

ARCAIR
AN ESAB BRAND

ARC GOUGING & EXOTHERMIC CUTTING



ARCAIR® AIRPRO X4000: CARBON ARC GOUGING TORCH AND CABLE.

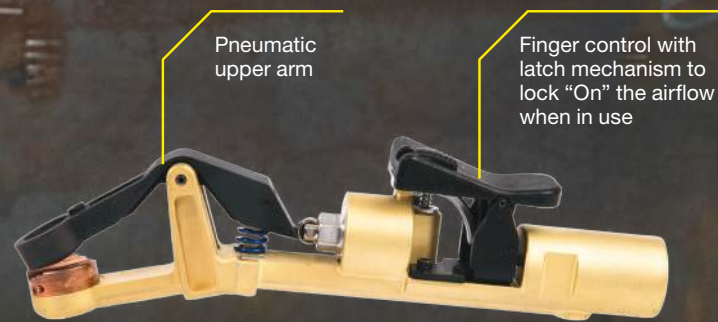
Arcair – the name synonymous with carbon arc gouging – introduces the AirPro X4000, a torch that takes ease of use to a new level.

Instead of using 27 lbs. of grip pressure to open the torch, the operator merely pushes a rocker switch. Compressed air already flowing through the AirPro X4000 torch pneumatically opens the torch jaws so operators can insert, adjust and remove carbons without effort.

ARCAIR CARBONS.

The AirPro X4000 accepts 3/16- to 1/2-in. (4.7 mm -12.7 mm) pointed round, 3/8- and 5/8-in. (9.5 mm-15.8 mm) flat and 5/8-in. (15.8 mm) half-round carbons.

- Pneumatic upper arm lifts when activated by the rocker switch on the torch handle.
- Rocker switch allows insertion/adjustment of carbon and controls compressed air on/off. Latch mechanism locks “On” airflow when in use.
- No air flows through the torch or the cable without initiating the flow through the rocker switch.
- No-leak air valve saves electricity and maintenance costs of maintaining the shop air compressor.
- Elimination of the lever assembly creates a lower-profile torch for improved access.



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UNDERWATER CUTTING & WELDING

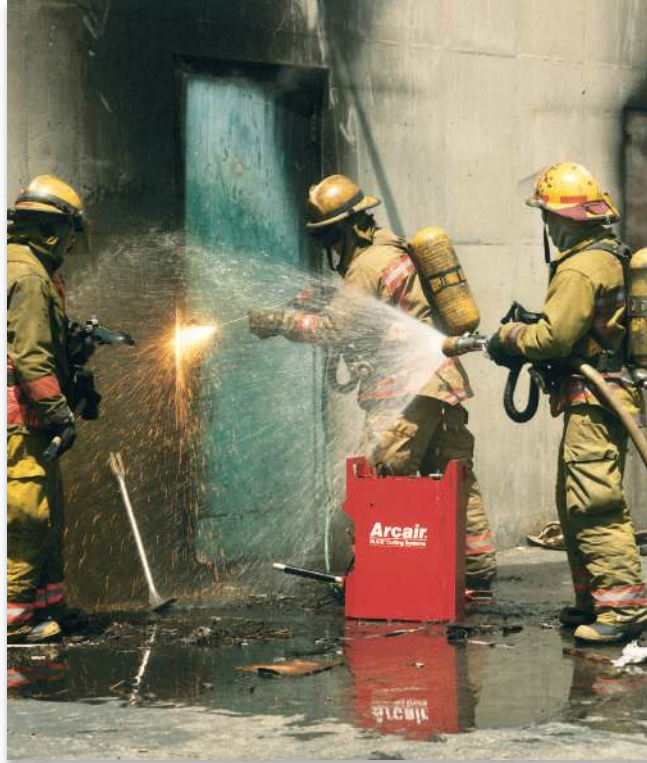
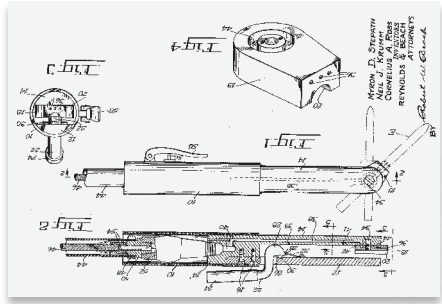
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ARCAIR IS SYNONYMOUS WITH **CARBON ARC GOUGING**



1949
 ■ Myron Stepath invents CAC-A cutting and gouging process.
 ■ Stepath founds Arcair Co.
 ■ Introduces G-3 cutting and gouging torch.

1956
 ■ Introduces H-5 cutting and gouging torch.

1961
 ■ Arcair relocates manufacturing to Lancaster, Ohio.

1968
 ■ Introduces K-3 cutting and gouging torch.

1972
 ■ Introduces Underwater Cutting and Welding Torch.

1974
 ■ Myron Stepath retires.

1980s
 ■ SLICE® torch introduced, allowing for portable and quick cutting solutions and for fire and rescue operations.

1983
 ■ Introduces K4000® cutting and gouging torch.

1989
 ■ Arcair relocated to Wichita, Kansas; combines manufacturing with Tweco.

2004
 ■ Arcair relocates to Denton, Texas combines manufacturing with Victor.

2011
 ■ Introduces Arcair-Matic® N7500 Automated gouging System.

2014
 ■ Arcair becomes An ESAB Brand

2018
 ■ Introduces AirPro X4000 gouging torch and the industry's first ever pneumatic arm.

GOUGING TORCHES



Angle-Arc® Gouging Torches

Straight Handle Gouging Torches

Tri-Arc® Gouging Torches

Improved Torch Air Flow

- More efficient use of air supply
- Improved metal removal

Four Hole Head Assembly

- Optimizes air flow to the arc
- Efficiently cleans slag from

groove edge

Air Assist Positive Air Shut-Off

- Minimizes air supply unit cycling on and off
- Allows torch usage when air supply is marginal

Improved Cable Electrical Conduction

- Improves cable service life

- Decreases heat build up in cable and torch

Superior Outer Cable Cover

- Durable cover for improved cable life in a harsh environment
- Resists breakdown due to exposure to heat produced by gouging

Insulated Connection Boot & Hook-Up Kit

- Makes for easy torch hook-up
- Virtually eliminates the possibility of arcing when contacting electrically hot parts

IMPROVED CARBON-ARC TORCH CABLE BOOT DESIGN



Conventional Replacement Part No. 94-105-032



Quick-Connect Hook-Up Kit Replacement Part No. 94-463-046

Patented Two-Piece Boot Design

- Molded from a hard nylon reinforced fiber polymer made to withstand the substantial abuse in shop and field applications

Helps Prevent Accidental Arcing

- No chance of the "boot" pulling away from the power connection as seen with prior "boot" design

Ease of Replacement in the Field

- Threaded screws holds the two halves together and can be loosened with a standard straight blade screwdriver

Available in Two (2) Different Molded "Boot" Housing Configurations

- Conventional Boot (Part No. 94-105-032)
 - Accepts one 4/0 welding cable from the power supply and one 3/4 in. (19 mm) diameter air hose assembly providing current and compressed air
- Quick-Connect Hook-Up Kit (Part No. 94-463-046)
 - Twist lock-style power connection and air hose extending from the rear of the torch cable
- This option allows the operator to connect or disconnect the incoming power lead and air line quickly and easily

NOTE: Replacement Boots will fit onto all Arcair manual hand torch cable assemblies having an amperage range of 1000 Amps or less.

GOUGING TECHNIQUES FOR SPECIFIC MATERIALS

Carbon Steel & Low Alloy Steel

(such as ASTM A514 & A517) & Stainless Steel

- Use DC electrodes with DCEP (electrode positive). AC electrodes with an AC transformer can be used, but for this application, AC is only half as efficient as DC.

Cast Iron Including Malleable & Ductile Iron (nodular)

- Use 1/2 in. (12.7 mm) or larger diameter CCDC electrodes at the highest rated amperage. Use an angle of 70° off the workpiece and the depth of gouge should not exceed 1/2 in. (12.7 mm) per pass

Copper Alloys (copper content 60% and under)

- Use CCDC electrodes with DCEN (electrode negative) at the electrode's highest amperage rating

Aluminum Bronze & Aluminum Nickel Bronze (naval propeller alloy)

- Use CCDC electrodes with DCEN (electrode negative) at the electrode's highest amperage rating

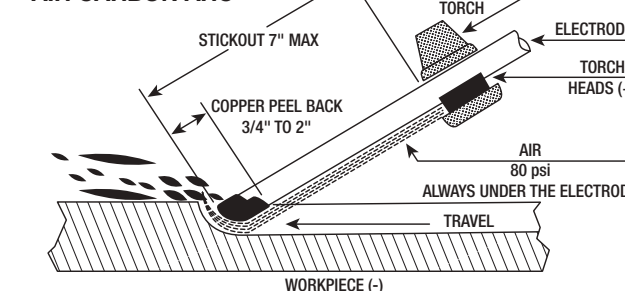
Nickel Alloys (nickel content over 80% of mass)

- Use CCAC electrodes with AC current

Nickel Alloys (nickel content under 80% of mass)

- Use CCDC electrodes with DCEP (electrode positive) at the electrode's highest amperage rating

PRINCIPLES OF AIR CARBON ARC



Magnesium Alloys

- Use CCDC electrodes with DCEP (electrode positive) and prior to welding, wire brush the groove

Aluminum

- Use CCDC electrodes with DCEP (electrode positive).
- You must brush with a stainless wire brush before welding. Electrode stick-out (length of electrode between torch and workpiece) should not exceed 3 in. (76.2 mm)

Titanium, Zirconium, Hafnium, & Their Alloys

- Do not cut or gouge to prepare for welding or remelting unless you mechanically remove the surface layer from the cut/gouge surface
- NOTE – If you preheat for welding, preheat for gouging.*

Current Requirements

Electrode	1/8 in. (3.2 mm)	5/32 in. (4.0 mm)	3/16 in. (4.8 mm)	1/4 in. (6.4 mm)	5/16 in. (7.9 mm)	3/8 in. (9.5 mm)	1/2 in. (13 mm)	5/8 in. (16 mm)	3/4 in. (19 mm)	1 in. (25 mm)	3/8 in. (9.5 mm) Flat	5/8 in. (16 mm) Flat
Minimum amps DC	60	90	200	300	350	450	800	1000	1250	1600	250	300
Maximum amps DC	90	150	250	400	450	600	1000	1250	1600	2200	450	500
Minimum amps AC	–	–	200	300	–	350	–	–	–	–	–	–
Maximum amps AC	–	–	250	400	–	450	–	–	–	–	–	–

Gouging Torch Selection Guide

Copperclad Electrodes	Amperage Range					Recommended	Alternate
	90 – 450	450 – 1000	1000 -1400	1400 – 2000	2000 - 2400		
1/8 in. - 3/8 in. Round (3.2 mm - 9.5 mm) 3/8 in. & 5/8 in. Flats (9.5 mm & 15.9 mm)	[Bar]					K3000	–
5/32 in. – 1/2 in. Round (4.0 mm – 12.7 mm) 3/8 in. & 5/8 in. Flats (9.5 mm & 15.9 mm)	[Bar]					AirPro X4000	K4000
5/16 in. - 5/8 in. Round (7.9 mm - 15.9 mm)	[Bar]					K-5	Tri-Arc, AirPro X4000, K4000
5/16 in. – 1 in. Round (7.9 mm – 25.4 mm)	[Bar]					Tri-Arc	–

Which Torch Is Right For You?

Torch Model	Amperage (Maximum)	Swivel Cable	Swivel Cable Lengths	Air-Cooled Water-Cooled	Handle Design	Body/Upper Arm Construction	Application	Special Features
K3000	600	360°	7 ft & 10 ft (2 m & 3 m)	Air-Cooled	Small & Ergonomic	Brass	Medium Duty	All brass torch parts with a copper head assembly having 4-hole design
K4000	1000	360°	7 ft & 10 ft (2 m & 3 m)	Air-Cooled	Small & Ergonomic	Brass	Heavy Duty	All brass torch parts with a copper head assembly having 4-hole design
AirPro X4000	1000	360°	7 ft & 10 ft (2 m & 3 m)	Air-Cooled	Small & Ergonomic	Brass	Heavy Duty	All brass torch parts with a copper head assembly having 4-hole design, pneumatically operated upper arm
K-5	1250	340°	7 ft & 10 ft (2 m & 3 m)	Air-Cooled	Straight	Brass	Heavy Duty	All brass torch parts with a copper head assembly having 4-hole design
Tri-Arc	2200	340°	7 ft & 10 ft (2 m & 3 m)	Air-Cooled & Water-Cooled	Straight	Copper	Heavy Duty	Versatility with three (3) different head assemblies to choose from to meet any metal removal application

ANGLE-ARC® MANUAL GOUGING TORCHES

Natural 15° Torch Angle

- Greater operator comfort

Durable Front Insulators

- High impact and heat resistant protecting the torch metal parts

360° Swivel Cable

- Less cable twist
- Less strain on operator

Positive Grip Handle

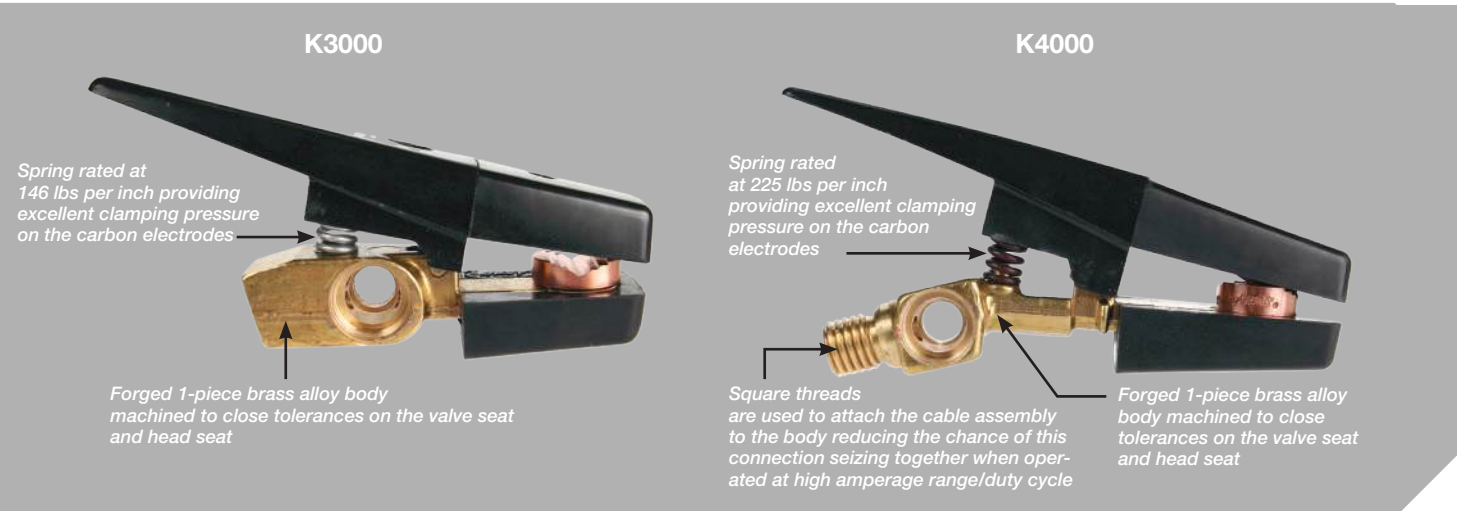
- Greater operator feel and ease in positioning the torch

Reduced Weight

- Optimum cable and torch weight to minimize fatigue

High Quality Cable Hose

- Best quality cable hose offers high heat and abrasion resistance
- Non-conductive



Heavy-duty insulators, lever and handle that are all made from fiberglass reinforced thermoset polyester molding compound to withstand the heat and be impact resistant

Positive grip handle design increases operator feel and ease of positioning the torch

360 degree swivel cable assembly eliminates cable twist and puts less strain on the operator

Head assembly machined from copper alloy having four (4) air holes optimizing the air flow to the arc

Balanced to pivot at the center of the handle for ease of use for all gouging positions, and thereby reduces operator fatigue

K3000



Medium Duty - General repair and maintenance jobs such as mining, construction, and all types of metal fabrication.

Amperage Range

- 90 – 600 amps

Electrode Size

- Pointed – 1/8 in. – 3/8 in. round (3.2 mm – 9.5 mm)
- Jointed – 5/16 in. – 3/8 in. round (7.9 mm – 9.5 mm)
- Flat – 3/8 in. and 5/8 in. (9.5 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

Air Requirements

- psi – 80
- kg/cm² – 5.6
- cfm – 22
- l/min – 624

Ordering Information

01065001	Torch Only
61065002	Torch w/7 ft (2.1 m) 360° Swivel Cable & Insulated Hook-Up Kit
61065007	Torch w/10 ft (3 m) 360° Swivel Cable
61065003	Torch w/10 ft (3 m) 360° Swivel Cable & Insulated Hook-Up Kit

K4000



Heavy Duty - Heavy metal removal applications such as weld preparations in pressure vessel shops and shipyards.

Amperage Range

- 90 – 1000 amps

Electrode Size

- Pointed – 5/32 in. – 1/2 in. round (4.0 mm – 12.7 mm)
- Jointed – 5/16 in. – 1/2 in. round (7.9 mm – 12.7 mm)
- Flat – 3/8 in. and 5/8 in. (9.5 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

Air Requirements

- psi – 80
- kg/cm² – 5.6
- cfm – 25
- l/min – 708

Ordering Information

01082002	Torch Only
61082008	Torch w/7 ft (2.1 m) 360° Swivel Cable
61082006	Torch w/7 ft (2.1 m) 360° Swivel Cable & Insulated Hook-Up Kit
61082009	Torch w/10 ft (3 m) 360° Swivel Cable
61082007	Torch w/10 ft (3 m) 360° Swivel Cable & Insulated Hook-Up Kit

SWIVEL CABLE ASSEMBLY OPTIONS



Ordering Information

K3000	K4000	
70088107	70084207	7 ft (2.1 m) 360° Swivel Cable Assembly
70088110	70084210	10 ft (3 m) 360° Swivel Cable Assembly

AIRPRO™ X4000 – PNEUMATIC GOUGING TORCH & CABLE ASSEMBLY

Easy to Load

- Uses compressed air to raise and lower the upper arm; no force required to load/unload electrodes

Simple Operation

- To gouge, press the rocker switch and slide lock forward to lock in place to begin the airflow through the torch assembly; simply slide the lock back and release the rocker switch to stops

No Leaks

- Positive air valve to eliminate compressed air from leaking

Positive Grip Handle

- Greater operator feel and ease in positioning the torch

Durable Front Insulators

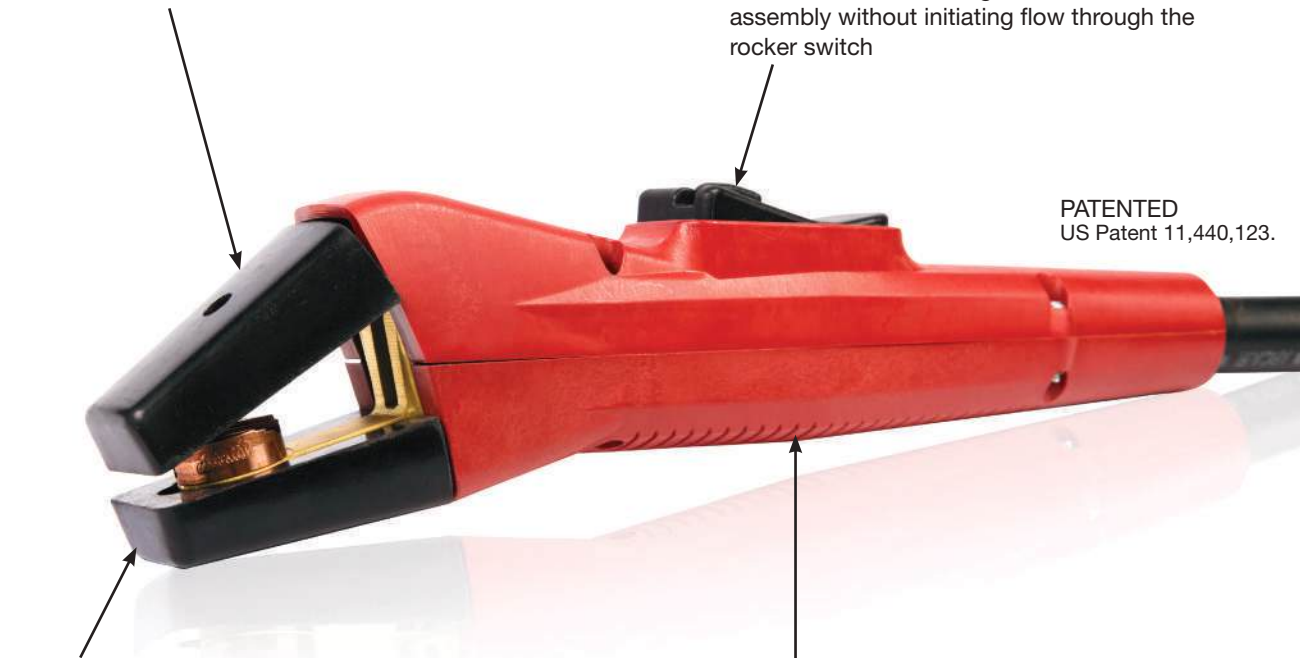
- High impact and heat resistance protecting the torch



Pneumatically operated upper arm for ease of inserting/adjusting the carbon electrode in the torch head assembly

Rocker switch allowing the insertion/adjustment of the carbon electrode and compressed air on/off; no air flow through the torch and cable assembly without initiating flow through the rocker switch

PATENTED
US Patent 11,440,123.



High impact, heat resistant insulators

Lower profile and positive grip handles

AIRPRO™ X4000

Introducing the next generation air carbon-arc metal removal torch and cable assembly, AirPro X4000. The unique, patented*, pneumatically operated upper arm and air valve design eliminates air leakage through the torch and cable when turned off, making this torch assembly the best in the market.

Ideal for the following industries:

- Ship and Offshore Yards
- Civil Construction
- Pipe Construction
- Repair and Maintenance
- Heavy Fabrication
- Industrial and General Fabrication
- Mining
- Steel Erectors



Amperage Range

- 90 – 1000 amps

Electrode Size

- Pointed – 3/16 in. – 1/2 in. round (4.7 mm – 12.7 mm)
- Jointed – 5/16 in. – 1/2 in. round (7.9 mm – 12.7 mm)
- Flat – 3/8 in. and 5/8 in. (9.5 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

Air Requirements

- psi – 80
- kg/cm2 – 5.6
- cfm – 25
- l/min – 708

Ordering Information

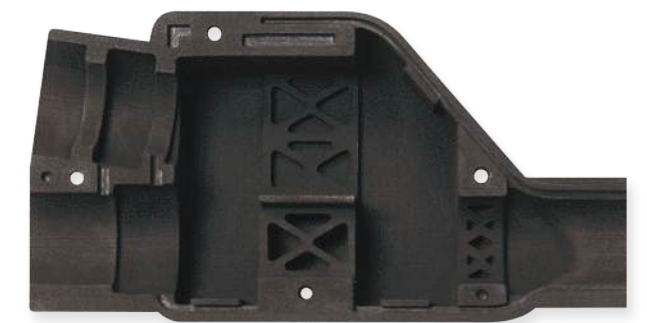
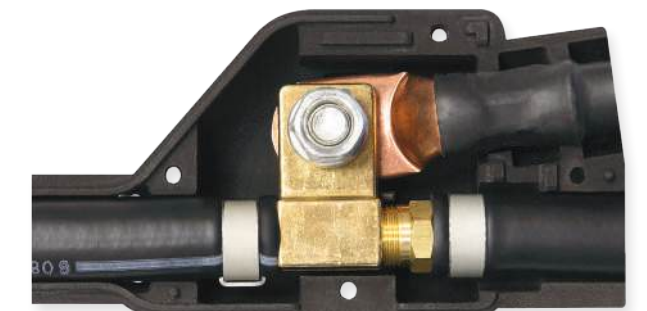
61084008	AirPro X4000 Torch & Cable Assembly 7 ft. (2.1 m) – 360° Swivel
61084006	AirPro X4000 Torch & Cable Assembly 7 ft. (2.1 m) – 360° Swivel & Insulated Hook-up Kit
61084007	AirPro X4000 Torch & Cable Assembly 10 ft. (3 m) – 360° Swivel & Insulated Hook-up Kit

SWIVEL CABLE ASSEMBLY



Ordering Information

70084407	7 ft (2.1 m) 360° Swivel Cable
70084410	10 ft (3 m) 360° Swivel Cable
94463046	Quick Connect Hook-Up Kit



* Patented - US Patent 11,440,123.

TRI-ARC® FOUNDRY GOUGING TORCHES

Three Torches in One

- Designed for foundry applications, defect removal, general purpose applications, and padwashing by just changing head assemblies

High Impact, Heat Resistant Insulators

- Provides protection for the torch metal parts

Forged Body

- Provides cooler operation, improved air flow and greater current ratings

Powerful Insulated Coil Spring & High Strength Upper Arm

- Insures positive electrode contact at all angles

Better Balance

- Streamline design and high strength fluted handles reduce operator fatigue

Easy Cable Installation

- No need to disassemble the torch, just slide the sleeve from the rear of the handle

TRI-ARC TORCH HEADS

Defect Removal Heads

- For removal of defects and fine removal application
- Accepts electrode diameters – 3/8 in. (9.5 mm) through 3/4 in. (19.05 mm)

General Purpose Cleaning Heads

- For removal of defects, fin removal, padwashing, and piercing applications
- Accepts electrode diameters – 1/2 in. (12.7 mm) through 1 in. (25.4 mm)

Padwashing Heads

- For padwashing applications only
- Heads are fixed on a 35° work angle
- Accepts electrode diameters – 1/2 in. (12.7 mm) through 3/4 in. (19.05 mm)



TRI-ARC®

Foundry - General foundry work, pad washing, defect, nails, sprue and interior work



Amperage Range

- 450 – 2200 amps

Electrode Size

- 5/16 in. – 1 in. Round (7.9 mm – 25.4 mm)

Air Requirements

- psi – 80
- kg/cm² – 5.6
- cfm – 33

Ordering Information

No Heads in Torch		Electrode Size
02991411	Torch Only	–
62991417	Torch & 7 ft (2.1 m) Cable	–
No Heads in Torch – No Valve		Electrode Size
02991426	Torch Only	–
Defect Removal Heads		Electrode Size
94378298	Replacement Heads	3/8 in. (9.5 mm) thru 3/4 in. (19.05 mm)
Padwashing Heads		Electrode Size
94378286	Replacement Heads	1/2 in. (12.7 mm)
94378289	Replacement Heads	5/8 in. (15.9 mm)
94378283	Replacement Heads	3/4 in. (19.05 mm)
General Purpose Cleaning Heads		Electrode Size
94378267	Replacement Heads	1/2 in. (12.7 mm)
94378270	Replacement Heads	5/8 in. (15.9 mm)
94378273	Replacement Heads	3/4 in. (19.05 mm)
94378343	Replacement Heads	1 in. (25.4 mm)

Note: The cable assembly that comes standard on the assemblies is Part No. 74143607, 7 ft (2.1 m) long and rated for 1600 amperes maximum.

SWIVEL CABLE ASSEMBLY OPTIONS



Ordering Information

7 ft (2.1 m)	10 ft (3 m)	
74143607	74143610	Std. Duty - 340° Swivel Cable Assembly
74161907	–	E-H-D 340° Swivel Cable Assembly
74085207	74085210	Water-Cooled Cable Assembly – Non-Swivel

K-5 Swivel Cable



Ordering Information

70128507	7 ft (2.1 m) 340° Swivel Cable Assembly
70128510	10 ft (3 m) 340° Swivel Cable Assembly

Heavy-duty insulators, lever and handle that are all made from fiberglass reinforced thermoset polyester molding compound to withstand the heat and be impact resistant

Torch comes with or without an air valve/spool

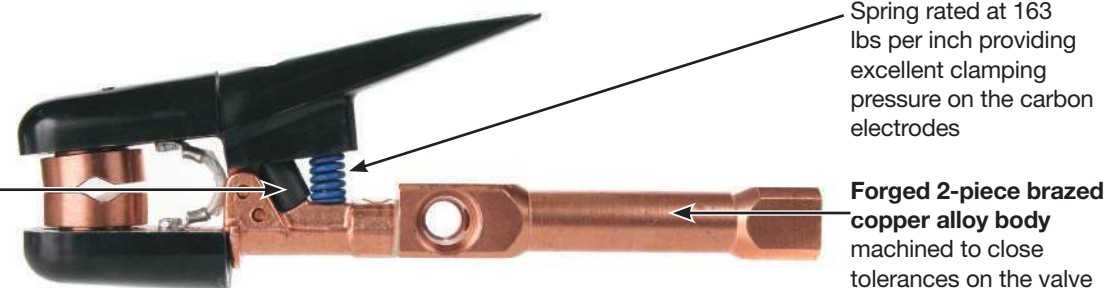
Air-cooled and water-cooled cable assemblies are available.



Switchable head assemblies machined from copper alloy designed for foundry applications - DEFECT REMOVAL - GENERAL PURPOSE - PADWASHING

Rugged and durable cable assemblies offered for applications requiring 1600 to 2200 amps

Compressed air flows through the body and upper arm increasing the metal removal capabilities on this torch



Spring rated at 163 lbs per inch providing excellent clamping pressure on the carbon electrodes

Forged 2-piece brazed copper alloy body machined to close tolerances on the valve seat and head seat

STRAIGHT HANDLE MANUAL GOUGING TORCHES

Reliable Torch Design

- Market leader for over 60+ years
- Greater operator comfort

Accepts a Wide Range of CCDC

Gouging Electrodes

- 5/16 in. (7.9 mm) - through 5/8 in. (15.9 mm) round

Durable Front Insulators

- High impact and heat resistant protecting the torch metal parts

Swivel Cable

- Less cable twist
- Less strain on the operator

High Quality Cable Hose

- Best quality cable hose offers high heat and abrasion resistance
- Non-conductive

Rugged Construction Overall

- Can withstand harsh environments

K-5



Extra Heavy-Duty - Heavy metal removal applications such as weld preparations in pressure vessel shops, shipyards and defect removal in foundries.

Amperage Range

- 450 – 1250 amps

Electrode Size

- Pointed – 5/16 in. – 1/2 in. round (7.9 mm – 12.7 mm)
- Jointed – 5/16 in. – 5/8 in. round (7.9 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

Air Requirements

- psi – 80
- kg/cm² – 5.6
- cfm – 30
- l/min – 850

Ordering Information

01104003	Torch Only
61104007	Torch w/7 ft (2.1 m) 360° Swivel Cable
61104008	Torch w/10 ft (3 m) 360° Swivel Cable

CUTSKILL MANUAL GOUGING TORCHES

Natural 15° Torch Angle

- Greater operator comfort

Durable Front Insulators

- High impact and heat resistant protecting the torch metal parts

360° Swivel Cable

- Less cable twist
- Less strain on operator

Positive Grip Handle

- Greater operator feel and ease in positioning the torch

Reduced Weight

- Optimum cable and torch weight to minimize fatigue

High Quality Cable Hose

- Best quality cable hose offers high heat and abrasion resistance
- Non conductive

CSK4000



Heavy-Duty - Heavy metal removal applications such as weld preparations in pressure vessel shops and shipyards.

Electrode Size

- Pointed – 5/32 in. – 1/2 in. round (4.0 mm – 12.7 mm)
- Jointed - 5/16 in. – 1/2 in. round (7.9 mm – 12.7 mm)
- Flat – 3/8 in. and 5/8 in. (9.5 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

Air Requirements

- Maximum Amperage – 1000 amps
- Compressed Air – 80 psi (5.6 kg/cm²)
- Compressed Air Flow Rate – 28 cfm (0.79 m³/min)
- Torch and Cable Weight: 5.4 lbs (2.4 kg)

Ordering Information

01088000	Torch Only
61088007	Torch & 7 ft (2.1 m) Cable Assembly
61088010	Torch & 10 ft (3 m) Cable Assembly
70088007	7 ft (2.1 m) Cable Assembly
70088010	10 ft (3 m) Cable Assembly

INCHES OF GROOVE PER ELECTRODE

Pointed Copperclad DC Electrodes

Groove Depth	5/32 in. x 12 in. (4.0 mm x 30.5 cm)	3/16 in. x 12 in. (4.8 mm x 30.5 cm)	1/4 in. x 12 in. (6.5 mm x 30.5 cm)	5/16 in. x 12 in. (8.0 mm x 30.5 cm)	3/8 in. x 12 in. (9.5 mm x 30.5 cm)	1/2 in. x 14 in. (12.7 mm x 35.6 cm)
1/8 in. (3.2 mm)	65 in. (165 cm)	70 in. (178 cm)	81 in. (206 cm)	NR	NR	NR
5/32 in. (4.0 mm)	57 in. (145 cm)	65 in. (165 cm)	70 in. (178 cm)	81 in. (206 cm)	NR	NR
3/16 in. (4.8 mm)	NR	57 in. (145 cm)	66 in. (168 cm)	72 in. (183 cm)	82 in. (208 cm)	NR
1/4 in. (6.4 mm)	NR	46 in. (117 cm)	58 in. (147 cm)	66 in. (168 cm)	72 in. (183 cm)	112 in. (285 cm)
5/16 in. (8.0 mm)	NR	20 in. (51 cm) – 2P	46 in. (117 cm)	58 in. (147 cm)	59 in. (150 cm)	100 in. (254 cm)
3/8 in. (9.5 mm)	NR	12 in. (30 cm) – 2P	24 in. (61 cm) – 2P	47 in. (119 cm)	59 in. (150 cm)	88 in. (224 cm)
1/2 in. (12.7 mm)	NR	NR	14 in. (36 cm) – 2P	26 in. (66 cm) – 2P	47 in. (119 cm)	73 in. (185 cm)
5/8 in. (15.9 mm)	NR	NR	NR	16 in. (41 cm) – 2P	26 in. (66 cm) – 2P	57 in. (145 cm)
3/4 in. (19.05 mm)	NR	NR	NR	NR	16 in. (41 cm) – 2P	43 in. (109 cm)
7/8 in. (22.0 mm)	NR	NR	NR	NR	NR	35 in. (89 cm) – 2P
1 in. (25.4 mm)	NR	NR	NR	NR	NR	28 in. (71 cm) – 2P

Note: All figures derived from gouging mild steel under laboratory conditions. Field results may vary due to type of metal, power source, compressed air supply, operators experience and other parameters.
NR = Not Recommended
2P = Two (2) Passes

Jointed Copperclad DC Electrodes

Groove Depth	5/16 in. x 14 in. (7.9 mm x 35.6 cm)	3/8 in. x 17 in. (9.5 mm x 43.2 cm)	1/2 in. x 17 in. (12.7 mm x 43.2 cm)
5/32 in. (4.0 mm)	160 in. (406 cm)	NR	NR
3/16 in. (4.8 mm)	142 in. (361 cm)	206 in. (523 cm)	NR
1/4 in. (6.4 mm)	125 in. (318 cm)	172 in. (437 cm)	260 in. (660 cm)
5/16 in. (7.9 mm)	112 in. (284 cm)	150 in. (310 cm)	188 in. (478 cm)
3/8 in. (9.5 mm)	84 in. (213 cm)	136 in. (345 cm)	157 in. (399 cm)
1/2 in. (12.7 mm)	72 in. (183 cm) – 2P	103 in. (262 cm)	140 in. (356 cm)
5/8 in. (15.9 mm)	48 in. (122 cm) – 2P	75 in. (191 cm) – 2P	102 in. (259 cm)
3/4 in. (19.05 mm)	NR	57 in. (145 cm) – 2P	90 in. (229 cm)
7/8 in. (22.0 mm)	NR	NR	80 in. (203 cm)
1 in. (25.4 mm)	NR	NR	72 in. (183 cm)

Note: All figures derived from gouging mild steel under laboratory conditions. Field results may vary due to type of metal, power source, compressed air supply, operators experience and other parameters.
NR = Not Recommended
2P = Two (2) Passes

ARCAIR AIR CARBON-ARC ELECTRODES

Designed Specifically for the Air Carbon-Arc Process

- Contain a precise formulated blend of carbon and graphite
- The most efficient metal removal performance in today's market
- Superior metal removal rates, cool operation, and uniform diameters

Ideal for a Broad Range of Applications

- Creating u-grooves for weld joint
- Removing old welds
- Gouging out cracks
- Cleaning and repairing castings
- Removing hard surface material
- Rough machining

Pointed Copperclad DC Electrodes		
Part No.	Description	Application
22023003	1/8 in. (3.2 mm) x 12 in. (30.5 cm) CCDC Pointed*	A standard, all-purpose gouging electrode. Its controlled copper coating improves electrical conductivity (for more efficient, cooler operation) and helps maintain electrode diameter at the point of the arc.
22983003	5/32 in. (4.0 mm) x 12 in. (30.5 cm) CCDC Pointed	
22033003	3/16 in. (4.8 mm) x 12 in. (30.5 cm) CCDC Pointed	
22043003	1/4 in. (6.4 mm) x 12 in. (30.5 cm) CCDC Pointed	
22053003	5/16 in. (7.9 mm) x 12 in. (30.5 cm) CCDC Pointed	
22063003	3/8 in. (9.5 mm) x 12 in. (30.5 cm) CCDC Pointed	
22082003	1/2 in. (12.7 mm) x 14 in. (35.6 cm) CCDC Pointed	

Note: Standard 50 pieces per carton unless noted. * 100 pieces per carton.

Pointed Plain DC Electrodes		
Part No.	Description	Application
21983003	5/32 in. (4.0 mm) x 12 in. (30.5 cm) DC Pointed	General purpose electrodes without the copper plating to avoid any chance of copper contamination in the base material. Same high quality blend of carbon and graphite used in other electrodes.
21043003	1/4 in. (6.4 mm) x 12 in. (30.5 cm) DC Pointed	
21053003	5/16 in. (7.9 mm) x 12 in. (30.5 cm) DC Pointed	
21063003	3/8 in. (9.5 mm) x 12 in. (30.5 cm) DC Pointed	

Note: Electrodes will glow incandescent due to not having the copper plating and a penciling affect will take place along the outside diameter of the electrode. Standard 50 pieces per carton unless noted.

Pointed Copperclad AC Electrodes		
Part No.	Description	Application
20033003	3/16 in. (4.8 mm) x 12 in. (30.5 cm) CCAC Pointed	Designed for use with A.C. power supplies. Rare earth material is added to the electrodes to stabilize the arc and enhance the operating characteristics. 12 in. (305 mm) long.
20043003	1/4 in. (6.4 mm) x 12 in. (30.5 cm) CCAC Pointed	
20063003	3/8 in. (9.5 mm) x 12 in. (30.5 cm) CCAC Pointed	

Flat Copperclad DC Electrodes		
Part No.	Description	Application
35099003	3/8 in. (9.5 mm) x 3/16 in. (4.8 mm) x 12 in. (30.5 cm) Flat	Specially designed for close tolerance metal removal and scarfing applications. Excellent for general gouging applications, removing weld crowns, repairing or making dies, removing temporary welded dogs, and scarfing billets.
35033003	5/8 in. (15.9 mm) x 3/16 in. (4.8 mm) x 12 in. (30.5 cm) CCDC Flat	

Note: Standard 50 pieces per carton unless noted.

Half Round Copperclad DC Electrodes		
Part No.	Description	Application
25103003	5/8 in. (15.9) x 5/16 in. (7.9 mm) x 12 in. (30.5 cm) CCDC Half-Round	Versatility of having both a round and flat electrode for the various gouging applications. Excellent for removing weld crowns, repairing or making dies, removing temporary welded dogs, and scarfing billets.

Note: Standard 50 pieces per carton unless noted.

Jointed Jetrods® Copperclad DC Electrodes		
Part No.	Description	Application
24052003	5/16 in. (7.9 mm) x 14 in. (35.6 cm) CCDC Jointed	Provides continuous electrode feed and increased savings, especially in production operations. Suited for both hand held foundry applications and or automated gouging systems.
24062003	3/8 in. (9.5 mm) x 14 in. (35.6 cm) CCDC Jointed	
24064003	3/8 in. (9.5 mm) x 17 in. (43.2 cm) CCDC Jointed	
24082003	1/2 in. (12.7 mm) x 14 in. (35.6 cm) CCDC Jointed	
24084003	1/2 in. (12.7 mm) x 17 in. (43.2 cm) CCDC Jointed	
24104003	5/8 in. (15.9 mm) x 17 in. (43.2 cm) CCDC Jointed	
24124003	3/4 in. (19.05 mm) x 17 in. (43.2 cm) CCDC Jointed	

Note: Standard 100 pieces per carton unless noted.

CUTSKILL ELECTRODES

Pointed Copperclad DC Electrodes		
Part No.	Description	Application
22033003C	3/16 in. (4.8 mm) x 12 in. (30.5 cm) CCDC Pointed	A standard, all purpose gouging electrode. Its controlled copper coating improves electrical conductivity (for more efficient, cooler operation) and helps maintain electrode diameter at the point of the arc.
22043003C	1/4 in. (6.4 mm) x 12 in. (30.5 cm) CCDC Pointed	
22053003C	5/16 in. (7.9 mm) x 12 in. (30.5 cm) CCDC Pointed	
22063003C	3/8 in. (9.5 mm) x 12 in. (30.5 cm) CCDC Pointed	

Note: Standard 50 pieces per carton unless noted. * 100 pieces per carton.

Hollow Pointed Copperclad DC Electrodes		
Part No.	Description	Application
22043003HC	1/4 in. (6.4 mm) x 12 in. (30.5 cm) CCDC Pointed	General purpose electrodes having the same high quality blend of carbon and graphite used in other electrodes, but with a hole down the center of the electrode.
22053003HC	5/16 in. (7.9 mm) x 12 in. (30.5 cm) CCDC Pointed	
22063003HC	3/8 in. (9.5 mm) x 12 in. (30.5 cm) CCDC Pointed	

Note: Standard 50 pieces per carton.

Jointed Copperclad DC Electrodes		
Part No.	Description	Application
24064003C	3/8 in. (9.5 mm) x 17 in. (43.2 cm) CCDC Jointed	Provides continuous electrode feed for greatly increased savings, especially in production operations.
24084003C	1/2 in. (12.7 mm) x 17 in. (43.2 cm) CCDC Jointed	
24104003C	5/8 in. (15.9 mm) x 17 in. (43.2 cm) CCDC Jointed	
24124003C	3/4 in. (19.05 mm) x 17 in. (43.2 cm) CCDC Jointed	
24164003C	1 in. (25.4 mm) x 17 in. (43.2 cm) CCDC Jointed*	

Note: Standard 100 pieces per carton unless noted * - 25 pieces per carton.

WELDING CARBON PRODUCTS

Carbon Plates and Carbon Rods

Wide Range of Applications to Control the Flow of Weld Metal

- Repair broken corners
- Repair broken gears
- Dams or molds for weld deposit

Eliminates the Need for Many Jigs and Fixtures

- Substantial time and labor savings



Ordering Information	
Carbon Plate	
48043012	1/4 in. (6.4 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm)
48063012	3/8 in. (9.5 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm)
48083012	1/2 in. (12.7 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm)
48123012	3/4 in. (19.05 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm)
48163012	1 in. (25.4 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm)
Carbon rod	
47123000	3/4 in. (19.05 mm) x 12 in. (30.5 cm)
47164000	1 in. (25.4 mm) x 17 in. (43.2 cm)



ARCAIR-MATIC® N7500

Automated Gouging System

The Arcair-Matic N7500 gouging system is highly productive for any metal fabrication operation where gouging and welding represents a large portion of the work schedule. This applies to almost all metals, including stainless steel, carbon, manganese, and chrome-moly steels.

AUTOMATED GOUGING



Digital LCD Remote Pendant

- Ease of use – start/stop function, travel delay, electrode diameter
- Rough machining feature to stall the feed of the electrode to compensate for pitted area or out-of-round steel rolls, thereby maintaining the concentricity of the shaft/roll
- US Patent No. US 9101998 B2
- “Travel delay” function assures excellent groove geometry at the very beginning of the groove, thereby eliminating the need for a starting pad
- Shock-absorbent bumper
- Remote Pendant incorporates an emergency stop switch (E-Stop) when pressed in, will take precedence over any other “stop” signal and will drop out the engaged contactor in the power supply stopping the flow of current to the carbon electrode



Torch Head

- Small and lightweight while accepting the wide range of Arcair jointed Jetrod Copperclad DC carbons, 5/16 in. (7.9 mm) through 3/4 in. (19.05 mm)
- Can be oriented 360 degrees in any direction giving flexibility to fit the application



Digital Circuitry Control Box

- Redesigned digital circuitry control box
- A synergic mode ensures conformity to pre-determined, pre-selected groove depth and width specifications
- Can be used with CC/CV power supplies and the system utilizes the contactor in the welding power supply unit thereby eliminating the need for an external contactor used on prior models



Complete N7500 Gouging System

Ordering Information	
65991015	Includes remote pendant, control box, torch head, air regulator and electrode tube holder

System Cable Assembly Options*

Ordering Information			
110V AC Power Supply Cable		Power Supply Communication Cable Assembly	
96130304	10 ft (3 m)	96130339	15 ft (5 m)
220V AC Power Supply Cable		96130340	25 ft (8 m)
96130305	10 ft (3 m)	96130341	50 ft (15 m)
Pendant Cable Assembly		DC Power Cables	
96170069	14 in. (0.36 m)	96130254	4 ft (1.2 m)
96170070	15 ft (5 m)	96130300	25 ft (8 m)
96170071	25 ft (8 m)	NOTE: Minimum 2 Power Cables Required	
96170072	50 ft (15 m)	Air Hose Assembly	
Motor Cable Assembly		94396051	4 ft (1.2 m)
96130336	15 ft (5 m)	94396048	25 ft (8 m)
96130337	25 ft (8 m)	*Must be ordered separately	
96130338	50 ft (15 m)		

ALL POSITION TRAVEL SYSTEMS

Arcair, the industry leader in air carbon-arc products partnered with leading travel system manufacturers to create the best all-around metal removal system providing superior performance, flexibility, versatility, and safety for your metal removal applications.

BUG-O® and GULLCO® tractors are ideal for out of position metal removal applications. Both systems incorporate an aluminum track that guides the tractor down the weld seam with the ability to keep the Arcair-Matic N7500 torch head on track with a mechanical rack device.

MANUAL GOUGING

BUG-O TRAVEL SYSTEM PACKAGES

All travel systems include a complete N7500 Automated Gouging System

- Remote pendant
- Control box
- Torch head
- Arcair electrode tube holder
- Arcair air regulator



Ordering Information	
Rigid - 110 VAC	71023140
Rigid - 220 VAC	71023141

Bug-O Travel System Specifications						
Carriage	Master Drive Unit	Arc Gouging Control Module	Arcair Mounting Group	Cable Mounting Assembly	Rail	On/Off Magnet
MPD-1065 (12 in. Releaseable Carriage)	MPD-1000 (110 VAC)	AGS-1002	AGS-4172	BUG-2975	ARR-1080 (Heavy-Duty Aluminum Rail)	ARM-2010 (5 Magnets)
MPD-1065 (12 in. Releaseable Carriage)	MPD-1002 (220 VAC)	AGS-1002	AGS-4172	BUG-2975	ARR-1080 (Heavy-Duty Aluminum Rail)	ARM-2010 (5 Magnets)
FMD-1105 (Hi-Flex Carriage w/ Handle & Clamp)	MPD-1000 (110 VAC)	AGS-1002	AGS-4172	--	FMD-2170 (Hi-Flex Rail)	FMD-2010 (8 Magnets)
FMD-1105 (Hi-Flex Carriage w/ Handle & Clamp)	MPD-1002 (220 VAC)	AGS-1002	AGS-4172	--	FMD-2170 (Hi-Flex Rail)	FMD-2010 (8 Magnets)

* System Part No. includes the BUG-O items as noted along with the Arcair-Matic N7500 System.

GULLCO TRAVEL SYSTEM PACKAGES

All travel systems include a complete N7500 Automated Gouging System

- Remote pendant
- Control box
- Torch head
- Arcair electrode tube holder
- Arcair air regulator



Ordering Information	
Rigid - 110 VAC	71023144

Gullco Travel System Specifications					
Carriage	Rack Box	Rack Bar	Welding Gun Attachment	Track	Track Magnet Devices
GK-200-RHB-N (GULLCO "KAT" Variable Speed Travel Carriage - 110 VAC)	GK-171-650 (GULLCO Heavy Duty Rack Box)	GK-171-047-2 (GULLCO 18 in. Long Heavy Duty Square Rack Bar)	GK-165-047-2 (GULLCO 4-Motion Semi-Automatic Welding Gun Attachment)	GK-165-052-1 (GULLCO 96 in. Aluminum Alloy Standard Track)	GK-165-215 (6 GULLCO Track Magnet Devices)
GK-200-RHC-N (GULLCO "KAT" Variable Speed Travel Carriage - 220 VAC)	GK-171-650 (GULLCO Heavy Duty Rack Box)	GK-171-047-2 (GULLCO 18 in. Long Heavy Duty Square Rack Bar)	GK-165-047-2 (GULLCO 4-Motion Semi-Automatic Welding Gun Attachment)	GK-165-052-1 (GULLCO 96 in. Aluminum Alloy Standard Track)	GK-165-215 (6 GULLCO Track Magnet Devices)

BUG-O is a registered trademark of the Weld Tooling Corporation. Gullco is a registered trademark of Gullco Enterprises Limited. The aforementioned registered trademarks are in no way affiliated with Arcair. Arcair is a registered trademark of ESAB.



SLICE® EXOTHERMIC CUTTING SYSTEM

Versatile - Unlike Any Other Cutting Technology

- Cuts right through hard-to-cut materials
 - Mild, stainless steel and alloy steels
 - Cast iron
 - Aluminum, magnesium and other non ferrous metals
 - Slag and refractory materials
 - Pierces through concrete or brick

Fast Cutting Speeds

- No-preheat required
- Cut sooner and finish every job faster

Comfortable and Easy to Use

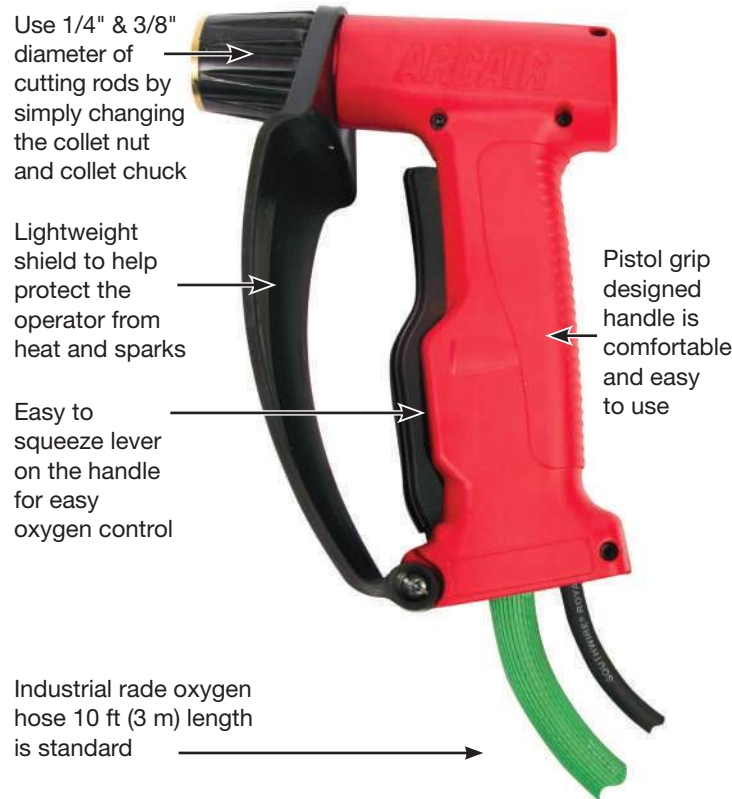
- Pistol grip style handle
- Lightweight shield to protect the operator from heat and sparks
- Lever operated oxygen control

Carry All Convenience

- Several portable SLICE packs to choose from
 - Utility Pack
 - Battery Pack
 - Industrial Pack
 - Complete Pack

Specifications				
Input Voltage	Length of Power Cable & Oxygen Hose	Power Cable AWG Size	Certification Mark (Standards)	Weight
12 V Battery (not included)	10 ft (3 m)	#10 #6 #1	CE	#10 - 3.8 lb (1.7 kg) #6 - 4.4 lb (2.0 kg) #1 - 6.3 lb (2.9 kg)

Ordering Information	
03003012	SLICE Cutting Torch w/ #10 Power Cable (When Igniting w/ 12V Battery & Cutting w/o Power)
03003011	SLICE Cutting Torch w/ #6 (When Igniting 12V Battery & Cutting w/o Power)
03003010	SLICE Cutting Torch w/ #1 (Up to 200 A w/ Power)



TIPS FOR USING SLICE® EXOTHERMIC CUTTING EQUIPMENT

TIPS FOR CUTTING

Cutting procedures will vary from job to job. Study the cutting rates chart for specific cutting speeds.

Normal cutting is done by using a drag technique. Once the rod is in contact with the piece to be cut, drag the rod in the direction of the cut. If the operator cannot see the kerf, the speed of cut is too fast. If the rod is being used too rapidly the progress of the cut is too slow and the rod is being used without cutting. REMEMBER, the cutting rods consume as long as the oxygen is flowing. Maintain the proper travel speed at all times.

NOTE: Use a sawing motion when material to be cut is thicker than 1-1/2 to 2 inches to ensure a complete melt through.

Use a smooth motion to complete the cut. Be careful not to hit nearby material with the rod when cutting in "close quarters." After completing the cut, release the oxygen control lever in the handle. THE CUTTING ROD WILL CONTINUE TO BURN AS LONG AS OXYGEN IS SUPPLIED. Hold the torch safely away from you until the rod cools.

TIPS FOR PIERCING SURFACES

The SLICE Torch can be used to pierce solids. Special procedures must be used when piercing. When piercing, use a collet extension (and shield). This extension adds life to the torch and hand shield, and greatly improves operator safety and comfort. Always hold the torch at arm's length and wear plenty of protective clothing, eye and ear protection. Cutting rods can get stuck inside the pierced hole. If possible, remove the cutting rod from the hole before releasing the oxygen lever.

With any thermal cutting equipment blowback is most likely to occur when the user is piercing holes. Cutting rods may burn unevenly. Slowly swirl the cutting rod as it enters a pierced hole. Cutting rods may burn out on the sides. Correct the problem by removing the cutting rod from the pierce point, shut the oxygen off, and replace the cutting rod.

To pierce follow these steps:

- Strike cutting rod on striker.
- Hold torch at arm's length
- Keep the cutting rod at a 90° angle (perpendicular) to the pierce point
- Slowly push cutting rod in at pierce point until you are at proper depth or until you have achieved burn through

The pierce procedure is also used to cut concrete. By piercing a series of holes where a user wants to cut concrete, the concrete becomes easier to fracture. This helps reduce the time it would take to actually cut the concrete.

OXYGEN USAGE

This cutting process uses standard industrial grade oxygen to support the exothermic reaction and to remove the molten metal. All SLICE equipment uses standard oxygen fittings. The most commonly recommended operating pressure is 80 psi. Applications such as cutting material sections 3 in. (7.6 cm) and thicker might require higher operating pressures. Pressures as low as 40 psi have been used to perform operations such as washing off rivet heads and scarfing out small cracks for repair.

The oxygen consumption rate for the SLICE cutting rods at 80 psi is 7 to 7.5 cfm for the 1/4 in. (6.35 mm) diameter cutting rods and 11 to 12 cfm for the 3/8 in. (15.87 mm) diameter cutting rods. This rate will vary if a different operating pressure is used.

ROD BURNTIME

Listed are the approximate burntimes for the various SLICE rod diameters and lengths:

- 1/4 in. x 22 in. (6.4 X 559 mm) . . 40 - 45 seconds
- 1/4 in. x 44 in. (6.4 X 1118 mm) 80 - 90 seconds
- 3/8 in. x 18 in. (9.5 X 457 mm) . . 30 - 35 seconds
- 3/8 in. x 36 in. (9.5 X 914 mm) . . 60 - 70 seconds

APPLICATION DATA

The best techniques for the SLICE equipment will change from job to job. The enclosed charts present the results of extensive testing of the SLICE Torch. Four things contribute to good cutting:

- 1) Electrical current
- 2) Type of material being cut
- 3) Environmental conditions
- 4) Experience of the operator(s)

These data result from studies of the first two (2) items in this list. Since data were collected in a laboratory, actual results obtained will vary because of changes in the environment. Too, these tests were conducted by highly experienced users. The way in which you use the SLICE Torch will also cause your results to vary.

In any application, some adjustments in operating conditions are necessary. The charts are presented only as a guideline. Results will vary. You can approximate these results by using the data presented as a starting point, then adjusting for your job.

Here is a sample of some cutting rates that can be obtained using the SLICE equipment. Cutting rates in this chart were obtained using 80 psi oxygen pressure, battery ignition (no power cutting) and 1/4 in. x 22 in. (356 x 559 mm) cutting rods. These cutting rates will vary when using different rods, when cutting with power or using a different oxygen pressure. This chart does not represent all materials SLICE will cut nor all thicknesses used in fabrication. When cutting composite materials or metals not listed, locate the listed type that most closely matches the metal to be cut. This information is only meant as a reference to the efficiency and versatility that a user can realize using the SLICE equipment.

Cutting Rates						
Material Being Cut	Thickness		Cut/in Rod		Cut Speed	
	in.	cm	in.	cm	in/min	cm/min
Carbon Steel	1/8	.318	2.25	5.7	72	183
	1/4	.635	1.50	3.8	52	132
	3/8	.953	1.38	3.5	42	106
	1/2	1.27	1.25	3.2	35	89
	3/4	1.91	0.75	1.9	22	56
Stainless Steel	1/8	.318	2.00	5.1	65	165
	1/4	.635	1.13	2.9	36	91
Aluminum	1/4	.635	1.75	4.4	58	147
	3/8	.953	1.25	3.2	38	97
	3/4	1.91	0.75	1.9	23	58

This data is the result of averaging lab tests. The actual results will vary.

EXOTHERMIC CUTTING

EXOTHERMIC CUTTING



SLICE® BATTERY/ UTILITY PACK



Go anywhere and cut, burn, or pierce virtually any metallic, non-metallic or composite material with this exothermic cutting pack. Comes with all the necessary equipment and cutting rods required to do cutting when combined with standard industrial grade oxygen to support the exothermic reaction and to remove the molten metal.

- New heavy-duty storage case to hold/store the equipment when not in use
- Improved torch handle and rubber shield to improve the operator's grip and provide protection from molten spray when piercing
- Improved striker assembly that incorporates a slide mechanism that allows the operator to only expose a small portion of the ignition bar (copper), which increases the life of the striker copper bar

Battery Pack Only:

- Improved battery ignition source with improved features over prior model
 - Faster recharging of a "dead" battery
 - Better visual "gas gauge" indicating battery condition
 - Over-charging safe guard

Specifications				
Input Voltage	Length of Power Cable & Oxygen Hose	Power Cable AWG Size	Certification Mark (Standards)	Weight
120 V AC 60 Hz 220 V AC 50 Hz (Battery Pack)	10 ft (3 m)	#10	CE	Battery Pack 28 lb (12.7 kg) Utility Pack 21 lb (9.5 kg)
Output Voltage	Type of Battery	Recharge Time	Exothermic Cutting Rods	Dimensions L x W x H
12VDC	Seal lead acid	6 h (fully drained)	1/4 in. x 22 in. Uncoated – 25 Pcs	22.25 x 20 x 5.5 in. (565 x 508 x 140 mm)

Ordering Information	
63991041	SLICE Battery Pack – 120 V AC 60 Hz
63991044	SLICE Battery Pack – 220 V AC 50 Hz
63991047	SLICE Utility Pack

SLICE® BATTERY IGNITION SOURCE



The improved battery ignition source features faster recharging, better visual gas gauge and over-charging safe guard.

Accepts the SLICE cutting torch power connection that has the twist-lock power pin and the SLICE Striker Assembly that completes the circuit when the SLICE rod held in the cutting torch comes in contact with the Striker copper bar. With oxygen flowing through the torch and cutting rod the exothermic reaction begins and cutting can start. Simply release the oxygen lever on the torch to stop the burn.

- All connections to the battery ignition source are labelled for ease of use
- Illuminated lights "GAS GAUGE" signifies the level of the battery current output to ignite the cutting rod
- Experienced operators can expect to achieve 115+ ignitions from a fully charged battery
- Charging time to bring a fully drained battery up to a fully charged status is 6 hours

Specifications				
Input Voltage	Internal Battery Display	Charging Mode	Certification Mark (Standards)	Weight
22-30 V DC	LED	Constant Voltage	CE	7.1 lb (3.22 kg) Battery Case & Power Adapter
Output Voltage	Type of Battery	Adapter Input	Adapter Output	Dimensions L x W x H
12 V DC	Seal lead acid	100 – 240 VAC 50 – 60 Hz 1.4 A Max	24 V DC, 2.7 A	6.4 x 4.6 x 7.4 in. (163 x 117 x 188 mm)

Ordering Information	
96076040	SLICE Battery Ignition Source
96076041	Power Adapter w/ NAM Power Lead

SLICE® INDUSTRIAL PACK



A self-contained cutting system lends itself well for maintenance/repair inside of manufacturing facilities.

- Improved torch handle and rubber shield to improve the operators grip and provide protection from molten spray when piercing
- Improved striker assembly that incorporates a slide mechanism that allows the operator to only expose a small portion of the ignition bar (copper) which increases the life of the striker copper bar
- Improved battery box with improved features over prior model
 - Faster recharging of a "dead" battery
 - Better visual "gas gauge" indicating battery condition
 - Over-charging safe guard
- Storage shelf on the cart to place a 12V battery for the power to ignite the SLICE rod and begin exothermic cutting action (12V battery not included with system)
- System includes a battery charger mounted on the cart to recharge the 12V battery as needed

Specifications				
Input Voltage	Length of Power Cable & Oxygen Hose	Power Cable AWG Size	Certification Mark (Standards)	Weight
120 V AC 60 Hz	10 ft (3 m)	#10	CE	81.2 lbs (36.8 kg)
Output Voltage	Exothermic Cutting Rods			Dimensions L x W x H
12 V DC	1/4 in. x 22 in. Uncoated – 25 Pcs			20-5/8 x 48-3/8 x 20 in. (524 x 1229 x 508 mm)

Ordering Information	
63991045	SLICE Industrial Pack – 120 V AC 60 Hz

SLICE® COMPLETE PACK



A self-contained cutting system lends itself well to the emergency/forced entry type cutting situations where seconds count.

- Improved torch handle and rubber shield to improve the operators grip and provide protection from molten spray when piercing
- Improved striker assembly that incorporates a slide mechanism that allows the operator to only expose a small portion of the ignition bar (copper), which increases the life of the striker copper bar
- Improved battery box with improved features over prior model
 - Faster recharging of a "dead" battery
 - Better visual "gas gauge" indicating battery condition
 - Over-charging safe guard

Specifications				
Input Voltage	Length of Power Cable & Oxygen Hose	Power Cable AWG Size	Certification Mark (Standards)	Weight
120 V AC 60 Hz 220 V AC 50 Hz	10 ft (3 m)	#10	CE	With Cylinder 70 lb (31.75 kg) Without Cylinder 39.05 lb (17.71 kg)
Output Voltage	Recharge Time	Exothermic Cutting Rods		Dimensions L x W x H
12 V DC	6 h (fully drained)	1/4 in. x 22 in. Uncoated – 25 Pcs		With Cylinder: 15 x 27 x 8 in. (400 x 689 x 206 mm) Without Cylinder: 15 x 25 x 8 in. (400 x 638 x 206 mm)

Ordering Information	
63991040	SLICE Complete Pack – 120 V AC 60 Hz
63991042CE	SLICE Complete Pack – 220 V AC 50 Hz

EXOTHERMIC CUTTING

EXOTHERMIC CUTTING



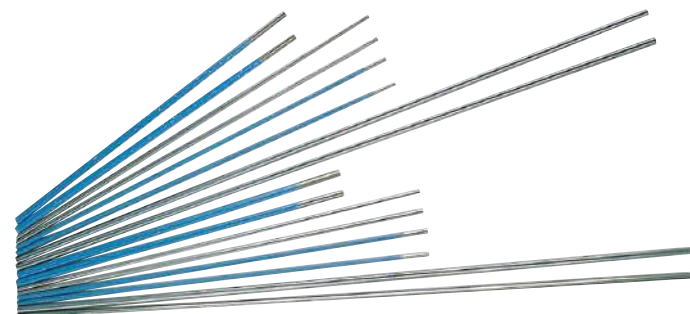
SLICE® STRIKER ASSEMBLY



The SLICE Striker comes standard with a #10 AWG Power Cable with a twist-lock brass pin that can connect to the SLICE battery ignition source. The same twist-lock pin can be inserted into the mating receptacle on a plier type clamp found in the SLICE Utility Pack (please see separate fact sheet for details).

- Improved striker assembly that incorporates a slide mechanism that allows the operator to only expose a small portion of the ignition bar (copper), which increases the life of the striker copper bar
- Robust handle insulator material that can handle impact with the ground and high temperature rating

SLICE® CUTTING RODS



Unlike any other cutting process used today, SLICE systems can cut, burn or pierce virtually any metallic, non-metallic or composite material. Specially designed flux-coated cutting rod, patented single piece construction maintains the balance necessary to sustain the exothermic reaction.

- Specially designed cutting rod
- One piece patented construction maintains the balance necessary to sustain the exothermic reaction
- Cutting rod sustains the burn without constant electrical power once ignited

Specifications		
Length of Power Cable & Oxygen Hose	Power Cable AWG Size	Certification Mark (Standards)
10 ft (3 m)	#10	CE
Weight	Dimensions L x W x H	
1.2 lb (.54 kg)	9.5 x 1.5 x 1.75 in. (241.3 x 38 x 44.5 mm)	

Ordering Information	
72012010	SLICE Striker Assembly

Ordering Information	
42049003	SLICE Exothermic Cutting Rods, Flux Coated, 1/4 x 22 – 100 Pcs
42049002	SLICE Exothermic Cutting Rods, Flux Coated, 1/4 x 22 – 25 Pcs
43049009	SLICE Exothermic Cutting Rods, Uncoated, 3/8 x 36 – 25 Pcs
43049007	SLICE Exothermic Cutting Rods, Uncoated, 3/8 x 18 – 50 Pcs
43049002	SLICE Exothermic Cutting Rods, Uncoated, 1/4 x 22 – 25 Pcs
43049005	SLICE Exothermic Cutting Rods, Uncoated, 1/4 x 44 – 25 Pcs
42049005	SLICE Exothermic Cutting Rods, Flux Coated, 3/8 x 18 – 50 Pcs
43049003	SLICE Exothermic Cutting Rods, Uncoated, 1/4 x 22 – 100 Pcs
94463032	3/8 in. Collet Conversion Kit

MAJOR UPGRADE: ARCAIR® SLICE® EXOTHERMIC CUTTING SYSTEM.

The fastest way to cut, burn or pierce virtually any metallic, nonmetallic or composite material. SLICE cuts anything put in front of its 8,000°F to 10,000°F flame, including steel, aluminum, cast iron, brass, nickel, concrete or firebrick.

The portability and cut-anything capabilities of SLICE systems make them preferred tools for forcible entry (fire and rescue), heavy equipment repair and maintenance, steel erection, bridge construction, and scrap and demolition work.

SLICE ENHANCEMENTS.

- More-ergonomic torch grip and oxygen flow lever.
- Stronger connection between grip and rubber shield.
- New striker assembly extends striker life by exposing ignition bar in small increments.
- Improved 12V ignition source for faster recharging of a dead battery, overcharging safeguard and a better visual indication of battery condition.

FOUR SLICE PACK OPTIONS.



1. SLICE Utility Pack. Includes everything required for cutting except the 12V battery and oxygen cylinder.



2. SLICE Battery Pack. Includes improved 12V ignition source. No cylinder.



3. SLICE Complete Pack. Includes improved 12V ignition source and 55-cu.-ft. oxygen cylinder and oxygen regulator. Metal carrying case makes it well-suited for forcible-entry situations when seconds count.



4. SLICE Industrial Pack. Cart accommodates a large oxygen cylinder to extend cutting time, and a 12V AC battery charger.





SEA TORCH® “COMBINATION TORCH”

Underwater Cutting & Welding Torch



UNDERWATER CUTTING ELECTRODES



One-piece Body Construction

- Fully insulated electrically for safety in normal operation
- Prohibits oxygen leakage in the torch body
- Bright orange for high visibility to the diver

Combination Torch

- Torch can be used for oxygen-arc cutting
- Underwater welding

Tapered Collet Body

- Brings the bare surface of an electrode into contact for the entire length of the collet
- Solid grip and increased contact area decreases the risk of arcing between the collet and electrode

Equipped with a Spark Arrestor

- Spark arrestor located behind the collet for safe operation
- Ball check valve in the torch handle gives additional protection

Specifications	
Length of Power Cable	
10 ft (3 m)	
Weight (with cable)	Dimensions (length)
4.5 lbs (2.04 kg)	8.75 in. (22.2 cm)

Ordering Information	
14050126	Sea Torch with 3/8 in. (9.5 mm) Cutting Collet

Exothermic Cutting Electrodes

- Exothermic cutting electrodes only require current to ignite the electrode and once ignited the rod will continue to burn as long as there is oxygen flowing

Water-proof Coating

- All cutting electrodes are coated with a water-proof coating

Ordering Information	
42066006	Sea-Jet Cutting Electrodes, 3/8 x 18 – 50 Pcs
42075005	Sea Dragon Cutting Rod, 3/8 x 18 – 50 Pcs



SEA-STINGER® II TORCH

Underwater Welding Torch



Lightweight and Durable

- Proven design that gives the diver-welder an easy to use electrode holder
- Repairable replaceable cable and internal parts extend its service life

Accepts Several Different Diameter of Welding Electrodes

- 1/8" (3.2 mm), 5/32" (4.0 mm) and 3/16" (4.8 mm) welding electrodes

Specifications	
Length of Power Cable	
10 ft (3 m)	
Weight (with cable)	Dimensions (length)
3.65 lbs (1.66 kg)	6 in. (15.24 cm)

Ordering Information	
14050128	Sea-Stinger II Underwater Welding Torch

UNDERWATER WELDING ELECTRODES



Excellent Bead Contour

- All position, flux coated SMAW electrode

Fillet Welds are Flat with Good Base Metal Wetting

- Helps keep undercut to a minimum

Easy Slag Removal

- Keeps chipping and grinding to a minimum
- Lower risk of slag inclusions

Produced Welds Which Pass Bend and X-ray Requirements

- As defined by the AWS D3.6 specification for underwater welding

Ordering Information	
42024002	Sea-Weld Welding Electrodes, 1/8 x 14 – 150 Pcs
42984004	Sea-Weld Welding Electrodes, 5/32 x 14 – 100 Pcs
42034007	Sea-Weld Welding Electrodes, 3/16 x 18 – 75 Pcs

UNDERWATER CUTTING & WELDING

UNDERWATER CUTTING & WELDING



PROTEX ORIGINAL ANTI-SPATTER



First Choice for Big Jobs in Welding, Cutting, or Gouging

- Reduces spatter and protects from slag spoiling clean edges
- Protects the parent metal, fixtures, large weldments and jigs from spatter and slag
- Use it during heat treating to protect surfaces from scale

Environmentally Safe

- Non-toxic and non-flammable

Ordering Information

53011000	Protex Original, 1 gal (3.8 L), Case of 4
53015000	Protex Original, 5 gal (19 L)
53018000	Protex Original, 55 gal (208 L), Drum

PROTEX EXTRA ANTI-SPATTER



Reduces Spatter Adhesion to Parent Metal

- Spray or brush onto the parent metal and you are ready to weld in less than one minute

Environmentally Safe

- Non-toxic and non-flammable

Ordering Information

53024500	Protex Extra, 24 oz (710 mL), Case of 12
53014500	Protex Extra, 1 gal (3.8 L), Case of 4
53015500	Protex Extra, 5 gal (19 L)
53018500	Protex Extra, 55 gal (208 L), Drum



PROTEX PLUS ANTI-SPATTER

Reduces Adhesion to Parent Metal

- Spray onto the parent metal to reduce spatter or slag from adhering

Environmentally Safe

- An aerosol anti-spatter
- Contains no chlorinated solvents, fluorocarbons, silicones

Ordering Information

57021106	Protex Plus, 16 oz (473 mL), Case of 12
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PROTEX TIP DIP ANTI-SPATTER



Protects Spatter Build-up on GMAW Nozzles and Contact Tips

- High heat resistance to minimize spatter build-up

Note: Allow nozzles to cool below red heat before dipping (ignition may occur above 1000°F).

Environmentally Safe

- Non-toxic

Ordering Information

57021105	Protex Tip Dip, 16 oz (454 g), Case of 12
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PROTEX ALCLEAN



Removes oxides, dirt and grime from aluminum plate, castings and joint areas prior to welding

- Spray or brush on large areas

Note: may turn 2000 Series aluminum black.

Ordering Information

57021200	Protex Alcelan, 1 qt (946 mL), Case of 12
57014000	Protex Tip Dip, 1 gal (3.8 L), Case of 4

