

ARCAIR®

AN ESAB® BRAND



INDUSTRIAL CUTTING AND GOUGING EQUIPMENT

esab.com

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This information is accurate to the best of our knowledge at the time of printing and is subject to change at any time at ESAB's sole discretion.



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.

ARCAIR IS SYNONYMOUS WITH CARBON ARC GOUGING



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



1983
Introduces K4000® cutting and gouging torch.



1989
Arcair relocates 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

GOUGING TORCHES

FEATURES & BENEFITS

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.



Angle-Arc®
Gouging Torches



Straight Handle
Gouging Torches



Tri-Arc®
Gouging Torches

THE NEW CARBON-ARC TORCH CABLE “BOOT” DESIGN

FEATURES & BENEFITS

▪ 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" 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



Conventional
Replacement Part No. 94-105-032



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



THE “BEST” JUST GOT BETTER

Help prevent accidental arcing in your workplace

Patent No. D708,240 S

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

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.

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 AND DUCTILE IRON (NODULAR)

Use 1/2" 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" 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 AND ALUMINUM NICKEL BRONZE (NAVAL PROPELLER ALLOY)

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

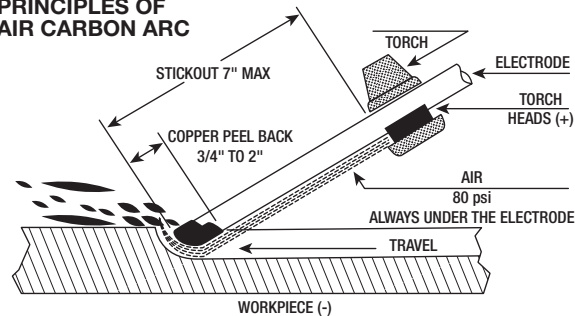
NICKEL ALLOYS (NICKEL CONTENT OVER 80% OF MASS)

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" (76.2 mm).

TITANIUM, ZIRCONIUM, HAFNIUM, AND 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 Diameter	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	3/8" Flat	5/8" Flat
	3.2 mm	4.0 mm	4.8 mm	6.4 mm	7.9 mm	9.5 mm	13 mm	16 mm	19 mm	25 mm	9.5 mm Flat	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" - 3/8" Round (3.2 mm - 9.5 mm) 3/8" & 5/8" Flats (9.5 mm & 15.9 mm)	[Bar]					K3000™	
5/32" – 1/2" Round (4.0 mm – 12.7 mm) 3/8" & 5/8" Flats (9.5 mm & 15.9 mm)	[Bar]					K4000®	K3000™
5/16" - 5/8" Round (7.9 mm - 15.9 mm)	[Bar]					K-5	K4000®, Tri-Arc®
5/16" – 1" 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 (Ft)	Air-Cooled Water-Cooled	Handle Design	Body/ Upper Arm Construction	Application	Special Features
K3000™	600	360°	7 ft & 10 ft	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	Air-Cooled	Small & Ergonomic	Brass	Heavy Duty	All brass torch parts with a copper head assembly having 4-hole design
K-5	1250	340°	7 ft & 10 ft	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	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

FEATURES & BENEFITS

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

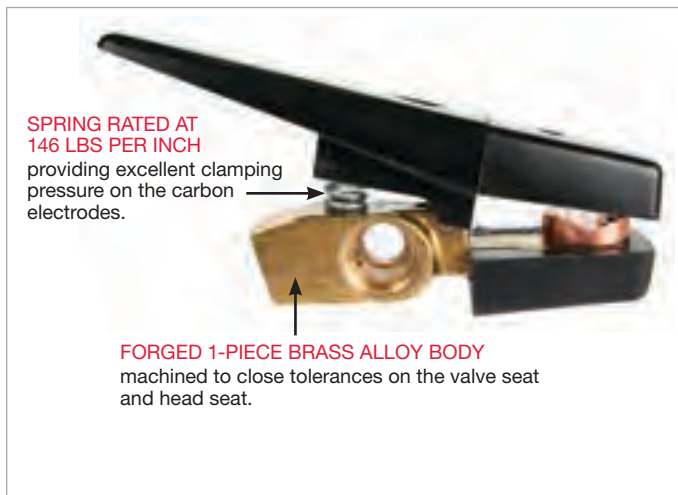
REDUCED WEIGHT

- Optimum cable and torch weight to minimize fatigue

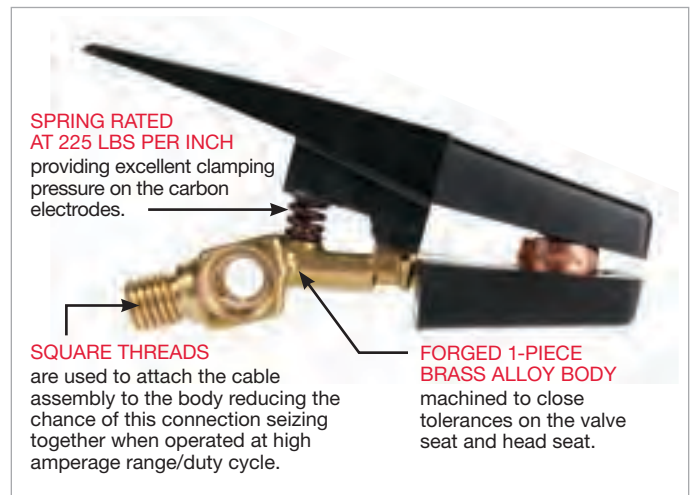
HIGH QUALITY CABLE HOSE

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

K3000™

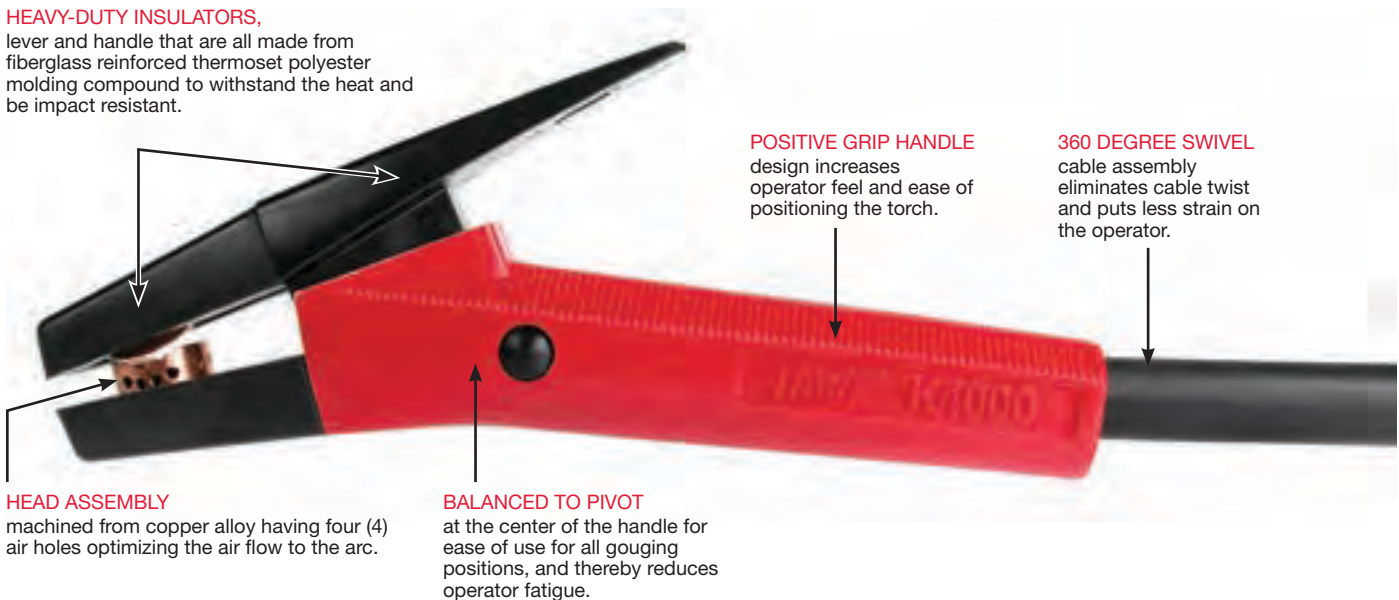


K4000®



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.



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" - 3/8" round (3.2 mm - 9.5 mm)
- Jointed - 5/16" - 3/8" round (7.9 mm - 9.5 mm)
- Flat - 3/8" and 5/8" (9.5 mm - 15.9 mm)
- Half Round - 5/8" (15.9 mm)

AIR REQUIREMENTS

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

Part No.	Description
01-065-001	Torch Only
61-065-006	Torch w/7 ft (2.1 m) 360° Swivel Cable
61-065-002	Torch w/7 ft (2.1 m) 360° Swivel Cable & Insulated Hook-Up Kit
61-065-007	Torch w/10 ft (3 m) 360° Swivel Cable
61-065-003	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" - 1/2" round (4.0 mm - 12.7 mm)
- Jointed - 5/16" - 1/2" round (7.9 mm - 12.7 mm)
- Flat - 3/8" and 5/8" (9.5 mm - 15.9 mm)
- Half Round - 5/8" (15.9 mm)

AIR REQUIREMENTS

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

Part No.	Description
01-082-002	Torch Only
61-082-008	Torch w/7 ft (2.1 m) 360° Swivel Cable
61-082-006	Torch w/7 ft (2.1 m) 360° Swivel Cable & Insulated Hook-Up Kit
61-082-009	Torch w/10 ft (3 m) 360° Swivel Cable
61-082-007	Torch w/10 ft (3 m) 360° Swivel Cable & Insulated Hook-Up Kit

SWIVEL CABLE ASSEMBLY OPTIONS

K3000 360° Swivel Cable



K4000 360° Swivel Cable



Part No.		Description
K3000	K4000	
70-088-107	70-084-207	7 ft (2.1 m) 360° Swivel Cable Assembly
70-088-110	70-084-210	10 ft (3 m) 360° Swivel Cable Assembly



TRI-ARC® FOUNDRY GOUGING TORCHES

FEATURES & BENEFITS

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

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.

TRI-ARC TORCH HEADS

DEFECT REMOVAL HEADS

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



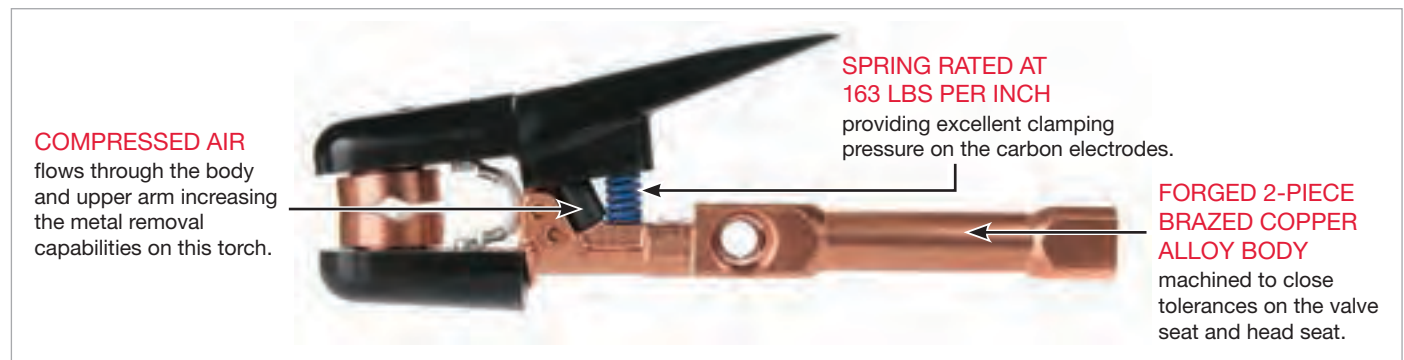
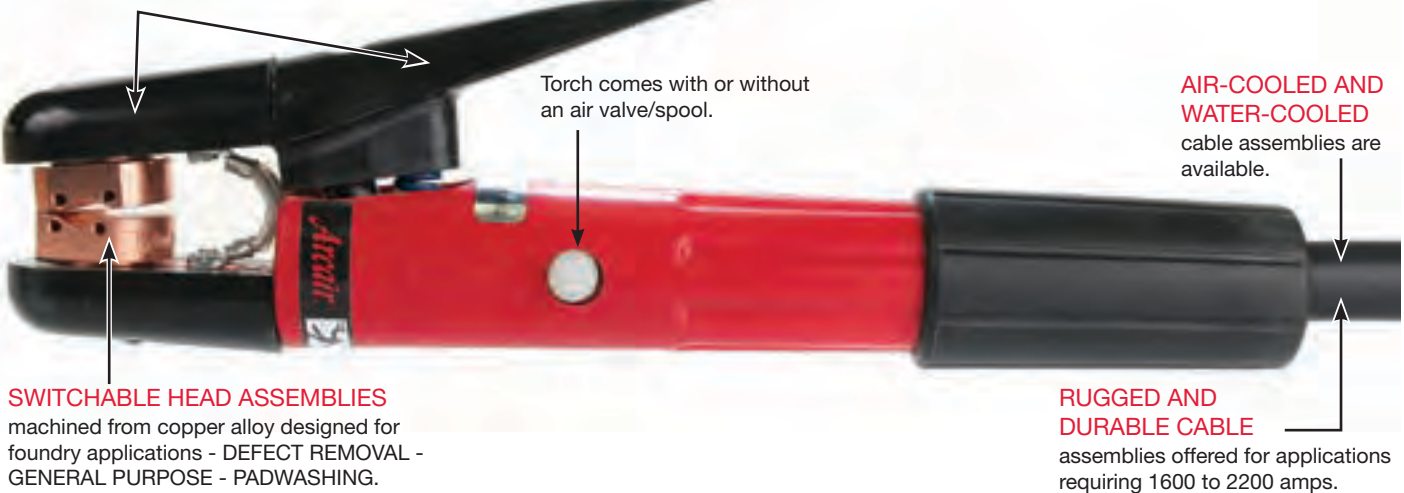
GENERAL PURPOSE CLEANING HEADS

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



PADWASHING HEADS

- For padwashing applications only
- Heads are fixed on a 35° work angle
- Accepts electrode diameters – 1/2" (12.7 mm) through 3/4" (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" - 1" Round (7.9 mm - 25.4 mm)

AIR REQUIREMENTS

- psi – 80
- kg/cm² – 5.6
- cfm – 33
- l/min – 934

Part No.	Description	Electrode Size
NO HEADS IN TORCH		
02-991-411	Torch Only	–
62-991-417	Torch & 7 ft (2.1 m) Cable	–
NO HEADS IN TORCH - NO VALVE		
02-991-426	Torch Only	–
DEFECT REMOVAL HEADS		
94-378-298	Replacement Heads	3/8" (9.5 mm) thru 3/4" (19.05 mm)
PADWASHING HEADS		
94-378-286	Replacement Heads	1/2" (12.7 mm)
94-378-289	Replacement Heads	5/8" (15.9 mm)
94-378-283	Replacement Heads	3/4" (19.05 mm)
GENERAL PURPOSE CLEANING HEADS		
94-378-267	Replacement Heads	1/2" (12.7 mm)
94-378-270	Replacement Heads	5/8" (15.9 mm)
94-378-273	Replacement Heads	3/4" (19.05 mm)
94-378-343	Replacement Heads	1" (25.4 mm)

Note: The cable assembly that comes standard on the assemblies is Part No. 74-143-607, 7 ft (2.1 m) long and rated for 1600 amperes maximum.

SWIVEL CABLE ASSEMBLY OPTIONS



Part No.		Description
7 ft (2.1M)	10 ft (3M)	
74-143-607	74-143-610	Std. Duty - 340° Swivel Cable Assembly
74-161-907	–	E-H-D 340° Swivel Cable Assembly
74-085-207	74-085-210	Water-Cooled Cable Assembly - Non-Swivel



Part No.	Description
70-128-507	7 ft (2.1 m) 340° Swivel Cable Assembly
70-128-510	10 ft (3 m) 340° Swivel Cable Assembly

STRAIGHT HANDLE MANUAL GOUGING TORCHES

FEATURES & BENEFITS

RELIABLE TORCH DESIGN

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

ACCEPTS A WIDE RANGE OF CCDC GOUGING ELECTRODES

- 5/16" (7.9 mm) - through 5/8" (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" - 1/2" round (7.9 mm - 12.7 mm)
- Jointed - 5/16" - 5/8" round (7.9 mm - 15.9 mm)
- Half Round - 5/8" (15.9 mm)

AIR REQUIREMENTS

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

Part No.	Description
01-104-003	Torch Only
61-104-007	Torch w/7 ft (2.1 m) 360° Swivel Cable
61-104-008	Torch w/10 ft (3 m) 360° Swivel Cable

CUTSKILL MANUAL GOUGING TORCHES

FEATURES & BENEFITS

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" - 1/2" round (4.0 mm - 12.7 mm)
- Jointed - 5/16" - 1/2" round (7.9 mm - 12.7 mm)
- Flat - 3/8" and 5/8" (9.5 mm - 15.9 mm)
- Half Round - 5/8" (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)

Part No.	Description
01-088-000	Torch Only
61-088-007	Torch & 7 ft (2.1 m) Cable Assembly
61-088-010	Torch & 10 ft (3 m) Cable Assembly
70-088-007	7 ft (2.1 m) Cable Assembly
70-088-010	10 ft (3 m) Cable Assembly

INCHES OF GROOVE PER ELECTRODE

POINTED COPPERCLAD DC ELECTRODES

Groove Depth	5/32" x 12" (4.0 mm x 30.5 cm)	3/16" x 12" (4.8 mm x 30.5 cm)	1/4" x 12" (6.5 mm x 30.5 cm)	5/16" x 12" (8.0 mm x 30.5 cm)	3/8" x 12" (9.5 mm x 30.5 cm)	1/2" x 14" (12.7 mm x 35.6 cm)
1/8" (3.2 mm)	65" (165 cm)	70" (178 cm)	81" (206 cm)	NR	NR	NR
5/32" (4.0 mm)	57" (145 cm)	65" (165 cm)	70" (178 cm)	81" (206 cm)	NR	NR
3/16" (4.8 mm)	NR	57" (145 cm)	66" (168 cm)	72" (183 cm)	82" (208 cm)	NR
1/4" (6.4 mm)	NR	46" (117 cm)	58" (147 cm)	66" (168 cm)	72" (183 cm)	112" (285 cm)
5/16" (8.0 mm)	NR	20" (51 cm) – 2P	46" (117 cm)	58" (147 cm)	59" (150 cm)	100" (254 cm)
3/8" (9.5 mm)	NR	12" (30 cm) – 2P	24" (61 cm) – 2P	47" (119 cm)	59" (150 cm)	88" (224 cm)
1/2" (12.7 mm)	NR	NR	14" (36 cm) – 2P	26" (66 cm) – 2P	47" (119 cm)	73" (185 cm)
5/8" (15.9 mm)	NR	NR	NR	16" (41 cm) – 2P	26" (66 cm) – 2P	57" (145 cm)
3/4" (19.05 mm)	NR	NR	NR	NR	16" (41 cm) – 2P	43" (109 cm)
7/8" (22.0 mm)	NR	NR	NR	NR	NR	35" (89 cm) – 2P
1" (25.4 mm)	NR	NR	NR	NR	NR	28" (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" x 14" (7.9 mm x 35.6 cm)	3/8" x 17" (9.5 mm x 43.2 cm)	1/2" x 17" (12.7 mm x 43.2 cm)
5/32" (4.0 mm)	160" (406 cm)	NR	NR
3/16" (4.8 mm)	142" (361 cm)	206" (523 cm)	NR
1/4" (6.4 mm)	125" (318 cm)	172" (437 cm)	260" (660 cm)
5/16" (7.9 mm)	112" (284 cm)	150" (310 cm)	188" (478 cm)
3/8" (9.5 mm)	84" (213 cm)	136" (345 cm)	157" (399 cm)
1/2" (12.7 mm)	72" (183 cm) – 2P	103" (262 cm)	140" (356 cm)
5/8" (15.9 mm)	48" (122 cm) – 2P	75" (191 cm) – 2P	102" (259 cm)
3/4" (19.05 mm)	NR	57" (145 cm) – 2P	90" (229 cm)
7/8" (22.0 mm)	NR	NR	80" (203 cm)
1" (25.4 mm)	NR	NR	72" (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

FEATURES & BENEFITS

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
22-023-003*	1/8" (3.2 mm) x 12" (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.
22-983-003	5/32" (4.0 mm) x 12" (30.5 cm) CCDC Pointed	
22-033-003	3/16" (4.8 mm) x 12" (30.5 cm) CCDC Pointed	
22-043-003	1/4" (6.4 mm) x 12" (30.5 cm) CCDC Pointed	
22-053-003	5/16" (7.9 mm) x 12" (30.5 cm) CCDC Pointed	
22-063-003	3/8" (9.5 mm) x 12" (30.5 cm) CCDC Pointed	
22-082-003	1/2" (12.7 mm) x 14" (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
21-983-003	5/32" (4.0 mm) x 12" (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.
21-033-003	3/16" (4.8 mm) x 12" (30.5 cm) DC Pointed	
21-043-003	1/4" (6.4 mm) x 12" (30.5 cm) DC Pointed	
21-053-003	5/16" (7.9 mm) x 12" (30.5 cm) DC Pointed	
21-063-003	3/8" (9.5 mm) x 12" (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
20-033-003	3/16" (4.8 mm) x 12" (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" long
20-043-003	1/4" (6.4 mm) x 12" (30.5 cm) CCAC Pointed	
20-063-003	3/8" (9.5 mm) x 12" (30.5 cm) CCAC Pointed	

FLAT COPPERCLAD DC ELECTRODES

Part No.	Description	Application
35-099-003	3/8" (9.5 mm) x 3/16" (4.8 mm) x 12" (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.
35-033-003	5/8" (15.9 mm) x 3/16" (4.8 mm) x 12" (30.5 cm) CCDC Flat	

Note: Standard 50 pieces per carton unless noted

HALF ROUND COPPERCLAD DC ELECTRODES

Part No.	Description	Application
25-103-003	5/8" (15.9 mm) x 5/16" (7.9 mm) x 12" (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
24-052-003	5/16" (7.9 mm) x 14" (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.
24-062-003	3/8" (9.5 mm) x 14" (35.6 cm) CCDC Jointed	
24-064-003	3/8" (9.5 mm) x 17" (43.2 cm) CCDC Jointed	
24-082-003	1/2" (12.7 mm) x 14" (30.5 cm) CCDC Jointed	
24-084-003	1/2" (12.7 mm) x 17" (43.2 cm) CCDC Jointed	
24-104-003	5/8" (15.9 mm) x 17" (43.2 cm) CCDC Jointed	
24-124-003	3/4" (19.05 mm) x 17" (43.2 cm) CCDC Jointed	

Note: Standard 100 pieces per carton unless noted

CUTSKILL ELECTRODES

POINTED COPPERCLAD DC ELECTRODES

Part No.	Description	Application
22-033-003C	3/16" (4.8 mm) x 12" (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.
22-043-003C	1/4" (6.4 mm) x 12" (30.5 cm) CCDC Pointed	
22-053-003C	5/16" (7.9 mm) x 12" (30.5 cm) CCDC Pointed	
22-063-003C	3/8" (9.5 mm) x 12" (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
22-033-003HC	3/16" (4.8 mm) x 12" (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.
22-043-003HC	1/4" (6.4 mm) x 12" (30.5 cm) CCDC Pointed	
22-053-003HC	5/16" (7.9 mm) x 12" (30.5 cm) CCDC Pointed	
22-063-003HC	3/8" (9.5 mm) x 12" (30.5 cm) CCDC Pointed	
22-082-003HC	1/2" (12.7 mm) x 14" (35.6 cm) CCDC Pointed	

Note: Standard 50 pieces per carton

JOINTED COPPERCLAD DC ELECTRODES

Part No.	Description	Application
24-064-003C	3/8" (9.5 mm) x 17" (43.2 cm) CCDC Jointed	Provides continuous electrode feed for greatly increased savings, especially in production operations.
24-084-003C	1/2" (12.7 mm) x 17" (43.2 cm) CCDC Jointed	
24-104-003C	5/8" (15.9 mm) x 17" (43.2 cm) CCDC Jointed	
24-124-003C	3/4" (19.05 mm) x 17" (43.2 cm) CCDC Jointed	
24-164-003C*	1" (25.4 mm) x 17" (43.2 cm) CCDC Jointed	

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

ELECTRODES

WELDING CARBON PRODUCTS

Carbon Plates and Carbon Rods

FEATURES & BENEFITS

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



CARBON PLATE

Part No.	Description
48-043-012	1/4" (6.4 mm) x 12" (30.5 cm) x 12" (30.5 cm)
48-063-012	3/8" (9.5 mm) x 12" (30.5 cm) x 12" (30.5 cm)
48-083-012	1/2" (12.7 mm) x 12" (30.5 cm) x 12" (30.5 cm)
48-123-012	3/4" (19.05 mm) x 12" (30.5 cm) x 12" (30.5 cm)
48-163-012	1" (25.4 mm) x 12" (30.5 cm) x 12" (30.5 cm)

CARBON ROD

Part No.	Description
47-123-000	3/4" (19.05 mm) x 12" (30.5 cm)
47-143-000	7/8" (22.23 mm) x 12" (30.5 cm)
47-164-000	1" (25.4 mm) x 12" (30.5 cm)
47-183-000	1-1/8" (28.6 mm) x 12" (30.5 cm)
47-203-000	1-1/4" (31.8 mm) x 12" (30.5 cm)
47-243-000	1-1/2" (38.1 mm) x 12" (30.5 cm)
47-323-000	2" (50.8 mm) x 12" (30.5 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.



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

- Redesigned Torch Head with an extended front end – gives the operator better view of the weld seam that’s being back-gouged
- 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

Part No.	Description
65-991-015	Includes Remote Pendant, Control Box, Torch Head, Air Regulator and Electrode Tube Holder

SYSTEM CABLE ASSEMBLY OPTIONS*

Part No.	Description
110V AC POWER SUPPLY CABLE	
96-130-304	10 ft (3 m)
220V AC POWER SUPPLY CABLE	
96-130-305	10 ft (3 m)
PENDANT CABLE ASSEMBLY	
96-170-069	14" (0.36 m)
96-170-070	15 ft (5 m)
96-170-071	25 ft (8 m)
96-170-072	50 ft (15 m)
MOTOR CABLE ASSEMBLY	
96-130-335	3 ft (0.9 m)
96-130-336	15 ft (5 m)
96-130-337	25 ft (8 m)
96-130-338	50 ft (15 m)
POWER SUPPLY COMMUNICATION CABLE ASSEMBLY	
96-130-339	15 ft (5 m)
96-130-340	25 ft (8 m)
96-130-341	50 ft (15 m)
DC POWER CABLES	
96-130-254	4 ft (1.2 m)
96-130-256	15 ft (5 m)
96-130-300	25 ft (8 m)
NOTE: Minimum 2 Power Cables Required	
AIR HOSE ASSEMBLY	
94-396-051	4 ft (1.2 m)
94-396-049	15 ft (5 m)
94-396-048	25 ft (8 m)

*Must be ordered separately

ALL POSITION TRAVEL SYSTEMS

Arcair®, the industry leader in air carbon-arc products joined together with leading travel system manufactures to bring to the market 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 since both incorporates an aluminum track that guides the tractor down the weld seam with ability to keep the Arcair-Matic N7500 torch head on track by mechanical rack device.

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



BUG-O TRAVEL SYSTEM SPECIFICATIONS

Description	Part No.*	Carriage	Master Drive Unit	Arc Gouging Control Module	Arcair Mounting Group	Cable Mounting Assembly	Rail	On/Off Magnet
Rigid - 110 VAC	71-023-140	MPD-1065 (12" Releaseable Carriage)	MPD-1000 (110 VAC)	AGS-1002	AGS-4172	BUG-2975	ARR-1080 (Heavy-Duty Aluminum Rail)	ARM-2010 (5 Magnets)
Rigid - 220 VAC	71-023-141	MPD-1065 (12" Releaseable Carriage)	MPD-1002 (220 VAC)	AGS-1002	AGS-4172	BUG-2975	ARR-1080 (Heavy-Duty Aluminum Rail)	ARM-2010 (5 Magnets)
Flex - 110 VAC	71-023-142	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)
Flex - 220 VAC	71-023-143	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



GULLCO TRAVEL SYSTEM SPECIFICATIONS

Description	Part No.*	Carriage	Rack Box	Rack Bar	Welding Gun Attachment	Track	Track Magnet Devices
Rigid - 110 VAC	71-023-144	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" Long Heavy Duty Square Rack Bar)	GK-165-047-2 (GULLCO 4-Motion Semi-Automatic Welding Gun Attachment)	GK-165-052-1 (GULLCO 96" Aluminum Alloy Standard Track)	GK-165-215 (6 GULLCO Track Magnet Devices)
Rigid - 220 VAC	71-023-145	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" Long Heavy Duty Square Rack Bar)	GK-165-047-2 (GULLCO 4-Motion Semi-Automatic Welding Gun Attachment)	GK-165-052-1 (GULLCO 96" Aluminum Alloy Standard Track)	GK-165-215 (6 GULLCO Track Magnet Devices)

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

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.

STRAIGHT LINE FLAT POSITION CARRIAGE

TITAN TRAVEL SYSTEM PACKAGES

For metal removal applications in the flat position only, Arcair offers a machine carriage system that can carry the complete Arcair-Matic N7500 system and can be easily lifted on and off the work surface with an overhead crane. The track section consists of a steel "T" bar, machined on each end to permit joining additional sections easily. The same machine carriage can come with "outrigger" wheels to guide the carriage down the work surface, ideal for bridge girder back-gouging applications.

ALL TRAVEL SYSTEMS INCLUDE A COMPLETE N7500 AUTOMATED GOUGING SYSTEM

- Remote Pendant (72-008-020)
- Control Box (72-008-021)
- Torch Head (05-124-001)
- Arcair Electrode Tube Holder (94-893-082)
- Arcair Air Regulator (71-000-073)

With the exception of the Power Communication Cable Assembly, all other System Cable Assemblies, 110V AC Power Cable, Pendant Cable, Motor Cable, DC Power Cable, and Air Hose Assemblies are included.



ARCAIR-MATIC AUTOMATIC GOUGING

Description	Part No.*	ARCAIR TITAN TRAVEL SYSTEM SPECIFICATIONS							
		Horizontal Rack Bar	Vertical Rack Bar	Outrigger Wheel Pkg	Track	Pointer Assembly	Magnet Supports	Cable-Hose Clamp	Lift Bracket
Titan Machine Carriage System Package with Track - 110 VAC	71-022-704	71-099-073	71-099-074	-	71-022-501 (Arcair 10 ft "T" Steel Track Section)	71-022-502	71-022-504 (3 Magnets)	71-022-506	94-111-168
Titan Machine Carriage System Package w/ Outrigger Wheel Package - 110 VAC	71-022-705	71-099-073	71-099-074	80345	-	-	-	71-022-506	94-111-168

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

TITAN WITH OUTRIGGER WHEEL PACKAGE



ARCAIR® TITAN MACHINE CARRIAGE

Ideal for any automated applications in metal fabrication operations where gouging, welding and cutting represents a large portion of your work schedule. And that applies to almost all metals, including stainless, carbon, manganese, and chrome-moly steels.

FLAT PLATE WORK

Arcair Titan Machine Carriage is designed for low maintenance and high performance in straight line operation such as automated air-carbon arc gouging, cutting or welding operations. Available in speed ranges from either 6 – 80 i.p.m. (15.2 – 203.2 cm/min)

SPECIFICATIONS:

- Length: 24" (61 cm)
- Width: 21" (53.3 cm)
- Height: 5-7/8" (14.9 cm)
- Weight: 61 lbs (27.7 kg)

WEIGHT CAPACITY:

Flat Position: 300 lbs (136.1 kg)

MOUNTING AREA:

254 Sq inches (1,639 sq cm)



TITAN® MACHINE CARRIAGE

Part No.	Description
71-022-501	Titan Machine Carriage - 6-80 ipm (110 VAC, 60 Hz)

ACCESSORIES

TRACK ASSEMBLY

Part No.	Description
71-022-502	Track Section 10 ft (3 m) Long

MAGNETIC AND SUPPORT BAR ASSEMBLY

(3 each required per 10 ft)

Part No.	Description
71-022-504	Magnet and Support Bar Assembly

ARCAIR HORIZONTAL & VERTICAL RACK BAR POSITIONERS

FEATURES & BENEFITS

RUGGEDNESS, RIGIDITY

- Made from heavy gauge aluminum and brass to operate under severe operating conditions

ACCURACY & EASE OF OPERATION

- Precision machined parts ensures accurate torch/tool positioning
- Positioners do not need to be disassembled to reposition or remove

HORIZONTAL RACK BAR POSITIONER

SPECIFICATIONS:

- Length: 26" (66.04 cm)
- Width: 4" (10.16 cm)
- Height: 9-5/8" (24.45 cm)
- Weight: 4.47 lbs (2.02 kg)



Part No.	Description
71-099-073	Horizontal Rack Bar Assembly

VERTICAL RACK BAR POSITIONER

SPECIFICATIONS:

- Width: 4-1/2" (11.43 cm)
- Height: 13-7/8" (35.24 cm)
- Depth: 6" (15.24 cm)
- Weight: 3.06 lbs (1.39 kg)



Part No.	Description
71-099-074	Vertical Rack Bar Assembly

SLICE® EXOTHERMIC CUTTING SYSTEM

FEATURES & BENEFITS

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

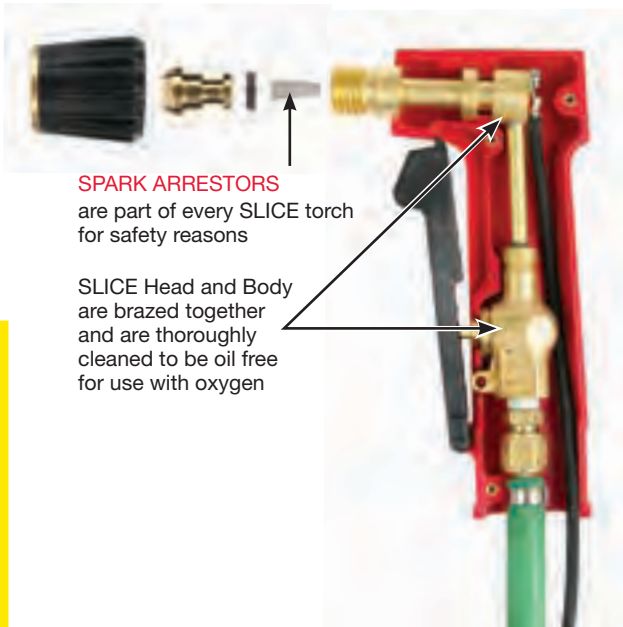
CARRY ALL CONVENIENCE

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



WATCH A VIDEO OF THE ARCAIR SLICE PACK IN ACTION AT WWW.ARCAIRSLICE.COM

SLICE EXOTHERMIC CUTTING TORCH



SPARK ARRESTORS are part of every SLICE torch for safety reasons

SLICE Head and Body are brazed together and are thoroughly cleaned to be oil free for use with oxygen

USE 1/4" & 3/8" DIAMETER of cutting rods by simply changing the collet nut and collet chuck

LIGHTWEIGHT SHIELD to help protect the operator from heat and sparks

EASY TO SQUEEZE LEVER on the handle for easy oxygen control

INDUSTRIAL GRADE OXYGEN HOSE 10 ft (3 m) length is standard



PISTOL GRIP designed handle is comfortable and easy to use

SLICE

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 can't 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're at proper depth or until you've 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" 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" diameter cutting rods and 11 to 12 cfm for the 3/8" 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" X 22" (6.4 X 559 mm)	40 - 45 seconds
1/4" X 44" (6.4 X 1118 mm)	80 - 90 seconds
3/8" X 18" (9.5 X 457 mm)	30 - 35 seconds
3/8" X 36" (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" x 22" 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
Stainless Steel	3/4	1.91	0.75	1.9	22	56
	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.

SLICE UTILITY PACK

Includes a rugged tool box carrying case. Power connections (12 volt battery only), tong style battery clamps makes power connection quick and easy. Industrial oxygen hose connected to the torch; industry standard "green" hose supplies the torch with oxygen, and standard fittings used to connect to oxygen regulators.



SYSTEM INCLUDES:

- Tool Box (94-134-049)
- SLICE Torch Assembly (03-003-001)
- SLICE Striker Assembly (72-012-002)
- Collet Extension Assembly – 6" (15.24 cm) (94-168-023)
- Extension Shield (94-777-111)
- Clamp (Red) (96-168-035)
- Clamp (Black) (96-168-036)

Part. No.	Description
63-991-026	SLICE Utility Pack

SLICE TORCH FOR USE WHEN CUTTING WITH WELDING CURRENT

(<200 amps)

Part. No.	Description
03-003-000	SLICE Torch Assembly

SLICE BATTERY PACK

Includes a rugged tool box carrying case. Power connections twist-lock style connection; easy to connect to battery box assembly for both torch and striker and color coded connectors. Industrial oxygen hose connected to the torch; industry standard "green" hose supplies the torch with oxygen, standard fittings used to connect to oxygen regulators, and color coded connections.



SYSTEM INCLUDES:

- Tool Box (94-134-047)
- SLICE Torch Assembly (03-003-006)
- SLICE Striker Assembly (72-012-002)
- Battery Box Assembly (96-076-021)
- Cutting Rod 1/4" x 22" (qty 25) (43-049-002)
- Collet Extension Assembly – 6" (15.24 cm) (94-168-023)
- Extension Shield (94-777-111)
- Charging Cable – 110 VAC/60 Hz (96-130-297)
- Charging Cable – 220 VAC/50 Hz (96-130-296)

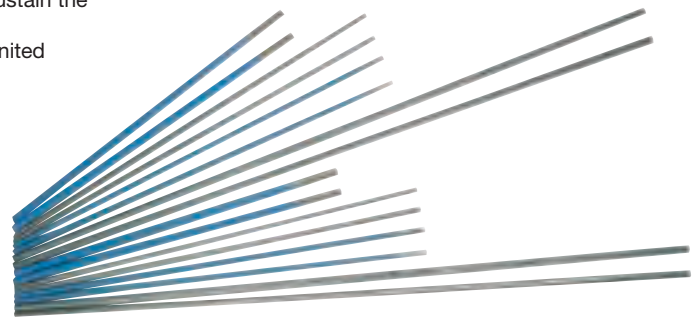
Part No.	Description
63-991-003	SLICE Battery Pack 110 VAC @60 Hz
63-991-007	SLICE Battery Pack 220 VAC @50 Hz

SLICE EXOTHERMIC CUTTING RODS

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

Uncoated Part No.	Flux Coated Part No.	Description
43-049-002	42-049-002	1/4" x 22" (6.4 mm x 55.9 cm) 25 each /carton
43-049-003	42-049-003	1/4" x 22" (6.4 mm x 55.9 cm) 100 each /carton
43-049-005	–	1/4" x 44" (6.4 mm x 111.8 cm) 25 each /carton
43-049-007	42-049-005	3/8" x 18" (9.5 mm x 45.7 cm) 50 each / carton
43-049-009	–	3/8" x 36" (9.5 mm x 91.4 cm) 25 each / carton



Part No.	Description
94-463-032	3/8" Collet Conversion Kit

SLICE INDUSTRIAL PACK

Versatility for industrial type applications. Industrial cart capable of carrying a 9" diameter oxygen cylinder. Packed with the basic items needed to do a cutting job; SLICE Torch Assembly – 10 ft leads, striker assembly, oxygen regulator, battery charger, and cutting rod holder. Industrial oxygen hose connected to the torch; industry standard "green" hose supplies the torch with oxygen and standard fittings used to connect to oxygen regulators.

SYSTEM INCLUDES:

- Storage Case
- SLICE Torch Assembly (03-003-001)
- SLICE Striker Assembly (72-012-002)
- Battery Charger (96-156-003)
- Cutting Rod 1/4" x 22" (qty 25) (43-049-002)
- Collet Extension Assembly – 6" (15.24 cm) (94-168-023)
- Extension Shield (94-777-111)
- Rod Holder
- Outfit Wrench – Hose Nut and Regulator Nut
- Outfit Wrench – Oxygen Hose Nut and Male Adapter
- Clamp Assembly (Red) (96-168-035)
- Clamp Assembly (Black) (96-168-036)
- 12" Rubber Tie Down



Part. No.	Description
63-991-021	SLICE Industrial Pack



SLICE COMPLETE PACK

Rugged aluminum carrying case; packed with the basic items needed to do a cutting job. Self-contained cutting system lends itself well to the emergency type cutting situations where seconds count. Complete unit weighs 75 lbs (34 kg). Storage compartment with hinged door for parts storage during transportation. Power connections twist-lock style connection; easy to connect to battery box assembly for both torch and striker and color coded connectors. Industrial oxygen hose connected to the torch; industry standard "green" hose supplies the torch with oxygen. Standard fittings used to connect to oxygen regulators.



SYSTEM INCLUDES:

- Aluminum Case Assembly (94-134-034)
- SLICE Torch Assembly (03-003-006)
- SLICE Striker Assembly (72-012-002)
- Battery Box Assembly (96-076-021)
- Cutting Rod 1/4" x 22" (qty 25) (43-049-002)
- Collet Extension Assembly – 6" (15.24 cm) (94-168-023)
- Extension Shield (94-777-111)
- Spacer
- 10" Rubber Tie Down
- Oxygen Regulator (0799-1607)
- Oxygen Cylinder 55 cu ft (94-208-002)
- Charging Cable – 110 VAC/60 Hz (96-130-297)
- Charging Cable – 220 VAC/50 Hz (96-130-296)
- Outfit Wrench – Hose Nut and Regulator Nut
- Outfit Wrench – Oxygen Hose Nut and Male Adapter

Part. No.	Description
63-991-002	SLICE Complete Pack 110 VAC @60 Hz
63-991-005	SLICE Complete Pack 220 VAC @50 Hz

NOTE: 220 VAC system does not include oxygen cylinder and regulator

SEA TORCH® "COMBINATION TORCH"

Underwater Cutting Torch & Welding Torch

FEATURES & BENEFITS

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:

- Equipped with 10 ft (3 m) power cable
- Length: 8-3/4" (22.2 cm)
- Weight: 4.5 lbs (2.04 kg) with cable



Part No.	Description
14-050-124	Sea Torch 5/16" (7.9 mm) Cutting Collet
14-050-126	Sea Torch 3/8" (9.5 mm) Cutting Collet



UNDERWATER CUTTING ELECTRODES

FEATURES & BENEFITS

OXYGEN-ARC AND EXOTHERMIC CUTTING ELECTRODES

- Oxygen-arc cutting electrodes requires current to be present during the cutting process
- 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



SEA-CUT® CUTTING ELECTRODES

"Oxygen-Arc Process" (50 per carton)

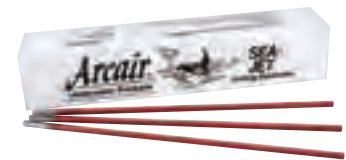
Part No.	Diameter	Length
42-059-007	5/16" (7.9 mm) - .113" ID (2.9 mm)	14" (45.7 cm)



TUFF-COTE® CUTTING ELECTRODES FLUX COATED

"Oxygen-Arc Process" (50 per carton)

Part No.	Diameter	Length
42-059-008	5/16" (7.9 mm) - .113" ID (2.9 mm)	14" (45.7 cm)



SEA-JET® CUTTING ELECTRODES

"Exothermic Process" (50 per carton)

Part No.	Diameter	Length
42-066-006	3/8" (9.5 mm)	18" (45.7 cm)



SEA-DRAGON™ CUTTING ELECTRODES

"Exothermic Process" (50 per carton)

Part No.	Diameter	Length
42-075-005	3/8" (9.5 mm)	18" (45.7 cm)

SEA-STINGER® II TORCH

Underwater Welding Torch



FEATURES & BENEFITS

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:

- Equipped with 10 ft (3 m) Power Cable
- Length: 6" (15.24 cm)
- Weight: 3.65 lbs (1.66 kg) with cable

Part. No.	Description
14-050-128	Sea-Stinger II Torch

UNDERWATER WELDING ELECTRODES

FEATURES & BENEFITS

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



SEA-WELD® WELDING ELECTRODES

Part No.	Electrode Size	Per Carton
42-024-002	1/8" (3.2 mm) x 14" (35.6 cm)	150
42-984-004	5/32" (4.0 mm) x 14" (35.6 cm)	100
42-034-007	3/16" (4.8 mm) x 14" (35.6 cm)	75

ARCWATER® II TORCH

Underwater Gouging Torch

FEATURES & BENEFITS

DESIGNED FOR UNDERWATER GOUGING OPERATIONS

- Similar to gouging above water with the exception of using a high velocity of pressurized water in place of compressed air
- Uses sea water at 90 psi (6.32 kg/cm² or 620 kPa) over the pressure at the depth of use
- Minimum water flow rate of 3.5 gallons (13.25 liters) per minute required

OXYGEN FREE

- Eliminates the risk of hydrogen gas pocket explosions

EASY TO USE

- Handle can be used left or right handed divers
- Used out-of position

CONVERTS INTO A WELDING TORCH EASILY

- Simply change out the collet to except welding electrodes

SPECIFICATIONS:

- Equipped with 10 ft (3 m) Power Cable
- Length: 9-3/4" (22.2 cm)
- Weight: 5.5 lbs (2.5 kg)



UNDERWATER

Part. No.	Description
14-050-127	Arcwater II Torch

UNDERWATER GOUGING ELECTRODES



ARCWATER® GOUGING ELECTRODES

(50 Per carton)

Part No.	Diameter	Amperage	Length
42-059-006	5/16" (7.9 mm)	350 - 450	9" (22.9 cm)

PROTEX® PRODUCT LINE

PROTEX



PROTEX® ORIGINAL ANTI-SPATTER

FEATURES & BENEFITS

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



Container Size	Part No.
1 Gallon (3.8 L) - Case of 4	53-011-000
5 Gallon (19 L)	53-015-000
55 Gallon (208 L) Drum	53-018-000

PROTEX EXTRA ANTI-SPATTER

FEATURES & BENEFITS

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



Container Size	Part No.
24 oz (710 mL) - Case of 12	53-024-500
1 Gallon (3.8 L) - Case of 4	53-014-500
5 Gallon (19 L)	53-015-500
55 Gallon (208 L) Drum	53-018-500

PROTEX

PROTEX CLEAR ANTI-SPATTER

FEATURES & BENEFITS

PROTECTS SURFACES FROM SPATTER, SLAG, AND SCALE

- Dries clear and provides a tough finish
- Spray or brush onto the surface

PROTECTS AGAINST RUST

- Latex base anti-spatter compound that coats the surface and can be left on for lasting protection
- Remove with industrial solvent or an ammonia solution



Container Size	Part No.
1 Gallon (3.8 L) - Case of 4	53-014-201
5 Gallon (19 L)	53-015-201
55 Gallon (208 L) Drum	53-018-201

PROTEX PLUS ANTI-SPATTER

FEATURES & BENEFITS

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

Container Size	Part No.
16 oz (473 mL) Can - Case of 12	57-021-106



PROTEX ZINC RICH COLD GALVANIZING

FEATURES & BENEFITS

CORROSION PROTECTION

- Its zinc content “sacrifices” itself to any metal higher (nobler) than zinc in the chemistry’s periodic table such as steel
- Forms a chemical bond to the parent metal

Container Size	Part No.
16 oz (473 mL) Can - Case of 12	57-031-002



Protex Tip-Dip Anti-Spatter

FEATURES & BENEFITS

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



Container Size	Part No.
16 oz (454 gr) Jar - Case of 12	57-021-105

Protex Alclean

FEATURES & BENEFITS

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.



Container Size	Part No.
1 Quart (946 mL) - Case of 12	57-021-200
1 Gallon (3.8 L) - Case of 4	57-014-000

PROTEX

LIMITED WARRANTY: ESAB warrants that its products will be free of defects in workmanship or material. Should any failure to conform to this warranty appear within the time period applicable to the ESAB products as stated below, ESAB shall, upon notification thereof and substantiation that the product has been stored, installed, operated, and maintained in accordance with ESAB's specifications, instructions, recommendations and recognized standard industry practice, and not subject to abuse, misuse, neglect, alteration, accident, improper care and/or maintenance including lack of lubrication and protection from the elements, use of non ESAB genuine parts including consumables; will correct such defects by suitable repair or replacement, at ESAB's sole option, of any components or parts of the product determined by ESAB to be defective.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

LIMITATION OF LIABILITY: ESAB shall not under any circumstances be liable for special or consequential damages, such as, but not limited to, damage or loss of purchased or replacement goods, or claims of customers of distributor (hereinafter "Purchaser") for service interruption.

The remedies of the Purchaser set forth herein are exclusive and the liability of ESAB with respect to any contract, or anything done in connection therewith such as the performance or breach thereof, or from the manufacture, sale, delivery, resale, or use of any goods covered by or furnished by ESAB whether arising out of contract, negligence, strict tort, or under any warranty, or otherwise, shall not, except as expressly provided herein, exceed the price of the goods upon which such liability is based.

THIS WARRANTY BECOMES INVALID IF REPLACEMENT PARTS OR ACCESSORIES ARE USED WHICH MAY IMPAIR THE SAFETY OR PERFORMANCE OF ANY ESAB PRODUCT.

THIS WARRANTY IS INVALID IF THE PRODUCT IS SOLD BY NON-AUTHORIZED PERSONS.

The warranty is effective for the time stated below beginning on the date that the authorized distributor delivers the products to the Purchaser. Notwithstanding the foregoing, in no event shall the warranty period extend more than the time stated plus 1 year from the date ESAB delivered the product to the authorized distributor.

1 YEAR PARTS AND LABOR UNLESS SPECIFIED

Arcair® N7500 (No Labor)

30 DAYS PARTS / NO LABOR

All Other Products

ESAB limited warranty shall not apply to: Consumable Parts for MIG, TIG, Plasma welding, Plasma cutting and Oxyfuel torches, O-rings, fuses, filters or other parts that fail due to normal wear.

* Warranty repairs or replacement claims under this limited warranty must be submitted by an authorized ESAB repair facility within thirty (30) days of the repair.

* No employee, agent, or representative of ESAB is authorized to change this warranty in any way or grant any other warranty, and ESAB shall not be bound by any such attempt. Correction of non-conformities, in the manner and time provided herein, constitutes fulfillment of ESAB's obligations to purchaser with respect to the product.

* This warranty is void, and seller bears no liability hereunder, if purchaser used replacement parts or accessories which, in ESAB's sole judgment, impaired the safety or performance of any ESAB product. Purchaser's rights under this warranty are void if the product is sold to purchaser by unauthorized persons.

**ISO 9001
REGISTERED FIRM**

The Quality System of ESAB
at our Denton, Roanoke,
West Lebanon and Hermosillo
locations is registered to meet
the requirements of ISO 9001

*U.S. Customer Care: 800-426-1888 / FAX 800-535-0557 • Canada Customer Care: 905-827-4515 / FAX 800-588-1714
International Customer Care: 940-381-1212 / FAX 940-483-8178 • CIGWELD Customer Care: 1 300-654-674 / FAX 61-3-9474-7391*
