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Electrode Holders

Afrox offers jaw and twist lock type electrode holders. The electrical capacity of the electrode holder must always be greater than the amperage in use – for instance, to carry 300 A, the electrode holder capacity should be at least 400 A. Damaged electrode holders can cause electric shock and even death and must be carefully maintained. Factors determining choice of an electrode holder:

- 1. Diameter of the electrode
- 2. Amperage required
- 3. Diameter of the cable used
- 4. Customer preference for jaw type or twist lock.



Electrode Holder - Safegrip Jaw Type

Heat resistant insulation, sturdy copper alloy jaw. Powerful allposition electrode grip allows ultra-quick electrode changes. Heavy duty construction with double ball point cable connections

Description	Item Number
Safegrip Jaw Type 300 A up to 4,0 mm	W054200
Safegrip Jaw Type 400 A up to 5,0 mm	W054201
Safegrip Jaw Type 500 A up to 5,0 mm	W054203
Safegrip Jaw Type 600 A up to 8,0 mm	W054208



Electrode Holder - Twist

Fully insulated holder made of robust glass fibre material. A well balanced holder, with grub screw fitting that gives positive and easy cable connection. Fully insulated heavy duty heat resistant fibreglass construction ensures high performance under arduous conditions

Description	Item Number
Twist 400 A up to 5,0 mm	W054202
Twist 600 A up to 8,0 mm	W054204



Electrode Holder - Suhan Jaw Type

A fully insulated holder where smaller electrodes are used on portable small machines. For use in light to medium fabrication

Description	Item Number
Suhan Jaw Type 300 A 1,6 - 4,0 mm	W053090
Suhan Jaw Type 500 A up to 5,0 mm	W053092



Electrode Holder - Jackson Type

Fully insulated electrode holder for a small welding machine. Fully insulated holder, heavy duty heat resistant construction ensures high performance

Description	Item Number
Jackson Type 500 A	W053098



Electrode Holder - Optimus

Heat resistant insulation, copper jaw electrode allows quick electrode changes. Heavy duty construction, powerful all positional electrode allows ultra-quick electrode changes

Description	Item Number
Optimus 300 A 1,6 - 4,0 mm	W053095
Optimus 400 A up to 5,0 mm	W053096

Welding Cable & Connectors

Welding Cable

Afrox welding cable is available with a choice of rubber and PVC insulation. Rubber-insulated cable is recommended for use outdoors and is available in different amperages and duty cycles. PVC-insulated cable is used indoors only and is also available in a range of amperages.

Rated Area		Welding current in amps for duty cycle of:			Colour	Item Number	
(mm²)	100%	85%	60%	30%	20%		
Natural Rub	ber Selection	n Guide					
35	165	180	215	305	370	Black/Grey	W053007
50	210	230	275	385	470	Black/Red	W053008
70	265	285	410	580	710	Black/Brown	W053015

PVC Selec	tion Guide						
16	110	120	145	200	250	Green	W053100
25	150	165	195	275	340	Blue	W053101
35	185	200	240	340	415	Grey	W053102
50	230	250	300	420	520	Red	W053103
70	290	315	380	530	650	Brown	W053104
95	355	385	465	650	800	Yellow	W053105

Description	Dimensions	Colour	Item Number
PVC Welding Cable	25 mm x 6 m	Blue	W053107
PVC Welding Cable	35 mm x 6 m	Grey	W053108
PVC Welding Cable	50 mm x 6 m	Red	W053109
PVC Welding Cable	25 mm x 12 m	Blue	W053110
PVC Welding Cable	35 mm x 12 m	Grey	W053111
PVC Welding Cable	50 mm x 12 m	Red	W053113

Classes of	Automatic	Manual	Very
Welding	(Submerged arc, MIG)	(MMA, HG)	intermittent
	Semi-automatic (MIG,	MAG, flux cored)	(MMA, MIG, MAG, HG)



Cable Connectors

Solid brass camlock-style cable connectors in two sizes connect welding cable quickly and easily with a quarter turn. Will not slip or disconnect if cable is pulled. Hard rubber sheath insulates the connection. Cable connectors are precision machined to provide a very tight connection which greatly improves power flow. Cam action pulls the two halves tightly together. Covers are made from a temperature resistant material which is not susceptible to rust or corrosion.



Cable Connector

Description	Item Number
CC 20 Plug/Socket	W054154
CC 20 Plug	W054155



Cable Connector CC 18 Socket

Item Number	W054152
ITEIII NUIIIDEI	WU3413Z



Cable Connector CC 17 Plug

Item Number WC	54151
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Plug

Description	Item Number
Male Dinse Plug (50 - 70)	W033718
Male Dinse Plug (10 - 25)	W054489



Cable Lugs

Description	Item Number
200 A 14 mm Fixing Hole	W053021
150 A 13 mm Fixing Hole	W053022
300 A 17 mm Fixing Hole	W053023



Cable Lugs Crimping

Description	Item Number
35 x 12 mm (300 A)	W053011
50 x 12 mm (400 A)	W053012
70 x 12 mm (500 A)	W053013
95 x 12 mm (600 A)	W053014



Female Dinse Plug (50 - 70)

Item Number	W035751



Panel Mount Female Socket

Description	Item Number
Panel Mount Female Socket (10 - 25)	W054488
Panel Mount Female Socket (50 - 70)	W035692

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Earth Clamps & Welding Ancillaries



Earth Clamp - 600 A TRC Screw Type

Item Number W054147



Earth Clamp - 600 A EC Screw Type

Item Number W054149



Wire Brush 6 Row Stainless Steel

Item Number W053081



Wire Brush 5 Row Mild Steel

Item Number W053003



Chipping Hammer

Steel heavy duty long life hammer

Item Number W053020



Earth Clamp - 150 A Crocodile

Item Number W053025



Earth Clamp - 300 A Crocodile

Item Number W054146



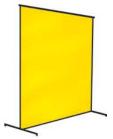
Earth Clamp - 600 A Crocodile

Item Number W054148



Hot Box

Description	Item Number
220 V Thermostat Controlled	W052005



Welding Screen 2 x 3 m

Flame retardant dipped Excludes stands

Item Number W092020

Cleaning & Preparation Products

Penetrant, Developer and Remover

Afrox offers a non-destructive range of testing products. These are used to identify weld defects and clean the affected area before welding.

Anti-Spatter

Afrox offers a variety of anti-spatter to meet customer requirements. We have a non-silicone based anti-spatter as well as a water based version. The latter does not contain hydrocarbons which makes it environmentally friendly.







Penetrant, Developer and Remover

Description	Item Number
NDT - Ardrox HF-P Penetrant 300 g	W033570
NDT - Ardrox HF-P Remover 300 g	W033572
NDT - Ardrox HF-P Developer 300 g	W033571











Anti-Spatter

Description	Item Number
Spatter Off (Water based)	W034009
Spatter Release 640 NO/SI 500 ml	W034010
TRC Spatter Release Aerosol 500 ml	W034015
Anti-Spatter AOX Liquid 500 ml	W034013
Anti-Spatter AOX Liquid Refill 5 ℓ	W034014

Pickling and Passivating Paste

To improve your stainless steel weld quality after welding, apply Afrox's pickling and passivating paste. It forms a thin layer that will protect your welds from corrosion and rust.



Description	Item Number
Passivating Paste AOX 1 ℓ	W053574
Pickling Paste AOX 1 ℓ	W053575

Torch Coolant

Torch coolant is used for plasma cutting to circulate around the electrode and nozzle and prevent it from melting.



Afrox Torch Coolant 5 !

Item Number W053576

Abrasives



Cutting Discs - Inox (Stainless Steel)

Description	Item Number
Superflex 350x3,4x25,4 Inox Cutting Disc	W053379
Superflex 230x2,5 Inox Ultra Cutting Disc	W053407
Superflex 115x2,4 Inox Ultra Cutting Disc	W053411
Superflex 180x2,5 Inox Ultra Cutting Disc	W053408
Superflex 150x2,5 Inox Ultra Cutting Disc	W053409
Superflex 125x2,4 Inox Ultra Cutting Disc	W053410



Sub Contents

Cutting Discs - Carbon Steel (Professional)

Description	Item Number
Superflex 125x2,5 Prof Steel Cutting Disc	W053446
Superflex 115x2,5 Prof Steel Cutting Disc	W053447
Superflex 180x3 Prof Steel Cutting Disc	W053442
Superflex 230x3 Prof Steel Cutting Disc	W053441
Superflex 150x3 Prof Steel Cutting Disc	W053443
Superflex 100x2,5x16 Prof Steel Cutting Disc	W053448



Cutting Discs - Carbon Steel (Professional 2-1 / Stainless & Carbon Steel)

Description	Item Number
Superflex 230x1,9 Prof 2-in-1 Cutting Disc	W053405
Superflex 125x1,0 Prof 2-in-1 Cutting Disc	W053406
Superflex 115x1,0 Prof 2-in-1 Cutting Disc	W053440



Cutting Discs - Carbon Steel (Industrial 2-1 / Stainless & Carbon Steel)

Description	Item Number
Superflex 100x1,0x16 IND 2-in-1 Cutting Disc	W053272
Superflex 115x1,6 2-in-1 Cutting Disc	W053403
Superflex 115x1,0 IND 2-in-1 Cutting Disc	W053273
Superflex 230x1,9 IND 2-in-1 Cutting Disc	W053275
Superflex 115x1,0 IND 2-in-1 Cutting Disc (PO5)	W053402



Cutting & Ginding Disc

Description	Item Number
Superflex 115x2,2 CG-27 Cutting & Grinding Disc	W053263



Cutting Discs - Carbon Steel (Industrial)

Description	Item Number
Superflex 115x3 IND Steel Cutting Disc	W053285
Superflex 230x3 IND Steel Cutting Disc	W053279
Superflex 350x3,6 IND Steel Cutting Disc	W053274



Grinding Discs - Carbon Steel (Professional)

Description	Item Number
Superflex 115x6 Prof Steel Grinding Disc	W053445
Superflex 125x6 Prof Steel Grinding Disc	W053439
Superflex 100x6x16 Prof Steel Grinding Disc	W053444
Superflex 150x6,5 Prof Steel Grinding Disc	W053438



Grinding Discs - Inox

Description	Item Number
Superflex 230x7 Inox Ultra Grinding Disc	W053416
Superflex 115x6 Inox Ultra Grinding Disc	W053436
Superflex 180x7 Inox Ultra Grinding Disc	W053415
Superflex 150x6,5 Inox Ultra Grinding Disc	W053434
Superflex 125x6 Inox Ultra Grinding Disc	W053435
Superflex 100x6x16 Inox Ultra Grinding Disc	W053437



Grinding Discs - Carbon Steel (Industrial)

Description	Item Number
Superflex 115x6 IND Steel Grinding Disc	W053287
Superflex 230x7,2 IND Steel Grinding Disc	W053291



Grinding Discs - Heavy Duty

Description	Item Number
Superflex 180x7 Heavy Grinding Disc	W053414
Superflex 230x4,1 Heavy Grind (Back)	W053412
Superflex 230x7 Heavy Grinding Disc	W053413
Superflex 230x5,2 Heavy Duty Back Grind	W053417



Flap Discs

Description	Item Number
Superflex 115x22 AZ60 IND Flap Disc	W053243
Superflex 115x22 AZ80 IND Flap Disc	W053245
Superflex 180x22 AZ60 IND Flap Disc	W053296
Superflex 180x22 AZ80 IND Flap Disc	W053299
Superflex 150x22 AZ60 IND Flap Disc	W053271
Superflex 115x22 AZ40 IND Flap Disc	W053241
Superflex 115x22 AZ120 IND Flap Disc	W053247
Superflex 180x22 AZ40 IND Flap Disc	W053293
Superflex 180x22 AZ120 IND Flap Disc	W053302
Superflex 125x22 AZ60 IND Flap Disc	W053282



Spindle Mounted Flap Wheel

Description	Item Number
Superflex 50x25x6 P320 Flap Wheel	W053229
Superflex 50x25x6 P120 Flap Wheel	W053429
Superflex 50x25x6 P240 Flap Wheel	W053430
Superflex 50x25x6 P80 Flap Wheel	W053428
Superflex 50x25x6 P60 Flap Wheel	W053251



Fibre Discs

Description	Item Number
Superflex Deerfos 125x22 P60 Fibre Disc	W053424
Superflex Deerfos 125x22 P80 Fibre Disc	W053426
Superflex Deerfos 125x22 P100 Fibre Disc	W053427
Superflex P36 115x22 Bora 9 Cer Fibre D	W053423
Superflex P36 178x22 Bora 9 Cer Fibre D	W053425

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Description	Item Number
Superflex 115x10xM14 1 Row Knotted Wire Wheel	W053253
Superflex 50x25x6 MW912 Mounted Wire Wheel	W053257
Superflex 115x10x22,2 1 Row Knotted Wire Wheel	W053255
Superflex 180x10xM14 1 Row Knotted Wire Wheels	W053259
Superflex 180x10x22,2 1 Row Knotted Wire Wheels	W053265



Mounted Points

Description	Item Number
Superflex A12 HC Ruby Mounted Point	W053421
Superflex A11 Ruby Mounted Point	W053227
Superflex A3 Mini HC Ruby Mounted Point	W053225
Superflex IPDS Point Black	W053420
Superflex A3 Jumbo Ruby Mounted Point	W053419
Superflex A1 Ruby Mounted Point	W053231
Superflex A15 Ruby Mounted Point	W053235

Tungsten Burrs

Description	Item Number
Superflex CP102006-A Cyl Pl Tungsten Burr	W053205
Superflex CR102006-C Cyl Rd Tungsten Burr	W053220
Superflex TP102006-G Pointed Tungsten Burr	W053236
Superflex TR102006-F Round Tungsten Burr	W053242
Superflex TR122506-F Round Tungsten Burr	W053244
Superflex T103006-L Ball Nose Tungsten Burr	W053246
Superflex T123006-L Ball Nose Tungsten Burr	W053249
Superflex CP122506-A Cyl Pl Tungsten Burr	W053210
Superflex CR122506-C Cyl Rd Tungsten Burr	W053232
Superflex TP122506-G Pointed Tungsten Burr	W053238
Superflex CP061606-A Cyl Pl Tungsten Burr	W053200
Superflex CR061606-C Cyl Rd Tungsten Burr	W053215
Superflex TP061606-G Pointed Tungsten Burr	W053234
Superflex TR061606-F Round Tungsten Burr	W053240



Section 9

The Transarc* range of carbon gouge electrodes are designed for the air carbon gouging metal removal process which melts metal with an electric arc, then dynamically removes it with a jet of compressed air. The carbon electrodes contain a precisely formulated blend of carbon and graphite that produces the most efficient metal removal performance.

Features and Benefits

They offer excellent arc stability, superior metal removal rates, resistance to breakage, heat and oxidation, and have a uniform diameter resulting in clean slag-free grooves. Metals that can be gouged with the process include steel, high carbon alloys, stainless steel, copper and cast iron. The air carbon cutting process can also be used for cutting metals that are not readily cut by the oxy-fuel gas cutting process.

Gouging Torches

- Heavy duty with swivel cable 1 000 A
- Heavy duty metal removal applications such as weld preparations in the pressure vessel shops and shipyards
- $\frac{5}{32}$ " $\frac{1}{2}$ " round CCDC Electrode (4,0 mm 9,5 mm)
- 3/8 5/8 flats (9,5 mm & 15,9 mm)
- Air requirements 80 psi or 5,6 kg/cm³ or 708 l/min

Description	Item Number
Gouging Torch D4000 K4000	W054275
Gouging Torch ArcAir K4000 W/2,13M Cable	W054311
Gouging Parts K4000 Insulator & Screws	W054316
Gouging Parts K4000 Lever & Screw	W054317

All other spares available on request from Afrox SED



Carbon Gouge Electrodes

Description	Item Number
Carbon Gouge TRC 8 x 305 mm (Pack of 50)	W054918
Carbon Gouge TRC 5 x 305 mm (Pack of 100)	W054934
Carbon Gouge Joint TRC 9,5 x 355 mm (Pack of 50)	W054933
Carbon Gouge Joint TRC 13,0 x 355 mm (Pack of 50)	W054926
Carbon Gouge Joint TRC 16 x 355 mm (Pack of 50)	W054922
Carbon Gouge TRC 9,5 x 305 mm (Pack of 50)	W054919
Carbon Gouge TRC 6,4 x 305 mm (Pack of 50)	W054917
Carbon Gouge TRC 4,0 x 305 mm (Pack of 100)	W054915



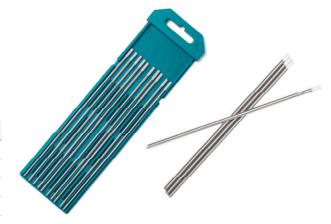
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Zirconiated TIG Electrodes (White tips)

- Pack of 10

Description	Item Number
Wolfram 2% Zirconiated 4,0 mm (Pack of 10)	W031005
Wolfram 2% Zirconiated 3,2 mm (Pack of 10)	W031004
Wolfram 2% Zirconiated 2,4 mm (Pack of 10)	W030908
Wolfram 2% Zirconiated 1,6 mm (Pack of 10)	W030907

Zirconiated tungsten electrodes exhibit good performance characteristics in AC welding, especially under high load current. These electrodes can retain a balled end when welding, which results in less tungsten permeation and good corrosion resistance. It balls up well in AC welding and has a more stable arc than pure tungsten. Displays excellent performance in high load AC welding. Not replaceable by any other electrodes. Resists contamination well in AC welding.



Application: Zirconiated tungsten is most commonly used for AC welding of aluminium and magnesium alloys. Preferred when tungsten contamination of weld is intolerable.

The surface condition of zirconiated tungsten electrode is polish grounded. It is bright and tipped with the brown and white colour for its different composition of zirconium in tungsten zirconiated electrode.

Witstar TIG Tungsten (Teal tips) - Pack of 10

Description	Item Number
Witstar TIG Tungsten 3,2 mm (Pack of 10)	W031002
Witstar TIG Tungsten 2,4 mm (Pack of 10)	W031012
Witstar TIG Tungsten 1,6 mm (Pack of 10)	W031014

Witstar TIG electrodes are made from rare earth materials. They are safe to use and not harmful, unlike thoriated tungsten which is radioactive. Witstar TIG electrodes are used for alloyed and non-alloyed metals, alloyed and non-alloyed coppers, nickel and nickel alloys, aluminium and aluminium alloys, magnesium and magnesium alloys, and titanium and titanium alloys.

Transarc® Thoriated TIG Tungsten (Red tips) - Pack of 10

Description	Item Number
Transarc® 2% Thoriated 3,2 mm (Pack of 10)	W031032
Transarc® 2% Thoriated 2,4 mm (Pack of 10)	W031024
Transarc® 2% Thoriated 1,6 mm (Pack of 10)	W031016

Thoriated tungsten electrodes provide excellent resistance against weld pool contamination while at the same time offer the welder easier arc starting capabilities and a more stable arc. Thoriated tungsten electrodes are the most commonly used tungsten material; thoria is low-level radioactive material, but it is was the first to display a significant improvement over pure tungsten.



Application: Thoriated tungsten electrodes are generally used in DC electrode negative or straight polarity applications such as carbon & stainless steels, nickel alloys and titanium, as they operate well even when overloaded with extra amperage, then improving the performance of welding.