











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







**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** 









N4G4KI

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



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# PULLING & HAULING

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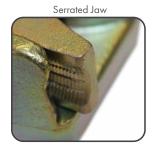


#### Grip Selection Chart - Nagaki (NGK)

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-GRIPL/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,	32	Large Eye
2TON-L-GRIP	4 - 22	20	60	Serrated	1.4	Yes	Covered Conductor &	32	Large Eye
MIDDLE-L-GRIP	5 - 25	20	110	Serrated	1.8	Yes	Catenary Wire	32	Large Eye
CCT-GRIP	5 - 25	20	110	Serrated	1.8	Yes	CCT Up to 180mm² (11 kV) Up to 80mm² (22 kV)	32	Large Eye
2TON-W-GRIP	5 - 16	20	100	Serrated	1.8	Yes		32	Large Eye
3TON-GRIP	8 - 22	30	120	Serrated	3.1	Yes	Stay Wire, Bare Cu, Wire	34	-
4TON-GRIP	13 - 28	40	150	Serrated	5.0	Yes	Rope, Catenary Wire &	50	-
6TON-GRIP	13 - 28	60	150	Serrated	5.2	Yes	Rail Contact Wire	25	-
10TON-GRIP	18 - 32	100	180	Serrated	10.0	Yes		60	-
AL-L-GRIP	5 - 22	10	60	Smooth	1.1	Yes		32	
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	Fine smooth jaw, less
AL-MIDDLE-GRIP-L	5 - 25	20	110	Smooth	2.9	Yes	ACSR & Bare AL	32	chance of
AL-LARGE-GRIP*	16 - 32	20	110	Smooth	2.0	Yes		32	conductor damage
AL-3TON-GRIP	8 - 22	30	120	Smooth	3.0	Yes		34	damago
AL-4TON-GRIP	20 - 35	40	140	Smooth	3.7	Yes		34	
HOT-M-GRIP	5 - 25	20	110	Smooth	2.0	Yes	ACCD D ALOD C	32	Hot Stick
HOT-L-GRIP	16 - 32	20	110	Smooth	2.0	Yes	ACSR, Bare AL & Bare Cu	32	Rings
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,	32	Large Eye
TROLLEY-GRIP-2-L	8 - 20	20	150	Serrated	2.8	Yes	Bare Cu, Catenary Wire &	25	Large Eye
TROLLEY-GRIP-4-L	13 - 28	40	150	Serrated	5.2	Yes	Wire Rope	32	Large Eye
ABC-GRIP-S	2x16 & 4x35mm²	6.0	130	Serrated	1.8	Yes	ABC - 2 x 16mm² to 4 x 35mm²	32	Large Eye
ABC-GRIP	4x35 & 4x95mm²	8.5	190	Serrated	3.3	Yes	ABC - 4 x 35mm <sup>2</sup> to 4 x 95mm <sup>2</sup>	35	Large Eye
ABC-GRIP-L	4x95 & 4x150mm²	20	190	Serrated	3.3	Yes	ABC - 4 x 95mm <sup>2</sup> to 4 x 150mm <sup>2</sup>	35	Large Eye

<sup>&</sup>quot;L" Suffix denotes Locking

<sup>\*</sup> Add "TB" Suffix for Bent Eye Option











**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





Part No.	Min - Max Ø (mm)	WLL (kg)	Jaw Type	Jaw Length (mm)	Suitable for	Wt (kg)
\$1613-40H	3 - 9.4	2041	<b>♦</b>	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

# **ERIGANTI**

Made in Switzerland by Powercom



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

Made of high tensile alloy steel, hot forged, heat-treated, precision machined and zincplated 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	Min Breaking Load	Liners	&	ACSR Cu m)	Earth	eel, n-wire nm)	Steel	-twist Rope nm)	Wt (kg)
	(kN)	(kN)		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	✓	Liftir	ng susp	ension o	conducto	rs 7 - 3	8mm	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					
IR-3105-S*	88	275	✓	8	35.2	8	22	8	24	13.5
IR-3104-S*	11 <i>7</i>	310	✓	10	45	10	34	8	28	17

<sup>\*</sup> Exact size required for manufacture of liners





Favoured by line crews for its compact size and weight

#### 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.



#### 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



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

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

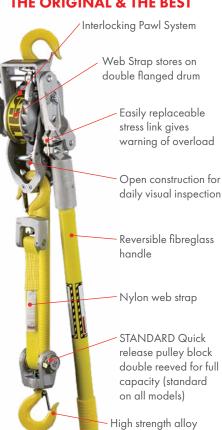














steel latching hooks



#### 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"



Lightweight

#### **Lug-All Standard & Lightweight Models**

		Frame		Single L	.ine	Double	Line	Handle	Net
	Part No.	Size	Feature	Capacity (kg)	Max (m)	Capacity (kg)	Max (m)	Length (mm)	Wt (kg)
			Stan	ndard Mod	els				
	2-A-1300-ANZ	Small	Standard	450	2.9	900	1.3	420	4.6
2	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
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
			Light	weight Mo	dels				
	500-A-FH-ANZ Small		Lightweight	226	5.0	-		508	3.3
	1000-A-ANZ Small Lightweight		Lightweight	450	2.9	-		445	3.1
	1500-A-ANZ	Small	Lightweight	680	2.3	-		508	3.2









# LUCALI



#### 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

Part No.	5 6:	Sin	igle Line	Do	Net					
	Frame Size	Capacity (kg)	Lift /Pull Distance (m)	Capacity (kg)	Lift / Pull Distance (m)	Wt (kg)				
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				







#### 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**



#### 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	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		480	2000	430	6.6
MODEL3000-1.5	Safety Hook	3	1.5	480	2000	430	8
MODEL4000H-1.5	Safety Hook	4	1.5	580	2180	430	12
MODEL6000-1.5	Clevis	6	6		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

	Rated	Pull to		Dime	nsions	(mm)		No.	Wt
Part No.	Capacity (T)	Lift Load (kg)	A	В	D	G	С	Chain Falls	(kg)
VLB115L	1.6	18	163	148	3 <i>7</i> 0	34	355	1	9.7
VLB130L	3.2	38	191	181	3 <i>7</i> 0	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

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

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



# A-30 Model

#### **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 ±3%
- Plated to resist corrosion
- Leather Storage case included
- Supplied with In-Service Date sticker



Don't Ma	Capacity	Graduation (Gauge	Dim	Wt		
Part No.	(kN/T)	Increments) (N)	A	В	С	(kg)
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

# All models now with large 28mm eye

#### DILLON

Generous shackle openings mate with most hooks and hardware.

Maximum hand retains peak load point and is easily reset.

#### **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 ±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

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

High strength case resists

heavy blows.



Part No.	Canasity (T)	Kg Division	Ultimate Safety Factor	
125mm Dial	Capacity (T)	kg Division		
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	









#### **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

<sup>\*</sup> EDX-Models are supplied Radio Ready and include Rated Shackles

Communicator II

DILLON

ABS plastic carry case

#### 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



All the data in the palm of your hand

**Heavy Duty Carry Case** 



**Batteries** 

**Bluetooth** 



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



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

# 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) <sup>3</sup> / <sub>16</sub> , <sup>1</sup> / <sub>4</sub> , <sup>5</sup> / <sub>16</sub> , <sup>3</sup> / <sub>8</sub> , <sup>7</sup> / <sub>16</sub> , <sup>1</sup> / <sub>2</sub> , <sup>9</sup> / <sub>16</sub> , <sup>5</sup> / <sub>8</sub> (1x19) <sup>1</sup> / <sub>2</sub> , <sup>9</sup> / <sub>16</sub> , <sup>5</sup> / <sub>8</sub> , <sup>11</sup> / <sub>16</sub> , <sup>3</sup> / <sub>4</sub> , <sup>13</sup> / <sub>16</sub> , <sup>7</sup> / <sub>8</sub> , 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 position	s			
Wire calibrations	Up to 20				
Environment protection	Suitable for continued outdoo	r use			
Operating range °C	-20 to 70				
Tension units of measure	Pound-force, Kilogram force, Ne	ewtons			
Resolution	Configurable low/med/high (5000	resolutions)			
Size (mm)	220 x 610 x 90				
Weight (kg)	5				
Recalibration	Every 12 months. More frequently wit	h heavy use			

App Store

Google Play







# 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	<i>7</i> 6-101	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	2x25mm² LV	600	15	5
LV235	2x35mm² LV	600	15	5
LV250	2x50mm² LV	600	15	5
LV295	2x95mm² LV	600	15	5
LV335	3x35mm² LV	600	15	5
LV395	3x95mm² LV	600	25	8.3
LV425	4x25mm² LV	600	15	5
LV435	4x35mm² LV	600	15	5
LV450	4x50mm² LV	600	15	5
LV470	4x70mm² LV	600	17	5.6
LV495	4x95mm² LV	800	25	8.3
LV4150	4x 150 mm² LV	800	25	8.3
HV335	3x35mm² HV	800	25	8.3
HV350	3x50mm² HV	800	25	8.3
HV370	3x70mm² HV	800	25	8.3
HV395	3x95mm² HV	900	31	10.3
HV3120	3×120mm <sup>2</sup> HV	900	31	10.3
HV3150	3×150mm <sup>2</sup> HV	900	31	10.3
HV3185	3×185mm <sup>2</sup> HV	900	31	10.3



**IDEAL FOR STEEL** 

**CONDUCTOR** 



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%.

#### **Cable Pulling Grips - Slingco**

#### Part No. ZCS-Range

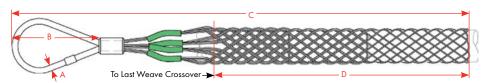
For the installation of overhead conductors and cable in conduits, ducts and trenches. The MU Type grip's triple-weave construction is ideal for heavy loads.

- 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

\*Type tested on 3/4/2.5 ACSR and 3/2.75 SC/AC & SC/GZ as per AS 1154.3-2009 Section 2.3.3 (Mechanical Strength Type Tests)



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
ZCS 1711	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
ZCS 1714	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

ı	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
	<b>GCT030</b>	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





TESMEC

CONDUX



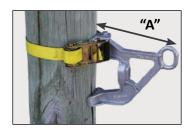














Contact TEN for information on the range of Round Slings & Shackles

#### **Joints 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	<i>7</i> 50	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

#### <u> Lifting Gin - Hastings</u>

#### 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















#### **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

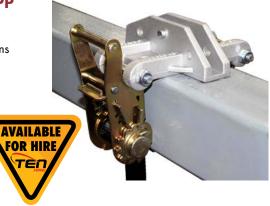
<sup>\*</sup>WLL 1130kg when suspended from ball socket fitting or mounted on centre tab



#### **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



#### SPP-1A-BKT\* (WLL - kg) 1A-2A\* (WLL - kg) SPP-1A-CAB\* (WLL - kg)

cg)	500	500	500	500	500	500
	1130	1130	1130	500	500	500
kg)	1130	1130	1130	500	500	500

**Universal Roller Bracket - Load Rating** 



Shown mounted on

SPP-1A-CAB Cross Arm Bracket **Return to Contents** 





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





#### 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\*











Part No.	SPP-1-UC	BEL-70	T12	SPP-1-YC
Description	Ball Clevis	Oval Eye Ball	Safety Hook	Y Ball Clevis
WLL (kN)	<i>7</i> 0	70	70	70
Weight (kg)	0.55	0.4	0.55	0.85

#### **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

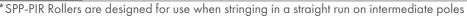
<sup>\* \*</sup> Refer Insulator minimum failure load when considering the WLL

#### **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





<sup>\* \*</sup> Refer Insulator minimum failure load when considering the WLL







#### **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	Conductor Type	\A/LL /lcm\	\\\\ainba\(\ \cap\)
Part No.	Min (mm)	Max (mm)	Diameter (mm)	Conductor Type	WLL (kg)	Weight (kg)
SPP-IE-AR	46	86	50	AL/CU/ACSR/ST*/ABC/CCT	300	7.4



#### **Cross-arm Roller - SPP**

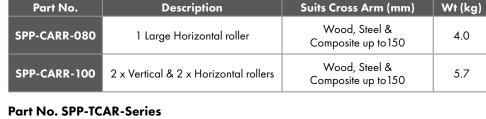
#### Part No. SPP-CARR-Series

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





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	Wooden up to 100	4.2
SPP-TCAR-150	with "T" Screw handle	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



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	<i>7</i> 00	8.1
KL-4	200	1100	12.1
KL-15	Chain assembly		3.1

# TEN the energy network

#### **Blocks - Multipurpose**

#### Multipurpose snatch-block - OX Block™

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

The OX BLOCK<sup>TM</sup> 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<sup>TM</sup>.

- The patented OX BLOCK<sup>TM</sup> 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	4041 All	14 /	047	51	,
50063	Clevis	6061 Alloy	16 (max)	267	51	

Ox Block includes metric markings to comply with relevant Australian Standards









Our OX BLOCK Clevis Top handline 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



680kgs











#### **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.

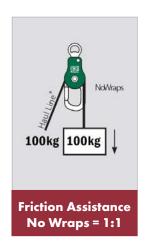
On average, one wrap will reduce hauling line tension by a factor of 4:1. Two wraps will reduce hauling line tension by a factor of 10:1. For example. if lowering a 100kg load with the hauling line only over the sheave, the user would be holding the entire 100kg weight. If using 1 wrap, the ratio would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

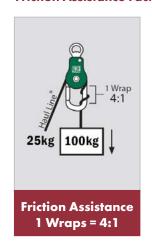
Heavy loads require additional rope wraps on the friction bar or additional mechanical advantage.

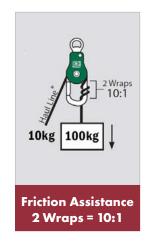
Friction assistance can be used to the users advantage with the Ox Block when:

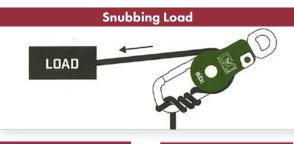
- The load must be lowered under controlled conditions and/or needs to be periodically stopped during descent.
- The weight ground personnel must hold back needs to be minimised.
- The load can be transferred to the Ox Block without having to first lift the load, or the load can be safely lifted by one 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**



















# TEN the energy network

#### Ox Block Accessories

#### Ox Hook (Part No. 2406S) 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

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



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

Part No	Rope	WLL
5007R1	12.7mm	816kg



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

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.

Part No	Rope	WLL
50071B1	16mm	1134kg



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

Part No	Rope	WLL
50071B2	16mm	1134kg



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

Part No	Rope	WLL
50072B1	16mm	1134kg



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

Part No	Rope	WLL
50072B2	16mm	1134kg





#### **Pole Handling**

#### Pole Stands - Flat Stack - TEN

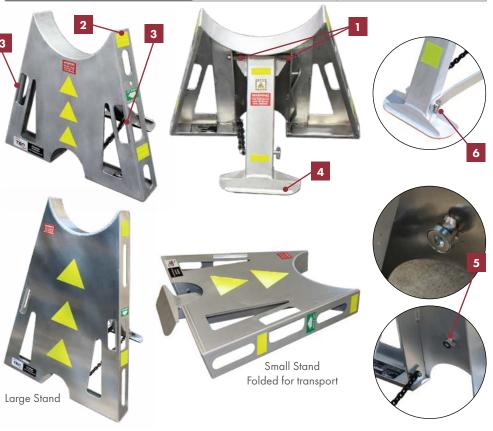
#### Part No. Various

- 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



- Reduction of potential pinch points through design
- Day and night reflective tape for improved customer safety on public sites
- Balanced and ergonomic built in handles for gloved hands
- 4 Large rear foot for stability and load spread
- 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

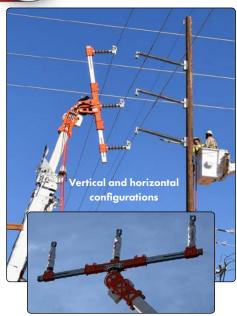
Part No.	FSLPSP-01-2	FSTPSP-02
WLL (kg)	4000	4000
Dimensions (mm)	500 (H) x 700 (D)	900 (H) x 1000 (D)
Finish	Powder Coated Yellow	Powder Coated Yellow
Weight (kg)	7.1	7.9



See our Cant Hooks in the Fibreglass section









#### 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: 941 kgs

Voltage (kV)	Conductors	Phase spacing Max (mm)	Phase spacing Min (mm)	Capacity per phase / total (kg)
33	2	4877 Outside-Outside	2388 Outside-Outside	227 / 680
66		2438 Centre-Outside	1194 Centre-Outside	227 / 680

# AVAILABLE FOR HIRE



# **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
TWIST10×10RP	3.0 x 3.0	2268	6













#### **Pulling Rope**



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. <i>7</i>
29081061	12	93.15	16.0
29081070	14	103.25	18. <i>7</i>
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







#Barry





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-NK 1900**	22	3.175	Nominate**	Black

<sup>\*\*</sup>Nominate Length Required

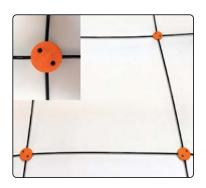
Other diameters and lengths available. Contact TEN for further information.















#### **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 Juction 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

<sup>\*</sup> Specify length in metres

Eye splices available

# TEN the energy network

#### UNDERGROUND PULLING AND HAULING

#### **Joints and Swivels**

#### **Standard Swivels - Tesmec**

# **TESMEC**

CONDUX



- 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
<b>GGT010</b>	13	110	40	143	0.9
<b>GGT020</b>	18	220	54	184	2.1
<b>GGT030</b>	24	360	60	234	3.4
GGT040	28	<i>7</i> 50	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)			Replacement Pin	Colour
08021500	32	14	5.3	08021505	Brown/ White
08019400	32	14	8.4	08019405	Violet/ Black
14 5 1					

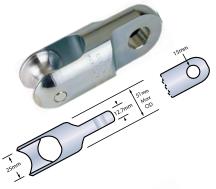
More Breakaways sizes available



#### 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















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



#### **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	<i>7</i> 5-95	1000	180	60.0
CHD1095	95-120	1000	215	<i>7</i> 1.6
CHD 1120	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	<i>7</i> 5-95	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





#### 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

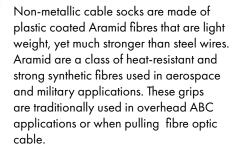
# Non-conductive Aramid Fibre



Ideal for light & Fibre-optic cables

#### **Non-Metallic Aramid Socks - Slingco**

#### Part No. Various





- 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

Part No.	Cable Range (mm)	UTS (kN)	Mesh Length (mm)	OAL (mm)
ZCS1040	10-20	11.16	552	<i>7</i> 11
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	<i>7</i> 6-101	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





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



#### Part No. Various

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

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



Easily stackable



#### **Nylon Raised Trench Rollers - Lancier**

#### Part No. 14211

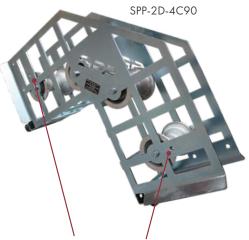
- Lightweight and impact resistant
- Can be secured and connected using anchor pins (SPP-PIN)
- Versatile Numerous connection configurations
- Maintenance free sealed ball bearings to stop water and dirt ingress
- Stackable for easy storage and transport
- Frame made of hard wearing polypropylene

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

**A LANCIER** 







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

#### **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

Part No.	Dimensions (mm)	Angle	Bend Radius (mm)	No. of Rollers	Rollers	Max. Cable OD (mm)
SPP-2D-4C90	700 (L) ×170 (W)	90°	350, 600 & <i>7</i> 00	4	Aluminium	150
SPP-2D-3C45	550 (L) x 170 (W)	45°	500	3		150
SPP-2D-4C45	800 (L) × 170 (W)	45°	900	4		150









#### **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 (1) 200 (14() 210 (11)	12.0
SPP-2B-TCR-IN	1000	450 (L) x 300 (W) x 310 (H)	14.0



Looking for Cable Hauling Equipment see our Underground Catalogue





# **PULLING & HAULING**

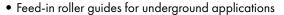
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Side profile





#### Part No. SPP-2B



- Sealed roller bearings
- All units have fixing points

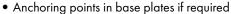
Part No.	Roller & Frame	Roller Length (mm)	Dimensions (mm)	Wt (kg)
SPP-2B-1000	Zinc Plated Steel	1000	1105 (L) × 220 (W) × 125 (H)	15. <i>7</i> 1
SPP-2B-2X45	Zinc Plated Steel	2 x 600	1040 (L) x 220 (W) x 520 (H)	14.7



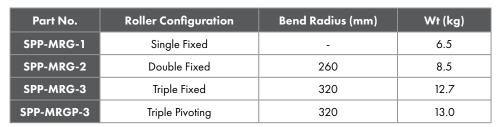
#### **Manhole Roller Guides - SPP**

#### Part No. SPP-MRG





• 140mm aluminium rollers





#### 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		255 (L) x 120 (W) x 115 (H)	1.1
SPP-BM-050T	48	50 Telco	Dual Wingnut	255 (L) x 130 (W) x 115 (H)	1.3
SPP-BM-063E	48	63 Electrical	, ,ge.	255 (L) x 140 (W) x 115 (H)	1.3
SPP-BM-063T	60	63 Telco		250 (L) x 117 (W) x 110 (H)	1.3
SPP-BM-080	<i>7</i> 4	80		250 (L) x 130 (W) x140 (H)	1.6
SPP-BM-100	98	100	U:	250 (L) x 177 (W) x155 (H)	2.8
SPP-BM-125	118	125	Hinged	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) × 297 (W) × 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)
S	PP-LFS-080	74	80		375 (L) x 190 (W) x 160 (H)	4.15
S	SPP-LFS-100	98	100		365 (L) x 190 (W) x 190 (H)	5.30
S	SPP-LFS-125	118	125	Hinged	390 (L) x 195 (W) x 200 (H)	6.05
S	SPP-LFS-150	138	150		380 (L) x 225 (W) x 220 (H)	6.60
S	PP-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) × 260 (W) × 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** 



### **PULLING & HAULING**

**Return to Contents** 





#### **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.	Diameter (mm)	Width (mm)	Wt (kg)
412EZ*	305		8.4
418EZ*	457	127	12.7
424EZ*	610		17.2

Part No.	Diameter (mm)	Width (mm)	Wt (kg)
012	205	127	10.0

**EZ** Opening for easy cable

#### Part No. 812

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

#### **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

#### installation & removal. See QR-Code below







Scan or Click to View EZ\* opening video

#### **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

## SCOTT POWER PRODUCTS

#### **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











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	21
SPP-PM-24		Telco	40	24	115	0.05	21
SPP-PM-28		Telco	60	28	160	0.05	3.21
SPP-PM-32		Telco	60	32	180	0.05	3.21
SPP-PM-38		Telco	60	38	180	0.07	3.21
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	3.21
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		55	50 Electrical
SPP-WB-063	Wire Brush	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		46	50 Electrical	0.35
SPP-RCC-063E	Rubber Conduit Cleaner	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		46	50 Electrical	0.15
SPP-RLS-063E	Rubber Lubricant Spreader	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.

Duct Projectile Options		
Size (mm)		
51		
<i>7</i> 6		
102		
127		
152		
203		



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

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 1981 m, 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.









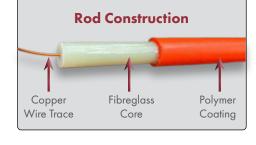
#### **Features**

- 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 4.5mm
- 9 & 11 mm Reels are Powder-coated and fitted with a Drag Brake and Wheels
- 4.5 & 6mm 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 -
SPP-DR9-200	9	200	SPP-DR-ROD9-*	SPP-DR-JK9	6, 9, 11 mm Rod
SPP-DR11-200	11	200	SPP-DR-ROD11-*	SPP-DR-JK11	1 x Glue
SPP-DR11-300	11	300	SPP-DR-ROD11-*	SPP-DR-JK11	1 x Rubber Rod Grip

 $<sup>{}^{\</sup>star}\text{Nominate Length of rod required}$  - 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-*
lmage			CITAL	not available in 4.5mm	747		<b>*</b>

<sup>\*</sup>Nominate Rod Size

Other Accessories Available, Contact TEN for further information

## TEN the energy network

#### 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





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



Bolt-down points for secure and permanent fixing





#### **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

Part No.	Dimensions	Max Drum	Max Drum	Max Drum	Reel Roller	
	(mm)	Dia. (mm)	Width (mm)	Wt (kg)	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	-	<i>7</i> 62	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	

<sup>\* 110</sup>v motor - Transformer required











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					

#### **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.



CLICK or SCAN for Polywater J Application Video







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



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

Tested on Low Smoke - Zero Halogen Thermoplastic & Thermoset jackets

#### **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



Lubricant Pump

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







Program for Cable Pulling Tension Calculation and Conduit System Design

## 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

Pull-Planner™ Report

#### Typical Pull-Planner™ Report

	Polywater® J with Jacket: HDPE and Conduit: PVC					
Pull Name: 1C 630mm2 132kV HDPE Cable 150mm Conduit	Pull Detail Summary	Recommended Quantity: 185 Liters				
Conduit ID: 150 millimeter(s) Conduit Fill: 42.4%	Total (Cumulative) Bend: 211.6 degrees Total Length Including Bends: 909 meters	Lubricant Notes				
Total of 1 cable(s) of 1 different type(s) being pulled.	Conduit Fill 42.4 %	Lubricant Best COF Value: 0.090				
Type #1 1 Cable(s) O.D. of 97.6 mm weight of 12.8 kgs/m	Total Cable Weight: 12.8 kgs per meter Conduit Condition: Good	Un-Lubricated COF Value: 0.390				
Total cable weight: 12.8 kgs/m		* Additional lubricant in recommended quantity based on long pull length.     * Additional lubricant in recommended quantity				
Weight correction factor set to: 1 Configuration: Single Cable Jam/Clearance Analysis: Jamming Not Possible		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	1		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	T		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	T	T	110.0	0.11	14 45	None	_	_	-		0.11	14 45	

The Pull-Planner M 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 coefficient of coexecuted friction is perfection that the coefficient of the coefficient of friction.





\*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<sup>TM</sup> has 98% closed-cell content for increased strength and resiliency
- FST Duct Sealant<sup>TM</sup> resists 6.7m of water-head pressure
- FST Duct Sealant<sup>TM</sup> is compatible with cable and duct materials
- FST Duct Sealant<sup>TM</sup> 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.

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

Mixing Nozzle

### TEN the energy network

#### 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/	400
ROS0652	6	500	Yellow	602

#### 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. <i>7</i>
29081061	12	93.15	16.0
29081070	14	103.25	18. <i>7</i>
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

<sup>\*</sup>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









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 EKRs 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)	g) 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
Marriagon Bushing France (lan)	Single cable: 113
Maximum Pushing Force (kg)	All cables: 452
Feeding speed (m/ min)	0.0 to 11
Wt (kg)	156.5

Requires 110v Transformer





AVAILABLE

FOR HIRE

#### **Hydraulic Pullers**

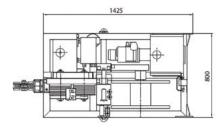
#### 15kN Puller, Hydraulic - Tesmec

#### 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



### **TESMEC**

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		
200		
8.0		
500		
13 (18hp)		
Air		
12		

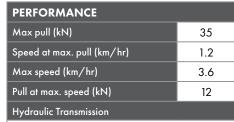
#### 35kN Puller, Hydraulic - Tesmec

#### Part No. AR\$403

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

Contact TEN for further information on Australian Roadworthy Trailer options



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



1900





### Cleaner | Quieter | Greener













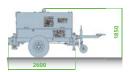


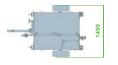
#### **NEW DIGITAL HMI\***

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

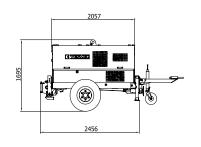
#### **REMOTE CONTROL**

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 bullwheels
- 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 PM 1250 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

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

## 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 rec	overed	
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/mm)	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

## TEN the energy network

#### Winches - Overhead - Chance

#### Capstan Winches - 454kg



Hydraulic Winch shown with Rope Lock (sold separately)

## CHANCE

#### **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.

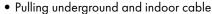
This design handles more rugged conditions, extends life and reduces maintenance For improved load control, steel capstan drum features nickel-plated rope surface, larger radius at load-line wrap and rope hook.



Petrol Winch shown with Foot Switch (included)

#### **Versatile Application**

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



- Stringing and tensioning conductors
- Lifting transformers



- Hoisting heavy insulator strings
- Tower erection
- Pulling wheeled equipment over obstacles



#### 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 Hy draulic 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













Rope Accelerator



Don't No.		Capacity (kg)		For all to the control	Pull Speed	Engine	R	Wt	
Part No.	Pulling	Double Rope	Lifting	Engine type	(m/pm)	(cc)	Size (mm)	Wraps on Drum	(kg)
VF900-4	865	1730	200	Honda 4 Stroke	14	50	10 / 12*	4/5	10.85
VF105-2	1050	2100	200	2 Stroke	20	50.8	10 / 12*	4/5	10.50

 $<sup>^{\</sup>star}$  10 and 12mm Double Braid Polyester Hauling Rope available in a variety of lengths. Contact TEN for further information.

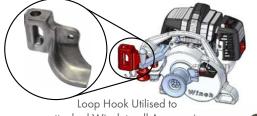
Hayman Reece attachment

#### **Docma Capstan Winch Accessories**



Double Hook Assembly Utilised to attached Winch to Slings

Vehicle attachments



Loop Hook Utilised to attached Winch to all Accessories

Lifting attachment



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



Ground attachment

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

50mm Tow-Ball attachment

#### 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 freewheel unwinding
- Textile rope
- Balanced Carry Handle
- Wide range of accessories
- Steel Rope version available upon request









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



Redirection or double capacity Pulleys







16kN Steel Pulley



40kN AL Pulley



**Hooks & Shackles** 



Rated Hooks and Shackles

#### **Replacement Ropes for Drum Winches**







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

#### **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.



#### **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.

#### **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



Part No	Ordering information	Dimensions Collapsed (mm)	Dimensions Extended (mm)	Wt (kg)
смзк	Winch, Conduit Adaptors & Rack Motor, 2 x Batteries, Charger	2121 (H) × 914 (W) × 686 (L)	F 1 - 1 - 2 0 -	62.3
<b>UPM3K</b>		1905 (H) x 508 (W) x 508 (L)	Extends up to 3.0m	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 21 m 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.



- 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



#### Part No. UP6K

Ideal for Utility Applications

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

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

## TEN I the energy network

## ituulca.

#### 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<sup>TM</sup> 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

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



**Contact TEN for information** 

on the Smart Phone APP





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 of

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
- ✓ 1/16" 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





