



- Tel-O-Pole® Triangular Telescopic Operating & Measuring Sticks
- Round Telescopic Operating & Measuring Sticks
- Sectional, Telescopic & Single Shotgun Sticks & Kits
- Fibreglass Sectional Sticks & Kits
- Universal Head Adaptors & Live Line Tools
- LV & HV Temporary Cross-Arms
- Fibreglass Cleaning & Maintenance Products

FIBREGLASS EQUIPMENT

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SECV & SAPN
Operating &
Disconnect sticks



Customised Sticks, Stick Kits & Lifting Jibs



Approach & Insulation Distance Information

MAD = Minimum Approach Distance is the minimum air gap or summation of air gaps measured between any part of the operator and live electrical apparatus.

Detailed information can be found in AS 5804 and a small extraction from this standard is adjacent for minimum standard distances based on ideal circumstances.



Tool Ratings

Recommended voltage ratings of products within this catalogue section should be used as a guide only. The product specifications are mainly to US (OSHA and ASTM) standards which may not be applicable to your situation. Contact your local network provider for specific clearances required.

Introduction

TEN Manufacturing

TEN can customise fiberglass sticks and stick kits, end fittings and tools to suit your requirement. Utilising Hastings Fibreglass and components, you can be assured of a quality product.

Live Line Working MAD's

General Information

Live working tools are generally fiberglass tubes with solid unicellular foam filled cores. In most cases factory tested to 100kV/300mm of insulation.

Where stated the sticks comply with ASTM F711, IEC 60855 or OSHA standards. Minimum approach distances for Australia and New Zealand are stipulated by AS 5804, the actual distance is ultimately determined and specified by the local network provider.

A live line tool only achieves its insulation rating when the stick surface is clean, free of moisture, in good condition and hydrophobic. Hydrophobic means tending to repel and not absorb water. See from page D32 for cleaning instructions.

| Live Working | | |
|-------------------------|----------------------------------|------------------|
| Nominal Voltage AC (kV) | Minimum Approach Distance (MAD)* | |
| | Phase to Earth | Phase to Phase |
| | Auto-reclose OFF | Auto-reclose OFF |
| | Distance (mm) | Distance (mm) |
| 11 | 350 | 400 |
| 22 | 400 | 500 |
| 33 | 450 | 550 |
| 50 | 550 | 700 |
| 66 | 600 | 800 |
| 88 | 700 | 1000 |
| 110 | 800 | 1200 |
| 132 | 900 | 1300 |
| 220 | 1300 | 2000 |
| 275 | 1600 | 2400 |
| 330 | 1900 | 3000 |
| 400 | 2400 | 3900 |
| 500 | 2400 | 3900 |

¹The above information is for reference only and is incomplete. Subject to numerous contributing factors such as environmental, etc.

Refer to local network providers and reference AS 5804 standard for specific area regulations.

* Based on minimum 300mm ergonomic distance

Hand-guards & Warning Markers

Australian standard AS 5804 states that "clearance markers shall be placed on hand sticks to define the insulated section and define the separation from the hand held section". It also states that the "markers shall be secured to the live work stick to prevent their movement".

TEN can provide a range of marker and hand-guard solutions. The A30002 and A30003 from Hastings (Refer to page D11) are the most popular as they are a safety red colour.

HASTINGS FIBREGLASS

When it comes to making safe and dependable live line tools and equipment, Hastings is the number one choice for line-workers around the world. Helping line-workers get home safely since 1959.

WHY HASTINGS

Unique FEATURES set Hastings Sticks apart from their competition

Foam Filling

- Foam Uniquely Encased and heat treated ensuring a water-tight structure without voids which allows complete adhesion between fibreglass/resin and foam

Easy to Read Markings

- Heat impregnated "EASY TO READ" markings pass IEC-62193 abrasion tests. Will not Chip, Peel or Rub Off

Rigorously Tested

- Low Deflection, great when locating Fuse Rings etc
- Manufactured with rigorously tested material, ensuring the production of the highest quality electrical and mechanical fibreglass tube in the world
- Meet all applicable ASTM F711, ASTM F1826, IEC-60885 and IEC-62193 standards and specifications
- Every stick is electrically tested in the factory

Plug & Play

- Replace sections in seconds - Plug & Play
- Replacement Sections "IN-STOCK"
- Remove and utilise only the sections required for the job at hand
- Easily dismantled for cleaning and maintenance

Sunrise Head

- Double Sided Sunrise Disconnect Hook. For left or right facing applications

Push Button Quick Connect

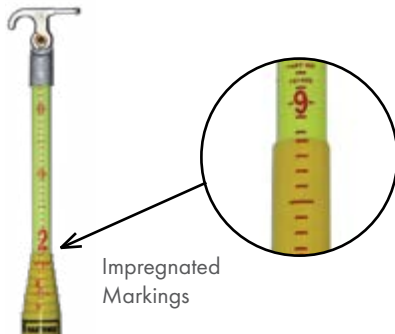
- Connect & Disconnect Universal Tools with a press of a button.



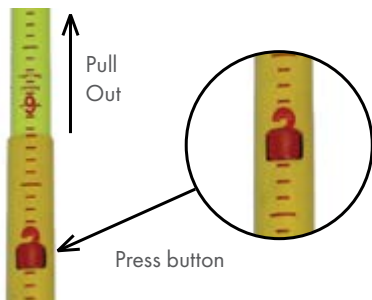
Hastings



Competitor



Impregnated Markings



Pull Out

Press button



Double sided Sunrise Disconnect Hook



Quick disconnect head



SCAN or CLICK the QR-Code for Quick Disconnect operation video



Telescopic Measuring & Operating Sticks

Triangular Telescopic Measuring & Operating Sticks

Part No. MV Series

- Open and close switches, EDO's and service fuses
- Replaceable sections, no disassembly tools required
- Fluoro lime green tip section is foam filled
- Tested to ASTM F711 & OSHA
- Stick includes double sided Universal Disconnect Hook #P10431-2
- Measure elevated heights
- Supplied in metre/centimetre measuring graduations
- Eye level reading feature with measurement markings in large, red numbers
- Markings will not chip, peel or rub off

Ordering Information

| Part No. | Stick c/w Quick release head | Extended Length (m) | Retracted Length (m) | Base OD (mm) | Wt (kg) | Add "-K" for Storage Bag |
|----------|------------------------------|---------------------|----------------------|--------------|---------|--------------------------|
| MV-25 | MV-25-Q | 7.8 | 1.6 | 48.5 | 3.7 | TENM301 |
| MV-30 | MV-30-Q | 9.2 | 1.7 | 52.5 | 4.5 | |
| MV-35 | MV-35-Q | 10.6 | 1.7 | 56.0 | 5.5 | |
| MV-40 | MV-40-Q | 12.0 | 1.8 | 60.4 | 6.5 | |



Scratch proof Markings!

Triangular Profile = NO Twist

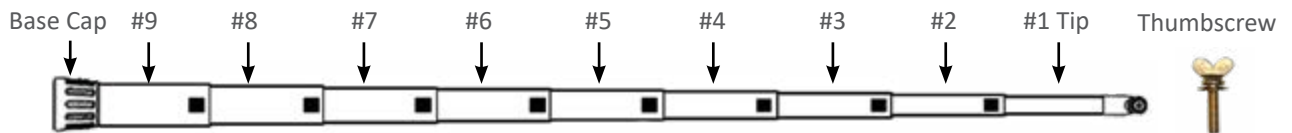
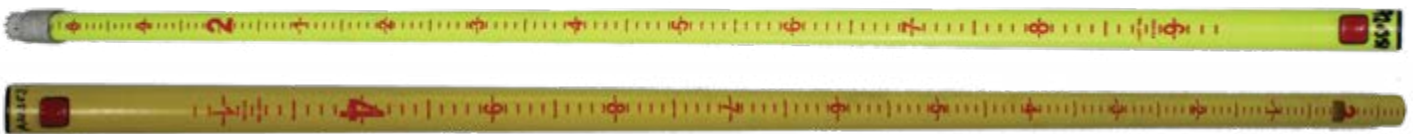


Storage Bag

NO TOOLS ARE REQUIRED TO REPLACE SECTIONS

MV-Series Replacement Parts

- Refer to MV Matrix for replacement part numbers
- No tools are required for replacing as sections sold complete with lock assembly
- Order base cap separately if replacing base section



| MV Series | Replacement Sections & Parts # | | | | | | | | | | |
|-----------|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|--------------|
| Part No. | Base Cap | #9 | #8 | #7 | #6 | #5 | #4 | #3 | #2 | #1 Tip Section | Thumbscrew |
| MV-25 | P18029 | - | - | - | A20348 | A20356 | A20355 | A20354 | A20353 | A20352 | P16055 |
| MV-25-Q | P18029 | - | - | - | A20348 | A20356 | A20355 | A20354 | A20353 | A20462 | Not Required |
| MV-30 | P18030 | - | - | A20349 | A20357 | A20356 | A20355 | A20354 | A20353 | A20352 | P16055 |
| MV-30-Q | P18030 | - | - | A20349 | A20357 | A20356 | A20355 | A20354 | A20353 | A20462 | Not Required |
| MV-35 | P18031 | - | A20350 | A20358 | A20357 | A20356 | A20355 | A20354 | A20353 | A20352 | P16055 |
| MV-35-Q | P18031 | - | A20350 | A20358 | A20357 | A20356 | A20355 | A20354 | A20353 | A20462 | Not Required |
| MV-40 | P18026 | A20263 | A20359 | A20358 | A20357 | A20356 | A20355 | A20354 | A20353 | A20352 | P16055 |
| MV-40-Q | P18026 | A20263 | A20359 | A20358 | A20357 | A20356 | A20355 | A20354 | A20353 | A20462 | Not Required |



Triangular Profile = NO Twist



Storage Bag TENM301

Triangular Telescopic Operating Sticks

Part No. HV Series

- Suitable for HV operations
- Open and close switches, EDO's and service fuses
- Replaceable sections, no disassembly tools required
- Fluoro lime green tip section is foam filled
- Tested to ASTM F711 & OSHA
- Stick includes double sided Universal Disconnect Hook #P10431-2

Ordering Information

| Part No. | Extended Length (m) | Retracted Length (mm) | Base Diameter (mm) | Wt (kg) | *Add "-K" for Storage Bag |
|---|---------------------|-----------------------|--------------------|---------|---------------------------|
| Switching Telescopic Stick (No Measurement Markings) | | | | | |
| HV-208 | 2.4 | 0.7 | 44.5 | 1.4 | TENM308 |
| HV-212 | 3.8 | 1.5 | 36.8 | 1.7 | TENM309 |
| HV-216 | 5.0 | 1.5 | 40.9 | 2.3 | TENM301 |
| HV-220 | 6.4 | 1.6 | 44.5 | 2.9 | |
| EX2-1848 ¹ | 4.4 | 0.94 | 44.5 | 3.0 | TENM309 |

¹EX2-1848 does not include disconnect hook (P10431-2)

HV-Series Replacement Parts

- Refer to HV Matrix for replacement part numbers
- No tools are required for replacing as sections sold complete with lock assembly
- Order base cap separately if replacing base section

| HV Series | Replacement Sections & Parts # | | | | | |
|-----------|--------------------------------|----------|----------|----------|--------|-----------------|
| Part No. | Base Cap | 5 | 4 | 3 | 2 | 1 - Tip Section |
| HV-208 | P14037 | A20264 | A20258 | A20259 | A20260 | A20296 |
| EX2-1848 | P14037 | A20376 | A20270 | A20269 | A20268 | A20267 |
| HV-212 | P18020 | - | - | A20254-B | A20255 | A20256 |
| HV-216 | P18027 | - | A20253-B | A20254 | A20255 | A20256 |
| HV-220 | P18028 | A20252-B | A20253 | A20254 | A20255 | A20256 |



LVDP



4440

Triangular Telescopic Operating Stick/Kit

Retracts to 940mm - Fits under lip of EWP

Ideal for removing & installing House-service fuses

Choose the short Tele-stick or a kit including fuse puller and carry bag

| Part No. | Extended Length (m) | Retracted Length (m) | Wt (kg) |
|------------|--|----------------------|---------|
| EX2-1848 | 4.4 | 0.94 | 3 |
| EX2-1848-K | Kit includes 1 x EX2-1848/ 1 x LVDP/ 1 x TENM309 | | |

Talon Hook Kit with Tele-Stick

Reduce the drop risk by securing drop out fuses

Part No. MV-35-K1

| Part No. | Kit Includes |
|----------|----------------------------------|
| MV-35-K1 | 1 x MV-35/ 1 x 4440/ 1 x TENM301 |



Round Telescopic Operating Sticks - Tip Lock feature

Part No. ST Series

- Tip retracts and locks into larger section for extra stability
- Double button version available for easy locating when extending pole
- The Tip diameter for ST models (extended) is 22mm or (retracted) is 27.8mm



| Part No. | Extended Length (m) | Retracted Length (m) | Base diameter (mm) | Bag | Wt (kg) |
|----------|-------------------------------------|----------------------|--------------------|---------|---------|
| ST-225 | 5.1 - 6.4 - 7.8 | 1.52 | 55.5 | TENM301 | 3.2 |
| ST-230 | 5.1 - 6.4 - 7.9 - 9.1 | 1.57 | 60.3 | TENM301 | 4.0 |
| ST-235 | 5.1 - 6.4 - 7.9 - 9.1 - 10.6 | 1.61 | 68.3 | TENM301 | 5.0 |
| ST-240 | 5.1 - 6.4 - 7.9 - 9.1 - 10.6 - 12.1 | 1.66 | 81.0 | TENM301 | 6.3 |

Sections and spare parts available for ST Series Telescopic sticks. Contact TEN for more information.

Extension Section

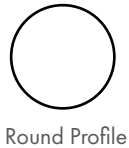
- Suits MV, HV & ST sticks to extend the tip length

| Part No. | Length (mm) | Wt (kg) |
|----------|-------------|---------|
| 839-2 | 1420mm | 0.9 |

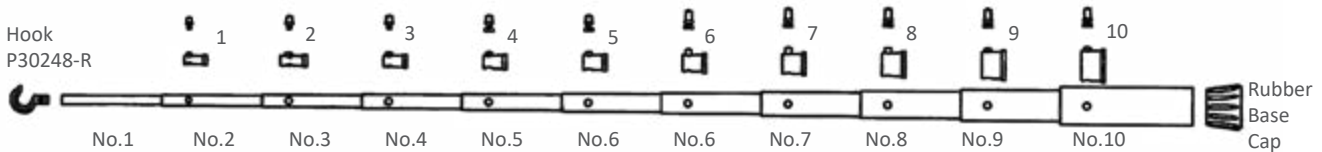
Round Telescopic Measuring Sticks

Part No. M Series

- Measure elevated heights
- Foam filled tip section
- Tested to ASTM F711 & OSHA
- Kit with Storage Bag
- Meter/centimeter measuring graduations
- Eye level reading with measurement markings in large, red, easy to read numbers
- Markings will not chip, peel or rub off



| Part No. | Stick Head | Extended Length (m) | Retracted Length (m) | *Add "K" for Storage Bag | Wt (kg) |
|----------|------------|---------------------|----------------------|--------------------------|---------|
| M-25* | Hook | 7.5 | 1.7 | TENM301 | 1.5 |
| M-35* | Hook | 10.5 | 1.7 | TENM301 | 2.7 |
| M-40* | Hook | 12.0 | 1.7 | TENM301 | 3.4 |
| M-50* | Hook | 15.0 | 1.8 | TENM301 | 6.0 |



M-Series Replacement Parts

| Part No. (# Sections) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | Base Cap |
|--------------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| M-25 (6) | P21606 | P21446 | P21447 | P21448 | P21449 | P21419 | - | - | - | - | - | P18020 |
| M-35 (8) | P21606 | P21446 | P21447 | P21448 | P21449 | P21450 | P21451 | P21423 | - | - | - | P18029 |
| M-40 (9) | P21606 | P21446 | P21447 | P21448 | P21449 | P21450 | P21451 | P21452 | P21425 | - | - | P18030 |
| M-50 (11) | P21607 | P21454 | P21455 | P21456 | P21457 | P21458 | P21459 | P21460 | P21461 | P21462 | P21426 | P18035 |
| Complete Lock Assembly # | A14011 | A14012 | A14013 | A14014 | A14015 | A14031 | A14032 | A14029 | A14030 | A14028 | - | - |
| Drive Pin/Roll Pin # | P16513 | P12022 | P12022 | P12022 | P12022 | P12022 | P12022 | P12022 | P12022 | P12022 | - | - |
| Pin & Spring Assembly # | A12018 | A12004 | A12023 | A12027 | A12020 | A12012 | A12013 | A12015 | A12014 | A12015 | - | - |
| Hook | For M25, M30, M35, M40, M50 use P30248-R | | | | | | | | | | | |

Replacement parts available. Contact TEN for further information.

Refer to
Hydraulics section for
Impact Wrenches &
Accessories



Socket Accessories for Live Line

Hydraulic Impact Wrench Extension

Part No. 10- Series

- Heat treated end with male end pin retainer for sockets
- Foam filled fibreglass insulating section tested to ASTM F-711 and OSHA

| Part No. | Insulation Distance (mm) | OAL (mm) | Wt (kg) |
|----------|--------------------------|----------|---------|
| 10-199 | 455 | 695 | 1.2 |
| 10-200 | 760 | 1000 | 1.7 |
| 10-201 | 1070 | 1305 | 1.8 |
| 10-167 | 1675 | 1960 | 2.4 |

Flexible Head Socket Wrench & Driver

- ½" square drive
- Foam filled fibreglass insulating section tested to ASTM F-711 and OSHA

| Part No. | Description | Drive | OAL (mm) | Wt (kg) |
|----------|--|-------|----------|---------|
| 10765 | Socket Wrench | ½" | 1830 | 2.4 |
| 10768 | Socket Wrench | ½" | 2440 | 2.7 |
| SA50A | Ratchet Handle - ½" Female suits base of Socket Wrench & Extension | ½" | - | 0.7 |

Pole Handling Tools - Insulated

Ratchet Strap style - Hastings

Part No. 6856 Series

- Suits wood, concrete, metal and fibreglass poles
- Foam filled stick handle tested per OSHA & ASTM F-711
- Nylon strap specially designed for gripping
- Heavy duty ratchet binder with extra wide handle
- Neoprene pad on base prevents damage to poles
- Two way turning feature - can turned in both positions without reinstalling the tool

| Part No. | Length of Strap (m) | Dimensions (mm) | | Wt (kg) | Suits pole Approx. Size (mm) |
|----------|---------------------|-----------------|--------------|---------|------------------------------|
| | | Stick OD | Stick Length | | |
| 6856 | 1.8 | 50 | 1220 | 4.5 | 450 |
| 6856-3 | 2.4 | | | 4.6 | 650 |

Cant Hook style - Hastings

- Suits Wood Poles
- High strength forged steel hook
- Heavy duty protective steel sleeve on head end

| Part No. | Dimensions (mm) | | Wt (kg) |
|----------|-----------------|--------------|---------|
| | Stick OD | Stick Length | |
| 6705 | 45.0 | 915 | 3.4 |

Strap Friction style - Chance

- The two-in-one tool performs the functions of both a cant hook and a pole tong without spiking the pole.
- Latex-impregnated nylon-web strap
- Epoxiglas® handle

| Part No. | Stick OD (mm) | Length (mm) | Working Load | Wt (kg) |
|-----------|---------------|-------------|-----------------------|---------|
| C305-0021 | 51 | 1828 | Strap rated at 3400kg | 3.6 |



Shotgun Sticks

Part No. 81 Series

- Full open side hook offers unobstructed view
- Precision cast slide gives complete control and extra firm grip
- Hook release trigger shielded to avoid accidental operation
- Hanger hook moulded into head
- Foam filled fiberglass main shaft
- Tested to ASTM F711 & OSHA
- Fixed shotguns tested to IEC 60855
- Solid fiberglass operating rod with guide
- Non-conductive polycarbonate head



Fixed

| Part No. | Type/Model | Over All Length (mm) ¹ | Bag | Wt (kg) |
|----------|------------|-----------------------------------|---------|---------|
| 8104 | Fixed | 1370 | TENM309 | 2.0 |
| 8106 | Fixed | 1980 | TENM301 | 2.35 |
| 8108 | Fixed | 2590 | TENM310 | 2.95 |
| 8110 | Fixed | 3200 | Custom | 3.3 |

Telescopic

| Part No. | Type/Model | Retracted Length (mm) [*] | Extended/OAL (mm) ¹ | Bag | Wt (kg) |
|----------|------------|------------------------------------|--------------------------------|---------|---------|
| 8158 | Telescopic | 1550 | 1550, 1980, 2440 | TENM309 | 2.6 |
| 81611 | Telescopic | 1980 | 1980, 2440, 2895, 3350 | TENM301 | 3.0 |
| 81-811 | Telescopic | 2440 | 2440, 2895, 3350, 3810 | TENM310 | 3.3 |
| 81-814 | Telescopic | 2440 | 2440, 3050, 3655, 4265 | TENM310 | 3.5 |

* Collapsed lengths for storage or transport ¹ Lengths which can be locked for operating # Custom Made

Sectional

Part No. 81 Series

- Same features as Fixed and Telescopic shotguns
- Select Base & Head then required extension sections for height
- Contact TEN for storage bag solutions



| Part No. | Section | OAL/ Base & Head (mm) | Wt (kg) |
|-----------|-------------|-----------------------|---------|
| 81-704 | Base & Head | 1524 (1219 & 304) | 2.2 |
| 81-706 | Base & Head | 2133 (1828 & 304) | 2.5 |
| 81-708 | Base & Head | 2743 (2438 & 304) | 4.3 |
| 81-710 | Base & Head | 3352 (3048 & 304) | 5.1 |
| EX2-1464 | Extension | 600 | 0.6 |
| 81-604 | Extension | 1219 | 1.1 |
| 81-606 | Extension | 1828 | 1.6 |
| 81-608 | Extension | 2438 | 2.3 |
| 81-610 | Extension | 3048 | 2.7 |
| 81-4023-5 | Head | 304 | 0.7 |

Kits including hand guards, cleaning accessories & carry bag available. Contact TEN for further information.

Shotgun Stick Kits

Part No. 18280

- Fixed sectional shotgun kit (other options)
- Complete range of adaptors & accessories
- Customised versions available



| Part No. | Item Description | Qty in Kit |
|-----------|-----------------------------------|------------|
| 8106 | Shotgun Fixed 1.8m | 1 |
| 10-090 | Cloth Silicone | 1 |
| 10-188-1 | Wipes Silicone Single Sachet | 2 |
| MET GUARD | Met Guard Warning Ring | 1 |
| PLEGAAM1 | Adaptor Shotgun to Universal Head | 1 |
| LVDP | Fuse Extraction Head | 1 |
| LLCR | Live Line Clamp Remover | 1 |
| P10431-2 | Universal Disconnect Hook | 1 |
| TENM311 | Carry Bag Red | 1 |

See from page E36 to E40 of the Safety & PPE section for fibreglass stick Cleaning

Shotgun Stick Package

| Part No. | Length of Sections (mm) | No of Sections | Operating Lengths (m) | Description | Wt (kg) |
|----------|-------------------------|----------------|-----------------------|--|---------|
| 81-544 | 1200 | 4 | 1.5 - 2.7 - 3.9 - 5.2 | Sectional shotgun stick package complete with base, head, intermediate sections and carry case | 7.1 |

Contact TEN to Design Your own Stick Package

Hand Guards

Part No. A3000 Series

- High visibility safety red for visual warning of approach distance
- Provides hand guard or barrier
- Split and double flat head screw design makes installation easy
- A30002 suits shotgun operating rod
- Non-conductive delrin



| Part No. | Suits Stick OD (mm) | Weight (grams) |
|----------|---------------------|----------------|
| A30002 | 32 | 20 |
| A30003 | 38 | 25 |
| A30005 | 50 | 30 |

Stick Mounts for truck boxes & compartments



| Part No. | SM25 | SM32-38 | SM45 | SM63-76 | SM32-ETS | A10009 | 10-151-2 |
|----------------------|------------------------------------|---------|------|---------|----------------|------------------------------|--------------------------|
| Suits Sticks (mm) OD | 25 | 32-38 | 45 | 63-75 | 32-38 | 32-38 | 32 |
| Description | Stick Mount with Screw Holes | | | | No Mount Holes | Hanger Hook | |
| Use | Mounting Stick in Truck or on Wall | | | | | Hanging Stick | |
| Material | Polyurethane | | | | | S/S Hose Clamp & Bronze Hook | S/S Hose Clamp & PU Hook |



Optional Extras

Universal "Spiral" Hook

Part No. 10-106



- Used for grabbing and holding branches or wire during tree trimming

Debris Removal Tool

Part No. DV-1



- Universal aluminium base
- Two-prong angled tapered design for quick vegetation removal
- Can also be used to remove tree limbs and break ice

Rope Insulator

Part No. Various Sizes



Tree Trimming Equipment

Tree Trimming Kits - Hastings

Part No. 4141 & 4142

- For line clearance crews, trouble shooting and emergency call outs
- Complete kit with sticks, cutter, saw and adaptors in Protective carry bag
- Tested to ASTM F-711, IEC 60855 & OSHA
- Refer to local network provider procedures for live line use

| Part No | Stick OD (mm) | Length of Sections (m) | Maximum Height (m) | Description | Weight (kg) |
|---------|---------------|------------------------|--------------------|--|-------------|
| 4141 | 32 | 1.2 | 4.8 | Tree Trimming Kit (Refer below for contents list) | 6.8 |
| 4142 | 32 | 1.8 | 7.2 | | 8.6 |

Open the bag and you have choice of tree trimming tools in the length required, all in a convenient heavy-duty vinyl tool bag that offers maximum protection for the tools



Spare parts & accessories available at TEN

| Part No. | Item Description | Qty in Kits | |
|----------|--------------------------------|-------------|------|
| | | 4141 | 4142 |
| 546-4 | Stick Sectional Extension 1.2m | 4 | - |
| 546-6 | Stick Sectional Extension 1.8m | - | 4 |
| 4125 | Cutter - Tree Pruner 600mm FG | 1 | 1 |
| A18007 | Base Cap 32mm Female | 1 | 1 |
| A10012 | Adaptor Male Universal 32mm | 1 | 1 |
| P10046 | Universal "S" Hook | 1 | 1 |
| A11000 | Universal Pruning Saw | 1 | 1 |
| A10016 | Universal Saw Handle | 1 | 1 |
| A30007 | Pruning Saw Scabbard | 1 | 1 |
| TENM305 | Bag Tree Trim to suit 1.2m | 1 | - |
| TENM315 | Bag Tree Trim to suit 1.8m | - | 1 |

- For insulating ropes used around energised lines
- Add one to your Tree Trimming Kit
- Blank fibreglass middle section with eyes each end

| Part No | Fibreglass Length (mm) |
|---------|------------------------|
| 4010 | 1100 |
| 4004-1 | 305 |
| 4005 | 860 |

Rope Insulator not included in Tree Trimming kits

Tree Trimming Equipment & Adaptors - Hastings



| Part No. | 10-019 | A11002 | A11004 | A10033 |
|-------------|--|---|--|-------------------------|
| Description | Tree Pruning Head Insulated with Rope | Tree Pruning Head | Replacement Head | Replacement Rope Pulley |
| Details | Drop Forged Steel Blades cut to 38mm Ø. 300mm Fibreglass Shaft – Twin Pulley with 7.6m Polypropylene Rope and Universal Head | Drop Forged Steel Blades cut to 38mm Ø. Single Pulley with Universal Head | Drop Forged Steel Blades cut to 38mm Ø | Cast Aluminium Pulley |
| Weight (kg) | 1.3 | 0.88 | 0.79 | 0.11 |



| Part No. | A11000 | P11004 | A30007 | A11000-K |
|-------------|--|---|--|----------------------------------|
| Description | Universal Pruning Saw | Replacement Blade | Saw Scabbard | Universal Pruning Saw & Scabbard |
| Details | Teflon Coated Fast Cutting. Curved Blade 400mm long with 7 Teeth per 25mm and Universal Head | Teflon Coated Fast Cutting. Curved Blade 400mm long with 7 Teeth per 25mm | For Safe Storage of # A11000 Saw, Heavy Duty Stitching | Kit Includes A11000 + A30007 |
| Weight (kg) | 0.36 | 0.14 | 0.45 | 0.79 |



| Part No. | P10032 | A10016 | 10-106 | P10046 |
|-------------|--|--|--|---------------------------------|
| Description | Pruning Saw Casting | Saw Handle | Universal Spiral Hook | Universal "S" Hook |
| Details | Aluminium Casting replacement for A11000 | Handle for # A11000 Saw, Cast Aluminium with Wingnut | Used for Grabbing/Holding Branches/Wires | Used for Lifting Overhead Wires |
| Weight (kg) | 0.22 | 0.22 | 0.34 | 0.10 |



Sectional Sticks & Adaptors

Universal Head - Extension - Base Section

Sectional sticks - Foam filled tested per OSHA, ASTM F-711 - 32mm and 38mm OD sticks tested to IEC 60855

Universal Head



Extension Section



Base Section



| Universal Head with Removable Base Adaptor | | | | |
|--|---------|---------|---------|---------|
| Length (m) | OD (mm) | Wt (kg) | OD (mm) | Wt (kg) |
| | 32 | | 38 | |
| 0.6 | 5467-2* | 0.47 | - | - |
| 1.2 | 5467-4 | 0.90 | 5547-4 | 1.08 |
| 1.8 | 5467-6 | 1.07 | 5547-6 | 1.56 |
| 2.4 | 5467-8 | 1.41 | 5547-8 | 2.04 |

| Extension Section | | | | |
|-------------------|---------|---------|---------|---------|
| Length (m) | OD (mm) | Wt (kg) | OD (mm) | Wt (kg) |
| | 32 | | 38 | |
| 0.6 | 546-2 | 0.45 | - | - |
| 1.2 | 546-4 | 0.56 | 5546-4 | 0.90 |
| 1.8 | 546-6 | 0.93 | 5546-6 | 1.39 |
| 2.4 | 546-8 | 1.13 | 5546-8 | 1.87 |

| Base Section with Glued Rubber Base Cap | | | | |
|---|---------|---------|---------|---------|
| Length (m) | OD (mm) | Wt (kg) | OD (mm) | Wt (kg) |
| | 32 | | 38 | |
| 0.6 | - | - | - | - |
| 1.2 | 552-4 | 0.68 | 5553-4 | 0.85 |
| 1.8 | 552-6 | 0.90 | 5553-6 | 1.25 |
| 2.4 | 552-8 | 1.30 | 5553-8 | 1.64 |

*Base Adaptor not included with 5467-2

*Use 552-2-TEN - for 600mm Universal head with fixed base cap

Adaptors & Base Caps



| Part No. | A10012 | A10025 | A10011 | A10026 | A18007 | A18008 | A14019 |
|----------------------|--|--------|--------------------------|--------|-----------------|--------|--------------|
| Suits Sticks (mm) OD | 32 | 38 | 32 | 38 | 32 | 38 | 38 |
| Description | Male Universal Button Adaptor | | Female Universal Adaptor | | Female Base Cap | | Snap-In Male |
| Suits Stick Head | Universal head, sectional button type adaptors and base caps | | | | | | |
| Material | FG, Al Alloy & Plastic | | | | FG & Rubber | | FG |

Fixed Length Universal Sticks

Triangular Double-End universal

Round Single & Double-End universal



| Universal Head each End - Triangular with Hanger Hook | | |
|---|---------|---------|
| Length (m) | OD (mm) | Wt (kg) |
| | 28 | |
| 1.8 | 4679-6 | 1.45 |
| 2.4 | 4679-8 | 1.72 |
| 3.0 | 4679-10 | 1.90 |
| 3.6 | 4679-12 | 2.13 |

- Adapts to all standard universal fit tools
- Includes hanger hook
- Universal Head each end



| Severe Weather Tool with 2 Rain Sheds* and Hanger Hook | | | | |
|--|---------|---------|---------|---------|
| Length (m) | OD (mm) | Wt (kg) | OD (mm) | Wt (kg) |
| | 32 | | 38 | |
| 1.8 | 6801 | 1.45 | - | - |
| 2.4 | 6802 | 1.81 | - | - |
| 3.0 | 6803 | 2.18 | - | - |
| 3.6 | 6804 | 2.54 | 6811 | 3.22 |
| 4.2 | - | - | 6812 | 3.54 |
| 4.8 | - | - | 6813 | 3.95 |
| 5.4 | - | - | 6814 | 4.36 |
| 6.0 | - | - | 6815 | 4.72 |



| Universal Head each End - Circular with Hanger Hook | | | | |
|---|---------|---------|---------|---------|
| Length (m) | OD (mm) | Wt (kg) | OD (mm) | Wt (kg) |
| | 32 | | 38 | |
| 1.2 | 4678-4 | 1.27 | - | - |
| 1.8 | 4678-6 | 1.47 | - | - |
| 2.4 | 4678-8 | 1.86 | 4680-8 | 2.59 |
| 3.0 | 4678-10 | 2.25 | 4680-10 | 2.90 |
| 3.6 | 4678-12 | 2.63 | 4680-12 | 3.72 |
| 4.2 | - | - | 4680-14 | 4.54 |

*Rain Sheds also available separately

Part No. P30773 - 32mm
Part No. P30772 - 38mm





Sectional Stick Kits

- Customised stick kits made to customer specification or specific utility industry kits
- Below examples of current industry kits



| Component Part No. | Item Description | Kit Part No. | |
|--------------------|---|--------------|---------|
| | | TENK026 | TENK908 |
| 546-4 | Stick Sectional Extension 1.2m, 32mm OD | 4 | - |
| 546-6 | Stick Sectional Extension 1.8m, 32mm OD | - | 4 |
| LVDP | Fuse Extraction Head | 1 | 1 |
| A10012 | Adaptor Male Universal Head 32mm | 1 | 1 |
| A18007 | Base Cap 32mm Female | 1 | 1 |
| A30002 | Hand Guard to Suit 32mm | 1 | 1 |
| P10431-2 | Universal Disconnect Hook | 1 | 1 |
| TENM302 | Bag Sectional Kit, 4 x 1.2m & Acc Pock | 1 | - |
| TENM313 | Bag Sectional Kit, 4 x 1.8m & Acc Pock | - | 1 |
| 10-188-1 | Disposable Silicon Cleaning Wipe | 2 | 2 |
| 10-090 | Silicon Wiping Cloth | 1 | 1 |

Customisable substation kits available

Stick Parts & Components

Blank Poles

- Foam filled fibreglass tested per OSHA, ASTM F-711
- 32mm OD sticks tested to IEC 60855



| Length (m) | 32mm OD | | 38mm OD | |
|------------|----------|---------|----------|---------|
| | Part No. | Wt (kg) | Part No. | Wt (kg) |
| 1.2 | 464 | 0.56 | 534 | 0.90 |
| 1.8 | 466 | 0.93 | 536 | 1.39 |
| 2.4 | 468 | 1.13 | 538 | 1.87 |
| 3.0 | 4610 | 1.29 | 5310 | 2.41 |
| 3.6 | 4612 | 1.53 | 5312 | 2.95 |
| 4.2 | - | - | 5314 | 3.49 |
| 4.8 | - | - | 5316 | 4.01 |
| 5.4 | - | - | 5318 | 4.57 |
| 6.0 | - | - | 5320 | 5.11 |

50, 63 & 76mm poles available. Contact TEN for more information.

Stick Ends & Components

Components to repair or modify sticks



| Part No. | P18006 | P18008 | A10017-R | A10018-R | 5455-10 | P10037 | P10038 | P10036 |
|----------------------|-----------------|-----------------|----------------|----------------|--------------|----------------------|----------------------|--------------------------------|
| Suits Sticks (mm) OD | 32 | 38 | 32 | 38 | n/a | 32 | 38 | 32 |
| Description | Rubber Base Cap | Rubber Base Cap | Universal Head | Universal Head | Chuck Blank | Nema Disconnect Head | Nema Disconnect Head | Nema Disconnect Head - Notched |
| Material | Rubber | Rubber | Al Alloy | Al Alloy | Bronze Alloy | Manganese Bronze | Manganese Bronze | Manganese Bronze |



DNOBHOOK
sold separately



10-094
Fuse Cup

A10-094DNOB
Hook Danger
Tag Applicator

Universal Head Tools and Adaptors

Fuse Cup

- Installation, removal and changing EDO's
- Reduces flash over hazards & chance of dropping fuse barrel
- Made from fibreglass reinforced nylon
- A10-094 DNOB version has grooved inner surface for hanging 'Do Not Operate' markers
- Fuse barrels (suits most 100A & 200A)

| Part No. | Description |
|-------------|---|
| 10-094 | Fuse Cup - EDO's install/removal Tool - Universal head |
| A10-094DNOB | Fuse Cup - with grooved inner for hanging DNOB markers - Universal head |
| DNOBHOOK | "DO NOT OPERATE" Hook danger tag, (Sold seperately) |

House Service Fuse Remover/Installer



LVDP



A5455-10-PTU



LVFP



EX2-1824-K



| Part No. | Description | Material | Wt (kg) |
|--------------|---|---|---------|
| EX2-1824-K | Fits Tri-Angular Telescopic Stick 200mm Stick Section + LVDP* | One piece plastic universal fitting & pigtail + 200mm Stick Section | 0.70 |
| LVDP | Pigtail Fuse Puller | One piece plastic universal fitting & pigtail | 0.25 |
| A5455-10-PTU | Pigtail Fuse Puller | Brass universal fitting & plastic pigtail | |
| LVFP | Pigtail Fuse Puller | One piece aluminium universal fitting & pigtail | |



Spray Can Shroud

Remote Spray Can Holder with Universal Fitting

- Insert any size spray paint can - Rust Inhibitor/CRC/WD40, Degreaser and Wasp or Insect Killer.
- Supplied with 9m of 6mm OD Polypropylene Rope (Use with Rope Insulator when working near live lines)
- Loosen rusted bolts and corroded pole line hardware
- Spray switched prior to opening
- Eliminate bee and wasp nests
- Products supplied in pressurized spray cans can be safely applied around energized apparatus from the ground, pole, or bucket truck
- Reduce conductive surface exposure with the ioptional spray can shroud

| Part No. | Description | Material | Wt (kg) |
|-----------|----------------------|---------------------------------------|---------|
| 10-115 | Spray Can Holder | Al Alloy, S/S, Polypropylene & Delrin | 0.70 |
| 10-115-SH | Shroud for Spray Can | Polymer | 0.25 |

GoPro™ Camera Stick Mounting Accessories

Modelled after the HASTINGS Tel-O-Pole series, this specially engineered hot stick allows for a GoPro™ Action Camera to be mounted and utilized for quick, easy, and safe inspection of and around energized lines, transformers, insulators, poles, buildings, bridges & other assets

The hot stick may even allow inspections to be completed without the use of a bucket truck, lift, or climbing gear.

See Test & Measure section for detailed information

- Fibreglass Stick Tested at 100kV per 300mm
- Camera Assembly Tested up to 40kV
- Extended 9.15m / Retracted 1.6m
- The camera mount adapter can be used in any position included with the R-30-G stick.
- The Clamp Claw Mount, sold separately, clamps to any hot stick.
- Camera Light, sold separately can be used on Camera Mounting Insulated Stick or the Clamp Claw Mount.
- Smart Phone Mount, sold separately, has adjustable strap to fit on most hot sticks.

| Part No. | Description | Wt (kg) |
|---------------|--|---------|
| R-30-G | Camera Mounting & Insulated 9.2m (30') Hot Stick | 1.8 |
| A30413 | Smart Phone Mount | 0.11 |
| A30414 | Clamp Claw Mount | 0.22 |
| 10-150 | Camera Light | 0.11 |
| C-35 | Carry Case | 0.26 |
| 5455-10-GOPRO | Rising sun attachment for camera | 0.67 |

GoPro Action Camera and phone not included



Conductor Diameter Sliding Gauge - TEN

Part No. CG-430-AU

HDPE slide gauge quickly & easily identify conductor OD

Reduce Incorrect Conductor Identification

- Designed for Australian AL, CU & ACSR conductors
- Measure Live Conductors
- For conductors 4.0 - 30mm Ø
- Fits universal sunrise fitting

| Part No. | Dimensions (mm) | Weight (kg) |
|-----------|----------------------------|-------------|
| CG-430-AU | 104 (W) x 287 (L) x 10 (D) | 0.26 |



Conductor Diameter Gauge - AL, CU & ACSR - TEN

Part No. CG-EQL Series

Quickly & easily identify common overhead electrical distribution conductor or wire sizes in AL, CU & ACSR. Markings include conductor name, stranding and overall diameter.

- Hole in base for use with a shotgun stick and hanging storage
- Imperial and metric sizes included
- Precision machined from lightweight aluminium alloy

| Part No. | Conductor Range | Dimensions (mm) | Wt (kg) |
|-------------|--|---------------------------|---------|
| CG-EQL-ALCU | Copper 7/.064 – 4.87mm to 19/2.75 – 13.8mm Aluminium Locust – 7/.093 - 7.08mm to Taurus - 19/4.75 - 23.80mm | 257 (L) x 91 (W) x 14 (D) | 0.75 |
| CG-EQL-ACSR | ACSR Quince - 5.25mm to Wolf - 18.13mm | 209 (L) x 91 (W) x 14 (D) | 0.65 |





LitLink

LitFinger

LitFinger/LitLink

Both products have a built-in, high intensity LED light for safe and efficient operations in dark or low light areas. Connect to all hot sticks with a Universal sunrise fitting.

- 94 Lumens/4 Hr
- Bright, unbreakable 1-watt LED light
- Lightweight aluminium body
- HI-LOW switch for increased battery life
- Water resistant battery compartment with sealed silicone rubber push button
- Easy access battery compartment door
- Runs on three (3) AAA batteries
- Waterproof to 1 meter

LitLink

- Passed 3000V, 8000A, ½ sec (30 cycles) arc blast test

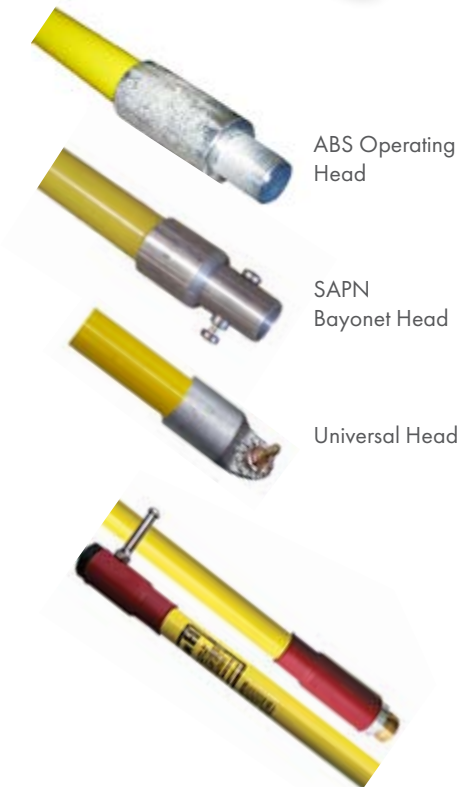
LitFinger

- Machined aluminium Notched straight arm to secure fuse while lowering or raising fuse barrel
- Pointed head for breaking off of ice or debris

Fixed Head Stick - SAPN

Part No. AKL

| Part No. | Description | Dia (mm) | Length (m) | Head Type |
|----------|------------------------|----------|------------|------------------------|
| AKL1711 | ABS Operating Handle | 32 | 0.75 | 14 TPI UNF Thread |
| AKL546-4 | Sectional/Single end | 32 | 1.2 | Bayonet |
| AKL7294 | Fixed Stick/Double end | 32 | 2.5 | Male bayonet/Universal |
| AKL7296 | Fixed Stick/Double end | 38 | 3.6 | Male bayonet/Universal |
| AKL7298 | Fixed Stick/Double end | 38 | 4.5 | Male bayonet/Universal |
| AKL7299 | Fixed Stick/Double end | 38 | 6.0 | Male bayonet/Universal |
| AKL7300 | Fixed Stick/Double end | 38 | 6.0 | Universal/Universal |
| AKL7301 | Fixed Stick/Single end | 50 | 6.0 | Bayonet |



ABS Operating Head

SAPN Bayonet Head

Universal Head

Sectional Stick - SECV

Part No. Various

| Part No. | Description | Fibreglass Length (m) |
|----------|--|-----------------------|
| LLSP | Operating Stick SECV Female to disconnect podger | 1.5 |
| LLSPL | Operating Stick SECV Female to disconnect podger | 3 |
| LLSPI | Operating Stick SECV Female to SECV male - extension for LLSPL | 1.5 |

* See opposite page for SECV tool adaptors

Stick & Tools Adaptors - Various

Stick & Tools Adaptors



| Part No. | AD06/AD07 | AD03/AD02 | AD14 | MOD-C | MOD-E | MOD-EV | MOD-K |
|------------------|--|--|--|----------------------------------|----------------------------------|---|------------------------------------|
| Suits Sticks | 32mm stick extension | 38mm stick extension | - | - | - | - | - |
| Top Adaptor | Bayonet AL/Nylon | Bayonet AL/Nylon | Bayonet (Al) | Modiewark | Modiewark | Modiewark | Modiewark |
| Suits Stick Head | Button Extension | Button Extension | Universal | Hex | Bayonet | Taplin | Universal |
| Use | Bayonet Earth Clamps (14.5mm Spindle, 24mm Long Pin) | Bayonet Earth Clamps (14.5mm Spindle, 24mm Long Pin) | Bayonet Earth Clamps (14.5mm Spindle, 24mm Long Pin) | Modiewark Holder Hexagon Fitting | Modiewark Holder Bayonet Fitting | Modiewark Holder with Taplin 40mm T-Bar | Modiewark Holder Universal Fitting |
| Material | FG, Al & Plastic | FG, Al & Plastic | FG, Bronze Alloy & Al | - | - | - | - |

Stick & Tools Adaptors - cont.



| Part No. | CI-7-E | CI-4-E | CI-4-K | CI-5-K | AD |
|------------------|-------------------------------------|-------------------------------------|-------------------------|-------------------------|------------------------------|
| Top Adaptor | Bayonet | Bayonet | Universal | Universal | Bayonet (14.5mm Spindle) |
| Suits Stick Head | Universal | Hex | Hex | Shotgun | Universal |
| Use | For Bayonet Earthing Clamps (Specs) | For Bayonet Earthing Clamps (Specs) | Standard Universal Head | Standard Universal Head | Convert Universal to Bayonet |
| Material | FG & Al Alloy | FG & Al Alloy | FG & Al Alloy | FG & Al Alloy | Al Alloy |



| Part No. | *SECV-C | *SECV-K | *LLCR-SECV | LLCR | CI-6-C-2 | CI-5-C |
|-------------|------------------------------|------------------------------|------------------------------------|-------------------------------------|-------------------------------------|------------------------------|
| Description | SECV to Catu Adaptor | SECV to Universal Head | SECV to Live Line Clamp Remove | Universal to Live Line Clamp Remove | Universal to Adaptor for Catu Tools | Shotgun to Catu Tools |
| Use | Tool Adaptor For SECV sticks | Tool Adaptor For SECV sticks | Suits SECV stick for Taplin Clamps | Applies & removes Live Line Clamps | Universal to Catu Tool adaptor | Shotgun to Catu tool adaptor |

*See opposite page for Sectional Sticks

Universal Head Accessories - Various

Universal Head Accessories

Line specific universal head adaptors and accessories



| Part No. | 5556 | 5558 | P10431-2 | A10400 | P10046 | MT-630-K | A10111 |
|-------------|---|---|--|------------------------------------|--------------------|--|--|
| Description | Disconnect Hook | Disconnect Hook | Disconnect Hook | Disconnect Hook, Fluoro | "S" Hook | MT-613 application | Disconnect Pigtail, Fluoro |
| Use | Operating Fuse Switches suits Hastings 32mm Sectional stick | Operating Fuse Switches suits Hastings 38mm Sectional stick | Double sided sunrise for left and right facing Operating Fuse Switches | Operating Fuse Switches, Night Use | Lifting Conductors | MT-630-K (above) Universal Mount MT-630-C Hex Mount | Operating/ Installing/ Removing Fuse Switches, Night Use |
| Material | Male F/Glass / Bronze | Male F/Glass / Bronze | Chromed Bronze | Bronze Alloy Painted | Brass | Bronze Alloy | Bronze Alloy |
| Weight (kg) | - | - | 0.2 | 0.2 | 0.1 | 1.0 | 0.2 |



| Part No. | 4440 | A10022 | PLEGAAM1 | A10019 | DH-1 | 5454-6 | A10023 |
|-------------|---|-------------------------------|-----------------------------------|-----------------------------------|---|--------------------------------|------------------------------------|
| Description | Talon Hook | Clamp Stick Head | Shotgun - Universal Head | Shotgun - Universal Head | Double Header Universal Attachment | 90° Universal Adaptor | Wire Tong |
| Use | Installing/ Removing/ Operating Fuses, EDO's & Switches | Operating Shotgun Ring Clamps | Convert Shotgun to Universal Head | Convert Shotgun to Universal Head | Attached two different Universal tools on one Hot-Stick | Change Angle of Universal Head | Light Tong for Holding, Max Ø 35mm |
| Material | Bronze Alloy | Al Alloy | Al Alloy | Bronze Alloy | Al Alloy | Bronze | Bronze/ Al Alloy |
| Weight (kg) | 0.2 | 0.5 | 0.1 | 0.2 | 0.35 | 0.1 | 0.9 |



Universal Head Accessories - cont.

Line specific universal head adaptors and accessories



| Part No. | 5455-21 | 13489 | 12737 | 5455-2 | 5455-15 | 5455-29 |
|--------------------|---|---|---|---|--|---|
| Description | Cotter Key Puller | NX Fuse Puller/Disconnect | Cotter Key Pusher | Bolt Holder | Locking Pin | Ball Socket Adjuster |
| Use | For 3/16" Cotter Keys on Clevis Type Fittings | For removing and Installing NX Sand Fuses on URD Switchgear | For Transmission Insulator Strings, Pushes Legs on Cotter Key partially out of Socket so Ball can be Disconnected, Slot can Face to Either Side or Rear | For Replacing Pins on Clevis Type Hardware, Jaw Spring Actuated | For Lining Up Joints on Clevis Type Suspension Insulators and Hardware to Replace Pins | Supporting & Aligning Ball Socket Adaptor between Ball Fitting on Disc Insulator & Clevis Fitting on Suspension or Strain Clamp |
| Weight (kg) | 0.4 | 0.1 | 0.8 | 0.3 | 0.2 | 0.3 |



| Part No. | 5455-1 | 5454-2 | 10-096 | 5455-37 | 5455-57 | 5455-93 |
|--------------------|--|--|--|--|---|--|
| Description | Insulator Controller 254mm (10") | Ball Socket Fork | Armour Rod Applicator | Self Aligning Fuse Puller, Small | Adjustable Fuse Puller Large | Adjustable Fuse Puller Extra Large |
| Use | Clamps around 254mm (10") Disc Insulator between Porcelain & Cap for Removing Single Unit or Holding Insulator in Alignment as Cotter Key is Replaced. | Aligning & Holding Ball Socket Fittings for Cotter Key Removal | Installation & Removal of Conductor Ties & Armour Rods | For Fuse Tubes 12.7-38.1mm OD, Plastic Coated Jaws | For Fuse Tubes 22.22-50.8mm OD, Plastic Coated Jaws | For Fuse Tubes 38.1-92mm OD, Plastic Coated Jaws |
| Weight (kg) | 1.1 | 0.2 | 0.2 | 1.0 | 1.1 | 1.3 |



| Part No. | A10020 | A10021 | P10055 | P10056 | 12425 | 5455-8 | A30152 |
|--------------------|---|-------------------------------------|----------------------|-------------------------------|---|--|--|
| Description | Rotary Prong Tie | Rotary Blade Tie | Prong Tie | Blade Tie | Cotter Key Replacer/Puller | Cotter Key Puller | Tie Wire Assist |
| Use | Loop End Tie Wire, Self Aligning & Swivels Freely | Removal of Ties without Looped Ends | Looped End Tie Wires | Tie Wires without Looped Ends | Cotter Key 3.22mm (1/8) in Clevis Pins of Distribution Hardware | Removal of Cotter Keys in Clevis Type Suspension Insulators & Hardware, Adjustable for Compound Angles | Attach on 32/38mm Universal & Tie End Sticks. Aid to remove Tie Wires, also Useful as Hanger |
| Weight (kg) | 0.20 | 0.20 | 0.10 | 0.20 | 0.40 | 0.20 | 0.10 |

Universal Head Accessories - cont.

Line specific universal head adaptors and accessories



| Part No. | 9785 | USSK-1 | 5454-3 | 5454-7 | 5455-28 | C4030177 | 5455-46 | 5455-35 |
|-------------|---|--|---|----------------------------|---|---|-------------------------------|--|
| Description | Mirror | Universal Skinning Knife | Ball Peen Hammer | Hacksaw, Light | Screw Drive Flat | All Angle Pliers | Socket Wrench | Universal Insulator Controller |
| Use | Inspection of Line Hardware, Rubber Trimmed with Ball Swivel Adjustment | Skinning Insulation Includes Sheath (Replaceable Blades) | Light Impact around Energised Equipment | Cutting Metal, 254mm Blade | Screwing Flat Head Bolts 9.5mm Wide Tip | Designed to grasp bolts and hardware from any angle | 1/2" Square Drive for Sockets | Grips cap of suspension insulator. Adjustable jaws |
| Weight (kg) | 0.36 | 0.18 | 0.59 | 0.45 | 0.18 | 0.68 | 0.45 | 1.50 |



| Part No. | 5455-25 | 5455-99 | 5455-98 | TEO81RW-U | 5455-6 | M4455-87 | M4455-97 | 10-178/10-179 |
|-------------|-------------------------------|-------------------------|--|---------------------------------------|---------------------------|--|--|--|
| Description | Paint Brush | Vice Grips 177mm | Vice Grips 254mm | Insulated Ratchet Wrench 1/2" Drive | Ratchet Wrench 1/2" Drive | Universal Ball Socket Adjuster | Universal Tool for W Keys | Scratch V-Brush Conductor Cleaner |
| Use | Painting near Energised Lines | Holds Cotter Pins, etc, | Holds Split Bolts & Parrallel Groove Clamps, etc | Use with 1/2 drive sockets Reversible | Sockets, Reversible | For socket clevises, where suspension and deadend clamps are attached to ball and socket insulators. | This tool is used for handling the "W" shaped keys used in suspension insulators | For use with Hand or Shot-Gun stick for cleaning conductors prior to connecting (Part No. 10-179 10 x Replacement Brushes) |
| Weight (kg) | 0.31 | 0.54 | 0.72 | 0.45 | 0.86 | 0.30 | 0.40 | 0.30 |



| Part No. | 5455-74 | M4455-22 | M4455-103 | M4455-19 | M4455-2 | 5455-31 | M4455-67 |
|-------------|---|--|--|--|--|--|---|
| Description | Bolt Head Wrench | Universal Ball Socket Adjuster | Cotter Key Holder | Cotter Key Pusher | Pin Holder | Universal Shepherd Hook | Universal Adjustable Insulator Fork |
| Use | Tightening Through Bolts, Head Wedges Against Bolt Head to keep it from Turning | Useful in controlling the adapter between clevis clamps and ball and socket insulator pins | For holding Split pins closed during installation and easily releases after installation | Straight End pushes the Insulator Cotter to disengage. Curved end forces cotter key back into position | For replacing Pins & Bolts. Bolt head fit into a slot and is held tight by the spring action | Fits around the cap of suspension insulators to aid control during removal | Designed to grasp 9 & 10" disk insulators |
| Weight (kg) | 0.50 | 0.25 | 0.22 | 0.27 | 0.30 | 1.05 | 0.70 |



Cutters - Various

Emergency Wire Cutters

Part No. Various

- Universal head with fibreglass insulating shaft & conductor capture hook
- Long lever arm and double pulley reduces pulling requirement on rope
- Shear drop forged cutter blade

Ideal for cutting away Lightning Arrester leads

| Part No. | Description | Cuts | Max Cable OD | Wt (kg) |
|----------|--------------------------------------|------------|-------------------|---------|
| 4186 | Universal Cutter with 7.6m Poly Rope | ACSR/Al/Cu | 14.3mm | 2.1 |
| 10-019 | | Branches | 38.0mm | 1.3 |
| | | Al/Cu | 50mm ² | |

Refer to page D12 for information on rope insulators and tree cutter heads

Emergency Wire Cutting Kit

Part No. 4186-K

- Designed for emergency cutting of lines or conductors
- Ideal for cutting away Lightning Arrester leads
- Cutting head attaches to standard universal head operating stick

| Part No. | Item Description | Qty |
|----------|--|-----|
| 4186 | Cutter with Universal Head, Cuts up to 14mm OD ACSR, 28mm OD Al/Cu | 1 |
| 4010 | Insulator for Rope with 1100mm of Fibreglass and Eyes each end | 1 |
| TENM413 | Carry Bag for above | 1 |

Lever Handle Ratchet Wire Cutter

Part No. Various

- Range of cable cutters for ACSR/Al/Cu
- Parrot Beak style
- Foam filled fibreglass main shaft with solid operating rod tested to ASTM F711 & OSHA
- Lever operation
- Cuts clean leaving no burrs, UG or OH operation
- Lightweight with fold up handle for easy storage

| Part No. | Type | Duty | Cuts | Max Cable OD (mm) | Stick OD (mm) | OAL (mm) | Wt (kg) | Replacement Blade | |
|----------|---------------|----------|---------|-------------------|---------------|----------|---------|-------------------|----------------|
| | | | | | | | | Prior to Oct 2006 | Since Oct 2006 |
| 11-005 | Ratchet Lever | Standard | ACSR | 20.7 | 32 | 1525 | 4.1 | A11001 | A11055 |
| 11-006 | | | | | | 1830 | 4.5 | A11001 | A11055 |
| 11-008 | | | | | | 2440 | 4.8 | A11001 | A11055 |
| 11-010 | | | | | | 3050 | 5.2 | A11001 | A11055 |
| 11-015 | | | Al / Cu | 25.5 / 18.0 | | 1525 | 4.1 | A11041 | A11056 |
| 11-016 | | | | | | 1830 | 4.5 | A11041 | A11056 |
| 11-018 | 2440 | 4.9 | | | A11041 | A11056 | | | |





Bolt & Steel Cutters

Part No. Various

- For cutting hard material such as high tensile steel, bolts, wire, rods, links and hardened chains
- Replaceable foam filled fibreglass handles tested to ASTM F711 & OSHA
- Comply with USA-F.S. No. GGG-C-740d Type II
- Great for everyday regular use



| Part No. | Handle Length (mm) | OAL (mm) | Reinforcement Steel (HRC Brinell 140 49.6kg/mm) | Bar Steel (HRC 20 Brinell 230 77.5kg/mm) | Steel Wire (HRC 40 Brinell 370 133kg/mm) | Music Wire (HRC 48 Brinell 450 162kg/mm) | Replacement Heads |
|----------|--------------------|----------|---|--|--|--|-------------------|
| 10-667 | 405 | 609 | 10 | 8 | 8 | 7 | A11012 |
| 10-665 | 610 | 812 | 10 | 8 | 8 | 7 | A11012 |

Other sizes available. Contact TEN for more information.



Cable & Guy Wire Cutters

Part No. 10-202

- Range of cable cutters for ACSR/Al/Cu/Guy Wire
- Insulating handles tested to ASTM F711

| Part No. | Type | Cuts | Max Cable OD (mm) | OAL (mm) | Handle Length (mm) | Wt (kg) | Replacement | |
|----------|-------------|----------------|-------------------|----------|--------------------|---------|-------------------------|---------|
| | | | | | | | Blade | Handles |
| 10-202 | Parrot Beak | ACSR / Al / Cu | 16 ACSR/Cu, 25 Al | 787 | 685 | 2.7 | 10-203 (Handle & Blade) | - |

Other sizes available. Contact TEN for more information.



Mighty Cutter - Nagaki NGK

- Precision machined blades from high quality Japanese Steel
- Blades suitable for Cu and Al, as well as ACSR and Steel
- Reliable ratchet mechanism for durability and ease of use
- Fibreglass handles
- Half the weight of comparable cutters
- Weight: 2.8kg
- Stranded cable only

| Part No. - MIGHTY-CUTTER | |
|--------------------------|-----------------------|
| Material | Cutting Capacity (mm) |
| ACSR/Cu | 22 |
| AL | 30 |
| St | 12 |

Refer to HYDRAULICS section for Battery and Hydraulic cutters and hand tools for other cutters.

Pliers Handles

- Foam filled fibreglass handles for attaching to standard electrical pliers or cutters, pliers/cutters not included

| Part No. | Dimensions (mm) | Wt (kg) |
|----------|-----------------|---------|
| 1961-2 * | 32 OD x 1220 L | 2.0 |

* Supplied as pair only

Cable Handling & Probe Tools

Part No. 6751 Series

- Tools for probing soil and lifting or moving cables
- 32mm OD foam filled stick handle tested per OSHA & ASTM F711

| Part No. | Tool Model & Description | Maximum Cable OD (mm) | Length of Fibreglass Shaft (m) | Wt (kg) |
|----------|-------------------------------------|-----------------------|--------------------------------|---------|
| 6751-01 | Cable Tool with Permanent Hook | 89 | 0.6 | 0.9 |
| 6751-04 | | | 1.2 | 1.4 |
| 6751-15 | Probe Tool | n/a | 0.3 (Spike 1.06) | 1.1 |
| 6751-8 | *Fibreglass Shaft with Sunrise head | - | 0.61 | 0.67 |
| 6751-9 | *Fibreglass Shaft with Sunrise head | - | 0.91 | 0.85 |
| 6751-10 | *Fibreglass Shaft with Sunrise head | - | 1.2 | 1.04 |
| 6751-16 | *Fibreglass Shaft with Sunrise head | - | 1.82 | 1.23 |

*Used with 10-106 Spiral Hook

| Part No. | Description | Details | Wt (kg) |
|----------|-----------------------|--|---------|
| 10-106 | Universal Spiral Hook | Used for Grabbing/Holding Branches/Wires | 0.34 |



Temporary Conductor Support

Part No. Various

- This Conductor Support clamps to the crossarm, adjusting to crossarms from 82.5mm x 100mm to 150mm x 150mm
- The C-clamp is made of heat treated aluminum and can be installed with a Grip-All shotgun



PSC4000517009

| Part No. | Description | Working Load (kg) | Height from Cross-arm (mm) | Insulated Length (mm) | Wt (kg) |
|---------------|---|-------------------|----------------------------|-----------------------|---------|
| C400-0517 | Conductor Support | 68 | 200 | 200 | 1.6 |
| PSC4000517011 | Conductor Support | 68 | 800 | 600 | 1.9 |
| PSC4000517009 | Conductor Support - Replacement for PSC4000517011 (No Cross-Arm Brkt) | | | 600 | 1.6 |



Wire Holding Stick

Part No. C403-3068 Series

- Foam filled shaft and solid fibreglass operating rod tested per ASTM F-711 and OSHA
- Three position locking head

The Chance Epoxiglas® Wire-Holding Stick is used on or around energised lines for forming, bending and positioning jumper wires; and for holding conductors during splicing operations. The gripper, equipped with an eye so that other sticks can assist with heavy bending, will handle (4.5mm OD solid copper through 34mm ACSR).



| Part No. | Pole OD (mm) | Length OAL (mm) | Conductor Capacity (mm) | Wt (kg) |
|-----------|--------------|-----------------|-------------------------|---------|
| C403-3068 | 32 | 1955 | 4.0 – 38.0 | 2.7 |



Will not RUST, ROT or CORRODE



Ideal for changing Live HV and LV Strain and Termination Cross-Arms

Part No. TENM426
Accessories Storage Bag



Part No. TENM710
Cross-Arm Storage Bag

Temporary Composite Fibreglass Cross-Arm

Part No. TENK007

Features

- Advantages over other temporary crossarms
 - "CAN" be used for Terminations
 - "CAN" be used in HV situations
- Chemically Inert:
 - Cross-Arm will not RUST, ROT or CORRODE
- 2Tonne WLL
- Lightweight: (15kg)
 - Composite Cross-Arm - Approximately $\frac{1}{3}$ the weight of timber
 - Bracket - Manufactured with high strength Aluminium
- Cross-arm provides additional protective layer of insulation (BIL rating 673kV/m)
- Takes 3 time longer to ignite and does not sustain a flame

2 Tonne WLL

Specifications

Composite Strain Arm

- 2580mm OAL
- 125mm x 125mm (Square)
- 22mm OD attachment holes

Lightweight

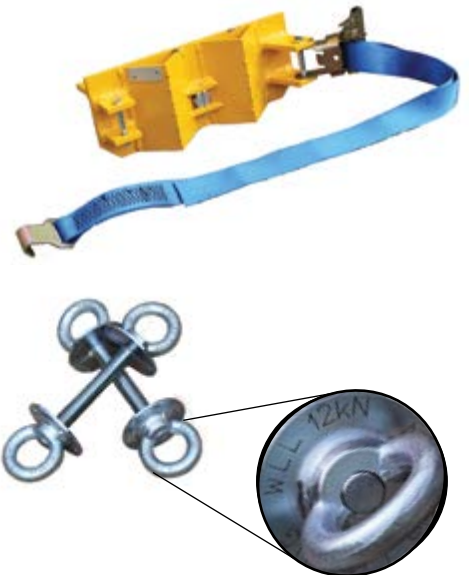
- Rating – 10kN per attachment point
- Non slip tape top and bottom
"To prevent slippage on EWP baskets"
- Use as termination or strain crossarm

Bracket

- Lightweight (Aluminium)
- Ratchet style web-strap attachment
- WLL 2T

Eye Bolts

- Double Ended (for strain arms)
- WLL 12kN (marked not for lifting)



Kit Includes

| Part No. | Description | Qty |
|--------------|---|-----|
| AEC047-00005 | Cross-Arm 2.5 Wagner composite | 1 |
| FSXARMB1 | Aluminium mounting bracket & ratchet strap | 1 |
| CCA20 | 20mm rated eye bolt & eye nut | 4 |
| TENM710 | Carry bag (Cross-Arm) - Canvas RED (2640 x 170 x 100mm) | 1 |
| TENM426 | Carry bag (Accessories) - Canvas RED | 1 |

Temporary Cross-arm Storage Bag

Part No. TENM710

- Included in TENK007 Temp. Crossarm kit
- Made from durable tear stop canvas with reinforced edges
- Webbing carry straps
- Webbing carry handles, reinforced stitched on both ends of bag
- Fold over corner velcro flaps
- 3 reinforced adjustable webbing straps for closing bag
- Bag easily unwraps to access Cross-arm



Link Sticks

Swivel Eye & Safety Hook

Part No. Various

- Provides insulation protection when using ratchet hoists on energised lines
- Foam filled fibreglass shafts
- Tested to ASTM F711 and OSHA, Pretested in factory to 2265kg
- Clevis Roller accepts up to 40mm wide strap
- Forged hooks
- Not to be used in place of insulators, rubber gloves or sleeves

Swivel Eye Safety Hook



Swivel Eye Both Ends

"-1" Models supplied with hot stick operated safety latch (as above)

| Part No. | Type | OD (mm) | Fibreglass Length (mm) | WLL (kg) | Wt (kg) |
|-------------------|--------------------------|---------|------------------------|----------|---------|
| 3414 | Swivel Eye – Safety Hook | 25 | 300 | 1815 | 1.0 |
| 3414-1 | | | 300 | | 1.1 |
| 3415 ² | Swivel Eye Both Ends | | 150 | | 1.0 |
| 3416 | | | 300 | | 1.1 |

² For LV only

Strain, Roller & Spiral Link Stick

Part No. Various

Provides insulation between energised conductors and pulling devices at different potential.

- Tested to ASTM F711 and OSHA
- Foam filled fibreglass shafts



| Model | Strain | Roller | Spiral |
|----------|--|--------|---|
| Hardware | Heat treated aluminium or bronze alloy. Eye screws are plated steel. Ball bearing eye swivels. | | Heat treated aluminium or bronze alloy. Eye screws are plated steel. Ball bearing eye swivels. High strength heat treated steel spiral hook |

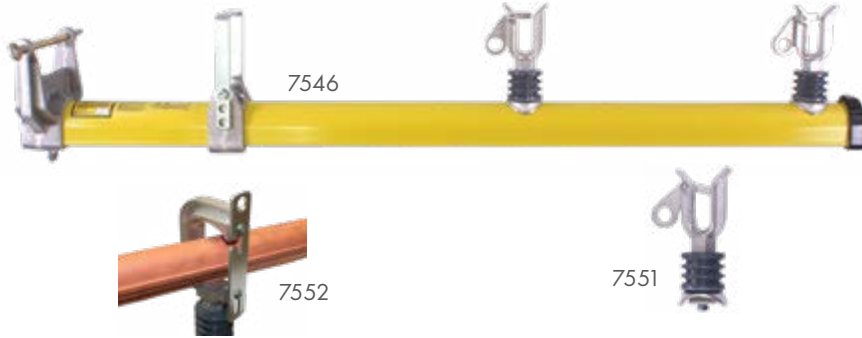
| Part No. | Type | OD (mm) | Pole Length (mm) | OAL (mm) | Max Wire Size Ø (mm) | WLL (kg) | Wt (kg) |
|------------|--------|---------|------------------|----------|----------------------|----------|---------|
| PSC4004372 | Strain | 32 | 546 | 1016 | 120 Max Crossarm | 1588 | 3.6 |
| 5708-3 | Strain | 32 | 610 | 915 | 35.05 | 1360 | 2.0 |
| 9466 | Roller | 32 | 610 | 1065 | 31.75 | 450 | 1.8 |
| 9467 | | 32 | 1220 | 1675 | 31.75 | 450 | 2.1 |
| 9468 | | 32 | 1830 | 2285 | 31.75 | 450 | 2.4 |
| 3480 | Spiral | 25 | 305 | 610 | 28.19 | 905 | 1.3 |
| 3481 | | 25 | 610 | 915 | 28.19 | 905 | 1.5 |
| 3482 | | 25 | 915 | 1220 | 28.19 | 905 | 1.7 |
| 3483 | | 25 | 1220 | 1525 | 28.19 | 905 | 1.9 |
| H4722 | | 32 | 390 | 700 | 31.75 | 1587 | 1.7 |

Additional sizes available see Hastings Catalogue.

Extension Arms

Super "U" Extension Arms

Part No. Super "U" Series



- Used for temporary support, reconducting and line maintenance
- Fixed conductor holders
- Great strength and durability "U" shape design
- Interchangeable hanger loop kits available for various size X-Arms
- Super "U" Arms include insulators
- Tested per OSHA & ASTM F-711
- FRP laminate resists weathering

| Part No. | Description | Rating Ø - Ø (kV) | Wire Holders | Max Conductor (mm) | WLL (kg) | Max X-Arm Size (mm) | Wt (kg) |
|-----------------------------------|-----------------------------------|----------------------|-----------------|-----------------------|-------------|------------------------|------------|
| 7546 | Standard w/Lrg Hanger Loop | 35 | 2 | 27 | 181 | 150 x 150 | 9.3 |
| Accessories and Replacement Parts | | | | | | | |
| 7551 | Conductor Holder - Standard | - | 1 | 27 | 90 | - | 0.5 |
| 7552 | Conductor Holder - Large Capacity | - | 1 | 67 | 90 | - | 0.7 |
| A30008 | Insulator | - | - | - | - | - | 0.5 |

Adjustable conductor holders

Standard Extension Arms

Part No. Standard Series

5006-F Bracket for Composite Arms
Insulators not included.



- Used for temporary support, reconducting and line maintenance
- Can be used for obtaining clearances in congested areas
- Easy to install
- Adjustable conductor holders
- Foam filled fibreglass shaft
- Tested per OSHA & ASTM F-711
- Eye bolts and nuts are silicone bronze to resist seizing

| 63mm OD Arms | | | | | | | | | |
|---------------------------------------|----------------|----------------|--------------------------|---------|---------------------------------------|----------------|----------------|----------|---------|
| Maximum X-Arm Size = 100W x 175H (mm) | | | | | Maximum X-Arm Size = 125W x 150H (mm) | | | | |
| Part No. | Arm Length (m) | # Cond Holders | WLL (kg) per Cond Holder | Wt (kg) | Part No. | Arm Length (m) | # Cond Holders | WLL (kg) | Wt (kg) |
| 5000 | 1.52 | 1 | 68 | 5.1 | 5036 | 1.5 | 1 | 68 | 5.5 |
| 5001 | | 1 + Insulator | | 5.2 | 5037 | | 1 + Insulator | | 5.7 |
| 5006 | 2 | 6.6 | | 5016 | 1.8 | 2 | 6.7 | | |
| 5006-F | 1.82 | 2 | | 6.6 | | 5016-1 | 2 + Insulators | | 7.0 |
| 5007 | | 2 + Insulators | | 7.0 | | | | | |

Composite Cross-Arm Retrofit Bracket

Part No. 7560

Suitable for Super "U" and Standard Extension Arms



- Kit Includes
- 2 x Threaded Eye Bolts c/w composite tips
 - 1 x Cross-Arm Hanger
 - 1 x Lip Cover
 - 1 x 626 Locktite



Conductor Holder

Super U and Standard, Pole Mounted

- Used for temporary support, reconducting and line maintenance
- Easy to install, large control handles and knobs for gloved hands
- Tested per OSHA & ASTM F-711



| Model | Super "U" Ratchet Strap | Super "U" Chain | Standard Ratchet Strap | Standard Chain |
|----------|--|--|------------------------------|------------------------------|
| Features | Great strength and durability "U" shape design | Great strength and durability "U" shape design | Adjustable conductor holders | Adjustable conductor holders |
| Hardware | Aluminium alloy base. Steel alloy grab hook. High strength FRP | Aluminium alloy base | Aluminium alloy base | Aluminium alloy base |

Super "U" style temp arm - fixed wire holders

| Part No. | Tightener | Suits Poles OD (mm) | Max Use $\phi - \phi$ (kV) | Conductor Holders | Max Cond ϕ (mm) | Insulator | Arm OD (mm) | OAL (mm) | WLL Per Holder (kg) | Wt (kg) |
|----------|----------------------------------|---------------------|----------------------------|-------------------|----------------------|-----------|-------------|----------|---------------------|---------|
| 5045 | Strap | Strap length 1120 | 34.5 | 1 | 27 | Yes | n/a | 880 | 91 | 6.9 |
| 5047 | | | | 2 | | | | 1265 | 91 | 8.2 |
| 5049 | Replacement Strap with Hook Only | | | | | | | 1.10 | N/A | 0.5 |
| 5046 | Chain | 355* | 34.5 | 1 | 27 | Yes | - | 880 | 91 | 7.7 |
| 5048 | | | | 2 | | | | 1265 | 91 | 9.4 |

Standard style temp arm - adjustable wire holders

| Part No. | Tightener | Suits Poles OD (mm) | Max Use $\phi - \phi$ (kV) | Conductor Holders | Max Cond ϕ (mm) | Insulator | Arm OD (mm) | OAL (mm) | WLL Per Holder (kg) | Wt (kg) |
|----------|------------------------|---------------------|----------------------------|-------------------|----------------------|-----------|-------------|----------|---------------------|---------|
| 5038 | Strap | Strap length 1120mm | 15.0 | 1 | 27 | No | 63 | 865 | 91 | 5.5 |
| 5039 | | | 34.5 | | | Yes | | 865 | 91 | 5.9 |
| 5040 | | | 15.0 | 2 | | No | | 1230 | 68 | 6.8 |
| 5041 | | | 34.5 | | | Yes | | 1230 | 68 | 7.3 |
| 5042 | Replacement Strap Only | | | | | | | 1.10 | N/A | 0.2 |
| 5018 | Chain | 355* | 15.0 | 1 | 27 | No | 63 | 865 | 91 | 6.3 |
| 5019 | | | 34.5 | | | Yes | | 865 | 91 | 6.8 |
| 5020 | | | 15.0 | 2 | | No | | 1230 | 68 | 7.7 |
| 5021 | | | 34.5 | | | Yes | | 1230 | 68 | 8.2 |

*Chain extension #5031 available for large pole diameters (refer to page D30) Note: Ratchet straps should be inspected prior to use, straps showing signs of deterioration must be removed from service

Temporary "V" Cross Arms, Pole Mounted



Part No. Various

- Used when changing crossarms
- Easy to install two piece assembly
- Ratchet strap mounting base with arm bolt slots
- Solid fibreglass arms provide maximum strength

| Part No. | Description | Max Use $\phi - \phi$ (kV) | Length (mm) | Conductor Holders # | Cond Holder Model (With Insulator) | WLL (kg) per Side | Max Cond OD (mm) | Wt (kg) |
|-------------------|---------------------|----------------------------|-------------|---------------------|------------------------------------|-------------------|------------------|---------|
| 5051 | Arm & Mounting Base | 35 | 1625 | 2 | A10002 | 68 | 27 | 12.3 |
| 5053 | Arm & Mounting Base | 35 | 1625 | 2 | A10039 | 68 | 67 | 12.7 |
| 5054 | Arm & Mounting Base | 35 | 2195 | 3 | A10002 | 68 | 27 | 15.0 |
| 5055 | Arm & Mounting Base | 35 | 2195 | 3 | A10039 | 68 | 67 | 15.4 |
| Replacement Parts | | | | | | | | |
| A30220 | Arm Only | 35 | 1625 | - | - | - | - | 10.0 |
| A30233 | Arm Only | 35 | 2195 | - | - | - | - | 11.8 |
| A30221 | Mounting Assembly | - | - | - | - | - | - | 6.4 |
| 5042 | Strap Only | - | - | - | - | - | - | 0.5 |

Accessories and Replacement Parts for Arms

Part No. Various



| Part No. | A10001 | A10002 | A30008 | A10038 | A10039 |
|-------------|--------------------------------|---|---|---|--|
| Description | Conductor Holder for 63mm Arms | Conductor Holder with Insulator for 63mm Arms | 15kV Insulator Recommended on voltage over 15kV | Conductor Holder Large (67mm OD) Allows Line Hose, No Insulator | Conductor Holder Large (67mm OD) Allows Line Hose with Insulator |
| Weight (kg) | 1.0 | 1.1 | 0.5 | 1.3 | 1.7 |

Glove and barrier, pole mounts and boom mounted auxiliary arms and kits available on request.

Auxiliary Arm Assembly

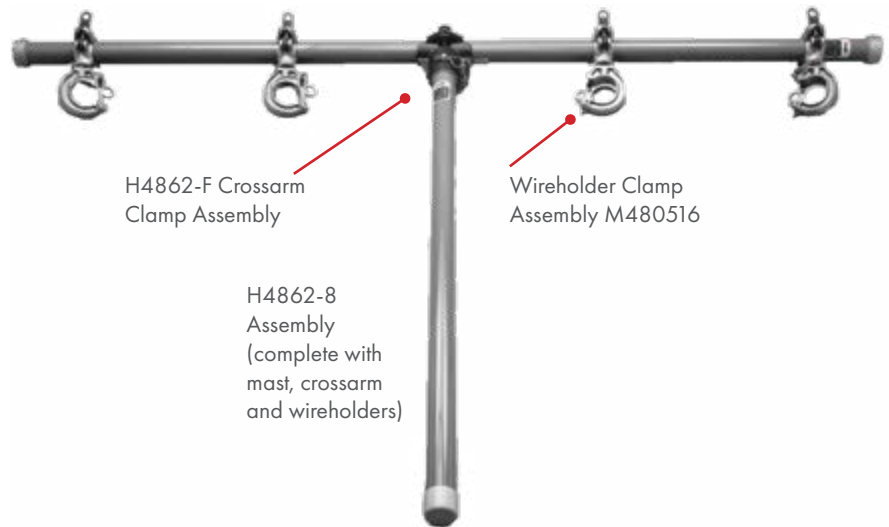
Part No. H4862-8

Crossarm, crossarm clamp & wire holders can be used with H4862-51



H4862-51
Mast and Braces only

(included: crossarm clamps and mast-base swivel fitting)



H4862-F Crossarm
Clamp Assembly

Wireholder Clamp
Assembly M480516

H4862-8
Assembly
(complete with
mast, crossarm
and wireholders)

- This Epxoxiglas Auxiliary Arm Assembly is used to change crossarms, insulators, or poles on short spans up to and including 15 kV phase-to-phase
- Two M47405W wire tong saddles can be used to mount the mast to the pole (The saddles are not included and must be ordered separately) See next page for further details.
- Two mast pole lengths are available: 1.52m mast provides a lift of 0.76m above the top saddle and the 3.0m mast provides a lift to 1.17m, when the saddles are mounted a recommended 0.46m apart
- The arm has a balanced load rating of 272kg; unbalanced at 68kg
- Each wireholder is rated at 68kg
- Tested per OSHA & ASTM F711

| Part No. | Description | Wire Holders | | Mast Pole Size (mm) | Crossarm Pole Size (mm) | Wt (kg) |
|----------|------------------------|--------------|---------------|---------------------|-------------------------|---------|
| | | Qty | Capacity (mm) | | | |
| H4862-8 | Auxiliary Arm Assembly | 4 | 63 | 63 x 1200 | 63 x 1600 | 18.9 |
| H4862-51 | Mast & Braces | Use H4862-8 | | 63 x 3050 | Use H4862-8 | 16.65 |



Wire Tongs and Accessories

Wire Tongs

Part No. Various



- Used to support and move energised conductors
- Foam filled fibreglass, tested to ASTM F711
- Heat treated aluminium and bronze alloy
- Interlocking conductor jaws with acme threads
- Medium head models feature spring loaded latch head

| Medium Head | | | | Large Head | | | |
|-------------|---------------|------------|---------|------------|---------------|------------|---------|
| Part No. | Diameter (mm) | Length (m) | Wt (kg) | Part No. | Diameter (mm) | Length (m) | Wt (kg) |
| 5679-8 | 38 | 2.7 | 2.5 | 5315-8 | 38 | 2.7 | 3.2 |
| 5679-10 | 38 | 3.3 | 2.9 | 5315-10 | 38 | 3.3 | 3.5 |
| 5671-8 | 50 | 2.7 | 3.4 | 5320-8 | 50 | 2.7 | 4.1 |
| 5671-10 | 50 | 3.3 | 3.9 | 5320-10 | 50 | 3.3 | 4.5 |
| 5671-12 | 50 | 3.9 | 4.4 | 5320-12 | 50 | 3.9 | 5.5 |
| 5672-10 | 63 | 3.3 | 6.5 | 5325-10 | 63 | 3.3 | 7.2 |
| 5672-12 | 63 | 3.9 | 7.3 | 5325-12 | 63 | 3.9 | 8.0 |
| 5672-14 | 63 | 4.5 | 8.2 | 5325-14 | 63 | 4.5 | 8.9 |
| 5672-16S* | 63 | 5.1 | 10.1 | - | - | - | - |
| 5673-12 | 75 | 3.9 | 9.2 | 5330-12 | 75 | 3.9 | 9.9 |
| 5673-14 | 75 | 4.5 | 10.3 | 5330-14 | 75 | 4.5 | 11.0 |

Butt Swivel Ring

Part No. B-RING

- WLL: 1133kg

- Used for connecting ratchet hoist to a wire tong



Pole Saddles & Pole Clamps

Part No. Various

- Pole saddle chain tightener spring loaded for easy installation
- Pole clamps with large wingnuts for easy operation



Wire Tong Saddle



Pole Clamp



Extension Only



Base Only

| Wire Tong Saddle | | | Pole Clamps | | |
|------------------|------------|---------|-------------|----------------|---------|
| Part No. | Suits (mm) | Wt (kg) | Part No. | Suits (mm) | Wt (kg) |
| 5745-15 | 38 | 4.2 | 5746-15 | 38 | 0.8 |
| 5745-25 | 63 | 4.7 | 5746-25 | 63 | 1.0 |
| 5745 | Base Only | 3.8 | 5747 | Extension Only | 0.5 |

| Part No. | Description | Wt (kg) |
|-----------|--|---------|
| M4740-10W | Pole Saddle and Tightener Only | 4 |
| M4740-16W | Pole Saddle, Tightener, Pole Clamp and Extension | 5 |
| M4740-18W | Pole Saddle, Tightener, Pole Clamp and Extension | 5.2 |

Chain Tightener & Extension

Part No. Various

- Chain Tightener
• WLL: 1133kg



- Chain Extension
• WLL: 1133kg



| Part No. | Description | Wt (kg) | Part No. | Description | Wt (kg) |
|----------|---|---------|----------|--------------------------------------|---------|
| 5030 | With 915mm chain & spring loaded take up. | 2.5 | 5031 | 400mm chain with keeper & safety pin | 1.1 |

Lever Lifts



| Insulated Lever Lift | | | Lever Lift Double Adaptor | | Single/Double Lever Lift | | |
|--|-----------------|---------|---|---------|--|-------------|---------|
| Used for lifting & supporting heavy conductors. Lever lift allows installation around congested areas. Accepts all wire tongs. | | | Allows two wire tongs to be used for supporting/lifting conductors with insulated lever lift. | | Allows use of single or two wire tongs. Spring loaded chain tightener. | | |
| Part No. | F/G Length (mm) | Wt (kg) | Part No. | Wt (kg) | Part No. | Length (mm) | Wt (kg) |
| 5750-1 | 300 | 6.8 | 5751 | 0.68 | 5749 | 300 | 5.9 |
| 5750-2 | 610 | 7.1 | | | | | |
| 5750-3 | 915 | 7.5 | | | | | |

Cross Arm Saddle

- Slotted base and large operation wing nuts
- Suits 75mm x 75mm & 100 x 100mm cross arms



| Cross Arm Saddles | | |
|-------------------|------------|---------|
| Part No. | Suits (mm) | Wt (kg) |
| 9723 | 38 | 3.1 |
| 9724 | 50 | 3.2 |
| 9725 | 63 | 3.4 |
| 9722 | Base Only | 1.60 |

Tower Saddles

- Suits Angles
 - 65mm x 65mm
 - 50mm x 150mm
 - 152mm x 152mm



| Tower Saddles | | |
|---------------|------------------|---------|
| Part No. | Suits (mm) | Wt (kg) |
| 5740-12 | 38 | 3.8 |
| 5740-13 | 50 | 4.0 |
| 5740-14 | 63 | 4.3 |
| 5740-19 | 75 | 4.8 |
| 12265 | Saddle Base Only | 3.4 |

Bands, Clamps & Stirrups



| Wire Tong Band | | | Wire Tong Blocks Clamp | | | Wire Tong Stirrup | | |
|--|------------|---------|---|------------|---------|---|------------|---------|
| Use with rope blocks for lifting or lowering conductors. | | | Use with rope blocks for controlling conductors and pulling in tension. | | | Prevents damage to small diameter conductors. | | |
| Part No. | Suits (mm) | Wt (kg) | Part No. | Suits (mm) | Wt (kg) | Part No. | Suits (mm) | Wt (kg) |
| 1829 | 50 | 0.8 | 5748-15 | 38 | 1.0 | 1851 | 50 | 1.0 |
| 1829-1 | 63 | 1.0 | 5748-16 | 50 | 1.2 | 1851-1 | 63 | 1.0 |
| 1829-2 | 75 | 1.3 | 5748-17 | 63 | 1.4 | | | |
| | | | 5748-18 | 75 | 1.5 | | | |

Rope Snubbing Brackets



| Rope Snubbing Bracket | | Wire Tong Snub Bracket | |
|--|---------|--|---------|
| Used for terminating block fall lines to hold blocks in position, with chain tightener. WLL 450kg, 915mm chain | | Provides stationary base, also for auxiliary arms, with chain tightener. | |
| Part No. | Wt (kg) | Part No. | Wt (kg) |
| M1846 | 3.4 | 5900-25 | 3.1 |

Inspection, Cleaning & Maintenance

Live line tools should be visually inspected daily before use for defects such as abrasions, blemishes, burns and surface deterioration.

Any defect is cause for rejection as it may impair the dielectric integrity. Rejection does not mean discarding the tool, only removing the tool from service and tagging.

Common stick defects



Scratched



Sun Damaged



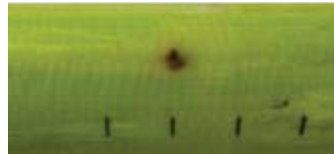
Abrasions



Mistreated



Cracked



Burn



Split



Large Chip

Hot Sticks and Fibreglass Care & Maintenance

For instruction on how to clean hot sticks, watch our video by scanning or clicking the adjacent QR code.

To download a copy of the "Fibreglass Equipment Inspection, Cleaning & Maintenance PDF" visit the Download page on TEN's website by clicking the below link:

<https://www.tengroup.com.au/catalogues/downloads>

For stripping back heavy contamination and prior to re-waxing, use the Hastings All-Purpose, Safe, non-toxic, biodegradable, PH neutral & non-flammable Cleaning Concentrate (10-195).

Once the surface has been cleaned thoroughly, it is critical to re-wax the stick. The Polywater® Fibreglass Wax and Buff Kit is a simple, easy to use, one application wipe ideal for this purpose.

The lint-free wipe is saturated with fast hazing wax and a soft lint-free towelette is included for buffing the wax to a shine.

This improves the dielectric performance by restoring the water beading properties. Also available is the Polywater (W-16) bottle of wax and Hastings Hot Stick Wax 10-091.

It should be noted, waxing is best done after a thorough stick cleaning. Use of wax products over contaminated surfaces only locks the dirt in.

For spot cleaning the sticks and daily before use, the Polywater® Water Repellent Wipe (Part S-1) that (contains a minimum 60% isopropyl alcohol and silicone) helps clean and restore the water beading properties of the stick.

This will also work to sanitise the stick before and after use if used correctly. Also available for spot cleaning and daily before use is the Hastings (10-188) hot stick wipes containing silicone (note these do not have an alcohol content, these are petroleum based).

After extended periods of use and exposure to the elements your stick surface may require maintenance. Unless the tool is mechanically damaged your stick may be able to be repaired.

Stick repair should only be carried out by professionally trained personnel. Refinishing kits (10-100) and epoxy adhesive (10-097-1) are available.

Never lay your sticks directly on the ground, place them on a ground tarp (TENM705), stick rack (6780) or carry bag.

Always care for your live line tools and equipment by storing them in protective carry bags and/or in a dry area away from rain and light when not in use.

Boom & Basket Cleaning

For washing booms, use the Polywater® Fibreglass Wash (FGW-640). This replaces the previous (BWC) Boom Wash Concentrate.

For spot cleaning of booms and baskets we recommend the Polywater (B-1) large format towels for cleaning grime, grease and contaminants from the surface.

See the following page for further information.

References: ASTM F711, OSHA, Hastings, Polywater



SCAN or CLICK to watch
Hot Stick Cleaning &
Maintenance



Inspection, Cleaning & Maintenance Products

Fibreglass Stick/Tool Rack

| Part No. | Description | Wt (kg) |
|----------|-----------------------------------|---------|
| 6708 | Fibreglass stick tool rack (Pair) | 3.73 |

Part No. 6708

- Tool racks made from fibreglass components
- Will accommodate up to 14 hot line sticks/tools
- Support legs collapse for easy storage and transportation



Silicone Wiping Cloths - Disposable

- 50 wipes in a heavy duty cardboard dispenser box that can be installed on a wall or post in a convenient location to the line trucks, each are individually packaged
- Leaves a silicone moisture barrier which enables water to bead up. This eliminates the blanket effect when using hot sticks in wet conditions.
- Excellent for daily wiping of your hot sticks prior to use
- Removes contaminants such as dirt, oils, creosote, and other undesirable matter
- Environmentally safe, the used wipes can be disposed of in normal waste containers

| Part No. | Description | Pack |
|----------|-----------------------------|------|
| 10-188 | Hot Stick Wipes - box | 50 |
| 10-188-1 | Hot Stick Wipe - individual | 1 |



Silicon Treated Wiping Cloth

- Deposits a water repellent film while removing dust and dirt particles from the surface of hot sticks and insulated tool handles
- The 460mm x 460mm cotton cloth is an open-type weave specially selected for removing foreign material from the surface of insulated tools and has bound edges to eliminate fraying which extends the life of the cloth
- The cloth is packaged in a sealed plastic bag with instructions for compliance with OSHA regulations for cleaning and inspection of live line tools
- Regular use of the silicone treated cloth will add to the life and safety of the tools
- For added safety and increased life of live line tools

| Part No. | Description | Wt (kg) |
|----------|---|---------|
| 10-090 | 460 x 460mm Silicone Treated Wiping Cloth | 0.05 |

Live Working Equipment Wax

Part No. 10-091

- High grade carnuba wax formulated for fibreglass application
- Used on booms, buckets, live line tools and equipment
- Provides hard, tack free weather resistant surface
- Applied by hand or machine



| Part No. | Unit | Wt (kg) |
|----------|------|---------|
| 10-091 | Tin | 0.4 |

Live Line Tool Wax

- Convenient, wax-saturated, lint-free wipe
- Dual action tandem pack includes dry buffing towel
- Does not remove or adversely affect gel coat
- Superior quality, fast-hazing fibreglass wax
- Easy to apply
- Leaves non-conductive water repellent coating
- Prevents continuous water film on stick in wet weather

| Part No. | Description |
|----------|--|
| W-1 | Fibreglass wax and buff - individual wipes |
| W-1-K | Fibreglass wax and buff - Box of 72 x wipes |
| W-16 | 470ml bottle fast-hazing fibreglass bulk wax |



Individual wipes



W-1



Bulk wax



10-197



10-168



10-195



All Purpose Cleaner Concentrate

- Excellent cleaner for the following: hot line tools, trucks, buckets, booms, rigid cover up, painted surfaces and aluminum metal, shop machinery, hand cleaner, all plastic surfaces
- Can be applied with a soft cloth, sponge or hand dispenser
- Safe and gives the following benefits: biodegradable, non-toxic, non-alkali, non-acid, non-flammable, gentle to the skin, requires no ventilation
- Concentrate formula mixing ratio is 20 parts water to 1 part concentrate

| Part No. | Description | Wt (kg) |
|----------|---|---------|
| 10-168 | All purpose cleaner concentrate 3.8L bottle | 3.6 |
| 10-195 | All purpose cleaner concentrate 19L Drum | 18.2 |
| 10-197 | 6pk Cleaning Kit: 6 x 200ml ready to mix bottles/14 ultra fine non-metallic pads/ 6 adhesive identification bottle labels | 1.6 |

Powerclean Concentrate

- Powerful degreaser/cleaner detergent
- Ideal for cleaning rubber ground mats

| Part No. | Package | Qty | Wt (kg) |
|----------|---------|--------|---------|
| RPC15 | Drum | 15 (L) | 16.3 |



Boom Cleaner Wipes

- Convenient, pre-saturated, lint-free wipes in two sizes
- Large and durable for maximum surface coverage
- Won't remove or adversely affect gel coat & prevents "build-up" over time
- Powerful cleaner removes grease, dirt, tar, and grime
- Removes road and sea spray salts (salt water is more conductive)
- Water soluble for easy water rinsing
- Designed for one time use and easy disposal
- Meets OSHA Maintenance Reg CFR 29 Part 1910

| Part No. | Description | Pack |
|----------|--|------|
| B-1 | Individually saturated 610 x 610mm wipe in sealed foil | 1 |
| B-D72 | Dispenser with 72 wipes | 72 |



Boom & Basket Cleaner

- Ideal for washing Fibreglass booms and Baskets
- Mix with water for a mild boom cleaner to spray wipe or pour on surface for easy cleaning

| Part No. | Package | Qty (L) | Wt (kg) |
|----------|---------|---------|---------|
| FGW-640 | Drum | 19 | 16.3 |



Hot Stick Cleaner and Water Repellent Wipe

- Convenient, pre-saturated, lint-free wipe
- Dual action - cleans and applies water repellent
- Does not remove or adversely affect gloss coat
- Evaporates quickly
- No "build-up" over time
- Removes grease, dirt, and grime
- Prevents continuous water film on stick in wet weather
- Designed for one time use and easy disposal
- Meets IEEE maintenance recommendations (Std #978)

| Part No. | Description | Pack |
|----------|--|------|
| S-1 | Pre-saturated lint-free 600mm ² wipe in sealed foil (Single Pack) | 1 |
| S-1-K | Pre-saturated lint-free 600mm ² wipe in sealed foil (Box of 144) | 144 |

Fibreglass Cleaning and Refinishing Kit

Part No. 10-171

This kit helps keep your fibreglass sticks in top condition. Visual inspection can identify areas of wear that will require maintenance prior to putting sticks back into service.

All Purpose Cleaner - The all purpose cleaner provides a safe non-toxic liquid to aid in removing dirt, grease, metal oxides and other contaminants which accumulate on fibreglass

Ultra Fine Non-Metallic Abrasive Pads can be used with the all purpose cleaner to remove stubborn contamination. Note -fibreglass wax may be required after use of cleaner and/or pads to retain surface gloss.

Clear Epoxy Refinishing Kit - The two part refinish kit is used to bring the tool surface back to its original finish if normal cleaning is not sufficient

Silicone Treated Wiping Cloths - Wiping cloths are used to remove light dust and dirt from stick surfaces. It is also needed after light cleaning of tool with all purpose cleaner to allow moisture to bead up on tool.



Live Working Tool Epoxy Adhesive

Part No. 10-097-1

- Used for live line tool construction and repair
- High viscosity two part adhesive, safety yellow in colour
- High performance, high impact resistance with good flexibility

| Part No. | Unit | Qty (L) | Wt (kg) |
|----------|------|-----------------------------------|---------|
| 10-097-1 | Tin | 1 (500mL each of Part A & Part B) | 1.36 |



Epoxy Refinishing Kits & Thinners

- Kit provides all the necessary materials with complete instructions for restoring fibreglass hot line tools and aerial lift booms and buckets equal to their original finish
- The epoxy coating provides a hard, tough, moisture resistant high-gloss finish of high dielectric strength and is easily cleaned
- Included in the kit are complete instructions, sandpaper, paint brush, and epoxy solvent
- 8 litres of epoxy coating covers approximately 3 metres of surface
- The coating is a two-part system, available in both white and clear, dries dust free in approximately 1 1/2 hours and cures completely within 24 hours

| Part No. | Description | Wt (kg) |
|----------|--|---------|
| 10-100 | Epoxy Refinishing Kit - contains 475ml of each component (3) | 1.8 |



Non-Metallic Cleaning Pads

Cleaning pads can be used with the all purpose cleaner to remove stubborn contamination. Note: Fibreglass wax may be required after use of cleaner and/or pads to retain surface gloss.

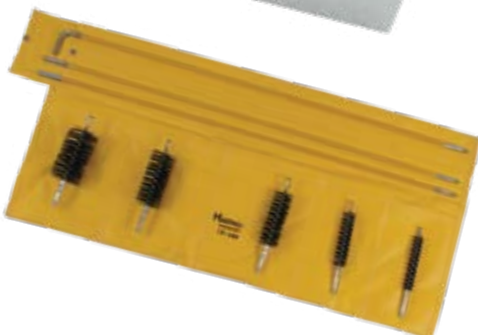
| Part No. | Description | Qty |
|-------------|---|---------|
| 10-170 | Box of Ultra Fine Non metallic cleaning pads | 20/box |
| EAGERBEAVER | Non-abrasive cleaning pad for cleaning rubber goods & fibreglass sticks | 10/ box |



Hot Stick Cleaning Kit

- Kit provides the brushes and sectional fibreglass rods needed to thoroughly clean the inside of telescoping hot sticks and internal rod shotgun sticks
- Kit includes: (1) Heavy duty vinyl fold up storage case with pockets to store cleaning rods and brushes - additional pockets are provided for storage of other cleaning items, (3) Fibreglass sectional rods each 910mm long, (5) Heavy duty industrial type nylon bristle brushes to accommodate all inside diameters of telescoping tools

| Part No. | Description | Wt (kg) |
|----------|-----------------------|---------|
| 10-337 | Complete cleaning kit | 1.6 |





NOTES

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