

- Lightweight aluminium alloy
- Feather trigger allows control of speed
- Larger clearance trigger guard for high voltage gloves
- Ergonomic balanced design with finger moulds in trigger
- Easily changeable forward/reverse push shaft
- EZ selector valve allows change between open and closed centre without tools
- Fixed Tools also available
- Supplied with trigger guard and flush face couplers
- Heat insulated handle
- Lifetime warranty on motor only
- Operating pressure 1,000 - 2,000PSI



See page B47 for Hydraulic Hoses

Part No.	Chuck Type	Pressure (PSI)	Flow (l/min)	Torque (kN-m)	RPM	Weight (kg)
REL-425CG-TEN	7/16"	1,000 - 2,000	19-30	0.50	3,600	3.9 with coupler
REL-425CG-1.2	½"					

Adaptor, Impact Socket 7/16" Hex to ½" Square Drive

Part No. TEN-716-12

- 7/16" hex shaft adapter for ½" square drive sockets
- Convert your 7/16" utility impact wrench to a ½" drive
- Designed for high torque Impact wrenches
- Superior wear resistance and durability for utility grade use
- Made from high strength, shock proof steel



"J" Hook Driver - Slot Socket PLUS

Part No. SS-2

Features

- High Visibility ID Band
- Improved Fit on Large J Hooks (Off-Set & Centre)
- Cross-Arm Hardware
- Earthing Clamps
- Hot Line Clamps
- Impact Rated

Multi-Use Eye Bolt Type Clamp and Wing Nut Applications:



Suits Off-Set & Centred J-Hooks

½" Drive



METRINCH



The Metrinch 6 wall drive system means that one tool set is all you need to service your equipment, whether it's made in Germany, the USA or Australia.

Unique 6 Wall Drive System
This 15 Piece socket set equals a 42 piece conventional set

Individual sizes available

Fit	1/2" Drive	
Metric (mm)	30	32
SAE/AF (Inch)	1 3/16	1 1/4
Length (mm)	86	

*All sizes available individually

1/2" Drive Sockets Sets

Deep Impact Socket Set - 26 Piece Kit

Part No. 658272601

26 Piece 1/2" Drive, 6-Point Deep Impact Socket Set

Includes: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35 & 36mm stored in a Blow Mould Case

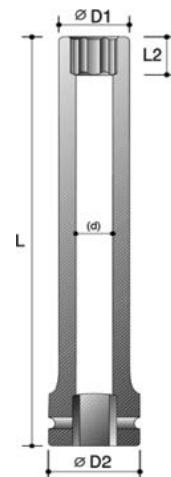
Extra Deep Tube Socket Set - 7 Piece Kit

Part No. 605290701

7 Piece 1/2" Drive, 6-Point "TUBE" Deep Impact Socket Set

Includes: 19mm, 21, 24mm, 27mm, 30mm, 32mm and 36mm @ 250mm Long Blow Mould Case

Part No.	Size (mm)	D2 (mm)	D1 (mm)	L2 (mm)	L (mm)	Hole Clearance (mm)
60529019	19	28	28	13	250	14
60529021	21	28	31	13	250	16
60529024	24	28	35	15	250	18
60529027	27	32	38.5	17	250	22
60529030	30	32	42	17	250	22
60529032	32	34	44	19	250	24
60529036	36	36	49	19	250	26



METRINCH Socket Set - 15 Piece Kit

Part No. MET-2450

Get More Use Out of Fewer Tools

Metrinch means fewer tools and easier selection as each tool can be used for both metric and inch, plus damaged nuts and bolts. This eliminates switching back and forth from imperial to metric.

Unique Patented Design

The 4-point grip design enables Metrinch sockets and spanners to fit multiple sizes and damaged or rounded nuts.

More Torque, Less Wear

By exerting pressure through the walls, Metrinch grips more securely than conventional sockets.

Non Slip Hold

No more cut hands, banged up knuckles and elbows due to wrench slippage.

Quality

All Metrinch tools are forged from high grade chrome vanadium steel for lifetime use.

Included sizes in Socket Set*

Fit	1/2" Drive							
Metric (mm)	11	12	13	14	15	16	17	18
SAE/AF (Inch)	7/16	15/32	1/2	9/16	19/32	5/8	11/16	23/32
Length (mm)	80							
Fit	1/2" Drive							
Metric (mm)	19	20	21	22	23	24	25	
SAE/AF (Inch)	3/4	25/32	13/16	7/8	29/32	15/16	1	
Length (mm)	80				86			





Augers, Impact - Woodpecker

Woodpecker Impact Auger Bits are engineered to deliver fast, clean cut holes in Australian hardwood power poles.

The new, improved high grade steel alloy is designed for a longer bit life, staying sharper longer. Featuring a single, heat treated and tempered cutting edge for fast, effortless boring in hardwood. The clean cut of these bits allows easier removal from the pole and helps bolts to slide through with less resistance.

The design is optimised to cut quickly through hardwood with an aggressive lead screw pulling the bit through the material more easily while the wider flute design quickly ejects the chips to clear the hole. This helps to reduce heat, leading to overall faster drilling speeds and longer tool life.

Features

- Designed to drill cleaner and faster holes in Australian hardwood poles
- 7/16" Quick change hex shank – suitable for electric drills or impact wrenches
- Optimum shaped wide cutting flute ensures a faster chip ejection, less friction and a longer lasting cutting edge
- Solid core for added strength, auger stability and extended tool life
- Supplied in a protective storage case

Pre 1966 Greybox Hardwood



**Designed to drill the
Toughest Australian
Hardwoods**



**PROTECTIVE
STORAGE CASE**



Part No.	Length (mm)	Dia (mm)
WP-225-08	225	8
WP-225-10	225	10
WP-225-11	225	11
WP-225-12	225	12
WP-225-14	225	14
WP-225-16	225	16
WP-225-18	225	18
WP-455-14	455	14
WP-455-16	455	16
WP-455-18	455	18
WP-455-20	455	20
WP-455-22	455	22
WP-455-24	455	24
WP-455-26	455	26
WP-455-28	455	28
WP-455-40	455	40
WP-610-16	610	16
WP-610-18	610	18
WP-610-22	610	22
WP-610-24	610	24
WP-610-26	610	26

Chuck, Quick Change 7/16" Female to 1/2" Female

Part No. 2403

- Super Heavy Duty 7/16" (1/2" Square Drive) Quick-Change Chuck.
- Three ball bearing system to firmly secure you auger bits and adapters.
- Designed to be used with high torque 1/2" square drive impact wrenches.



**THE ONLY 62" (1.6m)
LONG REACH CHAIN-
SAW AVAILABLE**

Adjustable Chain Oiler

Insulated section length



Foam Filled

Safety trigger

EZ OC to CC
Selector

Trigger guard

Chain Saw, Long Reach - Foam Filled

Part No. REL-LR-Series

Reliable's REL-LR-62-TEN-A long reach hydraulic chainsaw are intended for safely cutting and trimming trees from the ground or an aerial bucket. The powerful hydraulic drive motor can easily make cuts up to 330mm in diameter. With an overall length of 1600mm (Also available 1900 & 2250mm), the operator may easily reach areas not possible with a standard chain saw.

Features include a trigger guard and safety trigger to prevent accidental movement of the chain, a covered sprocket guard, and a rubber collar hand stop. A quick set spool can be turned 180 degree for closed center/open center operations.

**Available in
3 Lengths**

Features

- Powerful hydraulic drive motor
- EZ selector valve allows change between open and closed centre systems without tools
- Foam filled fibreglass shaft to prevent ingress of moisture and provide additional electrical safety protection
- Trigger guard, sprocket guard, rubber hand guard and scabbard
- Flush face couplers fitted

Technical Data

Part No.	REL-LR-62-TEN-A	REL-LR-75-TEN-A	REL-LR-88-TEN-A
OAL (mm)	1600	1900	2250
Insulated Section Length (mm)	845	1175	1515
Cut Capacity (mm)	330		
System	Open or Closed		
Flow Range (lpm)	19-30		
Operating Pressure (PSI)	(1,000-2,000) 68.9-137.8 Bar		
Pressure Port Thread	9/16" -18 SAE O-Ring		
Return Port Thread	3/4" -16 SAE O-Ring		
Chain Pitch (mm)	8.25/25.4		
Chain Gauge (mm)	1.47/25.4		
Plastic Scabbard	SCAB-PS		
Weight (kg)	3.6	4.3	5



**Foam filled for
added electrical safety protection**



**Boom Mount Long
Reach Saw Scabbard
also available
Part No. REL-LR-SS**



Power in your hands,
pressure off your back

Tamper, Pole Hydraulic - Reliable

Part No. REL-TMP-Series

Makes quick work of setting poles, asphalt patch and general construction backfill compacting. Only 3 moving parts for low maintenance.

Reversible On/Off valve for Open and Closed-Center systems (hose-end models). Standard with kidney-shaped foot. Rotate trigger selector for Open and Closed-Center systems (valve on tube models). Used for setting poles and general backfill compacting

- Standard kidney shaped foot included on all models
- Only three moving parts reduces servicing time
- Change between open and closed centre systems
- Flush face couplers fitted
- Hose End Valve & Valve on Tube options available



Valve on Tube



Valve on Hose

TAMP-SAFE
TS2001R



The Tamp-Safe handle was designed by a professional linesman for the safety of utility workers.

Tamp-Safe handles are built with safety in mind. It puts the operator's hand in a safe position away from the hydraulic hoses.

Our innovative handle is designed to attach to most hydraulic tampers, including Reliable, Greenlee/Fairmont, and Stanley tampers.



Kidney Shaped
Tamping Foot

Technical Data

Part No.	Type	Length (m)	Width (mm)	Flow Range (lt/min)	Pressure Port Thread	Return Port Thread	Foot Size (mm)	Blows (lt/min)	Approx Weight (kg)	Tamp-Safe Part No.
REL-TMP-60VT-TEN	Valve on Tube	1.5	100	15-23	3/16" - 18 SAE O-Ring	3/4" - 16 SAE O-Ring	60 x 200	1160	9.5	TS-2001R
REL-TMP-72VH-TEN	Valve on Hose	1.8							11	
REL-TMP-72VT-TEN	Valve on Tube	1.8							11	
REL-TMP-85VH-TEN	Valve on Hose	2.1							12.1	



Pole Pullers, Hydraulic

56 Tonne Hydraulic Pole Puller

Part No. PP-60-XHD

- Dual Cylinder Pole Puller
- 600mm hydraulic cylinder stroke
- High capacity, hydraulic powered
- Pulling utility poles up to 700mm diameter
- Force of 56 Tonne
- Grips the pole with cam-action heads
- Cam action head has bevelled teeth to provide a better grip
- Use with open-centre or closed-centre hydraulic systems
- Fitted with 7.5m hydraulic hose
- Features built-in fork pockets, 2 lifting points on the head and high strength alloy chains
- Increased stability due to larger footprint
- Increased gripping capability ensures chain does not slip up pole
- Utilises existing low pressure tool circuit on lifter borer-crane
- Hydraulics: Required flow rate 5-15 gpm @ 2,250PSI max.

**56 Tonne
Hydraulic
Pulling Power**



SCAN or CLICK
to View
Operation Video

Technical Data

Performance	Pull 56 Tonne at 155 bar (2250)
Maximum Pole Size (mm)	710 Diameter 2230 Circumference
Cylinder	Stroke 600, Bore 150, Rod 125
Head Chains	2 x 22mm Grade 100
Footprint (mm)	Exterior 1168 x 1168 Interior 711 x 711
Height (mm)	Retracted 1500 Extended 2100
Weight (kg)	680
Lifting Points	2 lifting eyes on the head Fork Pockets 83 x 184 x 1168

**Reduce Risks
Increased Safety**



22 Tonne Hydraulic Pole Puller

Part No. REL-PL-P

The REL-PL-P will make Pole Pulling with a Lifter Borer a thing of the PAST. Reduce damage and potential for injury related to pole pulling. Simple installation and operation combined with RELIABLE performance makes this Pole Puller a "Must Have Accessory" for all of your pole pulling operations.

Kit Includes:

- Hydraulic Cylinder with Flush Face Coupler Set
- Swivel Chain Hook Assembly
- Chain (12.7mm x 1830mm Alloy)
- Base Plate & Back Plate

Technical Data

Operating Pressure (PSI)	2800 (193bar)
Recommended Flow (lpm)	15-30
Lift at Maximum Pressure (kg)	22,734kg
Part	Weight (kg)
Cylinder	25.85
Base Plate	11.36
Back Plate	3.2
Swivel Chain Hook Assembly	16.32
Chain	6.8
Base Pad (Optional)	11.36



R12-TD Test die

Compression Gauge - 12 Tonne

Part No. REL-CG-12TN

For testing compression output of 12 Tonne crimpers. Portable hydraulic fault identification tool complete with R12-TD "U" style test dies

Max Gauge Reading	15,000PSI 1034 Bar
Weight (kg)	2

Hoses, Hydraulic

Low Pressure Hydraulic Hoses

- Twin low pressure flexible hydraulic hose
- Clear strain relief sleeve over crimped connections
- Manufactured for use in extreme temperatures -40°C to 100°C
- Certified non-conductive rubber
- Impulse tested higher than SAE requirements
- Supplied with flush face couplers both ends
- Neoprene inner tube with nitrile outer, reinforced two textile braid



Protective Dust Caps Included



Part No.	REL-2250-3-O-TEN	REL-2250-3-TEN
Colour	Orange	Red
Length (m)	3	
Max Operating Pressure (PSI)	155 bar (2250)	
Min Burst Pressure (PSI)	620 bar (9000)	
Electrical Test	75kV/3min (>100µA)	
Hose ID (mm)	9.5	
Weight (kg)	2.85	

High Pressure Hydraulic Hoses

Part No. Black - Standard

Part No. Orange - Non-Conductive

- High pressure - 700Bar/10,000PSI
- 3m standard and non-conductive hose available

Contact TEN for other lengths and coupler combinations



Single and Twin Hydraulic Hose Assemblies Available



Pressure Gauge, In-line Flow

Part No. REL-FPG

- Protect workers, valuable equipment, and property from damage caused by excess hydraulic pressure or flow
- Install between tool and hydraulic power source to test system output pressure and hydraulic flow
- Allows you to determine correct system pressure and hydraulic flow to the tool, reducing seal wear and extending the life and performance of your low pressure hydraulic tools
- Ideal for fleet and depot workshops



Protect Equipment and Workers

Contact TEN for fitting and coupler type

**GREENLEE®**

Punch Drivers - Punch & Dies

Punch Driver, Battery Powered - Greenlee

Part No. LS100FLEXCFM**Inteli-PUNCH™ Driver – Greenlee - Made in Germany**

The 11-Tonne Battery powered Punch Driver from Greenlee is the fastest, most powerful knockout driver available on the market today.



- Auto-Retract Technology Patent-Pending - Pressure-sensing technology accurately detects punch completion and automatically retracts the ram, for longer tool life
- Time Saver - maximum cycle time of 8 seconds
- Punch up to 161.9mm size holes in mild steel and 115.4mm holes in stainless steel
- 360° Rotating Head - Rugged, patent-pending swivel design to punch at any angle
- Compact, Ergonomic Design - Ergonomic tapered grip for easy one-handed operation
- Gator Eye® Compatible - with i-Press™ software, monitor tool performance including peak forces and number of cycles
- Compatibility - Works with all Greenlee knockouts. Same draw studs used with other Greenlee Hydraulic punches
- Lightweight - 2.63kg
- Led light for dark areas

Technical Data

Output Force (kN)	11
Battery	Makita 18V - 4.0Ah*
Charging Time (min)	36
Weight (kg)	2.8 with Battery

*See page B37 for battery and charger information

Punching Capacity

Material	Punch Size (mm) OD	Material Thickness (mm)
Mild Steel	12.7 to 115.4	3.4
Stainless Steel	12.7 to 89.9	3.4
	12.7 to 115.4	2.6

Order Information

Part No.	Description
LS100FLEXCFM-K	1 x Punch Driver
	2 x 18v Makita Batteries
	1 x Charger
	Draw Stud 19mm to 9.5mm (52042827) & Short Spacer (50032488)

*Draw Stud 19mm 52045298 is required for punch sizes 50.8mm (ISO50) & 63.5mm (ISO60)

NOTE: Above draw stud suits standard punch & dies and are not compatible with the Speed Punch & Dies on opposite page.

See opposite page for
Speed Punch™



Speed Punch & Dies - Greenlee

Punch Holes in Mild & Stainless Steel

UP TO
**3X
FASTER**

**SAVE TIME & MONEY
WITH EVERY PUNCH**



SPEED LOCK

Quickly secures the system in place - more holes, less time.

RUGGED GROOVES

Holds up on the job - no more damaged threads.

NO THREAD PUNCH

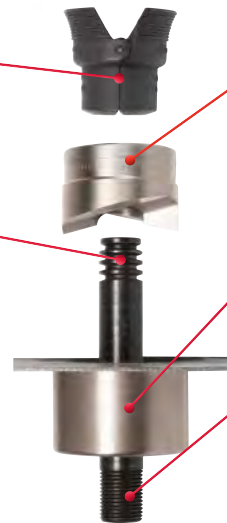
Easily slides on/off draw stud.

EXTENDED DIE HEIGHT

No need for spacers.

STANDARD DRAW STUD END

Works with existing hydraulic and battery-operated punch drivers.



Speed Punch Knock-Out Kit - Metric ISO16 - 40

Part No. 52055439SET

For punching holes in mild steel, aluminium, fiberglass, and plastic

Capacity: Mild Steel Max 3.0 mm

Diameter: Actual hole sizes: 16.2mm to 40.5mm (ISO)

Driver: Use with Greenlee Punch Drivers: LS100 - Battery-Powered Driver, or Hydraulic Drivers (REQUIRES ALTERNATE LONG DRAW STUDS (7212SP13 & 7212SP12))

Kits Includes: 1 x each (Punch & Die) ISO-16, ISO-20, ISO-25, ISO-32, and ISO-40
1 x 3/8" Speed Lock & 1 x 3/4" Speed Lock
1 x 3/8" x 97mm Std. Draw Stud
1 x 3/4" x 122mm Std. Draw Stud
1 x Plastic Storage Case.

ISO: ISO-16 to ISO-63 Diameter

Material: Black Oxide Finish

Pilot Hole: 3/8" Draw Studs: 12.7mm PILOT HOLE
3/4" Draw Studs: 22.2mm PILOT HOLE

Package: Plastic Storage Case

Weight: 3.39 kg

Punch & Dies Kit
ISO 16-40



SCAN or
CLICK
to View
Operation
Video

Kit Replacement Parts for ISO 16 to 40mm (52055439SET)

Punch Part No.	Description/Hole Size (mm)
52055431	Punch & Die - ISO-16 / 16.2
52055432	Punch & Die - ISO-20 / 20.4
52055434	Punch & Die - ISO-25 / 25.4
52055435	Punch & Die - ISO-30 / 32.5
52055436	Punch & Die - ISO-40 / 40.5

Accessories

Part No.	Description
52055439	3/8" SPEED LOCK & 3/8" Draw Stud (12.7mm Pilot Hole)
52055440	3/4" SPEED LOCK & 3/4" Draw Stud (22.2mm Pilot Hole)
KKSPISO16B63	Plastic Storage Case

Larger ISO Punch & Dies Sizes

Die Part No.	Description/Hole Size (mm)
52055437	Punch & Die - ISO-50 / 50.8
52055438	Punch & Die - ISO-63 / 63.5

Stainless Steel Standard and square Punch & Dies Option Available - Contact TEN for further Information





Part No. ISOPD16-50 Mild and Stainless steel Punch and Dies

Punch & Dies Set (ISOPD16-50) includes:

- 7 x Round, 3 Crown ISO type, Punch & Dies
(*Indicated in table below)
- 1 x 9.5 x 80mm & 1 x 19 x 138mm Draw studs
- 1 x 20, 1 x 34 & 1 x 44mm Spacers

Punch & Draw Stud Part No's

Part No.	Hole Size (mm)	Draw Stud (mm)	Part No.
ISOPD-16	16*	3/8" (9.5)	DS3-8
ISOPD-20	20*	3/8" (9.5)	DS3-8
ISOPD-22.5	22.5*	3/8" (9.5)	DS3-8
ISOPD-25	25*	3/8" (9.5)	DS3-8
ISOPD-32	32*	3/4" (19)	DS3-4
ISOPD-40	40*	3/4" (19)	DS3-4
ISOPD-50	50*	3/4" (19)	DS3-4
PD-63.5	63.5	3/4" (19)	DS3-4
PD-75	75	3/4" (19)	DS3-4
PD-90	90	3/4" (19)	DS3-4

Spacer Part No's

Part No.	Spacer (mm)
DSS-20	20
DSS-34	34
DSS-44	44

Punch Driver, Hand Hydraulic

Part No. SB-10B

The SB-10B is a Hand Pump with a Remote Punching Head attached to a flexible Hose Lead. Often referred to as a Chassis Punch, this Unit is a Premium Quality Punch Kit.

- 1 x SB-10B Hand Hydraulic Punch kit
- 1 x Steel Carrying Case

SB-10B Punch Driver shown with Punch/dies, draw-studs & spacers. (sold separately)



Technical Data

Part No.	SB-10B
Output Force (kN)	8.8
Pressure (PSI)	10,000 (700bar)
Dimensions (mm)	370 x 220 x 130
Weight (kg)	9.0

Punching Capacity

Material	Punch Size (mm) OD	Material Thickness (mm)
Mild Steel	115.5	3.2
Stainless Steel	63.5/115.5	3.2/1.6

Square Punch & Dies available upon request

Punch Driver, Battery Powered - iToolco

Part No. GP122

Operates with most model 230vAC and Battery drills, new or old, with no special add-on tools required. Punches mild and stainless steel up to 152mm. The punches and dies are clearly marked with Centre Point™ marks for perfect alignment, no matter what direction you punch from. Lightweight and easy to use, the Gear Punch™ tool is compatible with other punch and die offerings.

Features

- Gear Punch, SS 2.4mm rated
- Knockout punch & Dies 12.7 through 152mm
- Draw Stud
- Step Bits Helical TiAn Coated
- 3/8 Nut Drivers
- Centre Point Knockout Layout Tool
- Fast and Easy compatible with Corded or Cordless Drill
- No Leaking Hydraulics
- No Hydraulic Seals to Replace

Kit Includes

Part No.	Description	Hole Size (mm)	Qty
GP01	Punch Tool	-	1
CP02	Centre Point Knockout Layout Tool	-	1
DS716	7/16" x 3/4" Draw studs	-	2
DS034	3/4" x 3/4" Draw Stud	-	2
ND038	3/8" Nut Driver	-	2
SB78	7/8" Step Bit	-	2
PD01	1/2" Punch and Die	22.5	1
PD02	3/4" Punch and Die	28.4	1
PD03	1" Punch and Die	34.5	1
PD04	1-1/4" Punch and Die	43.2	1
PD05	1-1/2" Punch and Die	49.6	1
PD06	2" Punch and Die	61.5	1
GPD02	1/2" - 2" Case		1

*Imperial sizes mentioned above refer to actual conduit sizes
(Larger size Punch and Die kits available upon request)





Punch Head, Hydraulic

Part No. SB-80C

The SB-80C Tower & Busbar punch is ideal for punching through steel tower legs & busbar, with a max hole diameter of 20.5mm.

Features

- Body manufacture from high strength steel
- Quick smooth punching with no burring
- Positing plate for precise punch location

The punch is sold standard with 4 punch & dies (10.5, 13.5, 17.5 & 20.5mm)

Additional accessories include die fixing tool, Allen key and Steel Carrying Case

- Include quick coupler for easy pump assembly
- Operate with a single acting hydraulic pump

Technical Data

Part No.	SB-80C
Output Force (T)	31
Pressure (PSI)	10,000 (700bar)
Tool Dimensions (mm)	250 x 100 x 370
Case Dimensions (mm)	440 x 380 x 160
Throat Depth (mm)	80
Weight (kg)	13.5



SB-80C shown stored in steel carry case



10.5, 13.5, 17.5 & 20.5mm punch & dies included in kit

Punching Capacity

Material	Punch Size (mm) OD	Material Thickness (mm)
Mild Steel	20.5	10
CU/AL	20.5	13

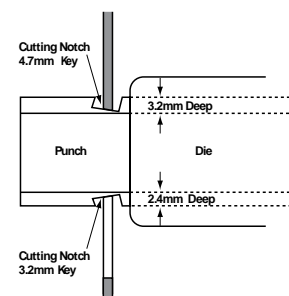
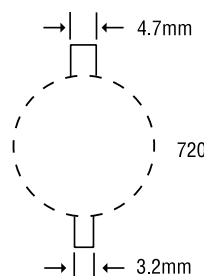
NOTE: Optional punch & dies sold separately - 8.5, 11.5, 15.5 & 18.5mm

Keyway Punch - Hand operated



Part No. 720

Eliminates time-consuming hand sawing and filing making keyways for push-button switches
Use as a nibbler to make wider or deeper keyways in up to 3.2mm mild steel
Punches 3.2mm or 4.7mm keyways for 22.5mm or 30.5mm push-button holes

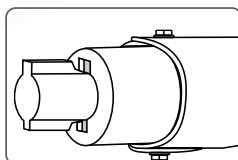


Ordering information

Part No.	Description	Weight (kg)
720	Keyway Punch	1.27
26536	Replacement Punch	-
26538	Replacement Die	-



Punch and Die



Contact TEN for further information on the Busbar Cutters & Benders

Busbar Bender, Hydraulic

Part No. BB-200C

Features

- Output force: 20T
- Pressure: 10,000psi
- Bending Capacity: 200 x 12mm
- Weight: 28kg



Busbar Cutter, Hydraulic

Part No. BC-200V

Features

- Output force: 30T
- Pressure: 10,000psi
- Cutting Capacity: 200 x 12mm
- Weight: 35kg



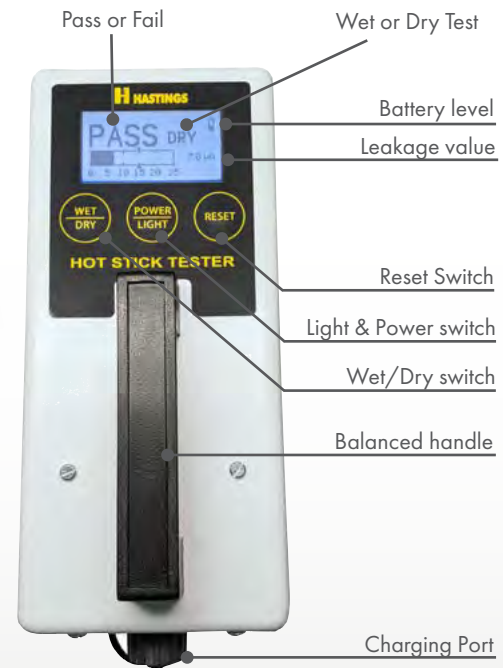


HASTINGS
A WORLDWIDE SUPPLIER OF
Hot Line Tools & Equipment

Battery Powered Hot Stick Tester



Battery Powered



- ✓ Battery or USB operation
- ✓ Push Button switch for wet or dry tests and a dual range scale which gives the operator leakage current values in micro amps
- ✓ Portable and lightweight for easy use
- ✓ Meets OHSA 1910.269
- ✓ The tester is designed to protect the operator while in use
- ✓ The tester comes complete with a padded carrying case and instructions.
- ✓ A test bar is also provided to ensure the tester is working properly



See TEST & MEASUREMENT section page E21 for further information



TEN offers an extensive range of Fibreglass Equipment, Hot Line Tools and Accessories.

- ▶ Tel-O-Pole® Triangular Telescopic Operating and Measuring sticks
- ▶ Round Telescopic Operating and Measuring sticks
- ▶ Sectional, Telescopic & single Shotgun sticks and kits
- ▶ Fibreglass Sectional Sticks and Kit
- ▶ Universal Head adaptors & Live line Tools
- ▶ LV & HV Temporary Cross-Arms
- ▶ Fibreglass cleaning and maintenance products



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Introduction

TEN Manufacturing

TEN has the capability of manufacturing customised fibreglass sticks and stick kits, end fittings and tools to suit your requirement.

Utilising Hastings Fibreglass and components, you can be assured of a quality product. **"The customers imagination is TEN's capability"**



SECV & SAPN Operating & Disconnect sticks



Customised Sticks, Stick Kits & Lifting Jibs



Live Line Working MAD's General Information

Live working tools are generally fibreglass tubes with solid unicellular foam filled cores.

In most cases factory tested to 100kV/300mm of insulation.

Where stated the sticks comply with ASTM F711, IEC 60855 or OSHA standards.

Minimum approach distances for Australia and New Zealand are stipulated by AS 5804, the actual distance is ultimately determined and specified by the local network provider.

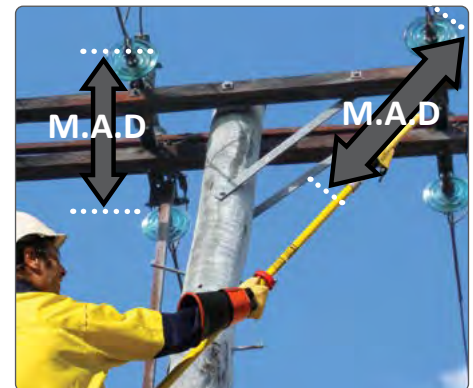
A live line tool only achieves its insulation rating when the stick surface is clean, free of moisture, in good condition and hydrophobic. Hydrophobic means tending to repel and not absorb water. See pages C31 to C34 for cleaning instructions.

Live Working		
Nominal Voltage AC (kV)	Minimum Approach Distance (MAD)*	
	Phase to Earth	Phase to Phase
	Auto-reclose OFF	Auto-reclose OFF
	Distance (mm)	Distance (mm)
11	350	400
22	400	500
33	450	550
50	550	700
66	600	800
88	700	1000
110	800	1200
132	900	1300
220	1300	2000
275	1600	2400
330	1900	3000
400	2400	3900
500	2400	3900

Approach & Insulation Distance Information

MAD = Minimum Approach Distance is the minimum air gap or summation of air gaps measured between any part of the operator and live electrical apparatus.

Detailed information can be found in AS 5804 and a small extraction from this standard is adjacent for minimum standard distances based on ideal circumstances.



¹The above information is for reference only and is incomplete. Subject to numerous contributing factors such as environmental, etc. Refer to local network providers and reference AS 5804 standard for specific area regulations.

* Based on minimum 300mm ergonomic distance

Hand-guards & Warning Markers

Australian standard AS 5804 states that "clearance markers shall be placed on hand sticks to define the insulated section and define the separation from the hand held section". It also states that the "markers shall be secured to the live work stick to prevent their movement".

TEN can provide a range of marker and hand-guard solutions. The A30002 and A30003 from Hastings (Refer to page 9) are the most popular as they are a safety red colour.



Tool Ratings

Recommended voltage ratings of products within this catalogue section should be used as a guide only.

The product specifications are mainly to US (OSHA and ASTM) standards which may not be applicable to your situation.

Contact your local network provider for specific clearances required.



HASTINGS

When it comes to making safe and dependable hot line tools and equipment, Hastings is the number one choice for line-workers around the world. Helping line-workers get home safely since 1959

As originators of the Tel-O-Pole® telescoping stick and many other patented products, Hastings are proud to be the industry innovator of hot line tools and equipment.



WHY HASTINGS

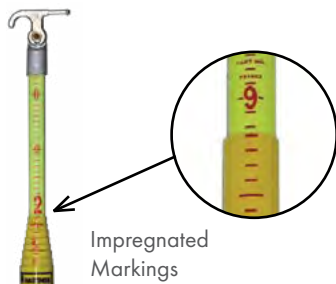
Hastings Fibreglass

- Foam Uniquely Encased and heat treated, ensuring a water-tight structure without voids, unlike our competitors this allows complete adhesion between fibreglass/resin and foam
- Heat impregnated "EASY TO READ" markings pass IEC-62193 abrasion tests. Will not Chip, Peel or Rub Off
- Low Deflection, great when locating Fuse Rings etc
- Manufactured with rigorously tested material, ensuring the production of the highest quality electrical and mechanical fiberglass tube in the world
- Meet all applicable ASTM F711, ASTM F1826, IEC-60885 and IEC-62193 standards and specifications
- Every stick is electrically tested in the factory
- Replace sections in seconds - Plug & Play
- Replacement Sections "IN-STOCK"
- Remove and utilise only the sections required for the job at hand
- Easily dismantled for cleaning and maintenance
- Double Sided Sunrise Disconnect Hook. For left or right facing applications
- Connect & Disconnect Universal Tools with a press of a button.

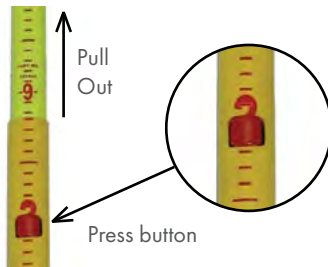


Hastings

Competitor



Impregnated Markings



Pull Out

Press button



Double sided Sunrise Disconnect Hook



Quick disconnect head



SCAN or CLICK for operation video

Telescopic Measuring & Operating Sticks

Triangular Telescopic Measuring & Operating Sticks

Part No. MV Series

- Open and close switches, EDO's and service fuses
- Replaceable sections, no disassembly tools required
- Fluoro lime green tip section is foam filled
- Tested to ASTM F711 & OSHA
- Stick includes double sided Universal Disconnect Hook #P10431-2
- Measure elevated heights
- Supplied in metre/centimetre measuring graduations
- Eye level reading feature with measurement markings in large, red numbers
- Markings will not chip, peel or rub off

Triangular Profile = NO Twist



Storage Bag

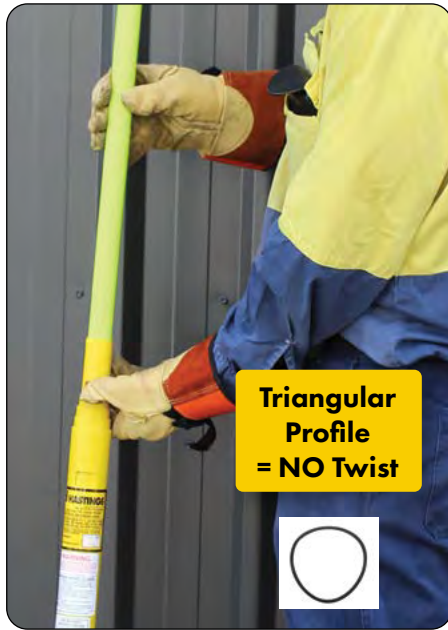


Scratch proof Markings!

Part No.	Stick c/w Quick release head	Extended Length (m)	Retracted Length (m)	Base OD (mm)	Wt (kg)	Add "K" for Storage Bag
MV-25	MV-25-Q	7.8	1.6	48.5	3.7	TENM301
MV-30	MV-30-Q	9.2	1.7	52.5	4.5	
MV-35	MV-35-Q	10.6	1.7	56.0	5.5	
MV-40	MV-40-Q	12.0	1.8	60.4	6.5	



Triangular Telescopic Operating Sticks



Part No. HV Series

- Suitable for HV operations
- Open and close switches, EDO's and service fuses
- Replaceable sections, no disassembly tools required
- Fluoro lime green tip section is foam filled
- Tested to ASTM F711 & OSHA
- Stick includes double sided Universal Disconnect Hook #P10431-2



Part No.	Extended Length (m)	Retracted Length (mm)	Base Diameter (mm)	Wt (kg)	Add "K" for Storage Bag
Switching Telescopic Stick (No Measurement Markings)					
HV-208	2.4	0.7	44.5	1.4	TENM308
HV-212	3.8	1.5	36.8	1.7	TENM309
HV-216	5.0	1.5	40.9	2.3	TENM301
HV-220	6.4	1.6	44.5	2.9	
EX2-1848*	4.4	0.94	44.5	3.0	TENM309

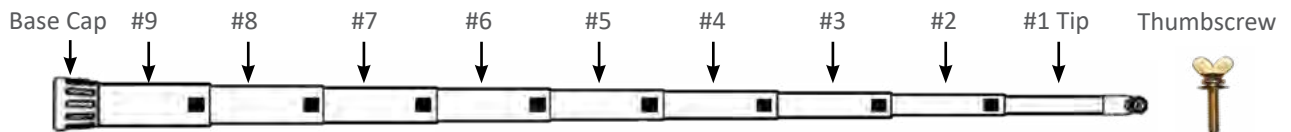
*EX2-1848 does not include disconnect hook (P10431-2)

Ordering Information

- Refer to MV & HV Matrix for replacement part numbers
- No tools are required for replacing as sections sold complete with lock assembly
- Order base cap separately if replacing base section

Kit Option ("K" Suffix) includes a storage bag

Replacement Parts



MV Series	Replacement Sections & Parts #										
Part No.	Base Cap	#9	#8	#7	#6	#5	#4	#3	#2	#1 Tip Section	Thumbscrew
MV-25	P18029	-	-	-	A20348	A20356	A20355	A20354	A20353	A20352	P16055
MV-25-Q	P18029	-	-	-	A20348	A20356	A20355	A20354	A20353	A20466	Not Required
MV-30	P18030	-	-	A20349	A20357	A20356	A20355	A20354	A20353	A20352	P16055
MV-30-Q	P18030	-	-	A20349	A20357	A20356	A20355	A20354	A20353	A20466	Not Required
MV-35	P18031	-	A20350	A20358	A20357	A20356	A20355	A20354	A20353	A20352	P16055
MV-35-Q	P18031	-	A20350	A20358	A20357	A20356	A20355	A20354	A20353	A20466	Not Required
MV-40	P18026	A20263	A20359	A20358	A20357	A20356	A20355	A20354	A20353	A20352	P16055
MV-40-Q	P18026	A20263	A20359	A20358	A20357	A20356	A20355	A20354	A20353	A20466	Not Required

HV-Series Replacement Parts

HV Series	Replacement Sections & Parts #					
Part No.	5	4	3	2	1 - Tip Section	Base Cap
HV-208	A20264	A20258	A20259	A20260	A20296	P14037
EX2-1848	A20376	A20270	A20269	A20268	A20267	P14037
HV-212	-	-	A20254-B	A20255	A20256	P18020
HV-216	-	A20253-B	A20254	A20255	A20256	P18027
HV-220	A20252-B	A20253	A20254	A20255	A20256	P18028

Extension Section

Part No.	Length (mm)	Wt (kg)
839-2	1420mm	0.9



Part No. 839-2

- Suits MV and HV sticks to extend the tip length



Round Telescopic Operating Sticks - Tip Lock feature



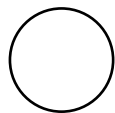
Part No. ST Series

- Tip retracts and locks into larger section for extra stability
- The Tip diameter for ST models (extended) is 22mm or (retracted) is 27.8mm
- Double button version available for easy locating when extending pole

Part No.	Extended Length (m)	Retracted Length (m)	Base diameter (mm)	Bag	Wt (kg)
ST-225	5.1 - 6.4 - 7.8	1.52	55.5	TENM301	3.2
ST-230	5.1 - 6.4 - 7.9 - 9.1	1.57	60.3	TENM301	4.0
ST-235	5.1 - 6.4 - 7.9 - 9.1 - 10.6	1.61	68.3	TENM301	5.0
ST-240	5.1 - 6.4 - 7.9 - 9.1 - 10.6 - 12.1	1.66	81.0	TENM301	6.3

Sections and spare parts available for ST Series Telescopic sticks. Contact TEN for more information.

Round Telescopic Measuring Sticks



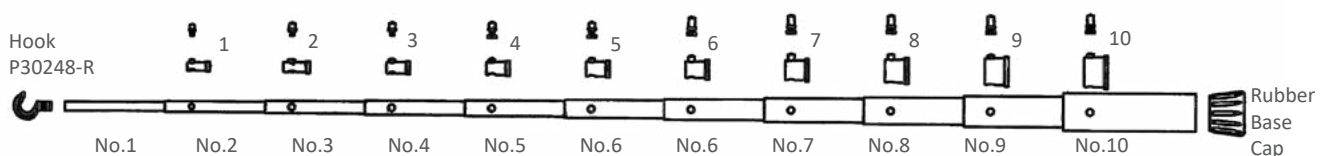
Round Profile



Part No. M Series

- Measure elevated heights
- Foam filled tip section
- Tested to ASTM F711 & OSHA
- Kit with Storage Bag
- Supplied in meter/centimeter measuring graduations
- Eye level reading with measurement markings in large, red, easy to read numbers
- Markings will not chip, peel or rub off

Part No.	Stick Head	Extended Length (m)	Retracted Length (m)	* Add "K" for Storage Bag	Wt (kg)
M-25*	Hook	7.5	1.7	TENM301	1.5
M-35*	Hook	10.5	1.7	TENM301	2.7
M-40*	Hook	12.0	1.7	TENM301	3.4
M-50*	Hook	15.0	1.8	TENM301	6.0



M-Series Replacement Parts

Part No. (# Sections)	1	2	3	4	5	6	7	8	9	10	11	Base Cap
M-25 (6)	P21606	P21446	P21447	P21448	P21449	P21419	-	-	-	-	-	P18020
M-35 (8)	P21606	P21446	P21447	P21448	P21449	P21450	P21451	P21423	-	-	-	P18029
M-40 (9)	P21606	P21446	P21447	P21448	P21449	P21450	P21451	P21452	P21425	-	-	P18030
M-50 (11)	P21607	P21454	P21455	P21456	P21457	P21458	P21459	P21460	P21461	P21462	P21426	P18035
Complete Lock Assembly #	A14011	A14012	A14013	A14014	A14015	A14031	A14032	A14029	A14030	A14028	-	-
Drive Pin/Roll Pin #	P16513	P12022	P12022	P12022	P12022	P12022	P12022	P12022	P12022	P12022	-	-
Pin & Spring Assembly #	A12018	A12004	A12023	A12027	A12020	A12012	A12013	A12015	A12014	A12015	-	-
Hook	For M25, M30, M35, M40, M50 use P30248-R											

Replacement parts available. Contact TEN for further information.



Triangular Telescopic Operating Stick/ Kit



Part No. EX2-1848

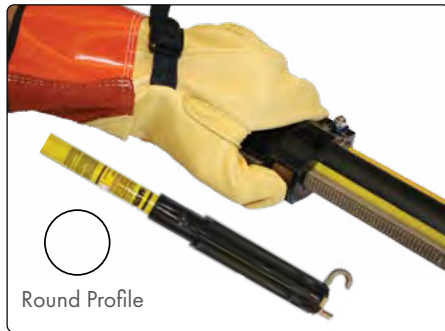
- Telescopic Stick only
- Ideal for removing & installing House-service fuses

Part No.	Extended Length (m)	Retracted Length (m)	Wt (kg)
EX2-1848	4.4	0.94	3
EX2-1848-K	Kit includes 1 x EX2-1848/ 1 x LVDP/ 1 x TENM309		

Triangular Profile = NO Twist

Retracts to 940mm - Fits under lip of EWP

Shotgun Sticks



Part No. 81 Series

- Full open side hook offers unobstructed view
- Precision cast slide gives complete control and extra firm grip
- Hook release trigger shielded to avoid accidental operation
- Hanger hook moulded into head
- Foam filled fibreglass main shaft
- Tested to ASTM F711 & OSHA
- Fixed shotguns tested to IEC 60855
- Solid fibreglass operating rod with guide
- Non-conductive polycarbonate head



Fixed

Part No.	Type/Model	Over All Length (mm) ¹	Bag	Wt (kg)
8104	Fixed	1370	TENM309	2.0
8106	Fixed	1980	TENM301	2.35
8108	Fixed	2590	TENM310	2.95
8110	Fixed	3200	#	3.3
8112	Fixed	3810	#	3.5

Telescopic

Part No.	Type/Model	Retracted Length (mm) [*]	Extended/OAL (mm) ¹	Bag	Wt (kg)
8158	Telescopic	1550	1550, 1980, 2440	TENM309	2.6
81611	Telescopic	1980	1980, 2440, 2895, 3350	TENM301	3.0
81-811	Telescopic	2440	2440, 2895, 3350, 3810	TENM310	3.3
81-814	Telescopic	2440	2440, 3050, 3655, 4265	TENM310	3.5

* Collapsed lengths for storage or transport ¹ Lengths which can be locked for operating # Custom Made

Sectional Shotgun Sticks



Head Section



Extension Section



Base Section

- Same features as Fixed and Telescopic shotguns
- Select Base & Head then required extension sections for height
- Contact TEN for storage bag solutions

Part No. 81 Series

Part No.	Section	OAL/ Base & Head (mm)	Wt (kg)
81-704	Base & Head	1524 (1219 & 304)	2.2
81-706	Base & Head	2133 (1828 & 304)	2.5
81-708	Base & Head	2743 (2438 & 304)	4.3
81-710	Base & Head	3352 (3048 & 304)	5.1
EX2-1464	Extension	600	0.6
81-604	Extension	1219	1.1
81-606	Extension	1828	1.6
81-608	Extension	2438	2.3
81-610	Extension	3048	2.7
81-4023-5	Head	304	0.7

Kits including hand guards, cleaning accessories & carry bag available. Contact TEN for further information.





Shotgun Stick Kits



Part No. 18280

- Complete fixed or sectional shotgun kit
- With complete range of adaptors and accessories
- Customised versions available



Part No.	Item Description	Qty in Kit
		18280
8106	Shotgun Fixed 1.8m	1
10-090	Cloth Silicone	1
10-188-1	Wipes Silicone Single Sachet	2
MET GUARD	Met Guard Warning Ring	1
PLEGAAM1	Adaptor Shotgun to Universal Head	1
LVDP	Fuse Extraction Head	1
LLCR	Live Line Clamp Remover	1
P10431-2	Universal Disconnect Hook	1
TENM311	Carry Bag Red	1

See pages C31-C34 for Cleaning

Shotgun Stick Package

Part No.	Length of Sections (mm)	No of Sections	Operating Lengths (m)	Description	Wt (kg)
81-544	1200	4	1.5 - 2.7 - 3.9 - 5.2	Sectional shotgun stick package complete with base, head, intermediate sections and carry case	7.1

Contact TEN to Design Your own Stick Package

Hand Guards



Part No. A3000 Series

- High visibility safety red for visual warning of approach distance
- Provides hand guard or barrier
- Split and double flat head screw design makes installation easy
- A30002 suits shotgun operating rod
- Non-conductive delrin



Part No.	Suits Stick OD (mm)
A30002	32
A30003	38
A30005	50

Stick Mounts

Part No. Various

- Truck box/Compartment Stick Mounts



Part No.	SM25	SM32-38	SM45	SM63-76	SM32-ETS	A10009	10-151-2
Suits Sticks (mm) OD	25	32-38	45	63-75	32-38	32-38	32
Description	Stick Mount with Screw Holes				No Mount Holes	Hanger Hook	
Use	Mounting Stick in Truck or on Wall					Hanging Stick	
Material	Polyurethane					S/S Hose Clamp & Bronze Hook	S/S Hose Clamp & PU Hook



Tree Trimming Kits - Hastings

Part No. 4141 & 4142



- For line clearance crews, trouble shooting and emergency call outs
- Complete kit with sticks, cutter, saw and adaptors in Protective carry bag
- Tested to ASTM F-711, IEC 60855 & OSHA
- Refer to local network provider procedures for live line use

Part No	Stick OD (mm)	Length of Sections (m)	Maximum Height (m)	Description	Weight (kg)
4141	32	1.2	4.8	Tree Trimming Kit (Refer below for contents list)	6.8
4142	32	1.8	7.2		8.6

Open the bag and you have choice of tree trimming tools in the length required, all in a convenient heavy-duty vinyl tool bag that offers maximum protection for the tools

Optional Extras

Universal "Spiral" Hook

Part No. 10-106



- Used for grabbing and holding branches or wire during tree trimming



Spare parts & accessories available at TEN

Debri Removal Tool

Part No. DV-1



- Universal aluminium base for strong secure fit and corrosion resistance
- Two-prong angled tapered design for quick vegetation removal in tight spaces
- Can also be used to remove tree limbs and break ice

Part No.	Item Description	Qty in Kits	
		4141	4142
546-4	Stick Sectional Extension 1.2m	4	-
546-6	Stick Sectional Extension 1.8m	-	4
4125	Cutter - Tree Pruner 600mm FG	1	1
A18007	Base Cap 32mm Female	1	1
A10012	Adaptor Male Universal 32mm	1	1
P10046	Universal "S" Hook	1	1
A11000	Universal Pruning Saw	1	1
A10016	Universal Saw Handle	1	1
A30007	Pruning Saw Scabbard	1	1
TENM305	Bag Tree Trim to suit 1.2m	1	-
TENM315	Bag Tree Trim to suit 1.8m	-	1

Rope Insulator

Part No. Various Sizes



- For insulating ropes used around energised lines
- Add one to you Tree Trimming Kit
- Blank fibreglass middle section with eyes each end

Part No	Fibreglass Length (mm)
4010	1100
4004-1	305
4005	860

Rope Insulator not included in Tree Trimming kits



Tree Trimming Equipment & Adaptors



Part No.	10-019	A11002	A11004	A10033
Description	Tree Pruning Head Insulated with Rope	Tree Pruning Head	Replacement Head	Replacement Rope Pulley
Details	Drop Forged Steel Blades cut to 38mm Ø. 300mm Fibreglass Shaft – Twin Pulley with 7.6m Polypropylene Rope and Universal Head	Drop Forged Steel Blades cut to 38mm Ø. Single Pulley with Universal Head	Drop Forged Steel Blades cut to 38mm Ø	Cast Aluminium Pulley
Weight (kg)	1.3	0.88	0.79	0.11



Part No.	A11000	P11004	A30007	A11000-K
Description	Universal Pruning Saw	Replacement Blade	Saw Scabbard	Universal Pruning Saw & Scabbard
Details	Teflon Coated Fast Cutting. Curved Blade 400mm long with 7 Teeth per 25mm and Universal Head	Teflon Coated Fast Cutting. Curved Blade 400mm long with 7 Teeth per 25mm	For Safe Storage of # A11000 Saw, Heavy Duty Stitching	Kit Includes A11000 + A30007
Weight (kg)	0.36	0.14	0.45	0.79



Part No.	P10032	A10016	10-106	P10046
Description	Pruning Saw Casting	Saw Handle	Universal Spiral Hook	Universal "S" Hook
Details	Aluminium Casting replacement for A11000	Handle for # A11000 Saw, Cast Aluminium with Wingnut	Used for Grabbing/Holding Branches/Wires	Used for Lifting Overhead Wires
Weight (kg)	0.22	0.22	0.34	0.10



Sectional Sticks

Universal Head - Extension - Base Section

Sectional sticks - Foam filled tested per OSHA, ASTM F-711 - 32mm and 38mm OD sticks tested to IEC 60855

Universal Head



Extension Section



Base Section



Universal Head with Removable Base Adaptor				
Length (m)	OD (mm) 32	Wt (kg)	OD (mm) 38	Wt (kg)
0.6	5467-2	0.47	-	-
1.2	5467-4	0.90	5547-4	1.08
1.8	5467-6	1.07	5547-6	1.56
2.4	5467-8	1.41	5547-8	2.04

Extension Section				
Length (m)	OD (mm) 32	Wt (kg)	OD (mm) 38	Wt (kg)
0.6	546-2	0.45	-	-
1.2	546-4	0.56	5546-4	0.90
1.8	546-6	0.93	5546-6	1.39
2.4	546-8	1.13	5546-8	1.87

Base Section with Glued Rubber Base Cap				
Length (m)	OD (mm) 32	Wt (kg)	OD (mm) 38	Wt (kg)
0.6	-	-	-	-
1.2	552-4	0.68	5553-4	0.85
1.8	552-6	0.90	5553-6	1.25
2.4	552-8	1.30	5553-8	1.64

Adaptors & Base Caps



Part No.	A10012	A10025	A10011	A10026	A18007	A18008	A14019
Suits Sticks (mm) OD	32	38	32	38	32	38	38
Description	Male Universal Button Adaptor		Female Universal Adaptor		Female Base Cap		Snap-In Male
Suits Stick Head	Universal head, sectional button type adaptors and base caps						
Material	FG, Al Alloy & Plastic				FG & Rubber		FG

Fixed Length Sticks



Universal Head each End - Triangular with Hanger Hook		
Length (m)	OD (mm) 28	Wt (kg)
1.8	4679-6	1.45
2.4	4679-8	1.72
3.0	4679-10	1.90
3.6	4679-12	2.13

- Adapts to all standard universal fit tools
- Includes hanger hook
- Universal Head each end



Severe Weather Tool with 2 Rain Sheds* and Hanger Hook				
Length (m)	OD (mm) 32	Wt (kg)	OD (mm) 38	Wt (kg)
1.8	6801	1.45	-	-
2.4	6802	1.81	-	-
3.0	6803	2.18	-	-
3.6	6804	2.54	6811	3.22
4.2	-	-	6812	3.54
4.8	-	-	6813	3.95
5.4	-	-	6814	4.36
6.0	-	-	6815	4.72



Universal Head each End - Circular with Hanger Hook				
Length (m)	OD (mm) 32	Wt (kg)	OD (mm) 38	Wt (kg)
1.2	4678-4	1.27	-	-
1.8	4678-6	1.47	-	-
2.4	4678-8	1.86	4680-8	2.59
3.0	4678-10	2.25	4680-10	2.90
3.6	4678-12	2.63	4680-12	3.72
4.2	-	-	4680-14	4.54

Rain Sheds Available Separately

Part No. P30773 - 32mm

Part No. P30772 - 38mm



For further details see
Test & Measurement section

Hot Stick Tester - Battery Operated

Part No.	Description
7707	In field Hot Stick Tester - Battery Operated



Sectional Stick Kits



- Customised stick kits made to customer specification or specific utility industry kits
- Below examples of current industry kits



Component Part No.	Item Description	Kit Part No.	
		TENK026	TENK908
546-4	Stick Sectional Extension 1.2m, 32mm OD	4	-
546-6	Stick Sectional Extension 1.8m, 32mm OD	-	4
LVDP	Fuse Extraction Head	1	1
A10012	Adaptor Male Universal Head 32mm	1	1
A18007	Base Cap 32mm Female	1	1
A30002	Hand Guard to Suit 32mm	1	1
P10431-2	Universal Disconnect Hook	1	1
TENM302	Bag Sectional Kit, 4 x 1.2m & Acc Pock	1	-
TENM313	Bag Sectional Kit, 4 x 1.8m & Acc Pock	-	1
10-188-1	Disposable Silicon Cleaning Wipe	2	2
10-090	Silicon Wiping Cloth	1	1

Blank Poles

- Foam filled fibreglass tested per OSHA, ASTM F-711
- 32mm OD sticks tested to IEC 60855



Length (m)	32mm OD		38mm OD	
	Part No.	Wt (kg)	Part No.	Wt (kg)
1.2	464	0.56	534	0.90
1.8	466	0.93	536	1.39
2.4	468	1.13	538	1.87
3.0	4610	1.29	5310	2.41
3.6	4612	1.53	5312	2.95
4.2	-	-	5314	3.49
4.8	-	-	5316	4.01
5.4	-	-	5318	4.57
6.0	-	-	5320	5.11

50, 63 & 76mm poles available. Contact TEN for more information.



Stick Parts & Components

Components to repair or modify sticks



Part No.	P18006	P18008	A10017-R	A10018-R	5455-10	P10037	P10038	P10036
Suits Sticks (mm) OD	32	38	32	38	n/a	32	38	32
Description	Rubber Base Cap	Rubber Base Cap	Universal Head	Universal Head	Chuck Blank	Nema Disconnect Head	Nema Disconnect Head	Nema Disconnect Head - Notched
Material	Rubber	Rubber	Al Alloy	Al Alloy	Bronze Alloy	Manganese Bronze	Manganese Bronze	Manganese Bronze



DNOBHOOK
sold separately

A10-094DNOB
Hook Danger
Tag Applicator



10-094
Fuse Cup

Universal Head Tools and Adaptors

Fuse Cup

- Installation, removal and changing EDO's
- Reduces flash over hazards & chance of dropping fuse barrel
- Made from fibreglass reinforced nylon & aluminium
- A10-094 DNOB version has grooved inner surface for hanging 'Do Not Operate' markers (Part No. DNOBHOOK)
- Fuse barrels (suits most 100A & 200A)

Part No.	Description
10-094	Fuse Cup - EDO's install/removal Tool - Universal head
A10-094DNOB	Fuse Cup - with grooved inner for hanging DNOB markers - Universal head
DNOBHOOK	"DO NOT OPERATE" Hook danger tag, (Sold separately)

House Service Fuse remover/installer



Part No.	EX2-1824-K	LVDP	A5455-10-PTU
Desc	LV Fuse Puller Fits Tri-Angular Telescopic Stick 200mm Stick Section + LVDP*	Pigtail Fuse Puller One piece plastic universal fitting & pigtail	Pigtail Fuse Puller Brass universal fitting & plastic pigtail
Use	Remove House Service Fuses		

* Remove the tip section of the MV Stick and replace with the EX2-1824-K to create a long LV stick

Remote Spray Can Holder with Universal Fitting

- Insert any size spray paint can - Rust Inhibitor/CRC/WD40, Degreaser and Wasp or Insect Killer.
- Supplied with 9m of 6mm OD Polypropylene Rope (Use with # 4005 Rope Insulator when working near energised lines)
- Loosen rusted bolts and corroded pole line hardware
- Eliminate bee and wasp nests
- Products supplied in pressurized spray cans can be safely applied around energized apparatus from the ground, pole, or bucket truck

Part No.	Description	Material	Wt (kg)
10-115	Spray Can Holder	Al Alloy, S/S, Polypropylene & Delrin	0.70

Rattlegun - Snakeguns

Part No. AUS1000

The Rattlegun is a battery powered impact wrench which will allow Line-workers to safely install and remove bolted connections / hardware with an insulated Hot Stick.

- Portable impact wrench for use around energized conductors
- Designed and tested for use on systems up to 500 kV AC (Phase-to-Phase system) for overhead and underground applications
- Communicates wirelessly with remote via linked digital radio
- Up to 90m operating distance between the Rattlegun and remote
- Full function Variable speed and forward/reverse
- Rechargeable battery
- Conductive rubber safety boot

Rattlegun	Weight inc. battery pack	Dimensions (mm)	Power Source	Max Output Torque	Size
	2.2kg	246(L) x 100(W) x 188(H)	18V Ni-CAD Battery, 2.2A/h	195Nm (145ft.-lbs)	½" square drive

Talon Hook

Part No. 4440

- For the safe installation, removal and operating of fuses, EDO's and switches
- Manufactured in Bronze Alloy
- Weight: 0.2kg

Part No. MV-35-K1

Kit Includes:

- 1 x MV-35 - 10.6m Telescopic Stick
- 1 x 4440 - Talon Hook
- 1 x TENM301 - Carry Bag



Remote Control	
Weight (kg)	210 (w/o batteries)
Dimensions (mm)	185(L) x 60(W) x 43(H)
Power Source	9V Alkaline Battery (Field replaceable)



Kits available. Contact TEN and build your own.

Reduce risk of uncontrolled fall of drop out fuse



GoPro™ Camera Stick Mounting Accessories

Modelled after the HASTINGS Tel-O-Pole series, this specially engineered hot stick allows for a GoPro™ Action Camera to be mounted and utilized for quick, easy, and safe inspection of and around energized lines, transformers, insulators, poles, buildings, bridges & other assets. Line workers can use the camera to wirelessly stream and record live picture and video to the ground with any iPhone, tablet or android device compatible with the GoPro Application.

The hot stick may even allow inspections to be completed without the use of a bucket truck, lift, or climbing gear.

- Lightweight
- Fibreglass Stick Tested at 100,000 volts per 300mm
- Camera Assembly Tested up to 40,000 volts
- Extended 9.15m / Retracted 1.6m
- The camera mount adapter can be used in any position included with the R-30-G stick.
- The Clamp Claw Mount, sold separately, clamps to any hot stick.
- Camera Light, sold separately can be used on Camera Mounting Insulated Stick or the Clamp Claw Mount.
- Smart Phone Mount, sold separately, has adjustable strap to fit on most hot sticks.

**See Test & Measure
section for detailed
information**

Part No.	Description	Wt (kg)
R-30-G	Camera Mounting Insulated Hot Stick	1.8
A30413	Smart Phone Mount	0.11
A30414	Clamp Claw Mount	0.22
10-150	Camera Light	0.11
C-35	Carry Case	0.26
5455-10-GOPRO	Rising sun attachment for camera	0.67

GoPro Action Camera and phone not included

Conductor Diameter Gauges

Conductor Gauge - TEN

Part No. CG-430-AU

HDPE slide gauge quickly & easily identify conductor OD

- Designed for Australian AL, CU & ACSR conductors
- Measure Live Conductors
- For conductors 4.0 - 30mm Ø
- Fits universal sunrise fitting

**Reduce Incorrect
Conductor
Identification**

Part No.	Dimensions (mm)	Weight (kg)
CG-430-AU	104 (W) x 287 (L) x 10 (D)	0.26

AL, CU & ACSR - Common Conductor Sizes

Part No. CG-EQL Series

Quickly & easily identify common overhead electrical distribution conductor or wire sizes in AL, CU & ACSR. Markings include conductor name, stranding and overall diameter.

- Hole in base for use with a shotgun stick and hanging storage
- Imperial and metric sizes included
- Precision machined from lightweight aluminium alloy

Part No.	Conductor Range	Dimensions (mm)	Wt (kg)
CG-EQL-ALCU	Copper 7/.064 - 4.87mm to 19/2.75 - 13.8mm	257 (L) x 91 (W) x 14 (D)	0.75
	Aluminium Locust - 7/.093 - 7.08mm to Taurus - 19/4.75 - 23.80mm		
CG-EQL-ACSR	ACSR Quince - 5.25mm to Wolf - 18.13mm	209 (L) x 91 (W) x 14 (D)	0.65





LitLink



LitFinger

LitFinger/LitLink

Both products have a built-in, high intensity LED light for safe and efficient operations in dark or low light areas. Connect to all hot sticks with a Universal sunrise fitting.

- 94 Lumens / 4 Hr
- Bright, unbreakable 1-watt LED light
- Lightweight aluminium body, only 200g with batteries
- HI-LOW switch for increased battery life
- Water resistant battery compartment with sealed silicone rubber push button
- Sealed borosilicate window to resist heat and flash
- Easy access battery compartment door

- Runs on three (3) AAA alkaline or lithium (cold weather use) batteries
- Waterproof to 1 meter

LitLink

- Passed 3000V, 8000A, ½ sec (30 cycles) arc blast test

LitFinger

- Machined aluminium Notched straight arm to secure fuse while lowering or raising fuse barrel
- Pointed head for breaking off of ice or debris
- Curved arm for hanging
- Passed 3000V, 8000A, (10 cycles) arc blast test at 178mm from the 305mm arc

Fixed Head Stick - SAPN

Part No. AKL

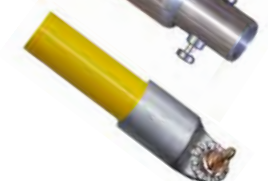
Part No.	Description	Dia (mm)	Length (m)	Head Type
AKL1149	Drive Extension Insulated	38	0.6	1/2" Drive
AKL1711	ABS Operating Handle	32	0.75	14 TPI UNF Thread
AKL546-4	Sectional/Single end	32	1.2	Bayonet
AKL7294	Fixed Stick	32	2.5	Universal
AKL7296	Fixed Stick	38	3.6	Universal
AKL7298	Fixed Stick	38	4.5	Universal
AKL7299	Fixed Stick	38	6.0	Universal
AKL7300	Fixed Stick	38	6.0	Universal Each End
AKL7301	Fixed Stick/Single end	50	6.0	Bayonet



ABS Operating Head



Bayonet Head



Universal Head

Sectional Stick - SECV

Part No. Various

Part No.	Description	Fibreglass Length (m)
LLSP	Operating Stick SECV Female to disconnect podger	1.5
LLSPL	Operating Stick SECV Female to disconnect podger	3
LLSPI	Operating Stick SECV Female to SECV male - extension for LLSPL	1.5

* See opposite page for SECV tool adaptors

Stick & Tools Adaptors - Various



Part No.	AD06	AD03	AD14	MOD-C	MOD-E	MOD-EV	MOD-K
Suits Sticks	32mm stick extension	38mm stick extension	-	-	-	-	-
Top Adaptor	Bayonet (Al)	Bayonet (Al)	Bayonet (Al)	Modiewark	Modiewark	Modiewark	Modiewark
Suits Stick Head	Button Extension	Button Extension	Universal	Hex	Bayonet	Taplin	Universal
Use	Bayonet Earth Clamps (14.5mm Spindle, 24mm Long Pin)	Bayonet Earth Clamps (14.5mm Spindle, 24mm Long Pin)	Bayonet Earth Clamps (14.5mm Spindle, 24mm Long Pin)	Modiewark Holder Hexagon Fitting	Modiewark Holder Bayonet Fitting	Modiewark Holder "E" Bayonet + 40mm T-Bar	Modiewark Holder Universal Fitting
Material	FG, Al & Plastic	FG, Al & Plastic	FG, Bronze Alloy & Al	-	-	-	-



Stick & Tools Adaptors - Various



Part No.	CI-7-E	CI-4-E	CI-4-K	CI-5-K	AD
Top Adaptor	Bayonet	Bayonet	Universal	Universal	Bayonet (14.5mm Spindle)
Suits Stick Head	Universal	Hex	Hex	Shotgun	Universal
Use	For Bayonet Earthing Clamps (Specs)	For Bayonet Earthing Clamps (Specs)	Standard Universal Head	Standard Universal Head	Convert Bayonet to Universal
Material	FG & Al Alloy	FG & Al Alloy	FG & Al Alloy	FG & Al Alloy	Al Alloy



Part No.	*SECV-C	*SECV-K	*LLCR-SECV	LLCR	CI-6-C-2	CI-5-C
Description	SECV to Catu Adaptor	SECV to Universal Head	SECV to Live Line Clamp Remove	Universal to Live Line Clamp Remove	Universal to Adaptor for Catu Tools	Shotgun to Catu Tools
Use	Tool Adaptor For SECV sticks	Tool Adaptor For SECV sticks	Suits SECV stick for Taplin Clamps	Applies & removes Live Line Clamps	Universal to Catu Tool adaptor	Shotgun to Catu tool adaptor

* See opposite page for SECV tool adaptors

Universal Head Accessories

Line specific universal head adaptors and accessories



Part No.	5556	5558	P10431-2	A10400	P10046	MT-630-C/K	A10111
Description	Disconnect Hook	Disconnect Hook	Disconnect Hook	Disconnect Hook, Fluoro	"S" Hook	MT-613 application	Disconnect Pigtail, Fluoro
Use	Operating Fuse Switches suits Hastings 32mm Sectional stick	Operating Fuse Switches suits Hastings 38mm Sectional stick	Double sided sunrise for left and right facing Operating Fuse Switches	Operating Fuse Switches, Night Use	Lifting Conductors	MT-630-K (above) Sunrise fitting MT-630-C Hex Fitting	Operating/ Installing/ Removing Fuse Switches, Night Use
Material	Male F/Glass / Bronze	Male F/Glass / Bronze	Chromed Bronze	Bronze Alloy Painted	Brass	Bronze Alloy	Bronze Alloy
Weight (kg)	-	-	0.2	0.2	0.1	1.0	0.2



Part No.	4440	A10022	PLEGAAM1	A10019	DH-1	5454-6	A10023
Description	Talon Hook	Clamp Stick Head	Shotgun – Universal Head	Shotgun – Universal Head	Double Header Universal Attachment	90° Universal Adaptor	Wire Tong
Use	Installing/ Removing/ Operating Fuses, EDO's & Switches	Operating Shotgun Ring Clamps	Convert Shotgun to Universal Head	Convert Shotgun to Universal Head	Attached two different Universal tools on one Hot-Stick	Change Angle of Universal Head	Light Tong for Holding, Max Ø 35mm
Material	Bronze Alloy	Al Alloy	Al Alloy	Bronze Alloy	Al Alloy	Bronze	Bronze/ Al Alloy
Weight (kg)	0.2	0.5	0.1	0.2	0.35	0.1	0.9



Universal Head Accessories

Line specific universal head adaptors and accessories



Part No.	5455-21	13489	12737	5455-2	5455-15	5455-29
Description	Cotter Key Puller	NX Fuse Puller/Disconnect	Cotter Key Pusher	Bolt Holder	Locking Pin	Ball Socket Adjuster
Use	For 3/16" Cotter Keys on Clevis Type Fittings	For removing and Installing NX Sand Fuses on URD Switchgear	For Transmission Insulator Strings, Pushes Legs on Cotter Key partially out of Socket so Ball can be Disconnected, Slot can Face to Either Side or Rear	For Replacing Pins on Clevis Type Hardware, Jaw Spring Actuated	For Lining Up Joints on Clevis Type Suspension Insulators and Hardware to Replace Pins	Supporting & Aligning Ball Socket Adaptor between Ball Fitting on Disc Insulator & Clevis Fitting on Suspension or Strain Clamp
Weight (kg)	0.4	0.1	0.8	0.3	0.2	0.3



Part No.	5455-1	5454-2	10-096	5455-37	5455-57	5455-93
Description	Insulator Controller 254mm (10")	Ball Socket Fork	Armour Rod Applicator	Self Aligning Fuse Puller, Small	Adjustable Fuse Puller Large	Adjustable Fuse Puller Extra Large
Use	Clamps around 254mm (10") Disc Insulator between Porcelain & Cap for Removing Single Unit or Holding Insulator in Alignment as Cotter Key is Replaced.	Aligning & Holding Ball Socket Fittings for Cotter Key Removal	Installation & Removal of Conductor Ties & Armour Rods	For Fuse Tubes 12.7-38.1mm OD, Plastic Coated Jaws	For Fuse Tubes 22.22-50.8mm OD, Plastic Coated Jaws	For Fuse Tubes 38.1-92mm OD, Plastic Coated Jaws
Weight (kg)	1.1	0.2	0.2	1.0	1.1	1.3



Part No.	A10020	A10021	P10055	P10056	12425	5455-8	A30152
Description	Rotary Prong Tie	Rotary Blade Tie	Prong Tie	Blade Tie	Cotter Key Replacer/Puller	Cotter Key Puller	Tie Wire Assist
Use	Loop End Tie Wire, Self Aligning & Swivels Freely	Removal of Ties without Looped Ends	Looped End Tie Wires	Tie Wires without Looped Ends	Cotter Key 3.22mm (1/8) in Clevis Pins of Distribution Hardware	Removal of Cotter Keys in Clevis Type Suspension Insulators & Hardware, Adjustable for Compound Angles	Attach on 32/38mm Universal & Tie End Sticks. Aid to remove Tie Wires, also Useful as Hanger
Weight (kg)	0.2	0.2	0.1	0.2	0.4	0.2	0.1



Universal Head Accessories

Line specific universal head adaptors and accessories



Part No.	9785	5454-5	5454-3	5454-7	5455-28	C4030177	5455-46	5455-35
Description	Mirror	Crescent Skinning Knife	Ball Peen Hammer	Hacksaw, Light	Screw Drive Flat	All Angle Pliers	Socket Wrench	Universal Insulator Controller
Use	Inspection of Line Hardware, Rubber Trimmed with Ball Swivel Adjustment	Skinning Conductors before Clamp Installation (Replaceable Blades)	Light Impact around Energised Equipment	Cutting Metal, 254mm Blade	Screwing Flat Head Bolts 9.5mm Wide Tip	Designed to grasp bolts and hardware from any angle	½" Square Drive for Sockets	Grips cap of suspension insulator. Adjustable jaws
Weight (kg)	0.36	0.18	0.59	0.45	0.18	0.68	0.45	1.5



Part No.	5455-25	5455-99	5455-98	TEO81RW-U	5455-6	M4455-87	M4455-97	10-178/10-179
Description	Paint Brush	Vice Grips 177mm	Vice Grips 254mm	Insulated Ratchet Wrench 1/2" Drive	Ratchet Wrench 1/2" Drive	Universal Ball Socket Adjuster	Universal Tool for W Keys	Scratch V-Brush Conductor Cleaner
Use	Painting near Energised Lines	Holds Cotter Pins, etc,	Holds Split Bolts & Parallel Groove Clamps, etc	Use with 1/2 drive sockets Reversible	Sockets, Reversible	For socket clevises, where suspension and deadend clamps are attached to ball and socket insulators.	This tool is used for handling the "W" shaped keys used in suspension insulators	For use with Hand or Shot-Gun stick for cleaning conductors prior to connecting (Part No. 10-179 10 x Replacement Brushes)
Weight (kg)	0.31	0.54	0.72	0.45	0.86	0.30	0.40	0.3



Part No.	5455-74	M4455-22	M4455-103	M4455-19	M4455-2	5455-31	M4455-67
Description	Bolt Head Wrench	Universal Ball Socket Adjuster	Cotter Key Holder	Cotter Key Pusher	Pin Holder	Universal Shepherd Hook	Universal Adjustable Insulator Fork
Use	Tightening Through Bolts, Head Wedges Against Bolt Head to keep it from Turning	Useful in controlling the adapter between clevis clamps and ball and socket insulator pins	For holding Split pins closed during installation and easily releases after installation	Straight End pushes the Insulator Cotter to disengage. Curved end forces cotter key back into position	For replacing Pins & Bolts. Bolt head fit into a slot and is held tight by the spring action	Fits around the cap of suspension insulators to aid control during removal	Designed to grasp 9 & 10" disk insulators
Weight (kg)	0.50	0.25	0.223	0.274	0.30	1.05	0.7



Cutters - Various

Emergency Wire Cutters

Part No. 4186

- Universal head with fibreglass insulating shaft & conductor capture hook
- Long lever arm and double pulley reduces pulling requirement on rope
- Shear drop forged cutter blade

Ideal for cutting away Lightning Arrester leads

Part No.	Description	Cuts	Max Cable OD (mm)	Wt (kg)
4186	Universal Cutter with 7.6m Poly Rope	ACSR/Al/Cu	14.3	2.1

Refer to page C10 for information on rope insulators and tree cutter heads

Emergency Wire Cutting Kit

Part No. 4186-K

- Designed for emergency cutting of lines or conductors
- Ideal for cutting away Lightning Arrester leads
- Cutting head attaches to standard universal head operating stick

Part No.	Item Description	Qty
4186	Cutter with Universal Head, Cuts up to 14mm OD ACSR, 28mm OD Al/Cu	1
4010	Insulator for Rope with 1100mm of Fibreglass and Eyes each end	1
TENM413	Carry Bag for above	1



Lever Handle Ratchet Wire Cutter

Part No. Various

- Range of cable cutters for ACSR/Al/Cu
- Parrot Beak style
- Foam filled fibreglass main shaft with solid operating rod tested to ASTM F711 & OSHA
- Lever operation
- Cuts clean leaving no burrs, UG or OH operation
- Lightweight with fold up handle for easy storage



Part No.	Type	Duty	Cuts	Max Cable OD (mm)	Stick OD (mm)	OAL (mm)	Wt (kg)	Replacement Blade	
								Prior to Oct 2006	Since Oct 2006
11-005	Ratchet Lever	Standard	ACSR	20.7	32	1525	4.1	A11001	A11055
11-006						1830	4.5	A11001	A11055
11-008						2440	4.8	A11001	A11055
11-010						3050	5.2	A11001	A11055
11-015			Al / Cu	25.5 / 18.0		1525	4.1	A11041	A11055
11-016						1830	4.5	A11041	A11055
11-018						2440	4.9	A11041	A11055

Bolt & Steel Cutters

Part No. Various

- For cutting hard material such as high tensile steel, bolts, wire, rods, links and hardened chains
- Replaceable foam filled fibreglass handles tested to ASTM F711 & OSHA
- Comply with USA-F.S. No. GGG-C-740d Type II
- Great for everyday regular use



Part No.	Handle Length (mm)	OAL (mm)	Reinforcement Steel (HRC Brinell 140 49.6kg/mm)	Bar Steel (HRC 20 Brinell 230 77.5kg/mm)	Steel Wire (HRC 40 Brinell 370 133kg/mm)	Music Wire (HRC 48 Brinell 450 162kg/mm)	Replacement Heads
10-667	405	609	10	8	8	7	A11012
10-665	610	812	10	8	8	7	A11012

Other sizes available. Contact TEN for more information.



Cable & Guy Wire Cutters

Part No. 10-202

- Range of cable cutters for ACSR/Al/Cu/Guy Wire
- Insulating handles tested to ASTM F711

Part No.	Type	Cuts	Max Cable OD (mm)	OAL (mm)	Handle Length (mm)	Wt (kg)	Replacement	
							Blade	Handles
10-202	Parrot Beak	ACSR / Al / Cu	16 ACSR/Cu, 25 Al	787	685	2.7	10-203 (Handle & Blade)	-

Other sizes available. Contact TEN for more information.



Nagaki Mighty Cutter

Part No. MIGHTY CUTTER

- Precision machined blades from high quality Japanese Steel
- Blades suitable for Cu and AL, as well as ACSR and Steel
- Reliable ratchet mechanism for durability and ease of use
- Fibreglass handles 30mm AL, 22mm ACSR/Cu, 12mm Soft Steel Rod
- Half the weight of comparable cutters
- Weight: 2.8kg
- Stranded cable only

Part No. - MIGHTY CUTTER	
Material	Cutting Capacity (mm)
ACSR/Cu	22
AL	30
ACSR	22
St	12

Refer to HYDRAULICS section for Battery and Hydraulic cutters and hand tools for other cutters.

Pliers Handles

Part No. 1961-2

- Foam filled fibreglass handles for attaching to standard electrical pliers or cutters, pliers/cutters not included

Part No.	Dimensions (mm)	Wt (kg)
1961-2 *	32 OD x 1220 L	2.0

* Supplied as pair only



Cable Handling & Probe Tool

Part No. 6751 Series

- Tools for probing soil and lifting or moving cables
- 32mm OD foam filled stick handle tested per OSHA & ASTM F711

Part No.	Tool Model & Description	Maximum Cable OD (mm)	Length of Fibreglass Shaft (m)	Wt (kg)
6751-01	Cable Tool with Permanent Hook	89	0.6	0.9
6751-04			1.2	1.4
6751-15	Probe Tool	n/a	0.3 (Spike 1.06)	1.1
6751-8	*Fibreglass Shaft with Sunrise head	-	0.61	0.67
6751-9	*Fibreglass Shaft with Sunrise head	-	0.91	0.85
6751-10	*Fibreglass Shaft with Sunrise head	-	1.2	1.04
6751-16	*Fibreglass Shaft with Sunrise head	-	1.82	1.23

*Used with 10-106 Spiral Hook

Part No.	Description	Details	Wt (kg)
10-106	Universal Spiral Hook	Used for Grabbing/Holding Branches/Wires	0.34



Temporary Conductor Support

Part No. Various

- This Conductor Support clamps to the crossarm, adjusting to crossarms from 82.5mm x 100mm to 150mm x 150mm
- The C-clamp is made of heat treated aluminum and can be installed with a Grip-All shotgun

PSC4000517009



Part No.	Description	Working Load (kg)	Height from Cross-arm (mm)	Insulated Length (mm)	Wt (kg)
C400-0517	Conductor Support	68	200	200	1.6
PSC4000517011	Conductor Support	68	800	600	1.9
PSC4000517009	Conductor Support - Replacement for PSC4000517011 & C400-0517 (No Cross-Arm Brkt)			600	1.6

C400-0517

PSC4000517011



Wire Holding Stick

Part No. C403-3068 Series

- Foam filled shaft and solid fibreglass operating rod tested per ASTM F-711 and OSHA
- Three position locking head

The Chance Epoxiglas® Wire-Holding Stick is used on or around energized lines for forming, bending and positioning jumper wires; and for holding conductors during splicing operations. The gripper, equipped with an eye so that other sticks can assist with heavy bending, will handle (4.5mm OD solid copper through 34mm ACSR).



Part No.	Pole OD (mm)	Length OAL (mm)	Conductor Capacity (mm)	Wt (kg)
C403-3068	32	1955	4.0 – 38.0	2.7



**Will not RUST, ROT
or CORRODE**



**Ideal for changing Live
HV and LV Strain and
Termination Cross-Arms**



Temporary Composite Fibreglass Cross-Arm WLL 2T

Part No. TENK007

Features

- Advantages over other temporary crossarms
 - "CAN" be used for Terminations
 - "CAN" be used in HV situations
- Chemically Inert:
 - Cross-Arm will not RUST, ROT or CORRODE
- 2Tonne WLL
- Lightweight:
 - Composite Cross-Arm - Approximately $\frac{1}{3}$ the weight of timber
 - Bracket - Manufactured with high strength Aluminium
- Cross-arm provides additional protective layer of insulation (BIL rating 673kV/m)
- Takes 3 time longer to ignite and does not sustain a flame

Specifications

Composite Strain Arm

- 2580mm OAL
- 125mm x 125mm (Square)
- 22mm OD attachment holes

Lightweight

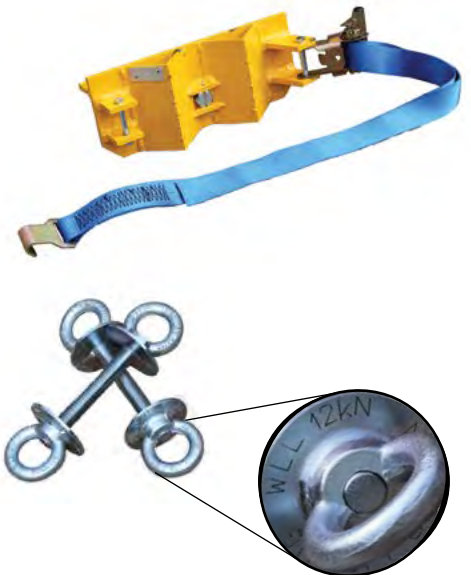
- Rating – 10kN per attachment point
- Non slip tape top and bottom
"To prevent slippage on EWP baskets"
- Use as termination or strain crossarm

Bracket

- Lightweight (Aluminium)
- Ratchet style web-strap attachment
- WLL 2T

Eye Bolts

- Double Ended (for strain arms)
- WLL 12kN (marked not for lifting)



Kit Includes

Part No.	Description	Qty
AEC047-00005	Cross-Arm 2.5 Wagner composite	1
FSXARMB1	Aluminium mounting bracket & ratchet strap	1
CCA20	20mm rated eye bolt & eye nut	4
TENM710	Carry bag (Cross-Arm) - Canvas RED (2640 x 170 x 100mm)	1
TENM426	Carry bag (Accessories) - Canvas RED	1

Cross-arm Storage Bag

Part No. TENM710

- Included in TENK007 kit
- Made from durable tear stop canvas with reinforced edges
- Webbing carry straps
- Webbing carry handles, reinforced stitched on both ends of bag
- Fold over corner velcro flaps
- 3 reinforced adjustable webbing straps for closing bag
- Bag easily unwraps to access Cross-arm



Swivel Eye
Safety Hook

Swivel Eye
Both Ends



"-1" Models supplied with hot stick operated safety latch (as above)

Link Sticks

Swivel Eye & Safety Hook

Part No. Various

- Provides insulation protection when using ratchet hoists on energised lines
- Foam filled fibreglass shafts
- Tested to ASTM F711 and OSHA, Pretested in factory to 2265kg
- Clevis Roller accepts up to 40mm wide strap
- Forged hooks
- Not to be used in place of insulators, rubber gloves or sleeves

Part No.	Type	OD (mm)	Pole Length (mm)	WLL (kg)	Wt (kg)
3414	Swivel Eye – Safety Hook	25	300	1815	1.0
3414-1			300		1.1
3415 ²	Swivel Eye Both Ends		150		1.0
3416			300		1.1

² For LV only



Strain, Roller & Spiral Link Stick

Part No. Various

- Tested to ASTM F711 and OSHA
- Foam filled fibreglass shafts



Model	Strain	Roller	Spiral
Use	Provides insulation between energised conductors and pulling devices at different potential.		
Hardware	Heat treated aluminium or bronze alloy. Eye screws are plated steel. Ball bearing eye swivels.		Heat treated aluminium or bronze alloy. Eye screws are plated steel. Ball bearing eye swivels. High strength heat treated steel spiral hook

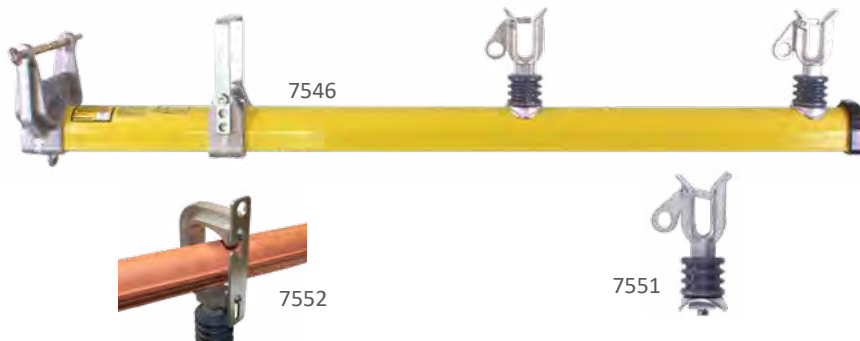
Part No.	Type	OD (mm)	Pole Length (mm)	OAL (mm)	Max Wire Size Ø (mm)	WLL (kg)	Wt (kg)
5708-3	Strain	32	610	915	35.05	1360	2.0
9466	Roller	32	610	1065	31.75	450	1.8
9467		32	1220	1675	31.75	450	2.1
9468		32	1830	2285	31.75	450	2.4
3480	Spiral	25	305	610	28.19	905	1.3
3481		25	610	915	28.19	905	1.5
3482		25	915	1220	28.19	905	1.7
3483		25	1220	1525	28.19	905	1.9
H4722		32	390	700	31.75	1587	1.7

Additional sizes available see Hastings Catalogue.

Extension Arms

Super "U" Extension Arms

Part No. Super "U" Series



- Used for temporary support, reconducting and line maintenance
- Fixed conductor holders
- Great strength and durability "U" shape design
- Interchangeable hanger loop kits available for various size X-Arms
- Super "U" Arms include insulators
- Tested per OSHA & ASTM F-711
- FRP laminate resists weathering

Part No.	Description	Rating Ø - Ø (kV)	Wire Holders	Max Conductor (mm)	WLL (kg)	Max X-Arm Size (mm)	Wt (kg)
7546	Standard w/Lrg Hanger Loop	35	2	27	181	150 x 150	9.3
Accessories and Replacement Parts							
7551	Conductor Holder - Standard	-	1	27	90	-	0.5
7552	Conductor Holder - Large Capacity	-	1	67	90	-	0.7
A30008	Insulator	-	-	-	-	-	0.5

Adjustable conductor holders

5006-F Bracket for Composite Arms
Insulators not included.

Standard Extension Arms

Part No. Standard Series

- Used for temporary support, reconducting and line maintenance
- Can be used for obtaining clearances in congested areas
- Easy to install

- Adjustable conductor holders
- Foam filled fibreglass shaft
- Tested per OSHA & ASTM F-711
- Eye bolts and nuts are silicone bronze to resist seizing



63mm OD Arms									
Maximum X-Arm Size = 100W x 175H (mm)					Maximum X-Arm Size = 125W x 150H (mm)				
Part No.	Arm Length (m)	# Cond Holders	WLL (kg) per Cond Holder	Wt (kg)	Part No.	Arm Length (m)	# Cond Holders	WLL (kg)	Wt (kg)
5000	1.52	1	68	5.1	5036	1.5	1	68	5.5
5001		1 + Insulator		5.2	5037		1 + Insulator		5.7
5006	1.82	2		6.6	5016	1.8	2		6.7
5006-F		2		6.6	5016-1		2 + Insulators		7.0
5007		2 + Insulators		7.0					

Composite Cross-Arm Retrofit Bracket

Part No. 7560

Suitable for Super "U" and Standard Extension Arms

Kit Includes

- 2 x Threaded Eye Bolts c/w composite tips
- 1 x Cross-Arm Hanger
- 1 x Lip Cover
- 1 x 626 Locktite





Conductor Holder

Super U and Standard, Pole Mounted

- Used for temporary support, reconductoring and line maintenance
- Easy to install, large control handles and knobs for gloved hands
- Tested per OSHA & ASTM F-711



Model	Super "U" Ratchet Strap	Super "U" Chain	Standard Ratchet Strap	Standard Chain
Features	Great strength and durability "U" shape design	Great strength and durability "U" shape design	Adjustable conductor holders	Adjustable conductor holders
Hardware	Aluminium alloy base. Steel alloy grab hook. High strength FRP	Aluminium alloy base	Aluminium alloy base	Aluminium alloy base

Super "U" style temp arm - fixed wire holders

Part No.	Tightener	Suits Poles OD (mm)	Max Use Ø – Ø (kV)	Conductor Holders	Max Cond Ø (mm)	Insulator	Arm OD (mm)	OAL (mm)	WLL Per Holder (kg)	Wt (kg)
5045	Strap	Strap length 1120	34.5	1	27	Yes	n/a	880	91	6.9
5047				2				1265	91	8.2
5049	Replacement Strap with Hook Only							1.10	N/A	0.5
5046	Chain	355*	34.5	1	27	Yes	-	880	91	7.7
5048				2			-	1265	91	9.4

Standard style temp arm - adjustable wire holders

Part No.	Tightener	Suits Poles OD (mm)	Max Use Ø - Ø (kV)	Conductor Holders	Max Cond Ø (mm)	Insulator	Arm OD (mm)	OAL (mm)	WLL Per Holder (kg)	Wt (kg)
5038	Strap	Strap length 1120mm	15.0	1	27	No	63	865	91	5.5
5039			34.5			Yes		865	91	5.9
5040			15.0	2		No		1230	68	6.8
5041			34.5			Yes		1230	68	7.3
5042	Replacement Strap Only							1.10	N/A	0.2
5018	Chain	355*	15.0	1	27	No	63	865	91	6.3
5019			34.5			Yes		865	91	6.8
5020			15.0	2		No		1230	68	7.7
5021			34.5			Yes		1230	68	8.2

*Chain extension # 5031 available for large pole diameters (refer to page C28) Note: Ratchet straps should be inspected prior to use, straps showing signs of deterioration must be removed from service

Temporary "V" Cross Arms, Pole Mounted



Part No. Various

- Used when changing crossarms
- Easy to install two piece assembly
- Ratchet strap mounting base with arm bolt slots
- Solid fibreglass arms provide maximum strength

Part No.	Description	Max Use Ø - Ø (kV)	Length (mm)	Conductor Holders #	Cond Holder Model (With Insulator)	WLL (kg) per Cond Holder	Max Cond OD (mm)	Wt (kg)
5051	Arm & Mounting Base	35	1625	2	A10002	68	27	12.3
5053	Arm & Mounting Base	35	1625	2	A10039	68	67	12.7
5054	Arm & Mounting Base	35	2195	3	A10002	68	27	15.0
5055	Arm & Mounting Base	35	2195	3	A10039	68	67	15.4
Replacement Parts								
A30220	Arm Only	35	1625	-	-	-	-	10.0
A30233	Arm Only	35	2195	-	-	-	-	11.8
A30221	Mounting Assembly	-	-	-	-	-	-	6.4
5042	Strap Only	-	-	-	-	-	-	0.5



Accessories and Replacement Parts for Arms

Part No. Various



Part No.	A10001	A10002	A30008	A10038	A10039
Description	Conductor Holder for 63mm Arms	Conductor Holder with Insulator for 63mm Arms	15kV Insulator Recommended on voltage over 15kV	Conductor Holder Large (67mm OD) Allows Line Hose, No Insulator	Conductor Holder Large (67mm OD) Allows Line Hose with Insulator
Weight (kg)	1.0	1.1	0.5	1.3	1.7

Glove and barrier, pole mounts and boom mounted auxiliary arms and kits available on request.

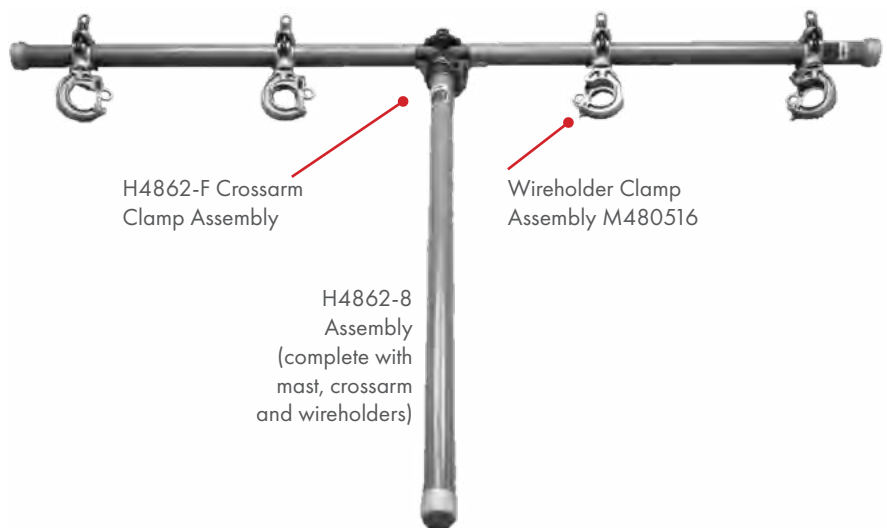
Auxiliary Arm Assembly



H4862-51
Mast and Braces only

(included: crossarm
clamps and mast-
base swivel fitting)

Part No. H4862-8



Crossarm, crossarm clamp & wire holders
can be used with H4862-51

H4862-F Crossarm
Clamp Assembly

Wireholder Clamp
Assembly M480516

H4862-8
Assembly
(complete with
mast, crossarm
and wireholders)

- This Epoxiglas Auxiliary Arm Assembly is used to change crossarms, insulators, or poles on short spans up to and including 15 kV phase-to-phase
- Two M47405W wire tong saddles can be used to mount the mast to the pole (The saddles are not included and must be ordered separately) See next page for further details.
- Two mast pole lengths are available: 1.52m mast provides a lift of 0.76m above the top saddle and the 3.0m mast provides a lift to 1.17m, when the saddles are mounted a recommended 0.46m apart
- The arm has a balanced load rating of 272kg; unbalanced at 68kg
- Each wireholder is rated at 68kg
- Tested per OSHA & ASTM F711

Part No.	Description	Wire Holders		Mast Pole Size (mm)	Crossarm Pole Size (mm)	Wt (kg)
		Qty	Capacity (mm)			
H4862-8	Auxiliary Arm Assembly	4	63	63 x 1200	63 x 1600	18.9
H4862-51	Mast & Braces	Use H4862-8		63 x 3050	Use H4862-8	16.65



Wire Tongs and Accessories

Wire Tongs

Part No. Various



- Used to support and move energised conductors
- Foam filled fibreglass, tested to ASTM F711
- Heat treated aluminium and bronze alloy
- Interlocking conductor jaws with acme threads
- Medium head models feature spring loaded latch head

Medium Head				Large Head			
Part No.	Diameter (mm)	Length (m)	Wt (kg)	Part No.	Diameter (mm)	Length (m)	Wt (kg)
5679-8	38	2.7	2.5	5315-8	38	2.7	3.2
5679-10	38	3.3	2.9	5315-10	38	3.3	3.5
5671-8	50	2.7	3.4	5320-8	50	2.7	4.1
5671-10	50	3.3	3.9	5320-10	50	3.3	4.5
5671-12	50	3.9	4.4	5320-12	50	3.9	5.5
5672-10	63	3.3	6.5	5325-10	63	3.3	7.2
5672-12	63	3.9	7.3	5325-12	63	3.9	8.0
5672-14	63	4.5	8.2	5325-14	63	4.5	8.9
5672-16S*	63	5.1	10.1	-	-	-	-
5673-12	75	3.9	9.2	5330-12	75	3.9	9.9
5673-14	75	4.5	10.3	5330-14	75	4.5	11.0

Butt Swivel Ring

Part No. B-RING

- Used for connecting ratchet hoist to a wire tong
- WLL: 1133kg

Pole Saddles & Pole Clamps

Part No. Various

- Pole saddle chain tightener spring loaded for easy installation
- Pole clamps with large wingnuts for easy operation



Wire Tong Saddle			Pole Clamps		
Part No.	Suits (mm)	Wt (kg)	Part No.	Suits (mm)	Wt (kg)
5745-15	38	4.2	5746-15	38	0.8
5745-25	63	4.7	5746-25	63	1.0
5745	Base Only	3.8	5747	Extension Only	0.5

Part No.	Description	Wt (kg)
M4740-10W	Pole Saddle and Tightener Only	4
M4740-16W	Pole Saddle, Tightener, Pole Clamp and Extension	5
M4740-18W	Pole Saddle, Tightener, Pole Clamp and Extension	5.2

Chain Tightener & Extension

Part No. Various

Chain Tightener
• WLL: 1133kg



Chain Extension
• WLL: 1133kg



Part No.	Description	Wt (kg)	Part No.	Description	Wt (kg)
5030	With 915mm chain & spring loaded take up.	2.5	5031	400mm chain with keeper & safety pin	1.1



Lever Lifts



Insulated Lever Lift			Lever Lift Double Adaptor		Single/Double Lever Lift		
Used for lifting & supporting heavy conductors. Lever lift allows installation around congested areas. Accepts all wire tongs.			Allows two wire tongs to be used for supporting/ lifting conductors with insulated lever lift.		Allows use of single or two wire tongs. Spring loaded chain tightener.		
Part No.	F/G Length (mm)	Wt (kg)	Part No.	Wt (kg)	Part No.	Length (mm)	Wt (kg)
5750-1	300	6.8	5751	0.68	5749	300	5.9
5750-2	610	7.1					
5750-3	915	7.5					

Cross Arm Saddle

- Slotted base and large operation wing nuts
- Suits 75mm x 75mm & 100 x 100mm cross arms



Cross Arm Saddles		
Part No.	Suits (mm)	Wt (kg)
9723	38	3.1
9724	50	3.2
9725	63	3.4
9722	Base Only	1.60

Tower Saddles

- Suits Angles
 - 65mm x 65mm
 - 50mm x 150mm
 - 152mm x 152mm



Tower Saddles		
Part No.	Suits (mm)	Wt (kg)
5740-12	38	3.8
5740-13	50	4.0
5740-14	63	4.3
5740-19	75	4.8
12265	Saddle Base Only	3.4

Bands, Clamps & Stirrups



Wire Tong Band			Wire Tong Blocks Clamp			Wire Tong Stirrup		
Use with rope blocks for lifting or lowering conductors.			Use with rope blocks for controlling conductors and pulling in tension.			Prevents damage to small diameter conductors.		
Part No.	Suits (mm)	Wt (kg)	Part No.	Suits (mm)	Wt (kg)	Part No.	Suits (mm)	Wt (kg)
1829	50	0.8	5748-15	38	1.0	1851	50	1.0
1829-1	63	1.0	5748-16	50	1.2	1851-1	63	1.0
1829-2	75	1.3	5748-17	63	1.4			
			5748-18	75	1.5			

Rope Snubbing Brackets



Rope Snubbing Bracket		Wire Tong Snub Bracket	
Used for terminating block fall lines to hold blocks in position, with chain tightener. WLL 450kg, 915mm chain		Provides stationary base, also for auxiliary arms, with chain tightener.	
Part No.	Wt (kg)	Part No.	Wt (kg)
M1846	3.4	5900-25	3.1



Refer to
Hydraulics page no.39
for Impact Wrenches &
Accessories



Hydraulic Impact Wrench Extension

Part No. 10- Series

- Heat treated end with male end pin retainer for sockets
- Foam filled fibreglass insulating section tested to ASTM F-711 and OSHA

Part No.	Insulation Distance (mm)	OAL (mm)	Wt (kg)
10-199	455	695	1.2
10-200	760	1000	1.7
10-201	1070	1305	1.8
10-167	1675	1960	2.4

Flexible Head Socket Wrench & Driver

- 1/2 square drive
- Foam filled fibreglass insulating section tested to ASTM F-711 and OSHA

Part No.	Description	Drive	OAL (mm)	Wt (kg)
10765	Socket Wrench	1/2"	1830	2.4
10768	Socket Wrench	1/2"	2440	2.7
SA50A	Ratchet Handle	1/2"	-	0.7

Pole Handling Tools - Insulated

Ratchet Strap style - Hastings

Part No. 6856 Series

- Suits wood, concrete, metal and fibreglass poles
- Foam filled stick handle tested per OSHA & ASTM F-711
- Nylon strap specially designed for gripping
- Heavy duty ratchet binder with extra wide handle
- Neoprene pad on base prevents damage to poles
- Two way turning feature - can turned in both positions without reinstalling the tool

Part No.	Length of Strap (m)	Dimensions (mm)		Wt (kg)	Suits pole Approx. Size (mm)
		Stick OD	Stick Length		
6856	1.8	50	1220	4.5	450
6856-3	2.4			4.6	650

Cant Hook style - Hastings

Part No. 6705

- Suits Wood Poles
- High strength forged steel hook
- Heavy duty protective steel sleeve on head end

Part No.	Dimensions (mm)		Wt (kg)
	Stick OD	Stick Length	
6705	45.0	915	3.4

Strap Friction style - Chance

Part No. C305-0021

- The two-in-one tool performs the functions of both a cant hook and a pole tong without spiking the pole.
- Latex-impregnated nylon-web strap
- Epoxiglas® handle

Part No.	Working Load	Wt (kg)
C305-0021	Strap rated at 3400kg	3.6



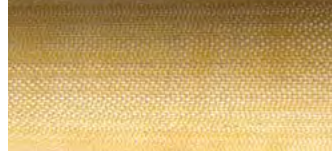
Inspection, Cleaning & Maintenance

Live line tools should be visually inspected daily before use for defects such as abrasions, blemishes, burns and surface deterioration. Any defect is cause for rejection as it may impair the dielectric integrity. Rejection does not mean discarding the tool, only removing the tool from service and tagging.

Common stick defects to look for



Scratched



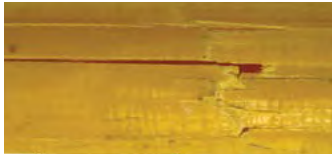
Sun Damaged



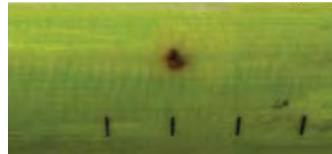
Abrasions



Mistreated



Cracked



Burn



Split



Large Chip

Hot Sticks and Fibreglass Care & Maintenance

For instruction on how to clean hot sticks, watch our video by scanning or clicking the below QR code. Or download "Advice for the Care and Maintenance of Your Equipment" by clicking this link:

https://www.tengroup.com.au/blogs/news/2020/Apr/7/ten_care_and_maintenance

For stripping back heavy contamination and prior to re-waxing, use the Hastings All-Purpose, Safe, non-toxic, biodegradable, PH neutral & non-flammable Cleaning Concentrate (10-195).

Once the surface has been cleaned thoroughly, it is critical to re-wax the stick. The Polywater® Fibreglass Wax and Buff Kit is a simple, easy to use, one application wipe ideal for this purpose.

The lint-free wipe is saturated with fast hazing wax and a soft lint-free towelette is included for buffing the wax to a shine.

This improves the dielectric performance by restoring the water beading properties. Also available is the Polywater (W-16) bottle of wax and Hastings Hot Stick Wax 10-091.

It should be noted, waxing is best done after a thorough stick cleaning. Use of wax products over contaminated surfaces only locks the dirt in.

For spot cleaning the sticks and daily before use, the Polywater® Water Repellent Wipe (Part S-1) that (contains a minimum 60% isopropyl alcohol and silicone) helps clean and restore the water beading properties of the stick.

This will also work to sanitise the stick before and after use if used correctly. Also available for spot cleaning and daily before use is the Hastings (10-188) hot stick wipes containing silicone (note these do not have an alcohol content, these are petroleum based).

After extended periods of use and exposure to the elements your stick surface may require maintenance. Unless the tool is mechanically damaged your stick may be able to be repaired.

Stick repair should only be carried out by professionally trained personnel. Refinishing kits (10-100) and epoxy adhesive (10-097-1) are available.

Never lay your sticks directly on the ground, place them on a ground tarp (TENM705), stick rack (6780) or carry bag.

Always care for your live line tools and equipment by storing them in protective carry bags and/or in a dry area away from rain and light when not in use.



Boom & Basket Cleaning

For washing booms, use the Polywater® Fibreglass Wash (FGW-640). This replaces the previous (BWC) Boom Wash Concentrate.

For spot cleaning of booms and baskets we recommend the Polywater (B-1) large format towels for cleaning grime, grease and contaminants from the surface.

See the following pages for further information on the cleaning.

References: ASTM F711, OSHA, Hastings, Polywater



SCAN or CLICK for Hot Stick Cleaning Instructions



Inspection, Cleaning & Maintenance Products

Fibreglass Stick/ Tool Rack

Part No. 6708

- Tool racks made from fibreglass components
- Will accommodate up to 14 hot line sticks/tools
- Support legs collapse for easy storage and transportation

Part No.	Description	Wt (kg)
6708	Fibreglass stick tool rack (Pair)	3.73

Silicone Wiping Cloths - Disposable

- 50 wipes in a heavy duty cardboard dispenser box that can be installed on a wall or post in a convenient location to the line trucks, each are individually packaged
- Leaves a silicone moisture barrier which enables water to bead up. This eliminates the blanket effect when using hot sticks in wet conditions.
- Excellent for daily wiping of your hot sticks prior to use
- Removes contaminants such as dirt, oils, creosote, and other undesirable matter
- Environmentally safe, the used wipes can be disposed of in normal waste containers

Part No.	Description	Pack
10-188	Hot Stick Wipes - box	50
10-188-1	Hot Stick Wipe - individual	1

Silicon Treated Wiping Cloth

- Deposits a water repellent film while removing dust and dirt particles from the surface of hot sticks and insulated tool handles
- The 460mm x 460mm cotton cloth is an open-type weave specially selected for removing foreign material from the surface of insulated tools and has bound edges to eliminate fraying which extends the life of the cloth
- The cloth is packaged in a sealed plastic bag with instructions for compliance with OSHA regulations for cleaning and inspection of live line tools
- Regular use of the silicone treated cloth will add to the life and safety of the tools
- For added safety and increased life of live line tools

Part No.	Description	Wt (kg)
10-090	460 x 460mm Silicone Treated Wiping Cloth	0.05

Live Working Equipment Wax

Part No. 10-091

- High grade carnuba wax formulated for fibreglass application
- Used on booms, buckets, live line tools and equipment
- Provides hard, tack free weather resistant surface
- Applied by hand or machine



Part No.	Unit	Wt (kg)
10-091	Tin	0.4

Live Line Tool Wax

- Convenient, wax-saturated, lint-free wipe
- Dual action tandem pack includes dry buffing towel
- Does not remove or adversely affect gel coat
- Superior quality, fast-hazing fibreglass wax
- Easy to apply
- Leaves non-conductive water repellent coating
- Prevents continuous water film on stick in wet weather

Part No.	Description
W-1	Fibreglass wax and buff - individual wipes
W-1-K	Fibreglass wax and buff - Box of 72 x wipes
W-16	470ml bottle fast-hazing fibreglass bulk wax



Individual wipes



W-1



Bulk wax

W-16



10-197



10-168



10-195



All Purpose Cleaner Concentrate

- Excellent cleaner for the following: hot line tools, trucks, buckets, booms, rigid cover up, painted surfaces and aluminum metal, shop machinery, hand cleaner, all plastic surfaces
- Can be applied with a soft cloth, sponge or hand dispenser
- Safe and gives the following benefits:

- biodegradable, non-toxic, non-alkali, non-acid, non-flammable, gentle to the skin, requires no ventilation
- Concentrate formula mixing ratio is 20 parts water to 1 part concentrate

Part No.	Description	Wt (kg)
10-168	All purpose cleaner concentrate 3.8L bottle	3.6
10-195	All purpose cleaner concentrate 19L Drum	18.2
10-197	6pk Cleaning Kit: 6 x 200ml ready to mix bottles/ 14 ultra fine non-metallic pads/ 6 adhesive identification bottle labels	1.6

Powerclean Concentrate

- Powerful degreaser/cleaner detergent
- Ideal for cleaning rubber ground mats

Part No.	Package	Qty	Wt (kg)
RPC15	Drum	15 (L)	16.3

Boom Cleaner Wipes

- Convenient, pre-saturated, lint-free wipes in two sizes
- Large and durable for maximum surface coverage
- Won't remove or adversely affect gel coat & prevents "build-up" over time
- Powerful cleaner removes grease, dirt, tar, and grime

- Removes road and sea spray salts (salt water is more conductive)
- Water soluble for easy water rinsing
- Designed for one time use and easy disposal
- Meets OSHA Maintenance Reg CFR 29 Part 1910

Part No.	Description	Pack
B-1	Individually saturated 610 x 610mm wipe in sealed foil	1
B-D72	Dispenser with 72 wipes	72

Boom & Basket Cleaner

- Ideal for washing Fibreglass booms and Baskets
- Mix with water for a mild boom cleaner to spray wipe or pour on surface for easy cleaning

Part No.	Package	Qty (L)	Wt (kg)
FGW-640	Drum	19	16.3

Hot Stick Cleaner and Water Repellent Wipe

- Convenient, pre-saturated, lint-free wipe
- Dual action - cleans and applies water repellent
- Does not remove or adversely affect gloss coat
- Evaporates quickly
- No "build-up" over time

- Removes grease, dirt, and grime
- Prevents continuous water film on stick in wet weather
- Designed for one time use and easy disposal
- Meets IEEE maintenance recommendations (Std #978)

Part No.	Description	Pack
S-1	Pre-saturated lint-free 600mm ² wipe in sealed foil (Single Pack)	1
S-1-K	Pre-saturated lint-free 600mm ² wipe in sealed foil (Box of 144)	144

Polywater®
Solutions at work.





Kit contains the following products:

- All Purpose Cleaner Concentrate
- Fibreglass Wax and Buffing Kit
- Polishing Cloth
- Ultra Fine Non-metallic abrasive pads



Fibreglass Cleaning and Refinishing Kit

Part No. 10-171

This kit helps keep your fibreglass sticks in top condition. Visual inspection can identify areas of wear that will require maintenance prior to putting sticks back into service.

All Purpose Cleaner - The all purpose cleaner provides a safe non-toxic liquid to aid in removing dirt, grease, metal oxides and other contaminants which accumulate on fibreglass

Ultra Fine Non-Metallic Abrasive Pads can be used with the all purpose cleaner to remove stubborn contamination. Note -fibreglass wax may be required after use of cleaner and/or pads to retain surface gloss.

Clear Epoxy Refinishing Kit - The two part refinish kit is used to bring the tool surface back to its original finish if normal cleaning is not sufficient

Silicone Treated Wiping Cloths - Wiping cloths are used to remove light dust and dirt from stick surfaces. It is also needed after light cleaning of tool with all purpose cleaner to allow moisture to bead up on tool.

Live Working Tool Epoxy Adhesive

Part No. 10-097-1

- Used for live line tool construction and repair
- High viscosity two part adhesive, safety yellow in colour
- High performance, high impact resistance with good flexibility

Part No.	Unit	Qty (L)	Wt (kg)
10-097-1	Tin	1 (500mL each of Part A & Part B)	1.36

Epoxy Refinishing Kits & Thinners

- Kit provides all the necessary materials with complete instructions for restoring, fibreglass hot line tools and aerial lift booms and buckets equal to their original finish
- The epoxy coating provides a hard, tough, moisture resistant high-gloss finish of high dielectric strength and is easily cleaned
- Included in the kit are complete instructions, sandpaper, paint brush, and epoxy solvent
- 8 litres of epoxy coating covers approximately 3 metres of surface
- The coating is a two-part system, available in both white and clear, dries dust free in approximately 1 1/2 hours and cures completely within 24 hours

Part No.	Description	Wt (kg)
10-100	Epoxy Refinishing Kit - contains 475ml of each component (3)	1.8

Non-Metallic Cleaning Pads

Cleaning pads can be used with the all purpose cleaner to remove stubborn contamination. Note: Fibreglass wax may be required after use of cleaner and/or pads to retain surface gloss.

Part No.	Description	Qty
10-170	Box of Ultra Fine Non metallic cleaning pads	20/box
EAGERBEAVER	Non-abrasive cleaning pad for cleaning rubber goods & fibreglass sticks	10/ box

Hot Stick Cleaning Kit

- Kit provides the brushes and sectional fibreglass rods needed to thoroughly clean the inside of telescoping hot sticks and internal rod shotgun sticks

- Kit includes: (1) Heavy duty vinyl fold up storage case with pockets to store cleaning rods and brushes - additional pockets are provided for storage of other cleaning items, (3) Fibreglass sectional rods each 910mm long, (5) Heavy duty industrial type nylon bristle brushes to accommodate all inside diameters of telescoping tools

Part No.	Description	Wt (kg)
10-337	Complete cleaning kit	1.6

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NOTES

Honeywell/Salisbury New PRO-WEAR™ PLUS

Honeywell/Salisbury New PRO-WEAR™ PLUS

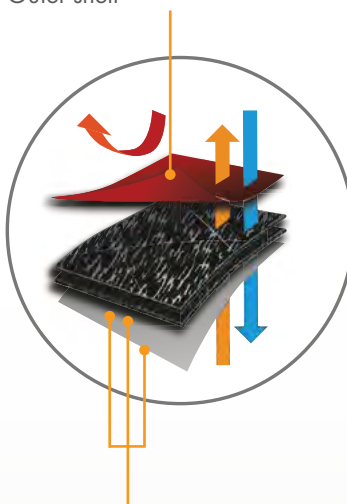


Salisbury's NEW Pro-Wear™ Plus 40-100 Cal/cm² is engineered to be lightweight, more breathable, better fitting and softer to the touch.

Breakthrough comfort in Salisbury's lightest & most breathable 40cal/cm² premium garments

"A DIFFERENCE YOU REALLY CAN FEEL"

SOFTER ANTI-STATIC FLAME RETARDANT
Outer shell



500%
More Breathable



43%
Lighter in Weight



28%
Softer to touch



40cal/cm²
ISO 13688:2013
ENISO 11612:2015

Tested at independent lab
Compared to 40cal/cm² standard offering
Compared to 40cal/cm² PLT

BREATHABLE ANTI-STATIC LIGHTER IN WEIGHT
Mid layers & liner



**Bib Overalls - 40 Cal
Premium Lightweight**

40cal/cm² Premium range

- Incorporates new GlenRaven GlenGuard outer-shell
- Welspun Spunlace 18, Utexbel K90 Utexbel inner layer
- 11 oz/yd² - Lightest In Market
- 500% and 300% improved breath-ability compared to existing Standard and PLT versions



**Coat - 40 Cal
Premium
Lightweight**

75-100cal/cm² Premium range

- Incorporates new GlenRaven GlenGuard outershell along with Norfab /KTW
- Welspun Spunlace 18, Utexbel K90 Utexbel inner layer
- 75cal 40% lighter and 475 % more breathable
- 100 CAL 16% lighter and 90 % more breathable



**Kits - 40 Cal
Premium
Lightweight**



TEN offer an extensive range of Safety & Live-line PPE equipment.

- ▶ Rescue Kits and equipment
- ▶ Arc Flash Clothing and Prismshield Face Shields
- ▶ LV Rubber Gloves
- ▶ HV Rubber Gloves and Sleeves
- ▶ LV and HV Leather Gloves
- ▶ LV and HV Line covers and Blankets
- ▶ Rubber Ground Mats
- ▶ Conductive Suits, Gloves, Socks and Boots
- ▶ Safety Harnesses, belts and Lanyards
- ▶ Safety and PPE cleaning Products



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Honeywell SALISBURY



Rubber Insulating Gloves

LV Insulating Rubber Gloves - Salisbury

- Insulating gloves for live electrical work
- Single and dual colour gloves available for Class 0
- High dielectric strength, flexible and durable
- Straight style smooth finish gloves
- *Sizes 7 - 12, including half sizes in 8, 9 & 10
- Natural rubber dipping process provides strength & excellent resistance to tearing in the cuff
- Meets or exceeds ASTM D120 and IEC EN 60903

Part No.	Working Voltage (V)	ASTM Class	Sizes	Glove Colour	Length (mm)	ASTM Label Colour
E0011R-*	500	00	7-11	Red	280 (11")	Beige
E014R-*	1000	0	7-12	Red	355 (14")	Red
E014BY-*	1000	0	7-12	Black/Yellow	355 (14")	Red

*Add size suffix when ordering

LV Insulating Latex Gloves - 12 Cal Arc Flash Rated

- Arc Flash, 1000V Insulating Latex Gloves
- Protection from an electrical arc flash 12 cal/cm²
- Available in full sizes from 7 to 12*
- Soft, supple, durable and ergonomic with high flexibility
- Meets or exceeds IEC EN 60903

40 Cal/cm² Class 4 Gloves available upon request. Contact TEN for further information

Part No.	Working Voltage (V)	ASTM Class	Sizes	Glove Colour Outer/Inner	Length (mm)	ASTM Label Colour
CGM-0-*	1000	0	7-12	Orange/Natural	360	Red

*Add size suffix when ordering

HV Insulating Rubber Gloves - Class 1

- Meet ASTM D120 and IEC/EN 60903 standards
- Dual coloured gloves, internal/external for easy inspection
- Sizes 8 - 12*, including half sizes in 9 & 10
- Made from Natural rubber in the USA
- Straight Cuff shown

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by Honeywell

Part No.	Working Voltage (kV)	ASTM Class	Sizes	Standard Glove Colour	Length (mm)	ASTM Label Colour
E114YB-*	7.5	1	8-12	Yellow/Black	355 (14")	White

*Add size suffix when ordering

Glove Dust/Talc

Part No. Various

- Powder for use with rubber products
- Absorbs moisture and perspiration, prevents sticking
- Manufactured from Corn Starch

Part No.	Description	Size (g)
10-4CS-ES	Glove Talc dispenser	0.14
10-4-4QT-ES	Glove Talc refill pack	4.5



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ELECTRIFLEX

HV Insulating Rubber Gloves - Class 2-4

Salisbury's all-new Electriflex™ Gloves are 30% more flexible than any other glove ever made and are expertly designed to give linemen the ultimate in comfort and control. Electriflex™ minimises hand fatigue and maximises performance, all while giving you best-in-class protection.

- Meet ASTM D120 and IEC/EN 60903 standards
- ASTM Voltage classes 2, 3 & 4 available
- Two colour Natural rubber gloves
- Sizes 7-12, including half sizes 8, 9 & 10 (See below chart for specific Class Sizes)
- Other cuff lengths and colours available on request



Part No.	Description	Style/Colour	Working Voltage (V)	Length (mm)
NG216YB-*	ELECTRIFLEX LINEMAN GLOVES CLASS 2 - Sizes*7-12	Straight Cuff Yellow/Black	17,000	405 (16")
NG216BCRB-*	ELECTRIFLEX LINEMAN GLOVES CLASS 2 - Sizes*7-12	Bell Cuff Red/Black	17,000	405 (16")
NG316YB-*	ELECTRIFLEX LINEMAN GLOVES CLASS 3 - Sizes*8-12	Straight Cuff Yellow/Black	26,500	405 (16")
NG316BCRB-*	ELECTRIFLEX LINEMAN GLOVES CLASS 3 - Sizes*8-12	Bell Cuff Yellow/Black	26,500	405 (16")
NG416YB-*	ELECTRIFLEX LINEMAN GLOVES CLASS 4 - Sizes*9-12	Straight Cuff Yellow/Black	36,000	405 (16")
NG416RB-*	ELECTRIFLEX LINEMAN GLOVES CLASS 4 - Sizes*9-12	Red/Black	36,000	405 (16")
NG416BCRB-*	ELECTRIFLEX LINEMAN GLOVES CLASS 4 - Sizes*9-12	Bell Cuff Red/Black	36,000	400 (16")
NG418CRB-*	ELECTRIFLEX LINEMAN GLOVES CLASS 4 - Sizes*9-12	Contour Red/Black	36,000	455 (18")
NG418CYB-*	ELECTRIFLEX LINEMAN GLOVES CLASS 4 - Sizes*9-12	Yellow/Black	36,000	455 (18")



Patch Class 2, Type 1, Size 10



Patch Class 3, Type 1, Size 10



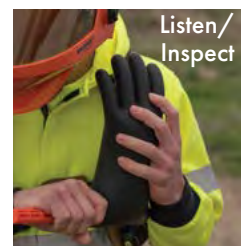
Patch Class 4, Type 1, Size 10

Rubber Gloves Inflation Tool

Part No. VT-12



Quickly, easily & effectively test/inspect rubber glove with the glove inflation tool



Glove Inflator Kit - Salisbury

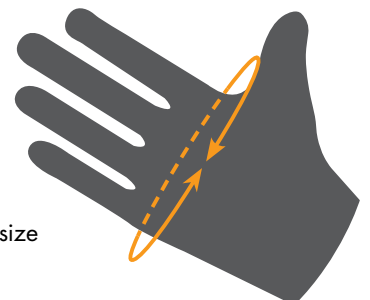
Part No. G99

- Inflate, Test & Inspect Electrical Insulating gloves in the field (Gloves must be inspected before each use)
- Simple, easy-to-use and portable
- The glove is secured to the inflator using a nylon strap and fastened with Velcro. Inflation is accomplished by pumping the bellow of the inflator
- For use on Class 1 to Class 4 Gloves
- Weight 1.36kg



Glove Sizing

- Measure the circumference of the palm of your hand
- Any increment over a full or half size will take you to the next full or half size
- Rubber gloves sizes are manufactured in inch (") sizes
- Allow for cotton inner gloves



Long
VG-10822Short
VG-13820

Leather Glove - Outers and Liners

Cotton Liners - Inners

Separate from gloves, glove liners may be regularly replaced, limiting the bacteriological problems associated with residual moisture due to perspiration

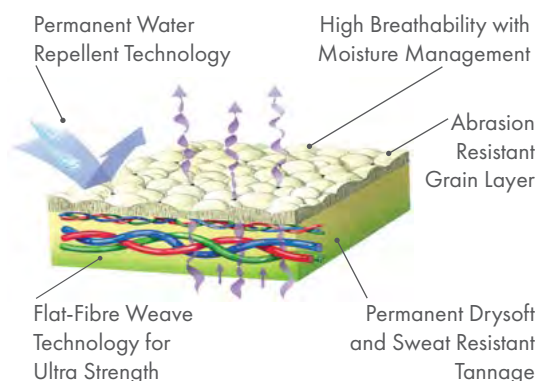
- Ambidextrous cotton under glove Liners.
- 100% cotton
- Reversible - fit either hand
- Stretch comfort fit

Part No.	Brand	Description	Length (mm)	Feature
VG-13820*	Voltgard	Short	220	Normal Cuff
VG-10822*	Voltgard	Long	300	Extended Cuff

*Add -PK suffix when ordering for a pack of 12

LV Leather Gloves - Outers - Kangaroo

- Strongest Leather Fibre available
- Flat-Fibre Weave Technology for ultra-strength
- Abrasion resistant
- High Breathability with moisture management
- Permanent water Repellent Technology



Part No.	Material	Length (mm)	Sizes Available
KLP-LV*	Kangaroo	250	*7, 8, 9, 9.5, 10, 10.5, 11

*Add size suffix when ordering (e.g. KLP-LV-9)

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ILPG10A

LV & HV Leather - Outers - Salisbury

- Glove protectors offer excellent comfort and protection
- Feature adjustable straps with non-metallic buckles and are stitched with polyester thread for strong seams
- Manufactured from imported goatskin
- All Salisbury Leather Protectors meet ASTM F696 standards
- 355mm (14") available on request (ILPG5S-*)

Part No.	Voltage	Sizes	Length (mm)
ILPG10A-*	LV	*7-12 Dual Size	254 (10")
ILPG3S-*	HV	*7-12 Dual Size	305 (12")

*Add size suffix when ordering (e.g. ILPG3S-9-9.5)

ILPG3S



LV & HV Leather Outers - Voltgard

- Crafted by leather glove specialists to fit properly over all industry-standard rubber insulating gloves
- *Dual-sized 8-8½, 9-9½, 10-10½, 11-11½, 12
- Grain goatskin leather selected & processed to be soft, flexible and strong
- High-voltage leather protectors feature high-visibility polymeric material with nylon adjustment strap and non-metallic buckle
- Full compliance with ASTM F696 Standard Specification for Leather Protectors for Rubber Insulating Gloves and Mittens

Part No.	Voltage	Material	Length (mm)	Length (mm)
VLP-110S-*	LV	Goat Skin	254 (10")	Dual-sized (as above)
VLP-112-*	HV		305 (12")	
VLP-114-*	HV		355 (14")	

*Add size suffix when ordering (e.g. VLP-112-9-9.5)

HV Leather Outers - Salisbury

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- Glove protectors offer excellent comfort and protection
- Feature adjustable straps with non-metallic buckles and are stitched with polyester thread for strong seams
- Manufactured from imported goatskin
- Cuffs are tough leather on palm side & orange vinyl on the back of the hand

Part No.	Voltage	Sizes	Length (mm)
LPG3S-*	HV	*8-12 (Half sizes 8.5 to 11)	305 (12")

*Add size suffix when ordering (e.g. LPG3S-9)

HV Leather Outers - Next Generation - Salisbury

Next Generation Leather Protectors are manufactured from top grade cowhide and goatskin leather. Protectors are crafted using heavy duty 4ply cotton thread and are equipped with a non metallic buckle for a secure fit.

The Next Generation Leather Protector is designed exclusively for the insulated Electriflex™ rubber gloves. These new leather protectors offer utility workers the comfort and dexterity needed to get the job done. The redesigned leather protector was constructed to help amplify the flexibility of the Electriflex™ gloves.

Part No.	Material	Length (mm)	Sizes
NGILP3S-*	Goat (Hand) Cowhide suede (Cuff)	305 (12")	8, 8H, 9, 9H, 10, 10H, 11, 12

*Add size suffix when ordering (e.g. NGILP3S-9)

Industrial Glove

Gloves - GuardDog®

Guard dog gloves offer exceptional cut, slash and abrasion resistance for the toughest industrial application.

Part No.	Description	Length (mm)	Sizes
KV224D	Glove, 100% Kevlar liner, premium and safety cuff	254 (10")	Mens
KV224DJ		254 (10")	Jumbo





Honeywell SALISBURY



Rubber Insulating Sleeves and Accessories

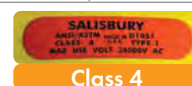
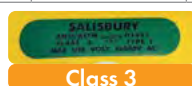
Sleeves - Salisbury

- Prevents arm contact with energised lines - insulates from cuff to shoulder
- Used in conjunction with rubber insulating gloves
- Curved contour arm with reinforced folded cuff
- Buttons and harness are required, sold separately
- Manufactured to ASTM D1051
- Made from Natural Rubber

Size	Length (mm)
Small	610
Regular	673
Large	710

*Enter Size as S=Small,
R=Regular, L=Large

Part No.	ASTM Class	Label Colour	Max Working Voltage (kV)		Proof Test Voltage	
			AC	DC	AC	DC
D2*RY-EC	2	Yellow	17	25.5	20	50
D3*RY-EC	3	Green	26.5	39.75	30	60
D4*RY-EC	4	Orange	36	54	40	70



**Size & Class
identification label
on sleeves**

Straps, Sleeve Adjustable

Part No. HLQE-1000

These adjustable sleeve straps provide the comfort and flexibility needed to stay strapped in all day long. Straps easily adjust to fit each line-worker's body type. Unique button shape design provides quick and easy sleeve attachment. Buttons and strap are a single piece, meaning no more lost buttons! Featuring self-extinguishing components, these rugged straps are safe, easy to use, and have been field-tested for durability and longevity.

Features

Quickeze Sleeve Straps are constructed of all FR-Rated Materials. FR Rated materials have been independently tested.

Straps

- FR Elastic made of a Nomex® and FR Neoprene blend
- Engineered for flame resistance, heat & thermal shrinkage resistance

Oval Buttons

- Made with Flame Retardant ABS
- Tested to pass ignition, melting, or dripping tests

Buttons & Harness for Sleeves

- Required to wear rubber insulating sleeves
- 4 Buttons required for each pair of sleeves
- 1 Harness required for each pair of sleeves

Thickness (mm)	20 strap
Weight (g)	42.5 per pair
Qty per pack	2
Adjustment (cm)	21 to 30.5 (end of button)

Benefits

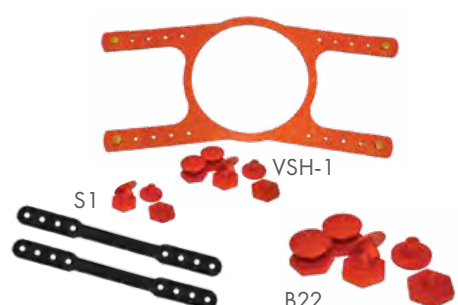
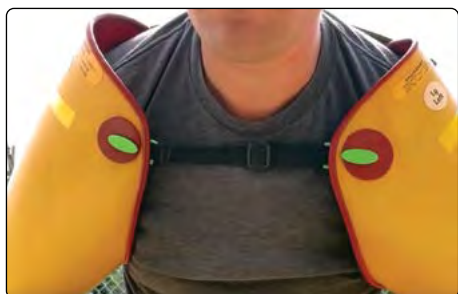
- **NEW:** Arc Tested to ASTM F2621-19 standards: Up to 40 cal/cm² - No melt, no drip
- Self-Extinguishing: Designed with all FR-Rated Components
- Cam-Lock Easily Adjustable buckle: To fit your needs
- Single-Piece: No more lost buttons
- Flexible Design: Keeps you strapped in all day long
- Unique Oval Buttons: Designed for quick & easy attachment to sleeves
- Lineman Made: Perfected by the ones that do it best
- Rugged: Field tested for durability and longevity

Part No.	Description
B22	Four Screw Type Buttons
VSH-1	1 x Harness with 4 x Buttons
S1	2 x Sleeve Straps 4 x Buttons

Cam-Lock Buckle



**Self
extinguishing,
light and easy
to use**



Insulated Hoses, Blankets, Covers & Accessories

Line Hoses - Salisbury

Honeywell
SALISBURY

- Designed to cover live line conductors
- Highly visible shields
- Made from Salcor® Type II rubber, stays flexible even in cold weather and will not be damaged by UV rays
- Engineered ribs inside covers grip the serrations on the corresponding line hose, regardless of the angle
- Self-locking lip ensures line hoses and covers do not separate
- Rib Grip® system allow two pieces to easily slip together but resist in coming apart
- Available in plain or interlocking coupler end
- Type II ozone resistant, manufactured to ASTM D1050



RIB GRIP®



Straight Hose



Connector End Hose



Extended Lip Hose



UC Connector for Extended Lip



CC24

1186



Spreader - Line Hose

Part No. PTI-EEL

- Spreads line hose for inspection and cleaning
- Set in vice or attach to bench

Part No.	Fits Diameter (mm)	Wt (kg)
PTI-EEL	32 – 38	2.3

Blankets, HV Insulating - Salisbury

- High visibility orange colour
- Manufactured in accordance to ASTM D1048
- EPDM/ Natural Rubber - Type II blankets are ozone resistant

Part No.	Dimensions (mm)	Style	Working Voltage (kV)	ASTM Class	Eyelets	Wt (kg)
13	560 x 560	Solid	36	4	28	1.4
900E	900 x 900	Solid	36	4	6	3.6
1300		Slotted	36	4	5	3.2
1302		Slotted w/63mm hole	36	4	28	3.2
1304		Slotted w/114mm hole	36	4	28	3.2



1300

900E



Pegs, Blanket

Non conductive pegs for clamping blankets and covers



Part No.	Material	Description	Length (mm)	Max Jaw Opening (mm)	Wt (kg)
21	Nylon body, metal spring and soft tip boots	Standard, 2 conductor holes	240	140	0.1
HS21	As above with Hot Stick Rings	Standard, 2 conductor holes	240	140	0.12
C-2	Maple Wood with metal spring	Standard	255	200	0.3
CNS3		Slip resistant coating	350	255	0.5
CNS4			375	340	0.7
PEG58100	High tech resin	Irwin quick grip peg	25	25	N/A
PEG58200			50	50	N/A
PEG58300			75	75	N/A



Covers, Line and Hard - Chance

- Easy to install/remove with shotgun stick on some models
- Adjustable attachment eye allows angled installation/removal
- Interlocking feature, male and female end
- 2 units wrap together saving storage space
- Guards will not warp or distort
- Manufactured to ASTM F968, tested to ASTM F712
- High visibility bright orange polyethylene
- Insulator and cut out covers also available

Part No.	Description	ASTM Class	Max Conductor OD (mm)	Wt (kg)
P406-0184	25kV Conductor Cover - Plain (G&B). 1525mm long	3	25	1.4
C406-0181 GA	25kV Conductor Cover - Shotgun. 1525mm long	3		1.8
C406-0164	25kV Deadend Cover	3	-	2.3
C406-0514GA	36.6kV Conductor Cover - Shotgun. 1525mm long	4	25	2.4
C406-0029	36.6kV Pole Cover 300mm dia. x 600mm long	4	-	2.5
C406-0030	36.6kV Pole Cover 300mm dia. x 1200mm long	4	-	5.0
C406-0000	36.6kV Pole Cover - 300mm x 1800mm long	4	-	11.2
M4931	46KV Conductor Cover - Shotgun. 1525mm long	-	44	4.2
M4933	36.6kV Cross arm cover - Shotgun. 500mm long	4	-	1.5



Covers, Line - Two Colour MV

Part No. 60 Series

- High visibility bright yellow
- Two colour for easy visual damage identification
- ASTM F712 and F968, Class 2 & 3
- Snap together, male and female end fitting
- Smooth, easy to clean surface
- Larger internal opening than rubber line hoses
- Lightweight polyethylene, lighter than rubber line hoses

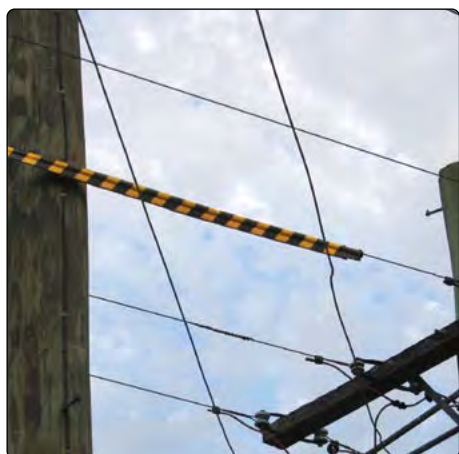
Part No.	Class	Length (mm)	Rating Ø - Ø (kV) Brush Contact Only	Rating Ø - Ø (kV) Brush Contact Only	ID (mm)	Wt (kg)
6050	2	1525	15	8.0	45	0.9
6060	2	1830				1.1
6055	3	1525	26.4	15.0	45	1.7
6065	3	1830				2.0



Covers, Line - LV & HV Tiger Tail

Part No. DB Series

- Guards or barriers on LV energised lines
- Visual warning markers on lines
- High visibility
- Tested and stamped to AS4202 - Class 1, ASTM F712 and F968
- Snap together, male and female end fitting with elongated hole for securing cable tie
- Smooth, easy to clean surface
- Made from HDPE, UV stabilised and highly resistant to chemicals



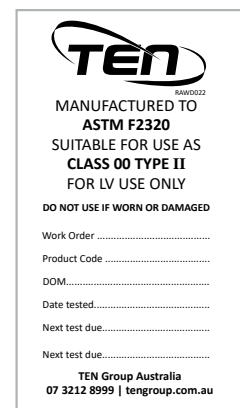
Part No.	Colour	Length (m)	Working Voltage	Rating Ø - Ø (kV) Brush Contact Only	ID (mm)	Wt (kg)
DB-35A	Yellow/Black	2.5	650V	14.6	35	1.3
DB-45A	Yellow/Black	2.5	650V	14.6	45	2.2
DB-35ARB-1250	Red/Black	1.25	650V	14.6	35	0.8
DB-35ARB-2500	Red/Black	2.5	650V	14.6	35	1.3
DB35ARB125HV	Red/Black	1.25	14.6 kV	Class 2	35	0.8
DB35ARBHV	Red/Black	2.5	14.6 kV	Class 2	35	2.2



Rubber Insulating Blankets & Accessories

LV Insulating Blankets

- Rubber insulating material
- Highly visible yellow and orange
- 2 colours assist in visual damage identification
- Flame resistant, self extinguishing
- Type II - Oil, ozone & UV resistant
- Fabric reinforced, puncture & tear resistant
- Manufactured to ASTM F2320
- Substation drapes have reinforced eyelets
- Line, Link, Cross arm & catenary covers have industrial velcro fastenings
- Working voltage 650V/Class 1
- ID patch colour to easily identify each mat located on the yellow side of each mat



TENM103

**Extremely
Lightweight
& Flexible**

**Rolls of insulating blanket
material available upon
request. Contact TEN for
more information.**

Part No.	Description	Dimensions (mm)	ID Patch
TENM101	Line Cover	1200 x 225 Drop	Red
TENM103	Line Cover	600 x 225 Drop	Green
TENM104	Link Cover	700 x 900 400 Split	White
TENM111	Link Cover	850 x 900 430 Split	Yellow/Red
TENM102	Cross Arm Cover	1200 x 450 125W x 100D Cut	Light Blue
TENM105	Substation Drape	900 x 1800	Orange
TENM106	Substation Drape	225 x 315	Beige
TENM107	Substation Drape	315 x 450	Black
TENM108	Substation Drape	450 x 600	Brown
TENM110	Substation Drape	900 x 1800	Yellow
TENM112	Substation Drape	900 x 910	Green/ Dark Blue
TENM109	Catenary Cover	1200 x 4500 30W x 200D Cut	Dark Blue

LV Blankets Cannister/Bag - Zipped PVC

Part No. TENM433

- PVC canister red, with internal PVC tubing & web carry handle
- Made from heavy duty PVC (flame retardant, mildew & UV resistant)
- Zipped lid with wide opening
- 760mm(L) x 100mm Ø
- Weight 0.8kg

**Perfect
for storing
blankets**

Pole Strap Kit

Part No. TENM714

- Designed to firmly hold rubber insulating blankets and cover up equipment on live components and hardware
- 12 Straps with handy riggers pouch with belt clip
- All webbing straps have heavy-duty quick release buckles
- Easily adjusted for different sized equipment

- Ideal for covering poles, EDOs, disc insulators and more
- A MUST for all glove and barrier operations

Included in Each Kit		
QTY	Strap Length (m)	Webbing (mm)
6	1.5	50
6	1.2	25

Blanket not
included

Ground Mats - Rubber

Rubber Ground Mats are suitable for indoor & outdoor use and are placed in front of switchboards, switch gear & high voltage equipment in order to create a safe working environment for the operator.

The mat insulates the worker from the ground to avoid electrical shock due to direct contact with potentially live electrical parts or step voltage. The class of mat is determined by the maximum nominal voltage of the network.

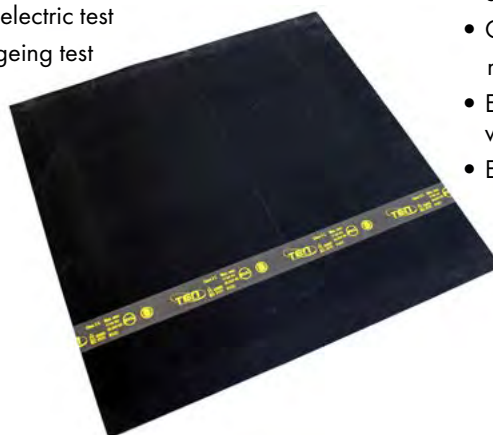
Due to its resistivity, Rubber Electrical Insulation Mats provide a high level of Electrical protection, and are perfect for many insulating applications throughout the Electrical industry. Safety is paramount when Utility Workers and Electrical Contractors work in trenches, on switchboards and during the stringing of overhead conductors. The Rubber mat is an integral part of their PPE equipment.

The Mats are marked with the colour according to the colour coding of the Standard. Mats conform to the following specifications:

- Puncture resistance test
- Flame retardance test
- Acid resistance test
- Oil resistance test
- Dielectric test
- Ageing test

Features

- Electrical mat is hard wearing, non-slip and easily cleaned or washed using a mild detergent
- Anti-fatigue nature, comforting feet while standing for prolonged periods
- The matting is manufactured in 10m rolls to avoid joints
- Mats are supplied measuring 1m x 1m, however cut lengths and special sizes are also available
- Conforms to AS/NZ IEC 61111 requirements
- Every 300mm is marked with class working voltage & AS/NZ standard
- Electrically tested each meter



Cut lengths and special sizes available.
Please contact TEN for further information.

Part No.	Working Voltage (kV)	Standard	ASTM Class	Dimensions (m)	Thickness (mm)	Weight (kg)
MAT0-1MX1M-ASNZ	1	AS/NZS IEC61111 :2020	0	1 x 1	2.2	3.3
MAT0-1MX10M-ASNZ	1		0	1 x 10	2.2	33
MAT2-1MX1M-ASNZ	17		2	1 x 1	2.6	3.9
MAT2-1MX10M-ASNZ	17		2	1 x 10	2.6	39
MAT4-1MX1M-ASNZ	36		4	1 x 1	5.2	7.9
MAT4-1MX10M-ASNZ	36		4	1 x 10	5.2	79

Mat and Blanket Mat Roll

Part No. TENM738

- Heavy Duty PVC Roll - Yellow
- Webbing carry handle
- Use for storage of Ground Mat or a ground sheet

Perfect for storing mats

Part No.	Dimensions (mm)	Wt (kg)
TENM738	1150 (L) x 1030 (W)	0.8



CLASS 0



Class 0 C Max. use:
1 kV AC
1.5 kV DC
AS/NZS IEC 61111 12/20



Working Voltage : 1,000V
Proof Voltage : 5,000V
Withstand Voltage : 10,000V

CLASS 2



Class 2 C Max. use:
17 kV AC
25.5 kV DC
AS/NZS IEC 61111 12/20



Working Voltage : 17,000V
Proof Voltage : 20,000V
Withstand Voltage : 30,000V

CLASS 4



Class 4 C Max. use:
36 kV AC
54 kV DC
AS/NZS IEC 61111 12/20



Working Voltage : 36,000V
Proof Voltage : 40,000V
Withstand Voltage : 50,000V





Honeywell SALISBURY



Arc Flash Clothing, Equipment & Accessories

Coat - 8 & 12 Cal

- 8 & 12cal/cm² ATPV rating
- 8 & 12cal/cm² coat are made from arc flash resistant material
- Sewn with Nomex® thread
- 32" long
- Nomex® wristlets
- Expansion back for added comfort
- FR hook & pile storm flap
- Coats are intended to be used with PRO-HOODS™

Part No.	Size	Rating Cal/cm ²	Standards
ACC832BL-*	*S, M, L, XL, 2XL, 3XL	8	Meets current ASTM F1506 and NFPA 70E standards
ACC1132BL-*	*S, M, L, XL, 2XL, 3XL	12	

Overalls - 12 Cal

- The SALISBURY Pro-Wear® 12 cal/cm² coverall is made from a 9 oz. FR cotton material, sewn with Nomex® thread
- 2-ply Nomex® wristlets
- FR hook and pile closures
- Full cut pattern with set-in sleeves for better fit
- Expansion back eases in wear and movement
- Meets NFPA 70E and ASTM F1506 standards

Part No.	Size	Rating Cal/cm ²	Standards
ACCA11BL-*	M, L, XL, 2XL, 3XL	12	Meets current ASTM F1506 and NFPA 70E standards

M=Medium - L=Large - XL=XLarge - 2XL=2x Large - 3XL=3x Large

Honeywell/Salisbury New PRO-WEAR™ PLUS

Salisbury's NEW Pro-Wear™ Plus 8-100 Cal/cm² is engineered to be lightweight, more breathable, better fitting and softer to the touch

A DIFFERENCE YOU REALLY CAN FEEL

40cal/cm² Premium range

- Incorporates new GlenRaven GlenGuard outer-shell
- Welspun Spunlace 18, Utexbel K90 Utexbel inner layer
- 11oz/yd² - Lightest In Market
- 500% and 300% improved breath-ability compared to existing Standard and PLT versions

75-100cal/cm² Premium range

- Incorporates new GlenRaven GlenGuard outershell along with Norfab /KTW
- Welspun Spunlace 18, Utexbel K90 Utexbel inner layer
- 75cal 40% lighter and 475 % more breathable
- 100 CAL 16% lighter and 90 % more breathable

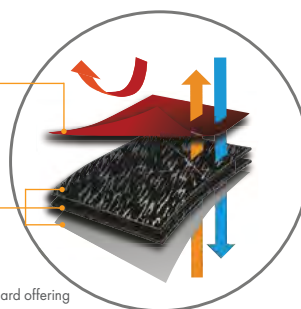
Breakthrough comfort in Salisbury's lightest & most breathable 40cal/cm² premium garments



SOFTER
ANTI-STATIC
FLAME RETARDANT
outer shell

BREATHABLE
ANTI-STATIC
LIGHTER IN WEIGHT
mid layers & liner

Tested at independent lab
Compared to 40cal/cm² standard offering
Compared to 40cal/cm² PLT



500%
More Breathable

43%
Lighter in Weight

28%
Softer to touch

40cal/cm²
ISO 13688:2013
ENISO 11612:2015

Honeywell SALISBURY



Bib Overalls - 40 Cal - Premium Lightweight

- SALISBURY Pro-Wear™ Plus Bib-overall
- 40cal/cm² ATPV Rating
- Sewn with Nomex® thread
- Integrated heavy duty suspenders
- Extended waist tabs for easy opening
- Relaxed cut for greater mobility
- Reinforced articulated knees for enhanced movement
- 355mm leg slits allow dressing wearing boots
- Elongated gussets for easier more natural movement 762mm inseam

Part No.	Size	Rating cal/cm ²	Standards
ACB40PRG-*	M, L, XL, 2XL, 3XL	40 * ATPV ratings	Meets current ASTM F1506 & NFPA 70E standards. CE0120 certified.

*M = Medium - L = Large - XL = X Large - 2XL = 2 x Large - 3XL = 3 x Large

Coat - 40 Cal - Premium Lightweight

- SALISBURY Pro-Wear™ Plus Coat
- 40cal/cm² ATPV Rating
- Sewn with Nomex® thread
- Nomex® wristlets
- FR hook and loop front closure
- Articulated sleeve for enhanced comfort
- Shortened collar for comfortable neck movement
- Coats are intended to be used with PRO-HOODS

Part No.	Size	Rating cal/cm ²	Standards
ACC40PRG-*	S, M, L, XL, 2XL, 3XL	40 * ATPV ratings	Meets current ASTM F1506 & NFPA 70E standards. CE0120 certified.

*M = Medium - L = Large - XL = X Large - 2XL = 2 x Large - 3XL = 3 x Large

Premium Kits - 40 Cal - PRO WEAR™ PLUS

- Arc Flash Coat
- Arc Flash Bib Overalls
- Arc Flash Pro-Hood/Lift Front Hood
- Supplied with PRISM Shield Lens (See next page for further information)
- Hard Hat
- Bag
- Safety Glasses
- Sizes S - 3XL
- Meets NFPA 70E



Part No.	Rating Cal/cm ²	Colour & Material
SK40PRG*	40	Premium Lightweight with Hood
SK40PRG* LF	40	Premium Lightweight with Lift Front hood

*Add suffix for desired size S M L XL 2XL or 3XL. Contact TEN for a sizing chart

Gloves - 12, 20 & 40 Cal - PRO WEAR™

- Available in 12 to 100cal/cm² ATPV rating
- Sewn with Nomex® thread
- All gloves are made with arc rated material
- All Arc Flash Gloves are 355mm long
- One size fits most

Part No.	Rating Cal/cm ²	Colour & Material
AFG11	12	Navy Blue Indura Ultra Soft
AFG20	20	Navy Blue Indura Ultra Soft
AFG40	40	Grey Indura Ultra Soft

CAUTION: Arc Flash Gloves do not provide electrical protection. Do not use when insulating rubber gloves are required. *Important: NFPA 70E does not have a Hazard Risk Category above 40 cal/cm². Working on levels above 40 cal/cm² should be avoided because of the blast hazards caused by arc flash.



Honeywell SALISBURY

The Honeywell PrismShield enhances color recognition and general visibility compared to green face shields. It provides full color recognition, making sure your workers will set similarly-colored cables apart in every occasion, and also increases general visibility, especially when working indoors in poorly-lit rooms.

Proper color recognition.

Proper safety.

Therefore all colors can be observed and clearly identified with the new PrismArc Shields – blues are blue, greens are green.

Color recognition testing showed that using the PrismShield gives the same color perception as not wearing a face shield at all.

Prismshield - Salisbury

Full color recognition

Eliminates previous difficulties in distinguishing similarly colored objects from each other.

Bronze tint

Provides increased general visibility, especially when working indoors in poorly-lit rooms

Anti-fog

Allows usage for longer periods of time.

Anti-scratch

Extends the life of the product.



AS1200HAT-SPL
12cal



AS2000HAT-SPL
20cal

Face Shield & Helmet Protection - 12 & 20 cal

- PrismShield™ provides full color recognition
- Resistant to fogging
- ATPV rating of 12 & 20 cal/cm²
- Absorbs up to 99.9% of harmful UV radiation
- Conforms with ASTM F2178 specifications
- Meets current ANSI Z87.1 and is CSA standard compliant
- Our anti-scratch and anti-fog coatings are a guarantee for lens longevity
- Exclusive weight-balancing frame elevates comfort by reducing neck strain for users
- Faceshield unit includes ventilation ribs that allow a natural convection air flow through the top of the shield



Part No.	Standards
AS1200HAT-SPL	<ul style="list-style-type: none">• 12cal/cm² Arc Flash Protection Prismshield Face Shield with Hard hat• ATPV rating of 12 cal/cm²• 190 x 510mm viewing area• Extra light tint• 15mm thick
AS2000HAT-SPL	<ul style="list-style-type: none">• 20cal/cm² Arc Flash Protection Prismshield Face Shield with Hard hat• ATPV rating of 20 cal/cm²• 190 x 510mm viewing area• Extra light tint• 15mm thick

For replacement parts see page 19

Honeywell SALISBURY

No more
need for
balaclavas



Lift Front Premium Hood - 40 cal

- Salisbury Pro-Wear™ Plus Lift front hood
- 40 cal/cm² ATPV ratings
- PrismShield™ face-shield, transparent chin guard and standard hood deliver visibility, comfort, ventilation and breathability
- Vertical peripheral vision field increases by 109% which allows for a clearer view of surroundings
- Anti-Fog coating maintains visibility for longer periods of time
- Anti-Scratch coating extends the life of the lens – less need for replacements
- Shield and chin guard offer an additional 45 degrees of vertical view over standard hoods
- Ventilated bracket design allows carbon dioxide and heat to escape as it rises from the body
- Integrated cooling system available for PRO-HOOD
- Hard hat is included
- Light and light adaptor available

Part No.	LFH40PRG
Standard	NFPA 70E HRC 4 protection Meets current ASTM F2178 and ANSI Z87.1 CE0120 certified
Weight (kg)	1.0
Measurements (mm)	510 (H) x 270 (W) x 280 (D)
Viewing Area (mm)	190 x 510

For replacement part see page 19



Hoods, Protective (Balaclavas) - 10 & 20 Cal

Salisbury's Arc Flash Rated Hoods (Balaclava) create 360° head and neck protection from arc flash dangers when used with a AS1000 Series Face Shield/Hard Hat/Chin Cup Unit.

CAUTION

Arc Flash Hoods (Balaclava) must be worn in combination with a face shield in order to comply with the requirements of NFPA 70E and will protect 360° inside the arc flash boundary.

Part No.	ATPV Rating
AFHOOD10	10 cal/cm ² Protection
AFHOOD20	20 cal/cm ² Protection

Premium Hood - 40 Cal

- Salisbury Pro-Wear™ Plus Lift front hood
- PrismShield™ face-shield
- 40 cal/cm² ATPV ratings
- Sewn with Nomex® thread
- Lightweight, soft fabric and optimal fit
- Paulson ArcVent™ passive venting
- Contoured profile allows for fluid head movement side-to-side
- One size fits all
- Hard hat fitting hood shape (Hard hat not included)



FH40RG
& Paulson
passive
venting

Part No.	ATPV Rating cal/cm ²	Standards
FH40PRG	40 ATPV ratings	Meet current ASTM F2178, ANSI Z87.1 and NFPA 70E standards CE0120 certified

Full ranges available 8-100 cal/cm². Contact TEN for a full line Salisbury catalogue





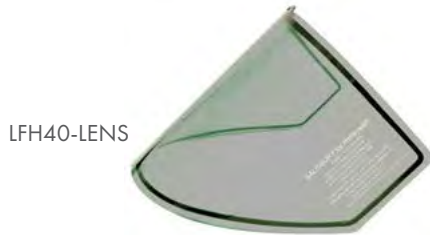
AS1000

Faceshield - 10 & 12 Cal

Part No.	Description
AS1200FB-SPL	Faceshield with chin cup and universal bracket. Fits most front brim hats 12 Cal/ m ²
AS1200U AS1200U-SPL	Faceshield fits most front brim hard hats

Face Shield Accessories

Part No.	Description
LFH40-LENS	Replacement lens for 40 Cal/m ² lift front hood
AS1000	Faceshield Fits most front brim hats 10 Cal/ m ²
LFH40-CP	Replacement chin guard for 40 Cal/m ² lift front hood
AS1200-FS-FB-SPL	Replacement Faceshield AS1200FB
AS12CLIP	Replacement clip x 2 for AS1200HAT shield
AS1200FS	Replacement Faceshield for AS1200 hat
SHRD40-PLT	Replacement hood for LFH40PLT
AFLENS	Inner lens - Anti Fog for AS1200



LFH40-LENS



LFH40-CP



All shields and accessories are supplied with PRISM Shield Lens



AFLENS



AS12CLIP

Task Light Kit - Salisbury

Part No. FLKIT

Task light kit for attaching to Arc Flash Hoods or Helmets.

Kit includes

Part No.	ATPV Rating
ASFL	Attachable Task light (1)
FLCLIP	Attachable Task light clip (1)

Also sold separately



Arc Flash Goggles - 12 cal

Part No. 510-ARC-SN-12

High Performance Arc Goggle with nose shield for electricians designed for Arc Flash Protection. ATPV 12cal/cm². Must be worn with rated balaclava.

Part No.	Wt (g)	Standards
510-ARC-SN-12	205	ANSI Z87.1, ASTM F2178



Kit Storage Bag

Part No. SKBAG

- Large storage bag for storing Salisbury PRO-WEAR® Plus Arc Flash Clothing, gloves and other accessories

- 610mmL x 380mmH x 305mmD
- High visibility orange



Kit Storage Bag

Part No. SKBACKPACK

- Large storage backpack for storing Salisbury PRO-WEAR® Plus Arc Flash Clothing, gloves and other accessories

- Accessory pockets inside and out
- 460mmH x 360mmW x 200mmD
- High visibility orange



Cotton Storage Bag for Arc Flash helmets

Part No.	Description
ASBAG	Cotton canvas storage bag w/ drawstring closure & fleece interior



Ear plugs - MAX LITE™ Honeywell

Single-use ear plug including comfort feature. Highest rating SLC80.

Part No.	Description
LPF-1	Uncorded ear plug (200PR Individual PR. Poly Bag)
LPF-LS4	Uncorded ear plug (200PR Refill)

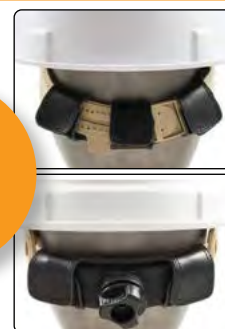


Hardhat Stabiliser - Safemate™

Safe Mate is a hard hat stabilising accessory for hard hats and welding helmets. Quick to fit and offers additional comfort to the wearer.

- Comfortable silicon rubber grip
- Long lasting, easy to install Unique safety accessory for hard hats and welding helmets
- Greatly reduces the chance of your helmet falling off
- Fits extensive range of hard hats and helmets, 2 models available

Stops your hardhat slipping



Part No.	Size	Suits Helmet Type	Use	Wt (kg)
SM2	2 tab	Twist Knob Adjustable	Ratchet suspensions	0.03
SM3	3 tab	Clip Adjustable	Pinlock suspensions	0.03



ELECTROSTATICS

**Conductive Arc rated Clothing - 11 Cal**

Protection against electromagnetic fields, induced voltage, electric arc.

Intended for use during live work (bare hand work) on AC or DC networks or when working on discharged powerlines where induction may occur.

Upper layer provides protection against thermal hazards of an electric arc and ignition caused by spark discharge.

Highly conductive band has an electric resistance not more than 1 Ohm and can shunt currents up to 35A without any damage.

Conductive double-sided fabric is a unique material which combines two inseparable surfaces: conductive (steel-silver) and insulating (meta aramid-FR viscose). Such a combination ensures maximum protective features and optimum level of comfort during work.

Clothing Kits - Conductive Arc rated**Part No. ELS-CS-JT Series Kits**

- A conductive shielding jacket with a hood (a head cover) and a face mesh
- A conductive shielding bib-and-brace or trousers
- Conductive shielding gloves
- Conductive shielding boots or socks
- Two removable equipotential bonding leads with or without clamps
- ATPV level - 11 cal/cm²

Part No.	Clothing Type	Size	Description
ELS-CS-JT-M	Kit	Medium	Conductive Jacket, Trouser with bib, Gloves and Socks
ELS-CS-JT-L		Large	
ELS-CS-JT-XL		X-Large	
ELS-CS-JT-XXL		XX-Large	
ELS-CS-JT-XXXL		XXX-Large	

Gloves and Socks - Conductive Arc rated**Part No. ELS-CS-Series**

- Conductive shielding gloves & socks
- Supplied without clamps
- Electric resistance not more than 30 Ohms
- ATPV level - 10 cal/cm²

Part No.	Clothing Type	Sizes	Description
ELS-CG-10/12	Gloves	10 & 12	Arc Rated Conductive Gloves
ELS-CS-43-44/45-46	Socks	43-44 & 45-46	Arc Rated Conductive Socks
ELS-BL-NC	Bond Lead	NA	Replacement lead

Radio Frequency (RF) Radiation Protection Clothing**Part No. KW-GARD Series**

- Kits available up to 2GHz
- Accepted by FCC and OSHA as effective means of compliance
- Minimal restrictions for tower climbing
- Pockets designed around fall arrest harness
- Zipper and Velcro closures at ankles and cuffs
- Hood fits over hard hat and has stainless steel screen
- Kit includes laminated field instruction and warning card
- Available accessories: Instructional Video; Suit Repair Kit and Personal Microwave Monitor, contact TEN for more information

Part No.	Size	Chest Measurements (mm)	Kit Description	Wt (kg)
KW-GARD/SET-M	Medium	Up to 1070	Industrial Coverall and Hood. Elbow Length Gloves and Knee High Socks. In Carry Bag.	2.3
KW-GARD/SET-L	Large	1070 to 1170		
KW-GARD/SET-XL	X-Large	1170 to 1270		
KW-GARD/SET-XXL	XX-Large	1270 to 1370		


FG
EUCLID


Conductive Socks and Gloves

Nomex® and stainless steel fibres blended with cotton to provide the comfort necessary to work long hours

Jersey knit with an elastic rib calf that fits over the pant leg of the suit

Part No.	Description
13-38-811	Conductive Gloves
28-38-911	Conductive Socks

Features

- Clothing creates a soft Faraday cage
- Comfortable and durable
- Supplied with test certificate
- Under 100 Ohms conductivity
- Washer and dryer safe
- Double needle stitching on all seams
- Gloves (Pair)
- One Size Fits All
- Hand Length - Short

Conductive Boots

LP Royer Boots are world renowned as a leading manufacturer of the highest quality leather conductive boots.

Part No.	Size AU/UK	EUR
408386-7	7	41
408386-8	8	42
408386-8.5	8.5	-
408386-9	9	43
408386-9.5	9.5	-
408386-10	10	44
408386-10.5	10.5	-
408386-11	11	45
408386-12	12	46

Features

- Electrical resistance between 0 and 10,000 Ohms
- Waterproof full-grain leather
- Puncture-resistant steel plate
- CHEVRON vulcanized rubber sole
- ROVAK padded ankle protector to improve climber comfort
- Double conductive calf strap
- Steel protective toecap
- ROVAK dual-rib steel shank
- Canadian-made 10 inch boot
- Leather lining
- Conductive sole

Contact TEN for a Free LP Royer Boot sizing chart

Insulated Gumboots - Class 2

Part No. 202211-Size

- High-spec, fully waterproof, hand-built, rubber dielectric safety boot.
- Manufactured with specially formulated insulating layers offering electrical protection over the whole boot.
- Yellow upper allows for easier visual identification and in-service inspection.
- Built on the popular Quatro - gives a generous fit while locking the ankle and preventing heel slip.
- ASTM F1117 - 20kV

Part No.	Size
202211-*	5-15

*Add size suffix when ordering

Gaiters - Quagmire Canvas

- Shin protection provided by the adjustable 50mm velcro front opening gives fantastic fit and easy access
- Cool comfortable 8 oz Corespun canvas
- Canvas upper section stands up well with the top open for ventilation and comfort

- Super hard wearing replaceable underfoot strap
- 1000 denier Kodra boot section with lining
- 3 sizes for optimum fit
- Ideal protection from snake bite

Part No.	Size	Approx. Calf Diameter (cm)* Allow extra room for adjustable 50mm velcro
AHDGS	Small	39
AHDGM	Medium	40
AHDGL	Large	43
AHDGLL	X Large	45



A must
for working
in remote
locations





Rescue Kits & Accessories

Low Voltage Switchboard

Part No. LVRK

TEN's low voltage switchboard rescue kit is used for the safe rescue of victims who suffer electric shock or other injuries when working on LV switchboards in electricity supply and industrial substations.

**Complies with the requirements of state energy providers
and in accordance AS4836:2011**

The kit comes in a convenient PVC carry bag with internal divider allowing quick recognition and easy access to kit components in an emergency. The bag features shoulder strap and quick-open velcro tab for easy access.

Kits available to meet individual
State and Territory requirements

Contact TEN
with your
requirements

Supplied to customer specifications

Kit Contents	
Part No.	Description
2091907-11	Gloves Pair - 1000V Class "0" Size 11
RK-LVHOOK	Rescue Hook – Insulated PVC
RK-TORCH	Torch
RK-FIREBLKT	Fire Blanket 1.2m x 1.8m - AS/NZS3504
RK-THERMAL	Thermal Shock Blanket
RK-BANDAGE	Bandage, Multi Trauma Dressing 250 x 750mm
RK-SIGN	Hanging Sign – "Isolate Here In Emergency"
RK-MASK	CPR Mask
DSRABCD	CPR Wallet card
TENM525	PVC Bag – 'LV Rescue Kit' with divider & shoulder strap
RAWD091	Card listing contents and Next Test Date table
Weight (kg)	3

High Voltage Switchboard

Part No. HVSrk

Custom kits can be supplied to customer requirements.

Optional Step and mats available on request.

Kit Contents	
Part No.	Description
NG216YB-11	17kV Class "2" Yellow/Black Size 11
24401	Salisbury 6ft (1.8m) Insulated Rescue Hook
RK-LVHOOK	Rescue Hook – Insulated Plastic
RK-TORCH	Torch
RK-FIREBLKT	Fire Blanket 1.2m x 1.8m - AS/NZS3504
RK-BANDAGE	Bandage, Multi Trauma Dressing 250 x 750mm
RK-SIGN	Hanging Sign – "Isolate Here In Emergency"
3218	First Aid Quick Reference Guide
TENM527	PVC Bag – 'HV Rescue Kit' with divider & shoulder strap
RAWD091	Card listing contents and Next Test Date table





Pole Top

Part No. PTRK

Example Components List

- Storage container/bag yellow
- Rubber & Outer Gloves & Glove Bag
- Rope
- Knife
- Universal Pliers
- Tool Pouch
- Cutters
- Rescue Belt, Pole strap, Body Belt
- Descent Ring
- Decent Device
- Decent Bag
- Screw Gate Karabiner
- Snap Hook
- Anchor Strap
- Crook
- CPR Card
- Contents Card

Components for each State Kit vary, please check your local regulations to ensure correct components are requested

**Contact TEN
with your
requirements**

Tower

Part No. TRRK

Example Components List

- Storage backpack yellow
- 65m rope with sewn eye and triplock karabiner
- FDU100 Rescue Descender with triplock karabiner
- 50mm x 1200mm anchor sling
- 25mm x 1200mm round sling
- Rescue knife with extender and 2 alloy triplock karabiner
- Mechanical advantage retrieval system
- Cervical collar (optional)

Components may vary depending on state or territory requirements.

Rescue Hook - Insulated

Part No.	Length (m)	Description
24401	1.8	Featuring a foam filled, fiberglass reinforced handle for superior electrical insulation and a coated heat treated body hook with an 457 opening.
24403	2.4	

Rescue Hooks - High Voltage

Part No. HOOK-HV

- Tested to 50kV
- Designed for Medium Voltage rescue

Part No.	Length (m)
HOOK-HV	1.7

Fall Restraint/Anchor Point

- Lightweight anchor point
- Ideal for work from ladders or platforms
- For wood, concrete or steel poles
- Provides isolation from potential electrical hazards
- U-Bolt for lanyard connection

Part No.	UTS (kg)	Fibreglass Shaft (mm)	Nylon Strap length (m)	Wt (kg)
3861	2,265	150	1.1	4.5




MILLER
 by Honeywell

 Also available
 with Soft Loops

Belts, Harnesses & Accessories

Harnesses - Miller Aircore

- Lightweight components specifically chosen to reduce fatigue for all-day endurance and increased productivity
- Corrosion-resistant lightweight aluminium hardware
- Quick operating cam buckles on the shoulder straps make vertical webbing adjustment easier
- Quick-connect leg and chest buckles for fitting/removing harness
- Heavy duty 18kN chest buckle for extra security
- Aluminium frontal D-ring and rear fall arrest D-ring with fall indicator
- Work positioning side D-rings for working with pole straps
- Equipped w/confined space webbing loops for attachment to spreader frame
- Telstra specified Tower version also available, contact TEN

Ultimate in comfort, safety & performance

AIRCOR TOWER WORKER SOFT LOOPS HARNESS			
Part No.	M1020227	M1020228	M1020229
Size	S	M-L	XL-XXL
Weight (kg)	2.7		
Applications	Tower work, Ladder work, Pole top, Line workers		
Standards	Certified to Australian and New Zealand Standards: AS/NZS 1891.1 - 2007		

Harnesses, Various - Miller

Tower Worker

- A versatile harness with front and rear connections
- Rear 400mm D-ring extension
- Pelvic d-rings for work positioning and confined space rescue loops
- ErgoArmor™ back shield protects from snap hook and lifeline injury
- Adjustable chest, waist, shoulder and leg straps
- Complies to AS/NZS 1891.1 2007

Revolution Tower

- Rear 400mm D-ring extension and frontal fall arrest attachment
- Pelvic D-rings for work positioning and confined space rescue loops
- ErgoArmor™ back shield protects from snap hook and lifeline injury
- Approved to AS/NZS 1891.1:2007
- Adjustable chest, waist, shoulder and leg straps
- Lumbar, buttock padding, and mesh membrane add comfort
- Quick adjust, comfortable, durable polyester/DuraFlex™ webbing

Elite.2

- Frontal fall arrest D-ring and extended dorsal D-ring
- Work positioning side D-rings for work with pole straps
- Fully adjustable waist, shoulder, leg and buttock straps
- Label pack with lanyard parking ring stores harness documents
- Lumbar and buttock padding offering greater comfort
- Approved to AS/NZS 1891.1:2007

DuraFlex Glove & Barrier

- No metal above waist
- Frontal belay loops for frontal fall arrest (must be used together)
- Rear 500mm extended dorsal with soft eye
- Equipped with confined space loops
- Vest style design, easy to put on, fully adjustable leg, chest, shoulder straps
- Complies with Australian Standards AS/NZS 1891.1 - 2007
- Weight 1.2kg
- All attachment points are clearly labelled and define the application of the attachment
- Brightly coloured webbing enables the user to be easily identified whilst working at heights
- Manufactured from DuraFlex™ polyester webbing which provides flexibility of movement for the wearer



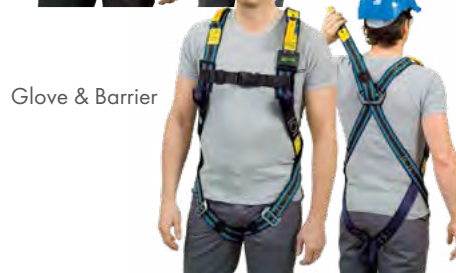
TOWER WORKER



Revolution



Elite.2

 Huge
 Range
 Available
 Contact TEN


Glove & Barrier

Belt, Rescue - Honeywell



M1020261

- Belt, body, rescue, polestrap attached, orange, for poletop rescue kit, Honeywell

Part No.	Description
M1020261	Rescue Belt

Controlled Decent Device

The Miller Manual Descent Device is designed for a variety of applications where smooth, controlled descent from an elevated position is required. The device, controlled by the user, allows for making descent fast or slow; decelerating and stopping by applying slight outward pressure on the free end of the line; and locking in a stationary position for a hands-free work environment. The device must be ordered with Miller brand descent rope.

Kernmantle rope is designed to optimise strength, durability and flexibility while being an economical choice. 16m kernmantle rope with double action hook either end.



A23M16-OCWCDD

Straps - Pole

- For line and pole work, supports a worker atop a pole
- An adjuster alters working length
- Protection sleeve increases webbing life
- Double action hooks at each end with 19mm gate opening

Part No.	136.1S	138.1S	139.1S	1312.1S	138.1S-SP
Length (m)	1.8	2.4	2.7	3.6	2.4
Features	1 x double action hook (6650) each end				1 x double action hook, 1 x triple action carabiner

Lanyards - Stretchable Energy Absorbing

- Unique stretchable lanyard design that minimises the length of the lanyard preventing tripping or snagging
- Elastic inner core contains the un-extended length of webbing
- All lanyards comply with AS1891.1
- Outer load bearing tubular polyester webbing provides strength and durability
- Integral compact energy absorber, visual indication if a fall has occurred
- "Manyard" style has no energy absorber pack

Part No.	Type	Length (m)	User end	Anchor end (mm)
M1010024	Single Lanyard	2.0	19mm Snap	19 Snap
STRETCHSTOP	Single Lanyard	1.8	19mm Snap Hook	19 Snap Hook
L11 SEC1.5	Single Lanyard	1.5	19mm Snap Hook	19 Snap Hook
L11 WEC1.5	Single Lanyard	1.5	19mm Snap Hook	19 Snap Hook
L28 WEC2.0	Single Lanyard	2.0	Triple Acting Hook	Triple Acting Hook

Tie Off Adaptor Webbing

Webbing tie off adaptor, wraps around an anchorage point providing a suitable connection

- 25mm webbing, 1.0mtr in length
- Single person use.

Part No.	Type	Length (m)
WT01M	Webbing	1.0

Strap - Anchorage

- 1.6m anchorage strap with dee ring one end, and reversed eye other end
- Protective sleeve prevents wear on webbing
- Easy attachment to dee ring by anchorage line or lanyard
- Refer to AS/NZS 1891.4 for information on anchorage strength

Part No.	Size (m)	Description
ME10091.6	1.6	Tie off, dee reversed eye, adaptor



WT01M



ME10091.6



Face Shield, Glasses & Goggles

Honeywell



Face Shield

The simplest and most comfortable face shield designed to handle any challenge. Designed for rugged jobs, it's tough, yet extremely lightweight and balanced for all day comfort.

Features

- Extended top of head and chin protection.
- Easily replaceable superior quality visors.
- Comfortable fit with eyewear and goggles.
- Dielectric design.
- Fully adjustable ratchet headgear.
- Fully adjustable headband.
- Multiple visor tilt positions.

Part No.	Description
1011623	Face shield, Clear, ABS Frame, Polycarbonate AS/NZS 1337.12010

Glasses & Goggles - Honeywell Safety

Part No. A700 Series

- Economical and stylish eye protection
- Available in Clear and Grey Anti-fog coating

Part No.	Lense	Material	Wt (g)
1015351AN	Grey with Anti Fog	Polycarbonate	21.6
1015360AN	Clear with Anti Fog	Polycarbonate	21.6
1015443AN	Blue with Anti-Fog	Polycarbonate	21.6

Complete Honeywell Eye protection range available, contact TEN
All Eyewear certified to AS/NZS 1337.1:2010

Goggles, Clear/Grey - Duramaxx Performance

Part No. Various

Performance clear goggle featuring a low profile design. Fits over most prescription glasses. A functional carrying case for the tactical goggles and two lenses. The case is soft sided and durable with a zippered closure; designed to be worn on a belt.

Part No.	Lense	Material	Wt (g)
1017750	Clear with Anti-Fog	Polycarbonate	23
1017738	Clear with Anti-Fog	Polycarbonate	23



1017738



1017750

Vehicle Ground Mats & Outrigger Pads

Ground Protection Mats - AlturnaMats

- For temporary road ways and paths
- Distributes weight across soft surfaces
- Protects ground from damage and vehicle bogging
- Link together to create a temporary road
- Carrying hooks sold separately
- Manufactured from recycled material
- Storage cage available

Material	12.5mm thick Recycled Polyethylene
Load (T)	60

Create temporary roadways and safe work paths

Part No.	Description (m)	Wt (kg)
AM-18-09	1.8 (L) x 0.9 (W)	15
AM-24-12	2.4 (L) x 1.2 (W)	39
AM-24-09	2.4 (L) x 0.9 (W)	29
AMHOOKS	Carry Hook	1.7



Outrigger Pads

- Reduce manual handling risks of heavy wooden dunnage and splinters
- Distribute weight evenly across a large footprint to prevent sinking or slipping into the ground
- Can be used to stabilise crane legs, scaffolding structures, uprights and angled loadings
- Tough and durable polyethylene

Part No.	Size (mm)	Vert Load Capacity (T)	Wt (kg)
PAD-15151	380 (L) x 380 (W) x 20	18	3
PAD-18181	450 (L) x 450 (W) x 25	24.9	5
PAD-24241	600 (L) x 600 (W) x 25	27	9
PAD-24242	600 (L) x 600 (W) x 50	28	17.2
PAD-30301	760 (L) x 760 (W) x 25	36	14.0



A lightweight alternative!

Transformer Containment Bags - ABG

- Significantly helps to reduce preventable spills that release unwanted oils into the environment
- Easy to store on truck solution for safe transport and storage of faulty transformers from site to yard
- Reduce costs of transporting large steel containers, contract crews pumping and draining transformers, as well as the cost to clean up leaks
- Lift using reinforced lifting loops and secure for transport
- Tested to hold 6 times its rated capacity
- Easily secured to a pallet
- Manufactured from durable & strong woven recyclable polypropylene
- Replaceable oil spill mat in base allowing the bags to be reused

Part No.	Style	Dimensions (m)	Closure (cm)	Capacity (kg)
PT-22	Round	0.55 (D) x 0.65 (H)	65 Wide	635
PT-30	Round	0.75 (D) x 0.90 (H)	90 Wide	860
PT-42	Round	1 (D) x 1.2 (H)	120 Wide	1020
PMT-48	Rectangular	1.2 (D) x 1.2 (H) x 0.90 (W)	120 Wide	1360
PMT-60	Rectangular	1.52 (D) x 1.52 (H) x 0.9 (W)	90 Wide	1814



Safely contain leaking transformers during transport and at the depot



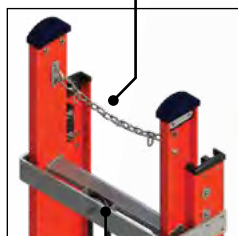
LADaMAX®

150KG

RATED AS 1892

LENGTHS 2.7/3.9m – 5.1/8.5m

Pole Chain Standard

Heavy Duty
50 x 6mm Top Iron

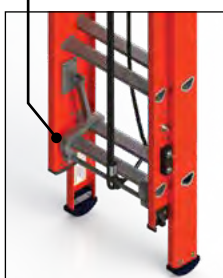
Ladders - Fibreglass

EXTENSION - LADaMAX

Part No. Various

- **DESIGNED FOR POWER COMPANIES** - Purpose designed for approved service contractors, electrical instrumentation companies, and electrical contractors of Australia
- **RUNG REPLACEMENTS** - Rung replacement system available
- **EASY TO USE** - Perhaps the easiest ladder to extend and retract in the Australian ladder market with an easy flow braided rope system
- **UV RESISTANT** - UV inhibitors in our fibreglass to prolong life, reduce fading and fibre deterioration in harsh Australian sun
- **SOLID FOUNDATION** - Large solid ladder boots – for extra support
- **SAFETY FEATURES** - When fully extended, the upper section is free of rope
- **LIGHTWEIGHT**
- **POLE CHAIN** - As Standard

Extra Heavy-Duty Clutch


NON-CONDUCTIVE
SAFE FOR ELECTRICAL WORK

UV RESISTANT
BUILT FOR HARSH AUSTRALIAN CONDITIONS

Part No.	Retracted (m)	Extended (m)	WLL (kg)	Width (mm) (Internal)	Width (mm) (External)	Wt (kg)
FXT082	2.7	3.9	150	390	405	17
FXT102	3.3	5.1	150	390	405	20
FXT112	3.9	6.3	150	390	405	25
FXT142	4.5	7.5	150	390	405	28
FXT162	5.1	8.5	150	390	405	31

150KG RATED

AS 1892

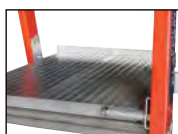
LENGTHS 0.61 – 1.74m



Safety gate



Caster kit

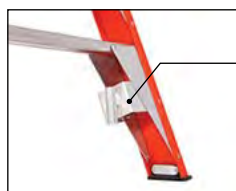
Platform
kickboard

Standard PLATFORM STEP - LADaMAX

Part No. Various

- **UV RESISTANT FIBREGLASS** - lasts longer and better value
- **NON-CONDUCTIVE** - safe for electrical work
- Safest, Failsafe platform
- Stronger full gusset base brace "GUSSET GUTZ"
- Swage-lock step connection 50% stronger
- Strongest plated foot connection
- Lightweight

Fail-Safe PLATFORM



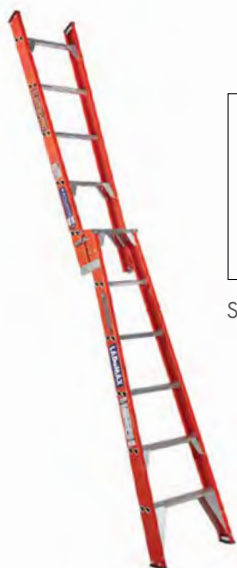
Caster Ready

Part No.	Platform Height (m)	WLL (kg)	Width (mm)	Wt (kg)	Cube (m³)
FPS5-2G	0.61	150	580	11	0.21
FPS6-3G	0.88	150	620	12	0.26
FPS7-4G	1.17	150	660	13	0.32
FPS8-5G	1.14	150	700	14	0.39
FPS9-6G	1.74	150	740	15	0.46

LADaMAX®

150KG RATED | AS 1892

LENGTHS 1.8/3.0m – 2.4/4.2m



Swagelock Step tread
50% stronger

BRANACH

SAFETY. OUR WAY OF LIFE



Dual Purpose - STEP & STRAIGHT - LADaMAX

Part No. Various

- **UV RESISTANT FIBREGLASS** - lasts longer and better value
- **NON-CONDUCTIVE** - safe for electrical work
- Swagelock step connection 50% stronger
- Stronger full gusset base brace
- "GUSSET GUTZ" - More stable tapered rear frame
- Stainless steel connectors
- Strongest plated foot connection
- **LIGHTWEIGHT** - Strongest, double hollow step treads



"GUSSET GUTZ"
Stainless Steel
Connectors

Part No.	Step Ladder (m)	Extended (m)	WLL (kg)	Width (mm)	Wt (kg)	Cube (m ²)
FSE062	1.8	3.0	150	545	10	0.17
FSE072	2.1	3.6	150	585	12	0.21
FSE082	2.4	4.2	150	625	14	0.26

Powermaster EXTENSION - Branch

Part No. Various

- Lightweight and effortless action to deploy
- Flat D rungs provide safety and comfort to the height worker
- Branch Latch or Conventional Latch available
- Swivel foot maximises grip on uneven ground
- Complies to AS/NZ 1892.3 / ANSI 14.5
- Full range of accessories including rubber feet, pole strap, lashing options and more
- Step platforms and single ladders also available, contact TEN for the full range

Part No.	Retracted (m)	Extended (m)	WLL (kg)	Wt (kg)
FED 3.0	2.14	3.00	160	15.5
FED 3.4	2.40	3.40	160	18.5
FED 4.0	2.70	4.00	160	15.5
FED 5.2	3.30	5.20	160	18.5
FED 6.4	3.90	6.40	160	21.6
FED 7.6	4.50	7.60	160	27.1
FED 8.8	5.10	8.80	150	31.5
FED 9.4	5.80	9.40	140	35.5
FED 9.8	5.80	9.80	120	35.5

Non-Slip Ladder Assistance - Ladders Little Helper

Part No. LLH

- Strong yet extremely lightweight
- Helps prevent sideways movement
- Provides a safer workplace for yourself and others
- Will fit almost all gutters
- Fits 99% of ladders
- Ideal for safely accessing a roof
- Protects against scratching gutters
- Unique two stage pole size to fit multiple size poles
- Australian & American Made



**PROTECT
YOURSELF
& YOUR
WORKERS**



Warning Markers - Overhead Lines

Warning Marker Balls - MacLean



Part No.	Diameter (mm)	Colour			
		Orange	Red	Yellow	White
AWM-600-O	600	O			
AWM-600-R	600		R		
AWM-600-Y	600			Y	
AWM-600-W	600				W
AWM-300-O	300	O			
AWM-300-R	300		R		
AWM-300-Y	300			Y	
AWM-300-O	300	O			
AWM-200-OW	200	O			W

Warning Flags

Low hanging lines over roads or work areas, & bare lines close to buildings present an extremely hazardous risk for any person, either operating machinery or working in proximity to powerlines. Insulated & bare lines need to be adequately marked to reduce risk of machinery collision or contact by workers. With the specialist application tool fixed to a hot stick, warning flags can be attached LIVE to powerlines from the ground or a bucket truck.

- Approved to AS/NZ 3891 Part 2
- Available in two clamp sizes

Part No.	Clamp Size (mm)	Flag Colour	Patch Colour
SF17PE1055-S	6-16	Orange	White
SF17PE1055-L	10-70	Orange	White
SF17PE1056-S	6-16	White	Green
SF17PE1056-L	10-70	White	Green
SF17PE1057-S	6-16	Orange	Green
SF17PE1057-L	10-70	Orange	Green

Firefly Markers

The Firefly utilises the reflectance of sunlight during the daylight hours & luminescent light emissions during dusk and nighttime hours. The sparkling refraction of light allows birds to change their flight pattern to divert around the marked wires and avoid collisions. The rotational speed of the Firefly also acts as a diverter and scares off the birds. Firefly is so important due to their glow which can be seen in both static and active wind conditions.

- Utilises refelected light and motion visual focus for birds
- Firefly starts to rotate at approx. 5 kmh
- Two clamp sizes available
- Boxed in quantities of 50

Part No.	Clamp Size (mm)	Swivel/Fixed
SF17PE1008	6-16	Swivel
SF17PE1010	10-70	Swivel
SF17PE1012	6-16	Fixed
SF17PE1014	10-70	Fixed

Quickmarks

The Quickmark is a permanent powerline warning marker preventing costly line damage & outages caused by collisions with high vehicles or loads.

Lightweight 260mm diameter bright orange plastic disc with prismatic yellow centre reflector.

Quickmark will not degrade under prolonged exposure SnapFast Clamp allows fast & simple installation by hot stick.

- Moves with air currents to enhance visibility
- Can be used on lines up to 115kV
- Two clamp sizes available

Part No.	Clamp Size (mm)
SF17PE1096	10-70
SF17PE1097	6-16



Birdmark Afterglow

The Birdmark Afterglow is a perforated disc containing reflective and luminescent properties. This Permanent powerline marker emits UV rays to divert birdlife traffic away from lines.

Birdmark Afterglows consists of a disc that absorbs sunlight during the day, then emits purple ultraviolet light during the night hours visible to birds as violet but appearing as white plastic to humans. Product glows for 10-12 hours after sunset.

These bird markers are suitable for conductors up to 132kV and can be easily attached from the ground using a hot stick and application tool. Pack in quantities of 50.

Part No.	Clamp Size (mm)
SF17PE1105	6-16
SF17PE1100	10-70



Tools

Application Tools for Flags and Markers

- Fast and effective removal/ application
- Sunrise fitting suits Universal Hotstick

Part No.	Description	Clamp Size (mm)	Colour
SF17PE1022	Removal Tool to suit SnapFast Clamps	-	Orange
SF17PE1023	Application Tool	6-16	Orange
SF17PE1024	Application Tool	10-70	Red
SF17PE1025	Combination Tool	6-70	Orange



Line Safety Tagging & Operating

DNOB Applicator and Tag Clamp

Part No. Various

For marking isolated switches, visual warning or a means of tagout

Part No.	Description
DNOBH00K	Hook tag, danger, DO NOT OPERATE
A10-094DNOB	Fuse cup, non-conductive, yellow, DNOB applicator
TM00838	DNOB applicator and fuse puller
9638	Tagging Card Clamp - Temporary line clamp with spring loaded jaw for use with tagout cards, apply by shotgun



LitLink

- Universal splined slotted connector attaches to hot sticks
- Sealed borosilicate window to resist heat and flash
- Passed 3000 V, 8000 A, 1/2 sec (30 cycles) arc blast test

LitFinger

- Pointed head for breaking off debris
- Notched straight arm to secure fuse while lowering or raising hot stick
- Resistant to heat and flash
- Passed 3000 V, 8000 A, 1/2 sec (30 cycles) arc blast test

Specification	LitLink	LitFinger
Lamp Type	eLED	eLED
Lumens - High/Low	95/40	95/40
Burn Time - High/Low	4H/10H	4H/10H
Weight (g)	193	193
Waterproof	1m	1m
Enclosure Protection	IP67	IP67
Dimensions (mm)	15.75(L) x 5.84(W) x 2.29(H)	14.48(L) x 12.45 (W) x 2.29(H)





Cleaning and Maintenance Solutions

Complete Range of Cleaning products and maintenance solutions for the Power Industry



For instruction on how to clean hot sticks, CLICK or SCAN to watch our video.



HASTINGS
A WORLDWIDE SUPPLIER OF
Hot Line Tools & Equipment

Polywater[®]
Solutions at work.

Silicon Cloth



Solar Panel Wash



Boom Wipes



Solutions for Every Situation

- **Rubber Goods Cleaner (RBG)**
For Gloves, Sleeves and rubber mats & hoses
- **Multipurpose Cleaner/Degreaser (HP)**
Industrial & Maintenance cleaning
- **Powerclean (RPC15)**
Powerful degreaser/cleaner detergent
- **Boom Wipes (B-1/D72)**
Pre-saturated lint free boom wipes
- **Fibreglass Wash (FGW)**
Boom & Bucket Pre-Wash
- **All Purpose Cleaner (10-195/168)**
Fibreglass, tools, booms, trucks, coverup equipment, plastics. Cleaning Kit also available
- **Gel Removal Wipe (TC-1)**
SqueakyKleen, cleans and fans fibre (Fibre-Optic)
- **Fibreglass Wax (W-1/16)**
Wax & Buff kit and Fast hazing wax
- **GrimeAway Wipes (HTC)**
Multipurpose Cleaning wipes - Transformer Oil, Cable gels etc.
- **Hot Stick Wipes (10-188)**
Cleans and applies water repellent
- **Hot Stick Cleaner (S-1)**
Alcohol-based cleaner and water repellent
- **Solar Panel Wash (SPW)**
Safe cleaner for Photovoltaic (PV) Panels

Advice For The Care And Maintenance Of Your Equipment

SALISBURY GLOVES & SLEEVES

As a reminder to our Insulating Glove and Sleeve customers and users, the best advice to ensure that these items are clean and maintain their insulating properties is to follow the ASTM guidelines 'In-Service Care of Insulating Gloves and Sleeves' and 'Visual Inspection of Electrical Protective Rubber Products' (ASTM F496 and F1236). Washing with Polywater® Rubber Goods Cleaner (RBG-*), a specially formulated cleaner for removing GREASE – DIRT – CARBON and other grime is the best way to ensure your gloves and sleeves are spot-cleaned of heavy contaminants. Per the standard, "The gloves and sleeves shall be washed with a mild soap or mild detergent and water. After washing, the gloves and sleeves shall be thoroughly rinsed with water to remove all soap or detergent and dried. Regarding hand sanitizers, it is recommended to use hand sanitizers that are produced with one or more of the following alcohols: Ethanol, n-propanol, or isopropyl alcohol. These three alcohols are not harmful to the gloves or sleeves at room temperature. Hand sanitizers should include alcohol levels above 60% and should not have fragrances or scrubbing beads. Wiping gloves at room temperature with one of the three alcohols is fine as well. For this purpose, the Polywater® S-1 alcohol-based water repellent wipe (this product contains a minimum 60% Isopropyl alcohol) is an ideal option. This advice is for Salisbury rubber goods, and other manufacturers should be consulted for their products. Some latex products may have different cleaning requirements.



SALISBURY ARC FLASH SHIELDS AND GARMENT RECOMMENDATIONS

Clean and inspect the Honeywell Salisbury Face Shield after every use. Use of mild soap with warm water followed by a pat dry is recommended. Always refer to the user manual for further detailed instructions. Garments and fabric components should be washed regularly using warm water and a mild detergent. The water temperature should be warm but no higher than 70°C. Tumble dry at normal temperature. Always refer to the user manual for further detailed instructions.

Chlorine bleaches such as those containing sodium hypochlorite, oxygen bleaches such as hydrogen peroxide as well as soaps (salts of fatty acids) should not be used to wash the PPE either separately or in detergents as they may affect the protective properties of the PPE. Fabric softener, detergent containing fabric softener, or dryer sheets should not be used during dryer cycles. Use of disinfectants can harm the materials arc protection properties.

HOT STICKS AND FIBREGLASS

Check the Fibreglass section for stick Cleaning, Re-Finishing & Repair products.

For stripping back heavy contamination and prior to re-waxing, use the Hastings All-Purpose, Safe, non-toxic, biodegradable, PH neutral & non-flammable Cleaning Concentrate (Part 10-195). Once the surface has been cleaned thoroughly, it is critical to re-wax the stick. The Polywater® Fibreglass Wax and Buff Kit is a simple, easy to use, one application wipe ideal for this purpose. The lint-free wipe is saturated with fast hazing wax and a soft lint-free towelette is included for buffing the wax to a shine.

This improves the dielectric performance by restoring the water beading properties. Also available is the Polywater (W-16) bottle of wax and Hastings Hot Stick Wax (10-091).

It should be noted, waxing is best done after a thorough stick cleaning. Use of wax products over contaminated surfaces only locks the dirt in.

For spot cleaning the sticks and daily before use, the Polywater® Water Repellent Wipe (Part S-1) that (contains a minimum 60% isopropyl alcohol and silicone) helps clean and restore the water beading properties of the stick. This will also work to sanitise the stick before and after use if used correctly. Also available for spot cleaning and daily before use is the Hastings (10-188) hot stick wipes containing silicone (note these do not have an alcohol content, these are petroleum based).



BOOM & BASKET CLEANING

For washing booms, use the Polywater® Fibreglass Wash (FGW-640). This replaces the previous BWC Boom Wash Concentrate. For spot cleaning of booms and baskets we recommend the Polywater (B-1) large for mat Towels for cleaning grime, grease and contaminants from the surface.



ELECTRICAL & INDUSTRIAL EQUIPMENT

For a multitude of other surfaces, the Polywater® Multipurpose Cleaner / Degreaser (Part No. HP™) is the ideal. It replaces ozone-depleting CFC's, trichloroethane and other carcinogenic chlorinated solvents.

Safe for use on: Transformers (Pole & Pad-mount), Switch Gear & Motors, Control Devices, Generators & Fusible Disconnect devices, to name a few.

The HP wipes are an all-rounder and available in a 72 wipe (HP-D72) cannister, or for the lowest cost per wipe of equivalent products on the market, use the (HP-D400AU) bucket of 400 wipes.

solution.



Cleaner - Rubber Goods

A specially formulated cleaner for removing
GREASE – DIRT – CARBON

- No mixing required
- Excellent cleaning power
- Harmless to all elastomers (rubbers)
- Multiple package options
- Environmentally friendly
- Non-toxic and non-corrosive

Rubber Goods cleaner contains no hazardous ingredients and is pH neutral

Part No.	Description
RBG-1	Individual Sachet
RBG-D72	Dispenser of 72 saturated wipes
RBG-35LR	950ml Bottle with sprayer
RBG-128	3.8L Bottle
RBG-640	18.9L Drum

Powerclean Concentrate 15L

Part No. RPC15

- Powerful degreaser/cleaner detergent
- Ideal for cleaning rubber ground mats, soak goods for best results
- Supplied in 15 Litre Drum
- Weight 16.3kg

Pre-wash - Boom and Bucket

- Convenient, pre-saturated, lint-free wipes in two sizes
- Large and durable for maximum surface coverage
- Won't remove or adversely affect gel coat & prevents "build-up" over time
- Powerful cleaner removes grease, dirt, tar, and grime from booms and buckets
- Water soluble for easy water rinsing
- Removes road and sea spray salts (salt water is more conductive)

- Meets OSHA Maintenance Reg CFR 29 Part 1910

Part No.	Description
B-1	Individual saturated 600mm x 600mm wipe in sealed foil pouch
B-1-K	As above, box of 24
B-D72	Dispenser of 72 saturated wipes 254mm x 305mm
FGW-640	Fibreglass wash

Cleaner, Concentrate - All Purpose

- Concentrate for fibreglass, tools, booms, trucks, cover-up equipment, plastics
- 20:1 standard concentrate mix ratio (20 parts water:1 part concentrate)
- Used for removing dirt, grease, metal oxides and other contaminants
- Safe, non-toxic, biodegradable, PH neutral & non-flammable

Part No.	Description	Wt (kg)
10-195	All purpose cleaner concentrate 19L Drum	18.2
10-168	All purpose cleaner concentrate 3.8L bottle	3.6
10-197	6pk Cleaning Kit: 6 x 200ml ready to mix bottles/14 ultra fine non-metallic pads/ 6 adhesive identification bottle labels	1.6

Cable Cleaning Wipe

- Safe: Excellent alternative to brominated and chlorinated solvents.
- Fast Evaporation: Evaporates quickly and leaves no residue.
- Tested: High dielectric strength of 56kV meets IEEE 1493
- Proven: Approved by medium voltage cable manufacturers.

Part No.	Description	Pack
RP-1	120 x 200mm Pre-moistened wipe	96 case



RBG-640

RBG-D72

RBG-35LR



RPC15



B-D72

FGW-640

B-1





Cleaner/Degreaser - Multipurpose

Part No. HP Series

Polywater® Type HP™ is our most popular electric cleaner for cable splice preparation, cable termination, and electrical apparatus maintenance. HP fits the needs of electrical utilities, line contractors, and medium voltage crews that need to comply with regulatory and safety requirements. Type HP is available in a wide range of bulk and kit packaging options.

- One cleaner for all your Electrical and Communications cleaning needs
- Suitable for cable gels, cable jackets, switchgear, transformers and a host of general degreasing applications
- Harmless to most plastics, including polycarbonate, ABS and polyethylene
- Contains no CFC's, HCFC'S, chlorinated solvents, perchloroethylene, or other ozone-depleting solvents
- No residue, non-conductive, non-corrosive, non-freezing, non-staining to metals

Part No.	Description	Pack
HP-D72	Multi Purpose Cleaning Wipes	72 Wipes
HP-D400AU		400 Wipes
HP-35LF	Bottle with flip top	950ml

General degreaser for Electrical and communications cleaning



Presaturated Wipes - eliminating spill hazards and limits vapour exposure.

Cleaning Wipes - GrimeAway Multi Purpose

Part No. HTC-Series

Tough on Dirt, but Field Friendly

Polywater® Grime-Away™ quickly and effectively removes hydraulic fluids, silicone greases, and adhesives from transformers, vehicles, heavy machinery, tools, and hands for a clean and safe working environment. Its unique water-based formulation is especially safe on skin, unlike most other tool and hand cleaners. Grime-Away is available in a multiple-use, 72-count canister or individual wipes that store easily in tool pouches or lineman bags.

Part No.	Description	Pack
HTC-D72	Dispenser with 72 Pre-moistened wipes*	72 Wipes
HTC-1	Individual Pre-moistened wipes*	144 per case

*Not suitable for Rubber Goods

Wax - Fibreglass

- Available in bulk or as a convenient, wax-saturated, lint-free wipe
- Dual action tandem pack includes dry buffing towel
- Suitable for hot sticks, booms and other fibreglass live-line equipment
- Does not remove or adversely affect gel coat

- Leaves non-conductive water repellent coating
- Superior quality, fast-hazing fibreglass wax

Part No.	Description
W-1	Fiberglass wax & buff kit containing lint free wipe and soft towel
W-16	470ml bottle, Fast-hazing wax, long lasting finish for fibreglass booms



HP-D400AU



HP-35LF

HP-D72



HTC-D72



W-1



W-16



10-188



10-188-1

Wipe - Hot Stick Cleaner & Water Repellent

Part No. 10-188-1

- Convenient, pre-saturated, lint-free wipe
- Dual action - cleans and applies water repellent
- Does not remove or adversely affect gloss coat
- No "build-up" over time

Wipes - Hot Stick - 50pk Dispenser

Part No. 10-188

- Removes contaminants such as dirt, oils and creosote
- 50 wipes in heavy duty cardboard dispenser that can be installed on a wall
- Leaves a silicone moisture barrier which enables water to bead - eliminating blanket effect when using hot sticks in wet conditions



Wipe - Hot Stick Cleaner & Water Repellent

- Convenient, pre-saturated, lint-free wipe
- Dual action - cleans and applies water repellent
- Does not remove or adversely affect gloss coat
- Evaporates quickly
- No "build-up" over time
- Removes grease, dirt, and grime
- Prevents continuous water film on stick in wet weather
- Designed for one time use and easy disposal
- Meets IEEE maintenance recommendations (Std #978)

Part No.	Description	Pack
S-1	Pre-saturated lint-free 600m ² wipe in sealed foil	1 Wipe

Wipes - Gel Removal

SqueakyKleen cleans and fans fibre in two wipes, saving time and money. No follow up with alcohol is required to clean and separate fibres before splicing.

It reduces chemical odors and keeps vapor concentrations to a minimum in splice trailers and vaults to ensure a safe environment.

Part No.	Description
TC-1	144 Wipes

- Effective Cleaner: cleans cable filling gel and flooding compounds.
- Cleans IBP Flooding Compound: Good for cleaning coax cable.
- Fast Gel Cleaner: only two wipes and the fiber squeaks and fans.
- No Residue: Nothing left to require a secondary alcohol wipe.
- Industry Tested: Approved by users and manufacturers.



Wash - Solar Panel

An Effective, Safe, and Economical Cleaner for Photovoltaic (PV) Panel Installations

- **Industry Approved cleaner**
Polywater SPW is approved by major PV panel manufacturers.
- **Increased PV performance output**
It is scientifically proven that clean PV panels produce more power - cleaner panels = bigger savings
- **More efficient cleaning**
Polywater SPW effectively reduces the need for excessive rinsing

- **Environmentally friendly**
Does not contain solvents - no VOC's
- non-flammable
Phosphate-free - Chlorine-free
- **Safer to use**
Polywater SPW is pH neutral - non-caustic and non-alkaline
Will not affect aluminum rails or racking like common detergents
- **Economic to use**
Does not require deionized or purified water rinse. Saves time and materials.

Part No.	Description	Pack (Lt)
SPW-128	Polywater Solar Panel Wash	3.8





NOTES

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Liveline Rope Tester

PORTABLE - DURABLE - EASY TO USE



Test ropes 13 - 38mm for dielectric integrity



Mounting Magnets on the Rear of the RT-10 Rope Tester



The Rope Tester is designed to test live line ropes for dielectric integrity in the field. Ropes a diameter ranging from 13mm to 38mm can be tested.

- Continuously test any length of rope
- Conductive condition is displayed by red (bad) LED's
- Powered by 2 x 9VDC replaceable batteries
- Audible buzzer sounds if defective sections of rope is found
- Small, portable and easy-to-use
- Magnetic Mounts at rear

The manufacturer recommends that ropes be tested as close to the time of use as possible. Variations in humidity over time make it possible for the same rope to test good at one time and bad at another time.

See TEST & MEASURE section page E24 for further information

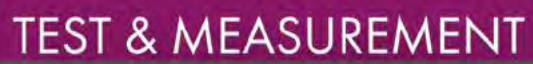
TEST & MEASUREMENT



TEN offers an extensive range of Test and Measuring equipment.

- ▶ LV and HV Voltage detectors and testers
- ▶ HV Ammeters
- ▶ Phase rotation and multi meters
- ▶ Insulation and ground testers
- ▶ Equipment specific testers
- ▶ Markers and tracers
- ▶ Cable height and diameter gauges
- ▶ Dynamometers







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Test & Measure Equipment

Testing, Usage, Care & Storage

- Test equipment should be used only by trained and qualified operators
- Familiarise yourself with the operating instructions/manual and be sure you understand the warnings
- Ensure your equipment is always within its calibration test period
- Before use, inspect devices for signs of deterioration, damage or contamination and ensure functionality
- Store your test equipment in a protective case when not in use
- Keep equipment clean at all times

See Fibreglass Equipment section for Insulated Sticks - Storage section for PVC and Canvas storage solutions and Safety & PPE section for Cleaning Wipes

Consult local network providers for specifications on approved devices, safe operating procedures and instructions before using any tester on their network.

★ STARLOGIXS®

Voltage Detectors and Testers

LiveTester Proximity Detector - Starlogixs

Part No. LT-220

The LT-220 non-contact voltage detector identifies energised or de-energised conductors.

LiveTester is a technological breakthrough in non-contact voltage detectors. By utilizing state-of-the-art electronic circuitry, StarLogixs has developed a completely new design in voltage detection equipment.

Static Discriminator technology exclusive in LiveTester provides more reliable detection on low voltage ranges, and now means no more false alarms. This makes LiveTester the first non-contact voltage detector suitable for line work and detecting pole leakage. This is due to the unique circuitry that allows it to ignore electric fields not generated by a mains source such as powerlines.

- Patented ferro electric detector
- Electronic touch-pad
- Self test function tests internal circuitry and audio visual features
- Auto power off
- Operator feedback - both audible and visual
- Low battery indication
- Water resistant IP 65 and impact resistant
- All models 50Hz
- Universal & shotgun adapter
- 3 x "C" size batteries required
- Supplied with canvas protective storage/carry bag



Supplied with bag
Part No. TENM445

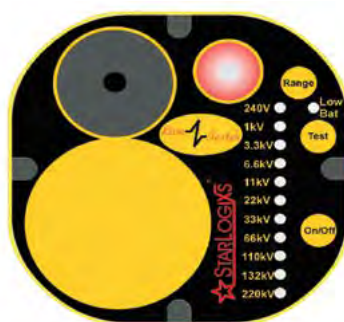


**Static Discriminator
Ignores electric fields not
generated by a mains source
such as Powerlines**

Part No.	LT-220	LT-220-K
Description	Tester Only	Tester with bag
Test Range (kV)	240V - 220kV	
Warning Signals	Audible and visual indicators	



LT220 Detection Face



Electronic touchpad includes
11 range settings from 240V to 220kV



Optional Hard case with foam
Part No. LT-220-CASE



Digital Voltage Indicator Kit - HDE

Part No. DVI-500T-50-K02

The DVI-500T indicates voltage from 0.1kV – 9.9kV and from 10kV - 500kV with no range selector switch or settings required, making it the most user friendly indicator in the market.

- For use on system voltages up to 800kV (reads up to 500kV phase to earth)
- Large LED display indicates the phase to earth voltage level
- Display is easy to read in all lighting conditions
- Voltage readout allows the user to distinguish between nominal and induced voltages
- Audible indication when voltage is detected
- Measure elbow test points with the DVI-500T
- Built-in universal spline for standard hotstick attachment
- Built-in self test to verify proper operation
- Compact, rugged and lightweight polycarbonate housing

DVI-500T



Designed for Transmission and Distribution Networks in both Overhead and Underground



DVI-500T-K02
Kit Shown



**Will
detect
induced
voltage**

Operating Voltage Range	0-500kV phase to earth (0.1kV – 9.9kV and 10kV to 500kV)
Operating Frequency (Hz)	50 or 60 systems
Dimensions (mm)	Housing: 110 (H) x 180 (W) x 110 (D)
Weight (kg)	0.62 with small overhead probe
LED Height (mm)	38
Accuracy	Typical overhead line accuracy in compact overhead three phase configuration +/- 10%, other applications up to +/-25%
Power Supply	Field replaceable 9-volt battery
Battery Life	Up to 100 readings

Kit Includes

Part No.	DVI-500T-K02
DVI-500T	Voltage Indicator up to 500kV
PT-DVI	Proof Tester for Digital Voltage Indicators
IEP-DVI-5	Underground Bushing Probe, 15, 25 & 35 kV Class
HP-DVI-2	Overhead Hook Probe, 50mm Diameter Opening
HP-DVI-6	Overhead Hook Probe, 150mm Diameter Opening
CS-DVI-5	Rugged Plastic Case for DVI-500

Universal Digital Voltmeter 5v to 40kV - HDE

Part No. DVM-80UVM

The DVM-80UVM is a compact, high accuracy dual stick voltmeter and phasing set with capacitive test point mode and peak hold. The DVM-80UVM measures voltage from 5V up to 40kV and up to 80kV with a pair of optional add-on resistors. The two-stick design can be used in both overhead and underground applications. The DVM-80 units incorporate Phase Accurate Technology, which makes all voltage readings, whether made from phase to phase or phase to earth, accurate and repeatable to within 1%.



Proof Tester for AC/DC
Voltsmeters/Phasers
(Part No. PT-5000B)
Recommended for use with the
DVM-80UVM Voltmeter



Overhead and Underground use

- Peak Hold mode
- Triple auto ranging 3.5 digit display - reads in kilovolts from 5 Volts to 80kV
- Highly accurate, within 1% of the reading
- Backlit display for easy reading in bright or dark conditions
- Use on secondary voltages, starting at 5 V
- Auto shut-off
- Battery - Powered by a standard 9V alkaline battery
- Weight of Voltmeter (without probes) 1 kg
- Add-On Resistors for testing up to 80kV (Part No. R-80)
- Measures AC and DC voltages



HDE
GREENLEE



Tester show with OH probes

**Designed for both
Overhead and
Underground applications**



Shown with UG Bushing probes
(not Included)



PT-DDVIP

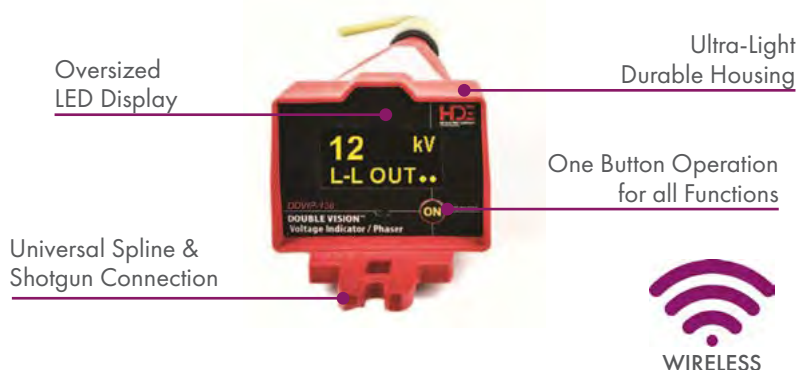
Dual Display Voltage Indicating Phasing Meter - HDE

Part No. DDVIP-138

Dual display wireless voltage indicating phaser with peak hold and capacitive test point modes, 100v-138kv

Features

- Measures voltage from 100V to 138kV line-to-line
- Can be used individually as voltage indicators or together for phasing operations up to 30m apart
- Two LED displays are automatically synchronized during phasing operations
- Clear in-phase and out-of-phase indication
- Versatile for overhead & underground applications
- Capacitive Test Point and Peak Hold modes



Part No.	Description
DDVIP-138	Double Vision Dual Display Voltage Indicating Phaser
Operating Voltage Range (kV)	100V-138kV Line to Line 100V-80kV Line to Ground, AC50
Phasing Frequency (Hz)	50/60
Accuracy	Within 15%, Depending on Geometry
LED Numeral Height (mm)	18
Battery	9V Lithium
Battery Life	8 hrs of continuous use
Operating Temp range (°C)	-29 to +49
Weight w/o probes (kg)	0.7 each unit
Dimensions w/o probes (mm)	360 (W) x 120 (H) x 100 (D)

Ordering Information

Part No.	Description
DDVIP-138 (Kit Includes)	1 set x Test Units/ 2 x OH Probes (025-OLPS-5)/ 1 x Carry Case (CS-DDVM)

Proof Tester for DDVIP-138 - HDE

Part No. PT-DDVIP

The PT-DDVIP Proof Tester confirms operation of the DDVIP-138

Power Supply	1 x 9V lithium or alkaline Battery
Output Voltage	50/60Hz
Weight (kg)	0.05
Dimensions (mm)	66W x 125H x 33D

Voltage Detector Lookout 6 Pack Kit - HDE

Part No. LO-06

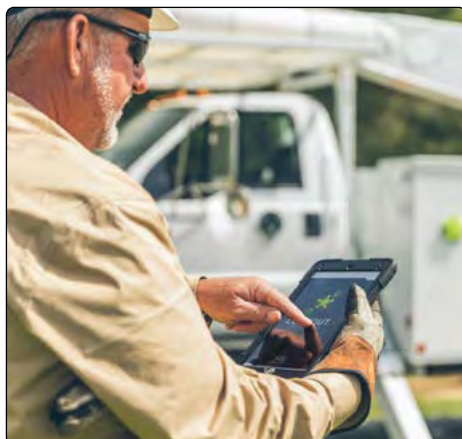


- Visual and audible warning indicates the location of energized fields in a green-yellow-red sequence
- Warns of high voltage electric fields using WAVE technology - Work Area Voltage Indication
- Detectors communicate with each other within a mesh network
- Battery life of up to 500 hours in monitor mode and up to 8 hours in Alert mode
- Remotely control detectors through the LOOKOUT mobile app
- Durable water resistant housing

Ordering Information

Part No.	Description
LO-06	LOOKOUT 6-Pack Kit

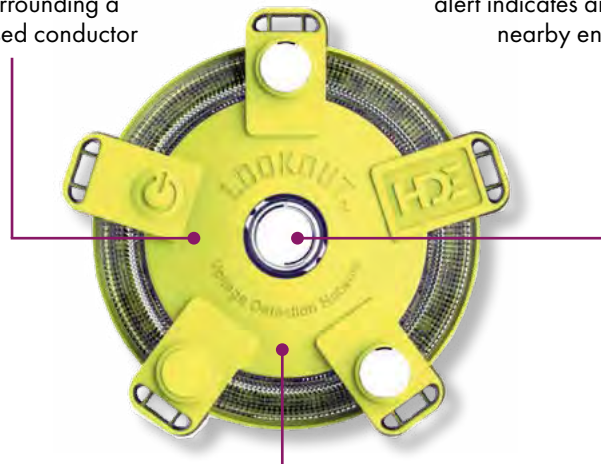
Part No.	Kit Contains
LO-01	6 x LOOKOUT Voltage Detector
LOC-01	LOOKOUT Charger
LO-BGS	LOOKOUT Kit Bag



Ideal for Excavators & Dump Trucks in the Construction Industry

Senses the presence of electric field surrounding a nearby energised conductor

Spinning red lights and an audible alert indicates an electric field and nearby energised conductor



MESH NETWORK: When one LOOKOUT Detector senses a nearby energised conductor, it causes every detector in the network to begin alerting

HDE LOOKOUT APP Features

- Remotely turn detectors on/off
- Select system voltage
- Remotely self-test connected detectors
- Monitor battery level
- Rename connected detectors
- Real time notifications when voltage is detected





**Detects
stray
voltage
on public
assets**



**Includes Holster &
Integrated Self Tester**

Stray Voltage Detector 5 to 600V - HDE

Part No. LV-5-K01

The HDE LV-5 Detector picks up stray voltage as low as 5 volts on any electrically conductive surface such as street light poles, meter boxes, pole steps, manhole covers and conductive cable sheaths. It is also suited for detecting if a lead sheath has become live before entering a pit. Works as a contact detector up to 600VAC and proximity above 600VAC. This makes it ideal for asset inspectors, underground crews, telecommunications installers and council workers operating near electrical infrastructure.

This LV-5 has a large robust grip, bright LED indicator for enhanced daylight visibility and a self tester built into the holster to quickly test the detector on a known voltage source before and after use. The Detector operates by holding it with a bare or gloved hand and directly contacting the metal tip of the Detector to the potentially energised source.

The Detector is supplied with a belt clip holster, allowing the user to carry the LV-5 on their belt. The holster also includes an integrated tester that supplies a low voltage AC signal for testing the LV-5 before and after use.

Features

- Low threshold voltage sensing design picks up voltages from 5 VAC to 600 VAC with direct contact and proximity above 600 VAC at a distance
- Ultra bright, long-lasting red LED indicates when voltage is present
- Detector is always on, ready to use, and operates on two AA alkaline batteries (batteries not included)
- Rugged Utility-grade design for harsh environments
- IEC CAT IV Rated

Part No.		LV-5-K01 (Includes: Belt clip holster & integrated Self Tester)
Dimensions (mm)		267 (L) x 97 (H) x 58 (D)
Weight (g)		570
Batteries (not included)	LV-5 Detector	2 x AA Alkaline or Lithium-Ion
	Self Tester	1 x 9V Alkaline or Lithium-Ion
Accessories		LV-EH - Extension Handle / LV-GS - Earth Shield

Voltage Probe 50 to 600V - HDE

Part No. VP-1-K01

The VP-1 is designed for general purpose voltage detection with direct contact on LV and for use in detecting HV in underground cables on unshielded portions over the cable insulation.

- Tests exposed metallic surfaces and conductors for the presence of voltage
- Tests unshielded HV cable insulation
- Tests HV joint and termination test points for the presence of voltage
- Simple indication of voltage – flashing red light and beeper
- Compact, lightweight and easy-to-use
- No on/off switch – always on
- Super bright LED indicator
- Low battery indicator - when flashing light is no longer visible



Ordering Information

Part No.	Description
VP-1-K01	Kit includes VP-1, PT-VP and B-35 carrying bag.
VP-1	Voltage Probe
Accessories	
PT-VP	Proof Tests VP-1 Voltage Probe
B-35	Padded, zippered

Part No.	VP-1 - Voltage Probe
Operating Voltage	50 - 600V hand held 600V - 21kV line to ground using appropriate insulating equipment
Power Supply	2 x AA field replaceable batteries
Output Frequency (Hz)	50
Weight (kg)/Length (mm)	0.27/254



Universal pocket-sized voltage tester designed for testing power poles of all heights or situations that require a manual variation in voltage distance detection.



Mini SWER and Pole Voltage Tester

Part No. MW-SWER-POLE

Voltage Sensing Range		Hand Held 20volts - 10mm / Hand Held AC 50m - 500kV
Alerts	Visual	High Intensity LED
	Audio	Electromagnetic piezo - 85 dB @ 10cm
Dimensions (mm)		125.5H x 66W x 24D
Weight (kg)		0.12
IP Rating		IP 40
Power Supply		Field replaceable 9-volt alkaline battery
Accessories		Nylon Belt Carry Pouch (Included)



Non-Contact Voltage Test Pencils

Part No. Various

Use to detect the presence of voltage at outlets, lighting fixtures, circuit breakers, wires, and cables or to find a break in a wire.

- Bright LED and audible alarm if voltage is present
- ON/OFF switch and Auto OFF for longer battery life
- Convenient pen size fits into pocket or tool pouch
- Replaceable AAA batteries (Included)
- Full circuit self test

Safe, Non-contact voltage detection



Work Area Light



Work Area Light



Infrared Thermometer



Laser Pointers



Distance Measuring

Part No.	GT-13	NCVT-3	NCVT-4IR	NCVT-6
Description	Non-Contact Voltage Detector with built-in Flashlight	Non-Contact Voltage Detector with built-in Flashlight	Non-Contact Voltage Detector with built-in Infrared Thermometer (-30 to 250°C)	Non-Contact Voltage Detector with built-in Distance Measuring (20m)
VAC (V)	50-1000	12-1000	12-1000	12-1000
Display Type	LED	-	Back-lit LCD Screen	Reverse Contrast
IP Rating	-	IP67	IP54	IP40
Measurement Category	Cat IV 1000 V rated	Cat IV 1000 V rated CE	Cat IV 1000 V rated CE	Cat IV 1000 V rated CE



GT-65



GT-95

Voltage and Polarity Tester - Greenlee

Part No. GT-Series

GT-65 Features

- Voltage warning by visual notification of voltage levels exceeding 1000V AC / 380V DC
- Auto-hold automatically activates when tester is removed from voltage reading
- Continuity test and single-probe detection of live conductors for added flexibility
- Non-contact voltage detection, visual & audible

GT-95 Features

- LCD and dual color LEDs for convenience
- Selectable SHAKER feature when measuring AC voltage
- RCD test capability eliminates the need for additional testers



TSG-3 Test Probes (Included)

Part No.	GT-65	GT-95
Voltage Range	19 - 1000V AC / 5-380V DC	
Frequency (Hz)	45 - 65	45 - 65
Measuring Category	CAT III 1000V / CAT IV 600V	



IP65



Voltage Tester

Part No. VT2

The VT2 is a voltage and continuity tester, and tests voltages between 12 to 1000V AC / DC. The VT2 draws around 30mA of test current during operation eliminating ghost voltages and also providing a basic RCD test function. Other features also include a self test function, phase rotation and a audible buzzer on continuity. The VT2 is CAT-IV 600V and IP65 making it the perfect instrument for use outdoors in CAT-IV environments.

Features

- Voltage test: 12V to 1000V AC/DC (8 LEDs) with indication by buzzer
- Voltage range: 12V, 24V, 50V, 120V, 230V, 400V, 750V, 1000V
- Changeable probe tip for 2mm and 4mm
- Polarity test, audible continuity test & phase rotation test
- Self-test button to ensure proper function of the device prior to testing
- Waterproof design, protection class: IP65
- Phase/Neutral identification
- Rubberized double-molded housing
- ELCB/RCD trip test
- Flashlight function
- VESI approved

Also Tests
Non-Contact
Detectors



Proving Unit for Multi Meters and Voltage Detectors

Part No. PU400

The PU400 Proving Unit provide a safe and reliable means of checking the correct functioning of Multimeters and Voltage Indicators (VIs) before and after use as advised in the working practice for electricians. Additionally they have the capability of checking the operation of Non-Contact voltage detectors.

The PU400 is a battery powered proving unit and incorporated is a unique and logical safety function - the test voltage generated is at 50Hz to synthesize a genuine test at AC mains supply frequency – so it will always read correct using the AC range of your Tester or Multimeter.

Features

- Testing of multimeters, voltage indicators, contact & non-contact (VIs)
- Intelligent voltage ramp
- Generates from 50-690V with a true AC waveform output
- Non-contact voltage indicator test feature
- Automatic operation and turn-off
- Meets standards ILVD: BSEN 61010-1 (2010), EMC: 61326-1 (2006)

Part No.	PU400
Output Voltage (V)	50 - 690 in five steps: 50, 100, 230, 400, 690
Power Supply	6 x AA Batteries
Output Frequency (Hz)	50 Pseudo Sine Wave
Max Output Power (W)	10
Weight (kg)	0.35
Dimensions (mm)	130W x 68H x 48D

PU240 Unit also available. Contact TEN for further information

Digital Multimeter - Greenlee



Part No. DM-820A

- True RMS for superior accuracy
- Measures voltage, current, resistance, capacitance and frequency
- Tests continuity and diodes
- Back-lit LCD with dual 10,000 count displays
- Beep jack warns when test leads are incorrectly inserted in current measurement terminals
- Automatic and manual range selection
- Relative offset mode to see changes in measurements
- Data hold
- Use optional USB Interface DMSC-9U for direct-to-PC logging
- Crest capture (Peak hold) plus recording of Max, Min, Max-Min Average
- Two voltage detection modes - Non-contact or using a single test lead
- One temperature measurement using a type K thermocouple
- Conductance measurement
- Limited lifetime warranty



TSG-3 Test Probes



TC-20 Case

Part No.	DM-820A
Amperage Measurement	600, 6000μA; 60, 600mA; 6, 10A
Voltage Measurement	60, 600 mV; 9.999, 99.99, 999.9 V
Resistance Measurement	600Ω; 6, 60, 600 kΩ; 6, 60 MΩ
Battery	(1) 9 V
Capacitance	60, 600nF; 6, 60, 600μF; 6, 25 mF
Conductance	99.99 nS
Display	Back-lit LCD With Dual 10,000 Count
Frequency Measurement	15Hz- 50kHz Sine Wave, 5Hz - 1MHz Logic Level Square Wave
Includes	(1) 9V Battery, Test Leads, Protective Boot, Carrying Case
Measurement Category	CAT IV, 1000 V
Standard	CAT IV, C/UL US Listed, TRUE RMS, CE Listed

Digital Multimeter - Klein



Part No. MM700

- Multimeter with automatic ranging true root mean square (TRMS) technology for increased accuracy
- Tester measures up to 1000V AC/DC voltage, 10A AC/DC current and 40MΩ resistance plus temperature, capacitance, frequency, duty-cycle, test diodes and continuity
- Low Impedance (LoZ) mode for identifying and eliminating ghost or stray voltages
- CAT IV 600V Safety Rating
- Built to withstand a 2m drop
- For use in environments such as residential, business and light-industrial locations
- Low battery indicator
- Easily accessible battery and fuse replacement compartment
- Includes carrying pouch, test leads, alligator clips, thermocouple with adapter and batteries



Part No.	MM700
Current	10A AC & DC
Voltage	1000V AC & DC
Resistance	40 MΩ
Battery	2 x AAA
Capacitance	4000μF
Frequency	1 - 500KHz
Display	LCD 4,000 Count
Ingress Protection	IP42
Standard	CAT IV 600 V - CAT III 1000V
Weight (kg)	0.41



CM-1560



CM-1360



TC-30 Case



TSG-3 Test Probes

Clamp Meters - Greenlee

Part No. CM-Various

- Also measures DC voltage, resistance, capacitance and frequency
- Tests continuity and diodes
- Flashlight inside clamp jaw for easier work in dark locations
- Back-light & relative mode for added versatility
- AmpTip™ increases accuracy on small wires and low current
- Two voltage detection modes - non-contact or using a single test lead
- Recording of Maximum, Minimum, and Average readings

CM-1360 Features

- AC voltage measurement with digital low pass filter for accurate readings on variable frequency drives
- Recording of maximum, minimum, and average readings

CM-1560 Features

- AC and AC+DC voltage measurements with digital low pass filter for accurate readings on variable frequency drives
- Peak-RMS measures motor in rush current
- Crest (peak hold) feature captures current or voltage peaks as short as 5 milliseconds

Part No.	CM-1560	CM-1360
Specification	Measures AC+DC current	Measures AC current
Amperage Measurement	60, 600, 1000 Amps AC	
Display	LCD, 6000 Count	
Includes	Voltage: 50/60Hz Current: 40 to 400Hz	
Jaw Opening (mm)	51	
Measurement Category	CAT-III 1000V, CAT-IV 600V	
Resistance Measurement	600, 6k, 60k Ohms	
Standard	CAT IV, C/US UL Listed, CE	
Voltage Measurement	600, 1000 Volts AC/DC	



Loadtester - Cat IV 600V

Part No. LT240A15

The Loadtester is used as an electrical load on kWh power metres when testing to ensure the correct operation and functionality of the metres.

The Loadtester incorporates fused probes with silicon leads and is housed in a compact body. It is protected by an automatic thermal cut-out switch.

Specification

- Voltage: 240 – 250V max. 1Ø
- Load: 1100W – 4.5amp.
- Internal Fusing: 7amp.
- Safety Rating: Cat IV 600V – Cat III 1000V.
- Compliant to: AS: 61010.1: 2003.
- Weight: 420gm.
- Leads: Silicon with internal white wear indicator layer.
- Test Probes: Cat III 1000V.
- Motor: 1100W with thermal cut-out.
- Grills: Black Nylon 15% Glass Filled.
- Cable Grommet: TPE 90A Shore.
- Body: PC-ABS Fire Retardant – spark finish.
- Hook: Polished 316 Stainless Steel that allows hands free operation.

Phase Sequencing and Rotation Indicators

Phase Rotation Meter - Contact

Part No. PR3

Our Phase Rotation Meters have been designed to offer the highest Safety Rating CATIV 600V. TEN offers both contact and non-contact versions. Our Phase Rotation Meters are designed for Use with Utility workers, ASP Service providers, Industrial, Commercial and General Electricians.

Features

- Two functions in one unit: open phase and phase rotation and sequence.
- Lamps let you determine at-a-glance if phase is open
- Fused Test Leads for Safety
- Probes and alligator clips included
- Large size alligator clips for easy clipping onto switch-boards terminals
- Instruction manual and Soft Pouch Included
- CAT IV 600V Safety Rating
- Checks a wide range of 3-phase power sources.



Phase Rotation Meter - Non Contact

Part No. PR3NC

Features

- The PR3NC is a Non-Contact phase detector with flashing LEDs and a beeping buzzer to show the detection of AC 3-phase sequence.
- Two functions in one unit : open phase and phase sequence detection.
- CAT IV 600V
- Convenient brightness switch to make the indication visible in dim areas or sunlight.
- Back cover magnets which attach the instrument to the distribution panel offer easy measurement.
- 3-Phase AC 75 to 1000V is fitted for detection.
- Detect frequency range is from 45 to 65Hz.
- Available with a 2m test leads - Part No. PR3NC-2M



Supply Connection Testers

Loadtester - Starlogixs



Part No. SL-X-LB1800

- 1800W Load Bank
- The load bank has two settings with the following electrical specifications:
- Low Setting (1) = measured 3.7 AMP draw at 250VAC (925W)
- High Setting (2) = measured 7.1 AMP draw at 250VAC (1775W)
- The free probe of the load bank has an 8 amp ceramic protection fuse fitted inside



Low Setting	High Setting
3.7 Amps	7.1 Amps
250VAC	250VAC
2 Probe	
925W	1775W
8A Fuse	8A Fuse



Supply Connection Tester - StarLogixs

Part No. SCT16-415-K

The SCT16-415 performs a test and measures volts and impedance in relation to the connected Active, Neutral and reference Earth to determine a safe or unsafe connection at the customers premises.

Function

Performs a test between Active & Neutral and Earth & Neutral, and displays PASS (Green LED/one beep) or FAIL (Red light/two beeps) followed by the Voltage and/or Resistance results.

Features

- Simple Operation (No Batteries Required)
- Rapid Test Time (2 full 50Hz cycles)
- Heavy Duty Load Bank Resistors
- Back-lit LCD display for poor ambient lighting conditions
- Bright LED's & Audible PASS/FAIL alarm
- Ergonomic Case
- Lead Set Cat IV 600V w/ Crocodile Clips and Probes
- Withstands exposure to 415V
- Internally fused 10A
- Enclosure sealing to IP65
- Design meets Cat IV 600V IEC/AS61010
- Designed & Manufactured in Australia



Ladder web strap and bracket supplied with in-built strong magnet



Supplied with complete set of high quality Cat IV connector cables



Input Frequency (Hz)	50 nominal
Test Duty Cycle	Measurements can be repeated every 20 seconds
Operating Temperature Range (°C)	-10 to 55
Maximum Relative Humidity	80% max, non-condensing
Dimensions (mm)	210 (H) x 110 (W) @ display head 80 (W) @ body
Tester Weight (without leads) (g)	465

Insulation and Continuity Tester

Insulation Resistance & AC/DC Voltage Tester - Klein

- Voltage Tester tests insulation resistance up to 4000MΩ @ 125, 250, 500 and 1000V DC
- Measures up to 1000V AC/DC, resistance and continuity
- Megohmmeter with test and lock buttons for simple insulation testing
- Warning alarm and high voltage icon for detection of voltage
- CAT III 1000V safety rating, as required by AS 5732:2015-4.4.10



Part No.	Safety Category	Dimensions (mm LxWxH)	Battery	Weight
ET600	CAT III 1000V	210.5 x 91.2 x 58.9	6 x AA (included)	0.6kg
Kit Includes	Owner's Manual, Case, Right Angle Test Leads, Heavy-duty Alligator Test Leads			

Insulation and Continuity Tester - Kyoritsu

Part No. 3132A

The Kyoritsu 3132A is a small and lightweight analogue insulation and continuity tester. With an AC voltage range of 600V, the Kyoritsu 3132A is capable of testing insulation resistances using test voltages up to 1000V. A 1mA rated test current can be utilised at minimum resistance, as well as a 200mA measuring current on continuity testing. The 3132A features an easy to read scale as well as a shock-resistant case, which is both dust and drip proof (rated to IP54)

Key Features:

- 1mA rated test current at the minimum resistance.
- 200mA short circuit current on continuity testing.
- Designed to meet IEC 61010-1 and IEC 61557 safety standard.
- Automatic discharge of circuit capacitance (automatically discharged after test).
- Live circuit warning buzzer and neon lamp.
- AC voltmeter with linear, easy-to-read scale

Earth Testers

Digital Earth Tester - Megger

Part No. DET3TD

The new earth testing instrument family from Megger offers a unique solution to your earth rod testing needs. The complete kit of instrument, test leads, stakes, batteries and calibration certificate are delivered in a tough polypropylene carry case.

Features

- IP54 rated
- 2 and 3 point testing
- Selectable 25 V or 50 V output
- Complete with lead and stake kit
- Simple one button operation
- Hard wearing carry case
- Delivered with calibration certificate

Earth Clamp Resistance Tester

Part No. CMGRT-100A

Measure the earthing circuit performance without disrupting services. Fast and accurate "Stakeless method" to measure earth resistance. Includes customizable audio tone and visual alarms with three user defined settings for impedance, voltage and current.

Features

- Accessories included: molded carrying case, 4 x AA Batteries and calibration verification loop
- Non-contact voltage indication alerts the operator if voltage is present by an audible tone while displaying a "V"
- Earth circuit remains in service during testing
- Safety Category: CAT IV, 600V
- Memory stores up to 300 measurements
- Auto off after 5 min



SCAN or CLICK
for instruction video





Digital 3 Wire Earth Tester

Part No. T2720

Features

- Earth resistance tester for two or three electrodes
- 3½ digit 1999 count LCD
- Measures earth voltage to 200V
- Includes electrodes, long leads and simple push button operation
- Spare lead set: AL36RYGKIT



Loop Impedance Meter

Part No. WMGBMZC304

- Short circuit loop measurement
 - Short circuit loop impedance measurement in networks with nominal voltage: 220/380V, 230/400V, 240/415V, with frequency 45...65Hz;
 - Short circuit loop impedance measurement with 15mA current, without triggering RCD
- Low voltage resistance measurement of protective circuits and junctions
 - Measurement of resistance with $\pm 200\text{mA}$ current,
 - Calibration of test leads – possibility of using any length of test leads
 - Low current resistance measurement with acoustic signaling
- Rapid check for the correct connection of PE wire using touch electrode. Measurement of mains voltage and frequency.
- Power supply from LR6 batteries or NiMH accumulators (option)
- The device meets the requirements of IEC 61557 standard
- IP67



Earth Trailing Lead Reels

20m - Earth Trailing Lead Reel

Part No. ETL20SS

Developed with Australian utilities the Earth Reel has a 1000V insulated handle covering a strong stainless steel rod to eliminate a requirement in some regions to cover the spike. The tapered auger assists with easy driving into the variety of soil densities encountered in the field. Incorporated into the earth reel is a custom brass bushing running the full width of the reel, this runs smoothly on the stainless steel shaft ensuring continuous reliable continuity.

Features

- 20m Insulated Earth Trailing Lead
- 1000V Insulated Handle
- Green flexible 1.0mm Cable 0.6/1kV
- Adjustable drag system w/out tools
- Option for direct connection via 4mm Banana plug
- Brass Bushing for extra Low Resistance Connectivity
- Stackable Banana Plug for multiple connections at service end
- Stainless steel construction
- Auger for easy driving



50m - Earth Trailing Lead Reel

Part No. ETL50

The 50M Earth Trailing Lead is a high quality portable cable reel supplied with 50 metres of flexible cable 1.5mm 30/0.25. Furthermore it features only Quality Components. Earth Trailing Lead Connects directly to most brands of test equipment. Equipped with One alligator clip and two 4mm banana plugs. It is also supplied with a temporary independent earth stake. The cable is calibrated and resistance is marked on the Trailing Lead. The Earth Trailing Lead is also available in 100M Version.

Part No. 2010-083

- Lightweight reels
- Large comfortable handle
- Sits on the ground or any flat surface
- Clips on reel to retain earth spikes/pins
- Clips on reel to retain the end of test leads
- Ability to daisy chain allows extra long length in manageable chunks.
- The manageable chunks make reels lighter and easier to carry, helping to quickly resolve any connectivity issues



High Voltage Ammeters

HV Ammeter - HDE

Part No. HVA-2000H

The HVA-2000H is a high voltage digital ammeter designed for taking AC current measurements up to 2000 amps. The HVA can be used on system voltages up to 500kV. The large, bright LED display allows real time monitoring of current from the longest of telescoping hot-sticks in all lighting conditions. The HVA-2000 will store the last 4 readings.

Quickly take readings on conductors up to 500kV (phase to phase)



Features

- Quickly obtain current readings on conductors up to 500kV (phase-to-phase)
- Measures AC current, 25-500Hz
- Use in overhead and underground applications
- Take spot-load checks with ease
- Verify phases are balanced
- Read the measurement in real time from the large digit display
- Stores the last four current readings
- Display is easy to read in bright or dark conditions
- Auto shutoff with low battery function
- Small and lightweight, easy to manage on an extension hot-stick - 0.82 kg
- Dual hot-stick connections – universal spline and shotgun stick
- Use on conductors up to 70mm
- Accuracy 1% of reading
- Includes rugged plastic carry case

HDE
GREENLEE



Ampstik Plus - Sensorlink

Part No. Various

The Ampstik+ provides reliable measurements, giving line personnel the confidence to make immediate decisions while working and troubleshooting in the field.

The Ampstik+ measures in every electric utility setting with a linear current sensor to accurately measure 1A to 5000A, while in voltage environments up to 500kV.

The opening of the amp sensor is electronically closed, while external currents are electronically rejected.

This design enables the user to measure an individual conductor within close proximity to adjacent conductors without interference errors.

The Ampstik+ holds up to four readings, This simple process makes the Ampstik+ a practical, labor saving instrument.

The back-light will automatically power on when the ambient light is low.



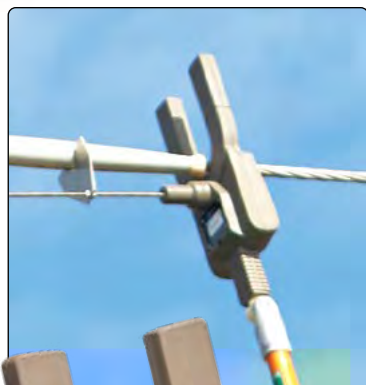
8-024PLUS
Wide Jaw Shown
on Pad-mounted
Transformer



Features

- Sample and hold four amp readings
- Open CT rejects stray magnetic fields
- Open Jaw for Easy slip on and off the conductor
- No position sensitivity
- Back-lit LCD for low-light environments
- Overhead and underground use

Part No.	8-024 PLUS	8-020XT PLUS
Description	Wide Jaw Ampstik+	Ampstik+
IP Rating	IP67	
Voltage (kV)	0-500	
Current Amps (A)	0-5000	
Jaw Opening (mm)	100	63.5
Resolution		
	1-99.9Amps - 0.1A	
	100-1999Amps - 1A	
	2000-5000Amps - 0.01 kA	
Accuracy (%)	± 1%, ± 2 counts	
Frequency (Hz)	47-53	
Stores Readings	4	
Display (Digit)	3.5	
Housing	Fire Resistant & Waterproof Polycarbonate	
Attachment	Universal Stick Fitting	
Battery	9V Included	
Carry Case	Sold separately	
Weight (kg)	1.18	0.79



DLRO600



DLRO10

Contact TEN for further
information on the
Megger Microhmmeters

Digital Microhmmeters

OHMSTICK-PLUS - Sensorlink

Part No. 8-082XTPLUS

The Ohmstick Plus takes accurate current and micro-ohm measurements from conductors, connectors, splices, and switching devices when placed directly on the energized asset.

The Ohmstick Plus is used to evaluate line splices, bolted terminals, taps, jumpers, and substation bus bars. Additionally, switches, fused disconnects, and normally open switches that have been open for long periods, may be measured just after closing.

These connections can be measured right after installation, or surveyed after years of service.

- Reduce connector failure rates
- Measure and evaluate connections on transmission and distribution conductors
- Verify resistance on closed switch contacts
- Check taps and jumpers for connection reliability
- Evaluate aging of connections

Part No.	8-082XTPLUS	Carry case, fused & adjustable probe, angle adapter	
	8-084	Wide Jaw Ohmstick, carrying case	
Sensor Opening (mm)		63.5 (8-082XTPLUS)	98.5 (8-084)
Weight (kg)		1.10 (8-082XTPLUS)	1.81 (8-084)
Frequency, 50Hz		47-53	
Measurements		Nine reading sets	
Range of Operation	Voltage Phase to Phase	90VAC - 500kV	
	True RMS Amps	1-1400 A	
	Micro-Ohms	5-2500 $\mu\Omega$	
Resolution	Amps 0.9-99.9A	0.1A	
	Amps 100-1400 A	1A	
	Micro- Ω 1-999	1 $\mu\Omega$	
	Micro- Ω 1000-2500	1.0 $\mu\Omega$	
Accuracy	Current	$\pm 1\%$, $\pm 1A$	
	Micro- Ω Absolute	$\pm 2\%$, $\pm 2 \mu\Omega$	
	Micro- Ω Repeatability	$\pm 1\%$, $\pm 2 \mu\Omega$	
Hot-Stick Mounting		Universal fitting	
Battery		9V Alkaline or Lithium	

Digital Microhmmeter - Megger

Part No. DLRO600

Megger Ductor™ DLRO600 measures resistances between 0.1 $\mu\Omega$ and 1ohm, at high currents. This versatile instrument can provide test currents from 10amps up to 600amps subject to the load resistance and supply voltage.

A large liquid crystal display provides all the information needed to perform a test; all test parameters and measurement results are displayed.

The unique design allows the weight and size of DLRO600 to be kept to a minimum; the instrument weighs less than 5kg. The high current capability and compact design make DLRO600 suitable for testing circuit breaker contacts, switch contacts, busbar joints or other applications where high current is needed.

Part No. DLRO10

With Lith-Ion Battery

The MEGGER DLRO10 bring new standards to low resistance measurement. A fully automatic instrument, selecting the most suitable test current, up to 10A DC to measure resistance from 0.1 $\mu\Omega$ to 2000 Ω on one of seven ranges.

The DLRO10 is built in a strong, lightweight case that is equally at home in the field or in the laboratory. Light enough to be worn around the neck and small enough to be taken into areas which were previously too small to access. DLRO10 uses a large, bright 4-½-digit LED display.



Discharge Kits

Volt Meter & Discharge Kit AC System DC Link Capacitor

Part No. RCDC1KAU-KM-KIT

Used to safely drain capacitive charge after a circuit has been de-energised

Detector used to properly measure the AC system DC link voltage before performing any work on any high voltage components, and to provide a discharge procedure for the AC system DC link capacitors in the case of failure of the built-in discharge circuits

Customisable kits to suit your electric vehicle



Kit Includes:

- DVM-80UVM - Universal Digital Voltmeter with Second Probe
- 3.65m Coiled Interconnecting Cable
- 2 x Brass Cup Probe Tips
- 1 set Discharge Probes
- 2 x 600mm Extension Sticks
- 2 x 600mm Universal Sticks
- 2 x Hand Guards
- Class 1 Insulating Gloves
- Leather Outer Gloves
- Cotton Inner Gloves
- Carry Case



Status Displayed

- 1) Phased
- 2) Swap A/B
- 3) Swap B/C
- 4) Swap A/C
- 5) Rotate ABC
- 6) Rotate CBA
- 7) Earth/Short Circuit
- 8) Low Battery

Equipment specific testers

Cable Core Identifier

Part No. CCI-09



Coremaster identifies correct cable cores in underground or multi-core cables

- Only for use on de-energised cables
- LED indication, refer below for status displayed
- Easy to use and clear indication
- Diode set protects unit from insulation testers
- Colour coded fused leads: red, white and blue
- Continuous re-test as leads are swapped
- Auto power off with low battery indication
- Self test function
- Supplied in carry bag



Part No.	Carry Case	Wt (kg)
CCI-09	Nylon	0.6



Leakage Current Monitor - Chance

Part No. C407-0025

To alert utility line-workers of over current conditions on devices such as insulated ladders and EWP booms, the Chance Sentinel sounds an alarm if leakage current reaches a pre-set level.

- Audible warning eliminates the need to watch the actual current level that is continuously displayed on the digital LCD screen
- Simple operating steps printed on the inside lid panel, and a detailed instruction sheet is included
- Kit includes one coaxial cable and battery, two jumpers, and three hose clamps for connections to two or three rail ladders
- Brackets on box secure to earthed structure up to 15.8mm thick, such as a transmission tower



Insulator Tester - HDE

Part No. HV-IT-40

Used for field insulator assessment up to 40kV

- Measures voltage across live insulator string which enables quick and accurate identification of faulty insulators
- Digital display
- Universal attachment
- Rugged design with ABS moulded case



Part No.	Measurement Range (kV)	Accuracy (%)	Temperature Conditions (°)	Temperature Dependence (%)	Dimensions (mm)	Battery	Wt (kg)
HV-IT-40	0 – 40 DC Resolution 100V 0 -28 RMS (Factory Calibrated for RMS setting)	± 5 (50-60Hz)	Test = 20 ± 3 Working = -5 to 50 @ 0 to 80% Relative Humidity Storage = -20 to 70 @ 0 to 90% Relative Humidity	Typical = 0.05 of reading/ °C Max = 0.1 of reading/ °C	Without rope = 360 x 230 x 150 Carry Case = 450 x 370 x 250	1 x 9V	Unit = 1.3 Carry Case = 3.6



Transformer Tester - HDE ClearTest

Part No. CT-300

The ClearTest™ Transformer Tester provides quick and easy tests of de-energised power distribution system transformers. It is a handheld device with a single push button that provides a clear indication of open circuits, short circuits, including shorted turns or shorted windings and confirmation that the test results are OK.

It briefly energises the transformer and takes a snapshot of the transformer condition by measuring the voltage, current and power factor of the test signal.

ClearTest looks both inside and outside the transformer - testing the coil, core and windings, as well as between the transformer & whatever it is connected to.

- Finds internal transformer defects before energising
- One tester for all transformer types
- Test the LV & HV sides of de-energised transformers without disconnecting
- Tests all connections from transformer to meter
- Improve SAIDI statistics by quickly testing and getting the transformer back in service
- Built-in self test
- Prevents line workers from installing a fuse on a shorted transformer
- Quickly verifies the LV connections are not shorted
- Compact, lightweight and easy-to-use
- Powered by two 9V field replaceable lithium or alkaline batteries
- Audible alarm confirms successful test
- A magnet is included to hold the ClearTest in place while testing





Battery Powered

Battery Powered Hot Stick Tester - Hastings

Part No. 7707

Utilising a 2,500 volt output, the meter is calibrated to indicate the leakage values that would be present if 75KV were applied to a 300mm section of the fibreglass for the wet test and 100KV per foot for the dry test

Features

- Battery or USB operation
- Push Button switch for wet or dry tests and a dual range scale which gives the operator leakage current values in micro amps
- Portable and lightweight for easy use
- Meets OSHA 1910.269
- The tester is designed to protect the operator while in use
- The tester comes complete with a padded carrying case and instructions.
- A test bar is also provided to ensure the tester is working properly

See Fibreglass Section for related cleaning products



Part No.	USB Charging Cord Part No.	Operating Temperature	Battery Life	Charging time	Dimensions (mm)	Wt (kg)
7707	A30431	0-40 (°C)	6 Hrs	1.5 Hrs	195 (H) x 100 (W) x 94	2.4



Rope Tester, Liveline - HDE

Part No. RT-10

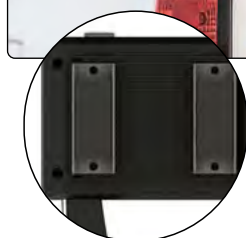
The Rope Tester is designed to test live line ropes for dielectric integrity in the field. Ropes a diameter ranging from 13mm to 38mm can be tested.

PORTABLE - DURABLE - EASY TO USE

Test ropes 13 - 38mm for dielectric integrity

Features

- Continuously test any length of rope
- Conductive condition is displayed by red (bad) LED's
- Powered by 2 x 9VDC replaceable batteries
- Audible buzzer sounds if defective sections of rope is found
- Small, portable and easy-to-use
- Magnetic Mounts at rear



Mounting Magnets on the Rear of the RT-10 Rope Tester

Heavy Duty Clamps

Loud Buzzer - Indicates Rope Condition



Bright LED's Indicates Rope Condition

Durable Housing with built in Handle



The manufacturer recommends that ropes be tested as close to the time of use as possible

Variations in humidity over time make it possible for the same rope to test good at one time and bad at another time.

Part No.	Rope Capacity (mm)	Nominal Output	Battery	Current Threshold "Bad Rope" Indication	Dimensions (mm)	Wt (kg)
RT-10	13 - 38	10(VDC)	2 x 9VDC Lithium-Ion	15µA	195 (H) x 100 (W) x 94 (D)	0.91



POLUX 5



Power Pole Testing Equipment - POLUX 5

Wood Pole Condition Assessment

With more than 5 million timber power poles in service in Australia, managing the life of these assets and controlling capital expenditure is a top priority for any distribution utility. For many years, reliable data from fast, non-destructive hardwood pole testing has been the holy grail for asset managers. TEN is excited to be working with Concept Bois Technology (CBT) on their 5th generation Polux non-destructive pole testing technology here in Australia. Polux5™ is a lightweight, handheld testing unit that ascertains the wood density profile with moisture content to evaluate the current state of timber degradation. Backed by many years of data collection and the PICUS software platform for in-field data collection, the asset management benefits and productivity gains are extensive.

POLUX 5 Process

POLUX 5 is set on the pole thanks to a screw. The energy is recorded during the whole screwing process. The angle of the device on the pole is stored.

Once the device is set on the pole, the measuring pins are automatically driven within the pole and record both the penetration force and the energy required. Moisture content is stored when the measuring pins are fully within the wood.



Measures wood Density to ascertain a residual strength reading in MPa

In-field Data Collection

Picus software is entirely designed for Polux and any other data collection including GPS, visual inspection, pictures, Datamatrix etc.



Contact TEN for further information on the POLUX System

Dimensions (mm)	394 x 160 x 82
Weight (kg)	2.8
Battery	18V Li-Ion
Wireless	Bluetooth
Inclinometer	Integrated

Go-Pro™ Camera Stick Mounting Accessories

Part No. Various

Modeled after the HASTINGS Tel-O-Pole series, this specially engineered hot stick allows for a Go-Pro™ Action Camera to be mounted and utilized for quick, easy, and safe inspection of and around energised lines, transformers, insulators, poles, buildings, bridges and other assets. Utility workers can use the camera to wirelessly stream and record live picture and video to the ground with any iPhone, tablet or android device compatible with the Go-Pro Application. The hot stick may even allow inspections to be completed without the use of a bucket truck, lift, or climbing gear.

Features

- Lightweight
- Fiber Glass Stick Tested at 100,000 volts per foot
- Camera Assembly Tested up to 40,000 volts
- Extended 9.15m / Retracted 1.6m
- The camera mount adapter can be used in any position & is included with the R-30-G stick
- The Clamp Claw Mount* clamps to any hot stick
- Camera Light* can be used on Camera Mounting Insulated Stick or the Clamp Claw Mount
- Smart Phone Mount* has adjustable strap to fit on most hot sticks.

* Sold Separately



Clamp Claw
Go-Pro Mount
A30414



Go-Pro
Camera
Mount
R-30-G



Go-Pro with 5455-10-GOPRO
Rising Sun attachment



Smart Phone Mount - A30413



10-150
Camera Light



5455-10-GOPRO



Ordering Information

Part No.	Description	Wt (kg)
R-30-G	Camera Mounting Insulated Hot Stick	1.80
A30413	Smart Phone Mount	0.11
A30414	Clamp Claw Mount	0.22
10-150	Camera Light	0.11
C-35	Canvas Stick Bag	0.26
5455-10-GOPRO	Rising sun attachment connects direct to camera	0.67

Go-Pro Action Camera and phone not included

Rotary Angle Meter - Dual Scales

Part No. SLANT100

Rotating dual-scale/angle meter is for fast measuring, setting or replicating of pitch or angles

- Fast & Reliable
- Rotate Thumb Screw until Vial is Level
- Also available in Magnetic Version





Digital Cable Height Meter - Suparule

Part No. Various

The Suparule Conductor Height Meter is a handheld meter for measurement of sag, height, and CTG clearance for overhead conductors and cables. The Suparule Cable Height Meter utilises ultrasonic signals to determine the height of overhead cables up to 23m.

Features

- Measures up to 23m
- Easy to use with LCD Display, one man, one button operation
- Long life battery capable of 50,000 measurements
- Auto power off after 3 minutes
- Inherently safe — No physical connection to cables or wires required to obtain measurement
- Extremely Accurate — measures to accuracy of 0.5%
- Compact size — Its lightweight and hand-held portability allows easy transport and multiple measurements
- Maintenance-free - proven reliability in the field, no adjustments required
- 9v Battery Included

Ordering Information

Part No.	Description
S600E	Cable Height Meter - 6 Wires Up to 23m Includes: Cable Height Meter & Leather Protective Case



Contact TEN for further Suparule models & option

Conductor Diameter Gauges

TEN Conductor Gauge

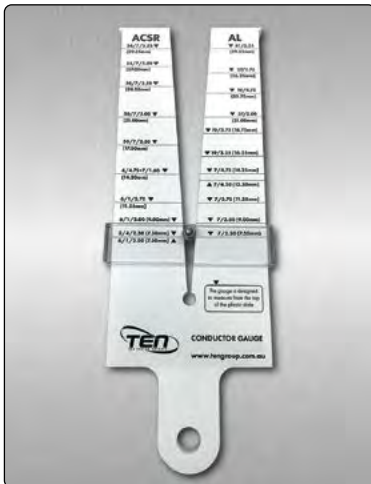
Part No. CG-430-AU

HDPE slide gauge quickly & easily identify conductor OD

- Designed for Australian AL, CU & ACSR conductors
- Measure Live Conductors
- For conductors 4.0 - 30mm Ø
- Fits universal sunrise fitting

**Reduce Incorrect
Conductor
Identification**

Part No.	Dimensions (mm)	Wt (kg)
CG-430-AU	104 x 287 x 10	0.26



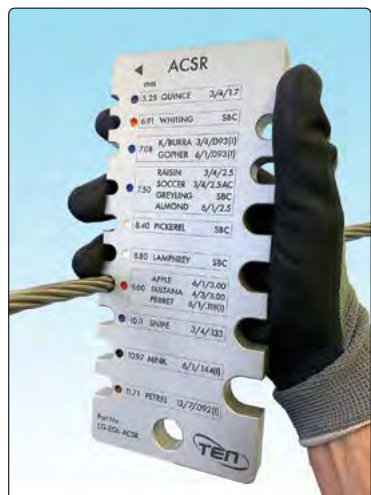
Conductor Diameter Gauge - AL, CU & ACSR

Part No. Various

Quickly & easily identify common overhead electrical distribution conductor or wire sizes in AL, CU & ACSR. Markings include conductor name, stranding and overall diameter.

- Hole in base for use with a shotgun stick and hanging storage
- Imperial and metric sizes included
- Precision machined from lightweight aluminium alloy

Part No.	Conductor Range	Dimensions (mm)	Wt (kg)
CG-EQL-ALCU	Copper 7/.064 – 4.87mm to 19/2.75 – 13.8mm Aluminium Locust – 7/.093 – 7.08mm to Taurus – 19/4.75 – 23.80mm	257 (L) x 91 (W) x 14 (D)	0.75
CG-EQL-ACSR	ACSR Quince – 5.25mm to Wolf – 18.13mm	209 (L) x 91 (W) x 14 (D)	0.65



Dynamometers

Mechanical Dynamometers - Nagaki (NGK)

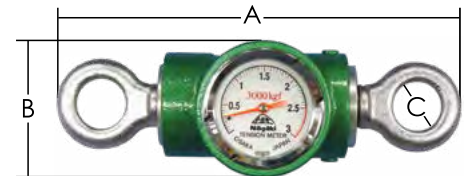
Part No. Various

NGK Dynamometers are lightweight, compact and plated to resist corrosion. All models feature a large face dial for easy reading of measurements.

**Trust only the Original
Established in 1946**



- Made in Japan from Japanese components
- Precise measurement of tension and loads
- Kilogram/force (kN) dial display
- Accuracy $\pm 3\%$
- Plated to resist corrosion
- Supplied with In-Service Date sticker



A-30 Model

All models now
with large 28mm eye

Part No.	Capacity (kN/T)	Graduation (Gauge Increments) (N)	Dimensions (mm)			Wt (kg)
			A	B	C	
AS-3	3/0.3	50	110	65	16	0.7
A-10	10/1	200	135	65	28	1.2
A-20	20/2	500	135	65	28	1.6
A-30	30/3	500	150	80	28	2.0
A-50	50/5	1000	260	95	28	3.0

DILLON

Mechanical Dynamometers - Dillon

Part No. Various

It is used for such diverse jobs as suspended weighing, mounting cables for bridges, adjusting tension on guy wires, tensioning conductor.

- Accuracy $\pm 0.5\%$ of full range
- Max hold feature
- Accurate readings from varying sight lines with fog and scratch resistant dial
- All units include calibration certificate and manual
- Corrosion resistant
- Option of 125mm or 250mm dial size
- Supplied with rugged ABS plastic carry case
- Supplied with In-Service Date sticker



**Optional Extra
Klaxon signal alarm
– mounted on back of
meter, can sound at
preset load point**



Official certificate of calibration, dated and signed, accompanies each new Dillon Model AP dynamometer.

This is your guarantee that every unit is within the stated accuracy tolerances before it leaves the factory.



Part No.	Capacity (T)	Kg Division	Ultimate Safety Factor
30006-0134	0.5	5	5:1
30006-0159	1.0	10	5:1
30006-0126	2.0	20	5:1
30006-0167	4.0	25	5:1



DILLON



Digital Dynamometers - EDJunior - Dillon

Part No. EDJunior

- Accuracy 0.2% of capacity
- Easy to read wide angle 26mm Back-lit LCD with max hold feature
- Soft key interface with programmable functions
- Rounded edges prevent binding or snagging
- Manufactured from aircraft grade aluminium alloy
- Calibration certificate, manual and batteries included
- Corrosion resistant and supplied with carry case
- 7:1 factor of safety at all capacities
- IP Rating IP55
- Supplied with In-Service Date sticker

**EDX & EDJ IP55
designed for weather
& water resistance**

Part No.	Capacity (T) (0.2% Accuracy)	Increments (kgf)	Dimensions (LxWxDmm)	Wt (kg) with Shackles
EDJR-1T	1	1	312 x 127 x 52	1.8
EDJR-2T	2	2	269 x 127 x 75	3.9
EDJR-5T	5	5	289 x 135 x 102	6.5

Other sizes available. Contact TEN for further information

Digital Dynamometers - EDXtreme - Dillon



Part No. EDXtreme

- Accuracy 0.1% of capacity
- Sturdy aircraft-quality aluminum, corrosion resistant and supplied with carry case
- High-resolution dot-matrix back-lit LCD display offers large 26mm numbers
- Soft-key interface allows easy and intuitive operation and configuration
- Injection molded, thick Lexan panels offer superior impact protection
- All units include calibration certificate, manual and batteries
- Radio or Hardwire Communication (RS-232 or RS-485)
- Models include Remote Configuration, Data Acquisition and Single Point Monitoring of Multiple Units. This is possible with hardwired or radio communications & optional remote Communicator II
- Supplied with In-Service Date sticker

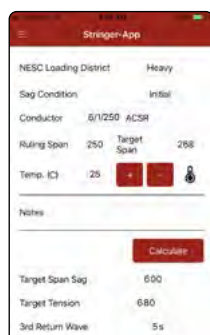
Part No.	Capacity (T) (0.1% Accuracy)	Increments (kgf)	Dimensions LxW (mm)	Wt (kg) with Shackles
EDX-1T*	1	1	269 x 127	3.9
EDX-2T*	2	2	269 x 127	3.9
EDX-5T*	5	5	289 x 135	6.0
EDX-10T*	10	10	291 x 133	17.0
Communicator II - (Includes case & batteries)			241 x 127	2.0

* EDX-Models are supplied Radio Ready and include Rated Shackles

Stringer APP for EDXtreme and Quickcheck Tension wmeter



DILLON EDX and QUICKCHECK paired with the "STRINGER APP" gives Line-workers and Riggers the target tensions to build Utility Power-lines and tension Communication Towers to design specifications
Contact TEN for further information





DILLON QUICK CHECK

Tension Meter - Dillon

Quick-Check "T" Tension Meter - Dillon

The Dillon Quick Check-T Tension Meter makes a difference. It quickly measures tension in cable tower guy wires, overhead lines and road barrier cables. It reduces time on the job site by not having to change sheaves, and the need to thumb through charts to figure out target tensions. This unit also reduces time off the job site by having automatic site form completion, with image, and direct complete reports.

Install, measure and remove in seconds



Dedicated simple to use APP

All the data in the palm of your hand

Heavy Duty Carry Case



Wire Gauge

Quick Check "T"

Check Rod

Batteries



Download on the
App Store

GET IT ON
Google Play



WHY Dillon Quick Check "T"? What's the Difference?

- Bluetooth® enabled
- Custom mobile app
- Multi-wire single sheave
- Calibration check rod
- Automatic report generation with photos
- Automatic target tension calculations
- Ability to capture pre and post tension readings
- Inbuilt image capture



Quick Check "T" shown testing tower guy with phone APP



Quick Check "T" shown with Test Bar and phone APP

Part No.	AWT05-100370	QC-T
No. of Callibrations	16 Tower guy + Test Rod	1 x Test Rod
Callibrations (")	(1x7) 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 (1x19) 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 1	1 only, for test rod. Specify wire sizes
Tension capacities (kN/kg)	45 /4500	
Wire sizes mm (")	4.75 to 25.4 (3/16 to 1)	
Accuracy	+ 3% instrument capacity (calibrated to specific wire size and type)	
Communication	Bluetooth®	
Display	Dot-graphic LCD display supports full text and 25mm high digits	
Data Export	Via mobile app	
Sheave range	One Sheave, two positions	
Wire calibrations	Up to 20	
Environment protection	Suitable for continued outdoor use	
Operating range °C	-20 to 70	
Tension units of measure	Pound-force, Kilogram force, Newtons	
Resolution	Configurable low/med/high (5000 resolutions)	
Size (mm)	220 x 610 x 90	
Weight (kg)	5	
Recalibration	Every 12 months. More frequently with heavy use	



WHEN SETTING UP YOUR NEXT STRINGING PROJECT

CONSIDER YOUR EPZ - (Equipotential Zone)

Establishing an effective Equipotential zone when setting up your stringing project is crucial for the electrical safety of your staff.

Measures to consider, but are not restricted to:

Equipotential Earth Mats - Ensures the ground surface in and around the stringing machine, including the operators are protected from differences in electrical potential during energized and de-energised work.

Portable Earth Devices (PED's) - When attached to the conductors or apparatus on a portion of the electrical network, provides enough time, usually milliseconds to carry fault current long enough for a circuit breaker or fuse to interrupt, should the line become energised.

Rolling or Stringing Earths - As with the PED's, the stringing Earth provides the same protection on a moving conductor during the stringing process

Equipotential Earth Mats - Kri-Tech

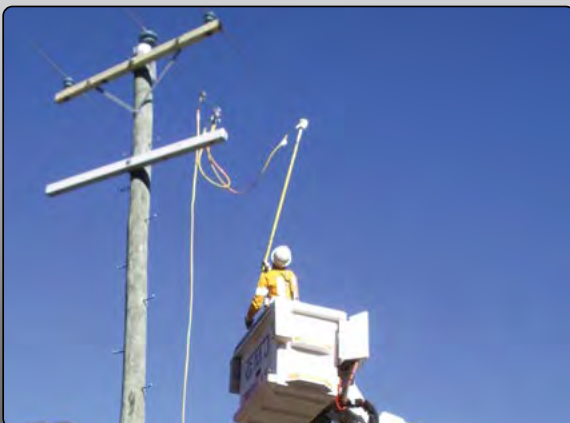
The Kri-Tech Bond Mat System is designed and high voltage tested to protect workers who come in contact or have the potential for electrical contact.



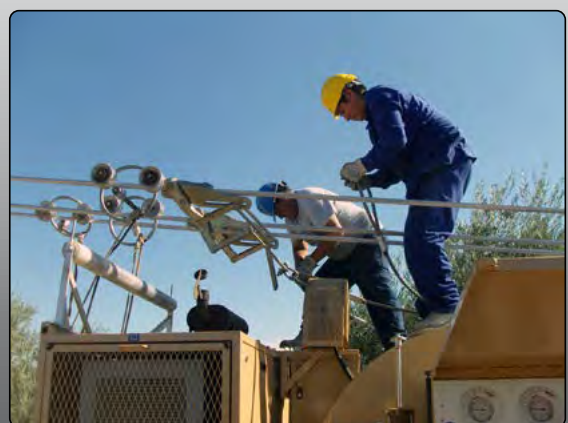
**Custom Stringing
Machine Layouts
Available**

PEDs - Portable Earthing Devices - Fixed & Rolling/Stringing Earths

Commonly known as "Earth-sets, Earth-sticks, Earthing Devices, Rolling or Stringing Earths, Portable Earthing Devices or PED's". These devices attach temporarily to de-energised conductors or contact points and a known earth.



Portable Earth Device (PED)



Rolling or Stringing Earth

Refer Transmission Stringing Section for details on this and other stringing equipment



TEN offers an extensive range of Earthing devices, Jumpers and Switches.

- ▶ PED's (Portable Earthing Devices)
- ▶ Earth sets and Sticks
- ▶ LV and HV temporary disconnect Switches, Bonds and clamps
- ▶ LV and HV Bonds and Jumpers
- ▶ Equipotential Mats
- ▶ Earth Rod Drivers
- ▶ Stringing (Rolling) Earths



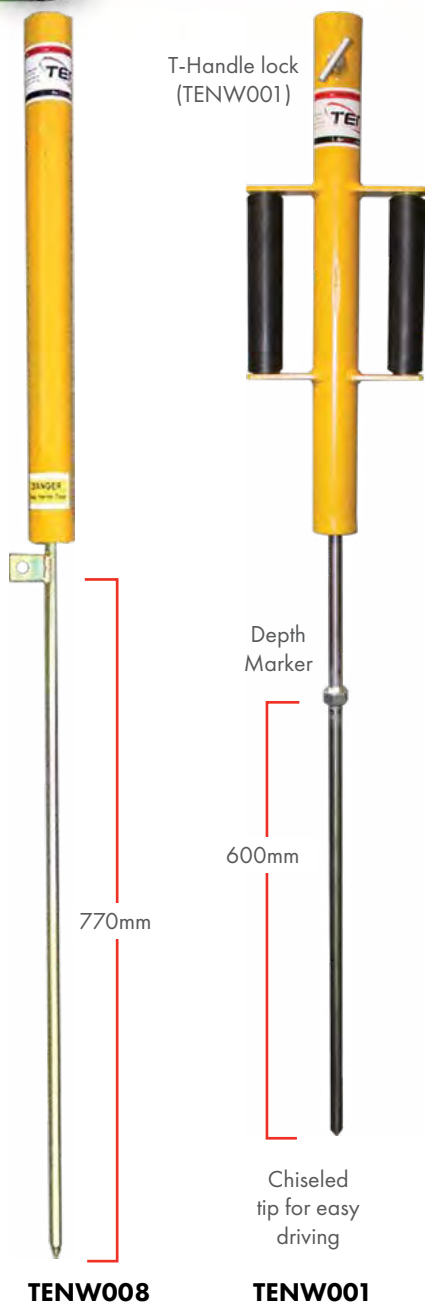
NOTES

Lined area for notes.



EARTHING, JUMPERS & SWITCHES - TABLE OF CONTENTS

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Temporary Earth Stake - TEN

- For temporary earthing applications
- Drive rod at a safe working height, minimise risk of back injury
- No pinch points - internal hammer design
- TENW001 - 600mm depth mark on drive rod
- TENW008 - 770mm to attachment point

Features

- Slide hammer drive
- T-Handle lock screw secures sliding shaft for safety, transport and storage (TENW001)
- Non-slip rubber hand grips (TENW001)
- Stainless steel rod (TENW001) Plated steel rod (TENW008)
- Heavy duty top bash cap
- Chiseled tip for easy driving

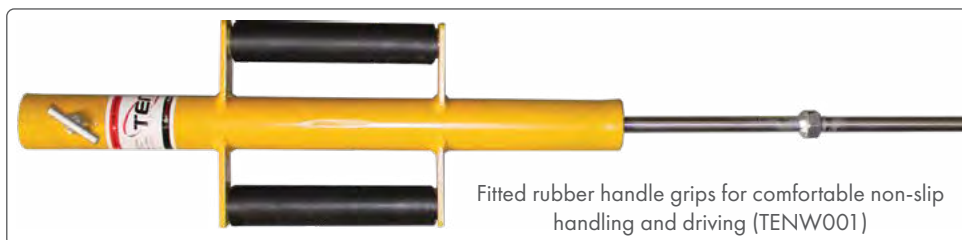


Earth clamp attachments



Part No.	Length OAL Extended/Retracted (mm)	Depth Mark (mm)	Rod OD (mm)	Wt (kg)
TENW001	1830 / 1345	600	16	5.85
TENW008	1780 / 1380	770	14	5

Slide Hammer Drive



Earth Rod Driver - iTOOLco

Part No. GRD01

Safely drive 9.5mm, 12.7mm, 14mm, 16mm and 19mm Earth rods into the ground in under a minute with iTOOLco's Ground Rod Dawg™. Once the rod is driven down far enough the tool can be used to hammer from top to finish the driving.

Features

- Drive earthing rods faster and safer
- Hardened tool steel construction for long life
- Multiple size rods can be driven
- SDS Max driver bit for positive connection and secure driving of rods



Ground Sinker
For driving the top of the ground rod below grade



Never drive earth rods from a ladder again

Reduce the risk of injury when installing earth rods

iTOOLco



HV Switch Assemblies

STEP 1

Select Your Switch Type (tick to select) ☒

- All switches labelled with rating, part number and serial number

*Jumpers, Bonders and Clamp Assemblies are for "TEMPORARY USE ONLY" and should not be left exposed for extended periods in outdoor conditions

ALTD06200R
(with Leads, Turnbuckle & Ratchet Podger) ☐

600A, 38kV, 200 BIL, 66kN, CHANCE

ALTD06200RL ☐

600A, 38kV, 200 BIL, 66kN, with load break arc chute, CHANCE

Replacement Arc Chute Assembly
Part No. E816-0228P



The NGK 2T Locking Grip (AL-2TON-GRIP-L) is ideal for holding conductor tension whilst installing Temporary switches
See Pulling & Hauling Section for full details

STEP 2

Select Your Cable (tick to select) ☒

1kV (LV) Dbl Ins Orange/White

35mm² - 172A ☐

50mm² - 217A ☐

70mm² - 273A ☐

95mm² - 329A ☐

150mm² - 450A ☐

1kV (LV) Clear

1/0 - 250A ☐

2/0 - 300A ☐

4/0 - 400A ☐

15kV (HV) Orange

1/0 - 250A ☐

4/0 - 400A ☐

25kV (HV) Orange

1/0 - 250A ☐

2/0 - 300A ☐

35kV (HV) Orange

1/0 - 250A ☐

Contact TEN if you require an AMP Rating not listed

Choose a standard length of cable or custom length

1 metre <input type="checkbox"/>	2 metre <input type="checkbox"/>	3 metre <input type="checkbox"/>	Specify Custom Length <input type="text"/>	metres
----------------------------------	----------------------------------	----------------------------------	--	--------

Please Note: Some cable sizes may incur a minimum order length - Please contact TEN for further information

STEP 3

Available Clamps (tick to select) ☒

Due to metric and AWG cable types, not all combinations of cable and clamps are available, TEN will advise at time of request

BPL12	USC12-H19	C600-0197	10476	11190	13768-2	2270
5-19mm, screwdriver handle, M12 hole	5-19mm, 19mm hex nut drive, M12 hole	Duckbill, snap-on, 4-38mm, 400A, threaded ferrule, CHANCE	Duckbill, snap-on, 4-30mm, 400A, threaded ferrule, HASTINGS	Screw type, serrated jaw, 3-32mm, 400A, bolted ferrule, HASTINGS	Gloving, pair, clear, 4-25mm, 400A continuous, threaded ferrule, HASTINGS	Gloving, pair, Orange, 4-32mm, 400A continuous, threaded ferrule, Salcor SALISBURY
Includes Lugs		Includes Ferrules				

TENA511	TENA512
Jaw to Eye style (J-E), Welded to ratchet podger, Folding handle	Jaw to Jaw style (J-J), Welded to ratchet podger, Folding handle

CLICK or SCAN the QR Code to download a copy of this form



STEP 4

Email this form to sales@tengroup.com.au



MV & LV Jumpers and Bonders

Customise Your Jumper Assemblies

TEN custom assembles a range of common Jumpers, Bonders & Switches

STEP 1

Select Your Jumper/Bonder Type (tick to select) ☒



STEP 2

Select Your Cable (tick to select) ☒

1kV (LV) Dbl Ins Orange/White
35mm ² - 172A <input type="checkbox"/>
50mm ² - 217A <input type="checkbox"/>
70mm ² - 273A <input type="checkbox"/>
95mm ² - 329A <input type="checkbox"/>
150mm ² - 450A <input type="checkbox"/>

1kV (LV) Clear
1/0 - 250A <input type="checkbox"/>
2/0 - 300A <input type="checkbox"/>
4/0 - 400A <input type="checkbox"/>

15kV (HV) Orange
1/0 - 250A <input type="checkbox"/>
4/0 - 400A <input type="checkbox"/>

25kV (HV) Orange
1/0 - 250A <input type="checkbox"/>
2/0 - 300A <input type="checkbox"/>

35kV (HV) Orange
1/0 - 250A <input type="checkbox"/>

Contact TEN if you require an AMP Rating not listed

Choose a standard length of cable or custom length

1 metre ☐ 2 metre ☐ 3 metre ☐ Specify Custom Length metres

Please Note: Some cable sizes may incur a minimum order length - Please contact TEN for further information

STEP 3

Available Clamps (tick to select) ☒

BPL12	USC12-H19	C600-0197	10476	11190	13768-2	2270
5-19mm, screwdriver handle, M12 hole	5-19mm, 19mm hex nut drive, M12 hole	Duckbill, snap-on, 4-38mm, 400A, threaded ferrule, CHANCE	Duckbill, snap-on, 4-30mm, 400A, threaded ferrule, HASTINGS	Screw type, serrated jaw, 3-32mm, 400A, bolted ferrule, HASTINGS	Gloving, pair, clear, 4-25mm, 400A continuous, threaded ferrule, HASTINGS	Gloving, pair, Orange, 4-32mm, 400A continuous, threaded ferrule, Salcor SALISBURY
Includes Lugs			Includes Ferrules			

*Jumpers, Bonders and Clamp Assemblies are for "TEMPORARY USE ONLY" and should not be left exposed for extended periods in outdoor conditions

Notes

STEP 4

Email this form to sales@tengroup.com.au





LV Jumpers and Bonders

Common LV Jumper Assemblies



- Double Insulated LV (0.6/1kV) Cable
- Highly flexible Class 6
- Lugged ends
- 5-19mm Screwdriver Handle Clamps
- 2m length Standard
- Custom lengths on request



Part No.	Cable Type	Description
TENA915	35mm ² Orange Double Insulated	Jumper, LV, 1kV, 172A, 2.0m leads, 2 x 5-19mm Screwdriver handle clamp
TENA302	50mm ² Orange Double Insulated	Jumper, LV, 1kV, 217A, 2.0m leads, 2 x 5-19mm Screwdriver handle clamp
TENA305	70mm ² Orange Double Insulated	Jumper, LV, 1kV, 273A, 2.0m leads, 2 x 5-19mm Screwdriver handle clamp

Common LV Bonder Assemblies



- Double Insulated LV (0.6/1kV) Cable
- Highly flexible Class 6
- Lugged ends
- 4 or 5 x 5-19mm Screwdriver Handle Clamps
- Custom lengths on request



Part No.	Cable Type	Description
TENA701	35mm ² Orange Double Insulated	Bonder, LV, 1kV, 172A, 1.5m leads, 5 x 5mm-19mm Screwdriver handle clamps
TENA702	70mm ² Orange Double Insulated	Bonder, LV, 1kV, 270A, 1.5m leads, 4 x 5mm-19mm Screwdriver handle clamps
TENA703	70mm ² Orange Double Insulated	Bonder, LV, 1kV, 270A, 1.5m leads, 5 x 5mm-19mm Screwdriver handle clamps

*Jumpers, Bonders and Clamp Assemblies are for **"TEMPORARY USE ONLY"** and should not be left exposed for extended periods in outdoor conditions

Also Available

HV Switch Assemblies





Jumpers Insulated/Protected - 15-69kV



- 15kV rated cable is encapsulated in a 44mm OD fibreglass tube. The fibreglass tube gives additional insulation and mechanical protection for jumpering switch gear, reclosers and cutting in double dead-ends.
- Cable can be removed for inspection and replacement
- Fibreglass hanger brackets allow clamps to be secured for installation and removal of jumper
- Can be installed on wire sizes from 3mm diameter up to and including 32mm diameter
- Ratings - 69kV rating applies to area on fibreglass tube between red bands which are from ends of the tube. 15kV ratings apply outside the red bands. Ratings apply for accidental brush contact only

Part No.	Description	Size AWG (Amps)	Wt (kg)
6752-7	406mm Cable - 203mm Tube	2/0 (300)	14.5

* See Reference tables for further information on AWG



Jumper Holders - Insulated

- Provides a safety point when line-workers install and remove energised jumpers
- Can be use as a jumper extension
- Allows line-worker greater control with all jumpering requirements
- Can be installed with all standard shotgun sticks or rubber gloves



Part No.	Fibreglass Dia & Length (mm)	Hanger Bar Dia (mm)	Description	Weight (kg)
S1600-7	32 x 380	12.7	Chance Insulated jumper holder Fibreglass shaft & metal hanger bar	1.0
3477	32 x 305	12.7	Hastings Insulated jumper holder Fibreglass shaft & hanger bar	0.87
3478	32 x 610	12.7	Hastings Insulated jumper holder Fibreglass shaft & hanger bar	1.2

Earth Lifting Tool - Hastings

Part No. 13763

- Easily lift and lower heavy substation earths with this handy tool
- Reduces manual handling risks
- The earth lifting tool is supplied with a large opening coated "C" hook that has a universal sunrise end fitting
- Comes complete with hand-line block, adjustable block clamp and 15m of 9.5mm polypropylene rope
- The hook and block clamp are mounted on an 2.4m fibreglass pole with a male splice on the bottom end to allow additional lengths of extensions to be added as required.

**Reduced
Manual
Handling
Issues**





In-line Disconnect Switch Temporary LV

Part No. TENA103

- Used for Temporary LV switching
- Enclosed switch
- Double Insulation LV 95mm² Cable 1kV
- Max Current 300Amps
- 300mm Isolating link
- Turnbuckle with folding handle ratchet podger
- Sold in sets

Max Voltage (V)	1000
Cable	95mm ² Copper with clear insulation & clear heat-shrink over lugs
Cable Current (amps)	300 Continuous
Lead Length (mm)	750 each
Switch	Fully enclosed LV
Clamp Range (mm)	3 - 31.75



**Folding
Handle
Ratchet
Podger**

ALSO AVAILABLE

Complete range of substation clamps. Contact TEN for further information

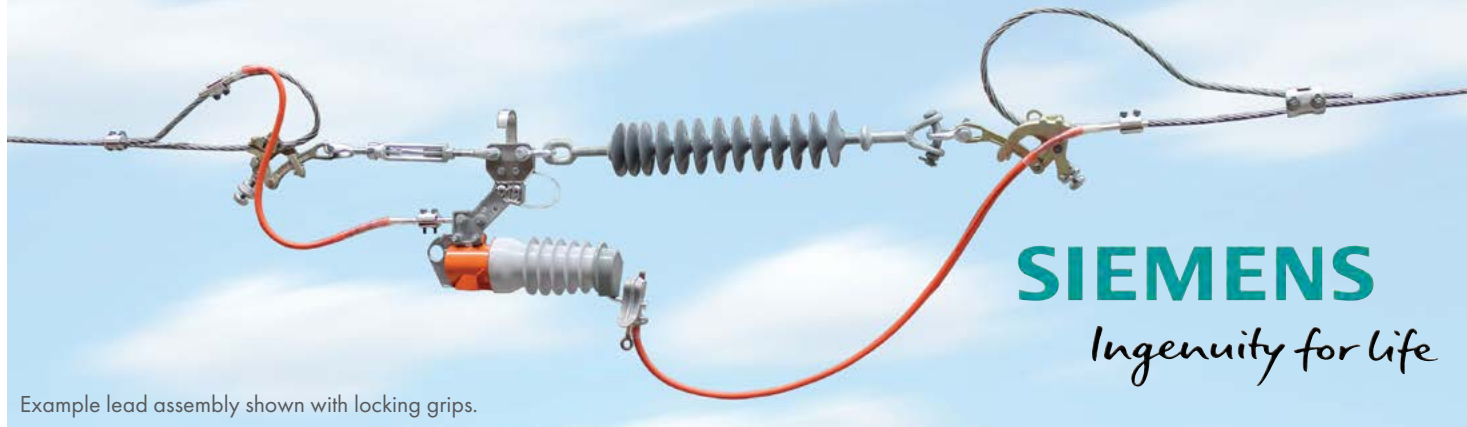




Portable Switch Unit (PSU) - Siemens

- All switches labelled with rating, part number and serial number
- Lugs or Threaded Ferrules clamp/cable dependent

CUSTOM lead and clamp assemblies built to your specifications available



SIEMENS
Ingenuity for life

Example lead assembly shown with locking grips.

Siemens Portable Switch for Temporary Isolation

Part No. 3AX1350-5A

Whilst traditional in-line tension disconnects provide line crews with a way to temporarily isolate a line at non-designated switching locations, however, the lack of a ganged switching capability creates operational inefficiencies due to:

- Restrictions in load breaking capability.
- Restrictions in load pickup.
- The risk of ferro-resonance due to single phase switching operations.
- The additional time to isolate upstream devices prior to operating the in-line disconnect.

Therefore, it is common that a switching sheet may require an additional 20 or more items to remove load or to provide precautionary isolation prior to breaking bridges or opening the in-line disconnect.

Siemens has addressed all these problems by adapting the switching unit of the proven Fusesaver circuit breaker into a pre-configured 3-phase synchronous portable switch kit. The switch units are suitable for in-line tension mounting for simple installation and visible isolation.

Key User Benefits

- Self powered from on board battery.
- No configuration required.
- Reduced day to day operating cost as switching crews can operate from an EWP or ground.
- Reduced potential for operator error during switching procedures with simple one button operation.
- Complete self contained carry case.
- Access live data from the line using the Siemens Connect PC application.

Ratings

Rated Voltage (kV)	27
Rated Impulse Withstand Voltage of Portable Switch Unit (kV)	125
Rated power frequency withstand voltage dry (kV)	60
Rated Continuous Current (A)	400
Rated Short Circuit Breaking Current (kA/s)	6.3 @ 0.5
Rated short time current (kA/s)	6.3 @ 0.5
Rated Mechanical Operations	2,000
Working Load Limit (WLL) (kg)	1,600

Kit Details

Item	Quantity
Portable Switch Unit	3
Communications Module	6
Line Tension Hanging Assembly	3
Line Clamp Assembly	3
PC Antenna Kit	1
Rugged Case	1
Communications Module Attachment Tool	1

Lead and hardware assembly shown above sold separately.

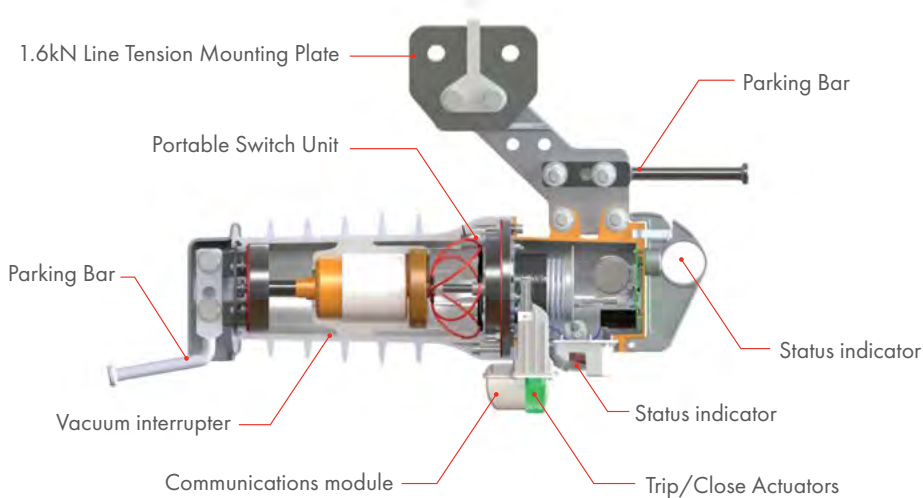
Contact TEN for further Information.

Standards

The Siemens Portable Switch is based on the Fusesaver Circuit Breaker that has been type tested to the applicable requirements of IEC 62271-100.



Siemens Portable Switch for Temporary Isolation



CUSTOM lead and hardware assemblies built to your specifications by TEN



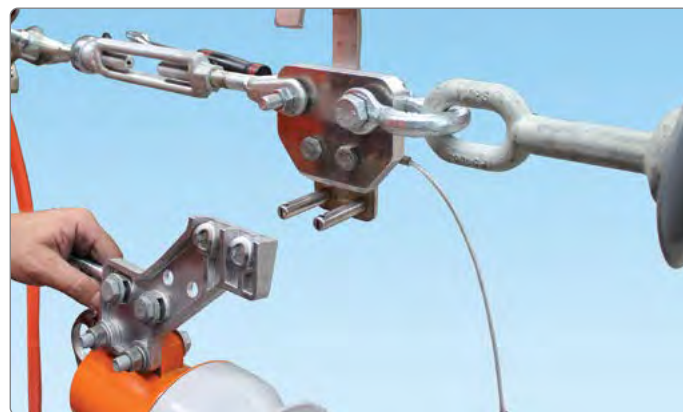
Utilise the Nagaki (NGK) 2 ton double locking grip to secure the conductor whilst installing the switches.



CLICK or SCAN to see the Siemens Portable Switch video made in conjunction with UK Power Networks.



Leads available with stalk, ferrule or lug



Quick pin bracket for fast and easy installation.

Contact TEN for more information



Overview - Portable Earthing Devices (PED)

Commonly known as "Earth-sets, Earth-sticks, Earthing Devices, Portable Earthing Devices or PED's". These devices attach temporarily to de-energised conductors or contact points and a known earth.

PED's are safety devices that are type tested and manufactured to withstand the maximum fault current for the specific portion of the network being worked on in the event that the conductor or contact point becomes energised.

Complete range of Earthing Equipment available

PED's are designed so that they provide enough time, usually several milliseconds to carry fault current long enough for a circuit breaker or fuse to interrupt the flow of current. Consult your local network or asset owner for applicable legislative requirements.

Order by completing the adjacent PED sheet

Storage, Care & Maintenance of PED's

Storage

To prolong the life of your PED's they should be:

- Neatly coiled in a protective carry bag
- Stored in a dedicated area away from sharp or heavy objects
- Stored in a cool dry area

Care & Maintenance

PED's should be visually inspected and cleaned with a suitable cleaning product before each use. Ensure that bolted connections are still tight, clamps are operating correctly and that there is no damage to cable or joints.

Remove from service and tag accordingly any PED with visual defects such as:

- Cuts
- Badly mashed or flattened cable
- Cracked or broken ferrules and clamps
- Exposed or broken strands
- Extensively damaged sheath material



SCAN or CLICK for PED order form

- Swollen jacket or soft spots indicating internal corrosion
- PED's should never be modified under any circumstance without the consent of the manufacturer.
- Components and assembly methods used are fault current type tested, so exact manufacturer specifications must be used at all times.

NOTE: PED's are intended to carry fault current once. After being subjected to fault current they should be removed from service and destroyed.

References: IEC 61230, ASTM F855



See Storage Section for further information



Polywater
Solutions at work.

RBG-640



RBG-D72



RBG-35LR



Cleaner - Rubber Goods

A specially formulated cleaner for removing GREASE – DIRT – CARBON

- No mixing required
- Excellent cleaning power
- Harmless to all elastomers (rubbers)
- Multiple package options
- Environmentally friendly
- Non-toxic and non-corrosive

Rubber Goods cleaner contains no hazardous ingredients and is pH neutral

Part No.	Description
RBG-1	Individual Sachet
RBG-D72	Dispenser of 72 saturated wipes
RBG-35LR	950ml Bottle with sprayer
RBG-128	3.8L Bottle
RBG-640	18.9L Drum



ORDER FORM - Portable Earthing Device

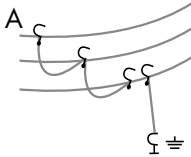
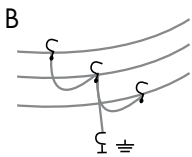
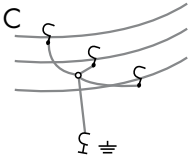
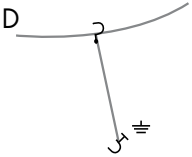
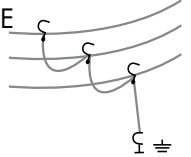
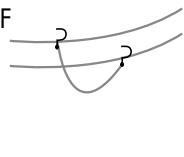
Customise Your PED's

All details are required for quotation, please enter data where requested or circle sections

Network Properties - Enter Value

Maximum Fault Current (kA) for Second Maximum Voltage

PED Assembly Type

Drawing	A	B	C	D	E	F
						
Description	3 Phase with separate down-lead	3 Phase with centre attached down-lead	3 Phase trifurcating plate with attached down-lead	Down-lead only, Single	3 Phase linked down-lead	2 Phase, Jumper earth

Cable Length Required - Enter Value

Length of Cable (m) 1. Phase to Phase length 2. Phase to Phase length 3. Phase to Ground length

Please remember to nominate slightly longer cable length than what is required, but do not to add too much slack as this can cause cable to flick out and injure workers under unexpected fault condition.

Phase/Conductor Clamps

Maximum Conductor Size (mm OD) Busbar Vertical (mm) Thickness Width Busbar Horizontal (mm) Thickness Width Fixed Ball Joint OD of Ball (mm) 20mm ☐ 25mm ☐ Other:

Phase/Conductor Clamp Fitting

☐ Snap On ☐ Shotgun Screw Up ☐ Bayonet Screw Up ☐ Fixed Stick Length ☐ T Handle

Download/Earth Tail Clamp

Maximum Conductor Size (mm OD) Busbar Vertical (mm) Thickness Width Busbar Horizontal (mm) Thickness Width Fixed Ball Joint OD of Ball (mm) 20mm ☐ 25mm ☐ Other:

Download/Earth Tail Fitting

☐ Tee Handle ☐ Bayonet Screw Up ☐ Shotgun Screw Up ☐ Fixed Handle Length

Accessories:

☐ Carry Bag Specifications:

Tick Applicable Box	Tick or Enter Details							
Stick/s	<input type="checkbox"/>	Min Height	<input type="text"/>	Max Height	<input type="text"/>	Kit	<input type="checkbox"/>	<input type="checkbox"/>
Stick Type	<input type="checkbox"/>	Universal	<input type="checkbox"/>	Shotgun	<input type="checkbox"/>	Bayonet	<input type="checkbox"/>	Hex
Adaptors	<input type="checkbox"/>	Shotgun	<input type="checkbox"/>	Bayonet	<input type="checkbox"/>	Snap On	<input type="checkbox"/>	Line Clamp

☐ Fixed Earthing ☐ Earthing Stubs ☐ Temporary Earth Rod Driver

Email this form with your contact details to sales@tengroup.com.au



KRI-TECH
PRODUCTS LTD



Operate Switches Safely

Equipotential Earth Mats

Part No. Various

The Kri-Tech Bond Mat System is designed and high voltage tested to protect workers who come in contact or have the potential for electrical contact.

- Establishes temporary equipotential zone during energised and de-energised work practices
- Prevents workers from being exposed to hazardous differences in electrical potential
- Portable, versatile and lightweight
- Non-slip black matting also available - ideal for use in wet environments
- Manufactured from high amperage tinned copper braid sewn into grid pattern onto vinyl/polyester fabric

Suitable for a wide range of applications including:

- Making cable terminations on transformers and in cubicles
- Opening or closing overhead air breaks
- Working on control boxes of regulators, reclosers, capacitors, pad mounted switches
- Stringing Operations

Part No.	Size (m)	Colour	Description
KTMNS5-5-1.5NT-A	1.5 x 1.5	Black (Non-slip)	Earth, mat, equipotential, 1.5m lead term to Screwdriver Clamp, Kri-Tech
KTM5-5-1.5NT-A	1.5 x 1.5	Orange	Earth, mat, equipotential, 1.5m lead term to Screwdriver clamp, Kri-Tech
KTM1010-2X1NT-A	3.0 x 3.0	Orange	Earth, mat, equipotential, 2 x 1 m leads term to Screwdriver clamp, Kri-Tech

Non-terminated options available on request
Custom Sizes & Options available



Black Non-Slip Mat



See Storage Section for further information



Contact TEN for information on the range of custom Stringing Machine Earthing solutions



Allows joint to pass through



MTR052
Lead Included



A78000
*Lead not Included



Shown with
Limiting Resistor

Earths - Stringing (Rolling)

Part No. Various

- Consider Conductor OD & Fault Current Rating
- Earth Leads available on request
- Ideal for stringing and re-conductoring

Part No.	Description	Conductor OD (mm)	Download	Fault Rating (kA/sec)	Manufacturer
MTR052	Stringing Earth	Max 70	6m x 50mm ² CU	10/0.4	Tesmec
9738	Stringing Earth	4.1 to 28.5	*Sold separately	19.1/.05	Hastings
A78000	Stringing Earth	3 to 41	*Sold separately	25/0.5	Salisbury

9738

*Lead not Included



*Contact TEN for your earth lead requirements

Discharge Kits

Discharge Stick - Hastings

Part No. A1004-CLCM

- Safely drains capacitive charge after a circuit has been de-energised
- Insulating stick with hand-guard and rubber end cap
- Stainless steel hook
- Earth lead included
- Supplied with or without clamp
- Stick tested to ASTM F-711
- Discharge limiting resistor sold separately
- Earth cable is copper with yellow neoprene jacket
- LCM12H/12 Clamp used

Part No.	Stick Length/OD (mm)	Hook Opening/OD (mm)	Lead Length (mm)	Wt (kg)
A1004-CLCM	600/32	34.9/6.35	1.8*	1.2

*3m and 6m lead lengths also available

Volt Meter & Discharge Kit AC System DC Link Capacitor

Part No. Various

- Used to safely detect and drain capacitive charge after a circuit has been de-energised
- Detector used to properly measure the AC system DC link voltage before performing any work on any high voltage components, and to provide a discharge procedure for the AC system DC link capacitors in the case of failure of the built-in discharge circuits.

Example Kit Includes:

- DVM-80UVM - Universal Digital Voltmeter with Second Probe
- 3.65m Coiled Interconnecting Cable
- 2 x Brass Cup Probe Tips
- 1 set Discharge Probes
- 2 x 600mm Extension Sticks
- 2 x 600mm Universal Sticks
- 2 x Hand Guards
- Class 1 Insulating Gloves
- Leather Outer Gloves
- Cotton Inner Gloves
- Carry Case

Customisable kits
to suit your electric
vehicle



1000V Insulated Battery Tools

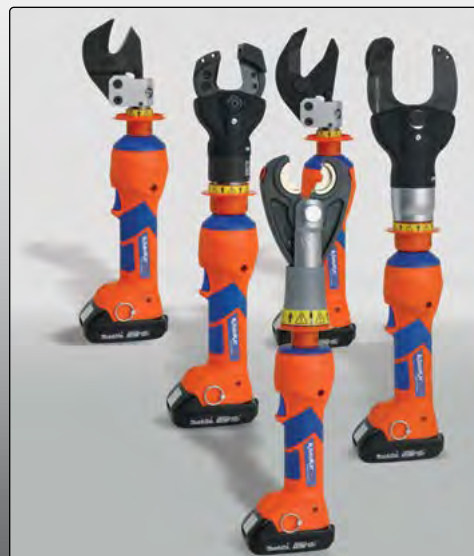
Klauke's Orange Line series of battery powered hydraulic cutting and crimping tools are the world's first of their kind, offering protection from electric shocks up to 1000 V. The TRI-INSULATION BARRIER, developed in-house, prevents voltage discharging between tool head and tool body. Every single tool is tested for compliance with the electrical requirements of IEC 60900 in their production process. This guarantees voltage protection up to 1000V.

Your Safety is our priority

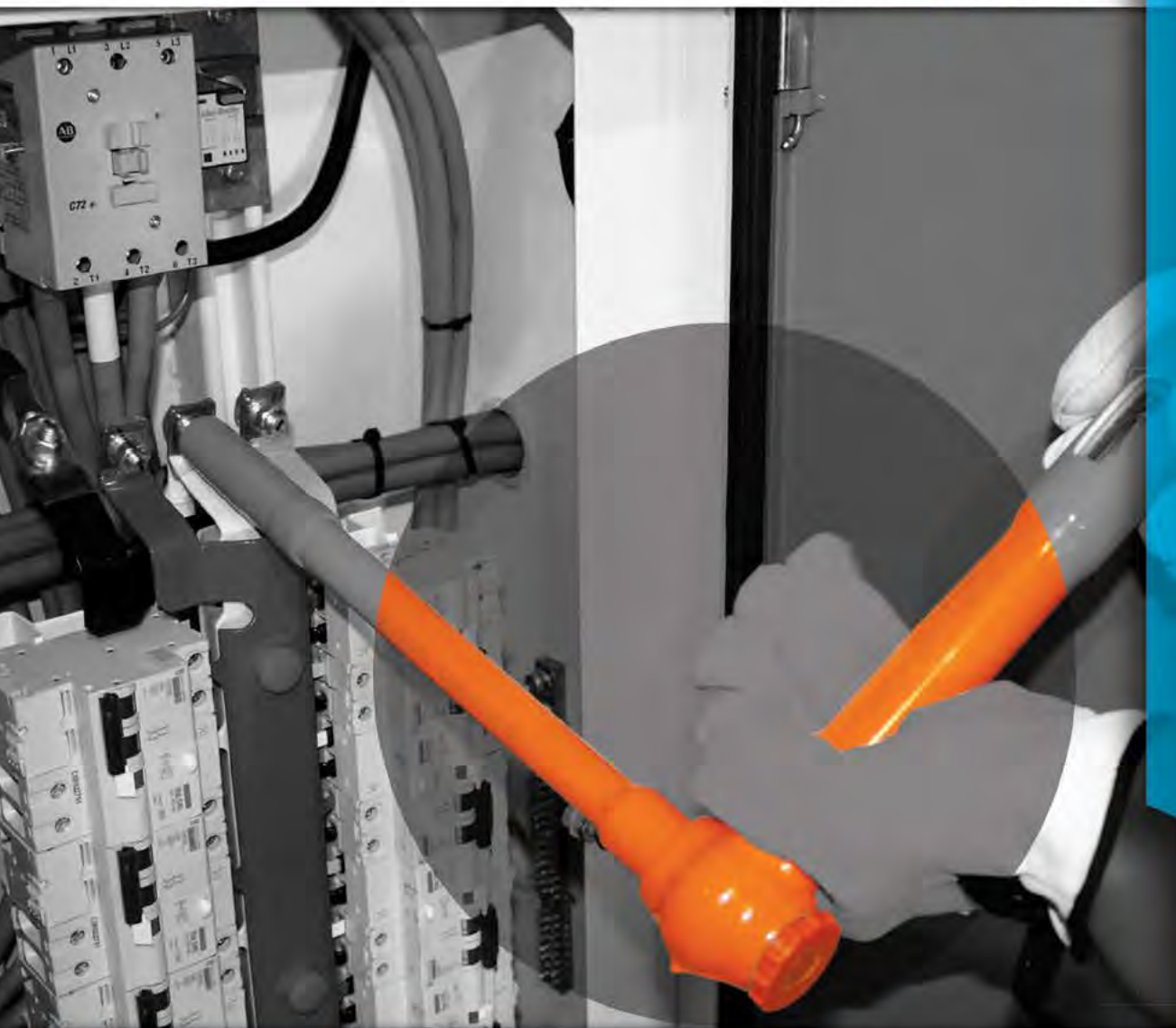


TRI-INSULATION BARRIER

- 1. CREEPAGE DISTANCE**
CLEVER DESIGN ENSURES
MINIMUM 12.5MM DISTANCE
BETWEEN NON INSULATED PARTS
- 2. PA6 INSULATION**
PLASTIC HOUSING MATERIAL
WITH EXCELLENT INSULATING
PROPERTIES
- 3. DIELECTRIC OIL**
HYDRAULIC OIL WITH HIGH
DIELECTRIC INSULATING PROPERTY



Refer Hydraulic section for further information



TEN offer an extensive range of Hand Tools & Truck kit tooling.

- ▶ Ratchet Spanners and Podgers
- ▶ Hand and Battery style Ratchet cutters
- ▶ Cable preparation and stripping tools
- ▶ Deep and Tubular Impact sockets
- ▶ Temporary Earth Stake and Earth Rod Driver
- ▶ Conductor Scratch/Cleaning Brushes
- ▶ Conductor diameter Gauges
- ▶ 1000v Insulated tools



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Cable Cutter - AL/CU - Klein.....	G7	Conductor Scratch Brushes.....	G13
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Crimping Tools for tubular lugs.....	G8	Sheath Stripper	G15
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Core Separation Wedge ABC 4 x 95mm ²	G9	Outer Sheath & Insulation Strippers.....	G16
Insulated Cable Test Point	G9	Plier Style Sheath Strippers.....	G17
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		Semi-Con Scorer - Peelable	G18



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Knives & Hacksaw	G25	Fuse Extraction Tool	G31



**Require tools and equipment for a new truck?
TEN can customise a kit to suit Line-workers, apprentices and crew requirements**

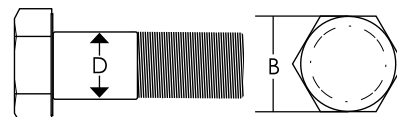
**FOUR sizes in ONE**

Ratchet Wrenches and Podgers

4 Way Ratchet Wrench - NGK

Part No. BY-3

- Four sizes in one
- Plastic ergonomic non-slip handle with grips



D	10mm	12mm	16mm	20mm
B	17mm	19mm	24mm	30mm

2 Way IPC Ratchet Wrench

Part No. RS1317-Series

Reversible ratchet spanner.

The 6 point hex is ideal for 1.5 - 240mm² IPC's

- Ideal for IPC's
- Straight Plastic Handle
- Available with long or short handle
- Forward and reverse ratchet mechanism

Part No.	Handle	Size OAL (mm)	Hex
RS1317-6SH	Short Handle	13 & 17 210	6pt
RS1317-6LH	Long Handle	13 & 17 250	6pt
RS1317	No Handle	13 & 17	6pt

2 Way Ratchet Podgers

Part No. RRP-Series

The R-series Podgers from TEN are precisely machined, heat treated and zinc plated. Each podger ratchet consists of two drive socket heads of different sizes within a heavy duty 32 tooth ratchet mechanism. Dual head ratchets allow speed and efficiency on the job.

- Reversible with continuous taper
- 12pt Hex - refer table below
- 13 - 24mm available with plastic handle
- Forward and reverse ratchet mechanism
- 2 sizes of double hexagonal sockets per tool

12pt HEX

Part No. (no handle)	Part No. (with handle)	Size (mm)	Hex
RRP1317	RRP1317-H	13 & 17	12pt
RRP1719	RRP1719-H	17 & 19	12pt
RRP1824	RRP1824-H	18 & 24	12pt
	RHP1824	18 & 24 (Folding Handle)	12pt
RRP1921	RRP1921-H	19 & 21	12pt
RRP1924	RRP1924-H	19 & 24	12pt
RRP2124	RRP2124-H	21 & 24	12pt
RRP2427	RRP2427-H	24 & 27	12pt
RRP2430	RRP2430-H	24 & 30	12pt
RRP3032	RRP3032-H	30 & 32	12pt
RRP3036	RRP3036-H	30 & 36	12pt
RRP3236	RRP3236-H	32 & 36	12pt
RRP38BS16	RRP38B16-H	3/8" BS/16mm	12pt

Single Ratchet Podger

Part No. RRP36/H**12pt HEX**

Part No. (no handle)	Part No. (with handle)	Size (mm)	Hex	Length (mm)
RRP36	RRP36-H	36	12pt	450

**Suits IPC's**

Spanner Ratchet 13 & 17mm Reversible 6 Point Hex Suits IPC's 1.5 - 240mm² with short handle or long handle

Short or Long Handle

Lanyard can be threaded through anchor hole for added safety



Handle Version



Breaking blades?
Solution - RC-32ACSR
AL/CU/ACSR/ST
CUTTERS

JennyTOOLS



9009



RC-32ACSR



63607

**KLEIN
TOOLS**

Ratchet Cutters - ACSR - Steel - Copper - Aluminium

Part No. Various

- Suitable for Cutting ACSR - Steel - Copper - Aluminium (See table below)
- From 15mm to 52mm (See table below for cutting capacity of each tool)
- Patented two-step ratchet mechanism requires fewer strokes per cut
- Quick-release lever opens blades easily in every cutting position
- Handle locks in closed position for storage and transportation
- Full ratcheting cycle and release in all cutting positions
- Ergonomic handles design to maximise cutting leverage

ACSR - Steel - Guy Cable Cutters

Klauke®
A Textron Company



K1062



K683T

Copper - Aluminium Cable Cutters

Part No.	Cable Dimensions Max Diameter (mm)			Length OAL (mm)	Tool Wt (kg)
	Cu	Al	ACSR / St / Guy		
9009	15	18	ACSR - 15 / Steel - 5	267	0.5
63607	18	22	ACSR - 17 / Steel - 10	260	0.7
RC-32ACSR	32	32	ACSR - 20 / Steel - 5	254	0.7
K1062	52	52	-	280	0.7
K683T	32	32	-	260	0.7

Ratcheting Cable Cutter - Reliable

Part No. REL-R-HC

- Jaw keeper prevents the jaws from spreading while under heavy load
- Shear-cut blades
- Ratchet and chain increase cutting pressure as handles open and close
- Moderate pressure opens & closes handles.
- Mechanical advantage over manual cutters

Part No. REL-R-SC

- Cut Copper & Aluminum cable up to 50mm, including rubber or lead covered cable
- Heavy duty jaw and ratchet design provides mechanical advantage over manual cutters
- Does not cut steel

**RELIABLE
EQUIPMENT**



Part No.	Cable Dimensions Max Diameter (mm)			Length OAL (mm)	Tool Wt (kg)
	Cu	Al	ACSR		
REL-R-HC	30	30	30	736	4.5
REL-R-SC	50	50	-	736	4.4



Cutters

Battery Operated Ratchet Cutters

Part No. RCB-Series

Battery Operated Ratchet Cutters, designed for cutting a variety of OH Conductors & UG cables, including CU, AL & ACSR. Supplied with or without batteries and charger. Versatile Makita platform

Features

- Ergonomically designed
- One handed operation
- Makita 18V 3.0Ah Li-ion Battery & 230VAC Rapid Charger

Plastic Moulded case included



Specifications

Part No.	Head Style	Cuts	Jaw opening (mm)	Capacity (mm)			Dimensions (mm) (L x W x H)	Wt (kg) Inc. Battery
				CU	AL	ACSR		
RCB-52ACSR	Ratchet	ACSR	52	-	-	22.5	190 x 110 x 320	3.9
RCB-65N	Ratchet	AL / CU	65	41.5	41.5		175 x 110 x 320	3.5
RCB-50Y	Scissor Ratchet	AL / CU	50	32	32	-	160 x 110 x 370	4.4



RCB-52-ACSR

**Cuts
ACSR**



RCB-65N

**Cuts
AL/CU**



RCB-50Y

**Cuts
AL/CU**

**Scissor Head
"IDEAL"
for confined spaces**

Order Information

Part No.	Includes	Kit Part No.	Kit Includes
RCB-52-ACSR-0	Cutter skin & case	RCB-52-ACSR-K	Cutter skin, 2 x 3.0Ah batteries, charger and case
RCB-65N-0		RCB-65N-K	
RCB-50Y-0		RCB-50Y-K	



DC18RC

Battery & Charger - Makita

Part No. Various

- Makita 230VAC Rapid Charger
- Makita 18V 3.0Ah Li-ion Battery

BL1830B



Bolt Cutters - Crescent

Part No. Various

- High-leverage jaws with shear-cut blades
- PowerPivot™ Technology



Part No.	Length (mm)	Tool Wt (kg)
0090MCP	460	2.2
0190MCP	600	2.5

See Insulated Tool section for 1000V Insulated Bolt Cutter



Cable Cutter - AL/CU - Klein

Part No. 63035

- Maximum cutting capacity 22mm Aluminium & Copper
- 425mm Length

Cable Cutter - AL/CU - Klein

Part No. 63050

- Maximum cutting capacity 12mm Aluminium & Copper
- High-leverage design for exceptional cutting capability
- Hot-riveted joint ensures smooth action and no handle wobble
- 241mm Length

Parrot Beak Cable Cutter AL/CU

Part No. 0890CSJ

- Special alloy hardened blades
- Comfort grips
- High-leverage jaws with shear-cut blades

Universal Cutting Plier

Part No. 3800CTV

- Premium quality forged alloy steel for toughness and durability
- Precise jaw gap for wire work with cross hatch jaws for positive grip
- Serrated pipe grip
- Extended and hardened cutting jaw for use with flat multi-core cabling
- Built in crimper for use on 1.5mm² to 6mm² solderless connectors
- Length 200mm

1000V Universal Cutting Plier

Part No. 3800CHV

- 1000V Universal Plier with crimper
- Length 200mm

1000V Side Cutters

Part No. 5428HV

- 1000V Diagonal cutter
- Length 200mm
- Electronically Induction Hardened Cutting Edges

1000V Long Nose Pliers

Part No. 6547HV

- Precise Jaw for wire work
- Cross hatch jaws for positive grip



Various Line-worker Tools

Adjustable Wrenches - Shifter

Part No. AC2-Series

- Wide capacity jaw allows each tool to work with more fastener sizes
- Tension spring stabilises jaw and knurl adjusts easily
- Wider handle on sizes provides more comfort & less stress on the hand
- Alloy steel and heat treated and plated finish resists rust and corrosion

Part No.	AC26VS	AC28VS	AC210VS	AC212VS	AC215VS	AC218VS
Size (mm)	150	200	250	300	380	460
Size (Inches)	6	8	10	12	15	18

Line Tap Spanners

Part No. HLTS Series

Part No.	Description	Weight (kg)
HLTS-4	Spanner for brass Line Taps & IPC's (4 way)	0.20
HLTS-2	Spanner for brass Line Taps & IPC's (2 way)	0.15
HLTBS-6	Line Tap Spanner Base (6 way)	0.20

Crimping Tools for tubular lugs

Part No. HRC-0506C

- Ratchet hand Crimpers
- Capacity 0.5mm² to 6mm² - RED/YELLOW/BLUE
- 230mm Long

Crimping Tools for tubular lugs

Part No. Various

- With revolving dies
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the dies

Part No.	Description	Length (mm)	Weight (kg)
HX-50N	Hex Hand Crimping tool 6 - 50 mm ²	390	1.3
HX-120N	Hex Hand Crimping tool 6 - 120 mm ²	627	3.6

Hand Ratchet Crimper - 14mm OD

Part No. MP-10-SIMPI

- 9mm "W" captive die, for pre-insulated service sleeves

1m 4-Fold Ruler

Part No. LFSSI

- Sturdy folding rules available with Square Edge.
- Clear metric & imperial markings

Wedge Separation Tool ABC 4 x 95mm²

Part No. ST-31

- Core separation wedge
- Suitable for LVABC up to and including 4 x 95mm²
- Supplied with interconnecting rope

Core Separation Wedge ABC 4 x 95mm²

Part No. PMR87

- Core separation wedge
- Suitable for LVABC up to and including 4 x 95mm²
- Hex nut style head suits the 2 way IPC ratchet wrench for turning
- Sold individually

Insulated Cable Test Point

Part No. PP1514

- Re-usable insulated cable test point
- Suitable for cable ranges up to 150mm²
- Sold individually

LV/ABC Tool & Test Kit

Part No. TENK013

Part No.	Description	Quantity
PP1514	Insulated Cable test point	4
RRP1317-6LH	Ratchet Podger Wrench 13 & 17mm	1
ST-31	Core Separation Tool - Corded	1pr
PMR87	Wedge Separators	2
TENM514	ABC Kit Storage Bag	1



RRP1317-6LH



PP1514



PMR87



ST-31



HTC-D72

**IDEAL for
cleaning dirt
& grime from
your hand
tools**

Cleaning Wipes - GrimeAway Multi Purpose

Part No. HTC-Series

Tough on Dirt, but Field Friendly

Polywater® Grime-Away™ quickly and effectively removes hydraulic fluids, silicone greases, and adhesives from transformers, vehicles, heavy machinery, tools, and hands for a clean and safe working environment. Its unique water-based formulation is especially safe on skin, unlike most other tool and hand cleaners. Grime-Away is available in a multiple-use, 72-count canister or individual wipes that store easily in tool pouches or lineman bags.

Part No.	Description	Pack
HTC-D72	Dispenser with 72 Pre-moistened wipes *	72 Wipes

* Not suitable for Rubber Goods



Chuck, Quick Change 7/16" Female to 1/2" Female

Part No. 2403

- Super Heavy Duty 7/16" (1/2" Square Drive) Quick-Change Chuck.
- Three ball bearing system to firmly secure you auger bits and adapters.
- Designed to be used with high torque 1/2" square drive impact wrenches.



Special Drive Sockets

"J" Hook Driver - Slot Socket PLUS

Part No. SS-2



Multi-Use Eye Bolt Type Clamp and Wing Nut Applications



Features

- High Visibility ID Band
- Impact Rated
- Improved Fit on Large J Hooks (Off-Set & Centre)
- Earthing Clamps
- Hot Line Clamps
- Cross-Arm Hardware
- Stringing Block
- Temporary Arm Insulators

Suits
Off-Set &
Centred
J-Hooks

1/2"
Drive

D-Bolt Socket - 450mm Long

Part No. TENA517

- Use with cordless drills

Part No.	Description	Length (mm)	Weight (kg)
TENA517	Socket for Pillar Box D-Bolts	450	0.50

1/2" Drive Socket Sets

Deep Impact Socket Set - 26 Piece Kit

Part No. 658272601

26 Piece 1/2" Drive, 12-Point Deep Impact Socket Set

Includes: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35 & 36mm stored in a Blow Mould Case.



Extra Deep Tube Socket Set - 7 Piece Kit

Part No. 605290701

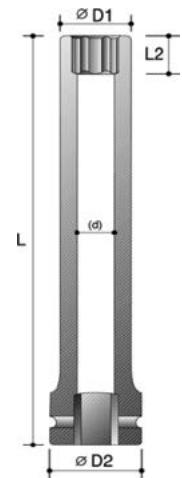
7 Piece 1/2" Drive, 6-Point "TUBE" Deep Impact Socket Set

Includes: 19mm, 21, 24mm, 27mm, 30mm, 32mm and 36mm @ 250mm Long Blow Mould Case



Part No.	Size (mm)	D2 (mm)	D1 (mm)	L2 (mm)	L (mm)	Hole Clearance (d)
60529018	18	28	28	13	250	14
60529019	19*	28	28	13	250	14
60529021	21*	28	31	13	250	16
60529024	24*	28	35	15	250	18
60529027	27*	32	38.5	17	250	22
60529030	30*	32	42	17	250	22
60529032	32*	34	44	19	250	24
60529036	36*	36	49	19	250	26

* Sizes included in set



METRINCH



The Metrinch 6 wall drive system means that one tool set is all you need to service your equipment, whether it's made in Germany, the USA or Australia.

METRINCH Socket Set - 15 Piece Kit

Part No. MET-2450

Get More Use Out of Fewer Tools

Metrinch means fewer tools and easier selection as each tool can be used for both metric and inch, plus damaged nuts and bolts. This eliminates switching back and forth from imperial to metric.

Unique Patented Design

The 4-point grip design enables Metrinch sockets and spanners to fit multiple sizes and damaged or rounded nuts.

More Torque, Less Wear

By exerting pressure through the walls, Metrinch grips more securely than conventional sockets.

Non Slip Hold

No more cut hands, banged up knuckles and elbows due to wrench slippage.

Quality

All Metrinch tools are forged from high grade chrome vanadium steel for lifetime use.



Unique 6 Wall Drive System
This 15 Piece socket set equals a 42 piece conventional set

Individual sizes available

Fit	1/2" Drive	
Metric (mm)	30	32
SAE/AF (Inch)	1 3/16	1 1/4
Length (mm)	86	

*All sizes available individually

Included sizes in Socket Set*

Fit	1/2" Drive							
Metric (mm)	11	12	13	14	15	16	17	18
SAE/AF (Inch)	7/16	15/32	1/2	9/16	19/32	5/8	11/16	23/32
Length (mm)	80							

Fit	1/2" Drive							
Metric (mm)	19	20	21	22	23	24	25	
SAE/AF (Inch)	3/4	25/32	13/16	7/8	29/32	15/16	1	
Length (mm)	80				86			



BAND-IT® 201 Stainless Steel band



Ear-Lokt Buckle



Band-it Tool 001



Ball-Lokt Stainless Steel Tie



Ball-Lokt Tie Tool

Banding System - Stainless Steel

BAND-IT® Banding System

Part No. Various

BAND-IT® 201 Stainless Steel Bands

The BAND-IT® type 201 Stainless steel non- magnetic band is the preferred option in all general use banding applications, offering high tensile strength and good resistance to oxidation and weathering. Available in a variety of widths and thicknesses.

In addition, EASYSSCALE – imprinted measurements on the band, help determine band length and eliminate costly waste. Packaged in a standard box or a durable plastic tote for easy dispensing.

Part No.	Width (mm)	Thickness (mm)	Weight per roll (kg)
BAND-IT® S-Steel band (30.5m Roll)			
C202	6.35	0.51	0.9
C203	9.53	0.64	1.5
C204	12.70	0.76	2.4
C205	15.88	0.76	3.0
C206	19.05	0.76	3.6
BAND-IT® S-Steel Buckles (100 per pack)			
C252	6.35		0.1
C253	9.53		0.3
C254	12.70		0.8
C255	15.88		0.9
C256	19.05		1.5
Tool for BAND-IT®Band & Buckles			
001	6 - 20		2.0

Ball-Lokt™ Banding System

For applications ranging from identification tagging to bundling cables, Ball-Lokt™ Ties in 316 stainless steel, provide a longer life than nylon ties, especially in extreme climates.

Easy dispensing.

Self-locking design installation by hand or with the KS 652 tool, to assure uniform tension and clean tail cut-off for safe handling.

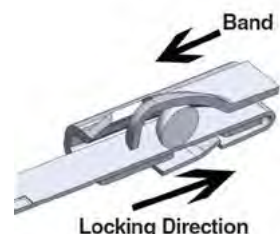
Ideal for conductor wire grip application

Part No.	Width (mm)	Length (mm)	Weight per pack (kg)
Ball-Lokt™ S-Steel Ties (100 per pack)			
KT6U046-200	4.6	200	0.25
KT6U046-350	4.6	350	0.4
KT6U046-500	4.6	500	0.5
KT6U078-200 *	7.8	200	0.5
KT6U078-350	7.8	350	0.75
KT6U078-500	7.8	500	0.9
Tool for Ball-Lokt™ Ties			
KS652-TOOL*	Tensioner & Cutter		0.6

* Banding Tool & Band-Lokt Ties for Wire Grip fitting

Self-Locking Application

1. As the stainless steel band is inserted into the buckle, the internal locking ball rolls freely
2. During tensioning, the band wedges onto the buckle locking tightly between the buckle and the band





MADI
INNOVATIVE LINEMAN TOOLS

Conductor Scratch/Cleaning Brushes

Scratch Brush - "Dog-bone and FlatRound" - Madi

- Designed to encourage linemen to brush with a more convenient and ergonomic design making it more convenient than ever before
- Replaceable brush inserts make a cost effective solution
- Suitable for use up to 45mm conductor
- Made from Non-conductive materials
- Minimise open neutrals and bad connections by brushing conductors properly

Part No. DBWB-1

- Dog-bone design, colour and marking for copper one end and aluminium the other

Part No. FRWB-1

- Designed for both flat and round connection such as palms
- Replaceable brush inserts suitable for both flat and round ends

Part No.	Description	Wt (kg)
DBWB-1	Dog-bone Scratch Brush (includes one set of inserts)	0.25
FRWB-1	Flat Round Scratch Brush (includes one set of inserts)	0.25
LWB-1	Replacement Wire Brush for DBWB-1 / FRWB-1	0.1

Scratch Brush and Safety Knife - Madi

Part No. BB-2S

- Integrated wire brush for cleaning conductors to make better connections
- Replaceable brush inserts make a cost effective solution
- Suitable for use up to 25mm conductor
- Blunt Tipped fold-away blade for added safety
- Stainless steel blade for maximum durability and sharpness

Part No.	Description	Wt (kg)
BB-2S	Fold-away Safety Knife and Round Scratch Brush	0.23
WB-1	Replacement Wire Brush for BB-2S	0.1

Conductor Scratch Brushes

Part No. SB-3 & SB-4

- Used for preparing the surface of conductor prior to applying a connector/splice
- Tough stainless steel bristles resist rust
- Copper or aluminium available - use only on specified conductor to prevent cross contamination

Part No.	Colour	Conductor Type	Wt (kg)
SB-3	White	Aluminium	0.1
SB-4	Black	Copper	0.1

Stick Scratch Brushes - Hastings

Part No. Various

Replaceable
Brushes
(10-179)



Part No.	10-178	10-180	10-179
Description	Complete "V" Brush unit with Handle for Gloved Hands, Shotgun Ring, Replaceable Brushes (10-179)	Complete "V" Brush unit with Universal Head Attachment, Replaceable Brushes	Pack of 10 Replacement Brushes
Material	Thermoplastic Handle & S/S Bristles	Al Alloy Body & Stainless Steel Bristles	Stainless Steel Bristles



SCAN or
CLICK
to see the
stripper in
action



Cable Preparation Tools

Drill Driven Cable Stripper - Utility Tool

Part No. WS68-3-8

Power Driven Cable End Stripper

The Utility Tool LV Cable Strippers are a fast, safe and economical stripping tool with interchangeable square cut bushings for a wide range of common Australian LV cables. Easily setup with your chosen bushing, the tool can be quickly attached to your cordless driver for effortless cable stripping.

Benefits

- Increases safety by eliminating use of traditional knives, reducing the risk of cuts or lacerations
- Easily attaches to power drill for safe & efficient cable stripping
- Adjustable strip lengths from 15.9mm to 63.6mm
- Increases splice & union reliability with accurate strips every time
- Use with bushings specifically designed to suit 16-150mm² Australian conductor
- For Low Voltage Applications
- Evenly Strips Insulation
- The optional WS68 Snaps patent-pending Quick Connect Adapter makes changing bushings faster & more efficient - even with gloves only

Unique Australian Bushing Part No's



Part No.	Square Cut Bushings LV ABC
RB-100	10mm ² Al XLPE OH
RB-101	16mm ² Al XLPE OH
RB-200	25mm ² Al XLPE OH
RB-201	35mm ² Al XLPE OH
RB-300	50mm ² Al XLPE OH
RB-301	70mm ² Al XLPE OH
RB-400	95mm ² Al XLPE OH
RB-401	120mm ² Al XLPE OH
RB-500	150mm ² Al XLPE OH
Part No.	Underground
RB-102	16mm ² Cu XLPE/PVC LV UG (Olex)
RB-202	35mm ² Cu XLPE/PVC LV UG (Olex)
RB-302	50mm ² Cu XLPE/PVC LV UG (Olex)
CB6667	Bushing spare blade

Contact TEN for information on the full range of available bushings

2 and 4 Way Cable Stripper - LV ABC - Utility Tool

The Utility Tool LV Cable Strippers are a fast, safe and economical stripping tool with interchangeable square cut bushings for a wide range of common Australian LV cables. Available in a 2 bushing body or 4 bushing body, these are easily setup with your go to bushings.

- Safer than ripping tools/strippers with a guarded cutting blade
- Fast and simple to use
- Precise stripping with no conductor damage
- Suitable for XLPE, PVC and EPR insulations
- Commonly used for ABC and SDI cables
- Made in the USA

**See above table for
available Bushings**

Part No.	Description
36101H	Stripper, cable, body only, 2x2, includes allen keys, Ripley
36001H	Stripper, cable, body only, 4x4, includes allen keys, Ripley
40110	Adapter, snap on to suit 2x2 and 4x4 strippers for quick bushing change, Ripley

ABC Strippers

Part No. ABC-STRIPPER

- Removes tough insulation from low voltage aerial cables

Part No.	For	Suits Cable (mm ²)	Spare Blade #	Wt (kg)
ABC-STRIPPER-95	ABC	95	ABC-STRIPPER-B	0.1
ABC-STRIPPER-150	ABC	150	ABC-STRIPPER-B	0.1

Outer Sheath Stripper - Ratcheting - Ripley

Part No. US14-7000

Ratcheting outer sheath cable splitter removes the outer sheath from HV and LV cables. The US14 easily performs ring cuts and slit mid-spans on ducts and heavy-duty cables.

- Equipped with safe, recessed blade to prevent potential injury & blade damage
- Compatible with high fiber count fiber optic cables
- Micro-adjustable blade depth adjusts up to (5 mm) to avoid underlying cable damage



Part No.	Description	Min Cable (mm)	Spare Blade #	Wt (kg)
US14-7000	Ratcheting Slitter	25	US14-7500	0.18

Outer Sheath Ripper Stripper

Part No. HRIPS

- For safe removal of outer sheaths
- Reversible blade has blunt mushroom head which stops damage to inner core

Part No.	Suits Cable	Spare Blade #	Wt (kg)
HRIPS	LV & HV	HRIPS-B	0.2

Adjustable Outer Sheath Stripper Tool

Part No. R3840

- Adjustable cutting-depth by thumb wheel
- Circular and longitudinal cutting
- Replacement blade in the handle

Part No.	Strip Range (mm)
R3840	8 to 28

Outer Sheath Stripping Tool

Part No. AM2

- Auto-Tensioning - Adjustable cutting-depth by thumb wheel
- Circular and longitudinal cutting
- Replacement blade in the handle

Part No.	Strip Range (mm)
AM2	25 to 36

Sheath Stripper

Part No. IBST5024

- Used for removal of core insulation
- Removes insulation up to 5.5mm
- Cable range from 12 - 38mm (50 - 400mm²)
- Long life blade - Spare Blade Part No. IBST5024B

Cable Sheath & Insulation Stripper

Part No. 1542-2CL-1

- Tool with Wedge Blade installed, spare straight blade
- 45mm max cable diameter
- Precise blade depth adjustment to 12mm
- Removes PE, XLPE, EPR and other insulation types from HV power cable
- No bushings required
- Spare Blade Part No. 1562




UtilityTool®

A RIPLEY® BRAND



SCAN or CLICK for more information

Perfect for Mid-Span & End Stripping on CCT, Hendrix, Spacer Wire & Tree Wire Cables

Adjustable Sheath and Insulation Stripper

Part No. US01-7000

The industry's most versatile, reliable and accurate adjustable tool for mid-span and end stripping on HV and LV utility cables.

Features

- Easily strip mid-span double insulations in one go for direct connection via PG or Wedge Style connector, or strip outer sheath only for insulated piercing connectors (IPC's)
- Eliminates the need for traditional stripping knives, reducing the risk of cuts or lacerations
- Heavy duty tool easily removes jacket & various types of insulation materials
- Patent-pending, self-aligning design maintains optimum blade position to produce precise cuts for reliable splices & connections
- Well-balanced tool has low friction parts & ergonomic handles to reduce effort & potential strain from repetitive stripping functions
- Spare blades also available: (US01-7500)

Compatibility

Cable Type		HV and LV Utility Cables
Cable Size (mm)		12.7 to 63.5
Compatible Materials	Jacket	URD, PE, PVC, Copper Tape Shield, LC Shield, Flat Strap
	Insulation	XLPE, PE, EPR
Cable Access		Mid Span & End Strip
Blade Adjustability	Angle	Yes
	Depth (mm)	Yes (1.5 to 10.6)
Removable Handles		Yes

Adjustable Sheath and Insulation Stripper

Part No. US07-7000

US07 Adjustable Cable Stripper that quickly and easily end strips or midspan strips cable insulation with no conductor damage on 7.6mm to 35mm OD cables. The tool utilizes a size adjustment clamping system to swiftly adjust and lock onto the insulation.

Features

- Equipped with safe, recessed blade to prevent potential injury & blade damage
- Easily adjusts with detent actuated knob & fine adjustment knob to match
- Insulation thickness for fast stripping without conductor damage
- Durable bronze bushings provides longevity
- Spare blades also available: (US07-7500)



Compatibility

Cable Type	HV and LV Utility Cables
Cable Size (mm)	7.6 to 35
Materials Jacket	URD, PE, PVC
Cable Access	Mid Span & End Strip
Blade Depth (mm)	Adjustable (1.15 to 3.2)
Removable Handles	Yes



SCAN or CLICK for more information

Quickly adjusts and clamps on to cable diameters from 7.6mm to 35mm

Outer Sheath & Insulation Strippers

Part No. POLY

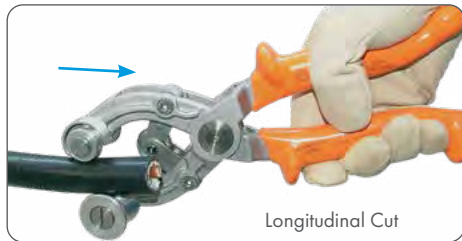
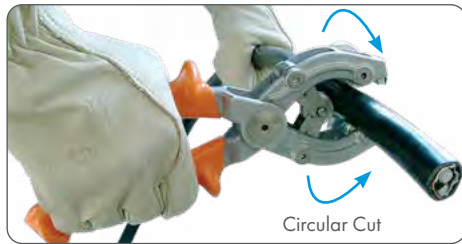
- Large knobs for opening/closing jaws and offsetting tool
- Locknut on opening/closing knob for maintaining position
- Blade direction lever and knurled cutting depth knob
- Directional markings on body
- Stainless steel and aluminium alloy construction



Part No.	Capacity (mm)	Cutting Depth (mm)	Suits Jackets	Retract Stop (mm)	Spare Blade
POLY	7 - 33	12	All (XLPE/EPR/PVC/PE)	20-110	LAME-POLY-L



SCAN or CLICK for more information



SCAN/CLICK for a copy of the PAD/PBT ordering Guide



Plier Style Sheath Strippers

Plier type Sheath strippers, for circular & longitudinal cutting with end ripping claw blades

- 1000V Insulated and Non-insulated models available
- Plier type strippers, circular/longitudinal cut with end ripping blade
- Replaceable cutting blades (available in kits)
 - 3 or 4 x Circular cutting blades, 1 x Lengthwise cutting blade and 2 x Claw blades
- Ideal for stripping Sector or deformed cable
- Lead Sheath stripper available



Replaceable Cutting Wheels & Claw Blades
SCAN or CLICK QR-Code for ordering guide



Part No.	Insulated	Circular Cut Depth (mm)	Lengthwise Cut Depth (mm)	Capacity (mm)	Wt (kg)
PAD12-16A	No	1.2	1.6	10-45 OD	0.75
PAD16-20A	No	1.6	2	10-45 OD	0.75
PAD30-30A	No	3	3	10-45 OD	0.77
PAD32-34A	No	3.2	3.4	10-45 OD	0.77
PAD40-40A	No	4	4	10-45 OD	0.77
PBT IS 12 16 A	1000V	1.2	1.6	10-45OD	0.6
PBT30-30A	1000V	3	3	10-45 OD	1.3
PBT40-40A	1000V	4	4	10-45 OD	1.3
PBT20-20B	1000V	2	2	20-45 OD	1.3

Other sizes and blade combinations available

Specifications



PBT Model
Insulated 1000V EN60-900



PAD Model
Non-insulated model, black sheathed



PBT IS Model
Fully Insulated 1000V EN60-900

Part No.	LxWxD (mm)	Range (mm OD)	Wt (g)	Part No.	LxWxD (mm)	Range (mm OD)	Wt (g)	Part No.	LxWxD (mm)	Range (mm OD)	Wt (g)
PBT (A)	283 x 78 x 80	10-45	720	PAD (A)	283 x 78 x 90	10-45	720	PBT IS (A)	270 x 81 x 95	10-45	560
PBT (B)	283 x 78 x 80	20-54	720	PAD (B)	283 x 78 x 90	20-54	720	PBT IS (B)	270 x 81 x 95	20-54	560



PAD32-34A
Ideal for stripping CCT



Ideal for stripping Sector or deformed cable



Replaceable Adjustable Wheels SCAN or CLICK QR-Code for ordering guide

Replaceable 0-4mm Adjustable Longitudinal Blade



Semi-Con, Sheath and Insulation Stripper

Part No. POLY Series

Strips Semi-Con, Outer Sheath and Insulation with one tool

- 3 Strippers in one
- 25mm² to 630mm² Capacity
- Suitable for a wide range of material e.g. (XLPE/EPR)
- 12mm Cutting Depth



POLY-SCP

SCAN or CLICK for
more information

POLY-SCNP

Part No.	Semi-Con Type	Cable Dia (mm)	Cutting Depth (mm)	Replacement Blade	
				Sheath & Ins	Semi-Con
POLY-SCNP	Non-Peelable	7 to 33	0 to 12	LAME-POLY-L	LAME-OUT-SCNP
POLY-SCP	Peelable			LAME-POLY-L	LAME-OUT-SCP-CH



Semi-Con Scorer - Peelable

Part No. SCS

Compact & user-friendly tool scores semi-con on HV cables without damaging the insulation

- Eliminates the need for traditional stripping knives, reducing the risk of cuts or lacerations
- Performs longitudinal & spiral cuts on cable diameters ranging from 8 to 51 mm
- Precise & easily adjustable blade depths from 0 to 4 mm in increments of 0.05 mm
- Adjustable blade pitch accommodates various cable diameters



Part No.	Cable Dia (mm)	Blade Depth (mm)	Replacement Blade
SCS	8 to 51	0 to 4	43645



Semi-Con Scorer - Peelable

Part No. BC-UTT23521 / 2

- Scores Semi Conductive Screen on HV cables
- Screen simply peels away
- Choose blade depth

Part No.	Depth of scoring (mm)
BC-UTT23521	0.4
BC-UTT23522	0.6





Chamfer Tool - Insulation

Part No. US-10 Series

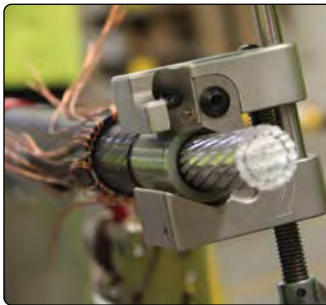
Insulation Chamfering Tool utilizes a size adjustment clamping system to quickly and easily adjust and lock onto the insulation.

- Performs a angle bevels with a factory-set chamfer depth of 1.9 mm
- Adjustable from 0 mm to 3.81 mm
- Equipped with safe, recessed blade to prevent potential injury & blade damage

SCAN or CLICK for more information



Part No.	Tool Type/ Application	Cable Insulation Capacity (mm)	Replacement Blade
US10-7000	30° Bevel Edger	14 - 60	US10-7500
US10-7001	45° Bevel Edger	14 - 60	US10-7501



Chamfer Tool - Cable Stripper

Part No. CHANFREIN-DT

- Chamfers a 30° angle bevelled edge on the insulation
- Hard Aluminium Clamps
- Stainless Steel fittings



Part No.	Tool Type/ Application	Cable Capacity (mm)	Replacement Blade
CHANFREIN-DT	30° Bevel Edger	9 - 33	LAME-CHANFREIN-DT

Safety Knife - Madi

Part No. FBSK-2S

- Safety Blade with Protective sheath – No Cut Blade Except for Recessed Area
- Ergonomic Design with Over Mold for Secure Grip
- Finger Guard for Maximum Safety
- High Grade Stainless Steel Blade for Maximum Durability for the Toughest Insulation
- Blade & Snap Ring are Molded for Superior Strength & Separated by Non-conductive Material

Part No.	Description	Wt (kg)
FBSK-2S	Fixed Blade Blunt tipped safety knife	0.2

Safety Knife and Scratch Brush - Madi

Part No. BB-2S

- Integrated wire brush for cleaning conductors to make better connections
- Replaceable brush inserts make a cost effective solution
- Suitable for use up to 25mm conductor
- Blunt Tipped fold-away blade for added safety
- Stainless steel blade for maximum durability and sharpness

Part No.	Description	Replacement Brush	Wt (kg)
BB-2S	Fold-away Safety Knife & Round Scratch Brush	WB-1	0.23

Safety Knife

Part No. KNIFE082

- Twin Blade with Blade cover
- Strong Durable high impact body
- Unique design prevents injury

Suitable for Pole Top
Rescue Kits

Cable Skinning Knife - Klein

Part No. 1570-3

- 75mm Hook Blade
- Notched Blade for scraping



FBSK-2S



BB-2S





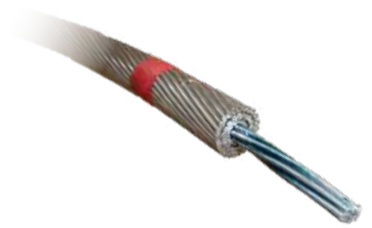
ACSR Strippers

Part No. PSC-1

The Trimmer quickly and accurately removes the aluminium stranding from around the steel core of ACSR conductors in preparation for crimping the steel inner strand.

Features

- Made of an aluminium alloy
- Lightweight and durable
- Operates like a Tube Cutter
- Carry Case stores 11 bushings
- Standard Bushing sizes available (Sold separately)
- Bushings can be made to suit a wide range of ACSR conductors



Bushing Holder



Bushing

Part No.	Kit Contains	Bushings to suit	Replacement Cutting Wheel #
PSC-1	Tool, bushing holder, (1) extra cutting wheel, and a plastic case that holds up to 11 bushings.	Lime Cherry Mango Grape Lemon Lychee Orange Olive Pawpaw	TE54270
TE****	Bushing for use with PSC-1, *conductor to be specified		-

*Other size bushings available on request

PSC-2 Trimmer and Bushings available for larger size ACSR conductors
Please contact TEN for further information

Conductor Diameter Gauges

Conductor Gauge - TEN

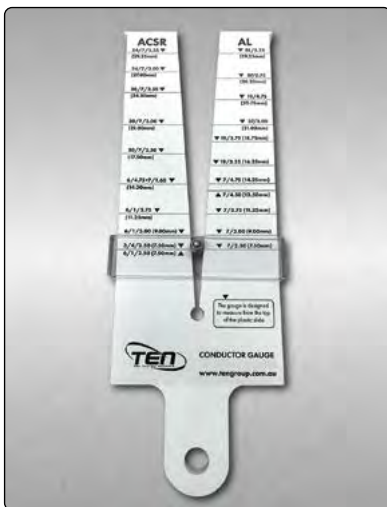
Part No. CG-430-AU

HDPE slide gauge quickly & easily identify conductor OD

- Designed for Australian AL, CU & ACSR conductors
- Measure Live Conductors
- For conductors 4.0 - 30mm Ø
- Fits universal sunrise fitting

**Reduce Incorrect
Conductor
Identification**

Part No.	Dimensions (mm)	Weight (kg)
CG-430-AU	104 (W) x 287 (L) x 10 (D)	0.26

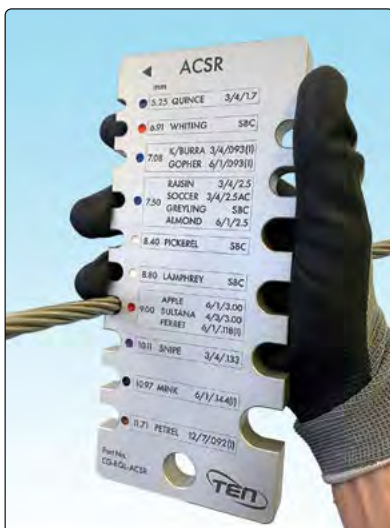


AL, CU & ACSR - Common Conductor Sizes

Part No. CG-EQL Series

Quickly & easily identify common overhead electrical distribution conductor or wire sizes in AL, CU & ACSR. Markings include conductor name, stranding and overall diameter.

- Hole in base for use with a shotgun stick and hanging storage
- Imperial and metric sizes included
- Precision machined from lightweight aluminium alloy



Part No.	Conductor Range	Dimensions (mm)	Wt (g)
CG-EQL-ALCU	Copper 7/.064 – 4.87mm to 19/2.75 – 13.8mm	257 (W) x 91 (L) x 14 (D)	750
	Aluminium Locust – 7/.093 – 7.08mm to Taurus – 19/4.75 – 23.80mm		
CG-EQL-ACSR	ACSR Quince – 5.25mm to Wolf – 18.13mm	209 (W) x 91 (L) x 14 (D)	650

Temporary Earth Stake - TEN

Part No. Various

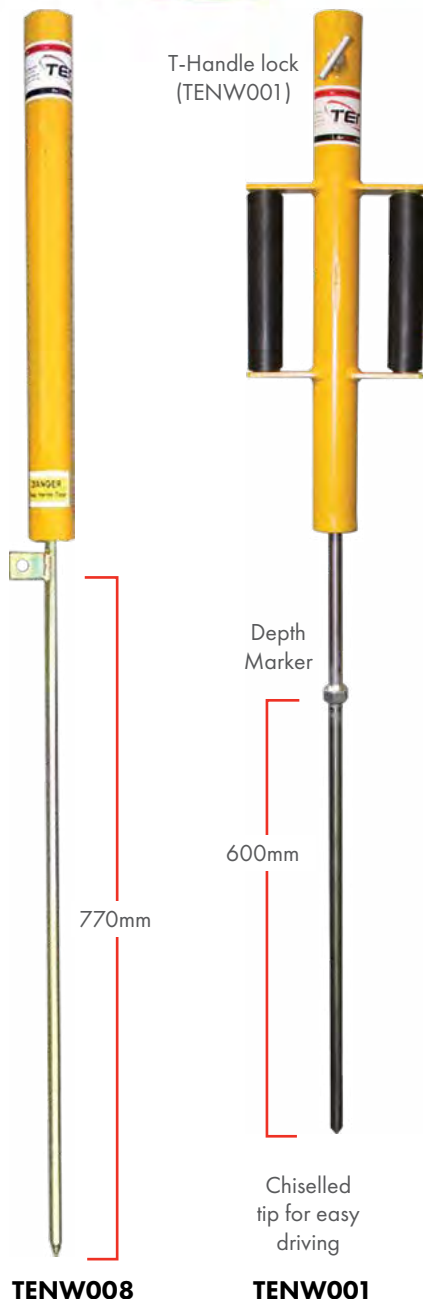
- For temporary earthing applications
- Drive rod at a safe working height, minimise risk of back injury
- No pinch points - internal hammer design
- TENW001 - 600mm depth mark on drive rod
- TENW008 - 770mm to attachment point

Features

- Slide hammer drive
- T-Handle lock screw secures sliding shaft for safety, transport and storage
- Non-slip rubber hand grips (TENW001)
- Stainless steel rod (TENW001) Plated steel rod (TENW008)
- Heavy duty top bash cap
- Chiselled tip for easy driving



Earth clamp attachments



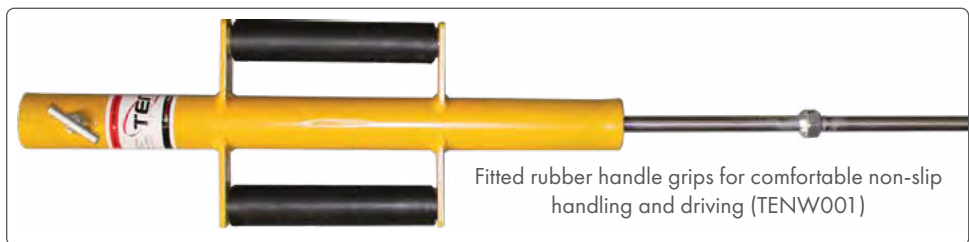
TENW008

TENW001

**Reduce the risk of injury
when installing earth rods**

iTOOLco.

Slide Hammer Drive



Fitted rubber handle grips for comfortable non-slip handling and driving (TENW001)

Earth Rod Driver - iTOOLco

Part No. GRD01

Safely drive 9.5mm, 12.7mm, 14mm, 16mm and 19mm Earth rods into the ground in under a minute with iTOOLco's Ground Rod Dawg™. Once the rod is driven down far enough the tool can be used to hammer from top to finish the driving.

Features

- Drive earthing rods faster and safer
- Hardened tool steel construction for long life
- Multiple size rods can be driven
- SDS Max driver bit for positive connection and secure driving of rods



SDS Max
Connect to drill
for secure driving

12.7mm - 16mm

16mm - 19mm

9.5mm - 12.7mm

Ground Sinker
For driving the top of the
ground rod below grade

Bent Hardened Tool Steel
Creates an easy setup for
driving ground rod



Never drive earth rods from a ladder again



Derancourt hand tools are manufactured for working near live parts or potentially live parts with ratings up to 1000VAC and 1500VDC.

PUT SAFETY IN YOUR HANDS

Derancourt is a world class manufacturer of quality electrician and power utility worker 1000V Insulated Hand Tools. Stringent manufacturing standards, quality assurance and extensive testing ensures the highest level of quality – translating to better safety outcomes.

Derancourt tools are manufactured in accordance with IEC/EN60900 and undergo rigorous testing to ensure full compliance to these standards. Every Derancourt tool is inspected and are batch identified for easy traceability, so you can be sure your using the safest tool for the job at hand.



Insulated hand tools are classified into three categories:

Insulated Hand Tools: Hand tools made of conductive material(s) fully or partially covered by insulating material.

Insulating Hand Tools: Hand tools made totally or essentially from insulating material(s) except for inserts made from conductive materials used for reinforcement, but with no exposed conductive point.

Hybrid Hand Tools: Hand tools made from insulating material(s) with exposed conductive parts at the working head (e-g cutting edges) (some non-exposed conductive part can be used for reinforcement).

This is an important distinction when risk assessing and implementing controls for electrical hazards in the work area.

Coating

The coatings of DERANCOURT insulated tools consists of two layers:

1. Rigid internal layer, white or red and highly dielectric.
2. Soft orange or red outer layer, protecting the inner layer from impacts and improving comfort during use.

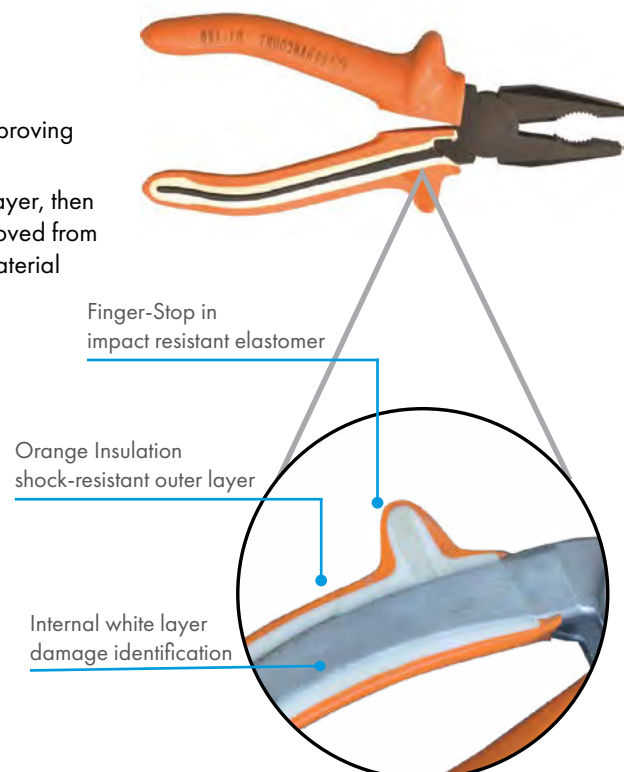
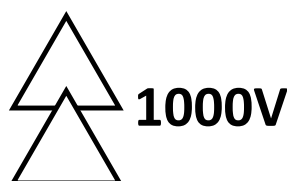
This also acts as a visual inspection. If the white or red can be seen under the top layer, then the tools electrical properties have been compromised and the tool should be removed from service. Smart design such as finger stops on the pliers made from an elastomer material reduces the effect of impacts and preserves the insulating coating

Quality Assurance and Testing

Hybrid, insulating and insulated hand tools must satisfy the tests of the IEC EN 60900 standard.

Derancourt extensively test their products to meet and exceed this standard

- Dimensional control
- Impact tests
- Dielectric test
- Penetration test
- Adherence test
- Flame non-propagation test
- Mechanical tests
- Marking resistance test



The extensive testing and quality manufacturing processes is the assurance you are safer with Derancourt.



1000V INSULATED HAND TOOLS

Multi-grip and Pliers

Multi-grip Pliers

Part No. Various

- Secteded multi-grip pliers - double grooves
- Burnished finish

Part No.	Length (mm)	Opening (mm)	Wt (kg)
D301-310	310	42	0.7
D5	245	36	0.4

Long Nose Pliers - Fully Insulated

Part No. Various

- Long straight-nose half-round pliers
- Fully insulated pliers to limit any risk of short-circuits
- Straight serrated jaws, half-round
- Induction hardened, diagonal cutting edges

Part No.	Length (mm)	Wt (kg)
D22D-160I*	165	0.2
D22D-200I*	205	0.3

*Fully Insulated

Combination Pliers

Part No. Various

- Combination pliers fully insulated to jaws
- Fully insulated pliers to limit any risk of short-circuits
- Flat end grip with cutter jaw
- Rectangular gripping area, straight serration with tube grip
- Induction hardened, diagonal cutting edges

Part No.	Length (mm)	Wt (kg)
D1-180	185	0.3
D1-180I*	185	0.3
D1-200I*	205	0.4

*Fully Insulated

Cutters

Diagonal Cutters

Part No. D3-Series

- Electrician's diagonal cutting pliers
- Diagonal cutters for mild steel wire, cutting edge with axial cut
- Insulated & Fully Insulated

Part No.	Length (mm)	Wt (kg)
D3-180	185	0.4
D3-180I*	185	0.4

*Fully Insulated

Cable Cutters

Part No. D180-210

- Precision Cable Cutter

Part No.	Length (mm)	Wt (kg)
D180-210	210	0.4

Part No. D18-220

- High Strength Cable Cutter
- Max 20mm CU/AL

Part No.	Length (mm)	Wt (kg)
D18-220	220	0.4





Ratchet Cutters

ACSR, AL and CU

Part No. K Series



Part No.	Jaw	Length (mm)	Cuts		Wt (kg)
			ACSR (mm)	AL/CU (mm)	
KT471	Closed	265	-	45	0.8
KT501	Closed	230	17 (11 mm Steel)	22	1.3
KTF361	Open	320	-	36	1.3

Parrot Beak Cutters - Large

AL, CU and Steel

Part No. C Series



Part No.	Length (mm)	Cuts OD (mm)	Wt (kg)
C16	660	Cu/Al 20, Soft St 16, Hard St 10	2.8
C600	600	Cu/Al 35	2.1

Bolt Cutters



Part No. D60 Series

- Efficient and easy to handle

Part No.	Length (mm)	Steel Cutting Capacity (mm)	Wt (kg)
D60N0	480	8 Dia. (60kg/ mm ²) - 6 Dia. (140 kg/ mm ²)	1.9
D60N1	645	10 Dia. (60kg/ mm ²) - 8 Dia. (140 kg/ mm ²)	2.9
D60N2	770	13 Dia. (60kg/ mm ²) - 9 Dia. (140 kg/ mm ²)	4.6
D60N3	940	14 Dia. (60kg/ mm ²) - 10 Dia. (140 kg/ mm ²)	6.7

1000V Insulated Battery Powered Cutters



20mm Cutter

Cuts
Cu, Al
& ACSR



25mm Cutter

Klauke
NEXT
GENERATION



32mm Cutter

Cuts
Cu & Al



50mm Cutter

Refer Hydraulic Section for more information on 1000V Insulated Battery Cutters



Knives & Hacksaw

Knives

- 1000V insulated - conforms to CEI 900 and NF EN 60900
- Treated steel blade
- Excellent cutting quality - stays sharp
- Guiding "V" for longitudinal cut
- Insulation with injected rigid insulating material
- Bi-material handle (for ease of use and good grip)

Part No. CL-IS

Insulated Knife with Curved blade

Part No.	Length (mm)	Blade Length (mm)	Wt (kg)
CL-IS	168	42	0.65
CL-IS-E	As Above, including Sheath		0.85

Part No. D1001-IS

Insulated Knife with Curved blade

Part No.	Length (mm)	Blade Length (mm)	Wt (kg)
D1001-IS	190	64	0.75
D1001-IS-E	As Above, including Sheath		0.85

Part No. C1-IS

- Insulated Knife with straight blade

Part No.	Length (mm)	Blade Length (mm)	Wt (kg)
C1-IS	182	56	0.75
C1-IS-E	As Above, including Sheath		0.85

Hacksaw

Part No. D72-IS

- Light frame made of reinforced insulating material.
- Ergonomic bi-material handle for optimal grip.
- Quick release device for the blade with retractable tensioner.
- Hand stop at the front of the mount.

Part No.	Length (mm)	Blade Length (mm)	Wt (kg)
D72-IS	440 (L) x 160 (H)	300	0.5

For 1000V Stripping Tools
Refer page G17





Screwdrivers

Flat Blade

Part No. Various

- 1000V insulated - conforms to CEI 900, NF EN 60900
- ISO 2380:D23/TB, ISO 8764:CRU
- Vanadium chrome steel

Part No.	Shaft Length (mm)	Width (mm)	Wt (kg)
TB-2.5X50B	50	2.5	0.20
TB-3.5X100	100	3.5	0.45
TB-4X100B	100	4.0	0.50
TB-5.5X150	150	5.5	0.90
TB-6.5X150	150	6.5	0.12
TB-8X150	150	8.0	0.16
TB-10X150	150	10	0.22
TB-12X200	200	12	0.35

Phillips Head

Part No. Various

Part No.	Shaft Length (mm)	Width (mm)	Wt (kg)
CRU-3X100	100	3	0.45
CRU-4X75	75	4	0.50
CRU-5X100	100	5	0.75
CRU-6X100	100	6	0.95
CRU-6X125	125	6	0.11
CRU-8X150	150	8	0.16
CRU-10X200	200	10	0.27

**Ergonomic, Soft Touch
Screwdrivers Available**



Shifters and Spanners

Shifters (Standard Insulated & Fully Insulated)

Part No. D19 Series

- 1000V insulated - conforms to CEI 900, NF EN 60900 & ISO 6787
- Invisible slip joint
- Chrome vanadium steel, easy jaw roller

Part No.	Type	Length (mm)	Opening (mm)	Wt (kg)
D19-110	Insulated	120	13	0.1
D19-150	Insulated	160	20	0.2
D19-200	Insulated	210	24	0.3
D19-250	Insulated	260	28	0.5
D19-300	Insulated	310	34	0.8
D19-375	Insulated	385	43	1.5
D19-200I*	Fully Insulated	215	27	0.5
D19-250I*	Fully Insulated	265	32	0.6
D19-300I*	Fully Insulated	315	36	1.0

* Fully Insulated





Offset Ring

Part No. D13 Series

- Single head. Made from forged steel, vanadium chrome steel.
- Easier to remove embedded nuts angled 12 point fine heads.
- Chamfer makes it easier to position

Part No.	Length (mm)	Size (mm)	Wt (kg)
D13-10	175	10	0.90
D13-11	175	11	0.95
D13-12	190	12	0.12
D13-13	190	13	0.13
D13-14	200	14	0.15
D13-15	200	15	0.15
D13-16	215	16	0.18
D13-17	215	17	0.19
D13-18	230	18	0.23
D13-19	230	19	0.23



Straight Ring

Part No. D12 Series

- Single Head 12 points

Part No.	Length (mm)	Size (mm)	Wt (kg)
D12-10	120	10	0.35
D12-11	120	11	0.40
D12-12	130	12	0.50
D12-13	130	13	0.60
D12-14	130	14	0.65
D12-15	130	15	0.70
D12-16	150	16	0.90
D12-17	150	17	0.11
D12-18	165	18	0.12
D12-19	170	19	0.14
D12-21	180	21	0.17



Straight Ratchet Ring Spanners (D70-Series) also available - Contact TEN for further information

Single Open Ended

Part No. D14 Series

- Single open-end wrench

Part No.	Length (mm)	Size (mm)	Wt (kg)
D14-10	110	10	0.35
D14-11	110	11	0.34
D14-12	125	12	0.50
D14-13	135	13	0.55
D14-14	145	14	0.70
D14-15	145	15	0.75
D14-16	155	16	0.10
D14-17	155	17	0.10
D14-18	160	18	0.14
D14-19	165	19	0.14
D14-21	180	21	0.20





Wrenches

Reversible Ratchet Wrenches - 1/2" & 3/8" Drive

Part No. C Series

- Equipped with a mechanical locking device to hold the socket in place
- Highly resistant insulating materials.
- Bi-material non-slip handle with "soft" touch for a good grip.
- Large button for reversing the direction of rotation.

Part No.	Length (mm)	Drive	Wt (kg)
C200IVM	213	3/8"	0.43
C250IVM	262	1/2"	0.63

Torque Wrenches - 1/2" Drive - 8-60Nm

Part No. CD8 Series

- For precision tightening
- Automatic release and reset
- Graduated adjustment
- 8-60Nm - Accuracy 4%
- Torque adjuster locked during use
- Supplied with serial number and verification certificate

Part No.	Length (mm)	Drive	Wt (kg)
CD8-60-12	310	1/2"	1.0
CD8-60R-12	310	1/2"	1.0

Torque Wrenches - 3/8" Drive - 4-20Nm

Part No. CD4-20

- Insulated torque wrench. 4-20 Nm.
- Graduated adjustment
- Torque adjuster locked during use
- Supplied with serial number and verification certificate

Part No.	Length (mm)	Drive	Wt (kg)
CD4-20	230	3/8"	0.9

Torque Wrenches - 3/8" Drive - 8-60Nm

Part No. CD8-60-3.8

- Insulated torque wrench. 8-60 Nm.
- Graduated adjustment
- Torque adjuster locked during use
- Supplied with serial number and verification certificate

Part No.	Length (mm)	Drive	Wt (kg)
CD8-60R-3.8	310	3/8"	1.0

T-Handle Wrench - 1/2" Drive

Part No. T250

- Accepts 1/2" Drive Sockets
- 3/8" also available

Part No.	Length (mm)	"T" Handle (mm)	Wt (kg)
T250	300	205 (L)	0.6



CD8-60-12

CD8-60R-12
(Reversible)



R250-250

Socket Extensions

125mm & 250mm Long

Part No. C250 Series

- Vanadium chrome steel
- 1/2" square drive

Part No.	Length (mm)	Wt (kg)
R250-125	125	0.2
R250-250	250	0.4



R250-125

Sockets 3/8" and 1/2" Drive

Part No. Various

12 Point Socket - 1/2" Drive

Part No.	Size (mm)	Length (mm)	Wt (kg)
D250-12P-8	8	55	0.60
D250-12P-10	10	55	0.60
D250-12P-11	11	55	0.60
D250-12P-13	13	55	0.65
D250-12P-16	16	55	0.75
D250-12P-17	17	55	0.80
D250-12P-18	18	60	0.90
D250-12P-19	19	60	0.90



D250 - 12 point

6 Point Socket - 1/2" Drive

Part No.	Size (mm)	Length (mm)	Wt (kg)
D250-6P-13	13	55	0.65
D250-6P-16	16	55	0.75
D250-6P-17	17	55	0.80
D250-6P-18	18	59	0.85
D250-6P-19	19	60	0.90



D250 - 6 point

12 Point Long Socket - 1/2" Drive

Part No.	Size (mm)	Length (mm)	Wt (kg)
DL250-12P-13	13	91	0.15
DL250-12P-16	16	91	0.17
DL250-12P-17	17	91	0.17
DL250-12P-18	18	91	0.18
DL250-12P-19	19	91	0.19



DL250 - 12 point

Other sizes available. Contact TEN for further information

3/8" Drive 6 and 12 Point Sockets



Also available



D200-6P/12P	DL200-6P/12P
3/8" insulated 6 & 12-point socket, From 7 to 24mm	3/8" insulated 6 & 12-point long socket From 7 to 24mm (91mm Long)

Also available in 1/2" Square Drive - Contact TEN for further information



M200 & M250

Hex Head Socket - M200 ($\frac{3}{8}$ ") & M250 ($\frac{1}{2}$ ")

Part No.	Size (mm)	Length (mm)	Wt (kg)
$\frac{3}{8}$ " Drive			
M200-4	4	OAL 60	0.11
M200-5	4	OAL 60	0.12
$\frac{1}{2}$ " Drive			
M250-4	4	15 Hex Length	0.075
M250-5	5		0.075
M250-6	6		0.080
M250-7	7		0.085
M250-8	8		0.085
M250-9	9		0.090
M250-10	10		0.095

Offset Socket - 17 & 19mm

Part No. D11 Series

- Single head, hexagonal 12 points
- Made from forged vanadium chrome steel.
- Deep, resistant socket,
- Strong handle to allow for powerful tightening

Part No.	Length (mm)	Size (mm)	Wt (kg)
D11-17	185	17	0.29
D11-19	195	19	0.43

Fixed Socket - T handle Wrench

Part No. D55 Series

- Entire tube in the shape of a hexagon socket screw key.
- Heat treated steel.

Part No.	Length (mm)	Size (mm)	Wt (kg)
D55-13-300	300	13	0.43
D55-18-300	300	18	0.70
D55-19-300	300	19	0.75
D55-19-400	400	19	0.90
D55-20-400	400	20	0.13

Radio and T-Handle Sockets

Also available

D21 - Radio Wrench	D15 - T-Handle Socket
Radio Wrench Heat treated steel Entire tube in the shape of a hexagon socket screw key.	T-Handled socket wrench (short). Heat treated steel Entire tube in the shape of a hexagonal socket screw wrench.

Other sizes and styles available. Contact TEN for further information



Allen Keys

T-Handle

Part No. T62 Series



Part No.	Size (mm)	Length (mm)	Wt (kg)
T62-120-5	5	120	0.10
T62-175-3	3	175	0.17
T62-175-4	4	175	0.17
T62-175-5	5	175	0.05
T62-180-6	6	180	0.20
T62-95-4	4	95	0.10

Curved (+Set) Short Connector & Screwdriver Handle



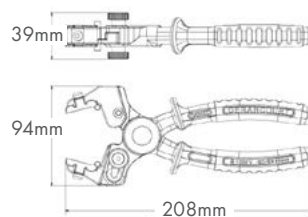
D62 - Curved Allen Key	D62DJEUI - Curved Allen Key set	D62C - Short Hex	CMD - Straight Allen Key
Curved Allen key. Vanadium chrome steel OAL 120mm, handle 80mm	Kit of 8 Allen Keys on ring Sizes 1.5, 2, 2.5, 3, 4, 5, 6 & 8	Short hex connector. Vanadium chrome steel	Vanadium chrome steel Screwdriver style handle

Contact TEN for available styles and sizes

Fuse Extraction Tool

Part No. DA30IS

- For safe removal of Metal clad service fuses (handbag connections)
- High Mechanical Strength
- Size adjustable Jaws



Socket Sets, Tool Kits & storage solutions available. Contact TEN for more information.



TEN's Storage Solutions

TEN Manufactured Canvas and PVC Products

TEN's range of quality Australian made storage solutions and accessories are industry proven and tested to our stringent quality standards.

A range of options are available including customised logos, identification numbers & warning labels. All our manufactured products use the highest quality materials.

PVC

Australian made 680gsm high tenacity PVC made in a tear stop construction commonly used in extra heavy duty tarpaulins. Tear stop design decreases the chances of a tear or cut in the material from increasing. The base fabric is lacquer coated for extra protection and dirt resistant. It is also flame retardant, mildew resistant and UV resistant.

Heavy Duty Canvas

Our Tear stop canvas has core spun threads woven throughout for added strength and resistant to damage. The fabric is 535gsm, UV and mildew resistant, features excellent shrink and colour control and is completely breathable minimising internal moisture build up. This canvas is made tough for the harsh Australian conditions and is commonly used in the transport industry.

Webbing & Stitching

Our heavy duty polyester webbing (also known as seat belt webbing) is used for its strength and low elongation under load. It is ideal for support banding and handles, it is light and strong minimising excess weight for the operator. All our stitching patterns and materials are designed to provide maximum strength and resistance to tears improving the durability and longevity of your storage solutions.

Ultrasonic Welded Seams

TEN provides ultrasonic welded seams on selected PVC material bags featuring a welded seam icon. Equipment bags face the toughest Australian and New Zealand conditions exposed to the sun, rain, heat and cold. Sewn seam bags can take on water if water pools on top of seams. By utilising radio frequency energy to instantly heat the thermoplastic coating this enables the two sheets of PVC to be permanently fused together giving a water tight join.

Whilst physically not as strong as a sewn seam it does have its own distinct advantages including abrasion resistance at the seam, resistant to thread decay and a neat flush finish.

What makes a TEN bucket bag the toughest?



Quality Australian Made Canvas and PVC Products for the Utility, Rail and Mining Sectors

Ultrasonic Welding

Ultrasonic welding is an industrial process whereby high-frequency ultrasonic acoustic vibrations are locally applied to workpieces being held together under pressure creating a solid-state weld.

Why Ultrasonic welding?

Ultrasonic welding is by far the best method for joining PVC materials. The weld is much stronger, compared to other technologies, such as hot air, hot wedge or impulse welding. The resulting weld is also airtight and waterproof.

Advantages!

- Repeatable, reliable technology
- Strong, durable and even welds
- Waterproof
- Multi-layer welding
- An environmentally friendly choice



Welded Seam Icon



Call TEN to discuss how we can assist with your TOOL & EQUIPMENT needs



TEN offers an extensive range of Storage options.

- ▶ EWP Tool Trays and Aprons
- ▶ Tool Buckets/Bags
- ▶ Tool Pouches and Belts
- ▶ Fibreglass Stick Bags
- ▶ Tools and PPE equipment Bags
- ▶ Glove and Sleeve Bags
- ▶ Soil Mats
- ▶ Storage Cases
- ▶ Tool and Test equipment storage



NOTES

Lined area for notes.



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Tool Buckets - Canvas

Tool Buckets

Part No. TENM201

- "Traditional" tool bucket, white
- 2 open, external pockets with bound edges
- Made from durable loomstate canvas and reinforced webbing
- Heavy Duty PVC base
- Rope handle, fixed one end and stainless steel hook the other

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TENM201	2 External	300 Ø x 350 (H)	1.0



Part No. TENM204

- "Traditional" tool bucket, white
- 2 open, internal PVC lined pockets
- Made from durable loomstate canvas and reinforced webbing
- PVC external/marine grade masonite internal base
- Rope handle, fixed one end and stainless steel snap hook the other

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TENM204	2 Internal	300 Ø x 350 (H)	1.0



Part No. TENM209

- "Classic" tool bucket, red
- Made from heavy duty tear stop canvas and PVC
- Rope handle, fixed one end and stainless steel snap hook the other
- 4 open, external pockets

Part No.	Pockets (mm)	Dimensions (mm)	Wt (kg)
TENM209	4 External 160 (H) x 140 (W) x 60 (D)	200 Ø x 300 H	0.7



Part No. TENM207

- "Classic" tool bucket, red
- 2 open, external PVC pockets with bound edges
- Made from durable tear stop canvas and PVC
- 2 Rope handles, fixed one end and stainless steel snap hook the other
- 2 rope handles make it ideal for hauling, can be hung while detaching the hauling line

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TENM207	2 External	280 Ø x 350 (H)	1.0



Desk-Top Organiser Mini Tool Buckets

Part No. TEN-MINIBKT

- Ideal desktop organiser
- Ask for one free with your next order
- Not for field use

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TEN-MINIBKT	5 External Pen Pockets	130 Ø x 150 (H)	0.3





Tool Buckets

Part No. TENM212

- Oval shaped tool bucket, green
- Made from durable tear stop canvas
- 2 x Webbing shoulder strap with stainless steel snap hooks both ends
- Plastic base insert

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TENM212	1 Internal	360 (L) x 240 (W) x 400 (H)	1.0

Part No. TENM206

- Oval shaped tool bucket, red
- 14 internal pockets and 9 external pockets (1 large with velcro flap)
- Made from durable tear stop canvas and webbing
- Detachable webbing shoulder strap and 2 x stainless steel gate hooks

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TENM206	14 Internal, 9 External (1 Large)	400m (L) x 240 (W) x 260 (H)	1.3

Part No. TENM210

- Oval shaped tool bucket, red
- Rope handle, fixed one end and stainless steel snap hook the other
- Made from durable tear stop canvas
- Plastic base insert
- Reinforced webbing bucket hook loops

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TENM210	7 Internal, 8 External	380 (L) x 200 (W) x 260 (H)	0.8

Part No. TENM205

- "Classic" mini tool bucket, red
- Made from heavy duty tear stop canvas and reinforced webbing
- Rope handle, fixed one end and stainless steel snap hook the other
- Stainless steel snap hook attached to bucket, can be used as riggers or belt bucket
- Plastic insert base

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TENM205	Nil	140 Ø x 320 (H)	1.0

Part No. TENM208

- Extra long tool bucket, red
- Ideal for long tools, armour rods & dead-ends
- 2 open, external PVC pockets with bound edges
- Made from durable tear stop canvas and PVC
- 1 Rope handle, fixed one end and stainless steel snap hook the other

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TENM208	2 External	300 Ø x 900 (H)	2.0

Part No. TENM213

- Tool bucket, red
- Ideal for armour rods, dead-ends, line hoses and conductor covers
- Made from durable tear stop canvas
- Rope handle, fixed one end and stainless steel snap hook the other
- PVC base with bound edging

Part No.	Pockets	Dimensions (mm)	Wt (kg)
TENM213	Nil	300 Dia. x 1250 (H)	2.0kg





Bucket (EWP) Tool Aprons

Tool Apron - Universal

Part No. Various

- Made from heavy duty tear stop canvas
- Multiple pockets for drill bits, sockets, nuts, bolts, and hand tools
- Double stitched pockets for durability and strength
- Triple stitched binding
- Variety of sizes
- Pocket with drip holes
- Versatile three configurations - Standard straight, "L" shape and "U" shape
- Bound edges for added strength



TENM443



TENM418 complete Kit

Conduit/Rope shown applied to liner
(Included in TENM418)TENM418 Apron shown
attached inside the Bucket

Part No.	Description	Dimensions (mm)
TENM446	Suits bracket, screws & nuts (sold separately) application to EWP Bucket*	550 (W) x 800 (H)
TENM443	Suits bracket, screws & nuts (sold separately) application to EWP Bucket*	1100 (W) x 980 (H)
TENM418	8m Rope and 1m Conduit (included) application to EWP Bucket	1100 (W) x 980 (H)
TENM419	Rain cover to suit universal bucket apron TENM418	1100 (W) x 990 (H)

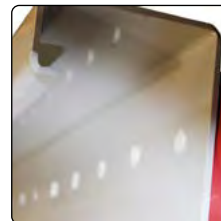
* See below for ATA brackets & screws



Apron Brackets

Part No. ATA-BRACKET-S or L

- Formed plastic EWP bucket brackets for TEN's EWP Bucket Aprons (above)



SCAN OR CLICK to Download
EWP Bracket Measurement Order Form

Part No.	Suits Apron	Width (mm)	Folds	Customer to Specify
ATA-BRACKET-S	TENM446	550	3	Dimensions of bracket folds
ATA-BRACKET-L	TENM443	1100	3	Dimensions of bracket folds

Bracket Nut & Screw

Part No. TP-NUT & TP-SCREW

- Nylon Nuts & Screws for use with bucket aprons (above)



Part No.	Description
TP-NUT	Nylon nut for use on bucket brackets (sold individually)
TP-SCREW	Nylon screw for use on brackets (sold individually)

See pages H18, H19 & H20 for additional PVC & Plastic Bucket Storage solutions



Pouches and Belts

Tool Pouches - Leather

Part No. 5162T

- Extra-capacity multi-purpose pouch
- Includes two pliers pockets, five screwdriver pockets, hammer loop, knife snap and leather tape thong
- Stitched and riveted leather construction for long life
- Tunnel loop fits belts up to 76mm wide

Part No.	Material	Belt Width (mm)	Overall Size (mm)	Pockets	Wt (kg)
5162T	Leather	76	273 (H) x 216 (W)	8	0.8

Knife Holder - Leather

Part No. 5185

- Stitched and riveted leather construction for long life
- Designed for utility knives
- Slotted to fit belts up to 2-1/2" (64 mm) wide
- Assembled in the USA and imported components

Part No.	Material	Belt Width (mm)	Overall Size (mm)	Pockets	Wt (kg)
5185	Leather	63.5	209 (H) x 66 (W)	1	0.05

18 Pocket Tool Pouch - Powerline Series

Part No. 5719

- 18 pockets to carry a variety of tools, includes a large utility pocket with a divider
- Convenient tape chain
- Constructed of double layered, washable 1000 denier Cordura® fabric
- Double stitched and rivet reinforced for strength and durability
- No break-in period, forms and hugs the body for easy, daily wear
- Exceptional resistance to abrasion, punctures and tearing
- Cordura® is a registered trademark of INVISTA for durable fabrics

Part No.	Material	Belt Width	Overall Size (mm)	Pockets	Wt (kg)
5719	Cordura	63.5mm	305 (H) x 279 (W)	18	0.39

Nail Bag - Leather - Lufkin

Part No. TNB0972

- Two Nail/Fastener Pockets, Reinforced Reversed End Gussets
- 50mm Webbing Belt with adjustable side release buckle
- Made from Heavy Duty Suede Leather
- Australian Made

Part No.	Material	Overall Size (mm)	Pockets	Wt (kg)
TNB0972	Heavy Duty Suede	300 (L) x 60 (W) x 240 (D)	2	0.4

Web Work Belt - Powerline

Part No. 5705

- Adjustable belt fits waist sizes up to 1372 mm
- Heavy-duty, 2" (51 mm) wide nylon webbing for extra strength
- Accommodates tunnel loop and slotted tool pouches and holders
- Rugged metal buckle for quick release and adjustment

Part No.	Material	Belt Width (mm)	Overall Size (mm)	Wt (kg)
5705	HD Nylon	51	137	0.25





TENM307



TENM308



TENM310

Stick Bags - PVC

Singular Stick Bags

Part No. Various

- Heavy Duty PVC stick bag (flame retardant, mildew & UV resistant)
- Opening loops at top and side velcro wide opening make it easy to open and access stick Lockable/Reinforced eyelet at top of bags (TENM307 zip opening)
- Single external accessories pocket with velcro closing
- Webbing carry handles
- Bound edges
- Suit Telescopic, Universal & Shotgun Sticks

Part No.	Colour	Fits Stick Length (m)	Suits Stick Part Numbers	Opening Style	Wt (kg)
TENM308	Red	0.7	HV-208	Velcro top only	1.0
TENM309	Red	1.5	HV-212 tele-stick 1.2m Shotgun (8104), 300 Dia. Stick (5467-4/5547-4)	Opening loops at top and side velcro wide opening	1.2
TENM301	Red	1.8	8106, HV216 to HV240, MV-25 to MV-40, M-50, SM-30, 81-706	Full length zip for easy stick access Lockable zip	1.4
TENM307	Blue				
TENM310	Red	2.4	8108, 81-708	Opening loops at top and side velcro wide opening	1.6

Sectional Stick Bags

Part No. Various

- Heavy duty PVC carry bag (flame retardant, mildew & UV resistant)
- Accessory pockets with easy open tab tops
- Bound edges
- Top flap folds over stick & accessory ends for protection
- Webbing carry handles
- Bag can be folded in half and secured with press studs for ease of carrying

Part No.	Colour	Fits Stick Length (m)	Sticks	Accessory Pockets	Wt (kg)
TENM302	Red	1.2	4	4	1.5
TENM305	Red	1.2	4	5	2.2
TENM316	Blue	1.2	4	4	1.5
TENM319	Blue	1.2	4	5	2.2
TENM312	Blue	1.2	6	4	1.9
TENM304	Red	1.8	2	1	1.0
TENM306	Red	1.8	3	4	1.5
TENM313	Blue	1.8	4	4	1.8
TENM315	Red	1.8	4	5	2.0
TENM320	Blue	1.8	4	5	2.0

Customised Stick & Shotgun kits available. Contact TEN

Shotgun Stick Bag

Part No. TENM311

- PVC Shotgun Stick carry bag, red
- 8 accessory pockets - Some clear PVC pockets for quick identification of contents
- Labelled pockets for copper and aluminium scratch brushes
- Bag can be folded in half and secured with press studs for ease of carrying
- Reinforced eyelets at top of bag
- Webbing carry handles
- Bound edges

Part No.	Stick Length (m)	Accessory Pockets	Wt (kg)
TENM311	1 x 1.8 & 1 x 0.6	8	1.8





Glove & Sleeve Bag - Canvas

Glove Bag - 1 Pocket

Part No. TENM408

- Loomstate canvas glove bag, white
- Velcro flaps and s/steel snap hook to clip to belt
- Bound edges
- Tapered shape

Part No.	Dimensions (mm)	Wt (kg)
TENM408	460 (L) x 200 (W) x 100 (D)	0.5

Glove Bag - 2 Pocket

Part No. TENM460

- Canvas glove bag, white
- 2 Pocket for HV & LV Gloves and Outers
- Press-Stud flaps and s/steel snap hook to clip to belt
- Bound edges

Part No.	Dimensions (mm)	Wt (kg)
TENM460	470 (L) x 230 (W) x 210 (D)	0.7

Glove Bag - 3 Pocket

Part No. TENM409

- Loomstate canvas glove bag, white
- 3 pockets: for rubber insulating gloves, protective outers and cotton inner gloves
- Velcro flap and s/steel snap hook to clip to belt
- Supplied with identification tag (key tag)
- Bound edges

Part No.	Dimensions (mm)	Wt (kg)
TENM409	360 (L) x 170 (W) x 220 (D)	1.3

Glove & Sleeve Bag - 2 Pocket

Part No. TENM410

- Loomstate canvas glove bag, white
- Tapered shape
- Velcro flap and s/steel snap hook to clip to belt
- Bound edges

Part No.	Dimensions (mm)	Wt (kg)
TENM410	640 (L) x 200 (W) x 100 (D)	0.7

Glove & Sleeve Bag - 3 Pocket

Part No. TENM411

- Loomstate canvas glove bag, white
- Tapered shape
- 3 pockets - for rubber insulating gloves, sleeves, protective outer and cotton inner gloves
- Velcro flap and s/steel snap hook to clip to belt
- Bound edges

Part No.	Dimensions (mm)	Wt (kg)
TENM411	700 (L) x 220 (W) x 360 (D)	1.3





TENM508



TENM510



PPE and Equipment Bags

Equipment Bag - PVC

Part No. Various

- Heavy Duty PVC Welded Equipment Bag, designed to carry PPE
- Made from flame retardant, mildew & UV resistant PVC
- High frequency welded seams provide water resistance
- Internally reinforced base corners
- Velcro waterfall flap over heavy duty double lock easy slide zip
- Webbing handles & bound edges
- Double lock easy slide zip
- Plastic base insert

**Water Resistant
Ultrasonic
Welded Seams**



Part No.	Colour	Dimensions (mm)	Features	Wt (kg)
TENM508	Dark Blue	550 (L) x 330 (W) x 330 (H)	Detachable Shoulder Strap	1.5
TENM510	Blue	740 (L) x 360 (W) x 330 (H)	Shoulder strap	2.0
TENM516	Blue	740 (L) x 360 (W) x 330 (H)	Web Handles	2.5

Equipment Bag - Barrel, PVC "Essential Line-worker"

Part No. TENM504

- Heavy Duty PVC Equipment bags, red (flame retardant, mildew & UV resistant)
- Weatherstrip over heavy duty double lock easy slide zip
- Webbing handles
- Clear ID pocket on bag exterior
- Designed to carry PPE

Part No.	Colour	Dimensions (mm)	Wt (kg)
TENM504	Blue	650 (L) x 380 (OD)	0.7
TENM512	Red	650 (L) x 380 (OD)	0.7

Equipment Bag - Barrel, Canvas

Part No. Various

- Canvas Equipment bags, red
- Made from durable tear stop canvas (UV & mould resistant)
- Designed to carry PPE
- Weatherstrip over heavy duty double lock easy slide zip
- Webbing handles
- Clear ID pocket on bag exterior

Part No.	Dimensions (mm)	Wt (kg)
TENM518	650 (W) x 380 (OD)	0.7
TENM506	800 (L) x 380 (OD)	1.0

Equipment Bag - PVC

Part No. TENM407

- Made from strong, lightweight 600gsm, tear proof PVC, orange
- Velcro waterfall flap over heavy duty double lock easy slide zip
- 6 adjustable internal pockets (velcro)
- Ideal for storing general test equipment
- Clear internal document pocket (in lid)
- Clear external identity pocket
- Webbing shoulder strap & bound edges



Part No.	Dimensions (mm)	Wt (kg)
TENM407	440 (L) x 330 (H) x 230 (W)	1.5



Tool and Equipment Storage

Riggers Pouch

Part No. TENM402

- Suits riggers, pole or tower workers
- Made from red durable tear stop canvas (UV & mould resistant)
- Fold back top flap sticks down with velcro to stay in place
- Bound edges
- Large side release buckle for harness or belt
- 2 pockets (1 large and 1 small) plus 2 external tool slots on sides
- Webbing straps have heavy-duty quick release buckles



Part No.	Dimensions (mm)	Wt (kg)
TENM402	180 (L) x 300 (H) x 70 (W)	0.2

Tester Pouch

Part No. TENM445

- Canvas pouch
- Made from durable tear stop canvas
- Pouch designed for LT-220 Live-tester
- Fold over velcro flap and webbing pull loops to easily open
- Webbing edges



Part No.	Dimensions (mm)	Wt (kg)
TENM445	430 (H) x 200 (W)	0.2

Equipment Pouch

Part No. TENM417

- Made from strong, lightweight 600gsm, tear proof PVC, orange
- Large zipped opening
- Webbed loops
- Clear face panel to easily view contents
- Reinforced base



Part No.	Dimensions (mm)	Wt (kg)
TENM417	290 (H) x 165 (W) x 85 (D)	0.7

Hoist Bag

Part No. Various

- Quality canvas carry bag
- Designed to protect hoists with handles attached
- Webbing handle & heavy duty zips
- Made from durable tear stop canvas



Part No.	Length (mm)	Wt (kg)
TENM426	740	0.5
TENM403	900	0.5
TENM420	1135	0.8



Tools not included

Emergency Cutting Kit Bag

Part No. TENM413

- PVC carry bag, red
- Designed for 4186 Emergency Wire Cutter & 4010 Rope Insulator (shown with kit)
- Clear PVC pockets for quick identification of contents
- 3 x Accessory pockets
- Fold over flap at top of bag closes with press studs
- Webbing carry handles
- Bound edges

Part No.	Dimensions (mm)	Wt (kg)
TENM413	1200 (L) x 420 (W)	0.7

Rescue Kit Bags

Part No. Various

- Heavy Duty PVC
- Safety Yellow
- Printed Bold "LV or HV RESCUE KIT"
- Shoulder Strap
- TENM521 Pole Top Rescue Kit Bag is Water Resistant with Welded Seams*



TENM521 *

Part No.	Kit	Length (mm)	Wt (kg)
TENM521 *	Pole Top	410 (L) x 430 (H) x 190 (W)	0.8
TENM525	LV Rescue	460 (L) x 260 (H) x 120 (W)	0.5
TENM527	HV Rescue	460 (L) x 260 (H) x 120 (W)	0.5

Refer Safety Section for a full range of Rescue Kits

Body Belt Bag

Part No. TENM415

- Loomstock Canvas Pouch - White
- Draw String
- Lightweight



Equipment Bag - Small

Part No. TENM514

- PVC mini tool bag, red
- Ideal for a range of ABC tools
- Made from heavy duty PVC
- Fold over velcro lid
- Bound edges for durability
- Webbing handles



Part No.	Dimensions (mm)	Wt (kg)
TENM514	270 (L) x 100 (H) x 100 (W)	0.8

Equipment Bag - Large

Part No. TENM511

- Made from strong, lightweight 600gsm, tear proof PVC, orange
- 3 Internal document pocket, 3 external box pockets
- Movable compartment walls (velcro)
- Fold over velcro flap
- Webbing handle & bound edges
- Reinforced Base



Part No.	Dimensions (mm)	Wt (kg)
TENM511	490 (L) x 290 (H) x 130 (W)	1.0





1000v Insulated Tool Pouches - Modular

Part No. Various

- PVC tool panel, red
- Designed for insulated tools
- Made from heavy duty PVC
- Flame retardant, mildew & UV resistant
- Clear protective flap over tools with velcro seal
- Webbing handles & bound edges
- External zipper facility to attach hacksaw pocket (TENM431)
- Elasticised pockets to separate and protect tools
- Velcro joining edges to connect various tool panels together for convenience



See Hand Tool Section for a full range of 1000v Insulated Tools

Part No.	Used for	Pockets	Dimensions (mm)	Wt (kg)
TENM428	Spanner or small tools	14	350 (H) x 640 (W)	1.0
TENM429	Spanner or miscellaneous tools	15	350 (H) x 640 (W)	1.0
TENM430	Sockets or miscellaneous tools	10	350 (H) x 640 (W)	1.0
TENM432	Screwdrivers	15	350 (H) x 640 (W)	1.0
TENM431	Hacksaw pocket with velcro flap and zip facility	1	200 (H) x 600 (W)	0.6



TENM428



TENM429



TENM430



TENM431

Easy Zip Connection
Hacksaw not included



TENM432

Tool Case with Divider

Part No. TENM435

- PVC Tool case, red
- Designed for insulated tools
- Made from heavy duty PVC (flame retardant, mildew & UV resistant)
- Rigid bag walls
- Easy slide zip opens bag to lay flat
- Padded storage divider in centre of bag to separate and protect tools
- 20 elasticised tool pockets 100mm deep
- Velcro strap to secure tools in place on one side (as shown in image)
- Webbing handles & bound edges

Part No.	Dimensions (mm)	Wt (kg)
TENM435	500 (L) x 100 (W) x 400 (H)	0.8



Discharge Kit Bag

Part No. TENM439

- PVC carry bag, red
- Ideal for discharge stick
- Made from heavy duty PVC (flame retardant, mildew & UV resistant)
- Tapered shape
- External clear PVC identification pocket
- 3 internal pockets
- Full zipped opening length of bag with easy slide double lock zipper
- Large webbing handles, easy shoulder style carry
- Webbing carry handles & hanging handle
- Bound edges

Part No.	Dimensions (mm)	Wt (kg)
TENM439	1050 (L) x 250 (W) x 200 (H)	1.2





Jumpers not included

Equipment / Jumper Bag

Part No. TENM515

- PVC carry bag
- Ideal for LV jumpers with handles
- Fold over velcro flap and webbing handle
- Webbing edges
- Bound Edges

Part No.	Jumper Handles (mm)	Dimensions (mm)	Wt (kg)
TENM515	450	470 (L) x 300 (W) x 100 (D)	0.5

Portable Earth Device (PED) Bag

Part No. Various

- PVC carry bag, red
- Ideal for Portable Earthing Devices (PED)
- Made from heavy duty PVC (flame retardant, mildew & UV resistant)
- Velcro flap
- Large webbing handles, easy shoulder style carry
- 1 divider
- Webbing handles & bound edges

Part No.	Colour	Dimensions (mm)	Wt (kg)
TENM424	Red	600 (L) x 160 (W) x 600 (H) (1 Divider)	0.8
TENM440	Red	600 (L) x 150 (W) x 600 (H) (1 Divider)	1.2
TENM515	Red	470 (L) x 100 (W) x 300 (H)	0.5
TENM447	Blue	4 Pocket Stick Earth + 1 External pocket	2.2
TENM607	Yellow	600 (L) x 150 (W) x 600 (H) (2 Dividers)	1.2



TENM424



TENM447



Temp Cross-arm Storage Bag

Part No. TENM710

- Suits Wagner 2.5m square temporary cross-arm
- Made from durable tear stop canvas with reinforced edges
- Webbing carry handles, reinforced stitched on both ends of bag
- Fold over corner velcro flaps
- 3 reinforced adjustable webbing straps for closing bag
- Bag easily unwraps to access Cross-arm

Part No.	Dimensions (mm)	Wt (kg)
TENM710	2640 (L) x 170 (W) x 100 (H)	6.0

Document Storage Bag

Part No. TENM706

- Excellent for manuals and daily operational check lists attached to equipment
- Made from heavy duty red PVC (flame retardant, mildew & UV resistant)
- 1 internal pocket protected by outer covering of PVC
- Large easy slide zipped opening on internal pocket
- Velcro securing flap
- 4 eyelets & adhesive velcro back mount (hook & loop)
- Bound edges

Ideal for Indoor & Outdoor applications

Part No.	Dimensions (mm)	Wt (kg)
TENM706	520 (L) x 370 (W)	0.4
TENM734	450 (L) x 660 (W)	0.6





LV Blanket Zipped Canister

Part No. TENM433

- PVC canister red, with internal PVC tubing
- Made from heavy duty PVC (flame retardant, mildew & UV resistant)
- Zipped lid with wide opening
- Webbing carry handle



Part No.	Dimensions (mm)	Wt (kg)
TENM433	760 (L) x 100 (OD)	0.8

Mat and Blanket Mat Roll

Part No. TENM738

- Heavy Duty PVC Roll - Yellow
- Webbing carry handle
- Use for storage of Ground Mat or a ground sheet



Part No.	Dimensions (mm)	Wt (kg)
TENM738	1150 (L) x 1030 (W)	0.8

Straps

Shoulder Strap - Battery Tool

Part No. TENM703

- High quality durable black webbing
- Stainless steel clip
- Adjustable length



Part No.	Dimensions (mm)	Wt (kg)
TENM703	2000 length strap	0.3

Pole Strap Kit

Part No. TENM714

- Designed to firmly hold rubber insulating blankets and cover up equipment on live components and hardware
- 12 Straps with handy riggers pouch with belt clip
- All webbing straps have heavy-duty quick release buckles
- Easily adjusted for different sized equipment
- Ideal for covering poles, EDOs, disc insulators and more
- A MUST for all glove and barrier operations



Included in Each Kit		
QTY	Strap Length (m)	Webbing (mm)
6	1.5	50
6	1.2	25



Ground Tarp & Soil Mats

Ground Tarp & Soil Mat - PVC

Part No. TENM711

- Ground Tarps designed for covering the ground around the power pole base
- PVC with reinforced edging
- Soil Mats designed for piling dirt on to keep walkways and underground work areas clean and tidy
- Custom designs, shapes and sizes available upon request
- Hand lifting only



Part No.	Dimensions (m)	Wt (kg)
TENM711	2 (L) x 2 (W)	0.4

Twistarp Lifting Tarps

Part No. TWIST Series

- Used when digging, setting poles and backfilling
- Keep footpaths, property and worksites clean and tidy
- Overcomes manual handling
- Converts to ground mat when required
- Repair kits available
- Supplied with instructions and certification



Time saved filling holes, moving materials and cleaning up

Part No.	Size (m)	WLL (kg)	Dirt/Gravel (m³)
TWIST6x6RP	1.8 x 1.8	1814	2
TWIST7x7RP	2.1 x 2.1	1814	3
TWIST8x8RP	2.4 x 2.4	2268	4
TWIST10x10RP	3.0 x 3.0	2268	6

Twist Tarp Configurations



TWIST6x6RP



TWIST7x7RP



TWIST8x8RP



TWIST10x10RP

Depending on soil volume,
two tarps may be required





Bucket (EWP) Tool Aprons, Holders & Trays

Bucket Impact Wrench Holders



Part No. REL-IH

- Non conductive
- Top bracket can be moved for left or right handed operation, in or outside bucket
- Securing strap
- Holds drill with auger still in chuck
- Suits common industry impact wrenches

Part No.	Suit Bucket Lips (mm)	Wt (kg)
REL-IH	38 – 76	3.0



Impact Wrench Holders



Part No. 05-8 Series

- Non conductive
- Top bracket can be moved for left or right handed operation, in or outside bucket
- Velcro securing strap
- Holds drill and protects auger still in chuck
- Includes auger holder on side (2 augers max)

Part No.	Suit Bucket Lips (mm)	Suits Drills	Wt (kg)
05-831	Maximum 50 wide	Common industry impact wrenches	2.3
05-833	Maximum 100 wide		2.3
Part No.	Description		Wt (kg)
P19157	"L" Bracket to suit 05-831		0.5
P19189	"L" Bracket to suit 05-833		0.5



Part No. 05-8 Series

- Nylon (Non conductive) drill holster
- Top bracket can be moved for left or right handed operation, in or outside bucket
- Velcro holding strap for transporting
- Holds drill with auger still in chuck

Part No.	Suit Bucket Lips (mm)	Suits Drills	Wt (kg)
05-832	Maximum 50 wide	Common industry impact wrenches	1.1
05-834	Maximum 100 wide		1.2
Part No.	Description		Wt (kg)
P19157	"L" Bracket to suit 05-832		0.5
P19189	"L" Bracket to suit 05-834		0.5



Saw Holder / Hydraulic Chain Saw -Fibreglass

Part No. 05-9 Series

- Non conductive
- Provides safe and convenient storage on bucket, preventing accidental damage
- Accommodates up to 915mm saw bar length

Part No.	Mounting	Wt (kg)
05-909-1	Inside Bucket	4.5
05-910-1	Outside Bucket	5.0





Tool Board - PVC

Part No. EWPTB

Storage of tools and parts inside your EWP/Bucket

- Semi Modular
- Optional LED light
- Constructed of Plastic Welded and Moulded, Medical Grade PVC
- Resistant to a wide range of Chemicals
- Water Drain holes
- Assembles with Stainless Steel fasteners



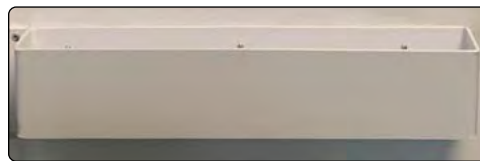
Store Loose Sockets or Sockets with $\frac{7}{16}$ adapters



Stores Podger Stick,
Cable Ties & Auger Bits



Open storage for Shifters, Screwdrivers
and Hammer etc.



Open storage



Water tight box for
Sensitive Equipment



Made to measure Bracket



Tool Trays - Brackets made to suit Bucket Manufacturer

Part No. EWPTT-Series

- Storage of Small tools or parts
- Constructed of Plastic Welded, Medical Grade PVC
- Tested to withstand 20kg per section (40kg across two Tool Trays mounted on a 1m EWP Bracket)
- Resistant to a wide range of Chemicals



SCAN OR CLICK to
Download EWP Bracket
Measurement Order Form



Part No.	Description	Compartment Dimensions (mm)	EWP Bracket
EWPTT-UL*	Tool Tray, PVC, 4 Sections w/custom made EWP Brkt. (Under Liner)	225 (W) x 165mm (D) x 215/155 (H)	1m Long (made to order) Contact TEN for further information or SCAN or CLICK the above QR code
EWPTT-OL*	Tool Tray, PVC, 4 Sections w/custom made EWP Brkt. (Over Bucket Lip - Must be used with Tool Apron)		

*Provide Bucket Dimensions



Tool Trays

Part No. 05-9 Series

- Non conductive
- Provides safe and convenient storage on bucket
- Inside/Outside options available



05-955



05-951



05-918-1



Part No.	Dimensions (mm)	Mounting in Bucket	Wt (kg)
05-919-1	610 (D) x 160 (W) x 430 (L)	Outside by below hooks	7.7
05-951	190 (D) x 150 (W) x 355 (L)	Outside - Adjustable Bracket	3.6
05-955	190 (D) x 150 (W) x 510 (L)	Outside - Adjustable Bracket	4.6
05-918-1	190 (D) x 150 (W) x 355 (L)	Outside/Inside by below hooks	1.7

Tool Rack

Part No. 05-9 Series

- Non conductive
- Designed for hanging hand tools, crimpers & hoists
- Provides safe and convenient storage on bucket, eliminates trip hazards
- Adjustable bracket



Part No.	Dimensions (mm)	Suits Bucket	Wt (kg)
05-992	510 (L) x 200 (W) x 150 (D)	Without liner	3.6
05-993	510 (L) x 200 (W) x 150 (D)	With liner	3.6

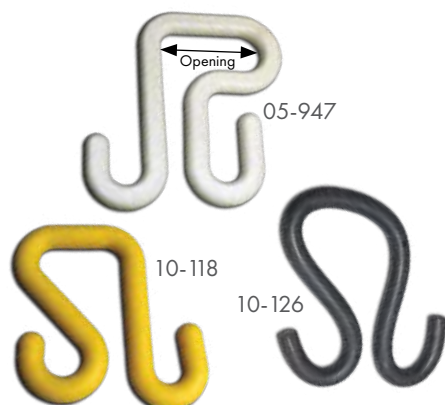


Socket Holder

Part No. 05-9 Series

- Non conductive
- Provides safe and convenient storage on bucket
- Holds a set of deep sockets 12mm – 25mm
- Can also be attached to a Tool Board

Part No.	Dimensions (mm)	Suits Bucket	Wt (kg)
05-977	290 (L) x 50 (W) x 50 (D)	With liner	1.6
05-976	290 (L) x 50 (W) x 50 (D)	Without liner	1.6



Bucket Hooks

Part No. Various

- Non conductive
- Supplied as pair (2 included)

Part No.	Suits bucket lips	Opening (mm)	Wt (kg)
10-126	PVC	76	0.3
05-947	Plastic	80	0.3
10-118	Polymer	57	0.3



Hard Storage Cases

Die Box - Steel

Part No. 54439-A

- Heavy duty steel
- Powder coated
- 20 compartments ideal for dies
- Clasps and carry handle

Part No.	Dimensions (mm)	Wt (kg)
54439-A	248 (L) x 338 (W) x 51 (H)	5.1

Compression Dies



Refer to the Hydraulic Section for a complete range of 6 & 12T Dies, including kits to suit your requirements

Compression Dies up to 200T also available



Impact Tool Case

Part No. 737520

- Quality Blow-Mould Plastic case
- Cut-out foam insert to hold tools in place
- Holds Tool, small/large head + take off clips
- Manual included



Impact Tool not included

Part No.	Dimensions (mm)	Wt (kg)
737520	450 (L) x 300 (H) x 100 (W)	0.5



NOTES

TENHIRE

Our Fleet, Your Projects.



**SERVICE
REPAIR/REFURB
TRAINING**



TEN Hire offers its customers access to the largest specialised cable hauling and stringing equipment fleet in Australia. The range includes hydraulic pullers (skid and trailer mounted), brake units (tensioners), puller-tensioners, capstan winches, drum stands, pole pullers and a large range of associated equipment such as presses and pumps, stringing rollers and wire rope. In 2020, TEN expanded its offering to include SRT (Service, Repair & Refurb, Training) – our specialist service and training division.

Why partner with **TEN HIRE & SRT?**

- ▶ Leverage our fleet of specialised stringing and cable hauling equipment – our fleet, your projects
- ▶ We have extensive experience in matching customer stringing requirements to machinery
- ▶ Be flexible in scaling up or down as your workload demands
- ▶ Use the latest technologies and innovative stringing methods to drive productivity and profitability
- ▶ Meet your compliance and risk management objectives
- ▶ Ensure the safety of your operators through competency based training
- ▶ Get the back up and breakdown support of Australia's leading stringing equipment provider



Service

Servicing and preventive maintenance is key to ensure a long, productive working life for your capital assets. Whether it's a Tesmec stringing machine or a battery hydraulic hand tool, SRT can assist with your preventative maintenance program to keep your equipment online. We have an experienced group of hydraulic technicians who can support your maintenance program for Tesmec equipment or your hydraulic and mechanical tooling.

Repair

Breakdowns are inevitable, but when they happen, you need a partner that is prepared and capable to get your fleet back up and running. TEN Hire stocks a wide range of parts for Tesmec Machinery, hydraulic hand tools and hoist repair. We are the only company that can provide a regional service technician for stringing equipment (trained by the manufacturer) and in a suitable timezone for efficient customer service for trouble shooting and for fast, efficient repair if needed. Our SRT technicians can assist with fault diagnosis and troubleshooting over the phone and we can mobilise technicians on short notice for on site repairs as required.



Refurbishment

Extend the life of your valuable Tesmec stringing assets through refurbishment through our SRT Team. Our team provides a customised refurbishment proposal based on the machinery's age, working hours, general condition and any specific repairs or parts replacement required. Machines can be upgraded with additional guarding and safety features developed for newer machines, helping meet your WH&S compliance requirements around high risk plant. Machines can be calibrated prior to delivery to your yard or site.

Training

Our stringing machine operator training is delivered by approved trainers who have undertaken training direct from the manufacturer. Participants in our training programmes receive a detailed training manual with theory and practical assessments designed to build and confirm operational competency. Our trainers are Cert IV qualified in training and assessment and deliver our training package at our site or yours to AQTF standard. This training package has been developed, delivered and improved over years of deployment to Australian utilities and contractors alike. TEN have trained over 1000 operators in the use of high risk stringing plant.





TEN is Australia's leading supplier of Overhead Stringing machines and Accessories:

- ▶ Hydraulic Pullers, Tensioners, Puller/ Tensioners & Winches
- ▶ Fixed Joints, Swivels, Grip & Socks
- ▶ Reel winders, Drum Elevators & Stands
- ▶ Reels, Anti-twist Steel and Dyneema ropes
- ▶ OPGW Installation Equipment
- ▶ Stringing Rollers & Blocks
- ▶ Balancing Headboards
- ▶ Conductor Chairs & Cars
- ▶ Suspension Ladders & Working Platforms



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TESMEC Stringing Machines

Tesmec Generation 4.0 machines with the Digital Human Interface



PT2451 - 100kN Digital Puller Tensioner

Digital Human Interface (HMI)

The digital HMI (Human Machine Interface) is a significant innovation on the 4.0 stringing machine. The control panel is drastically simplified.

The innovative graphic display shows all the information, including diesel engine parameters, machine performance, and diagnostic output.

This digital technology eliminates most of the instruments and devices installed on the previous control panel.

The remote operates up to a distance of 100m from the machine in line of site. It can also be connected by cable, both options give the operator full control of the machine in a position that offers a better overview of the worksite.

Note:

Pullers equipped with reel-winders feature automatic back-pull control for optimal performance and simple operation.



Full Function Remote Control



Diagnostic Features

- Maintenance interval scheduling, with countdown and alerts.
- Machine alerts display errors with detailed description.
- Alerts recording option for authorised service inspection.
- Automatic self-diagnosis at machine start.

Efficiency

- Automatic diesel engine rpm setting maximises stringing speed and offers better oil cooling and fuel savings.
- Automatic oil cooling according to oil viscosity.
- Reduce operator errors and maximise uptime.
- Analog Circular chart displays operating parameters and machine limits.
- Automatic cutting pressure device, to avoid any possible overload on the machine.

Re.M. (Remote Monitoring System) - ALL270

Remote monitoring package for main performance and diagnostic parameters, including alarms and a GPS localization, available on request.

Integrated Recorder

Integrated pull recorder stores the operational data. Downloadable using a simple USB flash drive. Printer also available as an option.



Digital Stringing Machines Main Features



Configuration

Full package in the standard version configuration.

The standard machine includes a complete package of devices:

- Integrated pull recorder.
- Radio remote control.
- Conductor clamp.
- Low range gearbox (50 kN range).

Range of available options include: preheating device for extra cold ambient temperatures, road transportation package, electronic connection of modular machines, remote diagnosis package and low range solution (100 kN range and higher).



Power Unit

Diesel engine: Stage 4, tier 4f and Stage 5

Each machine is also available with engine equivalent to the previous Stage emission level for markets where ultra high grade fuel is not available.

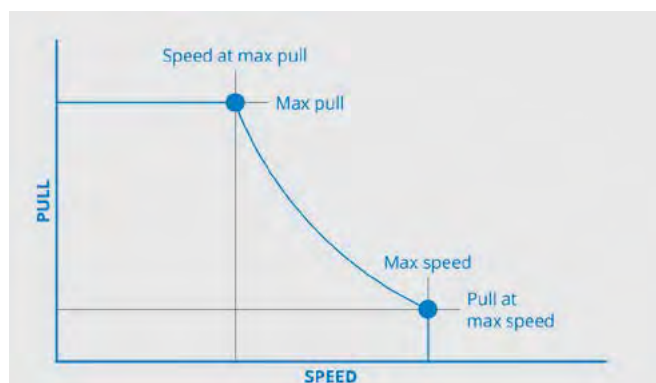
Integral cover of the whole power unit and modularity in single components.

Integral Cover

The integral cover of the whole power unit grants:

- Best protection of all the installed components.
- Reduction of noise emission.

Modular design and standardized components reduces spare parts and simplifies maintenance.



Performance

Operating pull vs speed

Unique hydraulic circuit for stepless speed variation. Automatic management of the diesel engine for highest possible operating speed depending on work conditions.



Mobility

Two travel configurations

The machine layout allows the installation of rigid or road axles configurations.

Road axle with EU type approved is available.



Re.M (REMOTE MONITORING SYSTEM)

All you need to use Tesmec Re.M is an Internet connection and a browser!

The interface will give you all the machine information (engine parameters, pressures and temperatures), included the geofencing (GPS coordinates).

The remote monitoring system, RE.M, acquires, analyzes and manages information from our pullers, tensioners and puller-tensioners.

This system allows a fleet management time saving of 25%.

All the information is forwarded to a cloud platform through a data connection and is available using an Internet connection and browser.

The remote access option is the easiest way to check machine data.

In case of failure, service technicians can obtain the situation analysis before they reach the job-site reducing problem resolution and next step timing.



Daily Control Of All Machines

Data collected by RE.M allow a reduction of data processing errors and a daily fleet control through:

- Statistics of machine use
- Monitoring of operating parameters such as temperature, pressure of hydraulic system and working hours
- Monitoring machine status
- Monitoring of productivity

Proactive Maintenance Management

- Automatic acquisition of engine hours.
- Reduction of time dedicated to finding equipment for maintenance.
- Monitoring of machine status in order to prevent failure and to reduce downtime.

Geofencing

With RE.M you can define virtual fences that allow monitoring of machines' position on job-sites and whenever a machine is leaving a geofenced area the system sends a text message and/or an email that can help tracking and recovering the machine; reducing theft related costs.

Reliable Technical Assistance

Thanks to electronic error notification, RE.M simplifies problem resolution process, reducing troubleshooting and allowing speed and focused technical assistance with the possibility of problem resolution by remote.

System Availability

RE.M is available on all the digital stringing machines. Following customer authorisation, the system will be activated and data access will be possible through a customer private account. During machine warranty period, Tesmec S.p.A. can access and use all the data transmitted by RE.M for problems resolution or for maintenance. On request, the system can be installed on existing machines.

TEN Hire (SRT) offers 24/7 back-up repair and trouble shooting service. Maintenance and Repairs can be carried out on-site or at the TEN Hire facility.

See TEN Hire & SRT information at the end of the Transmission Stringing section.



Digital Hydraulic Pullers

100kN Digital Puller

Part No. PL1450



MAX
PULL

100kN



MAX
SPEED

4.5km/h



ROPE
DIAMETER

21mm

- Tesmec Digital HMI
178mm (7") Colour Display.
Radio Remote Control.
Data Recorder
- Automatic reel winder
- Integrated covers

**Ideal for Green Field
Construction**

Performance	
Max pull (kN)	100
Speed at Max pull (km/hr)	2.5
Max speed (km/hr)	4.5
Pull at Max speed (kN)	53

Hydraulic Transmission	
Closed hydraulic with pull pre-setting system that automatically adjust pulling speed.	

Characteristics	
Bull-wheel diameter (mm)	525
Bull-wheel material	STEEL
Max rope diameter (mm)	21
Weight (without rope) (kg)	4300
Number of grooves	9
Suitable for	1 rope
Layout	Single

Engine	
Diesel (kW)	150 (140hp)
Cooling System	Water
Electrical System	24V

Configuration
<p>Tesmec digital HMI. Automatic reel winder. Lockable sound proof integrated covers. Rope clamp for reel change. Negative self-acting hydraulic brake. Rigid axle 30 km/h. Earthing connection point. Hydraulic front stabilizers. On board automatic reel winder with level wind, for reel mod. BOF010 and BOF020. Reel shaft AXR001.</p>

Available Options	
ALL037	Preheating device up to -30°C
ALL089	Electronic connection and synchronization between machines
ALL111	Swivel guide rope roller
ALL261	External printer
ALL270	Remote Diagnostic system with GPS localization including 3-year subscription
ALL280	Automatic grease pump
AXR001	Extra shaft



7" COLOUR DISPLAY



RADIO REMOTE CONTROL



160kN Digital Puller

Part No. PL1700



MAX PULL	MAX SPEED	ROPE DIAMETER
160kN	4.5km/h	28mm

- Tesmec Digital HMI
178mm (7") Colour Display.
Radio Remote Control.
Data Recorder
- Automatic reel winder
- Integrated covers

Ideal for Green Field Construction

Performance	
Max pull (kN)	160
Speed at max pull (km/hr)	2.8
Max speed (km/hr)	4.5
Pull at max speed (kN)	105

Hydraulic Transmission	
Closed hydraulic with pull pre-setting system that automatically adjust pulling speed.	

Characteristics	
Bull-wheel diameter (mm)	700
Bull-wheel material	STEEL
Max rope diameter (mm)	28
Weight (without rope) (kg)	7200
Number of grooves	10
Suitable for	1 rope
Layout	Single

Engine	
Diesel (kW)	210 (281 hp)
Cooling System	Water
Electrical System	24V

Configuration
<p>Tesmec digital HMI. Automatic reel winder. Lockable sound proof integrated covers. Rope clamp for reel change. Negative self-acting hydraulic brake. Rigid axle 30 km/h. Earthing connection point. Hydraulic front stabilizers. On board automatic reel winder with level wind, for reel mod. BOF010 and BOF030. Reel shaft AXR002.</p>

Available Options	
ALL037	Preheating device up to -30°C
ALL089	Electronic connection and synchronization between machines
ALL111	Swivel guide rope roller
ALL261	External printer
ALL270	Remote Diagnostic system with GPS localization including 3-year subscription
ALL280	Automatic grease pump
AXR001	Extra shaft



7" COLOUR DISPLAY



RADIO REMOTE CONTROL

Digital Hydraulic Tensioners

80kN Digital Tensioner

Part No. TN2350



MAX
TENSION

2 x 40kN



MAX
SPEED

5km/h



CONDUCTOR
DIAMETER

42mm

- Tesmec Digital HMI
178mm (7") Colour Display.
Radio Remote Control.
Data Recorder
- Automatic reel winder
- Integrated covers

**Ideal for Green Field
Construction**

Performance	
Max pull (kN)	2 x 40/ 1 x 80
Speed at max pull (km/hr)	3
Max speed (km/hr)	5

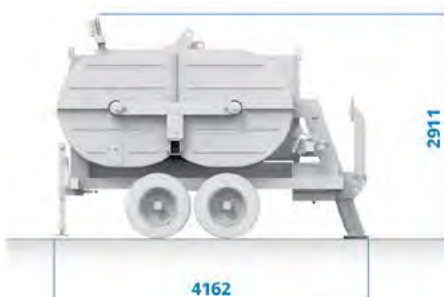
Pull at max speed (kN)	2 x 40/ 1 x 80
Hydraulic Transmission	

Half closed hydraulic circuit with tension presetting system.	
Characteristics	
Bull-wheel diameter (mm)	1500
Bull-wheel material	NYLON
Max conductor diameter (mm)	42
Max rope diameter (mm)	21
Weight (without rope) (kg)	7000
Number of grooves	12
Suitable for	2 conductors
Layout	Single

Engine	
Diesel (kW)	55.4 (140hp)
Cooling System	Water
Electrical System	12V

Configuration
<p>Tesmec digital HMI. Lockable sound proof integrated covers. Rope clamp for reel change. Negative self-acting hydraulic brake. Rigid axle 30 km/h. Earthing connection point. Hydraulic front stabilizers. Power pack to control 2 reel stands or 2 reel-winders.</p> <p>Gearbox with 3 operating positions on 1 circuit:</p> <ul style="list-style-type: none"> • Neutral position (with free bull-wheels for conductor loading and unloading). • Low tension position (1 to 7 kN). • Nominal tension position.

Available Options	
ALL005	Hydraulic power for compressor
ALL037	Preheating device up to -30°C.
ALL089	Electronic connection and synchronization between machines.
ALL261	External printer
ALL270	Remote Diagnostic system with GPS localization including 3-year subscription.
ALL280	Automatic grease pump



7" COLOUR DISPLAY



RADIO REMOTE CONTROL



140kN Digital Tensioner

Part No. TN2600



MAX
TENSION

2 x 70kN



MAX
SPEED

5km/h



CONDUCTOR
DIAMETER

51 mm

- Tesmec Digital HMI
178mm (7") Colour Display.
Radio Remote Control.
Data Recorder
- Rope clamp
- Integrated covers

**Ideal for Green Field
Construction**

Performance	
Max pull (kN)	2 x 70/ 1 x 140
Speed at Max pull (km/hr)	3
Max speed (km/hr)	5
Pull at Max speed (kN)	2 x 70/ 1 x 140

Hydraulic Transmission	
Half closed hydraulic circuit with tension presetting system.	

Characteristics	
Bull-wheel diameter (mm)	1800
Bull-wheel material	NYLON
Max conductor diameter (mm)	51
Max rope diameter (mm)	25
Weight (without rope) (kg)	10000
Number of grooves	12
Suitable for	2 conductor
Layout	Twin

Engine	
Diesel (kW)	55.4 (140hp)
Cooling System	Water
Electrical System	12V

Configuration	
<p>Tesmec digital HMI. Lockable sound proof integrated covers. Rope clamp for reel change. Negative self-acting hydraulic brake. Rigid axle 30 km/h. Earthing connection point. Hydraulic front stabilizers. Power pack to control 2 reel stands or 2 reel-winders.</p>	

Available Options	
ALL005	Hydraulic power for compressor
ALL037	Preheating device up to -30°C
ALL087	Low tension device
ALL089	Electronic connection and synchronization between machines.
ALL261	External printer
ALL270	Remote Diagnostic system with GPS localization including 3-year subscription
ALL280	Automatic grease pump.



7" COLOUR DISPLAY



RADIO REMOTE CONTROL

Digital Hydraulic Puller Tensioners

50kN Digital Puller Tensioner

Part No. PT1250



MAX
TENSION

50kN



MAX
SPEED

5km/h



CONDUCTOR
DIAMETER

42mm

- Tesmec Digital HMI
178mm (7") Colour Display.
Radio Remote Control.
Data Recorder
- Available for road use
- Integrated covers

Perfect for Construction and Reconductoring

Performance	
Max pull (kN)	50
Speed at Max pull (km/hr)	1.5
Max speed (km/hr)	5
Pull at Max speed (kN)	16

Hydraulic Transmission	
Closed hydraulic with pull pre-setting system that automatically adjust pulling speed.	

Characteristics	
Bull-wheel diameter (mm)	1500
Bull-wheel material	NYLON
Max conductor diameter (mm)	42
Max rope diameter (mm)	16
Weight (without rope) (kg)	3650
Number of grooves	6
Suitable for	1 rope/ conductor
Layout	Single

Engine	
Diesel (kW)	55.4 (74hp)
Cooling System	Water
Electrical System	12V

Configuration	
<p>Tesmec digital HMI. Lockable sound proof integrated covers. Rope clamp for reel change. Negative self-acting hydraulic brake. Rigid axle 30 km/h. Earthing connection point. Hydraulic front stabilizers. Power pack to control 1 reel stand or 1 reel-winder.</p> <p>Gearbox with 3 operating positions on 1 circuit:</p> <ul style="list-style-type: none"> • Neutral position (with free bull-wheels for conductor loading and unloading). • Low tension position: <ul style="list-style-type: none"> - 2 to 12kN as tensioner - 0 to 7kN as puller • Nominal tension position. 	

Available Options	
ALL005	Hydraulic power for compressor
ALL037	Preheating device up to -30°C.
ALL080	Special kit for 2 conductors up to Ø 31mm.
ALL089	Electronic connection and synchronization between machines.
ALL261	External printer
ALL270	Remote Diagnostic system with GPS localization including 3-year subscription.
ALL280	Automatic grease pump





100kN Digital Puller Tensioner

Part No. PT2451



MAX
TENSION

2 x 50kN



MAX
SPEED

5km/h



CONDUCTOR
DIAMETER

42mm

- Tesmec Digital HMI
178mm (7") Colour Display.
Radio Remote Control.
Data Recorder
- Rope clamp
- Integrated covers

Performance	
Max pull (kN)	2 x 50/ 1 x 100
Speed at Max pull (km/hr)	2
Max speed (km/hr)	5
Pull at Max speed (kN)	2 x 20

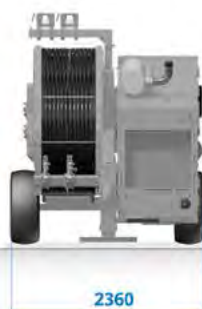
Hydraulic Transmission	
Closed hydraulic with pull pre-setting system that automatically adjust pulling speed.	

Characteristics	
Bull-wheel diameter (mm)	1500
Bull-wheel material	NYLON
Max conductor diameter (mm)	42
Max rope diameter (mm)	21
Weight (without rope) (kg)	6700
Number of grooves	12
Suitable for	2 conductors
Layout	Twin

Engine	
Diesel (kW)	105 (140hp)
Cooling System	Water
Electrical System	24V

Configuration	
<p>Tesmec digital HMI. Automatic reel winder. Lockable sound proof integrated covers. Rope clamp for reel change. Negative self-acting hydraulic brake. Rigid axle 30 km/h. Earthing connection point. Hydraulic front stabilizers. Power pack to control 2 reel stands or 2 reel-winders.</p> <p>Gearbox with 3 operating positions on 1 circuit:</p> <ul style="list-style-type: none"> • Neutral position (with free bull-wheels for conductor loading and unloading). • Low tension position: <ul style="list-style-type: none"> - 4 to 17kN as tensioner - 0 to 17kN as puller • Nominal tension position. 	

Available Options	
ALL005	Hydraulic power for compressor
ALL037	Preheating device up to -30°C
ALL089	Electronic connection and synchronization between machines
ALL216	External printer
ALL270	Remote Diagnostic system with GPS localization including 3-year subscription
ALL280	Automatic grease pump.



7" COLOUR DISPLAY



RADIO REMOTE CONTROL

140kN Digital Puller Tensioner

Part No. PT2600



MAX TENSION
2 x 70kN



MAX SPEED
5km/h



CONDUCTOR DIAMETER
51 mm

- Tesmec Digital HMI
178mm (7") Colour Display.
Radio Remote Control.
Data Recorder
- Available for road use
- Integrated covers



Performance	
Max pull (kN)	2 x 70/ 1 x 140
Speed at Max pull (km/hr)	2
Max speed (km/hr)	5
Pull at Max speed (kN)	2 x 25

Hydraulic Transmission	
Closed hydraulic with pull pre-setting system that automatically adjust pulling speed.	

Characteristics	
Bull-wheel diameter (mm)	1800
Bull-wheel material	NYLON
Max conductor diameter (mm)	51
Max rope diameter (mm)	25
Weight (without rope) (kg)	11000
Number of grooves	12
Suitable for	2 ropes/ conductors
Layout	Twin

Engine	
Diesel (kW)	129 (175hp)
Cooling System	Water
Electrical System	12V

Configuration	
<p>Tesmec digital HMI. Automatic reel winder. Lockable sound proof integrated covers. Rope clamp for reel change. Negative self-acting hydraulic brake. Rigid axle 30 km/h. Earthing connection point. Hydraulic front stabilizers. Power pack to control 2 reel stands or 2 reel winders.</p>	

Available Options	
ALL005	Hydraulic power for compressor
ALL037	Preheating device up to -30°C.
ALL087	Low tension device
ALL089	Electronic connection and synchronization between machines.
ALL261	External printer
ALL270	Remote Diagnostic system with GPS localization including 3-year subscription.
ALL280	Automatic grease pump



7" COLOUR DISPLAY



RADIO REMOTE CONTROL



Digital Hydraulic Tensioners

30kN Hydraulic Tensioner

Part No. TN1216/CVR827



PATENTS
APPROVED

CVR827



25km/h
Helicopter
Stringing



MAX
TENSION

30kN



MAX
SPEED

25km/h



CONDUCTOR
DIAMETER

51 mm

Three Stages Of Safety

Machine has inbuilt safety features, a must when helicopter stringing. The machine can deal with the three safety scenarios

1. Hydraulic Failure
2. Engine Failure
3. Electronics Failure

The only Tesmec machine designed for **HELICOPTER** stringing, with a Stringing speed up to 25km per hour

Performance	
Max pull (kN)	30
Speed at Max pull (km/hr)	25
Max speed (km/hr)	1
Pull at Max speed (kN)	45

Hydraulic Transmission	
Hydraulic open circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change.	

Characteristics	
Bull-wheel diameter (mm)	1800
Bull-wheel material	NYLON
Max conductor diameter (mm)	51
Weight of power unit (kg)	800
Weight of working unit (kg)	3200
Total with fluid (kg)	4600
Number of grooves	6
Suitable for	1 ropes
Layout	Single

- Tesmec Digital HMI
- 178mm (7") Colour Display.
- Radio Remote Control
- Data Recorder
- Detachable in two parts
- Designed to work joined with CVR827
- Integrated covers

Engine	
Diesel (kW)	48kw (65hp)
Emission level	tier4i/ Stage IIIA
Cooling System	Water
Electrical System	24V

Configuration	
Negative self-acting hydraulic brake.	
Control instruments for hydraulic system and Diesel engine.	
Rigid axle 30 km/h.	
Hydraulic power pack to control a reel stand with hydraulic motor.	
Earthing connection point.	
Radio control.	



7" COLOUR DISPLAY

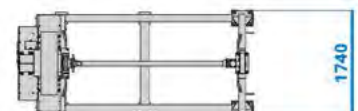
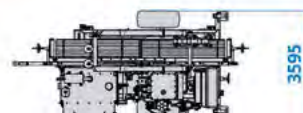
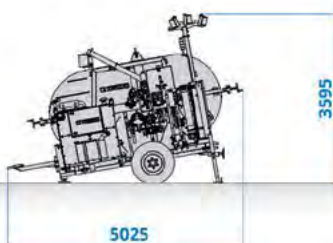


RADIO REMOTE CONTROL

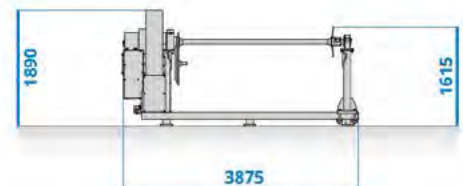
CVR827 Performance	
Max Tension @ 2500mm External Reel Dia. (kN)	1.3
Max Tensioning Speed (km/h)	25
Max Recovering Speed (km/h)	1.5
Max Tension in emergency mode @ 1500mm average reel Dia. (kN)	5

Reel Dimension and Weight	
External diameter (mm)	From 600 - 2500
Width (mm)	From 570 - 2400
Total Weight (kg)	7500

Available Options	
ALL037	Preheating device for use up to -30°C.
ALL071	Hydraulic rope clamp for reel change operations



CVR827



Equipment Winches

30kN Hydraulic Winch

Part No. AMC402



MAX
PULL

30kN



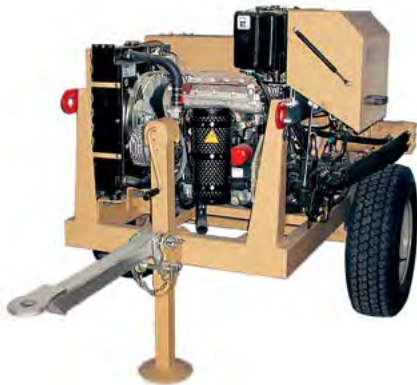
MAX
SPEED

5km/h

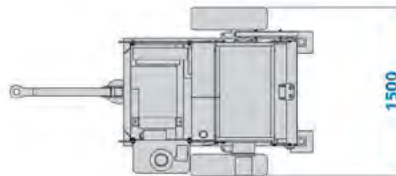
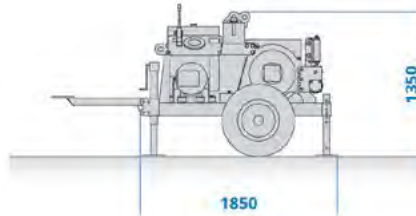


ROPE
DIAMETER

14mm



Engine	
Diesel (kW)	25 (34hp)
Cooling System	Water
Electrical System	12V



50kN Hydraulic Winch

Part No. AMC501



MAX
PULL

50kN



MAX
SPEED

6km/h

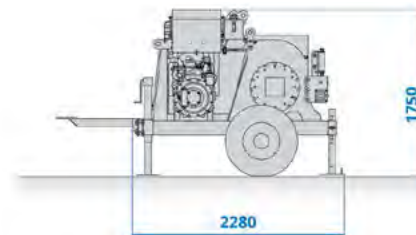
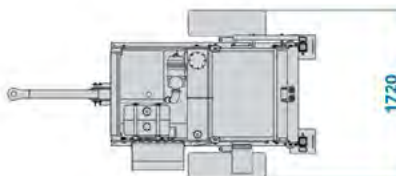


ROPE
DIAMETER

18mm



Engine	
Diesel (kW)	34
Cooling System	Water
Electrical System	12V



- Drum with automatic level wind.
- Negative self-acting hydraulic brake.
- Hydraulic dynamometer with set-point and automatic control of maximum pull.
- Rigid axle 30 km/h.
- Towing shaft with adjustable height.
- Mechanical front stabiliser
- Top performance
- Compact design

Performance*		
Part No.	AMC402	AMC501
Max pull (kN)	30	50
Speed at max pull (km/hr)	1.5	1.3
Max speed (km/hr)	5	6
Pull at max speed (kN)	8.5	10.5

Drum Specifications		
External diameter (mm)	530	700
Internal diameter (mm)	355	457
Width (mm)	700	700
Rope diameter (mm)	14	18
Max capacity (mm)	400	400
Weight (kg)	1000	1600

Available Options (AMC402/501)	
ALL102	Pulling rope locking device when capstan is used (compulsory for EC market).
Capstan for lifting operations	
ALL107	Max pull 10kN
	Max speed 1,5km/h
	Capstan diameter 220mm
ALL112	Trailer 80 km/h. EC type-approved for road circulation with hook Ø 40mm and lighting system.

Hydraulic Pullers

240 kN Hydraulic Puller

Part No. ARS802



MAX
PULL

240kN



MAX
SPEED

4.5km/h



ROPE
DIAMETER

32mm



Characteristics	
Bull-wheel diameter (mm)	800
Max rope dia (mm)	32
Weight (kg)	9500
Suitable for	1 rope
Layout	Single
Diesel	280kW



15kN Hydraulic Puller

Part No. ARS200



MAX
PULL

15kN



MAX
SPEED

0.7km/h



ROPE
DIAMETER

8mm

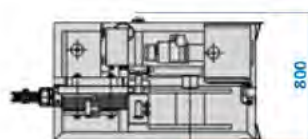
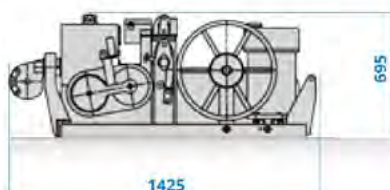


**AVAILABLE
FOR HIRE**
TEN

ON STANDARD
ROAD TRAILER ONLY

The ARS200 Hydraulic Puller is suitable to string one rope. The bull wheel grooves are made of heat treated steel.

- Negative self-acting hydraulic brake
- Hydraulic dynamometer with set-point and automatic control of maximum pull
- On board reel winder with automatic level wind and special reel BOF370 for 500m of 8mm rope



Performance	
Max pull (kN)	15
Speed at max pull (km/hr)	0.7
Max speed (km/hr)	3.6
Pull at max speed (kN)	4
Hydraulic Transmission	
Closed hydraulic circuit for stepless speed variation in both rotating directions	

Characteristics	
Bull Wheel dia (mm)	200
Max rope dia (mm)	8.0
Weight (without rope) (kg)	500

Engine	
Petrol (kW)	13 (18hp)
Cooling System	Air
Electrical System (V)	12



35kN Hydraulic Puller

Part No. ARS403



MAX
PULL

35kN



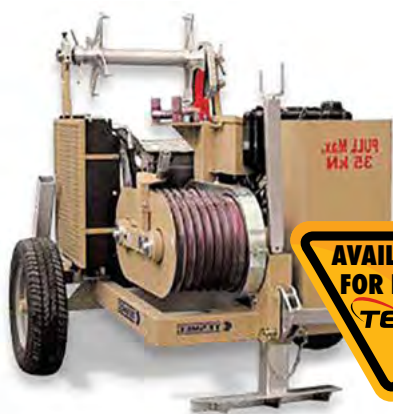
MAX
SPEED

3.6km/h



ROPE
DIAMETER

13mm



**AVAILABLE
FOR HIRE**
TEN

The ARS403 Hydraulic Puller is suitable to string one rope. The bull wheel grooves are made of wear proof thermally treated steel.

- Used for overhead and underground pulling
- Negative self-acting hydraulic brake
- Hydraulic dynamometer with set-point and automatic control of Max pull
- Control instruments for hydraulic system and diesel engine
- Rigid axle for towing at max speed of 30km/hr
- Built-in reel winder with automatic level wind, suitable for standard reel BOF010 and BOF020 (AXR001 included)
- Electronic pull and speed recorder kit (instrument not included)
- Pull pre-setting system
- Earthing connection point
- Hydraulic oil cooling system
- Dimensions(mm): 1900L x 1490W x 1600H

Performance	
Max pull (kN)	35
Speed at max pull (km/hr)	1.2
Max speed (km/hr)	3.6
Pull at max speed (kN)	12
Hydraulic Transmission	
Closed hydraulic circuit for stepless speed variation in both rotating directions	

Characteristics	
Bull Wheel dia (mm)	325
Max rope dia (mm)	13
Weight (without rope) (kg)	980

Engine	
Gasoline (kW)	25 (34hp)
Cooling System	Water
Electrical System (V)	12



**AVAILABLE
FOR HIRE**
TEN

**Contact TEN for
further information on
Australian Roadworthy
Trailer options**



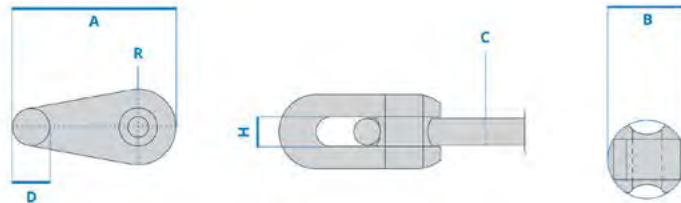
Fixed Joints, Swivels, Grips and Socks

Fixed Joint

Part No. GFT Series



- Highly tensile forged galvanised steel
- Compact shape for bull wheel grooves



Part No.	Dimensions (mm)						Working Load (kN)	Wt (kg)
	A	B	C max	D	H	R		
GFT001	59	28	10	15	11	11	23	0.3
GFT010	74	40	13	19.5	14	15	37	0.33
GFT020	91	48	16	20	19	18	53	0.53
GFT030	102	54	18	22	19	20	73	0.75
GFT040	121	60	24	27	26	22	120	1.03
GFT050	174	75	28	42	30	32	250	3.03
GFT060	183	81	32	42	34	34.5	250	3.4

Swivel Joint

Part No. GGT Series



Part No.	Dimensions (mm)			Working Load (kN)	Wt (kg)
	A	B	C max		
GGT001	106	28	10	23	0.3
GGT010	143	40	13	37	0.93
GGT020	184	54	18	73	2.15
GGT030	234	60	24	120	3.4
GGT040	322	77	28	250	8.2
GGT180	336	81	32	250	8.7
GGT260	403	104	38	330	19.5



Heavy Duty Large Eye Conductor Socks

Part No. GCT Series

- Ideal for Transmission overhead work
- Suitable for Transmission & Distribution AL, CU & ST
- Colour coded plastic bands at ferrule to identify range and capacity
- Steel wires with protective finish and alloy ferrule
- Long mesh length provides additional gripping surface area
- Protective shoulders - protects the sock from sharp edges on the conductor during stringing
- Flexible & Reusable



Part No.	Suitable Swivel	Conductor OD Ø (mm)	Colour	UTS (kN)	Mesh Length (mm)	Wt (kg)
GCT001	GGT001	8 - 17	Yellow	35	1100	0.7
GCT010	GGT010	17 - 29	Red	85	1360	1.3
GCT020	GGT020	29 - 38	Green	130	1470	2.1
GCT030	GGT020, GGT030	38 - 50	Black	180	1820	2.7

Heavy Duty Conductor Double Head Sock

Part No. GCT

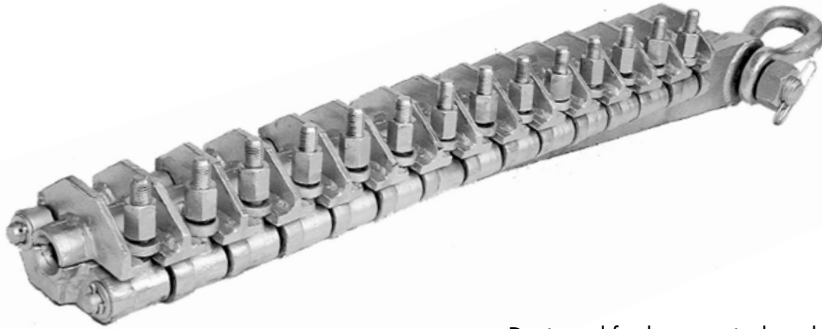


Scan or Click to View or
Download Grip Inspection
Selection & Application

Part No.	Conductor OD Ø (mm)	Colour	UTS (kN)	OAL (mm)	Wt (kg)
GCT500	8 - 17	Yellow	35	2680	1.15
GCT510	17 - 29	Red	85	3240	2.3
GCT520	29 - 38	Green	130	3540	3.6
GCT530	38 - 50	Black	180	4240	4.8

Radial Locking Clamps

Part No. MOS



- Designed for long period anchorage
- Safe, with no damage to conductors

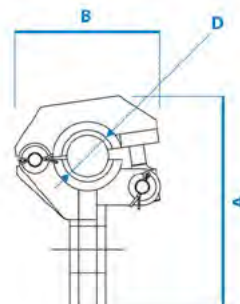
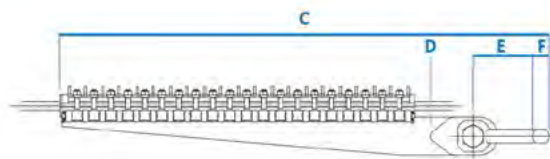
The radial locking clamp can be used whenever a conductor or a rope made of aluminium, aluminium/steel, copper or steel has to be stretched.

The body is made of high-strength steel. It is made up of a series of hinged elements, which can be locked by nuts. The interchangeable jaws are made of aluminium.

A special hook is provided at one end. The galvanisation treatment on the surface protects from oxidation.



Number of Eyebolts	Standard Diameter Range (mm)											
	20-30		30-40		40-56							
	Dimensions (mm)									WLL Max (kN)	Wt Min (kg)	Wt Max (kg)
A	B	A	B	A	B	C	E	F				
Part No.	MOS700		MOS701		MOS702		605	75	26	40	18	19
4	158	143	169	143	178	158						
Part No.	MOS710		MOS711		MOS712		735	93	26	60	25	28
6	158	143	169	143	178	158						
Part No.	MOS720		MOS721		MOS722		852	93	26	80	30	33
8	158	143	169	143	178	158						
Part No.	MOS730		MOS731		MOS732		995	93	32	100	39	41
10	158	143	169	143	178	158						
Part No.	MOS740		MOS741		MOS742		1100	93	32	120	41	43
12	158	143	169	143	178	158						
Part No.	MOS750		MOS751		MOS752		1210	93	35	140	43	47
14	158	143	169	143	178	158						
Part No.	MOS753		MOS754		MOS755		1285	93	35	150	55	61
15	158	143	169	143	178	158						
Part No.	MOS760		MOS761		MOS762		1360	93	45	160	67	75
16	158	143	169	143	178	158						
Part No.	MOS770		MOS771		MOS772		1510	93	45	180	79	89
18	158	143	169	143	178	158						
Part No.	MOS780		MOS781		MOS782		1670	93	45	200	92	104
20	158	143	169	143	178	158						



D = conductor diameter to be specified

Different jaws out of the standard diameter range are available upon request



Grips - Riganti

Part No. Various

Riganti's self-gripping comealongs are available for aluminium, ACSR, steel earth-wire, anti-twisting rope, copper and OPGW conductors.

Made of high tensile alloy steel, hot forged, heat-treated, precision machined and zinc-plated with a complete range of interchangeable liners. This means working at lower costs on conductors of different materials and diameters only by changing the liners.

The liners are available in aluminium for aluminium or aluminium/steel conductors and bronze for copper conductors, steel anti-twisting rope and steel earth-wire.

For OPGW conductor the lower liner is made of Adiprene, whereas the upper liner is made of aluminium.

All Riganti self-gripping clamps comply with European safety standard CE. Special clamps with exact diameters available on request with or without liners.

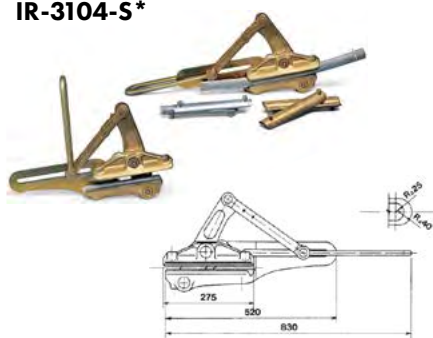
RIGANTI



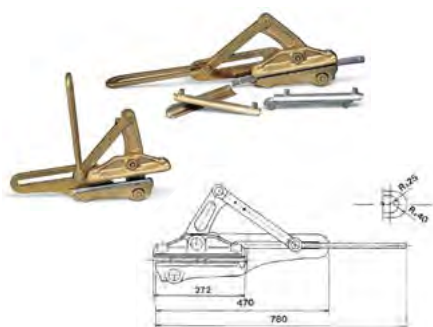
Part No	Working Load Limit (kN)	Min Breaking Load (kN)	Interchangeable Liners	Al, ACSR & Cu		Steel, Earth wire		Anti-twist Steel Rope		Wt (kg)
				Min	Max	Min	Max	Min	Max	
				(mm)		(mm)		(mm)		
IR-3109	19.6	49	×	2.5	15	2.5	15	2.5	15	1.5
IR-3111 *	21.2	64	✓	7	16	7	13	7	13	2.5
IR-3108 *	39.5	110	✓	Lifting suspension conductors 7 - 38mm						5.5
IR-3106	50	125	×	7.5	18	7.5	18	7.5	18	7
IR-3107 *	49	180	✓	6	23	6	16	6	16	7
IR-3112 *	49	180	✓	OPGW 6 - 23mm						7
IR-3105-S *	88	275	✓	8	35.2	8	22	8	24	13.5
IR-3104-S *	117	310	✓	10	45	10	34	8	28	17

* Exact size required for manufacture of liners

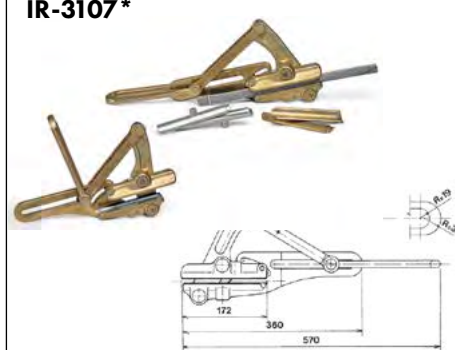
IR-3104-S *



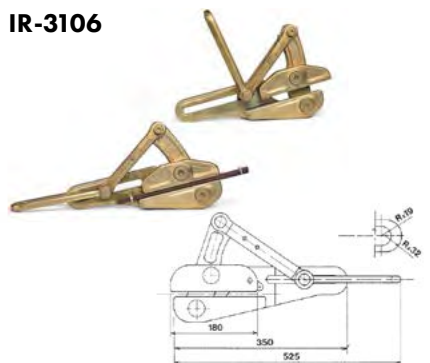
IR-3105-S *



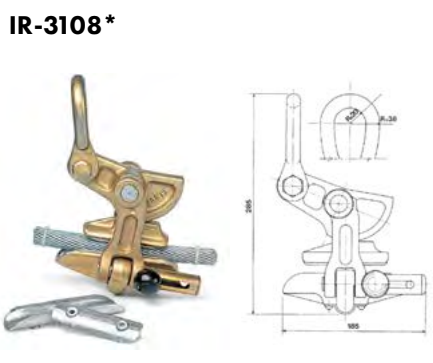
IR-3107 *



IR-3106



IR-3108 *



IR-3112 *



Liners - Riganti

RIGANTI



IR-3112 Liners



IR-3105 Liners

Liners for IR3104-S

Min (mm)	Max (mm)	Al Part No.	Cu Part No.
10.0	10.5	G4A100F	G4B100F
10.5	12.0	G4A105F	G4B105F
12.0	13.5	G4A120F	G4B120F
13.5	15	G4A135F	G4B135F
15.0	16.5	G4A150F	G4B150F
16.5	18	G4A165F	G4B165F
18.0	19.5	G4A180F	G4B180F
19.5	21.0	G4A195F	G4B195F
21.0	22.5	G4A210F	G4B210F
22.5	24.0	G4A225F	G4B225F
24.0	25.5	G4A240F	G4B240F
25.5	27.0	G4A255F	G4B255F
27.0	28.5	G4A270F	G4B270F
28.5	30	G4A285F	G4B285F
30.0	31.5	G4A300F	G4B300F
31.5	33.0	G4A315F	G4B315F
33.0	34.5	G4A330F	G4B330F
34.5	36.0	G4A345F	G4B345F
36.0	37.5	G4A360F	G4B360F
37.5	39.0	G4A375F	G4B375F
39.0	40.5	G4A390F	G4B390F
40.5	45.0	Specify Diameter	

Liners supplied on request with exact diameter:

For round steel wires 10.0 - 34.0mm

For square steel wires 8.0 - 28.0mm

Liners for OPGW IR3112

Lower liner made of Adiprene and upper liner made of Aluminium.

* Specify diameter **6.0 - 23.0mm**

Part No. **IR3112L** - *OP**

Liners for IR3105-S

Min (mm)	Max (mm)	Al Part No.	Cu Part No.
8.0	9.0	G5A080F	G5B080F
9.0	10.5	G5A090F	G5B105F
10.5	12.0	G5A105F	G5B105F
12.0	13.5	G5A120F	G5B120F
13.5	15.0	G5A135F	G5B135F
15.0	16.5	G5A150F	G5B150F
16.5	18.0	G5A165F	G5B165F
18.0	19.5	G5A180F	G5B180F
19.5	21.0	G5A195F	G5B195F
21.0	22.5	G5A210F	G5B210F
22.5	24.0	G5A225F	G5B225F
24.0	25.5	G5A240F	G5B240F
25.5	27.0	G5A255F	G5B255F
27.0	28.5	G5A270F	G5B270F
28.5	30.0	G5A285F	G5B285F
30.0	31.5	G5A300F	G5B300F
31.5	35.2	Specify Diameter	

Liners supplied on request with exact dia meter:

For round steel wires 8.0 - 22.0mm

For square steel wires 8.0 - 24.0mm

Liners for IR3108

Min (mm)	Max (mm)	Al Part No.
7.0	11.0	G8A070F
9.0	12.0	G8A090F
12.0	16.0	G8A120F
15.0	23.0	G8A150F
22.0	36.0	G8A220F
30.0	38.0	G8A300F

Liners for IR3107

Min (mm)	Max (mm)	Al Part No.	Cu Part No.
6.0		G7A060F	G7B060F
6.5	8.0	G7A065F	G7B065F
8.0	9.5	G7A080F	G7B080F
9.5	11.0	G7A095F	G7B095F
11.0	12.5	G7A110F	G7B110F
12.5	14.0	G7A125F	G7B125F
14.0	15.5	G7A140F	G7B140F
15.5	17.0	G7A155F	G7B155F
17.0	18.5	G7A170F	G7B170F
18.5	20.0	G7A185F	G7B185F
20.0	21.5	G7A200F	G7B200F
21.5	23.0	G7A215F	G7B215F

Liners supplied on request with exact diameter:

For round steel wires 6.0 - 16.0mm

For square steel wires 6.0 - 16.0mm

Liners for IR3111

Min (mm)	Max (mm)	Al Part No.	Cu Part No.
7.0	8.5	G1A070F	G1B070F
8.5	10.0	G1A085F	G1B085F
10.0	11.5	G1A110F	G1B110F
11.5	13.0	G1A115F	G1B111F
13.0	14.5	G1A130F	G1B130F
14.5	16.0	G1A145F	G1B145F

Liners supplied on request with exact diameter:

For round steel wires 7.0 - 13.0mm

For square steel wires 7.0 - 13.0mm



Reel Winders, Drum Elevators and Stands

Reel Winders

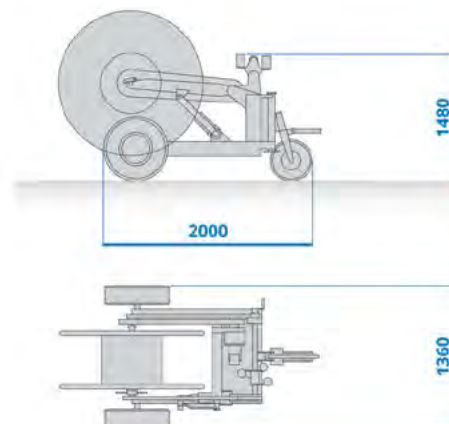
Part No. RVA001



- Operates on any Tesmec machine with hydraulic outlets
- Compact design and easy to handle
- Automatic level wind.
- Negative self-acting hydraulic brake
- Hydraulic jacks powered by the same hydraulic source.
- Rigid semi-axles for manual towing

Suits standard reels mod.
BOF010, BOF020, BOC040 and BOC050.
Extra shaft AXR001 is included.

Performance	
Capacity (kN)	20
Torque (kNm)	1
Rotating speed (rpm)	50
Weight (kg)	525



Kit of Connecting Hoses	
TUT001	Length 7m
TUT002	Length 10m
TUT003	Length 15m

Cradle Reel Elevators

Part No. CVC002

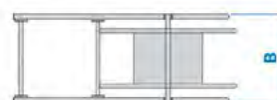
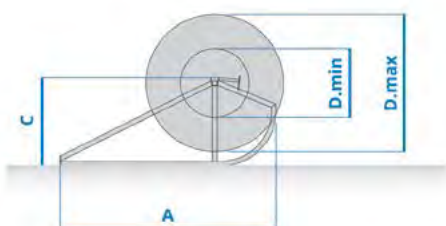


- Detachable frame
- Light design



Available Options	
CDF007	Disk brake device for model CVC002 (Max torque 1.3kN-m).

Part No.	Dimensions (mm)			Reel Part No.	Capacity (kN)	Wt (kg)
	A	B	C			
CVC002	2200	900	910	BOF010	20	58
				BOF020		

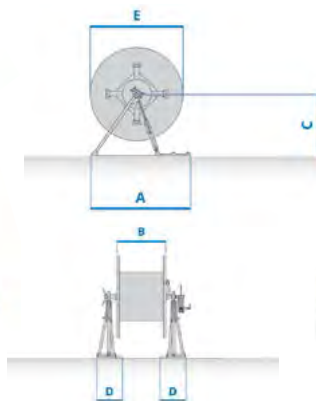




Hydraulic Drum Elevators - Heavy Duty

CVI Series

- Operates on any Tesmec machine with hydraulic outlets
- Compact design and easy to handle



Drum Elevator (CVI609) shown with axle for steel drum (CDT063)

Part No.	Dimensions (mm)								Capacity (kN)	Wt (kg)
	A	B min	B max	C min	C max	D	E min	E max		
CVI609	2140	800	1500	580	1340	640	1200	2500	80	285
CVI600	2140	800	1500	580	1340	640	1200	2500	80	305
CVI810	2500	800	1850	720	1725	740	1500	3200	100	550

Configuration for CVI609		Configuration for CVI600		Configuration for CVI810	
* No Brake		One manual disk brake CDF012 (max torque 1.0kN-m)		One manual disk brake CDF059 (max torque 2.3kN-m)	

Typical Available Options for CVI609		Typical Available Options for CVI600		Typical Available Options for CVI810	
CDT063	Supports with self-locking fixing wedges for wooden conductor drums. Max reel hole diameter = 125 mm.	CDT063	Supports with self-locking fixing wedges for wooden conductor drums. Max reel hole diameter = 125 mm.	CDT***	Supports with self-locking fixing wedges for wooden conductor drums.
TIH001	Fast assembling hydraulic motor for control of the drum winding and unwinding.	TIH001	Fast assembling hydraulic motor for control of the drum winding and unwinding.	TIH007	Fast assembling hydraulic motor for control of the drum winding and unwinding.
TUT002	Kit of connecting hoses. Length 10m, weight 15 Kg.	TUT002	Kit of connecting hoses. Length 10m, weight 15 Kg.	TUT002	Kit of connecting hoses. Length 10m, weight 15 Kg.

Drum Stand

Part No. CVR624



- Ready to use
- Suitable for different reel dimensions
- One manual disk brake CDF012 (Max torque 1 kN-m)
- Refer page 124 for hydraulic Hoses (TUT002)

Typical Available Options for CVR624	
CDR124	Support with fixed wedges for wooden conductor drums.
CDT123	Special driver with fixed wedges for steel reels conductor.
CDA125	Adapter for steel rope standard reels.
TIH001	Easily assembled hydraulic motor for drum winding

Heavy Duty Drum Stand

Part No. CVR824



Integrated hydraulic motor. Hydraulic transmission powered by existing machines.
 Universal drive shaft. Incorporated disk brake for emergency breaking in case of absence of hydraulic power. (Max Torque 2.3kN-m)
 Simple drive transmission engagement by means of slide shaft. Rollers supported shaft

Part No.	Dimensions (mm)						Capacity (kN)	Wt (kg)
	A	B max	B min	C	D	E		
CVR824	2000	1650	-	1618	3057	3000	120	930



Standard Reel Adaptor

Part No. CDA004

- Adaptor for steel rope standard reel (BOF010-BOF020-BOF030-BOC040-BOC050) (only for CVI600)

Part No. CDA078/079

- Adaptor for steel rope standard reel (BOF330, BOC 310, BOC320)



- Reel hole diameter 82 to 125mm (only for CVI600)

Part No. CDA060

- Adaptor for steel rope standard reel (BOF010-BOF020-BOF030-BOC040-BOC050) (only for CVI810)

- Special driver with fixed wedges for steel conductor reels

(Reel drawing is required)

Part No.	Reel Width (mm)		Guide arm Hole Dia (mm)	Spindle Dia (mm)
CDT063	1500 min	1650 max	33	80

Drum Supports

Part No. CDT063



Hydraulic Hose Set

Part No. TUT Series



Other sizes & lengths available. Contact TEN for further information



Part No.	Length (m)	Wt (kg)
TUT001	7	11
TUT002	10	50
TUT003	15	525

Hydraulic Motor - Reel Winder

Part No. TIH Series



Fast assembling hydraulic motor for control of the drum winding and unwinding.



Part No.	Max Torque (kNm)	Max Rotation (rpm)	Wt (kg)
TIH001	1.8	45	76
TIH002	1.8	45	78
TIH006	2.3	32	78
TIH007	2.3	37	78
TIH010	5	30	120
TIH013	2.4	35	500

Auto Rope Leveler

Part No. CDD005



Special automatic level wind for steel conductor reels on demand.

- Automatic level wind for standard steel rope reels (BOF010-BOF020-BOC040-BOC050) (only for CVI600)

Hydraulic Pressure Relief Kit

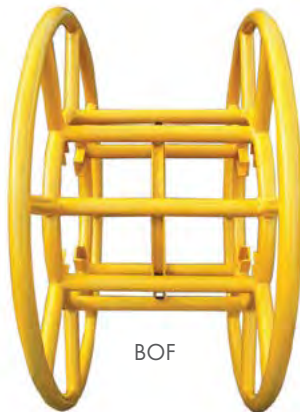
Part No. TUK054



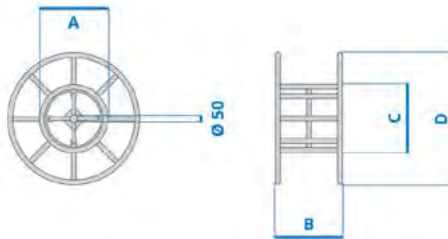
Kit to remove residual hydraulic pressure on hoses.



Reels and Ropes



BOF



Standard Fixed Reels

BOF Series

- World wide standard design
- Welded steel with protective coating

Cross Support

BOS360

- Two cross arms included
- Weight with bolts: 2.6 Kg



BOS360



Part No.	Dimensions (mm)				Wt (kg)
	A	B	C	D	
BOF010	420	560	570	1100	53
BOF020	420	560	570	1400	73
BOF030	420	560	570	1900	135
BOF330	420	1560	1010	2200	1200

ROPE (mm)	Reel Max Capacity for anti-twisting braided rope (m)			
	Part No.			
	BOF010	BOF020	BOF030	BOF330
6	6300	10000	22200	76000
8	3900	7100	13700	47000
9	3200	5900	11500	39200
11	2300	4300	8400	28800
13	1600	2850	5600	19400
15	1150	2000	4100	14550
16	1030	1900	3700	12400
18	800	1400	2800	9750
19	780	1400	2800	9300
21	-	1050	2150	7100
22	-	950	1900	6400
23	-	860	1750	6000
25	-	750	1550	5100
26	-	700	1400	4700
28	-	600	1150	4000
31	-	430	850	3100



Detachable Reels

Part No. BOC Series



BOC



BOC040, BOC050
& BOC310 ONLY

- World wide standard design
- Welded steel with protective coating



Cross Support
BOS360

Part No.	Dimensions (mm)				Wt (kg)
	A	B	C	D	
BOC040	420	560	590	1100	75
BOC050	420	560	590	1400	86
BOC310	420	890	626	1900	210
BOF320	420	1310	605	2050	250

ROPE (mm)	Reel Max Capacity for anti-twisting Steel braided rope (m)			
	Part No.			
	BOC010	BOC020	BOC030	BOC330
6	5600	10900	36000	63000
8	3500	6700	22200	38500
9	2850	5580	18200	32600
11	2150	4100	13300	23800
13	1400	2750	9000	16100
15	1100	2050	6800	11700
16	950	1750	6000	10600
18	700	1350	4500	7800
19	700	1300	4300	7800
21	-	1000	3400	6000
22	-	850	3000	5200
23	-	800	2800	4800
25	-	750	2400	4200
26	-	650	2100	3900
28	-	550	1900	3300
31	-	420	1450	2500

Anti Twisting Steel Braided Rope Standard

Part No. FUA Series



- High flexibility
- Complete stability to rotation
- Strands with individual galvanized elementary wires

Part No.	Working Load (kN) *	Nominal Dia (mm)	Indicative Lubricated Linear Wt (kg/m)	Minimum Breaking Load (kN) *	Standard length (m) **
FUA006	7.6	6	0.114	22.9	1800-3600
FUA008	14.2	8	0.22	42.6	1600
FUA611	25	11	0.359	75	1100
FUA613	35	13	0.502	105	800-1600
FUA615	50	15	0.712	150	900-1800
FUA618	75	18	1.072	225	1200
FUA621	100	21	1.429	300	900
FUA623	120	23	1.718	360	800
FUA625	140	25	2.004	420	700
FUA628	180	28	2.572	540	600

* This value is related to rope with spliced eyes and for stringing operation

** The rope is also available in different lengths and in continuous sections up to 7000m

Double Braided Hauling Rope - Hampidjan

Part No. Various



- Manufactured in Australia with a braided polyester cover over a braided Polyester core
- Ideal for use as winch and tow lines and for pulling cable

Characteristics

- High strength
- High UV resistance
- Splicable
- Flexible

Applications

- Winch lines
- Tow lines
- Rigging lines
- Pulling and stringing line

Part No.	OD (mm)	Wt per 100m (kg)	Max Break Force (T)
DBPR-12	12	11.10	3.49
DBPR-14	14	13.90	4.36
DBPR-16	16	18.25	5.75
DBPR-18	18	22.20	6.98
DBPR-20	20	27.30	8.59
DBPR-22	22	33.30	10.48
DBPR-24	24	41.60	13.10
DBPR-26	26	46.30	14.56

Specify the length requested in metres

Prima Dyneema Rope - Hampidjan

Part No. Various



PRIMA rope is an ultra-high strength, low cost solution that meets the need for light but strong ropes in cost driven environment. Prima rope is stronger than steel in the same diameter. PRIMA ropes are made from HMPE fibre produced by DSM Dyneema.

Characteristics

- Extremely high strength
- Lightweight
- Abrasion resistant
- Low stretch
- Neutral buoyancy
- Splicable
- Flexible

Applications

- Alternate to wire rope
- Winch lines
- Tow lines
- Rigging lines
- Utility line

Part No.	OD (mm)	Wt per metre (g)	Max Break Force (T)
29081035	6	23.29	4.0
29081040	8	38.81	6.7
29081050	10	54.34	10.7
29081061	12	93.15	16.0
29081070	14	103.25	18.7
29081080	16	137.67	24.9

Specify the length requested in metres



1000m AVAILABLE OF H-53-010-1000 ONLY

More sizes available Contact TEN

Available with Polyester Jacket on Request

3 Strand Polypropylene Rope - Hampidjan

Part No. Various



- Higher breaking strength
- Abrasion resistance
- Excellent shock absorption
- Better grip
- Minimal elongation
- Durable and ultraviolet stabilized
- Excellent shape retention
- Strength: wet/dry 100%
- Floats/sinks: Floats
- Elongation: Moderate
- Water absorption: None
- Chemical Resistance
 - Acids: Excellent
 - Alkalies: Excellent
 - Oil/Gas: Very Good

Part No.	OD (mm)	Wt per 100m (kg) 250m Standard (Coil)	Max Break Force (T)
PPR-12	12	7.0	2.84
PPR-14	14	9.0	3.91
PPR-16	16	12.0	4.90
PPR-18	18	15.0	5.50
PPR-20	20	18.0	7.52
PPR-22	22	22.0	8.45
PPR-24	24	26.0	10.20
PPR-26	26	31.0	11.87

Specify the length requested in metres



Conductor Triple Line Lifters - LineWise

The phase lifters are an insulated crane attachment used to support up to three energised lines. The Triple Line Lifter replaces the need for temporary structures and tag lines while giving positive control of the live lines



Vertical and horizontal configurations

Features

- Hydraulic articulation, extension & retraction
- Quick Attach Insulators & Wire Holders
- Insulators lab tested
- Vertical and horizontal construction
- High Strength Steel fabrication
- Holding valves on all cylinders
- Manual override control valve
- Handheld Radio Remote Control
- Installed at Earth level
- Supplied with transportation storage skid and

Part No. TLL-1300

The Triple Line Lifter 1300 is an insulated crane attachment used to support up to 3 energised lines. The TLL-1300 has a maximum capacity of 590kg per phase with a total capacity of 1770kg.

- For Transmission voltage from 66 to 220kV
- Conductor spacing: 1.98 –4.42m
- Unit weight: 1340kgs
- Mounted in skid: 1680kgs

Voltage (kV)	Conductors	Phase spacing Max (mm)	Phase spacing Min (mm)	Capacity per phase / total (kg)
66	3	8939 Outside-Outside	3962 Outside-Outside	590/1769
110	3			590/1769
132	3	4420 Centre - Outside	1981 Centre - Outside	544/1633
220	3			Consult



TLL-1300 Packed for transport



Handheld Remote

Part No. TLL-2500

The Triple Line Lifter 2500 is an insulated crane attachment used to support up to 3 energised lines. The TLL-2500 has a max capacity of 1136kg per phase with a total capacity of 3408kg.

- For Transmission voltage from 110 to 330kV
- Conductor spacing: 3.05 –7.3m
- Unit weight: 2730kgs
- Mounted in skid: 3410kgs

Voltage (kV)	Conductors	Phase spacing Max (mm)	Phase spacing Min (mm)	Capacity per phase / total (kg)
110	3	14630 Outside-Outside	6096 Outside-Outside	1136/3408
132	3			1136/3408
220	3	7315 Centre - Outside	3048 Centre - Outside	1136/3408
330	2			2270



Vertical and horizontal configurations



TLL-2500 Packed for transport



OPGW Installation

Optical Earth Wire Anti-Torque Devices

Part No. RFF Series



- Shaped for smooth operations
- Swivel included

Part No.	Dimensions (mm)		Working Load (kN)	Wt (kg)	For Pulleys (mm)
	L	R			
RFF001	3900	350	10	60	400
					500
					650
RFF010	4300	500	10	63	800
					1000

Pulling Clamp For Fibre Optic

Part No. MOF470

- Rigid design avoids fibre damage
- Interchangeable and machined jaws



Performance	
Working load (kN)	10

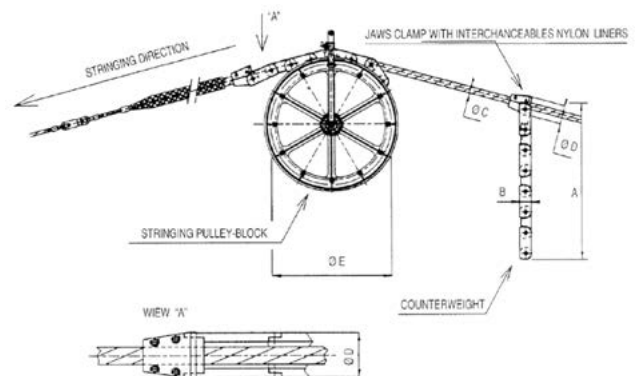
Characteristics	
Diameter range	6to23
Weight (kg)	4
Material	Hot forged steel

Configuration
Aluminium interchangeable jaws part number GTRXXX: conductor diameter to be specified on order.

Counterweight Device for stringing OPGW Cables

Part No. CO60 Series

- Non Rotating
- Supplied with interchangeable Liners



Part No.	Dimensions (mm)				Cable C (mm)	Quantity (*) per set
	D OD (mm)	A (mm)	B(mm)	Wt (kg)		
CO60-9	60	990	30	8	10 - 17	2
CO60-12	60	1.320	30	10.5	17- 23	2

* Supplied with interchangeable liners - Nominate OPGW OD



Ideal for Standard Conductor

Traction Machine

Part No. TMT020

The traction machine is ideal for reconductoring both conductor and OPGW over road, rail, energised infrastructure & mountainous terrain as this method provides lower risk and better access.

- Highest traction force available
- Can be pulled back if machine stops
- Up to 1000m range with 2 remotes
- Vulcanised wheels
- Each motor supplied with 24V Lithium-Ion battery
- Lightweight

Remote Control

Two compact radio remote control units with double push-button transmission.
Device operative range up to 1000 (m).

Available Options

ALL304 Extra battery

Performance

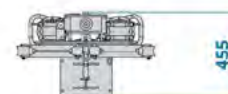
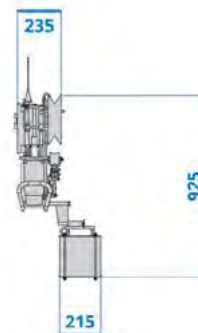
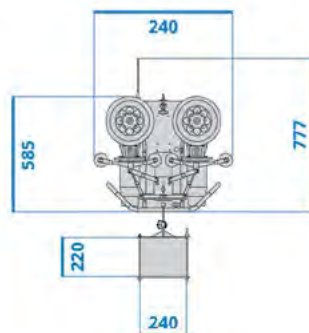
Max traction speed (m/min)	10
Max traction force (kg)	110
Max slope (°)	20

Characteristics

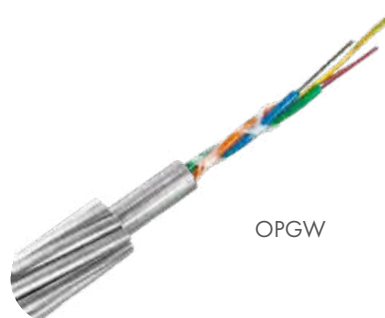
Weight (kg)	55
Robot weight (kg)	40
Battery weight (kg)	15
Two electrical motors	24V
Conductors diameter range (mm)	10 to 46 mm
Material	Aluminium alloy
It can cross mid-span joint up to CH=60	



Rear View



Remote Control



OPGW



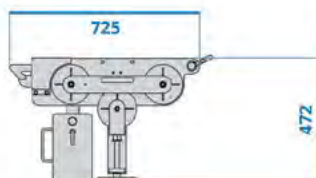
Recovery Device

Part No. TMR030

- Automatic locking system
- Drag the traction machine to finish the span

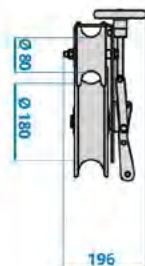
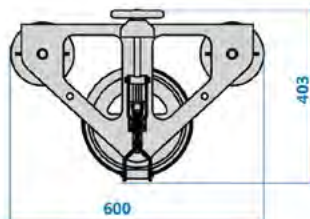
Characteristics

Max weight (kg)	40
Wheel material	Nylon
Detachable ballasts for easy lifting	



Braking Device

Part No. ABR058

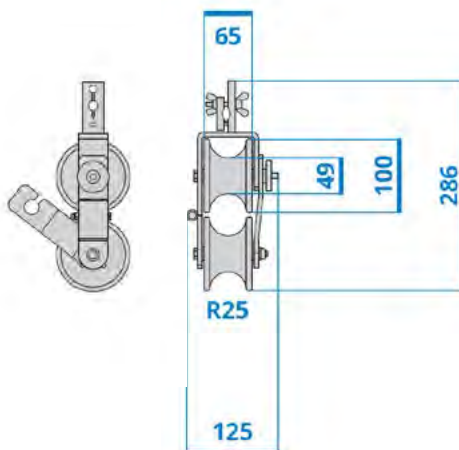


- Light and compact
- Allows the final recovery of the cradle Blocks

Performance	
Working load (kN)	1.5
Characteristics	
Weight (kg)	4.5
Conductor dia. range (mm)	10-30
Wheels material	Nylon
Frame material	Aluminium

OPGW Cradle Blocks

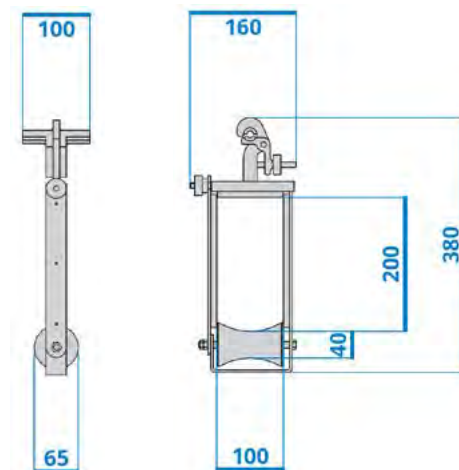
Part No. ABR053



- Light and easy
- Adjustable for different diameters

Performance	
Working load (kN)	1
Characteristics	
Weight (kg)	1.4
Rollers material	Nylon
Frame material	Aluminium

Part No. ABR045



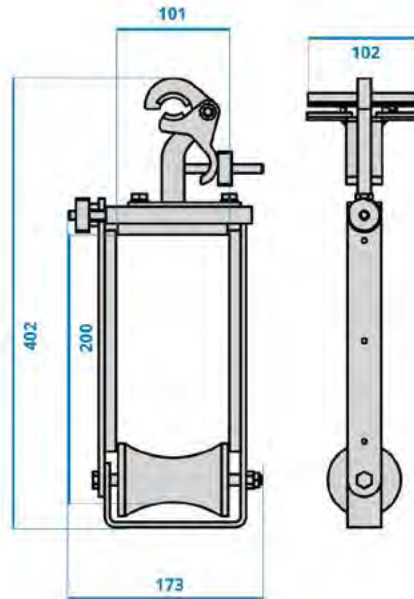
- Suitable also on midspan joints
- Allows the final recovery of the cradles

Performance	
Working load (kN)	2
Characteristics	
Weight (kg)	2
Rollers material	Nylon
Frame material	Galvanized steel
Internal surface covered by nylon plates	



OPGW Cradle Blocks

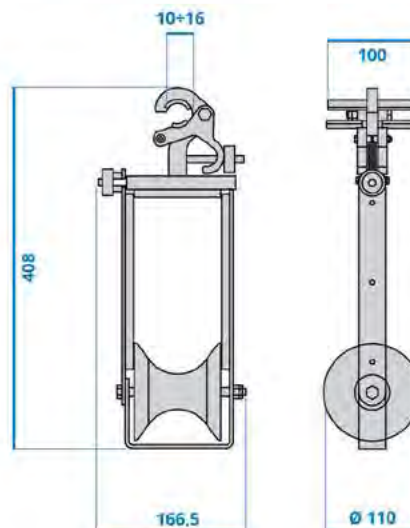
Part No. ABR064



- Suitable also on midspan joints
- Adjustable for different diameters

Performance	
Working load (kN)	2
Characteristics	
Weight (kg)	1.9
Rollers material	Nylon
Frame material	Aluminium - connection made of steel
Internal surface covered by nylon plates	

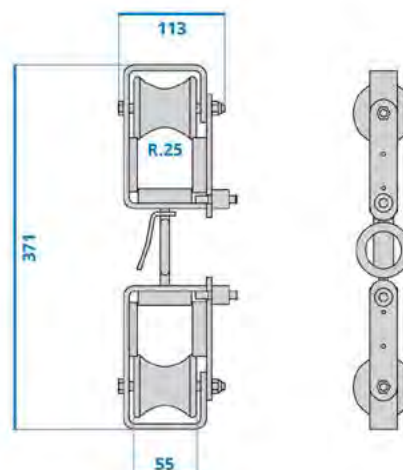
Part No. ABR059



- Counterweight for easy rotation
- Quick open/close system

Performance	
Working load (kN)	2
Characteristics	
Weight (kg)	2
Rollers material	Nylon
Frame material	Galvanized steel
Internal surface covered by nylon plates	

Part No. ABR021

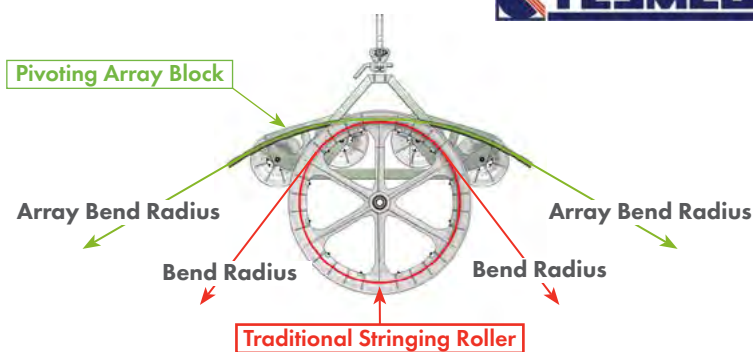


- Earth wire Earthed during the operations
- Quick locking system for guide rope

Performance	
Working load (kN)	2
Characteristics	
Weight (kg)	1.8
Rollers material	Nylon
Frame material	Galvanized steel
Internal surface covered by nylon plates	



Stringing Rollers/Blocks and Pivoting Array Blocks



PIVOTING ARRAY BLOCKS

Array blocks are used for conductors with large bending radius.

- **Lightweight - Dimension:**
Vertical dimension is less than half of the height of a standard pulley
- **Easy Handling & Transportation:**
The compact design allows easy handling and prevents damaging during the transportation
- Refer page I41 for detailed information



- **No diameter limitation:**
Double pivoting frame allows it to move according to the line geometry by adjusting up to horizontal position, for an infinite bending radius
- **Special Sectors:**
Manufactured with anti wear material, tested and released in cooperation with Milan Politecnico
- **Integrated Earthing Device:**
Earthing device (if requested) is integrated into the frame, to prevent any possible impact or damaging during transport
- **Matchable with Standard Block:**
Groove 68 mm and groove 95 mm as per standard pulley are both available
- **Fully Compatible:**
Headboards, swivels, ropes, cover joints and all other equipment used for standard pulleys are fully compatible with array blocks
- **High Center of Gravity:**
Easier positioning at angles due to the centre



STRINGING BLOCKS

With more than 60 years of job-site use and thanks to a deep knowledge of job-site needs, Tesmec offers:

- Top quality at a competitive price
- Tailor made solutions
- 5 different materials and types for lining
- Available tandem and for helicopter stringing version on every standard model



EARTHING DEVICES

Safety certified

In accordance with IEC TR 61328, Tesmec Earthing Devices are suitable for fault currents, lightning strikes and induced voltage rated at 20A for 20 cycles.

Several tests certified earthing devices properties. Available for drain current in equipotential system and for induced current.

Aluminium sectors with bearing conductive grease are also available as a special solution.





Universal Stringing Roller - SPP

Part No. SPP-1A

- Suitable for distribution, ABC and some transmission applications
- Aluminium sheave
- Lightweight high strength heat treated aluminium
- Versatile attachment fittings include side and bottom tags and top ball socket fitting
- Side gate latch can be locked open
- Sheave is profile machined permitting precise sagging of conductor
- High quality permanently lubricated high temperature precision bearings



Part No. SPP-1A-DI

- Same Specifications as SPP-1A
- Ductile Iron sheave (SPP-1A-DI)
- Ideal for Pulling Steel conductor (e.g. 3/12 Steel) or steel catenary

Refer Pulling & Hauling section for Crossarm and Insulator brackets

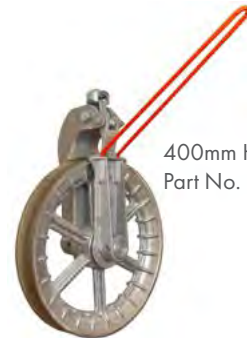
Part No.	Sheave Material	Maximum Conductor OD (mm)	WLL (kg)	Weight (kg)	Bottom of Groove Diameter (mm)	Overall Height (mm)	Overall Width (mm)
SPP-1A	Aluminium	50	1130	4	110	370	205
SPP-1A-DI	Ductile Iron	50	1130	5	110	370	205

Single Convertible Roller/Block - SPP

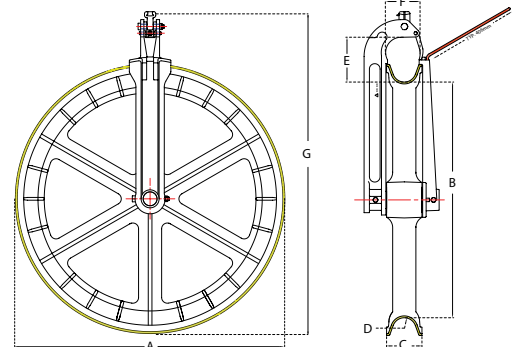
Part No. SPP-1B Series

- Extra large contoured throat for swivels, grips and splices
- Precision Earth bearings reduce pulling loads for accurate sagging
- Secured pins
- Durable and fully corrosion protected
- Urethane lined
- Socket fitting standard
- Helicopter Arm attachments available as an optional extra Part No. HELIHORN

Other sizes available on request



400mm Helicopter Arm
Part No. HELIHORN



C = Groove Width
D = Bottom of Groove Diameter

Part No.	Dimensions (mm)							Wt (kg)	WLL* (kg)
	Sheave				Throat		Frame		
	A	B	C	D	E	F	G		
SPP-1B-355-UL	420	355	60	18.5	89	76	600	11.8	2700
SPP-1B-460-UL	560	460	83	20.3	140	83	760	23.0	3650
SPP-1B-610-UL	710	610	90	22.9	152	85	940	31.5	4330
SPP-1B-710-UL	810	710	91	24.0	152	110	1030	36.4	6750

* Working Load Limit (WLL) based on 3:1 Ultimate Tensile Strength



Nylon Stringing Rollers/Blocks - Tesmec

Pulleys are assembled with generation high tensile nylon wheels.

This material combines in the best way lightness, performance and price.

Groove is shaped in conformity to IEC 61328 regulation for worldwide market.

All wheels are mounted on ball bearing and they are fully interchangeable.

Frame is made of galvanized steel. Frame and wheel can be easily detached for maintenance and reconfiguration.

No gap between wheels for safe handling, reducing size and weight.

Single Nylon Stringing Blocks

Part No. CAS Series

C = Groove Width

D = Bottom of Groove Diameter

Part No.	Dimensions (mm)									Working Load (kN)	Wt (kg)
	A	B	C	D	E	F	G	H	I		
CAS528	16	24	83	560	935	248	660	210	240	40	40
CAS702	16	33	83	710	1275	408	822	228	240	40	63



Two or Three Bundled Conductor Nylon Stringing Block

Part No. CAT Series

C = Groove Width

D = Bottom of Groove Diameter

Part No.	Dimensions (mm)										Working Load (kN)	Wt (kg)
	A	B	C	D	E	F	G	H	I	L		
CAT526	24	24	83	560	990	285	660	418	240	103	60	73
CAT700	32	33	88	710	1325	445	822	456	240	114	60	125



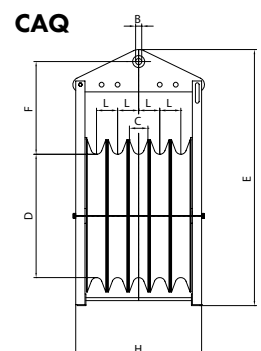
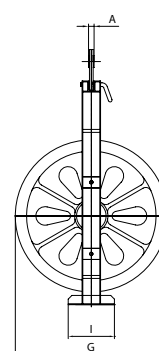
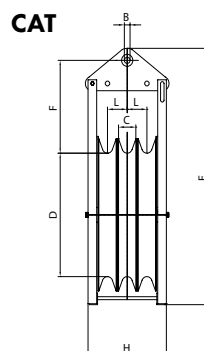
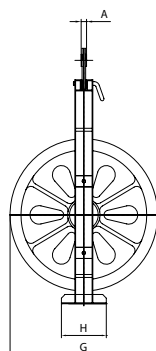
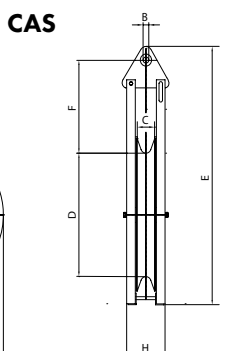
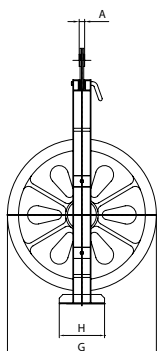
Four or Five Bundled Conductors Nylon Stringing Blocks

Part No. CAQ Series

C = Groove Width

D = Bottom of Groove Diameter

Part No.	Dimensions (mm)										Working Load (kN)	Wt (kg)
	A	B	C	D	E	F	G	H	I	L		
CAQ527	30	33	83	560	1175	445	660	628	250	103	60	162
CAQ701	32	33	88	710	1380	445	822	684	250	114	60	187



2, 3, 4 & 5 Bundle Head Boards for Nylon Rollers available. Contact TEN for further information

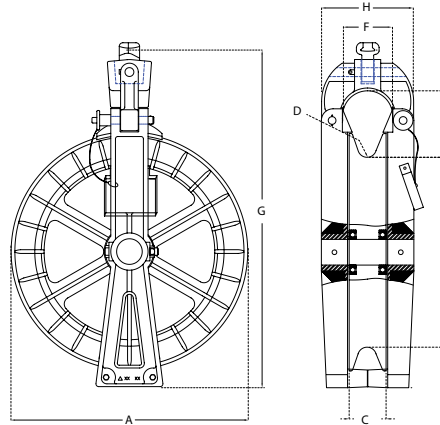


Single Full Frame Roller/Block - SPP

Part No. SPP-1D Series

- Extra large contoured throat for smooth passage of swivels, grips and splices
- Quick release detent pin for ease of operation, which exposes the entire sheave
- Precision Earth bearings reduce pulling loads for accurate sagging
- Secured pins
- Durable and fully corrosion protected
- Urethane lined
- Socket fitting standard
- Available with Earth Device (add Suffix ED)

Optional Earthing Device - SPP



Available with Earthing Device
Add Suffix "ED" to the Part No.

Part No	Dimensions (mm)								Wt (kg)	WLL* (kg)
	Sheave				Throat		Frame			
	A	B	C	D	E	F	G	H		
SPP-1D-355-UL	420	355	61	18.0	109	80	610	154	14.8	4050
SPP-1D-460-UL	560	460	82	20.5	142	104	775	197	27.0	5400
SPP-1D-610-UL	710	610	90	22.0	147	109	927	208	33.0	5400
SPP-1D-710-UL	810	710	91	25.4	147	109	1028	208	39.0	6750
SPP-1D-770-UL	870	770	90	27.5	142	109	1082	208	44.0	6750

* Working Load Limit (WLL) based on 3:1 Ultimate Tensile Strength

Ball Clevis Socket Fittings - SPP

Part No. Various

- Suitable for SPP-1A / 1B / 1D
- 70kN WLL



SPP-1-UC



BEL-70



T12



SPP-1-YC

Part No	SPP-1-UC	BEL-70	T12	SPP-1-YC
Description	Ball Clevis	Oval Eye Ball	Safety Hook	Y Ball Clevis
Weight (kg)	0.55	0.4	0.55	0.85



Single Stringing Roller/Block - Tesmec

Part No. CAS Series

Neoprene



Nylatron



Aluminium



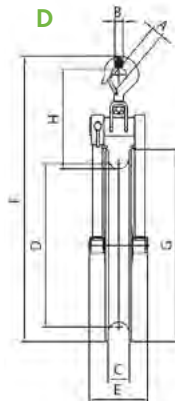
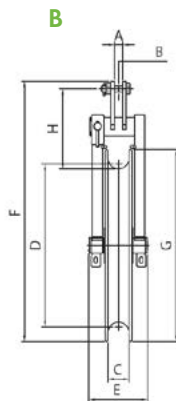
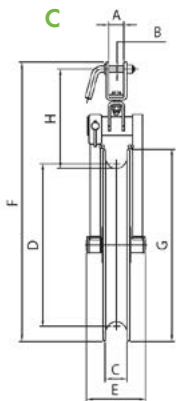
The CAS wheel is made of aluminium alloy mounted on ball bearings.

The groove is lined with a neoprene ring or by wear-proof interchangeable nylatron or aluminium sectors.

The frame is made of galvanized steel.

Three types of connections available: fixed (B), swivel-type (C), and hook with safety lock (D).

Earthing device or complete conductive sheaves available upon request.



CCA Anti-fleeting devices available upon request

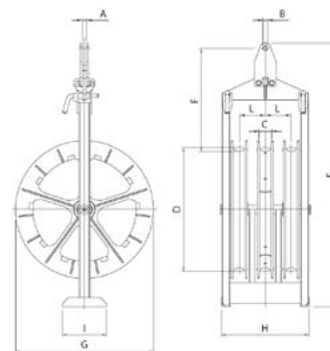
Part No.			Type of Connection	Dimensions (mm)								Working Load (kN)	Wt (kg)
Roller Groove Lining				A	B	C	D	E	F	G	H		
Neoprene	Nylatron	Aluminium											
-	CAS200	CAS207	C	26	16	50	250	145	482	330	175	27	7
-	CAS201	CAS208	D	25	19	50	250	145	490	330	175	27	7
CAS300	CAS301	CAS308	B	26	18	54	350	150	595	440	200	23	11
CAS302	CAS303	CAS309	C	35	18	54	350	150	640	440	225	23	12
CAS304	CAS305	CAS310	D	31	30	54	350	150	630	440	235	23	12
CAS600	CAS601	CAS632	B	26	20	68	650	186	996	775	260	33	28
CAS602	CAS603	CAS638	C	40	20	68	650	186	1052	775	315	33	29
CAS604	CAS605	CAS639	D	32	33	68	650	186	1087	775	330	33	30
CAS606	CAS607	CAS644	B	26	20	95	650	218	1010	775	275	40	32
CAS608	CAS609	CAS645	C	40	20	95	650	218	1062	775	330	40	33
CAS610	CAS611	CAS646	D	32	33	95	650	218	1097	775	345	40	34
CAS800	CAS801	CAS843	B	26	20	68	800	186	1101	880	260	40	32
CAS802	CAS803	CAS835	C	40	20	68	800	186	1157	880	315	40	33
CAS804	CAS805	CAS836	D	32	33	68	800	186	1192	880	330	40	34
CAS806	CAS807	CAS857	B	26	20	95	800	218	1125	893	275	40	38
CAS808	CAS809	CAS852	C	40	20	95	800	218	1180	893	330	40	39
CAS810	CAS811	CAS858	D	32	33	95	800	218	1215	893	345	40	40
-	CAS002	CAS012	B	26	20	95	1000	218	1335	1100	275	40	49
-	CAS004	CAS013	C	40	20	95	1000	218	1387	1100	330	40	50
-	CAS006	CAS014	D	32	33	95	1000	218	1422	1100	345	40	51
-	CAS027	-	B	25	24	130	1200	310	1824	1393	500	90	110
-	CAS034	-	B	25	24	130	1500	310	2124	1670	500	90	155



Two or Three Bundled Conductor Stringing Blocks - Tesmec

Part No. CAT Series

- The wheels are made of aluminium alloy
- The lateral wheels are mounted on ball bearings with grooves lined with neoprene ring
- The central wheel is mounted on double-row ball bearings with grooves made up of wear-proof interchangeable nylatron sectors
- The frame is made of galvanized steel
- Blocks are supplied with fixed connection.
- Earthing device or complete conductive sheaves are available upon request.

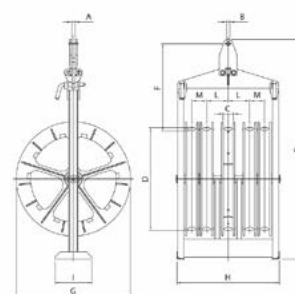


Part No.			Dimensions (mm)										Working Load (kN)	Wt (kg)
Nylon/Neoprene	Nylon	Aluminium	A	B	C	D	E	F	G	H	I	L		
CAT612	CAT648	CAT622	25	24	68	650	1430	580	775	500	250	145	50	110
CAT613	CAT	CAT654	25	24	95	650	1430	580	775	572	250	175	70	130
CAT812	CAT* CAT875	CAT894	25	24	68	800	1530	580	880	500	250	145	70	125
CAT813	CAT848	CAT874	25	24	95	800	1540	580	893	572	250	175	70	160
-	CAT007	-	25	24	95	1000	1740	580	1100	572	250	175	70	198
-	CAT029	-	25	24	133	1200	2060	580	1393	722	250	222	90	270
-	CAT035	-	25	24	133	1500	2330	580	1670	722	250	222	90	320



Four & Five Bundled Conductor Stringing Blocks - Tesmec

Part No. CAQ Series



Part No.			Dimensions (mm)											Working Load (kN)	Wt (kg)
Nylon/Neoprene	Nylon	Aluminium	A	B	C	D	E	F	G	H	I	L	M		
CAQ614	CAQ666	CAQ	25	24	68	650	1440	595	775	700	250	145	100	50	148
CAQ615	CAQ667	CAQ656	25	24	95	650	1440	595	775	826	250	175	130	70	190
CAQ814	CAQ	CAQ856	25	24	68	800	1540	595	880	700	250	145	100	70	180
CAQ815	CAQ881	CAQ827	25	24	95	800	1540	595	893	826	250	175	130	70	225
-	CAQ008	-	25	24	95	1000	1750	595	1100	826	250	175	130	70	270
-	CAQ030	-	25	24	133	1200	2115	595	1393	1081	250	222	177	90	320
-	CAQ036	-	25	24	133	1500	2383	595	1670	1081	250	222	177	90	405

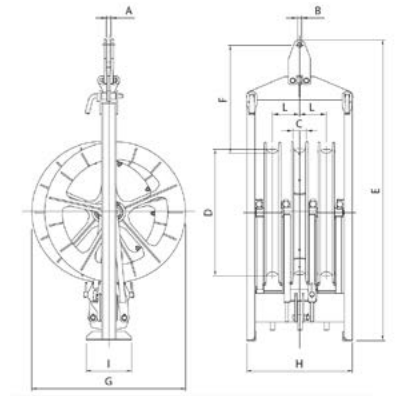
*Central sheave nylatron - lateral sheaves nylatron IEEE



Detachable Two or Three Bundled Stringing Block - Tesmec

Part No. CST Series

- The block are ideal for stringing two or three bundled conductors.
- The pulleys are made up of a special galvanized steel frame and three single pulleys
- The single pulleys can be used separately
- The wheels are made of aluminium alloy mounted on ball bearings
- The lateral wheels have the groove lined with a neoprene ring
- The central wheel has the groove made up of wear-proof interchangeable nylatron sectors
- The pulleys are supplied with fixed connection



Part No.		Dimensions (mm)										Working Load (kN)	Wt (kg)
Nylon/Neoprene	Nylon	A	B	C	D	E	F	G	H	I	L		
CST600	CST604	25	24	68	650	1563	600	846	580	250	148	40	151
CST601	-	25	24	95	650	1667	600	846	671	250	178	60	166
CST800 CST807*	-	25	24	68	800	1758	600	951	580	250	148	60	166
CST801	CST808	25	24	95	800	1758	600	964	671	250	178	60	190
-	CST001	25	24	95	1000	1995	600	1171	671	250	178	67	228

* All neoprene lining



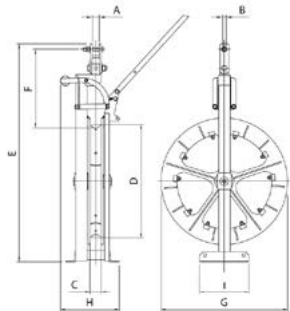
Helicopter Stringing Block - Tesmec

Part No. CES Series

Ideal for stringing a pilot rope by helicopter

The pilot rope is automatically positioned in the (central) wheel. Special guides ensure the correct positioning of the rope during stringing operation*

- The wheels are made of aluminium alloy mounted on ball bearings
- The lateral wheels have the groove lined with a neoprene ring
- The central wheel has the groove made up of wear-proof interchangeable nylatron sectors
- The frame is made of galvanized steel
- The pulleys are supplied with fixed connection
- Earthing device or complete conductive sheaves are available upon request



Part No.			Dimensions (mm)									Working Load (kN)	Wt (kg)
Nylon/Neoprene	Nylon	Aluminium	A	B	C	D	E	F	G	H	I		
CES604	CES600	-	41	20	68	650	1345	490	775	362	300	40	62
-	CES601	CES618	41	20	95	650	1345	500	775	376	300	40	68
-	CES800 CES811 * CAT875 *	-	41	20	68	800	1440	480	880	362	300	40	68
-	CES801 CES831 *	-	41	20	95	800	1460	500	893	376	300	40	74
-	CES001	-	41	20	95	100	1665	500	-	376	300	67	93
-	CES005	-	41	24	133	1200	2005	558	-	462	600	90	180
-	CES008	-	41	24	133	1500	2310	570	-	462	600	90	215

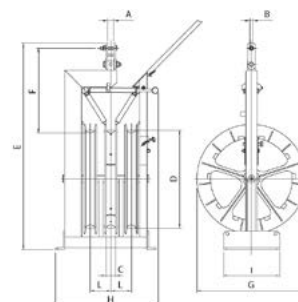
* All sheaves with IEEE sectors



Helicopter Stringing Block - Tesmec

Part No. CET Series

- The wheels are made of aluminium alloy mounted on ball bearings
- The lateral wheels have the groove lined with a neoprene ring
- The central wheel has the groove made up of wear-proof interchangeable nylatron sectors
- The frame is made of galvanized steel
- The pulleys are supplied with fixed connection
- Earthing device or complete conductive sheaves are available upon request



Part No.			Dimensions (mm)										Working Load (kN)	Wt (kg)
Nylon/Neoprene	Nylon	Aluminium	A	B	C	D	E	F	G	H	I	L		
CET602	CET610*	-	41	20	68	650	1345	605	775	730	400	145	60	142
CET603	-	CET608	41	20	95	650	1430	610	775	810	400	175	60	164
CET802	CET821 CET807*	CET829	41	20	68	800	1582	610	880	730	400	145	60	158
CET803	CET820 CET812*	CET806	41	20	95	800	1582	610	893	810	400	175	60	179
-	CET002	-	41	20	95	1000	1805	629	1100	830	400	175	67	235
-	CET006	-	41	20	133	1200	2100	640	1393	1005	500	222	90	315
-	CET009	-	41	20	133	1500	2405	640	1670	1005	500	222	90	362

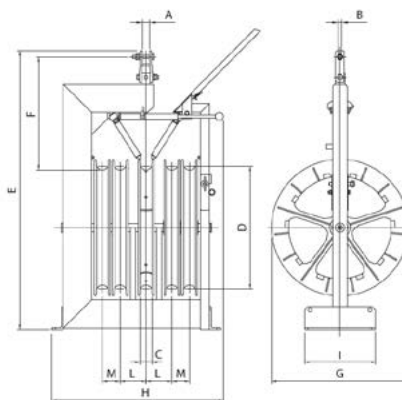
*All sheaves with IEEE sectors



Helicopter Stringing Block - Tesmec

Part No. CEQ Series

- The wheels are made of aluminium alloy mounted on ball bearings
- The lateral wheels have the groove lined with a neoprene ring
- The central wheel has the groove made up of wear-proof interchangeable nylatron sectors
- The frame is made of galvanized steel
- The pulleys are supplied with fixed connection
- Earthing device or complete conductive sheaves are available upon request



Part No.			Dimensions (mm)											Working Load (kN)	Wt (kg)
			A	B	C	D	E	F	G	H	I	L	M		
Nylon/ Neoprene	Nylon	Aluminium													
CEQ609	CEQ614**		41	20	68	650	1580	641	775	906	400	145	100	60	228
CEQ612	-		41	20	95	650	1625	670	775	1130	400	175	130	60	258
CEQ808	CEQ813**	CEQ818	41	20	68	800	1750	670	880	910	400	145	100	60	250
CEQ809	CEQ819**		41	20	95	800	1750	647	893	1130	400	175	130	60	280
-	CEQ003		41	20	95	1000	1945	670	1100	1130	400	175	130	67	360

**Central nylatron - lateral nylatron IEEE



Tandem Stringing Roller/Blocks - Tesmec

Part No. CAM Series

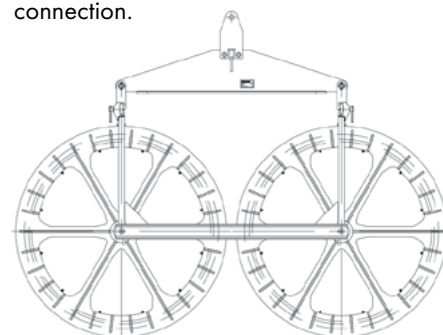


The blocks are ideal for stringing single, two or three bundled conductors.

The pulleys are made up of a special galvanized steel frame and three single pulleys. The single pulleys can be used separately. The wheels are made of aluminium alloy mounted on ball bearings. The lateral wheels have the groove lined with a neoprene ring.

The central wheel has the groove made up of wear-proof interchangeable nylatron sectors.

The pulleys are supplied with fixed connection.



Part No.	Based On	Wheel Ø (mm)	Groove (mm)	Working Load (kN)	Wt (kg)
CAM210	CAS200	250	50	33	25
CAM618	CAS602	650	68	60	72
CAM631	CAT613	650	95	60	290
CAM636	CAT612	650	68	70	270
CAM640	CAS607	650	95	60	87
CAM662	CAS601	650	68	60	91
CAM665	CAS606	650	95	60	98
CAM669	CAS608	650	95	60	100
CAM849	CAS802	800	68	60	92
CAM892	CAS801	800	68	60	89
CAM896	CAS807	800	95	60	118
CAM907	CAE906	800	95	100	632
CAM015	CAS002	1000	95	60	135
CAM023	CAS024	1000	95	60	166
CAM028	CAS027	1200	130	90	250
CAM031	CAS027	1000	95	90	175
CAM032	-	1200	130	120	312
CAM042	CAE041	1000	95	80	835
CAM619	CES600	650	68	60	239
CAM827	CET8XX	800	95	80	415
CAM828	CES801	800	95	80	205
CAM830	CET829	800	68	80	404



Earthing Devices for Stringing Blocks

Part No. CCA Series

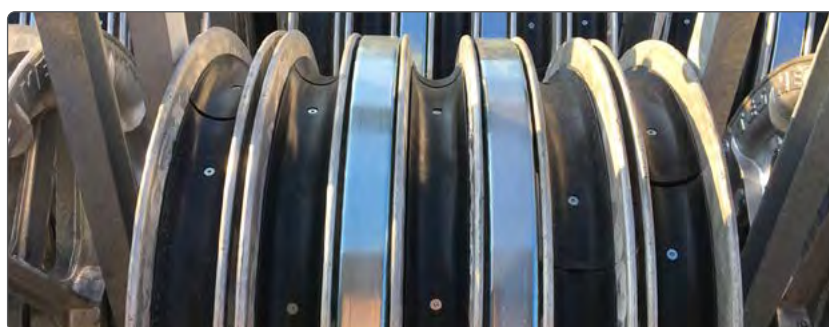
Earthing devices can be supplied on single, bundle and helicopter wheels manufactured by Tesmec.

Earthing devices comply with IEC TR 61328 REV.3 requirement 20 kA for 20 cycles.



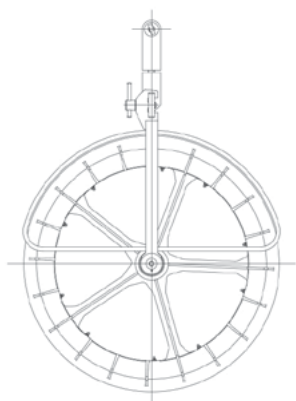
Nylon Stringing Blocks		
Stringing Blocks Part No.	Dia 560	Dia 700
CAS	MTX140	MTX143
CAT	MTX138	MTX141
CAQ	MTX139	MTX142

Aluminium Stringing Blocks						
Stringing Blocks Part No.	Dia 400-500	Dia 650		Dia 800		Dia 1000
		68 Narrow Groove	95 Wide Groove	68 Narrow Groove	95 Wide Groove	95 Wide Groove
CAS	MTX120	MTX079	MTX079	MTX079	MTX079	MTX081
CAT	-	MTX101	MTX122	MTX129	MTX102	MTX103
CAQ	-	MTX104	MTX105	MTX130	MTX131	MTX106
CES	-	MTX090	MTX090	MTX090	MTX090	MTX089
CET	-	MTX107	MTX108	MTX134	MTX135	MTX109
CEQ	-	MTX110	MTX111	MTX132	MTX133	MTX112



Anti-fleeting Devices

Part No. CCA Series



Single Stringing Blocks	
Included	For D=250
CCA300	For D=350
CCA600	For D=650
CCA400	For D=400
CCA500	For D=500
CCA800	For D=800
CCA000	For D=1000
CCA001	For D=1200
CCA009	For D=1500

Bundle Stringing Blocks	
Included	For D=250
CCA601	For D=350
CCA801	For D=650
CCA007	For D=400
CCA400	For D=500
CCA500	For D=800

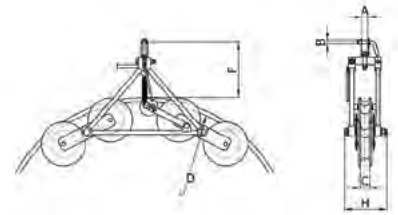


Pivoting Array Blocks - Tesmec

Single Conductor Pivoting Array Blocks

Part No. RUS

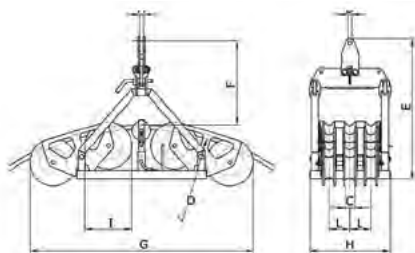
- Lightweight & compact
- No diameter limitation
- Easy handling & transportation



Part No.		Dimensions (mm)									Working Load (kN)	Wt (kg)
Fibreglass	Aluminium	A	B	C	D	E	F	G	H	I		
RUS005	RUS026	40	20	68	1600	810	393	1350	295	305	40	42
RUS007	RUS027	40	20	68	1820	800	367	1470	295	305	40	48

Two or Three Bundled Conductors Pivoting Array Blocks

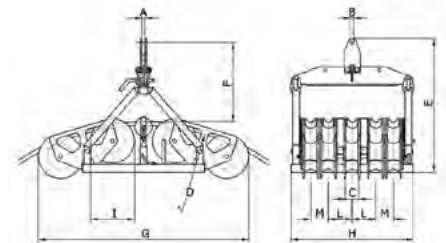
Part No. RUT



Part No.		Dimensions (mm)										Working Load (kN)	Wt (kg)
Cast Iron + Fibreglass	Cast Iron + Aluminium	A	B	C	D	E	F	G	H	I	L		
RUT013	RUT014	25	24	68	3120	1035	580	1495	560	305	145	60	183
RUT015	RUT016	25	24	95	3260	1035	580	1600	640	326	175	60	200

Four or Five Conductors Pivoting Array Blocks

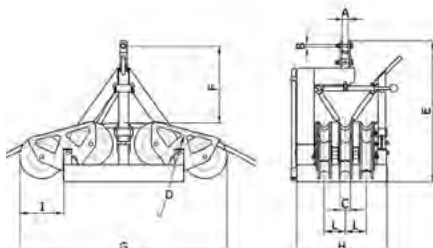
Part No. RUQ



Part No.		Dimensions (mm)											Working Load (kN)	Wt (kg)
Cast Iron + Fibreglass	Cast Iron + Aluminium	A	B	C	D	E	F	G	H	I	L	M		
RUQ005	RUQ026	25	24	68	3120	1035	580	1495	760	305	145	100	60	255
RUQ007	RUQ027	25	24	95	3260	1035	580	1600	900	326	175	130	60	280

Two or Three Conductors Pivoting Array Helicopter Blocks

Part No. RET



Part No.		Dimensions (mm)										Working Load (kN)	Wt (kg)
Cast Iron + Fibreglass	Cast Iron + Aluminium	A	B	C	D	E	F	G	H	I	L		
RET002	RET003	40	21	68	3390	980	540	1445	665	305	145	60	196
RET004	RET005	40	21	95	3530	980	540	1550	745	326	175	60	215



Special models with different characteristics are available on request

Head Boards

Designed to connect a pulling rope, (24mm Max) with 2 or 3 bundled conductors.

The equipment includes the necessary rope lengths and swivels
Quantity and models are indicated in the following tables.

2 or 3 Conductors Fixed Head Boards

Part No. RFB-RFT Series

Part No.	Dimensions (mm)			Working Load (kN)	Wt (kg)	For Stringing Blocks		Swivel Joints		Steel Rope Section Ø 18mm	Phase Type
	A	C	D			Standard	Helicopter	GGT020	GGT030		
RFB020	292	335	144	93	98	CAT506 CAT612 CAT812 CST500 CST600 CST800	CET602 CET802	2	1	2 x 3.5m	2 Conductors
RFB370	292	335	144	120	100						
RFT030	292	335	144	93	104			3	1	3 x 3.5m	3 Conductors
RFT380	292	335	144	120	107						
RFB040	348	390	144	93	100	CAT613 CAT813 CAT007 CST601 CST801 CST001	CET603 CET803 CET002	2	$\frac{1}{1 \times \text{GGT040}}$	2 x 3.5m	2 Conductors
RFB390	348	390	144	150	103						
RFT050	348	390	144	93	107			3	$\frac{1}{1 \times \text{GGT040}}$	3 x 3.5m	3 Conductors
RFT400	348	390	144	150	110						

Contact TEN for Head Boards for Nylon Rollers

2, 3 or 4 Conductors Balancing Head Boards

Part No. RBB-RBT Series

Part No.	Dimensions (mm)			Working Load (kN)	Wt (kg)	For Stringing Blocks		Swivel Joints		Steel Rope Section Ø 18mm	Phase Type
	A	C	D			Standard	Helicopter	GGT020	GGT030		
RBB001	292	365	160	93	135	CAT506 CAT612 CAT812 CST500 CST600 CST800	CET602 CET802	2	1	1 x 30m	2 Conductors
RBB580	292	365	160	120	140						
RBT010	292	365	160	93	157			3	1	1 x 30m 1 x 15m	3 Conductors Balancing 1-3
RBT590	292	365	160	120	162						
RBT260	292	365	160	93	157			3	1	1 x 30m 1 x 15m	3 Conductors Balancing 1-2
RBT680	292	365	160	120	162						
RBB020	348	415	176	93	143	CAT613 CAT813 CAT007 CST601 CST801 CST001	CET603 CET803 CET002	2	$\frac{1}{1 \times \text{GGT040}}$	1 x 30m	2 Conductors
RBB690	348	415	176	150	148						
RBT030	348	415	176	93	165			3	$\frac{1}{1 \times \text{GGT040}}$	1 x 30m 1 x 15m	3 Conductors Balancing 1-3
RBT560	348	415	176	150	170						
RBT140	348	415	176	93	165			3	$\frac{1}{1 \times \text{GGT040}}$	1 x 30m 1 x 15m	3 Conductors Balancing 1-2
RBT700	348	415	176	150	170						



Part No. RBQ Series

Designed to connect a pulling rope, (28mm Max) with 4 bundled conductors.



Part No.	Dimensions (mm)				Working Load (kN)	Wt (kg)	For Stringing Blocks		Swivel Joints		Steel Rope Section Ø 18mm
	A	B	C	D			Standard	Helicopter	GGT020	GGT030	
RBQ710	100	292	540	150	120	193	CAQ614 CAQ814	CEQ609 CEQ808	4	1	2 x 30m
RBQ720	130	340	648	160	150	208	CAQ615 CAQ815 CAQ008	CEQ612 CEQ809 CEQ003	4	$\frac{1}{1 \times \text{GGT040}}$	2 x 30m
RBQ080	130	340	650	175	250	230					

Additional Fixed & Balancing Head Boards to suit a wide range of 4 & 5 bundle rollers available. Contact TEN for further information



Conductor Chairs and Cars

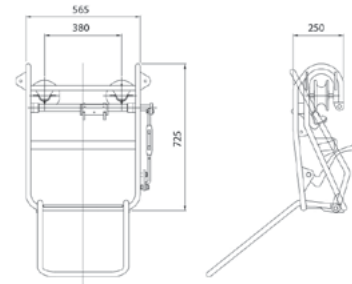
Conductor Cars For Single Conductor Lines - Tesmec

Part No. CR5010

This conductor car is manufactured of light aluminium alloy and allows one person to cross or to inspect single conductor lines.

Supplied with a footrest, stationary brake, metre counter and a safety belt.

Capacity (kg)	100
Weight (kg)	13



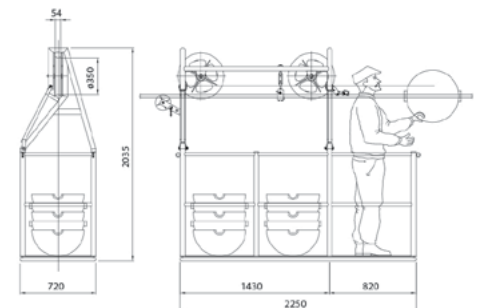
Conductor Cars For Single Conductor Lines - Tesmec

Part No. CR5320

This conductor car is manufactured of light aluminium alloy and allows one person to cross or to inspect single conductor lines

Complete with two aluminium neoprene lined, metre counter and stationary brake.

Capacity (kg)	150
Weight (kg)	75



Conductor Spacer Chair – Hiatico



Part No. HSSC-Series

For transporting line-workers to carryout maintenance & repair on conductors mid-span

The standard spacer chair frame is manufactured from lightweight aluminium alloy 6082T6 using standard box and circular sections as well as non-slip flooring.

Features

- Lightweight aluminium cage
- Hand brake with lock feature
- 4 harness anchor points
- 250kg WLL (Proof load 375kg)
- Test cert supplied
- Battery powered option*



Part No	WLL (kg)	Dimensions Including Support Arms (mm)			Wt (kg)
		Width	Depth	Height	
HSSC-P*	250	1360	630	1530	80
HSSC	250	1360	630	1530	60

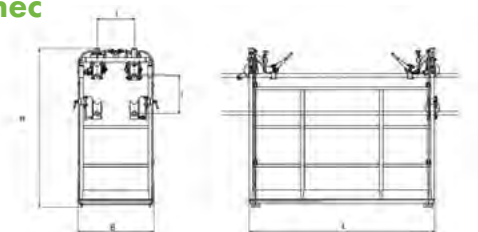
Inspection Conductor Car - Tesmec

Part No. CRQ530

- Two detachable brakes
- Metre counter
- Earthing roller
- Safety rope

Aluminium alloy conductor cars suitable for construction and inspection of bundled line that allow two workers to work on two or four bundled conductors line.

Conductor car is able to pass over spacers



Configuration with only two axles leave more space for operators and line equipment. Conductor cars are equipped with brakes, safety rope and metre counter.



Special models are available upon request, including motorised.

Part No.	Dimensions (mm)				Capacity (kN)	Wt (kg)
	B	H	L	I		
CRQ530	818	1650	2000	400	250	90



Aluminium Structures

Working Platforms – Hiatco

Part No. HWP Series

Utilised for Line-workers to gain access on towers to carryout maintenance & repair on conductors and tower hardware.

Features

- All box sections, angles & plates of the platform are built from structural aluminium 6082T6
- Variety of lengths and configurations available, including folding and telescopic ends
- Specially extruded aluminium non-slip flooring & toe-board
- Fall arrest support brackets and safety wire
- Load test certificate supplied for each platform



Platform Length (m)			Centre Section qty Length & (WLL)	End Section qty Length & (WLL)	Telescopic Section Length & (WLL)	Weight of Safety Wires & Brackets (kg)	Total Weight (kg)
Total	Extended	Retracted					
21.0	20.3	14.1	1 x 6.0m (200kg)	2 x 4.0m (140kg)	2 x 4.2m (80kg)	30	670
19.0	18.5	12.9	1 x 6.0m (200kg)	2 x 3.5m (125kg)	2 x 3.8m (80kg)	30	635
16.0	Fixed	Fixed	1 x 6.0m (200kg)	2 x 5.0m (170kg)	Not Required	25	565
16.0	15.5	10.3	1 x 3.1m (145kg)	2 x 3.5m (125kg)	2 x 3.8m (80kg)	25	580
12.0	Fixed	Fixed	1 x 1.5m (60kg)	2 x 5.0m (170kg)	Not Required	20	420
9.0	Folding ends		1 x 6.0m (150kg)	Not Required	2 x 1.5m (35kg)	NA	220
6.0	Fixed	Fixed	1 x 6.0m (200kg)	Not Required	Not Required	10	210
7.0	Fixed	Fixed	2 x 3.5m (75kg)	NA	NA	c/w centre stirrups	150



Working Platforms - Tesmec

Part No. PLL Series

The working platforms have trapezoidal section and are made of aluminium alloy. For modular use, the platforms extra sling and anti-fall barrier kit are required for each specific length.

All the platforms are provided with single side anti fall barrier. Special working platforms are available upon request.

- Detachable wide range
- Several frame options available



Available Options	
PYB001	Special track For hydraulic press trolley
PYC002	Hydraulic press trolley
PYDXXX	Double side anti-fall barrier

Part No.	Total Length (m)	Lateral Section Length (m)	Central Section Length (m)	Intermediate Section Lengths (m)	Working Load at the two ends (kg)	Wt (kg)
PLL004	7	3.5+3.5	-	-	300	65
PLL302	8	4+4	-	-	300	75
PLL308	9	4.5+ 4.5	-	-	300	85
PLL306	10	5+5	-	-	300	95
PLL303	11	5.5 +5.5	-	-	300	105
PLL311	12	6+6	-	-	300	107
PLL300	12	3.5+3.5	5	-	300	110
PLL600	16	3.5+3.5	5	2+2	300	150
PLL901	18	4.5+ 4.5	4.5+4.5	-	300	180
PLL909	20	5+5	5+5	-	300	190
PLL900	22	5.5 +5.5	5.5+5.5	-	300	200
PLL905	24	6+6	6+6	-	300	228
PLL907	26	5+5+5+5	6	-	300	240

Anchoring Ladders - Tesmec

Part No. SCA Series

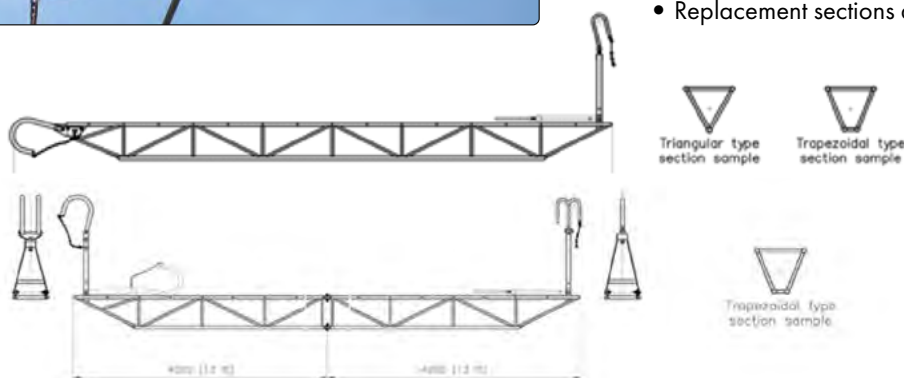


Specifically designed for anchoring works.

The ladders are made of light aluminium alloy, with anti-slippery rungs and with galvanized steel suspension hooks.

The ladders are supplied with a supplementary swivel hook to be located on the conductor, which allows the ladder to be used in horizontal position. The ladders are available with triangular or trapezoidal section.

- Lightweight platform
- Easy to handle
- Replacement sections available



Part No.	Length (m)	Section Length (m)	Working Load (kg)	Linear Wt (kg/m)	Section
SCA700	4	4	150	4	Triangular
SCA800	6	6	150	4	Triangular
SCA801	6	4+2	150	4	Triangular
SCA900	8	4+4	150	4	Triangular
SCA400	3.5	3.5	300	4.7	Trapezoidal
SCA401	4.5	4.5	300	4.7	Trapezoidal
SCA500	6.5	4.5+2	300	4.7	Trapezoidal
SCA600	8	4+4	300	4.7	Trapezoidal



SDG010



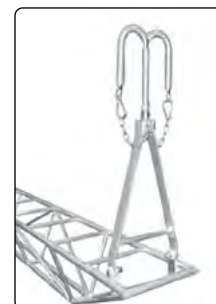
SDG009



SDG018



SDG025



SDG019

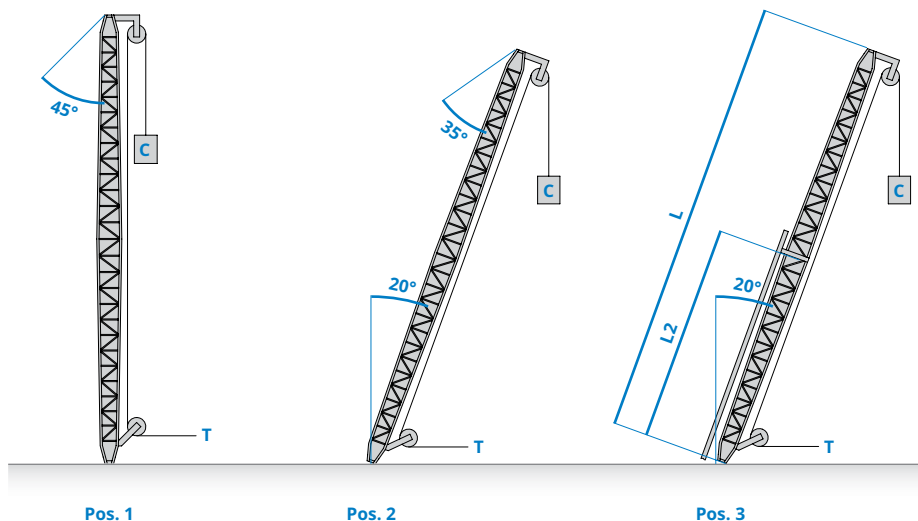
Part No.	Special Models and Lengths Available on request
SDG010	Standard swivel hook conductor side
SDG009	Standard swivel hook with roller (conductor side)
SDG018	Swivel suspension hook (tower side)
SDG025	Double swivel suspension hook (tower side)
SDG019	Double hook swivel (conductor side)



Aluminium Derricks - Tesmec

Part No. FAL Series

- Light design
- Swivel head and base
- Special models can be designed on demand



Part No.	"L"	"L2"	Max lifting load (kN)			Wt (kg)	Snatch blocks (not included)		Anchoring Ropes (n° 4 for each)
	Total Length (m)	Section Lengths (m)	Pos. 1 0°	Pos. 2 20°	Pos. 3 20°		Upper service snatch blocks	Upper service snatch blocks	
FAL001	8	4+4	6,5	5	1,5	40	CZA101	CZA101	ALT046
FAL010	12	4+4+4	6,5	5	1,5	65	CZA010	CZA101	ALT047
FAL020	8	4+4	10	8	2	45	CZA010	CZA101	ALT046
FAL030	10	4+2+4	10	8	2	60	CZA010	CZA101	ALT046
FAL040	12	4+4+4	10	8	2	70	CZA010	CZA101	ALT047
FAL050	8	3+2+3	12,5	10	2,5	50	CZA030	CZA101	ALT046
FAL060	12	4+4+4	12,5	10	2,5	80	CZA030	CZA101	ALT047
FAL070	16	5+6+5	12,5	10	2,5	110	CZA030	CZA101	ALT048
FAL080	12	4+4+4	19	15	3,5	100	CZA140	CZA030	ALT043
FAL090	16	5+6+4	19	15	3,5	130	CZA140	CZA030	ALT044
FAL100	18	6+6+6	19	15	3,5	180	CZA140	CZA030	ALT045
FAL110	20	5+5+5+5	19	15	3,5	200	CZA140	CZA030	ALT045
FAL120	12	4+4+4	25	20	4	120	CZA140	CZA030	ALT156
FAL130	16	4+4+4+4	25	20	4	160	CZA140	CZA030	ALT147
FAL140	20	5+5+5+5	25	20	4	220	CZA140	CZA030	ALT015
FAL150	12	6+6	31	25	5	150	CZA380	CZA140	ALT156
FAL160	16	5+6+5	31	25	5	200	CZA380	CZA140	ALT147
FAL170	18	6+6+6	31	25	5	230	CZA380	CZA140	ALT015
FAL180	20	5+5+5+5	31	25	5	250	CZA380	CZA140	ALT015
FAL190	16	5+6+5	50	40	8	300	CZA350	CZA340	ALT155
FAL200	18	6+6+6	50	40	8	330	CZA350	CZA340	ALT155
FAL210	22	5+6+6+5	50	40	8	400	CZA350	CZA340	ALT017

Standard derricks with external rope passage, available on request with internal rope passage.

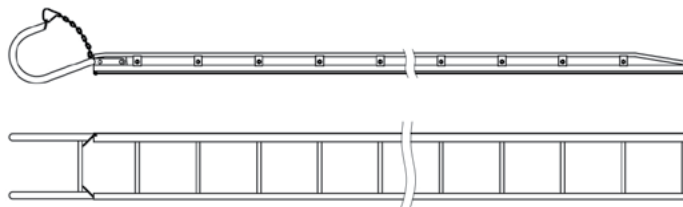
Suspension Ladders - Tesmec

Part No. SCS Series

Specifically designed for suspension works. The ladder is made of light aluminium alloy, fitted with anti-slippery rungs, with a special track for the anti-fall device and with a galvanized steel supporting hook.



- PPE system
- Modular and lightweight
- SCS LADDERS WITH SDA ANTI-FALL DEVICE Comply with 89/686/CEE



Part No.	Length (m)	Section Length (m)	Working Load (kg)	Linear Wt (kg/m)	Anti-fall Device (model not incl.)
SCS100	3.5	3.5	300	3.8	SDA021
SCS200	4.5	4.5	300	3.8	SDA021
SCS306	5	5	300	3.8	SDA021
SCS300	6	6	300	3.8	SDA021
SCS301	6	4+2	300	3.8	SDA021
SCS302	8	4+4	300	3.8	SDA021

Double Swivel Ladder Hook - Tesmec

Part No. SDG015

Special models with different lengths are available upon request.

Available Options	
SDG015	360° Double swivel hook

Ladder hooks swivel 360° for maneuvering into difficult spots



Anti-Fall Devices

Part No. SDA Series

Personal protective devices to prevent the operator falling. The device is self-guided and self-locking, running on a special rigid track, constructed of light aluminium alloy. Supplied with a polyamide mini energy-absorber and safety spring catch to connect it to the safety harness.

It allows the proper movement of the operator along the ladder and at the same time protecting them from falling. End stroke devices are provided in order to avoid that the anti-fall device running from the anchoring track.

- Zero snagging with self guiding and locking
- Energy Absorber
- Harness Safety spring catch
- Comply with 89/686/CEE



Special Models with Different Lengths Available on request			
Part No.	Working Load (m)	Nylon Rope Length (mm)	Wt (kg)
SDA021	100	300	1
SDA022	100	300	1



Monopole Ladders - Tesmec

Part No. SCP Series

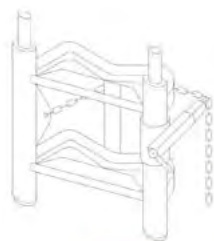
Specifically designed for climbing circular or polygonal section poles. Standard lengths can be assembled to create the total length required. The ladder is made of light aluminium alloy, provided with anti-slip rungs and with special tracks for the anti-fall device.

- Perfect fit
- Sliding system

The ladder can be composed using the following elements:

Several standard sections:

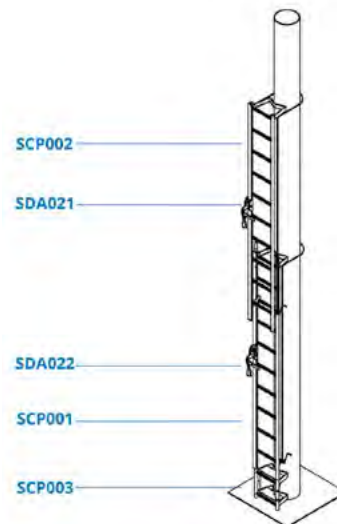
- Quantity according to the total required height (SCP001)
- One self-supporting base for fixing the ladder to the pole without additional ground support (SCP003)
- OR
- One self-supporting base section for fixing the ladder to the pole without additional ground support (SCP004)
- One terminal section, complete with anti-fall device, to be connected to any of the rungs of the last standard section, in order to adjust the final ladder length (SCP002)



SCP003



SCP005



Part No. SDA022



Anti-Fall device sold separately
See previous page for details

Part No.	Description	Section Length (m)	WLL (kg)	Wt (kg)	Anti-Fall Device
SCP001	Standard section	2.5	100	6.6	SDA022 (not included)
SCP002	Terminal section	2.5	100	7	SDA022 (not included)
SCP003	Self-supporting base	-	100	5	-
SCP004	Self supporting base section	2.5	100	7	Use one of the standard section
SCP005	Working platform	-	100	1.2	-



Components may vary depending on state or territory requirements.

Rescue Kit - Tower

Part No. TRRK

Example Components List

- Storage backpack yellow
- 65m rope with sewn eye and triplock karabiner
- FDU100 Rescue Descender with triplock karabiner
- 50mm x 1200mm anchor sling
- 25mm x 1200mm round sling
- Rescue knife with extender and 2 alloy triplock karabiner
- Mechanical advantage retrieval system
- Cervical collar (optional)

Contact TEN with your Rescue Kit requirements

Transmission Overhead Tools & Accessories

Wire Rope Slings 3.0T

Part No. Various

Superflex Steel Slings

- Supplied tested with NATA certificate
- Aluminium Ferrules
- 5:1 Safety Factor

Part No.	WLL (T)	Sling Length (m)
Four - 5-1	3.0	1.0
Four - 1.5	3.0	1.5
Five - 0-1	4.1	1.0
Five - 0-1.5	4.1	1.5
Five - 0-4	4.1	4.0
Five - 0-8	4.1	8.0

Soft Round Slings

Part No. Various

- Variable load bearing point for more even wear
- Ideal for choke lifting cylindrical objects
- Lifts smooth objects with out damage
- Lightweight and soft
- Reduced manual handling injuries
- High strength to weight ratio
- Load bearing fibres protected by the outer sleeve
- Tuff Tag webbing reinforced encapsulated compliance labels

Colour Code	Part No.	WLL (T)	Max Length (m)	Min Length (m)
	E1000	1	60	0.5
	E2000	2	60	0.5
	E3000	3	60	0.5
	E4000	4	60	1.0
	E5000	5	60	1.0
	E6000	6	60	1.0
	E8000	8	60	1.0

- Wide choice of lifting modes
- Certified to AS.4497

Rattlegun - Snakeguns

Part No. AUS1000

The Rattlegun is a battery powered impact wrench which will allow Line-workers to safely install and remove bolted connections / hardware with an insulated Hot Stick.

- Portable impact wrench for use around energized conductors
- Designed and tested for use on systems up to 500 kV AC (Phase-to-Phase system) for overhead and underground applications
- Communicates wirelessly with remote via linked dig
- Up to 90m operating distance between the Rattlegun and remote
- Full function Variable speed and forward/reverse
- Rechargeable battery
- Conductive rubber safety boot



Remote Control	
Weight (kg) (w/o batteries)	210
Dimensions (mm)	185(L) x 60(W) x 43(H)
Power Source	9V Alkaline Battery (Field replaceable)



Rattlegun	Weight inc. battery pack	Dimensions (mm)	Power Source	Max Output Torque	Size
	2.2kg	246(L) x 100(W) x 188(H)	18V Ni-CAD Battery, 2.2A/h	195Nm (145ft.-lbs)	½" square drive

Conductor Lifter Hook

Part No. DNS22-771

Each unit is tagged showing the safe working load, proof-test date, and an identifying serial number. 6,500 lb safe working load.



ACSR Strippers

Part No. PSC-1

The Trimmer quickly and accurately removes the aluminium stranding from around the steel core of ACSR conductors in preparation for crimping the steel inner strand.

Features

- Made of an aluminium alloy
- Lightweight and durable
- Operates like a Tube Cutter
- Carry Case stores 11 bushings
- Standard Bushing sizes available (Sold separately)
- Bushings can be made to suit a wide range of ACSR conductors



Refer to the Hand Tool section for Bushings & further information

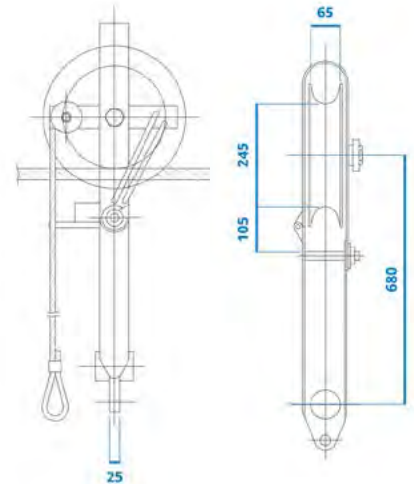


Anti-Lifting Automatic Release Pulley

Part No. CAA

The anti-lifting automatic release pulley is a special device that prevents the pulling rope lifting with respect to the theoretical line, specifically in case of towers with considerable height differences. It is equipped with an automatic release system to facilitate recovery operations. The wheel is made of galvanized steel and mounted on ball bearings; the pulley frame is made of galvanized steel.

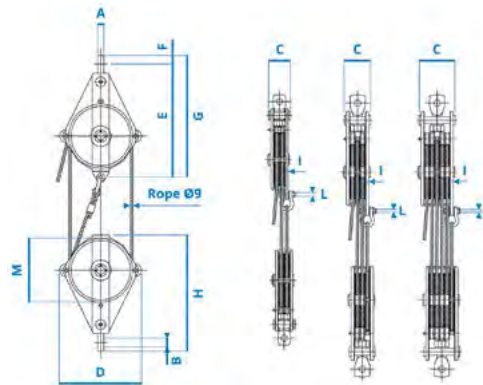
Working Load (kN)	27
Weight (kg)	20



Lifting Tackles

Part No. TAP Series

- The lifting tackles are suitable For Ø 9mm steel ropes
- The wheels are mounted on ball bearings
- The frame is made of galvanized steel
- Rope and swivel joint not included



Part No.	Working Load (m)											Pulling Force/ Lifting Load	Working Load (kN)	Wt (kg)
	A	B	C	D	E	F	G	H	I	L	M			
TAP001	22	20	67	242	333	20	353	331	8	10.5	180	1:4	30	17
TAP010	22	23	85	294	380	28	408	386	10	16	180	1:6	50	27
TAP020	22	26	120	294	405	35	440	415	10	10.5	180	1:10	80	42

Suitable rope FUZ009 (diameter 9mm). Suitable swivel GGT001

Hand Line Blocks

Part No. Various



- Hand rope blocks used for hauling and lifting
- Made of high strength aluminum alloy
- Side gate opening with detent pin
- High strength steel rotating swivel hook with safety latch
- Free running sheaves with shielded bearings

High
Strength
Steel

Part No.	Max Rope Ø (mm)	Sheave Size (mm)	Wt (kg)	WLL (kg)
SPP-HLB	14	75	1.4	560
AHB-4	22	100	2.8	1130

Zoom Sag Scope

Part No. TGP001



- Suitable for accurate conductor sag measurements.
- Equipped with a special anchoring support for steel tower.

Thermometers

Part No. TET060

The thermometers are made of an aluminium bulb reproducing the conductor's surface.



Part No.	Length (m)	Wt (indicative) (kg)
TET060	0.49	0.6 to 1.0

Diameter "d" of the conductor to be specified

Cover Joints

Part No. PG Series

The cover joints are specifically designed to protect the mid span joint, made at the "tensioner station", during conductor stringing operations.

The cover joints consist of two shells made of galvanized steel with shaped ends to house the rubber noses, which protect the mid span joint during the passage over the pulleys. The shells are coupled together by socket screws and the rubber noses are clipped together by belts.



Following data to be specified

- 1) Joint length after compression
- 2) Conductor diameter
- 3) The hexagon dimension of mid span joint after compression

**Refer Hydraulic Section for
Tesmec 100T Press
Part No. PRT510**

Part No.	Length (m)	CH max (mm)	Max Dia (mm)	L Max (STD) ** (mm)	Working Load * (at the edges) (kN)
PGC	For pulley with 54 mm groove	28	18	600	2.5 to 5.0
PGS	For pulley with 68 mm groove	37	25	1000	4 to 6.5
PGM	For pulley with 68 mm groove	48	31.5	1050	2.0 to 5.0
PGL	For pulley with 95 mm groove	56	47	1300	Max 6.5
PGX	For pulley with 130 mm groove	82	54	2000	5.0

*Changes with length **different lengths are available upon request



EPZ - (Equipotential Zone)

Rolling Earths

Part No. Various



- Consider Conductor OD & Fault Current Rating
- Earth Leads available on request
- Ideal for stringing and re-conductoring



Part No.	Description	Conductor OD (mm)	Download	Fault Rating (kA/sec)	Manufacturer
MTR052	Stringing Earth	Max 70	6m x 50mm ² CU	10/0.4	Tesmec
9738	Stringing Earth	4.1 to 28.5	*Sold separately	19.1/0.5	Hastings
A78000	Stringing Earth	3 to 41	*Sold separately	25/0.5	Salisbury

*Contact TEN for your earth lead requirements

Range of Stringing Earths available.
Refer to Earthing, Jumpers and Switches section for further information

Equipotential Earth Mats - Kri-Tech

Part No. Various



Black Non-Slip Mat

The Kri-Tech Bond Mat System is designed and high voltage tested to protect workers who come in contact or have the potential for electrical contact.

- Establishes temporary equipotential zone during energised and de-energised work practices
- Portable, versatile and lightweight
- Prevents workers from being exposed to hazardous differences in electrical potential
- Non-slip black matting also available - ideal for use in wet environments

- Manufactured from high amperage tinned copper braid sewn into grid pattern onto vinyl/polyester fabric

Suitable for a wide range of applications including:

- Making cable terminations on transformers and in cubicles
- Opening or closing overhead air breaks
- Working on control boxes of regulators, reclosers, capacitors, pad mounted switches
- Stringing Operations

Part No.	Size (m)	Colour	Description
KTMNS5-5-1.5NT-A	1.5 x 1.5	Black (Non-slip)	Earth, mat, equipotential, 1.5m lead term to Screwdriver Clamp, Kri-Tech
KTM5-5-1.5NT-A	1.5 x 1.5	Orange	Earth, mat, equipotential, 1.5m lead term to Screwdriver clamp, Kri-Tech
KTM1010-2X1NT-A	3.0 x 3.0	Orange	Earth, mat, equipotential, 2 x 1m leads term to Screwdriver clamp, Kri-Tech

Custom Sizes & Non-terminated Options available on request

Custom Stringing Machine Layouts Available



Refer Storage Section for further information



PEDs - Portable Earthing Devices



Commonly known as "Earth-sets, Earth-sticks, Earthing Devices, Portable Earthing Devices or PED's". These devices attach temporarily to de-energised conductors or contact points and a known earth.

PED's are safety devices that are type tested and manufactured to withstand the maximum fault current for the specific portion of the network being worked on in the event that the conductor or contact point becomes energised.

PED's are designed so that they provide enough time, usually several milliseconds to carry fault current long enough for a circuit breaker or fuse to interrupt the flow of current. Consult your local network or asset owner for applicable legislative requirements.



SCAN or CLICK the QR-Code to download the PED order form

Shotgun Stick Kit

Part No. 81-544



- Hastings Shotgun sticks offer
- Precision cast slide gives complete control and extra firm grip
- Full open side hook offers unobstructed view
- Hanger hook moulded into head
- Foam filled fibreglass main shaft
- Tested to ASTM F711 & OSHA
- Fixed shotguns tested to IEC 60855
- Solid fibreglass operating rod with guide
- Non-conductive polycarbonate head
- Customised versions available
- Hook release trigger shielded to avoid accidental operation
- Complete selection of fixed or sectional shogun kits available
- Complete range of adaptors and accessories and cleaning products



Refer to Fibreglass Equipment section for further information for a range of insulated sticks, kits & adaptors

Part No.	Length of Sections (mm)	No of Sections	Operating Lengths (m)	Description	Wt (kg)
81-544	1200	4	1.5 - 2.7 - 3.9 - 5.2	Sectional shotgun stick package complete with base, head, intermediate sections and carry case	7.1

Sectional Stick Kit

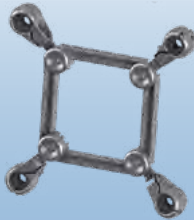
Part No. TENK010

- Customised stick kits made to customer specification or specific utility industry kits
- Below examples of Transmission Services kit

Component Part No.	Item Description	Qty in Kit
552-4	Stick Sectional Base 1.2m, 32mm OD	1
546-4	Stick Sectional Extension 1.2m, 32mm OD	3
A10012	Adaptor Male Universal Head 32mm	1
A30002	Hand Guard to Suit 32mm	1
AD06	AL Adaptor, 32mm Male Button to Female bayonet	1
RAWW176	Hand Cleaning Towelette - Disposable	5
10-188-1	Disposable Silicon Cleaning Wipe	5
10-090	Silicon Wiping Cloth	2
TENM302	Bag Sectional Kit, 4 x 1.2m & Acc Pock	1



Solutions for Transmission, Distribution and Substations



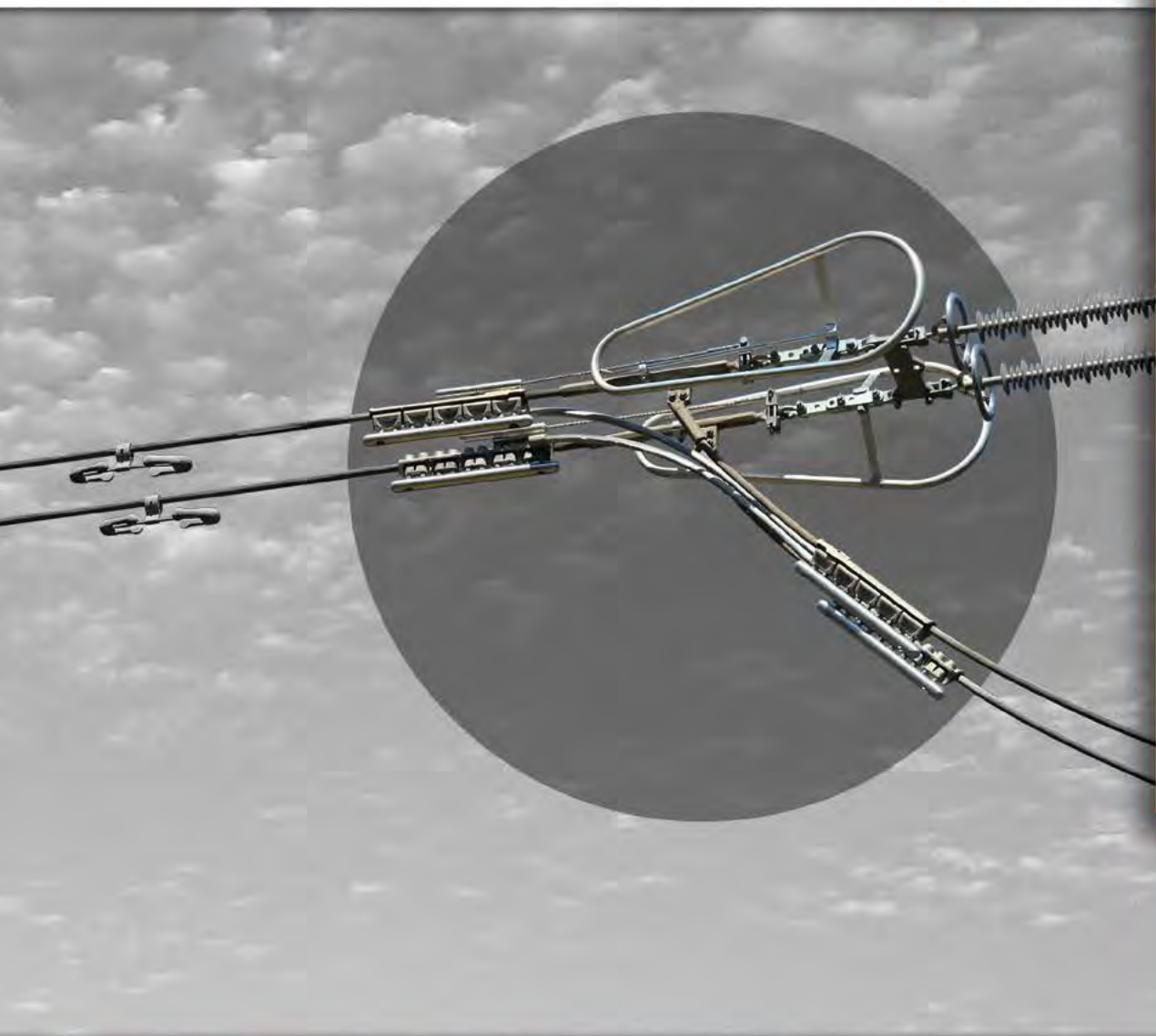
INSULATORS
PORCELAIN
GLASS
POLYMER
LINE HARDWARE
SHACKLES
CLAMPS
INSULATOR FITTINGS
PARALLEL GROOVE
ANCHORS
RODS & EYENUTS
DRIVING TOOLS
VIBRATION CONTROL
4D DAMPERS
SPIRAL DAMPERS
HELICALS
DEAD ENDS
LINE SPLICES
GUY LOCKS
ARMOUR RODS



**Contact TEN for your copy of the
MacLean Power Systems catalogue**



SCAN or CLICK the QR Code to download a copy or visit www.tengroup.com.au



TEN offers a comprehensive range of Line Materials and Asset Life Extension (ALE) products for Transmission and Distribution networks.

- ▶ Transmission & Distribution Line Hardware
- ▶ Power Anchors and Anchor installation Equipment
- ▶ Insulators
- ▶ CPI Wedge connectors
- ▶ Genics Test & Treat and Fire Mesh
- ▶ ClampStar Connector Corrector
- ▶ Pole Life Systems
- ▶ Polywater products
- ▶ Reliaguard equipment and Conductor covers







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Power Driven Anchors and Installation Equipment

Anatomy of a Utility Power Driven Anchor

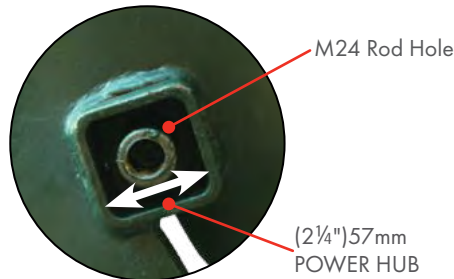
Kelly Bar Adapter engages the entire installation assembly to the torque motor output shaft of the Lifter Borer's driving equipment (typically 75mm x 75mm in Australia)
A torque limiting device can be installed between the Kelly Bar Adapter and Locking Dog assembly to monitor and control maximum torque values to prevent anchor failure

Locking dog assembly is bolted to the Kelly bar adapter. A pair of spring loaded dogs secure the Drive End Assembly and Anchor Rod

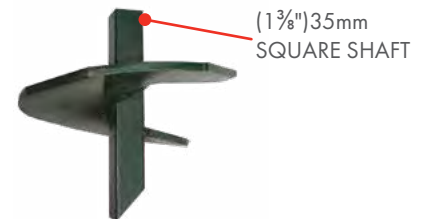
Drive End Assembly/Torque Tube engages the anchor hub & drives the anchor into the ground, either internally or externally depending on the anchor type

Anchor Rod connects the anchor to the eye and stay-wire, it is installed from within the drive end assembly.

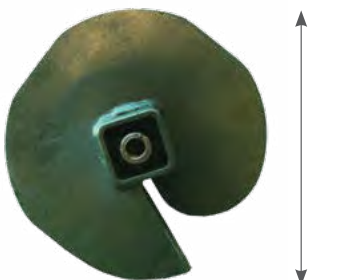
There are two common anchor types used in Australian Utilities



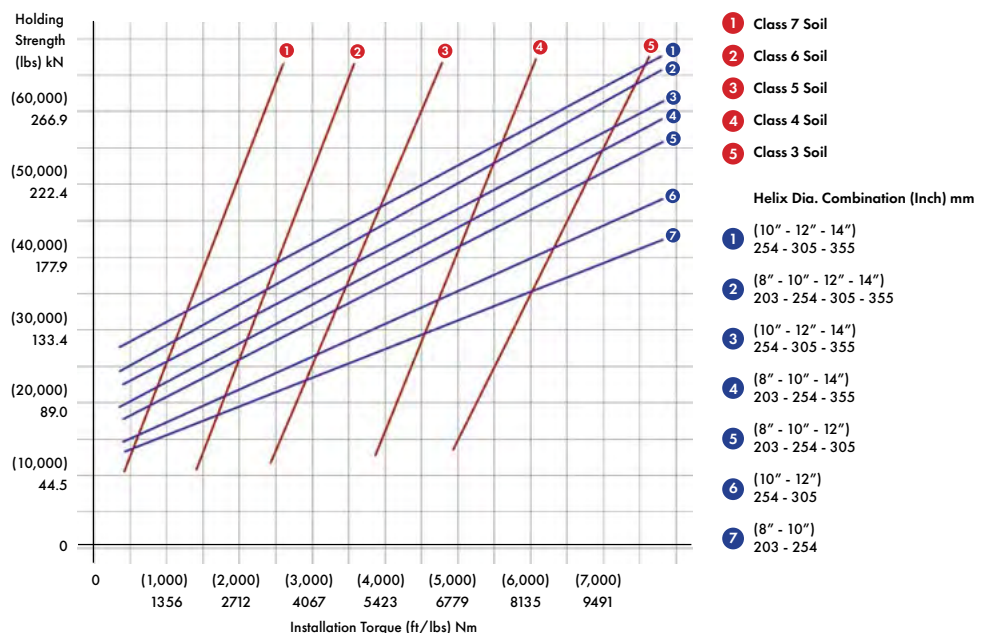
**Drive End/
Torque Tube seats internally**
These anchors have a 13,558Nm
Ultimate Torque Capacity
Designed for Tough Terrain e.g. Rocky
Ground



**Drive End/
Torque Tube seats externally**
These anchors have an 8,135Nm
Ultimate Torque Capacity
Designed for Normal Ground
Conditions



Holding Capacity for Multiple - Helix Power Shaft Anchors





Anchor Rods, Eye Nuts and Couplers

Part No.	Description/Type	OAL (mm)	Thread	Wt (kg)
AR-242140-GS	Anchor Rod with M24 Threaded Ends	2140	M24	7.0
ENT-24	Single Thimble Eye Nut for M24 Anchor Rods	115	M24	0.8
D-354	Coupler, 102kN UTS	51	M24	0.2

Stainless Steel Rods and longer rods also available

Square Shaft - Anchors 35mm (1 3/8")

Part No.	Type	UTS Torque (Nm)	Helix Size (mm)	Thread	External Hub (mm)	Wt (kg)
D-104-6-M24	Single	8135	250	M24	35	5.9
D-114-6-M24			300			7.3
D-44-2-6-M24	Twin		100			7.7
D-104-2-6-M24L			250			15.9
D-114-2-6-M24			300			16.8
D-134-2-6-M24			355			20.3

Single

Twin

Power Hub - Heavy Duty Anchors 57mm (2 1/4")

Part No.	Type	UTS Torque (Nm)	Helix Size (mm)	Helix Thickness (mm)	Thread	Internal Hub (mm)	Wt (kg)
TD225-64M24	Single	13558	150	9.5	M24	57	3.7
TD225-84M24			200	9.5			5.1
TD225-104M24			250	9.5			6.4
TDH225-114M24			300	12.7			9.8
TDH225-134M24			355	12.7			12.2

Swamp Anchors 38mm (1 1/2")

Used in soft ground areas where additional helices are required

Part No.	UTS Torque (Nm)	Length (m)	Helix Size (mm)	External Hub (mm)	Wt (kg)
D-6634	7457	1.0	250 & 300	38	21.8
D-6636		1.7	200, 250 & 300		29.5
D-6625-U	8100	2.13	Extension Shaft		25.8
D6602US		0.43	Single Guy Attachment		4.2
D6606US		0.43	Triple Guy Attachment		4.2

Anchor Installation Tools

Part No.	Description	Details
C303-0075	Kelly Bar Adapter	Suit 75mm x 75mm Drive - 6 hole configuration
SAE10425	Locking Dog Assembly	For 133mm 5 1/4" Bolt Circle - 6 hole configuration (Formerly C303-0069HD)
SAE09639	Drive End Wrench (Standard)	2.1m OAL, Used for both 35mm (1 3/8") Square Shaft & 57mm (2 1/4") Socket Power Hub Anchors (Formerly C102-1583)
SAE08666	Drive End Wrench (Hybrid)	2.1m OAL, Used for both 38mm (1 1/2") Square Shaft Swamp Anchors & 63mm (2 1/2") Socket Power Hub Anchors (Formerly C303-1064)





Distribution and Transmission Line Hardware

Helixon Helical Fittings

- Dead Ends
- Armour Rods
- Splices
- Top Ties
- Guy Guards
- Guy Locks

Vibration Control

- Spiral Dampers
- Stockbridge Vibration Dampers
- Spacer Dampers
- Spreader Rods

Strain & Suspension Clamps

- Suspension clamps
- Pivot Suspension Clamps
- Helixon Suspension Clamps
- Cast Iron Clamps
- Strain Clamps

Fabricated Fittings

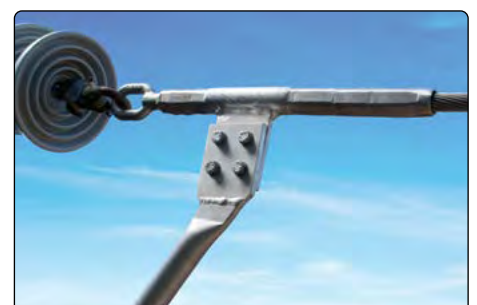
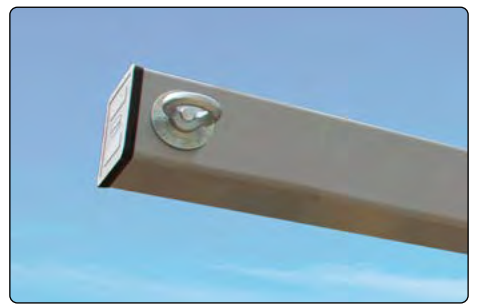
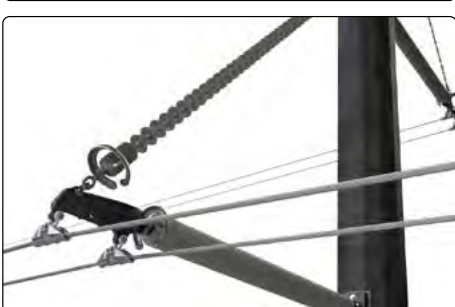
- Shackle Straps
- Cross Arm Braces
- Saglinks
- Yoke Plates
- Link Plates
- Guy Thimbles
- Eye Bolts
- Pole Steps
- Pins and Hooks

Line Hardware

- Insulator Fittings
- PG Clamps
- Split Bolts
- Compression Dead-ends
- Compression Mid-span joints
- Compression Non-Tension
- High Temperature Fittings

Insulators

- Glass Disc Insulators
- Polymer Suspension
- Porcelain Line Post
- Polymer Line Post
- Porcelain Pin Type
- Porcelain Disc
- Porcelain Strain
- Porcelain Pin Type
- Polymer Distribution
- Porcelain Station Post



Distribution and Transmission Line Hardware

Insulated Systems

- LV ABC Bolted Clamps
- LV ABC Hardware
- Installation Tools
- HV ABC Bundle Restraints
- HV ABC Suspension Assemblies
- HV ABC Brackets, Hooks and Clamps
- HV ABC Installation Rollers

Anchors

- Anchor Rods
- PowerHub Anchors
- Socket Drive Anchors
- Expanding and Cross-Plate Anchors
- Installation Tools

Automatics

- Automatic Deadends
- Automatic Splices (Pop-up insertion verification tab)

Anchor Rod Pulling Eye

Part No: SPP-PE1

- Designed to assist in tensioning guy wires
- Offset eye for 3 tonne hook or shackle, allows easy dead end attachment
- Adjustable wedge allows for maximum rod diameter
- Body and wedge made from ductile iron with high strength bolt
- WLL 5:1 - 26kN
- Breaking Load 133kN
- Suits Anchor Rods 13mm - 32mm Diameter
- Weight 2.3kg

Tower and Pole Steps

Tower Step - BuckBolt with Anchor Point

- Safe method for climbing towers
- Available in 16mm ($\frac{5}{8}$ "), 19mm ($\frac{3}{4}$ ") 22mm ($\frac{7}{8}$ ") & 25mm (1")
- BuckBolt & Flanges are a 2,270kg rated Anchor point
- Optional Left & Right hand Flange
- Designed for Steel Tower

BUCKINGHAM
BUCK
1896

Pole Step - Removable

- "Non Slip" Step
- Captured Safety Pin
- Easy to Install 25mm Expansion Anchor Bolt
- Designed for Steel and Composite poles

VAF
INDUSTRIES





Insulators

Polymer Insulators - MacLean Power Systems

Silicone Rubber

MPS uses a Silicone formulation that has been unchanged since the early 80's. The Si-O molecular bonds (inorganic backbone of Silicone) are very stable and have bond strengths higher than sunlight, making the silicone resistant to UV degradation. In addition to providing protection against the effects of ultraviolet radiation, electrical aging, and corona effect, silicone exhibits hydrophobic properties; which provide excellent recovery characteristics to control leakage currents in highly polluted or coastal environments.

The MPS silicone rubber formation has consistently outperformed other silicone formulations in its hydrophobicity, its hydrophobicity recovery rate, and enhanced electrical properties in contaminated environments.

P-S-T End Fitting Seal

The P-S-T sealing system is a triple seal design with built-in redundancies.

Primary Seal - rubber sheath compressed into chamfer of end fitting.

Secondary seal - RTV silicone applied to core / end fitting interface.

Tertiary seal - final external RTV seal applied to sheath / end fitting interface. The P-S-T system has clearly shown its superiority to withstand moisture penetration.

CR E-Glass Core

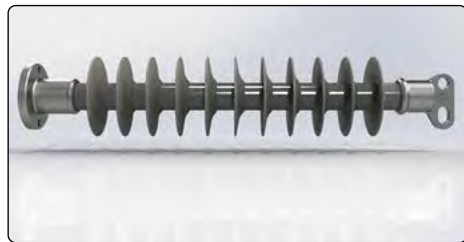
MPS uses "Boron Free" Corrosion Resistant E-Glass on all its insulators for its High Electrical Integrity & High Resistance to acid corrosion. The boron free formulation of the fiberglass core makes it resistant to nitric acid attacks and stress corrosion. There has never been a brittle fracture of a CR E-glass Insulator in over 30 years of use.

Stacked Shed

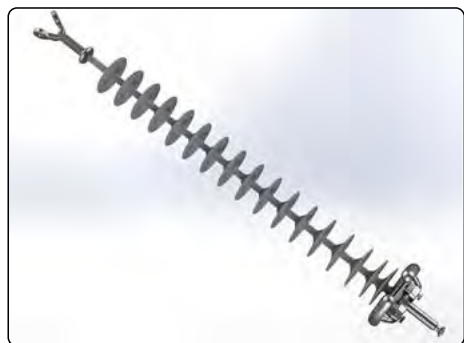
The MPS Stacked Shed configuration offers inherent protection against material aging in critical areas of the sheath and resists the resultant material erosion when installed in highly contaminated environments (resistance to Water Droplet Corona). In addition, stacked shed profiles enhance the ability of the insulator to resist mechanical damage in these most critical areas during transportation and installation.

Dual Manufacturing Processes

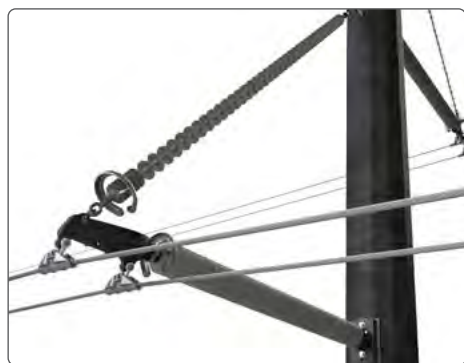
MPS offers suspension insulators made using two unique manufacturing processes, Molded and Modular, to meet the various needs of the transmission market. Both designs use the same features and materials; MPS Silicone, PST Seal, CR E-Glass, Stacked Sheds, & Smart Fit Corona Rings.



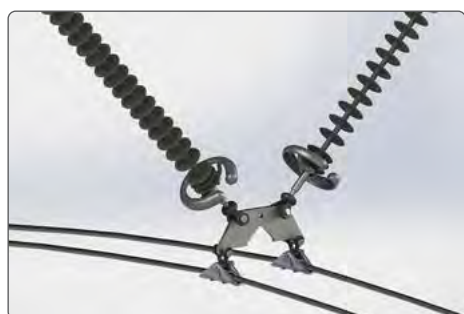
Line Post Insulators



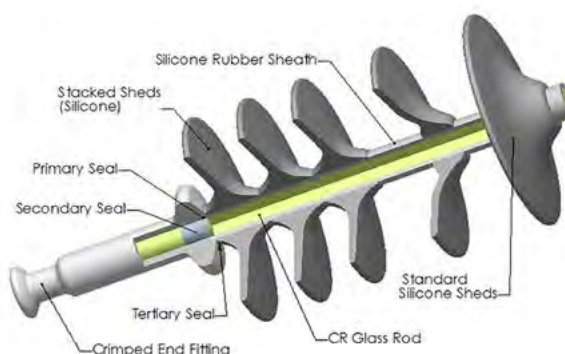
Suspension Insulators



Braced Post Insulators



V-String Assemblies



**MADE IN
THE USA**

Quality Toughened Glass Disc Insulators - LaGranja



LaGranja Insulators

Progressive asset managers recognise glass discs as providing the most cost effective transmission insulation technology when considering safety, reliability and resilience. LaGranja differentiates quality through:

- Glass shells undergoing three thermal shock cycles followed by a soak test
- Automation incorporated with cap and pin assembly and using alumina cement - hot cured
- Cap flocking (polyamide fibres) incorporated in caps reducing Corona and RIV
- Approvals for use with the most demanding utilities in the world
- Almost 90 years of manufacturing, headquartered in Spain

Product Range



Capacity (kN)	STANDARD	ANTI POLLUTION	OPEN PROFILE
	Part No.	Part No.	Part No.
70	E-70-127 E-70Z-146*	E-70PPZ-146*	E-70D-146
120	E-120Z-146*	E-120PPZ-146*	E-120D-127 E-120D-146
160	E-160Z-146* E-160Z-170*	E-160PZ-146* E-160PZ-170*	E-160D-146 E-160GD-146
210	E-210Z-170*	E-210PZ-170*	E-210GD-170
240	E-240Z-170*	E-240PZ-170*	-
300	E-300-195	E-300P-195	-

*Z = Anti-corrosion zinc sleeve collar on pin

Factory Applied RTV Silicone Coating

SILGLASS®

THE SMARTVALUE SOLUTION



- Combines toughened glass with hydrophobic properties of polymers
- Available fully coated or undercoated shell
- Suitable in severely polluted areas where washing was previously required
- Si-Coat® RTV Silicone HVIC Technologies by CSL



SILGLASS® Insulators are made using SiCOAT® RTV Silicone HVIC Technologies by CSL



Ground Rod Driver

Ground Rod Driver - iTOOLco

Part No. GRD-1

Drive ground rods safely in seconds

- Safely drive 9.5mm, 12.7mm, 14mm, 16mm and 19mm rods from the ground in under a minute with iTOOLco's Earth Rod Driver.
- Once the rod is driven down far enough the DRIVER can then be used from the top to finish the driving.

Features

- Drive earthing rods faster and safer
- Hardened tool steel construction for long life
- Multiple size rods can be driven
- SDS Max driver bit for positive connection and secure driving of rods

Never drive earth rods from a ladder again



Conductor Diameter Gauges

Conductor Gauge - TEN

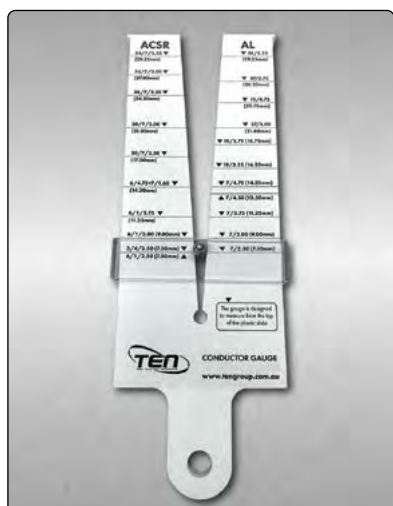
Part No. CG-430-AU

HDPE slide gauge quickly & easily identify conductor OD

- Designed for Australian AL, CU & ACSR conductors
- Measure Live Conductors
- For conductors 4.0 - 30mm Ø
- Fits universal sunrise fitting

Reduce Incorrect Conductor Identification

Part No.	Dimensions (mm)	Wt (kg)
CG-430-AU	287 (L) x 104 (W) x 10 (D)	0.26



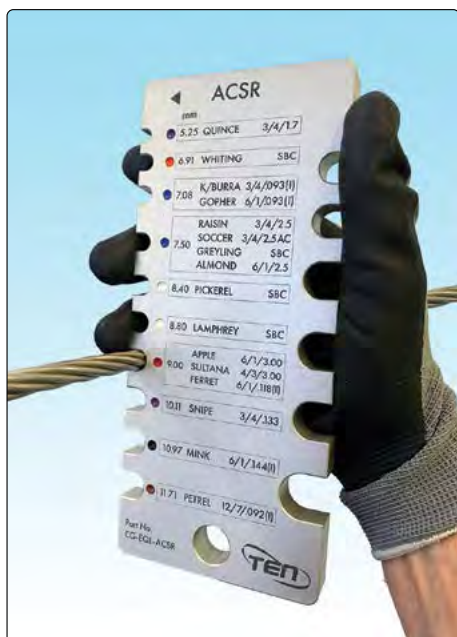
Conductor Diameter Gauge - AL, CU & ACSR

Part No. CG-EQL-Series

Quickly & easily identify common overhead electrical distribution conductor or wire sizes in AL, CU & ACSR. Markings include conductor name, stranding and overall Diameter.

- Hole in base for use with a shotgun stick and hanging storage
- Imperial and metric sizes included
- Precision machined from lightweight aluminium alloy

Part No.	Conductor Range	Dimensions (mm)	Wt (kg)
CG-EQL-ALCU	Copper 7/.064 - 4.87mm to 19/2.75 - 13.8mm	257 (L) x 91 (W) x 14 (D)	0.75
	Aluminium Locust - 7/.093 - 7.08mm to Taurus - 19/4.75 - 23.80mm		
CG-EQL-ACSR	ACSR Quince - 5.25mm to Wolf - 18.13mm	209 (L) x 91 (W) x 14 (D)	0.65





MADI
INNOVATIVE LINEMAN TOOLS



DBWB-1



FRWB-1



BB-2S



Conductor Brushes and Cleaning

Scratch Brush - "Dog-bone and Flat Round" - Madi

- Designed to encourage linemen to brush with a more convenient and ergonomic design making it more convenient than ever before
- Replaceable brush inserts make a cost effective solution
- Suitable for use up to 45mm conductor
- Made from Non-conductive materials
- Minimise open neutrals and bad connections by brushing conductors properly

Part No. DBWB-1

- Dog-bone design, colour and marking for copper one end and aluminium the other

Part No. FRWB-1

- Designed for both flat and round connection such as palms
- Replaceable brush inserts suitable for both flat and round ends

Part No.	Description	Wt (kg)
DBWB-1	Dog-bone Scratch Brush (includes one set of inserts)	0.25
FRWB-1	Flat Round Scratch Brush (includes one set of inserts)	0.25
LWB-1	Replacement Wire Brush for DBWB-1	0.10

Scratch Brush and Safety Knife - Madi

Part No. BB-2S

- Integrated wire brush for cleaning conductors to make better connections
- Replaceable brush inserts make a cost effective solution
- Suitable for use up to 25mm conductor
- Blunt Tipped fold-away blade for added safety
- Stainless steel blade for maximum durability and sharpness

Part No.	Description	Wt (kg)
BB-2S	Fold-away Safety Knife and Round Scratch Brush	0.23
WB-1	Replacement Wire Brush for BB-2S	0.10

Conductor Scratch Brushes

Part No. SB-3 & SB-4

- Used for preparing the surface of conductor prior to applying a connector/splice
- Tough stainless steel bristles resist rust
- Copper or aluminium available - use only on specified conductor to prevent cross contamination

Part No.	Colour	Conductor Type	Wt (kg)
SB-3	White	Aluminium	0.10
SB-4	Black	Copper	0.10

Stick Scratch Brushes - Hastings

Part No. Various



Part No.	10-178	10-180	10-179
Description	Complete "V" Brush unit with Handle for Gloved Hands, Shotgun Ring, Replaceable Brushes (10-179)	Complete "V" Brush unit with Universal Head Attachment, Replaceable Brushes	Pack of 10 Replacement Brushes
Material	Thermoplastic Handle & S/S Bristles	Al Alloy Body & S/S Bristles	S/S Bristles



Wedge Connectors

Wedge Clamps - CPI

Wedge Clamp Connectors consist of a spring "C"-Body and wedge combined with a "shear-head" bolt offering a high performance permanent connection that is low resistance, durable and easy to install.

Replaces fired on connectors

MAINTAINS LOW RESISTANCE CONNECTIONS AT ALL TIMES

The spring body of the connector will flex and maintain a constant force as thermal cycling causes conductors expand and contract.

SIMPLE AND SAFE INSTALLATION

During installation, when proper spring tension is achieved, the shear head bolt will break off giving the installer a positive indication of a correctly completed connection. No special tooling required.



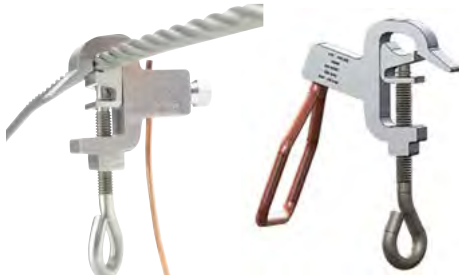
Aluminium with Bail

- Can be installed liveline with hot-sticks
- Al-Al, Cu-Cu and Bi-Metal (Al-Cu) available
- For use in all applications including critical high load areas and on overloaded circuits
- May be used in highly corrosive environments including salt laden areas to connect copper conductors
- High-conductivity grit type corrosion inhibitor is factory applied for long life
- Removable and reusable with no damage to conductor
- Remains permanently locked through fault current or power surges
- Meets or exceeds the current carrying capacity of the conductors being connected
- Complies with AS/NZS1154



Also available from Connector Products Inc

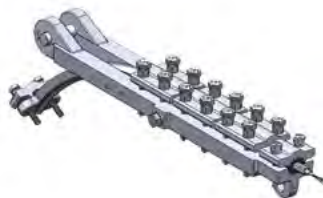
HTC SERIES HOTLINE TAP CONNECTOR



HTC SERIES HOTLINE PAD CONNECTOR



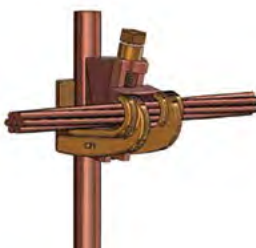
OPGW BOLTED DEAD END FIBRE OPTIC



OPGW DOWN LEAD CLAMPS FIBRE OPTIC



EARTH GRID CONNECTOR



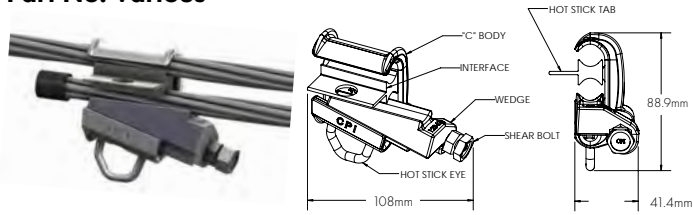
RUNNING RAIL CONNECTOR





Shear Bolt Wedge Clamp Tap Connector

Part No. Various

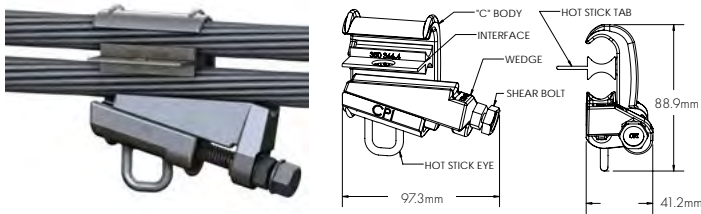


Description	Main Conductor Range (mm)	Tap Conductor Range (mm)
4 Series AL Tap Connector	4.11 to 14.57	4.11 to 14.57

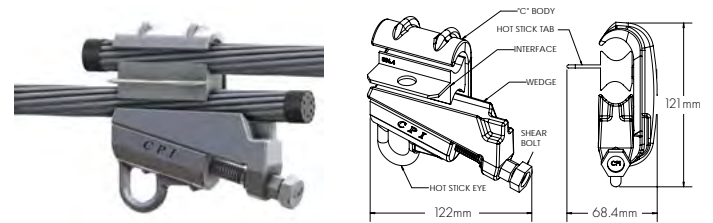
Available with Hot Stick Eyes



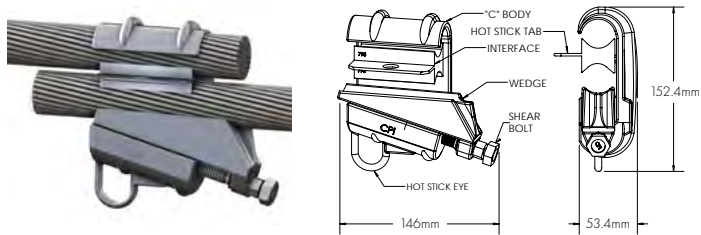
Description	Main Conductor Range (mm)	Tap Conductor Range (mm)
4 Series CU Tap Connector	5.89 to 13.46	4.11 to 13.46



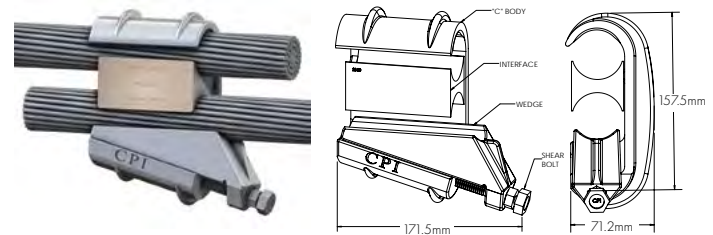
Description	Main Conductor Range (mm)	Tap Conductor Range (mm)
350 Series AL Tap Connector	14.56 to 17.37	4.11 to 17.37



Description	Main Conductor Range (mm)	Tap Conductor Range (mm)
336 Series AL Tap Connector	16.91 to 24.20	4.11 to 24.20



Description	Main Conductor Range (mm)	Tap Conductor Range (mm)
795 Series AL Tap Connector	24.71 to 33.02	4.11 to 33.02




Description	Main Conductor Range (mm)	Tap Conductor Range (mm)
1272 Series CU Tap Connector	34.16 to 46.32	8.02 to 46.32

Contact TEN for customised Conductor Charts for your network and Crossover to Ampacts


Stirrups

Connectors and Splices - CPI

Piggy Back Clamp




Part No.	Range (mm)	Feature
102011	4.11 - 7.42	550amp bail rating
102010	7.42 - 10.11	
102009	10.52 - 13.26	
264124	12.75 - 14.56	
336915-1	14.88 - 18.39	



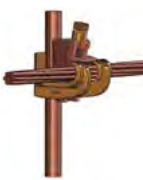
Part No.	Range (mm)	Feature
6002248	5.2 - 28.0	Shotgun Ring

Automatic Splices

Earth Grid Connectors



Part No.	Range (mm)	Feature
S750	6.35 - 8.02	Lock Wedges
S1000	7.41 - 10.51	
S2000	11.78 - 14.88	
S3000	15.46 - 18.87	
S4000	18.87 - 21.79	



Part No.	Main Range (mm)	Tap Range (mm)
900102	Stranded 13.26-14.61 Rod 14.12 (5/8)	Stranded 9.35-10.64
	Rod 12 (1/2)	Stranded 10.64
900103	Stranded 9.35- 0.64	Stranded 9.35-10.64
	Stranded 13.26 Rod 12 (1/2) - 14.12 (5/8)	Stranded 7.42



TykoFlex OPGW Joint Enclosure

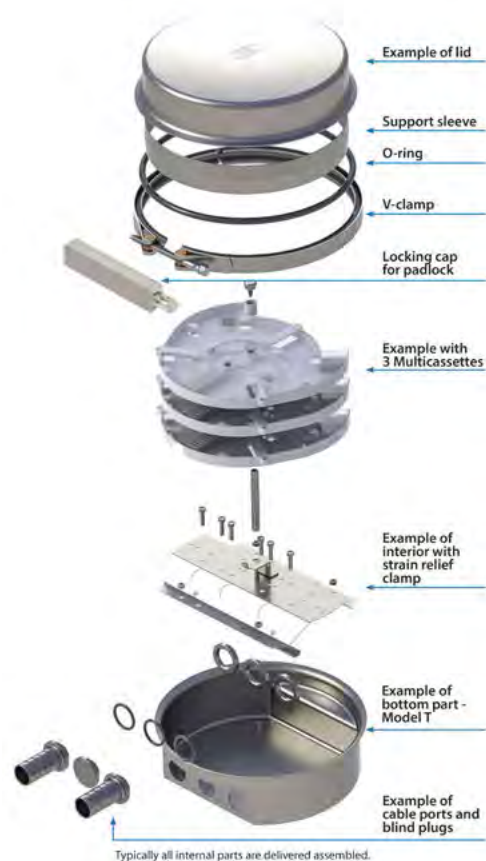
The T240 Joint Closure is part of a modular system of lockable closures made of acid proof stainless steel. The main benefits of the system are superior flexibility, easy handling, and tightness against overpressure as well as vacuum. The closures are designed for use in demanding environments. Together with desiccator the closure remains free of humidity even under extreme conditions.

The closure is suitable for use above ground attached to high voltage towers, poles, walls or other support structures. The TykoFlex closure can be tailored to almost any required configuration. It is designed to provide water and pressure-tight environmental protection for optical fibres and optical fibre splices for all cable designs. The closure is therefore suitable for ground installations in manholes, tunnel systems and sewage lines.

Joint Closure

Part No. T240

- IP69/K Rated
- 316L Acid Proof stainless steel closure
- Modular design with few parts
- Splicing in Multicassette fibre organizers
- V-clamp and EPDM rubber O-ring sealing
- Rugged design
- Quick and easy installation
- High fibre count capacity
- Suitable for use in harsh environments
- Lockable with optional locking cap and padlock

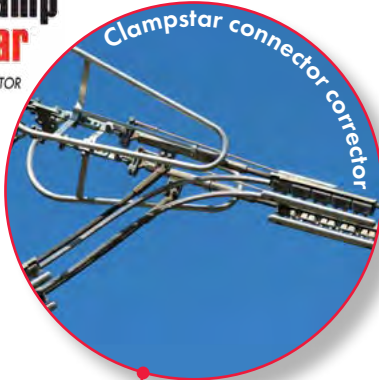


For more information or a quote on your OPGW project contact TEN with your cable specifications

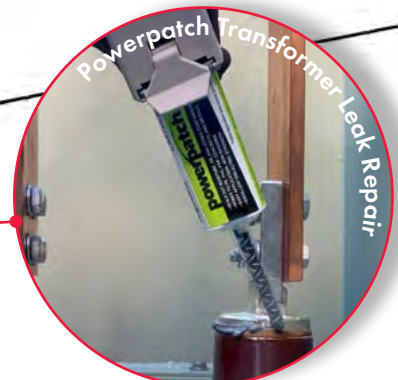




ASSET LIFE EXTENSION - ALE



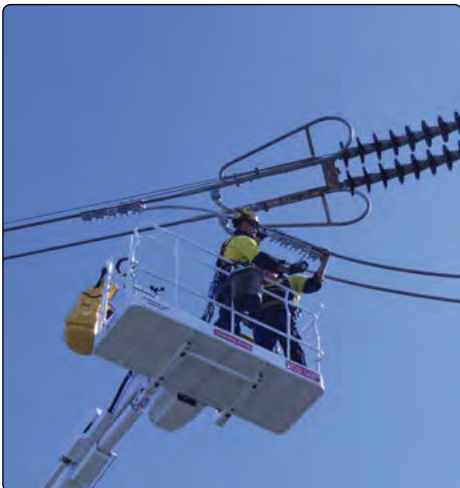
ALE





**Failing connectors are repaired
with NO power interruption**

Install by:



Clampstar

Connector Corrector

ClampStar® is an Engineered Mechanical Shunt also known as a Connector Corrector that is intended to correct and reinforce the deteriorated electrical and mechanical performance of hot, aged or degraded midspan joints and other connectors, clamps and fittings.

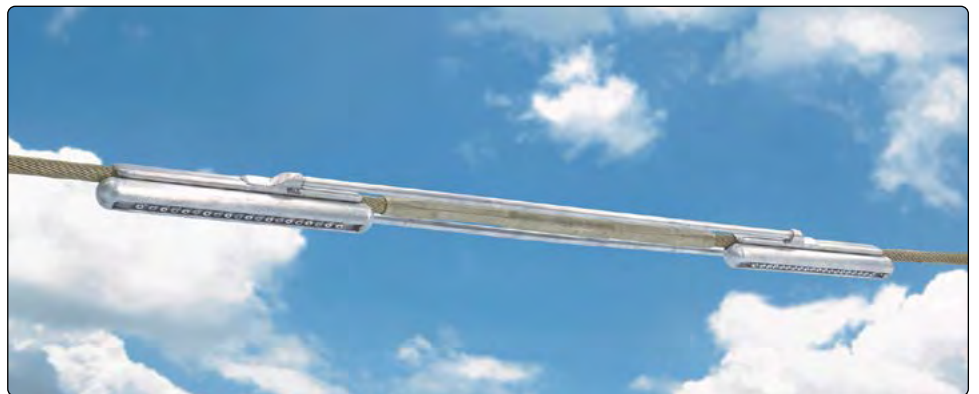


A popular use of ClampStar® is to increase the performance rating of existing midspan joints and other connectors, clamps and fittings for the purpose of increasing line ampacity that may be presently limited by current connections.

ClampStar® eliminates risk and prevents catastrophic connector failures before they happen, and are installed in just minutes.

ClampStar® provides great benefit to the utility:

- Lightweight design installs in less than 10 minutes!
- Permanent installation for deadends, midspan joints, suspension clamps, OPGW and damaged conductor
- Easily installs over existing connectors or suspension points
- No rigging equipment required such as special mechanical grips, Come-Alongs, jumpers or cutters
- Can be installed with hot stick or barehand methods
- Available for copper, ACSR and all aluminium stranded conductors



Connector Correctors are available for all common conductors and applications. Bespoke designs available, contact TEN with your connector challenge



ClampStar Applications

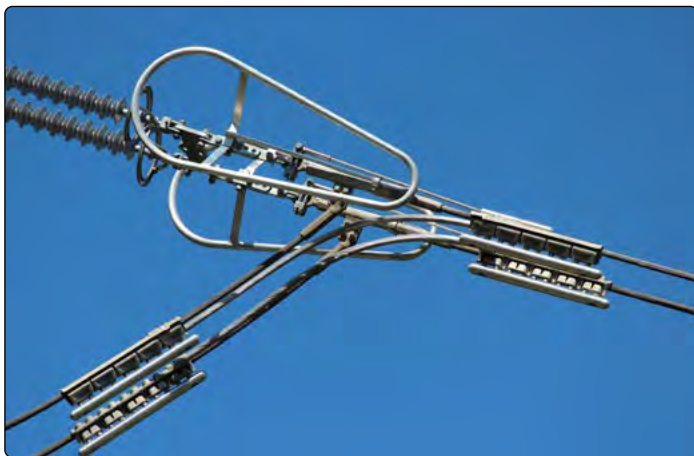
Failing Mid-Span Joints

- Failing midspan joints are repaired with NO power interruption and splice replacement is no longer necessary
- The electrical and mechanical integrity is restored to the joint and ampacity is increased
- The units are pre-shipped with a proprietary high performing inhibitor ensuring the best possible connection at the interface
- The units are simply placed over the damaged midspan joint and the shear off bolts tightened with a battery impact drill or podger



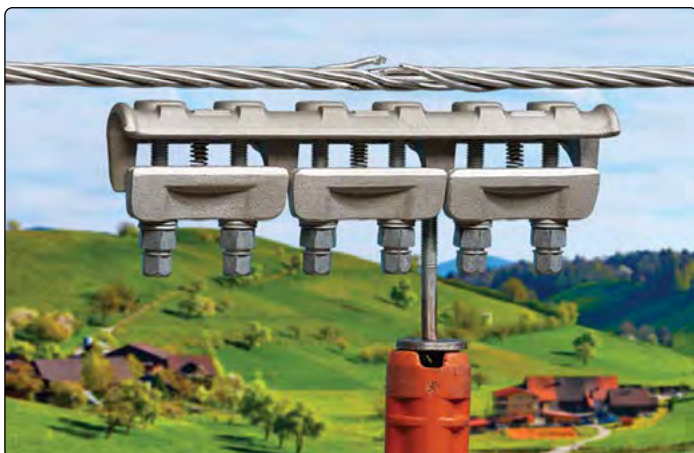
Damage at Suspension Clamps

- ClampStar® provides an elegant, economical and easily installed solution for restoring the electrical and mechanical integrity of conductor damage at the suspension clamp, without the need for costly re-stringing
- Safe-T-Link Tether assemblies are available for suspension clamp applications requiring additional mechanical support where the tensile strengths of the conductor have been compromised.



Failing Dead-Ends

- The ClampStar® dead end assemblies can be installed from a helicopter or basket, working live, in as little 15-30 minutes
- The restoration of mechanical integrity is accomplished with the Safe-T-Link tether. The purpose of the tether is to "arrest" any possible elongation of the original deadend
- Deadend solutions can be custom designed to meet your construction



Conductor Repair

- Classic Connectors ClampStar® Repair Units are a cost effective and time efficient solution to repairing damaged conductors including OPGW outer strands damaged by lightning strikes
- Installation takes less than 10 minutes and units can be installed without power disruption barehand or by hot stick.
- The units are simply placed over the damaged section of conductor/OPGW and the shear off bolts tightened with a battery impact drill or podger.



SCAN or CLICK
QR-Code for installation



Genics Test and Treat

The preservation of wood poles should be considered as a system. Genics has a solution that address each of the mould and decay degradation issues facing your wood pole network. Cobra Rods, CuB Liquid, Cobra Wrap and Cobra Cap are just some of the products in the range. If we look at combining these products for protecting and treating affected areas, this system maximises efficacy and extends the life of wood pole assets.



Cobra Rods

- Internal Co-Biocidal Diffusible Rod for remedial and preventative treatment of timber utility poles and other wood structures
- Boron and Copper complex, raw ingredients fused into an amorphous glass rod
- Product is hydrophilic and will seek out moisture
- Suitable for treatment of Basidiomycetes (Brown and White rots) and Ascomycetes (soft rot fungi)
- Safe chemical profile requiring minimal PPE
- Contact TEN for information on load rate calculators for prevention and remedial treatment



Cobra Wrap

- External Pole wrap with hydrophobic pads that are immersed in Copper Naphthenate (CuNap) solution
- Acts as a physical barrier to the soil and provides the elemental treatment of copper to the face of the pole impeding soft rot
- Long lasting plastic wrap with rechargeable pads, offering a long lasting, low cost external treatment solution
- Available option: Tough wearing tape applied in exposed areas to provide protection for the wrap against power garden tools



CuB Liquid

- Copper-borate water based liquid preservative made from the glass rod
- Contains no harmful VOC's
- Shock treatment designed to be applied to poles exhibiting active rot
- Ideal for dry environments where very little moisture content is available for rod activation
- Ideal for above ground applications
- Available option: CuB liquid applicator
- Use in combination with Cobra Rods for effective remedial treatment



Cobra Cap

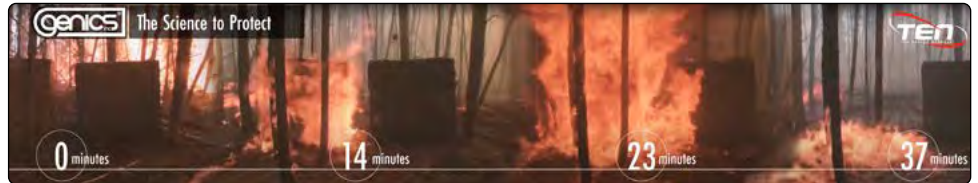
- Protection against rot at the pole top
- Includes 2 x Cobra rods for treatment
- Easy to install
- Easy to replace treatment when required
- Hard durable long lasting plastic





Genics Fire Mesh

Power grids face an increased risk from bushfires and the devastating impacts on supply and infrastructure damage. Whilst there has been a lot of excellent development in the prevention and mitigation of bushfires resulting from network faults, TEN has sought product solutions to hardening the network and creating pole resilience in the event of a bushfire.



Fire Mesh

Part No. 53175

- Genics fire mesh is a protective barrier designed to protect wood structures from burning and to minimise scorching
- Made up of an intumescent grid that is coated with a durable double layered intumescent polymer
- Fire mesh is breathable and allows the pole to maintain its homeostatic state
- The fibreglass mesh substrate is extremely light weight and durable and can be applied to new poles before transport
- Favourable environmental and safety profile, animal safe, there is no leaching of chemicals and it is safe to handle
- Heavily tested to the proposed ASTM Wood Pole Fire Test Standard
- Accelerated weathering testing to determine UV performance
- Intertek tested and listed
- Work practice available (included with all purchases) for easy installation
- In stock at TEN



Durable for Pre-wrapping prior to transport

For a detailed presentation on how fire mesh can prevent pole and power loss in a bushfire event, contact TEN



PREVENT THIS

BY APPLYING THIS





Pole Life Systems

Strong, Lightweight Material

Pole Life Systems Inc. was established to solve a major problem that electrical utilities are currently experiencing in their wood pole asset management programs world-wide.

Pole Life's patented technologies have revolutionised pole top restoration creating "pole prosthetics", the first life extension products for the industry. Pole Life Systems have developed a lightweight, non-conductive, fire retardant, low cost and structurally sound system that reinforces wood pole tops

A selection of Pole Life Systems Asset Life Extension solutions can be found below:

- Poly Fibre Resin Composite (PFRC) material that is strong, lightweight and durable with integrated UV protection, fire retardancy and immunity to rot, corrosion and insects.
- Integral fabric surfacing veil
- High performing compressive strength of 2,273kg
- Resin-rich barrier
- Long-term weather and UV resistance
- Retention of properties for decades
- Protection from surface erosion and abrasion vs. painted coatings

Pole Top Reinforcement - Vertical

- Easily installed system that lowers the structural attachment point in all decayed pole tops
- Maintains conductors in their current position
- Can be used for any wood pole damage caused by deterioration, cracking or storm damage
- Two sizes cover LV and HV poles
- Installed for a fraction of the cost of pole replacement
- System requires Insulator supports and backing plate
- Also available for pole top pin reinforcement
- Custom applications also available

Cross Arm Reinforcement

- Simple and extremely sturdy crossarm pole top support system
- Provides structural reinforcement to degraded wood poles with cross-arms
- Suits timber, steel or fibreglass cross arms
- Flanges to support the cross arm
- Custom applications also available

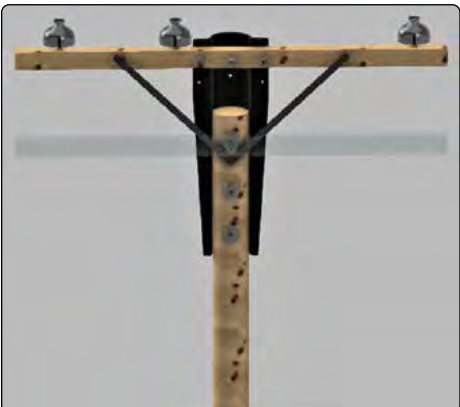
**Addressing CTG
and CTS issues**

Cross Arm Extension

- Bracket lifts the cross arm from the original height, up to 450mm higher
- Perfect for Conductor-to-Ground (CTG) and Conductor-to-Structure (CTS) issues
- The CA50 provides a new vertical height clearance without needing to change the pole

Pole Life Systems have over 40 years of construction and utility engineering design experience and hold 11 patents on pole restoration solutions.

Contact TEN for more information on the Pole Life System range.





Laminated Wood Systems

Pole Enforcer by LWS

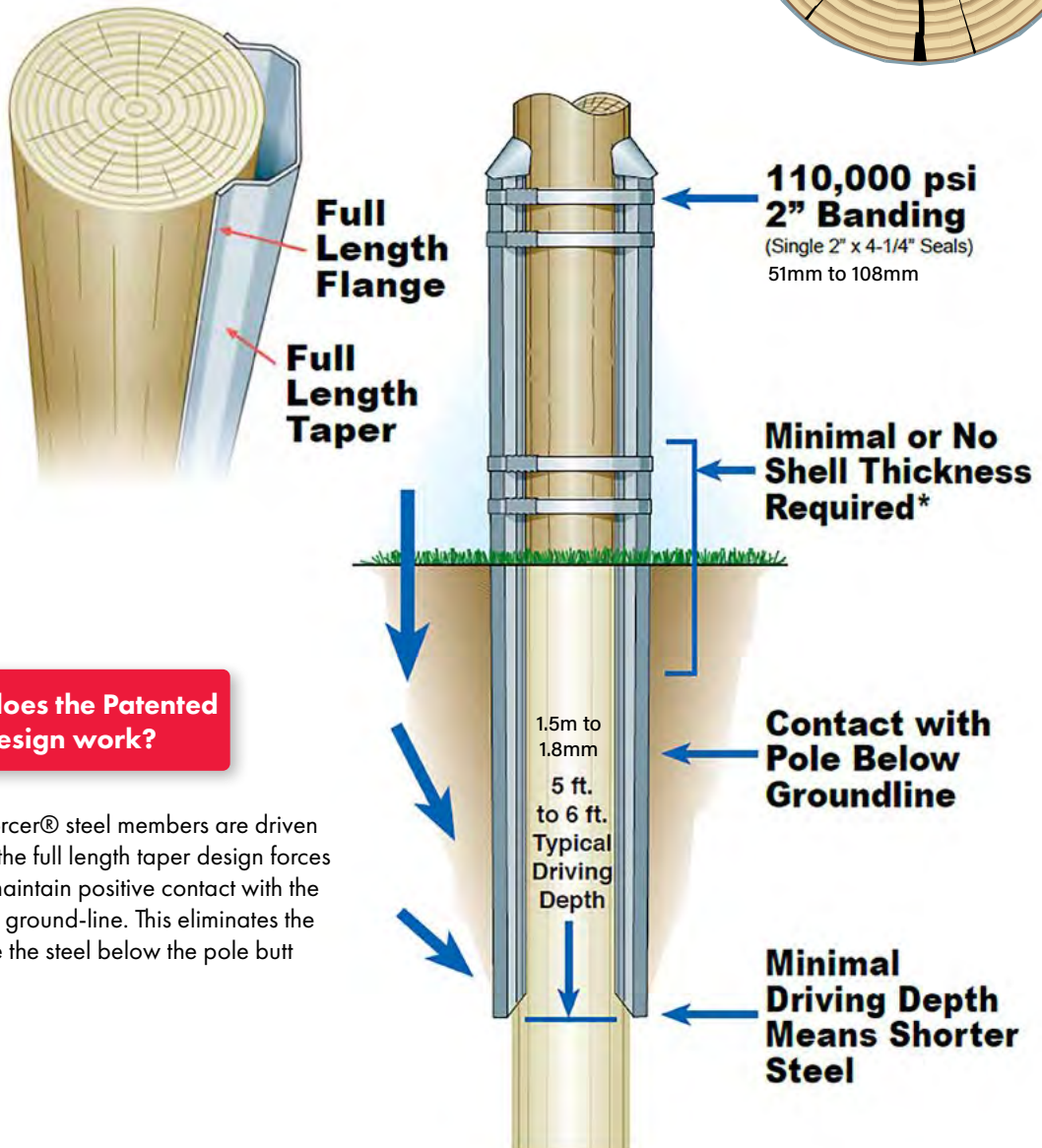
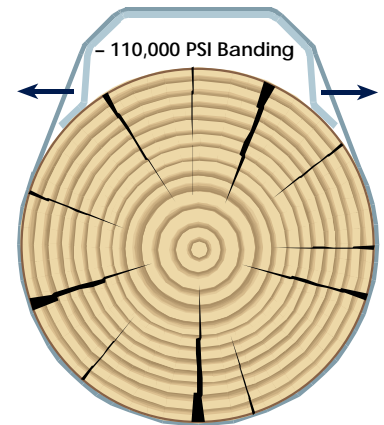
The patented PoleEnforcer® proves that **"all steel is NOT created equal"**

The PoleEnforcer's patented design ensures positive contact with the pole below the ground-line - thus bridging the decayed area and transferring the load to the pole butt - that is TRUE POLE REINFORCEMENT. Other reinforcement systems in the market can be considered "pole stubs" and not true reinforcement systems.

- The full length flange increases load bearing surface and eliminates "knife edge" contact with the pole
- Steel Unit acts as a "spring" once bands are installed following the expansion and contraction of the wood
- Contained tension keeps the bands/unit secure even if pole diameter changes.



PoleEnforcer®
PATENT NO. 5,353,148



How does the Patented design work?

As the PoleEnforcer® steel members are driven into the ground, the full length taper design forces the flanges to maintain positive contact with the pole below the ground-line. This eliminates the need to drive the steel below the pole butt



Conductor Covers

'GreyEEL' - Reliaguard

Prevent animal and bird related outages

Protecting conductors is an essential component in conjunction with effective guards to prevent animal and bird caused outages.

Reliaguard's GreyEEL Conductor Cover helps prevent contacts by eliminating gaps in coverage.

The product's improved protection is achieved with a significantly overlapped seam design and material memory technology that supports exceptional closure performance.

- Silicone rubber tubing that is highly flexible and makes application easy
- Will not burn or drip
- Does not require further derating of conductors as it has been proven to aid in dissipating heat from cables rather than trapping it once applied.

Part No.	Conductor Size Range (mm)	Length (m) per box
EL-02503750-50-Y	5.1 - 9.4	15
EL-03750500-50-Y	9.5 - 12.6	
EL-05000750-50-Y	12.7 - 18.9	
EL-07501000-50-Y	19 - 25.4	
EL-10001250-50-Y	25.5 - 32.9	
EL-12501500-50-Y	33 - 36.8	7.5
EL-15001750-25-Y	38.1 - 44.4	
EL-17502000-25-Y	45.7 - 50.8	

The EEL Slider

Comprehensive coverage with Grey EEL and EEL Slider

- With the EEL Slider™, GreyEEL™ Conductor Cover slides onto conductors easily in a matter of seconds
- No fumbling around trying to pry conductor covers open or closing it back together
- The EEL Slider is made from a dielectric material



Also available from Reliaguard - contact TEN for detailed line information

TRANSFORMER BUSHING GUARD



SUSPENSION CLAMP GUARD



REGULATOR KITS



WILDLIFE HOT STICK DISC



PIN INSULATOR GUARD



For more information about Reliaguard, its testing to IEEE1656 or to view the range of wildlife mitigation solutions, SCAN or CLICK the QR Code to download a copy of their catalogue or contact TEN



SALISBURY

by Honeywell



Stinger Covers - Salisbury

Part No. Various

Stinger Covers protect against phase to phase and phase to earth wildlife contacts. The stinger cover can be installed over wire without the need to disconnect the lead wire from the bushing. Available in two diameters, it is easily cut in the field to the needed length.

Stinger covers are track resistant and made from Ozone and UV resistant SALCOR® elastomer in a grey color. The covers are proven to provide years of reliable service either independently or when used with bushing covers.



Part No.	I.D. (mm)	Total Length (m)	Quantity	Flashover Test (kV)		Wt (kg)
				Phase to Earth	Phase to Phase	
58-100SC	15.9	30.5	1 x 30.5	12.5	22	20.5
34-25SC	19.05	15.0	2 x 7.5	14.9	26	10.0

Pole Repair

UPR Pole Repair - Polywater

Part No. UPR Series

Polywater® UPR™ Utility Pole Repair makes it easy to repair pole damage such as decay and splits. The two-part formula is mixed quickly and injected into the hole through the 250mm mixing nozzle.

The UPR™ Pole Repair resin and hardener were specially formulated to expand in the pole cavity rather than to just fill. Because UPR™ Pole Repair expands in the hole, it easily fills irregularly shaped cavities for solid integration with the wood. This creates superior adhesion to the wood grain compared to non-expanding products. The exothermic reaction creates an environment that reduces the presence of bacteria.

- EXPANDS - Completely fills irregularly shaped cavities
- ADHERES - Solidly integrates with surrounding wood
- QUICK - Two-part formula mixes in nozzle when applied

UPR™ Pole Repair comes in two types.

1. The "PR" version is a liquid formula that flows around wood block fillers to save material.
2. The "NF" is a quick-gelling version that will not leak or drip out of wood cracks at the bottom of the hole.



Part No.	Kit Includes
UPR-PRKIT12	12 - 250-ml UPR™ Pole Repair cartridges, 16 mixing nozzles, 18 green-treated wood blocks, 1 roll of stretch wrap, 4 pair of gloves, Instructions
UPR-NFKIT12	12 - 250-m UPR™ "NO FLOW" Pole Repair cartridges, 18 mixing nozzles, 1 roll of stretch wrap, 3 pair of gloves, Instructions
TOOL-250	High Ratio Caulking Gun



Polywater®
Solutions at work.

Leak Repair Kit - Polywater

PowerPatch™ Leak Repair Kit

Part No. EPCT Series

The PowerPatch® Sealant is provided in a kit containing the surface preparation and patching materials necessary to repair leaks in oil filled transformers, SF6 Gas, sealing lead-sheathed cables, potheads and other oil-filled electrical equipment.

Features

Quick plugging action -

A fast-cure putty that stops oil

Permanent seal - A 2-part paste overcoat forms a permanent seal

Durable - Finished seal is impervious to water, oil and weather

Fast - System can plug and seal active leaks in minutes

Saves money - Faster than welding. Transformer may stay in service

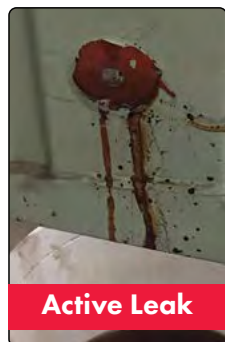
Simple - Eliminates "bagging" or removal from field and unexpected outages

Convenient - Kit contains all materials needed to fix leak while in the field

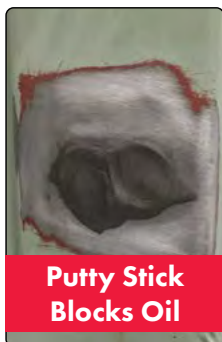


Part No. EPCT-KIT1 + TOOL-50-11

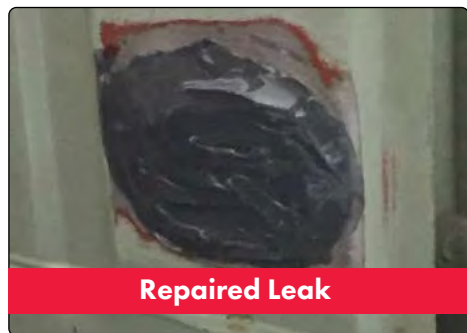
Repair active leaks



Active Leak



Putty Stick
Blocks Oil



Repaired Leak

**Non-conductive with
a dielectric strength of 43kV
(ASTM D149)**



Part No. EPCT-250KIT1



Application Tool: TOOL-50-11

Part No.	Kit Includes
EPCT-KIT1	2 x PowerPatch® 2-Part 50ml Cartridges with 4 static mixers 2 x Putty sticks, 8 x Type TR™ cleaning and preparation wipes 1 x 600mm sandpaper strip, 4 x application sticks, and instructions
EPCT-KIT1-G	Kit As Above (EPCT-KIT1) + Application Gun (TOOL-50-11)
TOOL-50-11	Application Gun only. Suits Powerpatch EPCT-KIT1 and Mini FST
EPCT-250KIT1 (Large Format)	1 x PowerPatch® 2-Part 250ml Cartridge with 3 x static mixers 2 x Putty sticks, 8 x Type TR™ cleaning and preparation wipes 1 x 600mm sandpaper strip, 3 x application sticks, 1 x instruction sheet
EPCT-250KITB12 (Large Format)	12 x PowerPatch® 2-Part 250ml Cartridge with 12 x static mixers 24 x Nitrile Gloves, 1 x 600mm sandpaper strip 12 x application sticks, 1 x instruction sheet

SIMPLE TO APPLY

Use the PowerPatch® System's putty stick to block oil and SF6 leaks.

Then make a permanent patch with the fast cure, 2-part paste overcoat. Ensure optimal mix and performance with pre-measured packaging. It is non-conductive and has a dielectric strength of 43KV (ASTM D149).

Fixes leaks fast. At 21 °C, the putty and sealant harden in about 10 minutes.

The finished patch is resistant to transformer oil and SF6 and has held oil pressures in excess of 100 psi. Product is able to be stored and reused multiple times please refer to the SDS for shelf life information. Preparation is extremely important, and the kit provides everything needed to do the job, although in instances of excessive oil leakage or dirt accumulation, separate scrubbing rags such as Grime-Away™ Cleaning Wipes are helpful.

Contact TEN for advice on your leaking equipment

**Ideal for: Transformers
SF6 Gas Equipment
Oil-filled equipment
Pothheads (UG-HO)**



Also suitable for use with battery powered caulking guns



Duct Sealing Systems

FST™ Duct Seal is a two part “closed cell foam”, with high density properties, this keeps water, acids, greases, gases, insects and rodents out of the conduit.

The foam has good wetting and adhesion to metals, plastics, and concrete.

FST Duct Sealant™ Features

- 98% closed-cell content for increased strength and resiliency
- Resists 6.7m of water-head pressure
- Compatible with cable and duct materials
- Chemically resistant to gasoline, oils, dilute acids and bases, and most unsaturated hydrocarbons
- Prevents the passage of gas, does not sag, will not dry out and is re-enterable
- Quick: Foam expands and cures quickly even when water is present
- Multi-Use: Packages are resealable

FST Quick Setting - Polywater

Part No. FST-250KIT1

FST™ Duct Sealant in a 250ml field ready cartridge kit.

Recommended for conduits 50 to 200mm.

Part No.	Kit Includes
FST-250KIT1	1 x 240g two-part Foam Sealant caulking tube style with resealing cap 3 x Mixing nozzles, 4 x 600m Foam damming strips 1 x Position rod, 1 x Pre-treating wipe, Instruction Sheet

FST Burst Pack - Polywater

Part No. FSTBP-200KIT1

FSTBP Duct Sealant comes in an easy to use, self-dispensing burst pack.

Ideal for the protection of conduits 125mm to 200mm.

Part No.	Kit Includes
FSTBP-200KIT1	1 x FSTBP-200KIT1-200 Burst Pack 1x Pair of gloves, 1 x Sanding cloth 4 x Foam Strips, 1 x Prep. Wipes, 1 x Instructions

FST MINI - Polywater

Part No. Various

Effectively Seals Small Conduits and Inner-ducts

Polywater® FST™ MINI is 50ml field ready kit.

Recommended for small conduits 20 to 50mm



Part No.	Description
FST-MINI	1 x 50ml FST Cartridge, 2 x Mixing Nozzles, 6 x Foam Discs 1x Pair of gloves, 1 x Instructions
TOOL-50-11	Application Tool



Cable Pull Planning Software - Polywater

Pull-Planner™ 4.0

Design Safe and Efficient Cable Pulls with Pull-Planner™ 4.0

Pull-Planner 4.0 makes the planning of any cable hauling project easier and more efficient.

Benefits

- Calculates maximum pulling and sidewall tensions to reduce joints and avoid cable damage
- Provide a detailed pull plan to your client for sign off
- Understand your coefficient of friction and maximise the length of run, based on using a high quality or specification grade lubricant*
- See the difference in varying coefficients of friction and determine the significant value created using a specification grade lubricant from Polywater
- Resource your job with the most suitable equipment
- Designers can minimise the number of pulling pits required in a cable run, saving considerable time and money
- Calculate the impact of bends, multiple cables, rollers/sheaves, pushing devices and back tension off drums and direction of pull
- Ability to provide a field based COF once the cable pull is complete
- Uses the well establish Rifenburg equation



Program for Cable Pulling Tension Calculation and Conduit System Design

Pull-Planner™ Report

Typical Pull-Planner™ Report

<p>Pull Name: 1C 630mm2 132kV HDPE Cable 150mm Conduit</p> <p>Conduit ID: 150 millimeter(s) Conduit Fill: 42.4%</p> <p>Total of 1 cable(s) of 1 different type(s) being pulled.</p> <p>Type #1 1 Cable(s) O.D. of 97.6 mm weight of 12.8 kgs/m</p> <p>Total cable weight: 12.8 kgs/m</p> <p>Weight correction factor set to: 1</p> <p>Configuration: Single Cable</p> <p>Jam/Clearance Analysis: Jamming Not Possible</p>	<p>Polywater® J with Jacket: HDPE and Conduit: PVC</p> <p>Pull Detail Summary</p> <p>Total (Cumulative) Bend: 211.6 degrees</p> <p>Total Length Including Bends: 909 meters</p> <p>Conduit Fill 42.4 %</p> <p>Total Cable Weight: 12.8 kgs per meter</p> <p>Conduit Condition: Good</p>	<p>Recommended Quantity : 185 Liters</p> <p>Lubricant Notes</p> <p>Lubricant Best COF Value: 0.090</p> <p>Un-Lubricated COF Value: 0.390</p> <p>* Additional lubricant in recommended quantity based on long pull length.</p> <p>* Additional lubricant in recommended quantity based on total degree of bend.</p>
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Seg #	Straight Section Slope (°)	Slope Direction	Straight Section Length (m)	Straight Section COF	Tension (kN)	Bend Type	Bend Direction	Bend Radius (m)	Bend Angle (°)	Bend Length (m)	Bend COF	Tension (kN)	Sidewall Pressure (kN/m)
1	0	--	100.0	0.11	1.38	Horizontal	--	6.00	11.3	1.2	0.11	1.42	0.24
2	0	--	55.0	0.11	2.17	Horizontal	--	6.00	90.0	9.4	0.11	2.61	0.43
3	0	--	212.0	0.11	5.53	Horizontal	--	6.00	33.0	3.5	0.11	5.90	0.98
4	0	--	115.0	0.11	7.49	Horizontal	--	6.00	33.0	3.5	0.11	7.98	1.33
5	0	--	80.0	0.11	9.08	Horizontal	--	6.00	33.0	3.5	0.11	9.68	1.61
6	0	--	215.0	0.11	12.65	Horizontal	--	6.00	11.3	1.2	0.11	12.93	2.15
7	0	--	110.0	0.11	14.45	None	--	--	--	--	0.11	14.45	--

The Pull-Planner™ 4.0 Software uses the cable pulling (tension estimation) equations common in technical studies and included in a number of industry standards. The friction coefficients in the software database are laboratory measurements. A number of field factors can influence the effective coefficient of friction. Engineering judgement and experience should be used in the selection of appropriate friction coefficients for use in the calculations.



* See Pulling & Hauling Section for Polywater's range of Cable Lubricants

SCAN or CLICK to view Polywater's Cable Jacket Coefficient of Friction Test methods

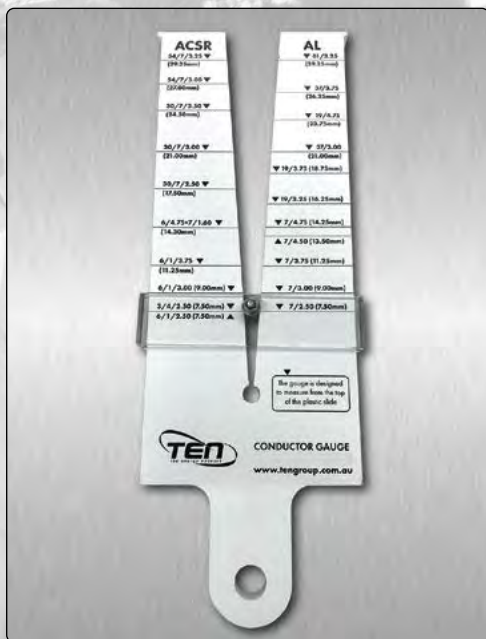


Contact TEN for further information on how the Planner can improve your next cable pull.



NOTES

Conductor Diameter Gauges



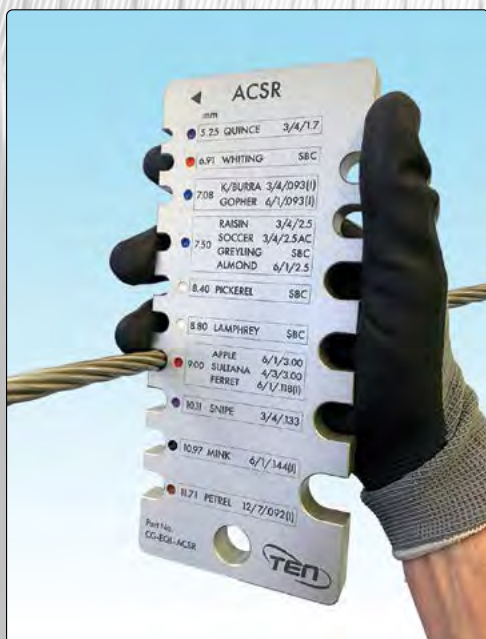
Part No. CG-430-AU

REDUCE INCORRECT CONDUCTOR IDENTIFICATION

Conductor Gauge - TENG

HDPE slide gauge quickly & easily identify conductor OD

- Designed for Australian AL, CU & ACSR conductors
- Measure Live Conductors
- For conductors 4.0 - 30mm Ø
- Fits universal sunrise fitting



Part No. CG-EQL-Series

Conductor Diameter Gauge -AL, CU & ACSR

Quickly & easily identify common overhead electrical distribution conductor or wire sizes in AL, CU & ACSR. Markings include conductor name, stranding and overall Diameter.

- Hole in base for use with a shotgun stick and hanging storage
- Imperial and metric sizes included
- Precision machined from lightweight aluminium alloy



Handy Reference Guide

- ▶ ABC and CCT Specifications
- ▶ AAC, AAAC, ACSR, SC/GZ, SC/AC and HD/CU Specifications
- ▶ American Wire Gauge Cross reference
- ▶ Conductor Cross-Sectional area reference guide
- ▶ Common Metric/Imperial conversions
- ▶ IP Rating Chart
- ▶ PVC Conduit/Pipe Specification guide





NOTES

Handwriting practice area consisting of 20 horizontal dotted lines.

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ABC - Aerial Bundled Conductor

Cross-Sectional Area (mm²)	Nominal Conductor OD (mm)	Average Insulation Thickness (mm)	Nominal Dia. over Insulation (mm)	Nominal Dia. Over Laid-Up Cores (mm)	Approx. Mass (kg/km)	Minimum Bending Radius - Installed (mm)		Min. Breaking Load of Cable (kN)	Rec. Tension	
						Core	Cable		Highest Everyday Tension (kN)	Max Working Tension (kN)
2 CORE										
16	4.7	1.3	7.4	14.8	130	30	90	4.4	0.79	1.23
25	5.9	1.3	8.6	17.2	190	35	100	7.0	1.26	1.96
35	6.9	1.3	9.6	19.3	250	60	120	9.8	1.76	2.74
50	8.1	1.5	11.2	22.3	340	65	130	14.0	2.52	3.92
95	11.4	1.7	14.9	29.8	640	90	270	26.6	4.79	7.45
3 CORE										
25	5.9	1.3	8.6	18.5	290	35	110	10.5	1.89	2.94
35	6.9	1.3	9.6	20.8	370	60	120	14.7	2.65	4.12
50	8.1	1.5	11.2	24.1	510	65	140	21.0	3.78	5.88
4 CORE										
16	4.7	1.3	7.4	17.8	270	30	110	8.8	1.58	2.46
25	5.9	1.3	8.6	20.8	390	35	120	14.0	2.52	3.92
35	6.9	1.3	9.6	23.2	500	60	140	19.6	3.53	5.49
50	8.1	1.5	11.2	27.0	670	65	160	28.0	5.04	7.84
70	9.7	1.5	12.8	30.8	930	75	280	39.2	7.06	11.00
95	11.4	1.7	14.9	36.0	1280	90	320	53.2	9.58	14.90
120	12.8	1.7	16.3	39.3	1570	100	350	67.2	12.10	18.80
150	14.2	1.7	17.7	42.8	1890	110	390	84.0	15.10	23.50

CCT - Covered Conductor Thick

Nominal Conductor Area (mm²)	No. & Nominal X of Wires (No./mm)	Nominal Conductor (mm)	Average Insulation Thickness (mm)	Nominal Dia. Over Insulation (mm)	Approx. Mass (kg/km)	Minimum Bending Radius - Installed (mm)	Min. Breaking Load of Cable (kN)	Rec. Tension	
								Highest Everyday Tension (kN)	Max Working Tension (kN)
6.35/11kV									
40	7/2.75	8.4	3.4	15.8	260	240	9.9	1.49	4.96
80	7/3.75	11.4	3.4	18.8	400	280	17.6	2.64	8.80
120	7/4.75	14.5	3.4	21.9	580	330	27.1	4.07	13.60
180	19/3.50	17.7	3.4	25.0	790	380	41.7	6.26	20.90
240	19/4.01	20.2	3.4	27.7	1000	420	52.3	7.85	26.20
17.7/22kV									
80	7/3.75	11.4	5.5	23.0	530	350	17.5	2.64	8.80
120	7/4.75	14.5	5.5	26.1	720	390	27.1	4.07	13.60
180	19/3.50	17.7	5.5	29.2	960	440	41.7	6.26	20.90

AAC - All Aluminium Conductor - Australian Standard

Conductor Name	Reference Strands/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
GEMINI	7/1.75	5.25	3.01	46.1
JUPITER	7/2.25	6.75	4.76	75.9
LEO	7/2.50	7.50	5.7	94.3
LIBRA	7/3.00	9.00	7.9	135
MARS	7/3.75	11.30	11.8	211
MERCURY	7/4.50	13.50	16.9	304
MOON	7/4.75	14.30	18.9	339
NEPTUNE	19/3.25	16.30	24.7	433
PLUTO	19/3.75	18.80	31.9	576
SATURN	37/3.00	21.00	42.2	721
TAURUS	19/4.75	23.80	51.3	924
TRITON	37/3.75	26.30	62.2	1120
URANUS	61/3.25	29.30	75.2	1400
URSULA	61/3.50	31.50	87.3	1620
VENUS	61/3.75	33.80	97.2	1890
VIRGO	91/4.50	49.50	207	4010

AAC - All Aluminium Conductor - New Zealand Standard

Conductor Name	Reference Strands/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
NAMU	7/2.11	6.33	4.1	70
POKO	7/2.36	7.08	5.1	80
KUTU	7/3.00	9.00	7.9	140
RANGO	7/3.66	10.98	11.7	200
WEKE	7/4.72	14.61	18.5	340
WETA	19/3.35	16.75	26.2	460
MATA	19/3.86	19.30	33.8	610

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**AAAC 1120 - All Aluminium Alloy Conductor**

Conductor Name	Reference Strands/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
ARGON	7/1.75	5.25	4.0	46.10
BORON	7/2.25	6.75	6.61	75.9
CHLORINE	7/2.50	7.50	8.1	94.3
CHROMIUM	7/2.75	8.25	9.9	113
FLUORINE	7/3.00	9.00	11.8	135
HELIUM	7/3.75	11.25	17.6	211
HYDROGEN	7/4.50	13.50	24.3	304
IODINE	7/4.75	14.25	27.1	339
KRYPTON	19/3.25	16.25	37.4	433
LUTETIUM	19/3.50	17.50	41.7	503
NEON	19/3.75	18.75	47.8	576
NITROGEN	37/3.00	21.00	62.2	721
NOBELIUM	37/3.25	22.75	72.8	845
OXYGEN	19/4.75	23.75	73.6	924
PHOSPHOROUS	37/3.75	26.25	93.1	1120
SELENIUM	61/3.25	29.25	114	1400
SILICON	61/3.50	31.50	127	1620
SULPHUR	61/3.75	33.75	145	1860
XENON	91/4.5	49.50	300	4000

AAAC - All Aluminium Alloy Conductor

Conductor Name	Reference Strands/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
AGATE	7/1.75	5.25	4.71	46.1
AMETHYST	7/2.25	6.75	7.78	75.9
DIAMOND	7/2.50	7.50	9.6	94.3
DOLOMITE	7/2.75	8.25	11.6	113
EMERALD	7/3.00	9.00	13.9	135
GARNET	7/3.75	11.25	21.7	211
JADE	7/4.50	13.50	31.2	304
JASPER	7/4.75	14.25	34.8	339
OPAL	19/3.25	16.25	44.2	433
PATRONITE	19/3.50	17.50	51.3	503
PEARL	19/3.75	18.75	58.8	576
RUBY	37/3.00	21.00	73.5	721
RUTHENIUM	37/3.25	22.75	86.1	845
RUTILE	19/4.75	23.75	94.4	924
SAPPHIRE	37/3.75	26.25	115	1120
SPINEL	61/3.25	29.25	135	1400
TANTALUM	61/3.50	31.50	156	1620
TOPAZ	61/3.75	33.75	179	1860
ZIRCON	91/4.50	49.50	384	4000

Whilst every attempt is made to ensure the accuracy of these tables, they should not be relied upon.
They are provided to assist with tool and equipment selection.

ACSR/AC - AL Conductor (AL Clad) Steel Reinforced

Conductor Name	Reference Strands/Core/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
ANGLING	6/1/2.50	7.50	10.6	113
ARCHERY	6/1/3.00	9.00	15.1	163
BASEBALL	6/1/3.75	11.25	22.3	254
BOWLS	6/7/4.75	14.25	32.7	385
CRICKET	30/7/2.50	17.50	64.4	636
DARTS	30/7/3.00	21.00	91.6	913
DICE	30/7/3.25	22.75	106	1070
DIVING	30/7/3.50	24.50	122	1240
GOLF	54/7/3.00	27.00	120	1380
GYMNASTICS	54/7/3.25	29.25	139	1620
HURDLES	54/7/3.50	31.50	159	1880
LACROSSE	54/19/3.75	33.75	180	2150
RUGBY	54/19/4.75	42.75	287	3450
Extra High Strength				
SKATING	3/4/1.75	5.25	12.3	83.5
SOCCER	3/4/2.50	7.50	24.9	170
SWIMMING	4/3/3.00	9.00	28.8	217
TENNIS	4/3/3.75	11.25	42.8	339

ACSR/GZ - AL Conductor (Gal) Steel Reinforced

Conductor Name	Reference Strands/Core/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
ALMOND	6/1/2.50	7.50	10.5	119
APPLE	6/1/3.00	9.00	14.9	171
BANANA	6/1/3.75	11.25	22.7	268
CHERRY	6/7/4.75	14.25	33.4	402
GRAPE	30/7/2.50	17.50	63.5	677
LEMON	30/7/3.00	21.00	90.4	973
LYCHEE	30/7/3.25	22.75	105	1140
LIME	30/7/3.50	24.50	122	1320
MANGO	54/7/3.00	27.00	119	1400
ORANGE	54/7/3.25	29.25	137	1600
OLIVE	54/7/3.50	31.50	159	1960
PAWPAW	54/19/3.75	33.75	178	2240
PEACH	54/19/4.75	42.75	284	3600
Extra High Strength				
QUINCE	3/4/1.75	5.25	12.7	95.9
RAISIN	3/4/2.5	7.50	24.4	193
SULTANA	4/3/3.00	9.00	28.3	242
WALNUT	4/3/3.75	11.25	43.9	379

**ACSR/AZ - AL Conductor (Aluminised) Steel Reinforced**

Conductor Name	Reference Strands/Core/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
BARLEY	6/1/2.50	7.50	10.2	118
BEAN	6/1/3.00	9.00	14.5	170
CABBAGE	6/1/3.75	11.25	21.4	265
CARROT	6/7/4.75	14.25	32.0	399
CORN	30/7/2.50	17.50	61.6	675
GARLIC	30/7/3.00	21.00	87.2	973
MILLET	30/7/3.50	24.50	116	1320
OATS	54/7/3.00	27.00	115	1440
ONION	54/7/3.25	29.25	132	1690
PARSNIP	54/7/3.50	31.50	153	1960
POTATO	54/19/3.75	33.75	177	2250
RICE	54/19/4.75	42.75	277	3600

HDC Hard Drawn Copper

Conductor Name	Reference Strands/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
7/1.00	7/1.00	3.00	2.3	49.3
7/1.25	7/1.25	3.75	3.6	76.9
7/0.064	7/1.63	4.88	4.9	-
7/1.75	7/1.75	5.25	6.9	151
7/2.00	7/2.00	6.00	8.9	197
7/0.083	7/2.11	6.30	6.2	-
19/0.064	19/1.63	8.13	8.1	-
7/2.75	7/2.75	8.25	16.2	375
19/1.75	19/1.75	8.75	18.3	413
19/2.00	19/2.00	10.00	23.6	538
7/3.50	7/3.50	10.50	25.4	607
19/0.083	19/2.11	10.50	25.4	-
7/3.75	7/3.75	11.25	28.8	696
37/1.75	37/1.75	12.25	35.6	806
19/0.101	19/2.56	12.80	-	-
19/2.75	19/2.75	13.75	43.1	1020
37/0.083	37/2.11	14.80	-	-
19/3.00	19/3.00	15.00	50.8	1210
37/2.50	37/2.50	17.50	70.3	1640
37/2.75	37/2.75	19.25	83.9	1990
37/3.00	37/3.00	21.00	98.9	2370
61/2.75	61/2.75	24.75	138	3290

Whilst every attempt is made to ensure the accuracy of these tables, they should not be relied upon.
They are provided to assist with tool and equipment selection.

SC/GZ - Steel Conductor/ Galvanised

Conductor Name	Reference Strands/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
3/2.00	3/2.00	4.31	11.7	74
7/16 (1.625)	7/1.63	4.88	-	-
3/12 (2.64)	3/2.64	5.28	-	-
3/2.75	3/2.75	5.93	22.2	140
7/2.00	7/2.00	6.00	26.0	173
7/.083 (2.108)	7/2.11	6.32	-	-
7/12 (2.64)	7/2.64	7.92	-	-
7/2.75	7/2.75	8.25	49.0	328
7/3.25	7/3.25	9.75	91.3	458
19/2.00	19/2.00	10.00	70.5	473
3/5 (5.38)	3/5.38	10.77	-	-
7/3.75	7/3.75	11.25	92.6	609
19/2.75	19/2.75	13.75	133	894
7/4.8	7/4.80	14.40	-	-
19/3.25	19/3.25	16.25	186	1250

SC/AC - Steel Conductor/ Aluminium Clad

Conductor Name	Reference Strands/Wire Diameter (mm)	Overall Diameter (mm)	Nominated Minimum Breaking Load (kN)	Nominated Mass kg per km (km)
3/2.75	3/2.75	5.93	22.7	118
3/3.00	3/3.00	6.50	27.0	141
7/2.59	7/2.59	7.77	47.8	292
3/3.75	3/3.75	8.08	40.0	220
3/3.25	3/3.25	8.25	31.6	165
7/2.75	7/2.75	8.25	50.1	277
7/3.00	7/3.00	9.00	59.7	330
7/3.25	7/3.25	9.75	69.9	387
7/3.75	7/3.75	11.25	86.9	515
7/4.25	7/4.25	12.75	105	662
19/2.75	19/2.75	13.75	136	755
19/3.00	19/3.00	15.00	162	899
19/3.25	19/3.25	16.25	189	1060
19/3.75	19/3.75	18.75	240	1410
19/4.25	19/4.25	21.25	289	1800

Whilst every attempt is made to ensure the accuracy of these tables, they should not be relied upon. They are provided to assist with tool and equipment selection.



American Wire Gauge Conductor Cross-Sectional Area

AWG (and "Aught"*/0 Equiv)	MCM or kcmil	CIRCULAR MILS	Cross Section (mm ²)	Cross Section (In ²)	Dia. SOLID (mm)	Dia. SOLID (inch)	Dia. Stranded (mm Approx. Max.)	Dia. Stranded (inch Approx. Max.)
2	66	66361	33.6281	0.0521	6.54	0.258	7.42	0.292
1	84	83680	42.4042	0.0657	7.35	0.289	8.43	0.332
1 /0	106	105518	53.4705	0.0829	8.25	0.325	9.47	0.373
2 /0	133	133056	67.4249	0.1045	9.27	0.365	10.64	0.419
3 /0	168	167780	85.0210	0.1318	10.40	0.410	11.96	0.471
4 /0	212	211566	107.209	0.1662	11.68	0.460	13.41	0.528
4.7 /0	250	250000	126.677	0.1963	12.70	0.500	14.60	0.575
5.5 /0	300	300000	152.012	0.2356	13.91	0.548	16.00	0.630
6.2 /0	350	350000	177.348	0.2749	15.03	0.592	17.30	0.681
6.7 /0	400	400000	202.683	0.3142	16.06	0.632	18.49	0.728
7.3 /0	450	450000	228.018	0.3534	17.04	0.671		
7.7 /0	500	500000	253.354	0.3927	17.96	0.707	30.67	0.814
8.5 /0	600	600000	304.025	0.4712	19.67	0.775	22.68	0.893
9.2 /0	700	700000	354.695	0.5498	21.25	0.837	24.48	0.964
9.5 /0	750	750000	380.031	0.5890	22.00	0.866	25.37	0.999
9.7 /0	800	800000	405.366	0.6283	22.72	0.894	26.21	1.032
10.2 /0	900	900000	456.037	0.7069	24.10	0.949		
10.7 /0	1000	1000000	506.708	0.7854	25.40	1.000	29.29	1.153
11.7 /0	1250	1250000	633.384	0.9817	28.40	1.118	32.74	1.289
12.4 /0	1500	1500000	760.061	1.1781	31.11	1.225	35.89	1.413
13.1 /0	1750	1750000	886.738	1.3744	33.60	1.323		
13.7 /0	2000	2000000	1013.415	1.5708	35.91	1.414	41.45	1.632

Conductor Cross-Sectional Area

Nominal. Cross Sectional Area (mm ²)	Conductor O.D.		Nominal. Cross Sectional Area (mm ²)	Conductor O.D.	
	mm	Inch		mm	Inch
0.5	0.80	0.031	95	12.60	0.496
1.0	1.13	0.044	120	14.21	0.559
1.5	1.38	0.054	150	15.75	0.620
2.5	2.01	0.079	185	17.64	0.694
4	2.55	0.100	240	20.25	0.797
6	3.12	0.122	300	22.68	0.892
10	4.05	0.159	400	25.65	1.009
16	5.10	0.200	500	28.80	1.133
25	6.75	0.265	630	32.76	1.289
35	7.65	0.301	800	37.05	1.458
50	8.90	0.350	1000	41.60	1.637
70	10.70	0.421			

Common Metric to Imperial Conversions Table

Type	Convert From	Symbol	<u>Multiply By</u>	Convert To	Symbol
Length	millimetres	mm	0.03937	inches	in
	centimetres	cm	0.3937	inches	in
	metres	m	3.3	feet	ft
	metres	m	1.1	yards	yd
	kilometres	km	0.6	miles	mi
	inches	in	2.54	centimetres	cm
	feet	ft	30.48	centimetres	cm
	yard	yd	0.9	metres	m
	miles	mi	1.6	kilometres	km
Area	square centimetres	cm ²	0.16	square inches	in ²
	square metres	m ²	1.2	square yards	yd ²
	square kilometres	km ²	0.4	square miles	mi ²
	hectares (10,000 m ²)	ha ²	2.5	acres	ac
	square inches	in ²	6.5	sq. centimetres	cm ²
	square feet	ft ²	0.09	square metres	m ²
	square yard	yd ²	0.8	square metres	m ²
	square miles	mi ²	2.6	sq. kilometres	km ²
Weight	grams	g	0.035	ounce	oz
	kilograms	kg	2.2046	pounds	lb
	tonnes (1,000 kq)	t	1.1	short tons	ton
	ounces	oz	28.3495	grams	g
	pounds	lb	0.45	kilograms	kg
Volume	millilitres	ml	0.03	fluid ounces	fl oz
	litres	l	2.1	pints	pt
	litres	l	1.06	quarts	qt
	litres	l	0.26	gallons	gal
	cubic metres	m ³	35.314	cubic feet	ft ³
	cubic metres	m ³	1.3	cubic yards	yd ³
	teaspoons	tsp	5	millimetres	ml
	tablespoons	tbsp	15	millimetres	ml
	fluid ounces	fl oz	30	millimetres	ml
	cups	c	0.24	litres	l
	pints	pt	0.47	litres	l
	quarts	qt	0.95	litres	l
	gallons	gal	3.8	litres	l
	cubic feet	ft ³	0.03	cubic metres	m ³
	cubic yards	yd ³	0.76	cubic metres	m ³
Pressure	mega pascal	MPa	10	barometric	bar
	pounds per square inch	PSI	0.07	barometric	bar
Force	kilogram force	kgf	9.8	newtons	N
Temperature	fahrenheit	°F	-32 then x 5/9	celsius	°C
	celsius	°C	Divide by 5/9 then +32	fahrenheit	°F



IP (Ingress Protection) Ratings Guide

PROTECTION
AGAINSTNo
protection
0Vertical
water drip
1Tilted
water drip
2Spray
water
3Splash
water
4Jet
water
5Strong Jet
of water
6Temporary
immersion
7Lasting
immersion
8Close,
powerful,
high temp
water jet
9

IP00

IP01

IP02

IP03

IP04

IP05

IP06

IP07

IP07



IP10

IP11

IP12

IP13

IP14

IP15

IP16

IP17

IP18

Solid object ≥50mm



IP20

IP21

IP22

IP23

IP24

IP25

IP26

IP27

IP28

Solid object ≥12mm



IP30

IP31

IP32

IP33

IP34

IP35

IP36

IP37

IP38

Solid object ≥2.5mm



IP40

IP41

IP42

IP43

IP44

IP45

IP46

IP47

IP48

Solid object ≥1mm



IP50

IP51

IP52

IP53

IP54

IP55

IP56

IP57

IP58

Dust protected



IP60

IP61

IP62

IP63

IP64

IP65

IP66

IP67

IP69K

Dust proof

Metric Units and Conversions

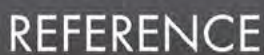
Abbreviations	Means	Multiply Unit By	OR
p	pico	.000000000001	10 ⁻¹²
n	nano	.000000001	10 ⁻⁹
μ	micro	.000001	10 ⁻⁶
m	milli	.001	10 ⁻³
.	Unit	1	10 ⁻⁰
k	kilo	1,000	10 ⁻³
M	mega	1,000,000	10 ⁻⁶
G	giga	1,000,000,000	10 ⁻⁹

PVC Conduit/Pipe Specification Chart

Nominal Conduit Size (mm)	Conduit Type	Conduit OD (mm)	Conduit Wall Thickness (min)	Conduit ID (min)
16	16mm MD Power	16.00	1.75	12.50
20	20mm HD Power	20.00	2.45	15.10
20	20mm NBN Comms	26.75	1.70	23.35
25	25mm HD Power	25.00	2.65	19.70
25	25mm Comms (Austel)	25.00	1.85	21.30
32	32mm HD Power	32.00	2.85	26.50
32	32mm Comms (Austel)	32.00	2.30	27.00
40	40mm HD Power	40.00	3.25	33.50
50	50mm HD Power	50.00	3.65	42.70
63	63mm HD Power	63.00	4.20	54.60
63	63mm (Iplex Coil Ref)	63.30	5.00	55.30
80	80mm HD Power	80.00	4.95	89.00
100	100mm HD Power	114.2	6.30	100.0
100	100mm NBN Comms	114.2	5.50	104.0
125	125mm HD Power	140.0	7.65	125.0
150	150mm HD Power	160.0	8.80	143.0
200	200mm HD Power	225.0	9.20	200.0

Fractions - Decimal - mm Conversion Chart

Fractions	Decimal	Millimetres	Fractions	Decimal	Millimetres	Fractions	Decimal	Millimetres
$\frac{1}{64}$	0.0156	0.3969	$\frac{11}{32}$	0.3438	8.7313	$\frac{43}{64}$	0.6719	17.0656
$\frac{1}{32}$	0.0313	0.7938	$\frac{23}{64}$	0.3594	9.1281	$\frac{11}{16}$	0.6875	17.4625
$\frac{3}{64}$	0.0469	1.1906	$\frac{3}{8}$	0.3750	9.5250	$\frac{45}{64}$	0.7031	17.8594
$\frac{1}{16}$	0.0625	1.5875	$\frac{25}{64}$	0.3906	9.9219	$\frac{23}{32}$	0.7188	18.2563
$\frac{5}{64}$	0.0781	1.9844	$\frac{13}{32}$	0.4063	10.3188	$\frac{47}{64}$	0.7344	18.6531
$\frac{3}{32}$	0.0938	2.3813	$\frac{27}{64}$	0.4219	10.7156	$\frac{3}{4}$	0.7500	19.0500
$\frac{7}{64}$	0.1094	2.7781	$\frac{7}{16}$	0.4375	11.1125	$\frac{49}{64}$	0.7656	19.4469
$\frac{1}{8}$	0.1250	3.1750	$\frac{29}{64}$	0.4531	11.5094	$\frac{25}{32}$	0.7813	19.8438
$\frac{9}{64}$	0.1406	3.5719	$\frac{15}{32}$	0.4688	11.9063	$\frac{51}{64}$	0.7969	20.2406
$\frac{5}{32}$	0.1563	3.9688	$\frac{31}{64}$	0.4844	12.3031	$\frac{13}{16}$	0.8125	20.6375
$\frac{11}{64}$	0.1719	4.3656	$\frac{1}{2}$	0.5000	12.7000	$\frac{53}{64}$	0.8281	21.0344
$\frac{3}{16}$	0.1875	4.7625	$\frac{33}{64}$	0.5156	13.0969	$\frac{27}{32}$	0.8438	21.4313
$\frac{13}{64}$	0.2031	5.1594	$\frac{17}{32}$	0.5313	13.4938	$\frac{55}{64}$	0.8594	21.8281
$\frac{7}{32}$	0.2188	5.5563	$\frac{35}{64}$	0.5469	13.8906	$\frac{7}{8}$	0.8750	22.2250
$\frac{15}{64}$	0.2344	5.9531	$\frac{9}{16}$	0.5625	14.2875	$\frac{57}{64}$	0.8906	22.6219
$\frac{1}{4}$	0.2500	6.3500	$\frac{37}{64}$	0.5781	14.6844	$\frac{29}{32}$	0.9063	23.0188
$\frac{17}{64}$	0.2656	6.7469	$\frac{19}{32}$	0.5938	15.0813	$\frac{59}{64}$	0.9219	23.4156
$\frac{9}{32}$	0.2813	7.1438	$\frac{39}{64}$	0.6094	15.4781	$\frac{15}{16}$	0.9375	23.8125
$\frac{19}{64}$	0.2969	7.5406	$\frac{5}{8}$	0.6250	15.8750	$\frac{61}{64}$	0.9531	24.2094
$\frac{5}{16}$	0.3125	7.9375	$\frac{41}{64}$	0.6406	16.2719	$\frac{31}{32}$	0.9688	24.6063
$\frac{21}{64}$	0.3281	8.3344	$\frac{21}{32}$	0.6563	16.6688	$\frac{63}{64}$	0.9844	25.0031
						1	1.0000	25.4000





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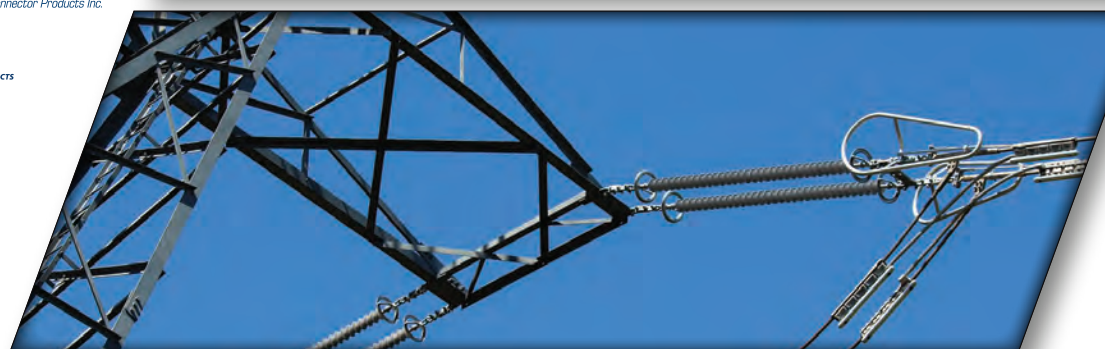
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