

# Arcair<sup>®</sup>

Gouging Torches  
& Accessories Catalog

THE FIRST NAME IN ARC GOUGING

[thermadyne.com/arcair](http://thermadyne.com/arcair)

*Arcair*

# **ARCAIR LINE OF PERFORMANCE-PROVEN MANUAL TORCHES**



## **ARCAIR ADVANTAGE**

- Excellent performance with high productivity & low downtime
- Superior durability with long lasting torches
- Exceptional ease of use with operator appeal

## **MONEY SAVING AIR CARBON-ARC METAL REMOVAL PROCESS**

- Invented by Arcair
- Saves up to 75% over grinding, chipping and flame cutting

**THE NAME YOU THINK OF WHEN YOU THINK OF METAL REMOVAL**

**Manual Gouging Torches . . . . . 4-21**

**Automatic Gouging Torch. . . . . 22-27**

**Travel Systems & Accessories . . . . . 28-33**

**Air Carbon-Arc Electrodes . . . . . 34-36**

**Exothermic Torch & Packages . . . . . 37-45**

**Underwater Torches & Accessories . . . . . 46-49**

**Anti-Spatter Chemicals . . . . . 50-51**

**CutSkill Gouging Torches . . . . . 52-54**

**Warranty . . . . . 55**

# Manual Gouging Torches



## FEATURES & BENEFITS

### Improved Torch Air Flow

- More efficient use of air supply.
- Improved metal removal.

### New Four Barrel Air Nozzle

- Optimizes air flow to the arc. Efficiently cleans slag from groove edge.

### Optimized Air Flow to Control Noise

- Allows usage in areas where noise cannot exceed 115 decibels. Able to use torch at lower air pressure and flow to obtain acceptable grooves.

### 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

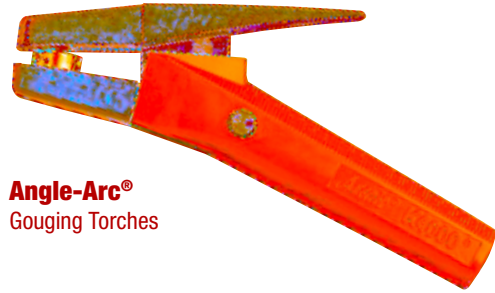
- Improves cable service life. Decreases heat build up in cable and torch.

### 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.



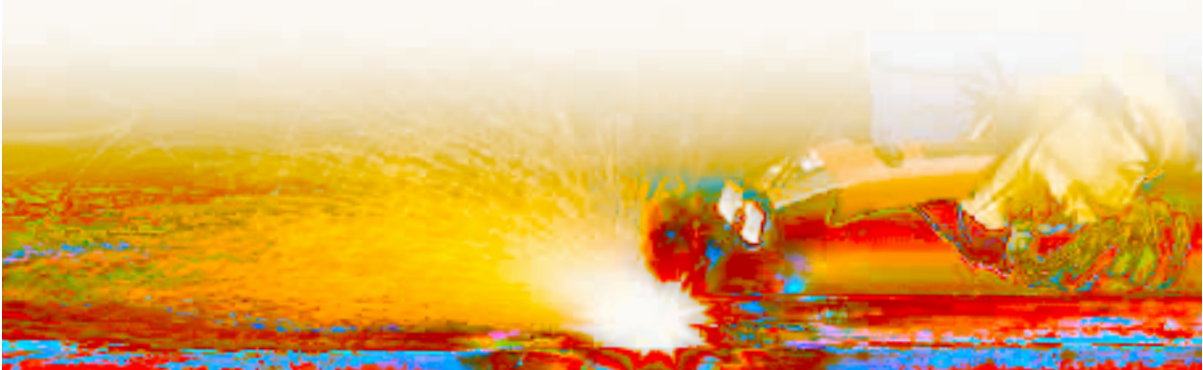
**Angle-Arc®**  
Gouging Torches



**K-Series**  
Gouging Torches



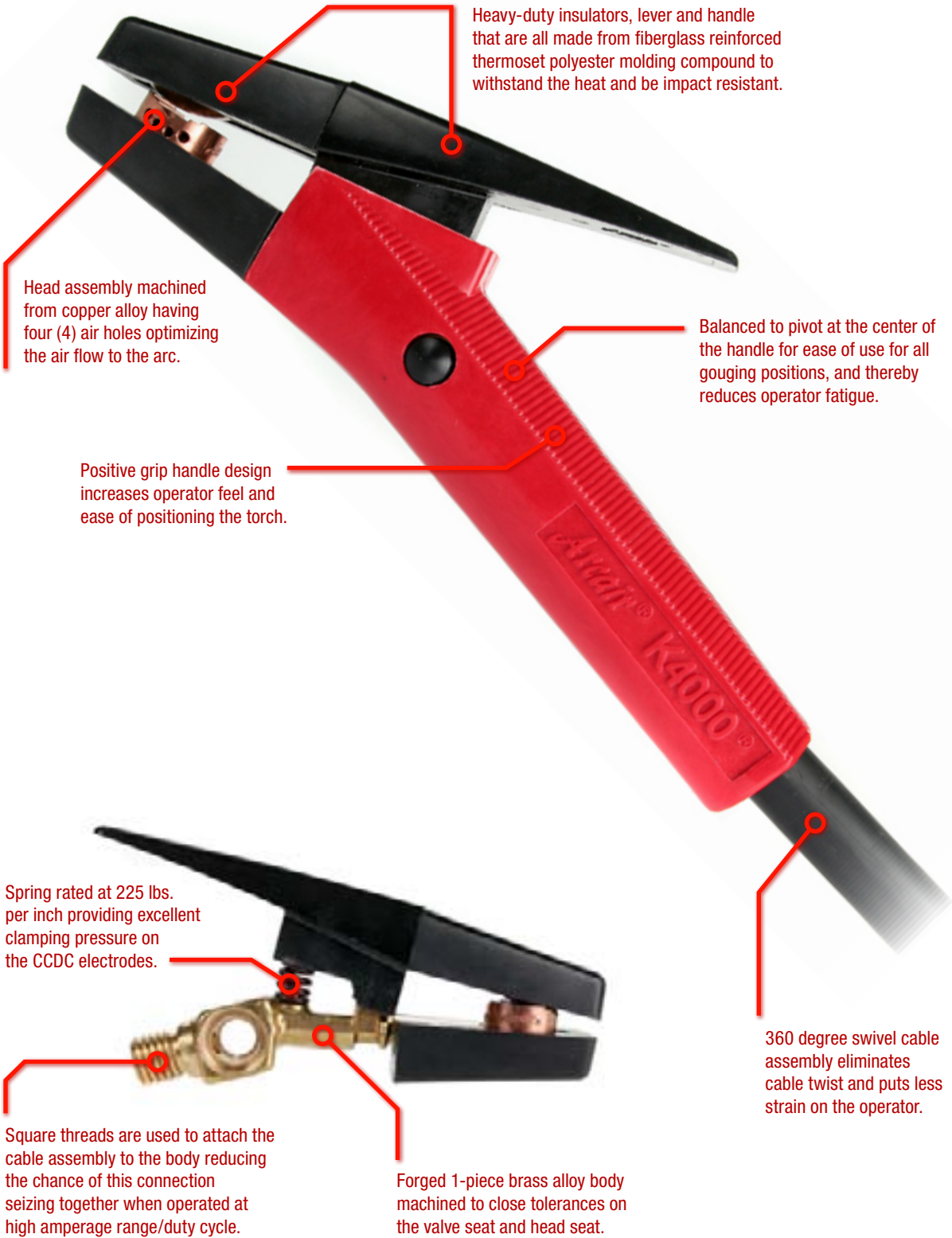
**Tri-Arc®**  
Gouging Torches



| GOUGING TORCH SELECTION GUIDE   |                |            |            |             |             |             |                     |
|---|----------------|------------|------------|-------------|-------------|-------------|---------------------|
| CCDC Electrode  | Amperage Range |            |            |             |             | Recommended | Alternate           |
|   | 90 – 450       | 450 - 1000 | 1000 -1400 | 1400 – 2000 | 2000 - 2400 |             |                     |
| 1/8" – 1/4" Round<br>(3.2mm – 6.4mm)<br>3/8" Flat<br>(9.5mm)                    | ■              |            |            |             |             | K2000™      |                     |
| 5/32" – 3/8" Round<br>(4.0mm – 9.5mm)<br>3/8" & 5/8" Flats<br>(9.5mm & 15.9mm)  | ■              |            |            |             |             | K3000™      | K2000™,<br>K-3, H-3 |
| 5/32" – 1/2" Round<br>(4.0mm – 12.7mm)<br>3/8" & 5/8" Flats<br>(9.5mm & 15.9mm) | ■              |            |            |             |             | K4000®      | K3000™              |
| 5/32" – 5/8" Round<br>(4.0mm – 15.9mm)<br>3/8" & 5/8" Flats<br>(9.5mm & 15.9mm) | ■              |            |            |             |             | K-5         | K4000™,<br>Tri-Arc® |
| 5/16" – 1" Round<br>(7.9mm – 19.5mm)  | ■              |            |            |             |             | Tri-Arc®    |                     |

| WHICH TORCH IS RIGHT FOR YOU? |                       |              |                                    |                              |                      |                                |             |   |
|-------------------------------|-----------------------|--------------|------------------------------------|------------------------------|----------------------|--------------------------------|-------------|---|
|                               | Amperage<br>(Maximum) | Swivel Cable | Concentric Cable<br>Lengths (Feet) | Air-Cooled<br>Water-Cooled   | Handle Design        | Body/Upper Arm<br>Construction | Application | Special Features  |
| K2000™                        | 450                   | 360°         | 7ft. &<br>10ft.                    | Air-Cooled                   | Small &<br>Ergonomic | Aluminum                       | Light Duty  | All aluminum torch parts including head assembly having 4-hole design                                     |
| K3000™                        | 600                   | 360°         | 7ft. &<br>10ft.                    | Air-Cooled                   | Small &<br>Ergonomic | Brass                          | Medium Duty | All brass torch parts with a copper head assembly having 4-hole design                                    |
| K4000®                        | 1000                  | 360°         | 7ft. &<br>10ft.                    | Air-Cooled                   | Small &<br>Ergonomic | Brass                          | Heavy Duty  | All brass torch parts with a copper head assembly having 4-hole design                                    |
| K-3                           | 600                   | 360°         | 7ft. &<br>10ft.                    | Air-Cooled                   | Straight             | Brass                          | Medium Duty | All brass torch parts with a copper head assembly having 4-hole design                                    |
| H-3                           | 600                   | 360°         | 7ft.                               | Air-Cooled                   | Straight             | Brass                          | Medium Duty | All brass torch parts with a copper head assembly having 4-hole design                                    |
| K-5                           | 1250                  | 340°         | 7ft. &<br>10ft.                    | Air-Cooled                   | Straight             | Brass                          | Heavy Duty  | All brass torch parts with a copper head assembly having 4-hole design                                    |
| Tri-Arc®                      | 2200                  | 340°         | 7ft. &<br>10ft.                    | Air-Cooled &<br>Water-Cooled | Straight             | Copper                         | Heavy Duty  | Versatility with three (3) different head assemblies to choose from to meet any metal removal application |

## K4000® ANGLE-ARC® MANUAL GOUGING TORCH



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.

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.

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

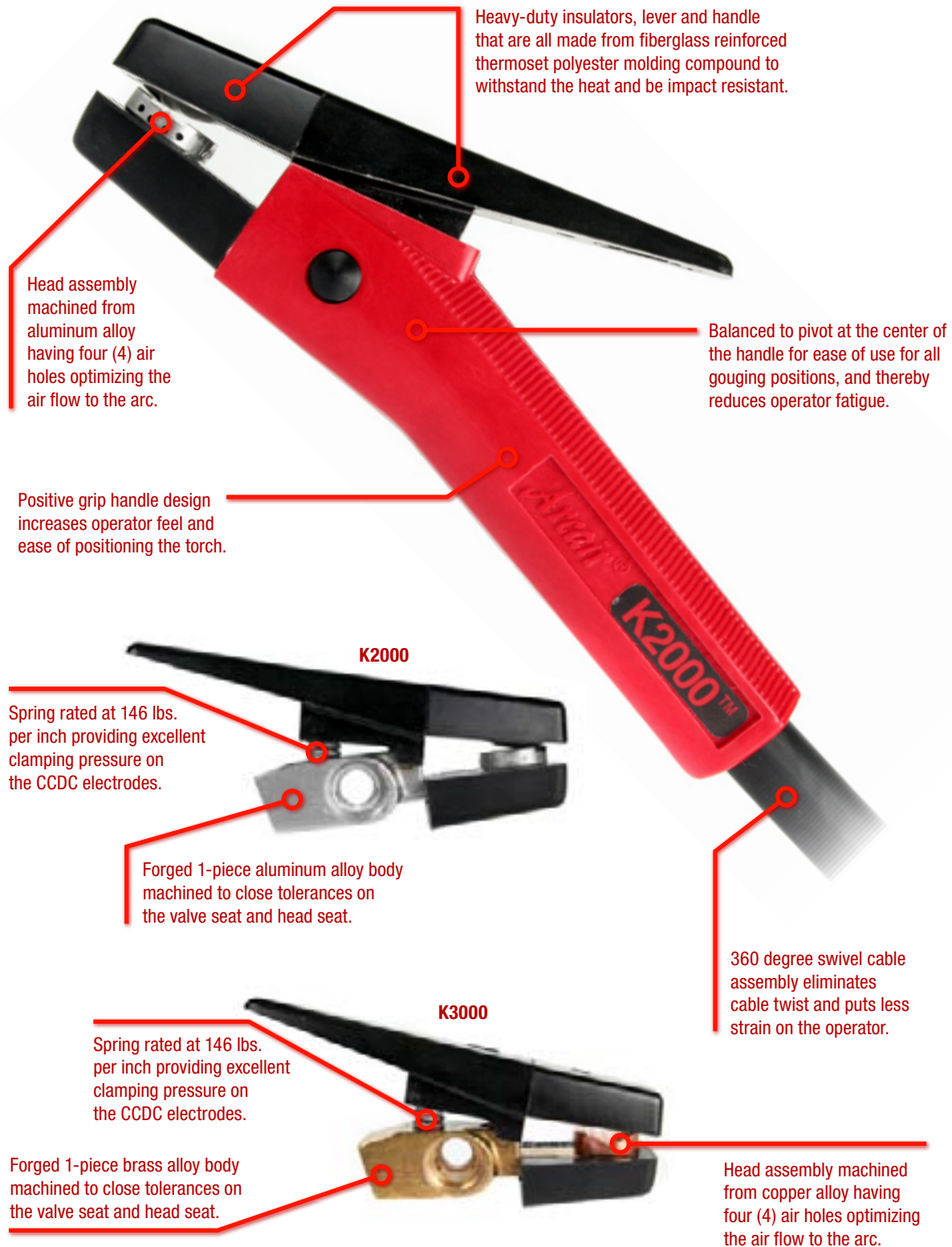
Spring rated at 225 lbs. per inch providing excellent clamping pressure on the CCDC electrodes.

Square threads are used to attach the cable assembly to the body reducing the chance of this connection seizing together when operated at high amperage range/duty cycle.

Forged 1-piece brass alloy body machined to close tolerances on the valve seat and head seat.

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

## K2000™ & K3000™ ANGLE-ARC® MANUAL GOUGING TORCH



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.

Head assembly machined from aluminum 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.

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

K2000

Spring rated at 146 lbs. per inch providing excellent clamping pressure on the CCDC electrodes.

Forged 1-piece aluminum alloy body machined to close tolerances on the valve seat and head seat.

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

K3000

Spring rated at 146 lbs. per inch providing excellent clamping pressure on the CCDC electrodes.

Forged 1-piece brass alloy body machined to close tolerances on the valve seat and head seat.

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

## 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



**K4000**

### ANGLE-ARC® MANUAL GOUGING TORCHES

|       | Torch Only | Torch w/7ft. (2.1M) 360° Swivel Cable | Torch w/7ft. (2.1M) 360° Swivel Cable & Insulated Hook-Up Kit | Torch w/10ft. (3M) 360° Swivel Cable | Torch w/10ft. (3M) 360° Swivel Cable & Insulated Hook-Up Kit |
|-------|------------|---------------------------------------|---|--------------------------------------|--|
| K2000 | 01-046-001 | 61-046-006                            | 61-046-002  | 61-046-007                           | 61-046-003   |
| K3000 | 01-065-001 | 61-065-006                            | 61-065-002  | 61-065-007                           | 61-065-003   |
| K4000 | 01-082-002 | 61-082-008                            | 61-082-006  | 61-082-009                           | 61-082-007   |

| Torch Model | Electrode Size (In./mm)                                   | Air Requirements |                    |     |        | Typical Application   |
|-------------|---|------------------|--------------------|-----|--------|---|
|             |   | P.S.I.           | KG/CM <sup>2</sup> | CFM | L/Min. |   |
| K2000™      | 1/8" - 1/4" Round (3.2mm - 6.4mm)<br>3/8" Flat (9.5mm)    | 40               | 2.8                | 8   | 227    | <b>Light Duty</b> - Small shops, body shops, farm, light maintenance, and where air supply is limited                         |
| K3000™      | 5/32" - 3/8" Round (4.0mm - 9.5mm)<br>5/8" Flat (15.9mm)  | 80               | 5.6                | 22  | 624    | <b>Medium Duty</b> - General repair and maintenance jobs in areas as mining, construction, and all types of metal fabrication |
| K4000®      | 5/32" - 1/2" Round (4.0mm - 12.7mm)<br>5/8" Flat (15.9mm) | 80               | 5.6                | 25  | 708    | <b>Heavy Duty</b> - Heavy metal removal applications such as weld preparations in pressure vessel shops and shipyards         |

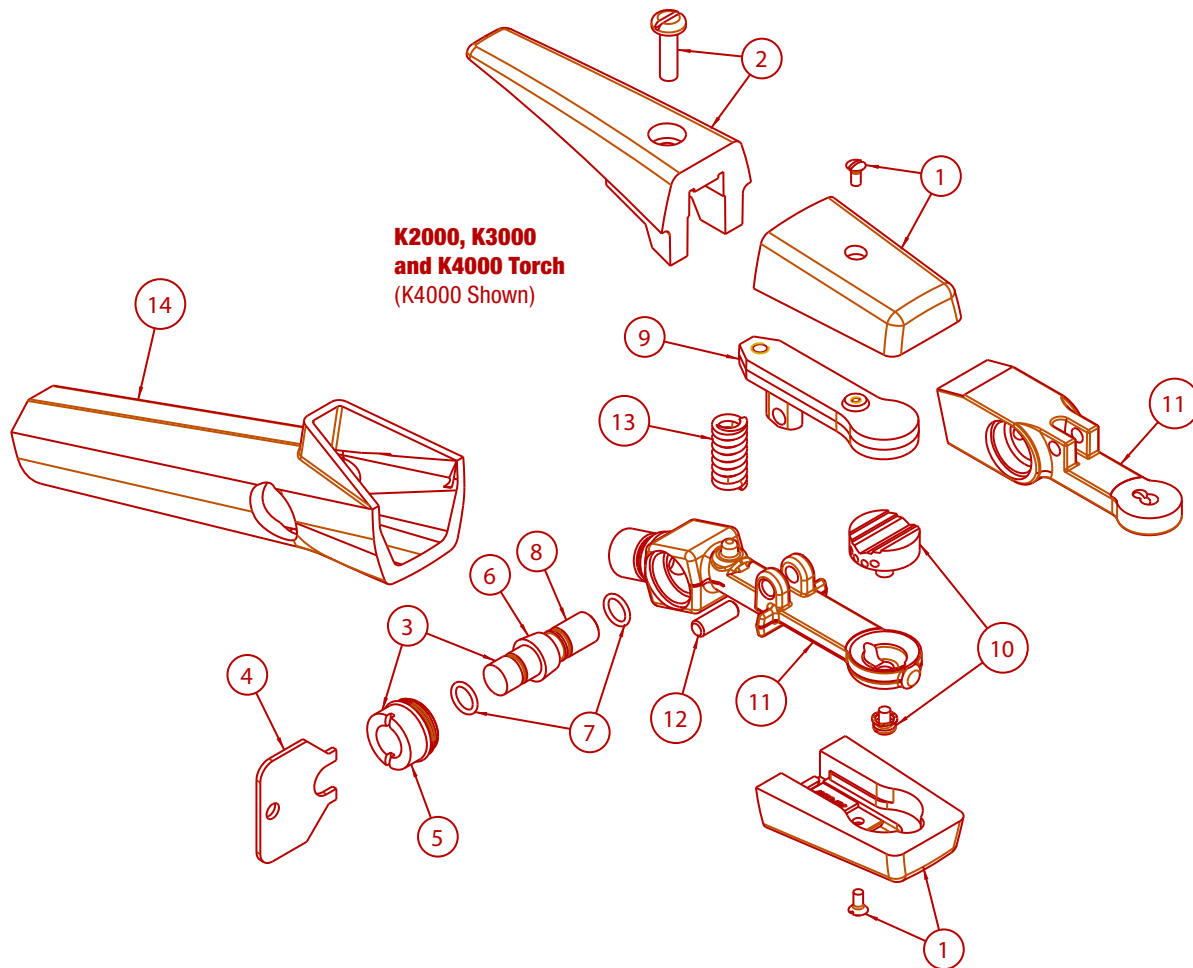
## SWIVEL CABLE ASSEMBLY OPTIONS

| SWIVEL CABLE ASSEMBLIES                |                |            |  |
|--|----------------|------------|--|
| Description                            | K2000<br>K3000 | K4000      |  |
| 7ft. (2.1M) 360° Swivel Cable Assembly | 70-088-107     | 70-084-207 |  |
| 10ft. (3M) 360° Swivel Cable Assembly  | 70-088-110     | 70-084-210 |  |





## K2000, K3000, & K4000 TORCH REPLACEMENT PARTS



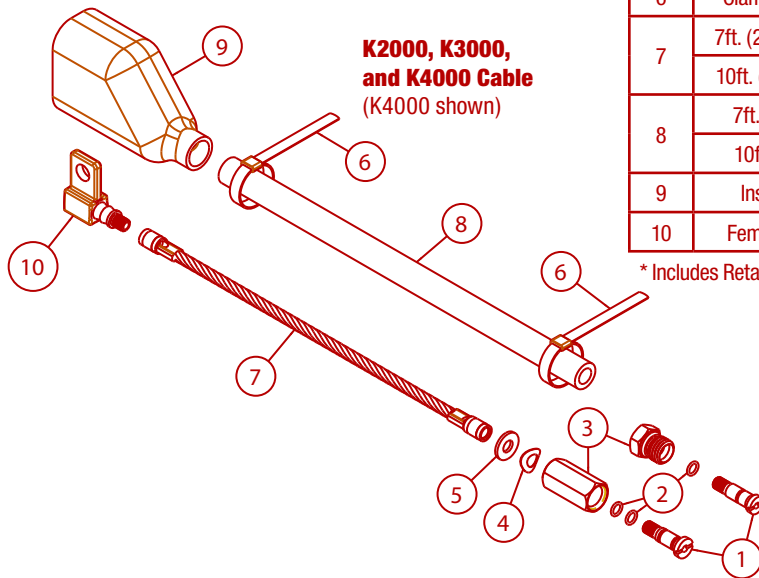
| TORCH REPLACEMENT PARTS LIST |                     |            |            |            |
|------------------------------|---------------------|------------|------------|------------|
| Item                         | Description         | K2000      | K3000      | K4000      |
| 1                            | Insulators & Screws | 94-433-193 | 94-433-193 | 94-433-183 |
| 2                            | Lever & Screw       | 94-476-080 | 94-476-080 | 94-476-066 |
| 3                            | Valve Bonnet        | 94-104-016 | 94-104-016 | 94-104-016 |
| 4                            | Bonnet Wrench       | 94-960-001 | 94-960-001 | 94-960-001 |
| 5                            | Bonnet Only         | 94-104-012 | 94-104-012 | 94-104-012 |
| 6                            | Spool & O-Rings     | 94-801-011 | 94-801-011 | 94-801-011 |
| 7                            | O-Ring              | 94-710-036 | 94-710-036 | 94-710-036 |
| 8                            | Spool Only          | 94-801-010 | 94-801-010 | 94-801-010 |
| 9                            | Upper Arm           | 94-048-119 | 94-048-120 | 94-048-088 |
| 10                           | Head & Screw        | 94-378-364 | 94-378-366 | 94-378-368 |
| 11                           | Torch Body          | 94-103-233 | 94-103-232 | 94-103-206 |
| 12                           | Hinge Pin           | 94-632-100 | 94-632-101 | 94-632-094 |
| 13                           | Spring              | 94-800-191 | 94-800-191 | 94-800-077 |
| 14                           | Handle              | 94-370-179 | 94-370-179 | 94-370-163 |

## K2000, K3000, & K4000 SWIVEL CABLE REPLACEMENT PARTS

### CABLE REPLACEMENT PARTS LIST

| Item | Description              | K2000 & K3000 | K4000        |
|------|--------------------------|---------------|--------------|
|      | 7ft. (2.1M) Swivel Cable | 70-088-107    | 70-084-207   |
|      | 10ft. (3M) Swivel Cable  | 70-088-110    | 70-084-210   |
| 1    | Retainer Screw           | 94-695-054    | 94-170-182 * |
| 2    | O-Ring                   | 94-710-027    |              |
| 3    | Connector                | 94-170-178    |              |
| 4    | Spring Washer            | 94-940-104    | 94-940-104   |
| 5    | Flat Washer              | 94-940-103    | 94-940-103   |
| 6    | Clamp (2 Required)       | 98-167-010    | 98-167-010   |
| 7    | 7ft. (2.1M) Conductor    | 96-130-314    | 96-130-263   |
|      | 10ft. (3M) Conductor     | 96-130-315    | 96-130-261   |
| 8    | 7ft. (2.1M) Cover        | 94-171-273    | 94-171-273   |
|      | 10ft. (3M) Cover         | 94-171-274    | 94-171-274   |
| 9    | Insulating Boot          | 94-105-014    | 94-105-014   |
| 10   | Female Connector         | 94-170-150    | 94-170-150   |

\* Includes Retainer Screw, O-Ring, and Connector



**K2000, K3000, and K4000 Cable**  
(K4000 shown)

## POWER & AIR HOOK-UP KIT

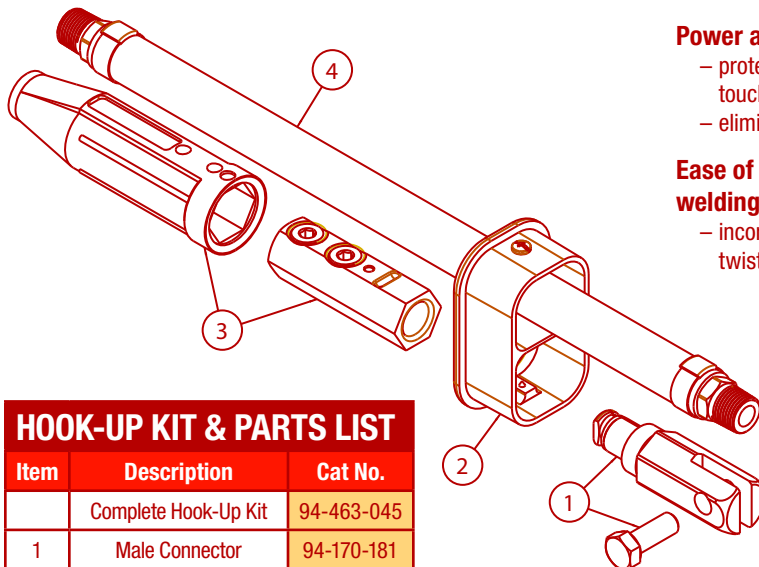
### FEATURES & BENEFITS

#### Power and air connection fully enclosed

- protects the electrical connection from touching the work when in operation
- eliminates the need to insulate with electrical tape

#### Ease of connecting the torch and cable to a welding power supply

- incorporates a Tweco Product manual twist lock connector (female)



### HOOK-UP KIT & PARTS LIST

| Item | Description             | Cat No.    |
|------|-------------------------|------------|
|      | Complete Hook-Up Kit    | 94-463-045 |
| 1    | Male Connector          | 94-170-181 |
| 2    | Cable Boot Cap          | 94-105-026 |
| 3    | 4-WPC-R Connector       | 4WPC-R     |
| 4    | Pigtail Air Supply Hose | 94-396-205 |



## #1 FOR A REASON

With 35 years of experience across all levels of the welding and cutting industries, Tom Wermert still has the same devotion for work as he did at age 20. "I just love the industry and what I do," he says.

As Product Line Manager for Thermadyne® Welding Products, Tom insists the products go through rigorous testing to ensure only the highest quality product makes it to the market. "Our customers expect the best performance and the most dependable welding and cutting products, and it's my job to see that they get it."

As a former lab employee, testing new welding products and processes, Wermert understands what it takes to make professional-grade tools. "Take the Arcair® Angle-Arc® K4000® Manual Gouging Torch for example," he says. "It didn't become the industry standard by accident."

The K4000 is used to scarf or remove defective welds and defective metal blemishes from castings or weldments. It's made for heavy-duty metal removal applications, ideal for weld preparations in fab shops and shipyards.

"Products like the K4000 are why Arcair remains the number one name in air carbon arc manual torches," he says.

### TOM WERMERT

Product Line Manager, Welding Products  
Thermadyne Industries

*Tom carries the torch – will you?*

**THERMADYNE**, A GLOBAL CUTTING AND WELDING LEADER, joins the American Welding Society in encouraging individuals to practice the art, craftsmanship and professions of welding, metalworking and fabrication. Victor, Thermal Dynamics, Thermal Arc, Arcair, Tweco, Stoodly, Cigweld and TurboTorch are among the Thermadyne family of brands that you can count on for safety, reliability and quality.

Arcair®

[www.thermadyne.com](http://www.thermadyne.com)



**American Welding Society**  
Sustaining Company Member

## STRAIGHT HANDLE MANUAL GOUGING TORCHES

### FEATURES & BENEFITS

#### Reliable torch design

- Market leader for over 40+ years
- Greater operator comfort

#### Accepts a wide range of CCDC gouging electrodes

- 5/32" through 3/8" round
- 3/8" & 5/8" Flat

#### Durable front insulators

- High impact and heat resistant protecting the torch metal parts

#### Swivel Cable

- Less cable twist
- Less strain on the operator



**K-3**  
Medium Duty



**K-5**  
Extra Heavy Duty

### K-SERIES STRAIGHT HANDLE MANUAL GOUGING TORCHES

|     | Torch Only | Torch w/7ft. (2.1M) 360° Swivel Cable | Torch w/7ft. 360° Swivel Cable & Insulated Hook-Up Kit | Torch w/10ft. (3M) 360° Swivel Cable | Torch w/10ft. (3M) 360° Swivel Cable & Insulated Hook-Up Kit |
|-----|------------|---------------------------------------|--|--------------------------------------|--|
| K-3 | 01-064-003 | 61-064-016                            | 61-064-012   | 61-064-017                           | 61-064-013   |
| K-5 | 01-104-003 | 61-104-007                            |  | 61-104-008                           |  |

| Torch Model | Electrode Size (In./mm)                                   | Air Requirements |                    |     |        | Typical Application   |
|-------------|---|------------------|--------------------|-----|--------|---|
|             |   | P.S.I.           | KG/CM <sup>2</sup> | CFM | L/Min. |   |
| K-3         | 5/32" - 3/8" Round (4.0mm - 9.5mm)<br>5/8" Flat (15.9mm)  | 80               | 5.6                | 22  | 624    | <b>Medium Duty</b> - General repair and maintenance jobs in areas as mining, construction and all types of metal fabrication                              |
| K-5         | 5/32" - 5/8" Round (4.0mm - 15.9mm)<br>5/8" Flat (15.9mm) | 80               | 5.6                | 30  | 850    | <b>Extra Heavy Duty</b> - Heavy metal removal applications such as weld preparations in pressure vessel shops, shipyards and defect removal in foundries. |

## SWIVEL CABLE ASSEMBLY OPTIONS

### SWIVEL CABLE ASSEMBLIES

| Description                            | K-3        | K-5        |
|--|------------|------------|
| 7ft. (2.1M) 360° Swivel Cable Assembly | 70-088-907 | 70-128-507 |
| 10ft. (3M) 360° Swivel Cable Assembly  | 70-088-910 | 70-128-510 |

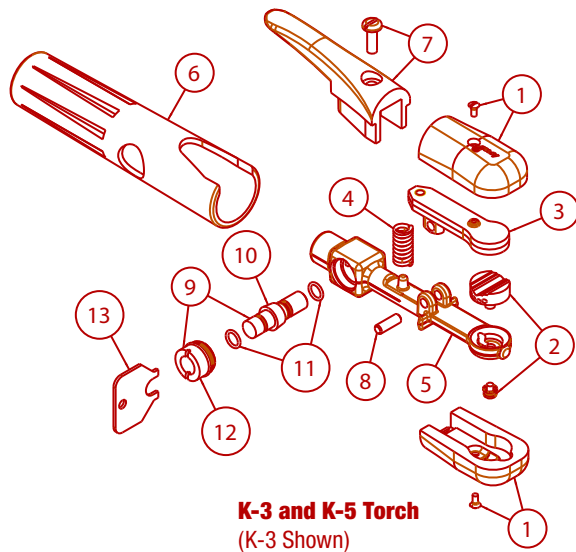


**K-3 Swivel Cable**



**K-5 Swivel Cable**

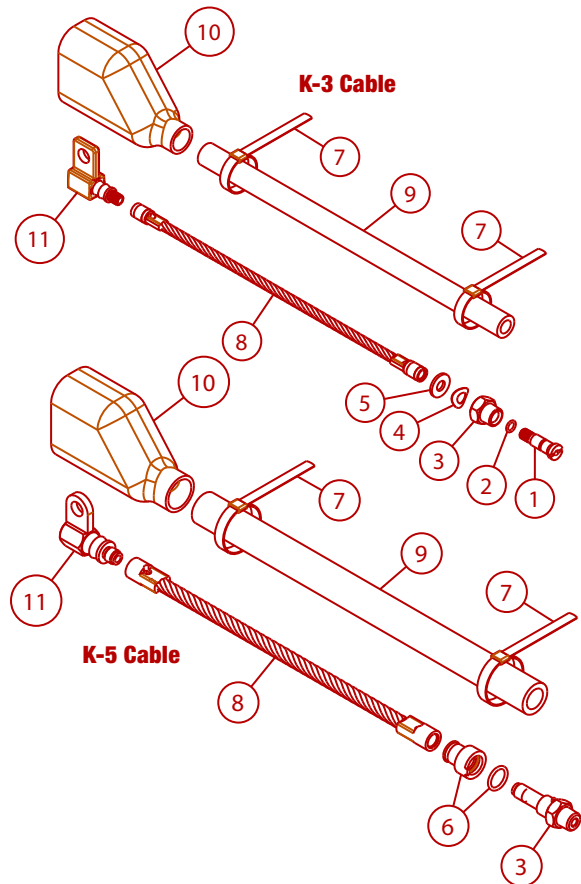
## K-3 & K-5 TORCH REPLACEMENT PARTS



### TORCH REPLACEMENT PARTS LIST

| Item | Description           | K3         | K5         |
|------|-----------------------|------------|------------|
|      | Complete Torch        | 01-064-003 | 01-104-003 |
| 1    | Insulators & Screws   | 94-433-118 | 94-433-118 |
| 2    | Head & Screw          | 94-378-368 | 94-378-370 |
| 3    | Upper Arm             | 94-048-087 | 94-048-088 |
| 4    | Spring                | 94-800-077 | 94-800-077 |
| 5    | Torch Body            | 94-103-114 | 94-103-114 |
| 6    | Handle                | 94-370-079 | 94-370-079 |
| 7    | Lever & Screw         | 94-476-034 | 94-476-034 |
| 8    | Hinge Pin             | 94-632-094 | 94-632-094 |
| 9    | Valve Bonnet Assembly | 94-104-016 | 94-104-023 |
| 10   | Spool & O-Rings       | 94-801-011 | 94-801-021 |
| 11   | O-Ring                | 94-710-036 | 94-710-036 |
| 12   | Valve Bonnet          | 94-104-012 | 94-104-012 |
| 13   | Bonnet Wrench         | 94-960-001 | 94-960-001 |

## K-3 & K-5 SWIVEL CABLE REPLACEMENT PARTS



### CABLE REPLACEMENT PARTS LIST

| Item | Description           | K3         | K5         |
|------|-----------------------|------------|------------|
|      | 7ft. (2.1M) Cable     | 70-088-907 | 70-128-507 |
|      | 10ft. (3M) Cable      | 70-088-910 | 70-128-510 |
| 1    | Retainer Screw        | 94-695-054 |            |
| 2    | O-Ring                | 94-710-027 |            |
| 3    | Male Connector        | 94-170-180 | 94-170-105 |
| 4    | Spring Washer         | 94-940-104 |            |
| 5    | Brass Washer          | 94-940-103 |            |
| 6    | Swivel Sleeve         |            | 94-784-051 |
| 7    | Clamp (2 Required)    | 98-167-010 | 98-167-012 |
| 8    | 7ft. (2.1M) Conductor | 96-130-314 | 96-130-061 |
|      | 10ft. (3M) Conductor  | 96-130-315 |            |
| 9    | 7ft. (2.1M) Cover     | 94-171-273 | 94-171-004 |
|      | 10ft. (3M) Cover      | 94-171-274 |            |
| 10   | Insulating Boot       | 94-105-014 | 94-105-017 |
| 11   | Female Connector      | 94-170-150 | 94-170-087 |

**Note:** Refer to page 10 for Power & Air Hook-Up Kit ordering information.

## H-SERIES STRAIGHT HANDLE MANUAL GOUGING TORCH

### FEATURES & BENEFITS

#### Reliable torch design

- first introduced in 1957
- market demand for this series remain strong today

#### Accepts a wide range of CCDC gouging electrodes

- 5/32" through 3/8" round

#### Body Design

- machined brass alloy body
- forged copper alloy upper arm

#### Durable front insulators

- High impact and heat resistant protecting the torch metal parts

#### Swivel Cable

- Less cable twist
- Less strain on the operator



### H-SERIES STRAIGHT HANDLE MANUAL GOUGING TORCH

|     | Torch Only | Torch w/7ft. (2.1M) 360° Swivel Cable | Torch w/7ft. (2.1M) Standard Cable (No Swivel) |
|-----|------------|---------------------------------------|--|
| H-3 | 01-062-000 | 61-062-016                            | 61-062-014                                     |

| Torch Model | Electrode Size (In./mm)                               | Air Requirements |                    |     |        | Typical Application  |
|-------------|---|------------------|--------------------|-----|--------|--|
|             |   | P.S.I.           | KG/CM <sup>2</sup> | CFM | L/Min. |  |
| H-3         | 5/32" - 3/8" Round (4.0mm - 9.5mm) 5/8" Flat (15.9mm) | 80               | 5.6                | 22  | 624    | <b>Medium Duty</b> - General repair and maintenance jobs in areas as mining, construction and all types of metal fabrication |

## SWIVEL CABLE ASSEMBLY OPTIONS

### SWIVEL CABLE ASSEMBLIES

| Description                                     | Part No.   |
|---|------------|
| 7ft. (2.1M) Standard Cable Assembly (No Swivel) | 70-083-907 |
| 7ft. (2.1M) 360° Swivel Cable Assembly          | 70-088-907 |

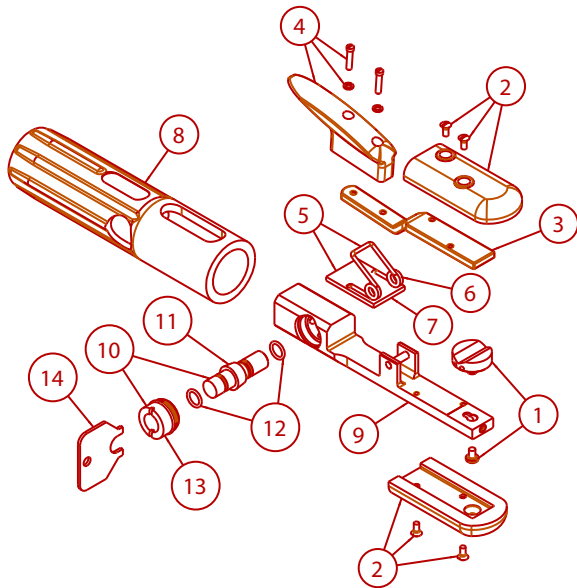
Part No. 70-083-907



Part No. 70-088-907



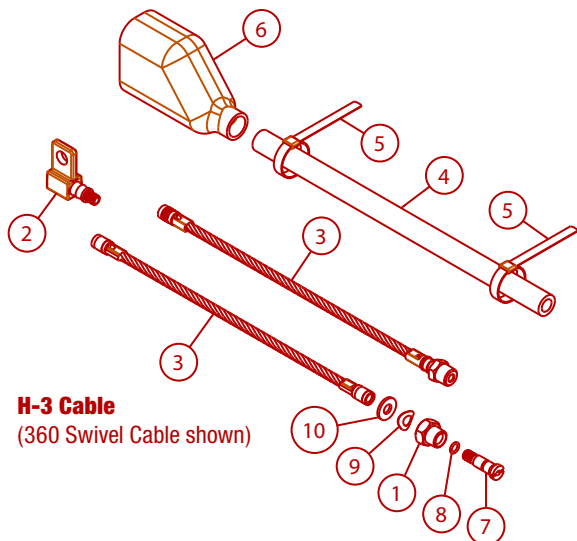
## H-3 TORCH REPLACEMENT PARTS



### TORCH REPLACEMENT PARTS LIST

| Item | Description                   | Part No.   |
|------|-------------------------------|------------|
|      | Torch Only                    | 01-062-000 |
| 1    | Head & Screw                  | 94-378-007 |
| 2    | Insulator & Screws            | 94-433-024 |
| 3    | Upper Arm                     | 94-048-017 |
| 4    | Lever Assembly                | 94-476-003 |
| 5    | Spring & Insulator Assembly   | 94-800-013 |
| 6    | Spring                        | 94-800-014 |
| 7    | Spring Insulator              | 94-433-017 |
| 8    | Handle                        | 94-370-008 |
| 9    | Body Assembly                 | 94-103-200 |
| 10   | Valve Spool & Bonnet Assembly | 94-104-016 |
| 11   | Spool & O-Rings               | 94-801-010 |
| 12   | O-Ring (2 Required)           | 94-710-036 |
| 13   | Bonnet                        | 94-104-012 |
| 14   | Bonnet Wrench                 | 94-960-001 |

## H-3 CABLE REPLACEMENT PARTS



**H-3 Cable**  
(360 Swivel Cable shown)

### CABLE REPLACEMENT PARTS LIST

| Item  | Description           | Part No.          |
|---|-----------------------|-------------------|
| <b>Standard Concentric Cable Assembly - 7ft. (2.1M)</b> |                       | <b>70-083-907</b> |
| 1   | Male Connector        | 94-170-160        |
| 2   | Female Connector      | 94-170-150        |
| 3   | 7ft. (2.1M) Conductor | 96-130-247        |
| 4   | 7ft. (2.1M) Cover     | 94-171-273        |
| 5   | Clamp (2 Required)    | 98-167-010        |
| 6   | Insulating Boot       | 94-105-014        |
| <b>360° Swivel Cable - 7ft. (2.1M)</b>                  |                       | <b>70-088-907</b> |
| 1   | Male Connector        | 94-170-168        |
| 2   | Female Connector      | 94-170-150        |
| 3   | 7ft. (2.1M) Conductor | 96-130-264        |
| 4   | 7ft. (2.1M) Cover     | 94-171-273        |
| 5   | Clamp (2 Required)    | 98-167-010        |
| 6   | Insulating Boot       | 94-105-014        |
| 7   | Retainer Screw        | 94-695-054        |
| 8   | O-Ring                | 94-710-027        |
| 9   | Spring Washer         | 94-940-104        |
| 10  | Flat Washer           | 94-940-103        |

**Note:** Refer to page 10 for Power & Air Hook-Up Kit ordering information.

## 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 and 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



| Torch Model | Electrode Size (In./mm)              | Air Requirements |                    |     |        | Typical Application   |
|-------------|--------------------------------------|------------------|--------------------|-----|--------|---|
|             |                                      | P.S.I.           | KG/CM <sup>2</sup> | CFM | L/Min. |   |
| Tri-Arc®    | 5/16" - 1" Round<br>(8.0mm - 25.4mm) | 80               | 5.6                | 33  | 934    | Foundry - General foundry work, pad washing, defect, nails, sprue and interior work |

### APPLICATION

#### Defect Removal Heads

- for removal of defects and fin removal application
- accepts electrode diameters – 3/8" (9.5mm) through 3/4" (19.05mm)

#### General Purpose Cleaning Heads

- for removal of defects, fin removal, padwashing, and piercing applications
- four head assemblies to accept electrode diameters 1/2" (12.7mm) through 1" (25.4mm)

#### Padwashing Heads

- for padwashing applications only
- heads are fixed on a 35 degree work angle (use degree symbol)
- four head assemblies to accept electrode diameters 1/2" (12.7mm) through 3/4" (19.5mm)





## TRI-ARC® FOUNDRY GOUGING TORCHES



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.

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

Torch comes with or without an air valve/spool.

Rugged and durable cable assemblies offered for applications requiring 1600 to 2400 amps.

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

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

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

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

## TRI-ARC® FOUNDRY GOUGING TORCHES



| TRI-ARC® FOUNDRY GOUGING TORCHES       |            |                           |            |                                |            |
|--|------------|---------------------------|------------|--------------------------------|------------|
| Defect Removal Heads                   |            | Padwashing Heads          |            | General Purpose Cleaning Heads |            |
| No Heads in Torch                      |            | 1/2" (12.7mm) Electrodes  |            | 1/2" (12.7mm) Electrodes       |            |
| Torch Only                             | 02-991-411 | Torch Only                | 02-991-413 | Torch Only                     | 02-991-416 |
| Torch & 7ft. (2.1M) Cable              | 62-991-417 | Torch & 7ft. (2.1M) Cable | 62-991-419 | Torch & 7ft. (2.1M) Cable      | 62-991-422 |
|  |            | Replacement Heads         | 94-378-286 | Replacement Heads              | 94-378-267 |
|  |            | 5/8" (15.9mm) Electrodes  |            | 5/8" (15.9mm) Electrodes       |            |
|  |            | Torch Only                | 02-991-414 | Torch Only                     | 02-991-417 |
|  |            | Torch & 7ft. (2.1M) Cable | 62-991-420 | Torch & 7ft. (2.1M) Cable      | 62-991-423 |
|  |            | Replacement Heads         | 94-378-289 | Replacement Heads              | 94-378-270 |
| 5/16" (7.9mm) 3/4" (19.5mm) Electrodes |            | 3/4" (19.5mm) Electrodes  |            | 3/4" (19.5mm) Electrodes       |            |
| Torch Only                             | 02-991-425 | Torch Only                | 02-991-415 | Torch Only                     | 02-991-418 |
| Torch & 7ft. (2.1M) Cable              | 62-991-435 | Torch & 7ft. (2.1M) Cable | 62-991-421 | Torch & 7ft. (2.1M) Cable      | 62-991-424 |
| Replacement Heads                      | 94-378-298 | Replacement Heads         | 94-378-283 | Replacement Heads              | 94-378-273 |
|  |            |                           |            | 1" (25.4mm) Electrodes         |            |
|  |            |                           |            | Torch Only                     | 02-991-424 |
|  |            |                           |            | Replacement Heads              | 94-378-343 |
| No Heads In Torch - No Valve           |            |                           |            | 5/8" (15.9mm) Electrodes       |            |
| Torch Only                             | 02-991-426 |                           |            | Torch Only                     | 02-991-428 |
|  |            |                           |            | 3/4" (19.5mm) Electrodes       |            |
|  |            |                           |            | Torch Only                     | 02-991-429 |

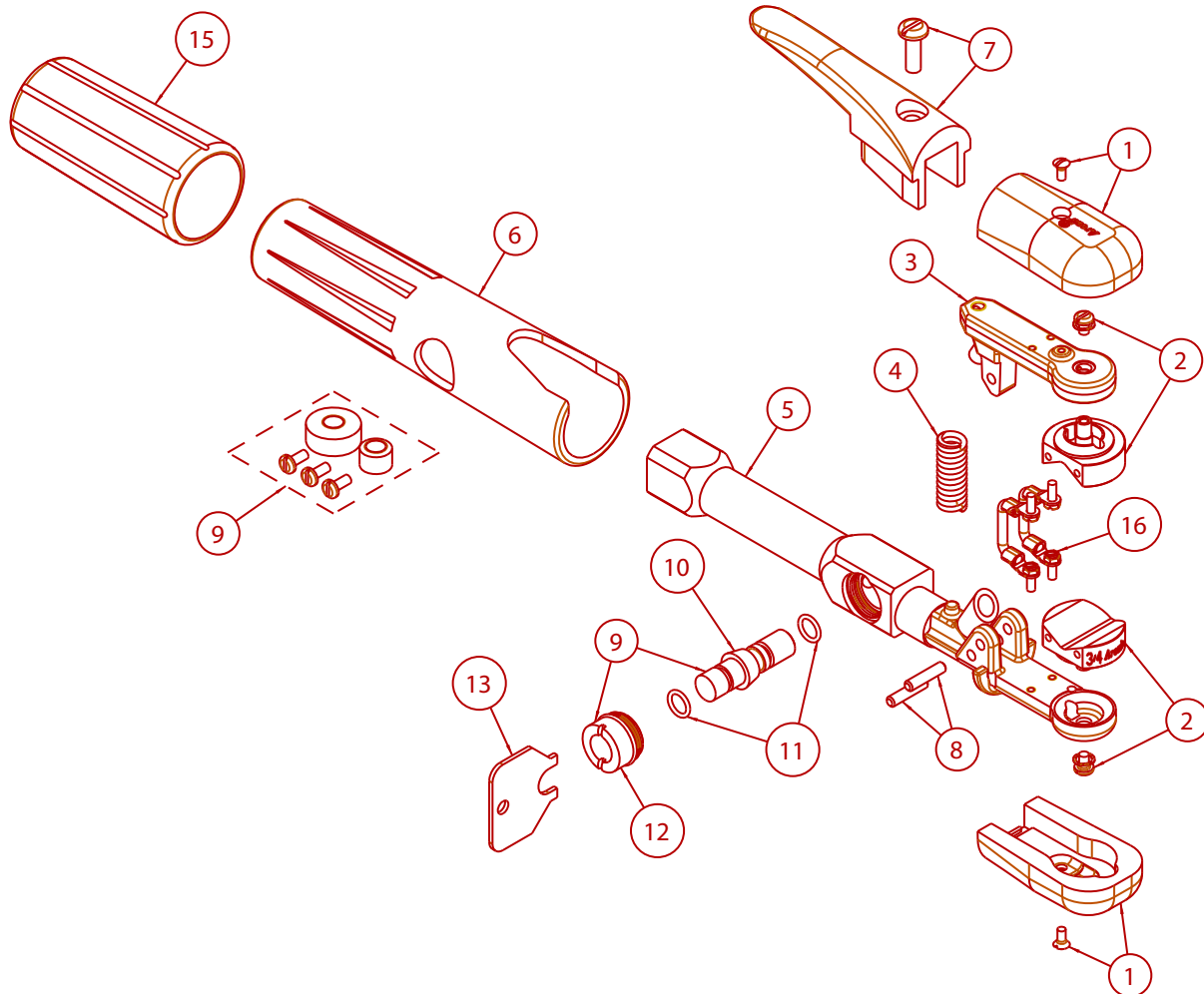
Note: The cable assembly that comes standard on the assemblies is Part No. 74-143-607, 7ft. (2.1M) long and rated for 1600 amperes maximum.

## SWIVEL CABLE ASSEMBLY OPTIONS

| SWIVEL CABLE ASSEMBLIES                  |             |            |
|--|-------------|------------|
| Description                              | 7ft. (2.1M) | 10ft. (3M) |
| Std. Duty - 340° Swivel Cable Assembly   | 74-143-607  | 74-143-610 |
| E-H-D 340° Swivel Cable Assembly         | 74-161-907  |            |
| Water-Cooled Cable Assembly - Non-Swivel | 74-085-207  | 74-085-210 |



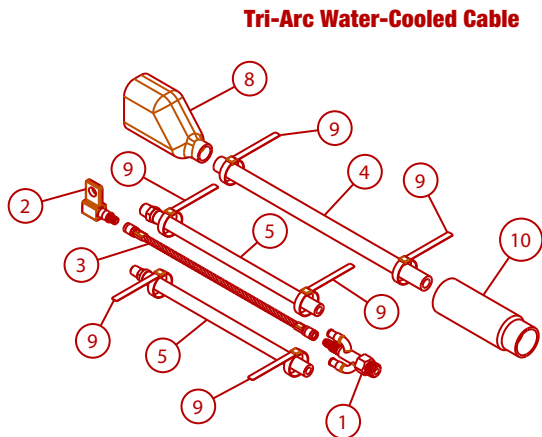
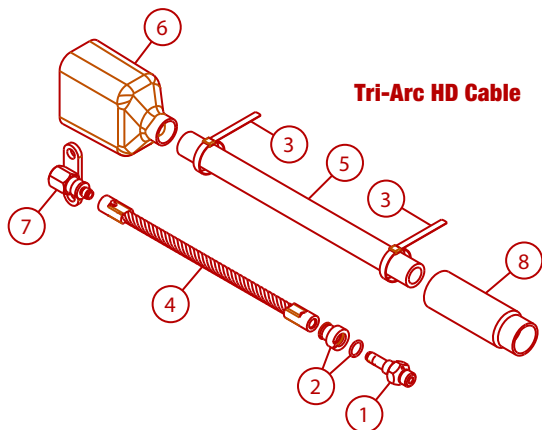
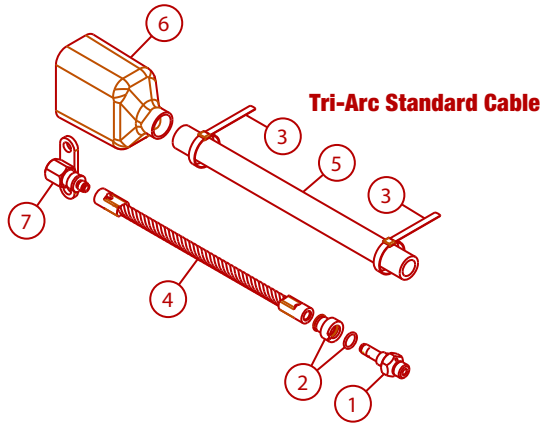
**TRI-ARC TORCH REPLACEMENT PARTS**



| TORCH REPLACEMENT PARTS LIST |                                 |            |
|------------------------------|---------------------------------|------------|
| Item                         | Description                     | Part No.   |
|                              | Torch Only                      | 02-991-411 |
| 1                            | Insulators & Screws             | 94-433-118 |
| 2                            | Head (Upper/Lower) & Screws     |            |
|                              | Defect Removal                  | 94-378-298 |
|                              | General Purpose – 1/2" (12.7mm) | 94-378-267 |
|                              | General Purpose – 5/8" (15.9mm) | 94-378-270 |
|                              | General Purpose – 3/4" (19.5mm) | 94-378-273 |
|                              | General Purpose – 1" (25.4mm)   | 94-378-344 |
|                              | Padwashing – 1/2" (12.7mm)      | 94-378-286 |
|                              | Padwashing – 5/8" (15.9mm)      | 94-378-289 |
|                              | Padwashing – 3/4" (19.5mm)      | 94-378-283 |
| 3                            | Upper Arm                       | 94-048-110 |
| 4                            | Spring                          | 94-800-088 |

| TORCH REPLACEMENT PARTS LIST |                          |            |
|------------------------------|--------------------------|------------|
| Item                         | Description              | Part No.   |
| 5                            | Torch Body               | 94-103-221 |
|                              | Torch Body without Valve | 94-103-237 |
| 6                            | Handle                   | 94-370-079 |
| 7                            | Lever & Screw            | 94-476-034 |
| 8                            | Hinge Pin                | 94-632-063 |
| 9                            | Valve & Bonnet           | 94-104-023 |
|                              | No Valve Button Kit      | 94-123-017 |
| 10                           | Spool & O-Rings          | 94-801-021 |
| 11                           | O-Ring                   | 94-710-036 |
| 12                           | Valve Bonnet             | 94-104-012 |
| 13                           | Bonnet Wrench            | 94-960-001 |
| 15                           | Insulating Sleeve        | 94-784-045 |
| 16                           | Jumper (2 Required)      | 96-458-018 |

## TRI-ARC SWIVEL CABLE REPLACEMENT PARTS



### CABLE ASSEMBLY REPLACEMENT PARTS LIST

#### 340° Concentric Cable Assembly - Standard

| Item | Description                  | Part No.   |
|------|------------------------------|------------|
|      | 7ft. (2.1M) Cable            | 74-143-607 |
|      | 10ft. (3M) Cable             | 74-143-610 |
| 1    | Male Connector               | 94-170-169 |
| 2    | Swivel Sleeve                | 94-784-050 |
| 3    | Clamp (2 Required)           | 98-167-010 |
| 4    | 7ft. (2.1M) Cable Conductor  | 96-130-063 |
|      | 10ft. (3M) Cable Conductor   | 96-130-126 |
| 5    | 7ft. (2.1M) Cable Hose Cover | 94-171-006 |
|      | 10ft. (3M) Cable Hose Cover  | 94-171-140 |
| 6    | Insulating Boot              | 94-105-007 |
| 7    | Female Connector             | 94-170-095 |

### CABLE ASSEMBLY REPLACEMENT PARTS LIST

#### Extra Heavy-Duty Cable Assembly

| Item | Description                          | Part No.   |
|------|--------------------------------------|------------|
|      | 7ft. (2.1M) Cable Assembly           | 74-161-907 |
| 1    | Male Connector                       | 94-170-176 |
| 2    | Swivel Sleeve                        | 94-784-078 |
| 3    | Clamp (2 Required)                   | 98-167-012 |
| 4    | 7ft. (2.1M) Cable Conductor Assembly | 96-130-286 |
| 5    | 7ft. (2.1M) Cable Hose Cover         | 94-171-284 |
| 6    | Insulating Boot                      | 94-105-028 |
| 7    | Female Connector                     | 94-170-174 |
| 8    | Insulating Sleeve                    | 94-105-029 |

### CABLE ASSEMBLY REPLACEMENT PARTS LIST

#### Water-Cooled Cable Assembly

| Item | Description                   | Part No.   |
|------|-------------------------------|------------|
|      | 7ft. (2.1M) Cable Assembly    | 74-085-207 |
|      | 10ft. (3M) Cable Assembly     | 74-085-210 |
| 1    | Male Connector                | 94-170-171 |
| 2    | Female Connector              | 94-170-150 |
| 3    | 7ft. (2.1M) Conductor         | 96-130-309 |
|      | 10ft. (3M) Conductor          | 96-130-310 |
| 4    | 7ft. (2.1M) Cable Cover       | 94-171-273 |
|      | 10ft. (3M) Cable Cover        | 94-171-274 |
| 5    | 7ft. (2.1M) Low Pressure Hose | 94-171-298 |
|      | 10ft. (3M) Low Pressure Hose  | 94-171-299 |
| 8    | Insulating Boot               | 94-105-014 |
| 9    | Clamp (6 Required)            | 98-167-010 |
| 10   | Insulating Sleeve             | 94-105-029 |

**RECOMMENDED NUMBER AND SIZE OF WELDING LEADS FOR VARIOUS CURRENTS (1,2) AND LENGTHS (3,4)**

| Current | 25ft. (7M) |      | 50ft. (15M) |      | 100ft. (30M) |      | 150ft. (46M) |      | 200ft. (61M) |      | 250ft. (76M) |      |
|---------|------------|------|-------------|------|--------------|------|--------------|------|--------------|------|--------------|------|
| Amps    | No.        | Size | No.         | Size | No.          | Size | No.          | Size | No.          | Size | No.          | Size |
| 100     | 1          | 4    | 1           | 3    | 1            | 2    | 1            | 1/0  | 1            | 2/0  | 1            | 4/0  |
| 200     | 1          | 3    | 1           | 2    | 1            | 1/0  | 1            | 3/0  | 1            | 3/0  | 3            | 3/0  |
| 300     | 1          | 2    | 1           | 2    | 1            | 3/0  | 2            | 2/0  | 2            | 4/0  | 4            | 4/0  |
| 400     | 1          | 2    | 1           | 1/0  | 1            | 4/0  | 2            | 4/0  | 3            | 4/0  | 5            | 4/0  |
| 500     | 1          | 1    | 1           | 2/0  | 2            | 2/0  | 2            | 4/0  | 4            | 4/0  |              |      |
| 600     | 1          | 1    | 1           | 3/0  | 2            | 3/0  | 2            | 4/0  | 5            | 4/0  |              |      |
| 800     | 1          | 1/0  | 2           | 2/0  | 2            | 4/0  | 4            | 4/0  |              |      |              |      |
| 1000    | 1          | 2/0  | 1           | 4/0  | 3            | 3/0  | 5            | 4/0  |              |      |              |      |
| 1200    | 1          | 3/0  | 2           | 4/0  | 3            | 4/0  |              |      |              |      |              |      |
| 1400    | 1          | 4/0  | 2           | 4/0  | 4            | 3/0  |              |      |              |      |              |      |
| 1600(5) | 2          | 3/0  | 4           | 3/0  | 4            | 4/0  |              |      |              |      |              |      |
| 1800    | 2          | 4/0  | 4           | 4/0  |              |      |              |      |              |      |              |      |
| 2000(6) | 3          | 4/0  | 5           | 4/0  |              |      |              |      |              |      |              |      |

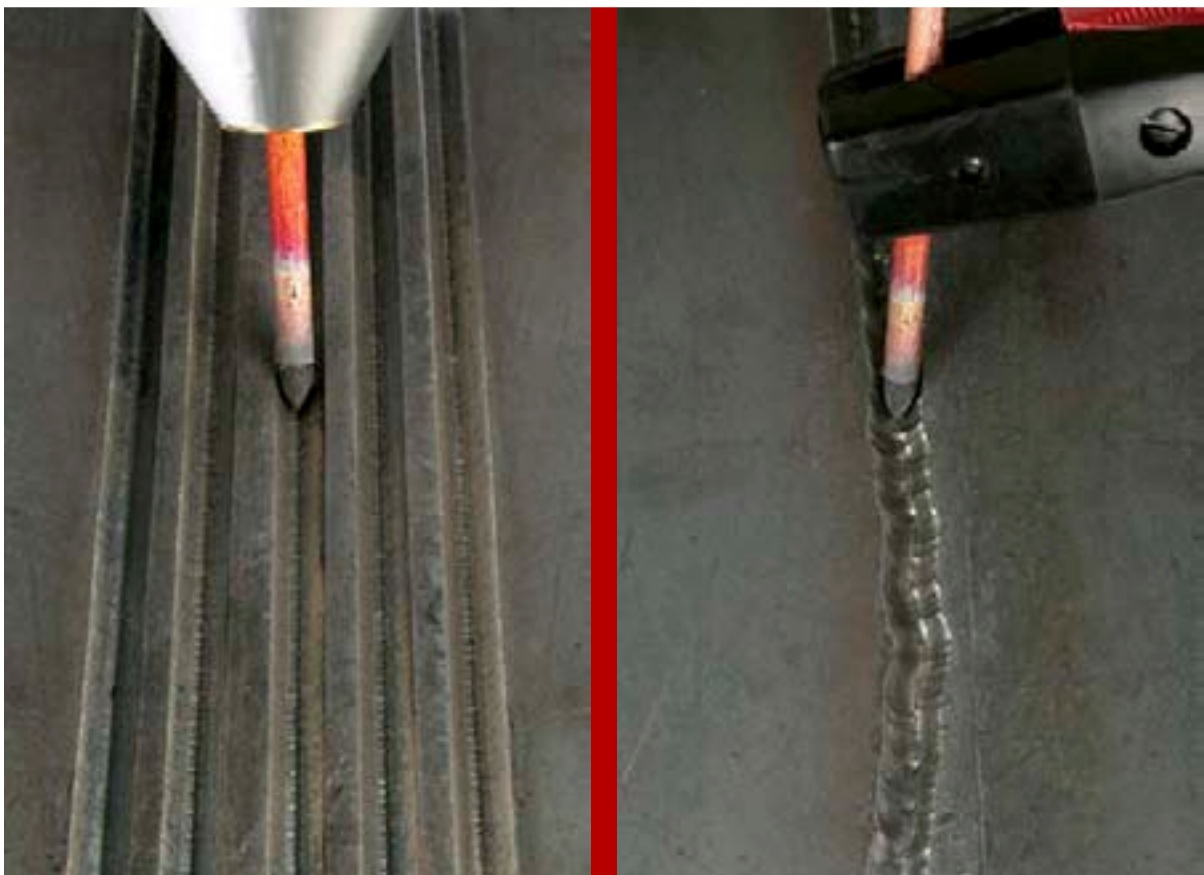
1. Recommendations are based on 4V, DC drop per 100 ft.
2. For AC use next heavier size.
3. The length given is one half the sum of the electrode and ground leads.
4. Inadequate grounding causes cable overheating; at least 1 in.<sup>2</sup> (645mm<sup>2</sup>) of contact per 1000 amps.
5. Over 1600 amps, a heavy-duty, air-cooled swivel cable should be used.
6. Over 2000 amps, a heavy-duty, water-cooled cable should be used.

**Manual Welding/Gouging Products & Accessories**

Tweco offers a complete line of ground clamps, cable connectors, and cable lugs for your welding application. Refer to Tweco full line catalog Form No. 64-2103 for more detail on the products shown



***AUTOMATIC AIR CARBON-ARC  
VS.  
MANUAL AIR CARBON-ARC***



**FIVE TIMES MORE GOUGE. TEN TIMES LESS GRIND.**

## ARCAIR-MATIC N6000 GOUGING SYSTEM

### FEATURES & BENEFITS

**Provides the highest possible level of control, uniformity and productivity**

- groove depths maintained to a tolerance of +/-0.025" (0.635mm)
- machine like groove obtained
- low heat input into the base material

**Powered by either constant current (variable voltage) or constant voltage (variable amperage)**

- easily changed within the control panel to meet the customers power supply
- setting is easily identified on the face of the panel

**Remote control pendant**

- puts instant "start/stop" control of the process in the hand of the operator
- eliminates the need to be close by the control panel of the system

**Flexibility of orientation of the air stream on the torch head**

- no limitations to the orientation of air stream. Just loosen the molded lock nut to adjust to the position needed and retighten
- nozzle design reduces air turbulence and improves air flow providing greater metal removal efficiency

**Travel delay function**

- assures desired depth at the beginning of the gouge, eliminating a sloped groove at the start

**System protection shutdown circuit**

- no-current detect and low voltage functions trigger automatic shutdown preventing damage to the system

120 VAC 60 Hz & 220 VAC 50Hz Models available



Control Panel



Contactor



Torch Head

### ARCAIR-MATIC N6000 GOUGING SYSTEM

| Description                                 | Part No.   |
|---|------------|
| Arcair-Matic N6000 Gouging System – 120 VAC | 65-991-013 |
| Arcair-Matic N6000 Gouging System – 220 VAC | 65-991-014 |

Note: System includes Automatic Control Panel, Contactor Unit, Torch Head, Compressed Air Regulator, pertinent fasteners, clamps, and hardware. Refer to pages 25 for additional support cable assemblies required to complete the system.

## ARCAIR-MATIC N6000 GOUGING SYSTEM

### AUTOMATIC CONTROL PANEL

| Description                       | Part No.   |
|-----------------------------------|------------|
| Automatic Control Panel - 120 VAC | 72-008-014 |
| Automatic Control Panel - 220 VAC | 72-008-018 |

**Note:** Controller requires appropriate line voltage from the Contactor Unit for instrument operation and relay control signals.

**Specifications:** Width: 11-5/8" (29.53cm)  
 Height: 12" (20.32cm)  
 Depth: 7-1/2" (19.05cm)  
 Weight: 12lb. (5.45kg)



**Control Panel**

### AUTOMATIC CONTACTOR UNIT

| Description                        | Part No.   |
|------------------------------------|------------|
| Automatic Contactor Unit – 120 VAC | 72-008-019 |
| Automatic Contactor Unit – 220 VAC | 72-008-017 |

The contactor unit contains a single 1,600 amp contactor that supplies current to the torch head of the gouging system.

**Specifications:** Width: 13-1/4" (33.66cm)  
 Height: 12" (30.48cm)  
 Depth: 10-1/2" (26.67cm)  
 Weight: 35.75 lbs. (16.23kg)



**Contactor**

### AUTOMATIC TORCH HEAD

| Description          | Part No.   |
|----------------------|------------|
| Automatic Torch Head | 05-124-000 |

Accepts CCDC Jointed Electrodes diameters 5/16", 3/8", 1/2", 5/8", and 3/4"

**Specifications:** Width: 9-1/2" (24.13cm)  
 Height: 8-1/2" (21.59cm)  
 Depth: 8-1/2" (21.59cm)  
 Weight: 9.75 lbs.



**Torch Head**



## ARCAIR-MATIC N6000 GOUGING SYSTEM

### CABLE ASSEMBLIES

Other components required to make the Arcair-Matic N6000 system complete are noted below and must be ordered along with the standard package. Different cable assemblies are available to meet the application needs refer to the options available below.

| POWER CABLES (MINIMUM 2 REQUIRED) |                      |   |
|-----------------------------------|----------------------|---|
| Part No.                          | Description          | Application   |
| 96-130-254                        | 4ft. (1.22M) Length  | Connects the Contactor Unit to the Torch Head supplying DC weld current |
| 96-130-256                        | 15ft. (5M) Length    |   |
| 96-130-300                        | 25ft. (7.62M) Length |   |



| REMOTE PENDANT |                       |   |
|----------------|-----------------------|---|
| Part No.       | Description           | Application   |
| 96-620-001     | 10ft. (3M) Length     | Allows remote start/stop function of the gouging system |
| 96-620-003     | 25ft. (7.62M) Length  |   |
| 96-620-002     | 50ft. (15.24M) Length |   |



| INTERCONNECT CABLE ASSEMBLY |                        |  |
|-----------------------------|------------------------|--|
| Part No.                    | Description            | Application                                      |
| 96-170-049                  | 14" (35.56cm) Length   | Connects the Control Panel to the Contactor Unit |
| 96-170-055                  | 30" (76.2cm) Length    |  |
| 96-170-057                  | 7ft. (2.13M) Length    |  |
| 96-170-051                  | 15ft. (5M) Length      |  |
| 96-170-052                  | 25ft. (7.62M) Length   |  |
| 96-170-053                  | 50ft. (15.24M) Length  |  |
| 96-170-054                  | 100ft. (30.48M) Length |  |



| MOTOR CABLE ASSEMBLY |                       |  |
|----------------------|-----------------------|--|
| Part No.             | Description           | Application                                  |
| 96-130-257           | 3ft. (0.91M) Length   | Connects the Torch Head to the Control Panel |
| 96-130-253           | 12ft. (3.68M) Length  |  |
| 96-130-303           | 15ft. (5M) Length     |  |
| 96-130-282           | 25ft. (7.62M) Length  |  |
| 96-130-274           | 50ft. (15.24M) Length |  |



| AIR HOSE ASSEMBLY |                      |   |
|-------------------|----------------------|---|
| Part No.          | Description          | Application   |
| 94-396-051        | 4ft. (1.22M) Length  | Supplies compressed air from the Contactor Unit to the Torch Head |
| 94-396-049        | 15ft. (5M) Length    |   |
| 94-396-048        | 25ft. (7.62M) Length |   |



## ARCAIR-MATIC N6000 GOUGING SYSTEM



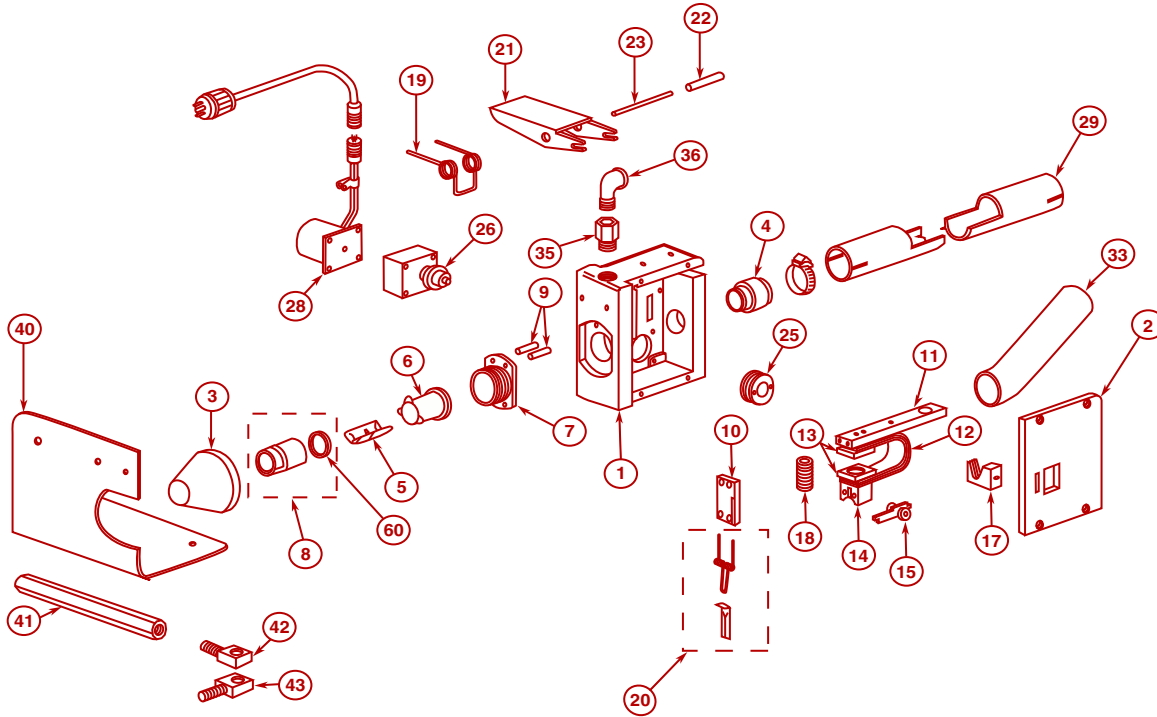
### AUTOMATIC CONTROL PANEL REPLACEMENT PARTS LIST

| Description                         | Part No.   |
|-------------------------------------|------------|
| 120 Volt 60 Hz Automatic Controller | 72-008-014 |
| 220 Volt 50 Hz Automatic Controller | 72-008-018 |
| Circuit Board Assembly              | 96-162-760 |
| "Remote" Connector                  | 96-169-328 |
| "Interconnect Cable" Connector      | 96-169-329 |
| Capacitor                           | 96-131-010 |
| Resistor                            | 96-696-029 |
| "Electrode Jog" Switch              | 96-834-333 |
| "Control Power" Switch              | 96-834-330 |
| Transformer                         | 96-881-084 |
| Front Panel Screws (#10-32 x 3/8")  | 97-152-072 |
| Travel Delay Potentiometer          | 96-645-174 |
| Arc Level Potentiometer             | 96-834-044 |
| Arc Level Dial                      | 94-225-024 |
| "Stop" Switch                       | 96-834-331 |
| "Start" Switch                      | 96-834-332 |
| "Travel" Switch                     | 96-834-334 |
| Volt Meter                          | 96-508-042 |
| Ampere Meter                        | 96-508-043 |
| Plastic Cover Assembly              | 94-171-270 |
| Jumper Connector Assembly           | 96-169-352 |

### AUTOMATIC CONTACTOR UNIT REPLACEMENT PARTS LIST

| Description                       | Part No.   |
|-----------------------------------|------------|
| 120 Volt 60 Hz 1600 Amp Contactor | 72-008-019 |
| 220 Volt 50 Hz 1600 Amp Contactor | 72-008-017 |
| Contactors                        | 96-171-009 |
| Fan                               | 96-290-009 |
| Air Solenoid Valve                | 96-921-004 |
| Connector                         | 96-169-328 |
| Circuit Breaker                   | 96-110-006 |
| Time Delay Relay                  | 96-697-064 |

**AUTOMATIC TORCH HEAD REPLACEMENT PARTS**



**AUTOMATIC TORCH HEAD REPLACEMENT PARTS LIST**

| Item No. | Description              | Part No.   | Item No. | Description                | Part No.   |
|----------|--------------------------|------------|----------|----------------------------|------------|
|          | N6000 Torch Head         | 05-124-000 | 18       | Shoe Spring                | 94-800-184 |
| 1        | Torch Housing            | 94-395-105 | 19       | Lever Spring               | 94-800-183 |
| 2        | Cover                    | 94-171-278 | 20       | Nozzle Spring              | 94-800-182 |
| 3        | Molded Lock Nut          | 94-565-092 | 21       | Lever                      | 94-476-067 |
| 4        | Electrode Tube Adapter   | 94-013-098 | 22       | Lever Tube                 | 94-893-192 |
| 5        | Vee Block                | 94-096-132 | 23       | Lever Hinge Pin            | 94-632-097 |
| 6        | Nozzle Sleeve            | 94-784-075 | 25       | Drive Wheel                | 94-949-051 |
| 7        | Air Plenum               | 94-636-001 | 26       | Insulator                  | 94-433-184 |
| 8        | Air Nozzle w/Insulator   | 94-556-071 | 28       | Drive Motor & Gear Housing | 96-524-099 |
| 9        | Interconnect Bar         | 96-070-030 | 29       | Electrode Holder Tube      | 94-893-082 |
| 10       | Interconnect Jumper      | 96-458-021 | 33       | Cable Boot                 | 94-105-016 |
|          | Shoe & Buss Bar          | 96-774-096 | 35       | Adapter                    | 94-013-097 |
| 11       | Buss Bar                 | 96-070-029 | 36       | Brass Street Elbow         | 94-306-151 |
| 12       | Tinned Flat Copper Braid | 96-458-025 | 37       | Guide Block                | 94-096-133 |
| 13       | Jumper Clamp             | 96-168-028 | 40       | Shield                     | 94-777-105 |
| 14       | Shoe                     | 96-774-095 | 41       | Mounting Beam              | 94-079-013 |
| 15       | Wheel Assembly           | 94-949-053 | 42       | Mounting Bracket           | 94-111-189 |
|          | Beam & Pin               | 94-079-008 | 43       | Threaded Mounting Bracket  | 94-111-190 |
|          | Wheel (2 Required)       | 94-949-052 | 60       | Nozzle Insulator           | 94-433-189 |

## ARCAIR® TRAVEL SYSTEMS

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.

### OUT OF POSITION WORK

Arcair Climber® tractor carries your gouging torch head down a vertical seam, across a horizontal one, overhead, and of course the flat. And it does so at speeds ranging all the way up to 100 ipm (inches per minute). Ideal for carrying GMAW MIG guns, plasma, and flame cutting torches.

**Specifications:** 15-1/4" (38.74cm) Length; 11-1/2" (29.21cm) wide; 7" (17.78cm) high. Weight: 16.25 lbs.

**Weight Capacity:** Flat Position: 100 lbs. (45.5kg)  
 Horizontal Position: 75 lbs. (34.1kg)  
 Vertical Position: 30 lbs. (13.6kg)  
 Overhead Position: 75 lbs. (34.1kg)



| ARCAIR® TRAVEL SYSTEMS |  |
|------------------------|--|
| Part No.               | Description                            |
| 71-023-136             | (120 VAC, 60Hz) Arcair Climber Only    |
| 71-023-137             | (220 VAC, 50Hz) Arcair Climber Only    |
| 71-023-138             | (120 VAC, 60Hz) Arcair Climber Package |
| 71-023-139             | (220 VAC, 50Hz) Arcair Climber Package |

Package includes Climber tractor, track assembly (1 each - 10ft. (3M)Long), Magnetic Assemblies (5 each), Horizontal Rack Bar Positioner, Vertical Rack Bar Positioner, Cable Hose Clamp Assembly, and N6000 Control Panel Mounting Plate Assembly.

### ACCESSORIES

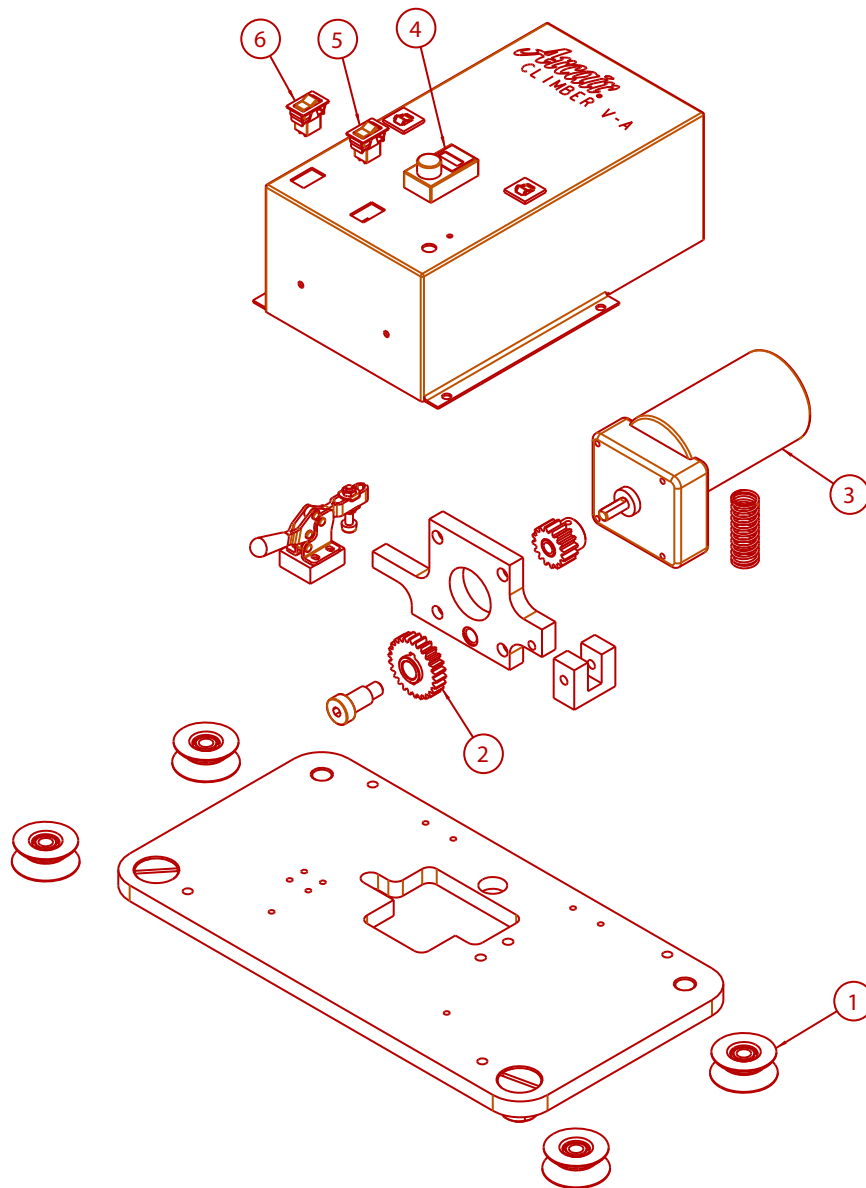
| CLIMBER TRACK |  |
|---------------|--|
| Part No.      | Description                              |
| 71-099-003    | Aluminum Track Section 3ft. (91cm) Long  |
| 71-099-002    | Aluminum Track Section 6ft. (1.83M) Long |
| 71-099-001    | Aluminum Track Section 10ft. (3M) Long   |



| MAGNETIC AND SUPPORT BAR ASSEMBLY |                                 |
|-----------------------------------|---------------------------------|
| Part No.                          | Description                     |
| 71-099-004                        | Magnet and Support Bar Assembly |



## ARCAIR CLIMBER REPLACEMENT PARTS



### CLIMBER V-A REPLACEMENT PARTS LIST

| Item | Description                  | Part No.   |
|------|------------------------------|------------|
|      | Climber V-A (120 VAC, 60 Hz) | 71-023-136 |
|      | Climber V-A (220 VAC, 50 Hz) | 71-023-137 |
| 1    | Wheel Assembly (4 Required)  | 95-949-029 |
| 2    | Idler Gear                   | 95-338-181 |
| 3    | Motor                        | 96-524-093 |
| 4    | Speed Dial                   | 94-225-024 |
| 5    | Forward/Reverse Switch       | 96-834-343 |
| 6    | On/Off Switch                | 96-834-342 |

## ARCAIR® TRAVEL SYSTEMS

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 – 203.2cm/min)

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

**Weight Capacity:** Flat Position: 300 lbs. (136.1kg)

**Mounting Area:** 254 Sq. inches (1,639sq.cm)

| ARCAIR TITAN® MACHINE CARRIAGE |   |
|--------------------------------|---|
| Part No.                       | Description   |
| 71-022-501                     | Titan Machine Carriage - 6-80 ipm (120VAC, 60Hz)  |
| 71-022-700                     | Titan Machine Carriage - 6-80 ipm With Arcair-Matic N6000 Gouging System, Track and Magnets |
| 71-022-701                     | Titan Machine Carriage - 6-80 ipm With Arcair-Matic N6000 Gouging System and Outrigger Kit  |



**Note:** Outrigger kit is a specifically designed to travel along a web plate on a fabricated bridge girder used for railroad and highway bridges

### ACCESSORIES

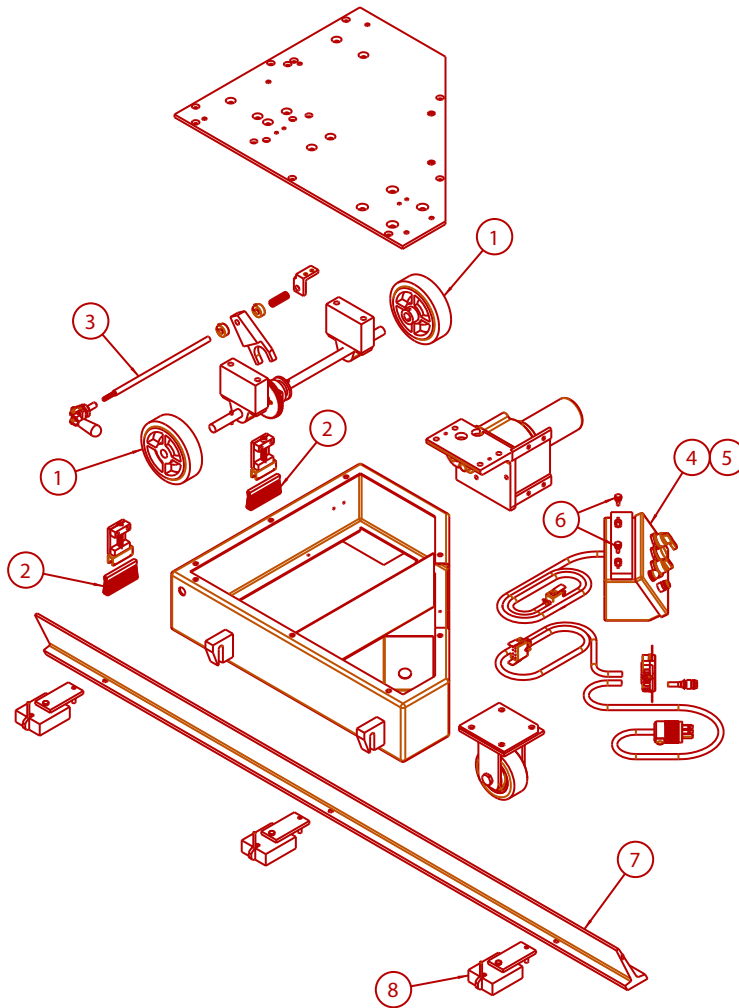


| TRACK ASSEMBLY |                               |
|----------------|-------------------------------|
| Part No.       | Description                   |
| 71-022-502     | Track Section 10ft. (3M) Long |

| MAGNETIC AND SUPPORT BAR ASSEMBLY<br>(3 EACH REQUIRED PER 10FT.) |                                 |
|--|---------------------------------|
| Part No.   | Description                     |
| 71-022-504   | Magnet and Support Bar Assembly |



## ARCAIR TITAN MACHINE CARRIAGE REPLACEMENT PARTS



### TITAN MACHINE CARRIAGE REPLACEMENT PARTS LIST

| Item No. | Description   | Part No.   |
|----------|---|------------|
|          | Titan Machine Carriage 6-80 i.p.m. (120 VAC, 60 Hz) | 71-022-501 |
| 1        | Wheel Assembly (2 Required)                         | 95-949-022 |
| 2        | Brush (2 Required)                                  | 94-122-055 |
| 3        | Actuating Rod                                       | 94-713-044 |
| 4        | Control Box   | 96-174-060 |
| 5        | Control Box Motor Control                           | 96-174-061 |
| 6        | Thumb Screw (2 Required)                            | 97-001-035 |
| 7        | Track Assembly                                      | 71-022-502 |
| 8        | Magnet and Support Bar Assembly                     | 71-022-504 |

## 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

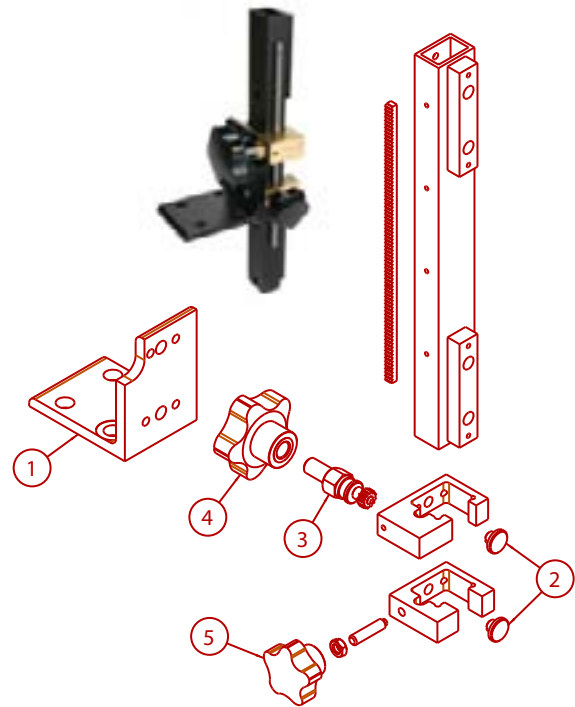
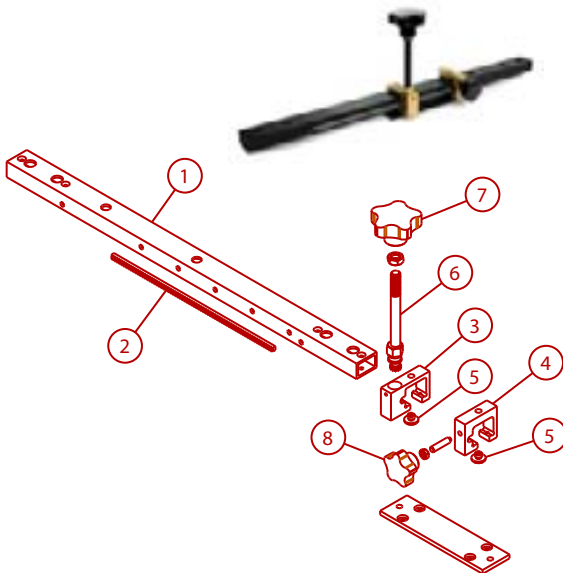
**Specifications:** Length: 26" (66.04cm)  
 Width: 4" (10.16cm)  
 Height: 9-5/8" (24.45cm)  
 Weight: 4.47lbs. (2.02kg)

### VERTICAL RACK BAR POSITIONER

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

| HORIZONTAL RACK BAR POSITIONER |                              |
|--------------------------------|------------------------------|
| Part No.                       | Description                  |
| 71-099-073                     | Horizontal Rack Bar Assembly |

| VERTICAL RACK BAR POSITIONER |                            |
|------------------------------|----------------------------|
| Part No.                     | Description                |
| 71-099-074                   | Vertical Rack Bar Assembly |



| HORIZONTAL RACK BAR REPLACEMENT PARTS LIST |                                     |            |
|--|-------------------------------------|------------|
| Item                                       | Description                         | Part No.   |
| 1  | Horizontal Rack Bar                 | 95-686-031 |
| 2  | Gear Rack                           | 95-686-033 |
| 3  | Support Block w/Gear                | 94-096-136 |
| 4  | Support Block                       | 94-096-135 |
| 5  | Adjustable Bearing Pad (2 Required) | 95-085-130 |
| 6  | Bushing and Gear Assembly           | 95-085-131 |
| 7  | Locking Knob                        | 94-465-110 |
| 8  | Adjustment Knob                     | 94-465-113 |

| VERTICAL RACK BAR REPLACEMENT PARTS LIST |                                     |            |
|--|-------------------------------------|------------|
| Item                                     | Description                         | Part No.   |
| 1  | Angle Mounting Bracket              | 94-111-184 |
| 2  | Adjustable Bearing Pad (2 Required) | 95-085-130 |
| 3  | Bushing and Gear Assembly           | 95-085-132 |
| 4  | Adjustment Knob                     | 94-465-112 |
| 5  | Locking Knob                        | 94-465-110 |



## GOUGING TECHNIQUES FOR SPECIFIC MATERIALS

### For carbon steel and low alloy steel, such as ASTM a514 and 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.

### For 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.

### For 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.

### For copper alloys (copper content 60% and under)

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

### For aluminum bronze and aluminum nickel bronze (naval propeller alloy)

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

### For nickel alloys (nickel content over 80% of mass)

Use CCAC electrodes with AC current.

### For nickel alloys (nickel content under 80% of mass)

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

### For magnesium alloys

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

### For aluminum

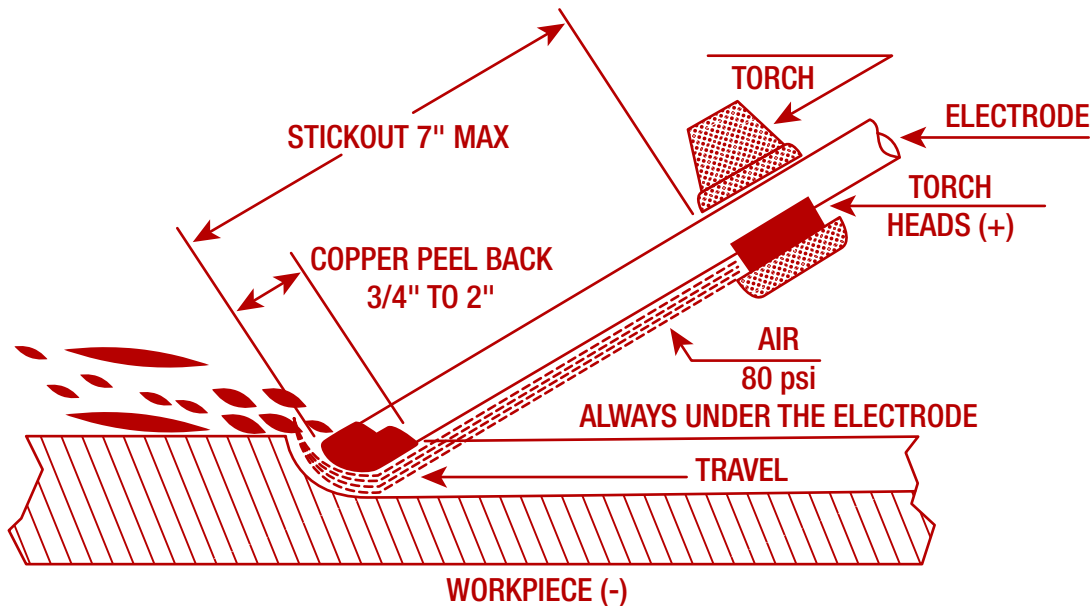
Use CCDC electrodes with DCEP (electrode positive). You must brush with a stainless wire brush before welding. Electrode stick-out (length of electrode between torch and workpiece) should not exceed 3" (76.2mm).

### For 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**

## PRINCIPLES OF AIR CARBON ARC



## ARCAIR AIR CARBON-ARC ELECTRODES

### FEATURES & BENEFITS

#### Designed specifically for the air carbon-arc process

- contain a precise formulated blend of carbon and graphite
- produces 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" (3.2mm) x 12" (30.5cm) 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" (4.0mm) x 12" (30.5cm) CCDC Pointed |   |
| 22-033-003                       | 3/16" (4.8mm) x 12" (30.5cm) CCDC Pointed |   |
| 22-043-003                       | 1/4" (6.4mm) x 12" (30.5cm) CCDC Pointed  |   |
| 22-053-003                       | 5/16" (7.9mm) x 12" (30.5cm) CCDC Pointed |   |
| 22-063-003                       | 3/8" (9.5mm) x 12" (30.5cm) CCDC Pointed  |   |
| 22-082-003                       | 1/2" (12.7mm) x 14" (35.6cm) 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" (4.0mm) x 12" (30.5cm) CCDC 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" (4.8mm) x 12" (30.5cm) CCDC Pointed |  |
| 21-043-003                  | 1/4" (6.4mm) x 12" (30.5cm) CCDC Pointed  |  |
| 21-053-003                  | 5/16" (7.9mm) x 12" (30.5cm) CCDC Pointed |  |
| 21-063-003                  | 3/8" (9.5mm) x 12" (30.5cm) CCDC 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

| FLAT COPPERCLAD DC ELECTRODES |  |   |
|-------------------------------|--|---|
| Part No.                      | Description  | Application   |
| 35-099-003                    | 3/8" (9.5mm) x 5/32" (4.0mm) x 12" (30.5cm) CCDC 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" (15.9mm) x 3/16" (4.8mm) x 12" (30.5cm) CCDC Flat |   |

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

### HALF ROUND COPPERCLAD DC ELECTRODES

| Part No.   | Description   | Application   |
|------------|---|---|
| 25-103-003 | 3/8" (9.5mm) x 5/32" (4.0mm) x 12" (30.5cm) CCDC Flat | 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" (7.9mm) x 14" (35.6cm) 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" (9.5mm) x 14" (35.6cm) CCDC Jointed  |   |
| 24-064-003 | 3/8" (9.5mm) x 17" (43.2cm) CCDC Jointed  |   |
| 24-082-003 | 1/2" (12.7mm) x 14" (30.5cm) CCDC Jointed |   |
| 24-084-003 | 1/2" (12.7mm) x 17" (43.2cm) CCDC Jointed |   |
| 24-104-003 | 5/8" (15.9mm) x 17" (43.2cm) CCDC Jointed |   |
| 24-124-003 | 3/4" (19.5mm) x 17" (43.2cm) CCDC Jointed |   |

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

### POINTED COPPERCLAD AC ELECTRODES

| Part No.   | Description                               | Application  |
|------------|---|--|
| 20-033-003 | 3/16" (4.8mm) x 12" (30.5cm) 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" (6.4mm) x 12" (30.5cm) CCAC Pointed  |  |
| 20-063-003 | 3/8" (9.5mm) x 12" (30.5cm) CCAC Pointed  |  |

## 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" (6.4mm) x 12" (30.5cm) x 12" (30.5cm)  |
| 48-063-012 | 3/8" (9.5mm) x 12" (30.5cm) x 12" (30.5cm)  |
| 48-083-012 | 1/2" (12.7mm) x 12" (30.5cm) x 12" (30.5cm) |
| 48-123-012 | 3/4" (19.5mm) x 12" (30.5cm) x 12" (30.5cm) |
| 48-163-012 | 1" (25.4mm) x 12" (30.5cm) x 12" (30.5cm)   |

### CARBON ROD

| Part No.   | Description                    |
|------------|--------------------------------|
| 47-183-000 | 1-1/8" (28.6mm) x 12" (30.5cm) |
| 47-203-000 | 1-1/4" (31.8mm) x 12" (30.5cm) |
| 47-243-000 | 1-1/2" (38.1mm) x 12" (30.5cm) |
| 47-323-000 | 2" (50.8mm) x 12" (30.5cm)     |

## INCHES OF GROOVE PER ELECTRODE

| POINTED CCDC COPPERCLAD ELECTRODES |                                  |                                  |                                 |                                  |                                 |                                 |
|------------------------------------|----------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|---------------------------------|
| Groove Depth                       | 5/32" x 12"<br>4.0mm x<br>30.5cm | 3/16" x 12"<br>4.8mm x<br>30.5cm | 1/4" x 12"<br>6.5mm x<br>30.5cm | 5/16" x 12"<br>8.0mm x<br>30.5cm | 3/8" x 12"<br>9.5mm x<br>30.5cm | 1/2" x 14"<br>4.0mm x<br>35.6cm |
| 1/8" (3.2mm)                       | 65" (165cm)                      | 70" (178cm)                      | 81" (206cm)                     | NR                               | NR                              | NR                              |
| 5/32" (4.0mm)                      | 57" (145cm)                      | 65" (165cm)                      | 70" (178cm)                     | 81" (206cm)                      | NR                              | NR                              |
| 3/16" (4.8mm)                      | NR                               | 57" (145cm)                      | 66" (168cm)                     | 72" (183cm)                      | 82" (208cm)                     | NR                              |
| 1/4" (6.4mm)                       | NR                               | 46" (117cm)                      | 58" (147cm)                     | 66" (168cm)                      | 72" (183cm)                     | 112" (285cm)                    |
| 5/16" (8.0mm)                      | NR                               | 20" (51cm) – 2P                  | 46" (117cm)                     | 58" (147cm)                      | 59" (150cm)                     | 100" (254cm)                    |
| 3/8" (9.5mm)                       | NR                               | 12" (30cm) – 2P                  | 24" (61cm) – 2P                 | 47" (119cm)                      | 59" (150cm)                     | 88" (224cm)                     |
| 1/2" (12.7mm)                      | NR                               | NR                               | 14" (36cm) – 2P                 | 26" (66cm) – 2P                  | 47" (119cm)                     | 73" (185cm)                     |
| 5/8" (15.9mm)                      | NR                               | NR                               | NR                              | 16" (41cm) – 2P                  | 26" (66cm) – 2P                 | 57" (145cm)                     |
| 3/4" (19.5mm)                      | NR                               | NR                               | NR                              | NR                               | 16" (41cm) – 2P                 | 43" (109cm)                     |
| 7/8" (22.0mm)                      | NR                               | NR                               | NR                              | NR                               | NR                              | 35" (89cm) – 2P                 |
| 1" (25.4mm)                        | NR                               | NR                               | NR                              | NR                               | NR                              | 28" (71cm) – 2P                 |

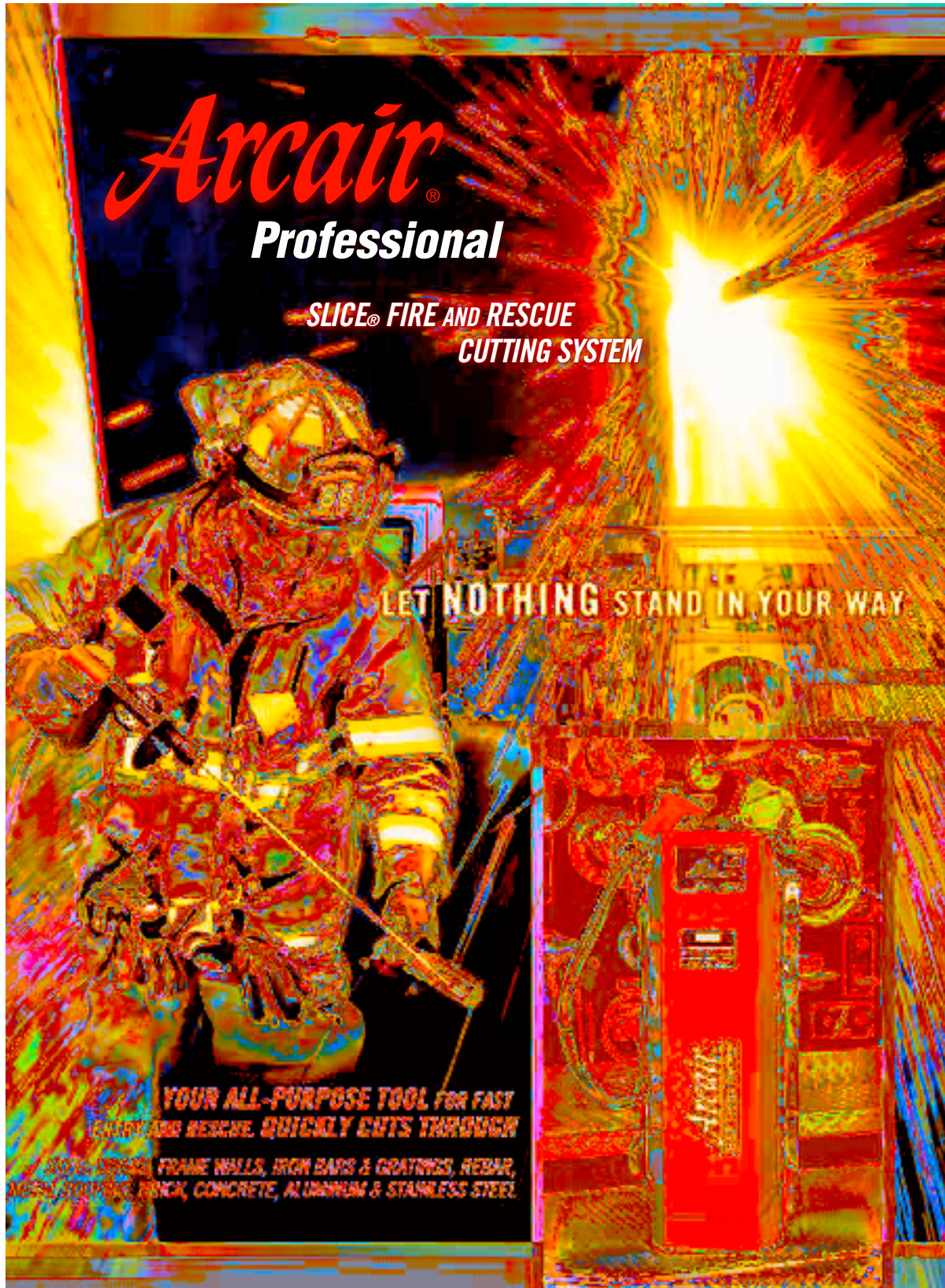
**Note:** All figures derived from gouging mild steel under laboratory conditions. Field results may vary due to type of metal, power source, compressed air supply, operators experience and other parameters.

**NR** = Not Recommended **2P** = Two (2) Passes

| JOINTED JET-ROD CCDC ELECTRODES |                                  |                                 |                                  |
|---------------------------------|----------------------------------|---------------------------------|----------------------------------|
| Groove Depth                    | 5/16" x 14"<br>8.0mm x<br>35.6cm | 3/8" x 17"<br>9.5mm x<br>43.2cm | 1/2" x 17"<br>12.7mm x<br>43.2cm |
| 5/32" (4.0mm)                   | 160" (406cm)                     | NR                              | NR                               |
| 3/16" (4.8mm)                   | 142" (361cm)                     | 206" (523cm)                    | NR                               |
| 1/4" (6.4mm)                    | 125" (318cm)                     | 172" (437cm)                    | 260" (660cm)                     |
| 5/16" (8.0mm)                   | 112" (284cm)                     | 150" (310cm)                    | 188" (478cm)                     |
| 3/8" (9.5mm)                    | 84" (213cm)                      | 136" (345cm)                    | 157" (399cm)                     |
| 1/2" (12.7mm)                   | 72" (183cm) – 2P                 | 103" (262cm)                    | 140" (356cm)                     |
| 5/8" (15.9mm)                   | 48" (122cm) – 2P                 | 75" (191cm) – 2P                | 102" (259cm)                     |
| 3/4" (19.5mm)                   | NR                               | 57" (145cm) – 2P                | 90" (229cm)                      |
| 7/8" (22.0mm)                   | NR                               | NR                              | 80" (203cm)                      |
| 1" (25.4mm)                     | NR                               | NR                              | 72" (183cm)                      |

**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®**  
**Professional**

**SLICE® FIRE AND RESCUE  
CUTTING SYSTEM**

**LET NOTHING STAND IN YOUR WAY**

**YOUR ALL-PURPOSE TOOL FOR FAST  
REENTRY AND RESCUE. QUICKLY CUTS THROUGH  
WELDED STEEL FRAME WALLS, IRON BARS & GRATINGS, REBAR,  
MESH REINFORCE, BRICK, CONCRETE, ALUMINUM & STAINLESS STEEL.**

**FOR MORE INFORMATION, REFER TO PAGES 38 - 45 OF THIS CATALOG.**

## 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
  - Cordless Striker Pack
  - Complete Pack



**WATCH A VIDEO** of the Arcair SLICE Pack in ACTION at [www.ArcairSlice.com](http://www.ArcairSlice.com)

## 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. |
|--|------------------|----------------------|
| 1/4" x 22" (6.4mm x 55.9cm) 25 each /carton  | 43-049-002       | 42-049-002           |
| 1/4" x 22" (6.4mm x 55.9cm) 100 each /carton | 43-049-003       | 42-049-003           |
| 1/4" x 44" (6.4mm x 111.8cm) 25 each /carton | 43-049-005       |                      |
| 3/8" x 18" (9.5mm x 45.7cm) 50 each / carton | 43-049-007       | 42-049-005           |
| 3/8" x 36" (9.5mm x 91.4cm) 25 each / carton | 43-049-009       |                      |



## SLICE® EXOTHERMIC CUTTING TORCH

SLICE torch can use 1/4" & 3/8" diameter of cutting rods by simply changing the collet nut and collet chuck

Comfortable and easy to use pistol grip design handle

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 10ft. (3 M) length is standard

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

## ARCAIR SLICE® CUTTING SYSTEM

| SLICE UTILITY PACK | Part No.   |
|--------------------|------------|
|                    | 63-991-026 |

### FEATURES & BENEFITS

#### Rugged tool box carrying case

- packed with the basic items needed to do a cutting job

#### 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
- standard fittings used to connect to oxygen regulators



| Description                              | Part No.   |
|--|------------|
| Tool Box                                 | 94-134-049 |
| SLICE Torch Assembly                     | 03-003-001 |
| SLICE Striker Assembly                   | 72-012-002 |
| Collet Extension Assembly – 6" (15.24cm) | 94-168-023 |
| Extension Shield                         | 94-777-111 |
| Clamp (Red)                              | 96-168-035 |
| Clamp (Black)                            | 96-168-036 |
| Coupling                                 |            |

## ARCAIR SLICE® CUTTING SYSTEM

| SLICE BATTERY PACK | Part No.   |
|--------------------|------------|
| 120 VAC/60Hz       | 63-991-003 |
| 220 VAC/50Hz       | 63-991-007 |

### FEATURES & BENEFITS

#### Rugged tool box carrying case

#### Power connections twist-lock style connection

- easy to connect to battery box assembly for both torch and striker
- 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
- color coded connections



| Description                              | Part No.   |
|--|------------|
| 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" (15.24cm) | 94-168-023 |
| Extension Shield                         | 94-777-111 |
| Charging Cable – 120VAC/60Hz             | 96-130-297 |
| Charging Cable – 220VAC/50Hz             | 96-130-296 |

Refer to pages 44 and 45 for complete detail on replacement parts list for the SLICE Torch and Striker assembly.



## ARCAIR SLICE® CUTTING SYSTEM

| SLICE CORDLESS STRIKER PACK | Part No.   |
|-----------------------------|------------|
|                             | 63-991-032 |

### FEATURES & BENEFITS

**Rugged tool box carrying case**

- packed with the basic items

**Durable cordless striker**

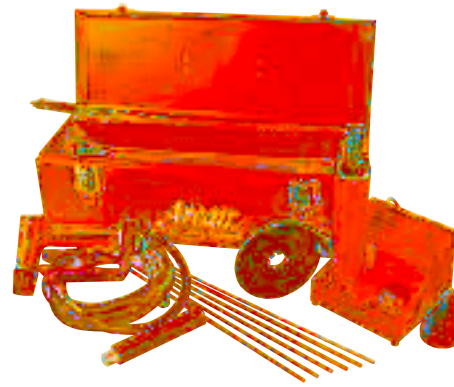
- two small lead-acid batteries contained in the striker handle
- sufficient enough to ignite both 1/4" and 3/8" bare cutting rods

**Power connections twist-lock style connection**

- easy to connect to battery box assembly for both torch and striker
- 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



| Description                              | Part No.   |
|--|------------|
| Tool Box                                 | 94-134-047 |
| SLICE Torch Assembly                     | 03-003-008 |
| SLICE Striker Assembly                   | 72-012-007 |
| Recharging Unit                          | 96-076-034 |
| Igniter and Recharging Unit              | 96-076-030 |
| Cutting Rod 1/4" x 22" (Qty. 25)         | 43-049-002 |
| Collet Extension Assembly – 6" (15.24cm) | 94-168-023 |
| Extension Shield                         | 94-777-111 |
| Coupling                                 |            |

## ARCAIR SLICE® CUTTING SYSTEM

| SLICE INDUSTRIAL PACK | Part No.   |
|-----------------------|------------|
|                       | 63-991-021 |

### FEATURES & BENEFITS

**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 – 10ft. leads
  - striker assembly
  - oxygen regulator
  - battery charger
  - cutting rod holder

**Industrial oxygen hose connected to the torch**

- industry standard "green" hose supplies the torch with oxygen
- standard fittings used to connect to oxygen regulators



| Description                              | Part No.   |
|--|------------|
| 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" (15.24cm) | 94-168-023 |
| Extension Shield                         | 94-777-111 |

| Description                                      | Part No.   |
|--|------------|
| 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                              |            |

Refer to pages 44 and 45 for complete detail on replacement parts list for the SLICE Torch and Striker assembly.

## ARCAIR SLICE® CUTTING SYSTEM

| SLICE COMPLETE PACK | Part. No.  |
|---------------------|------------|
| 120 VAC/60Hz        | 63-991-002 |
| 220 VAC/50Hz        | 63-991-005 |

### FEATURES & BENEFITS

#### 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. (34kg)
- 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
- 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



| Description                                      | Part No.   |
|--|------------|
| 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" (15.24cm)         | 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 – 220VAC/50Hz                     | 96-130-296 |
| Charging Cable – 120VAC/60Hz                     | 96-130-297 |
| Outfit Wrench – Hose Nut and Regulator Nut       |            |
| Outfit Wrench – Oxygen Hose Nut and Male Adapter |            |

Refer to pages 44 and 45 for complete detail on replacement parts list for the SLICE Torch and Striker assembly.

## 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" ----- 40 - 45 seconds
- 1/4" X 44" ----- 80 - 90 seconds
- 3/8" X 18" ----- 30 - 35 seconds
- 3/8" X 36" ----- 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.

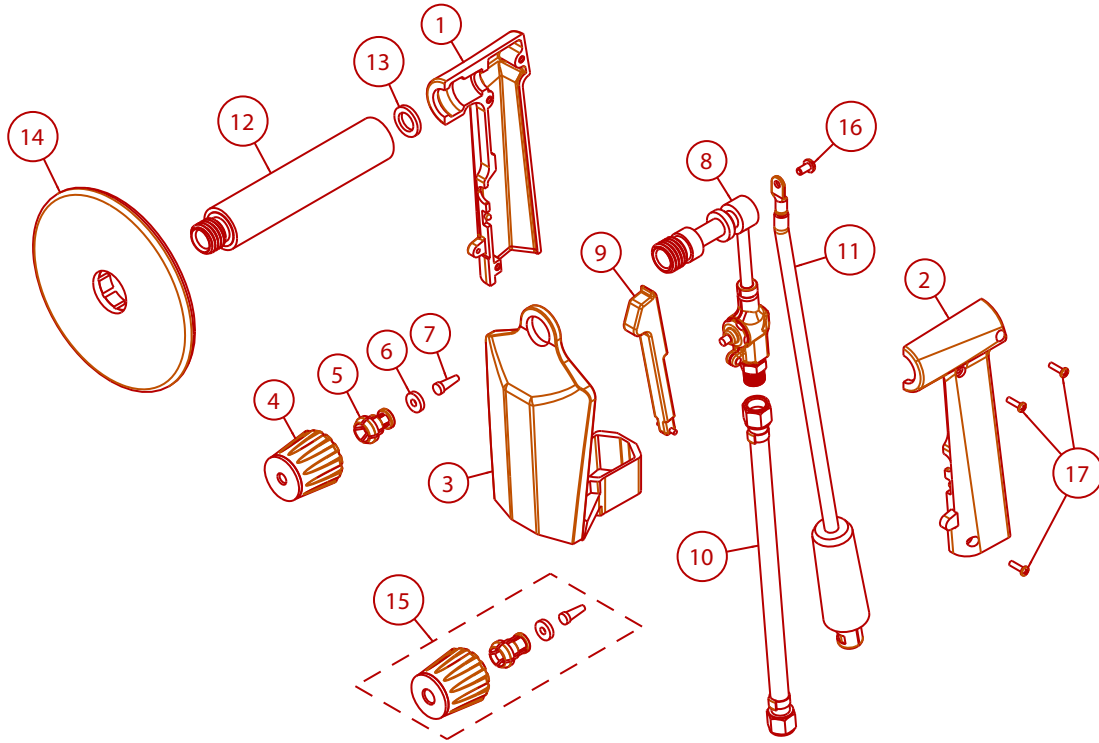
In any application, some adjustments in operating conditions are necessary. The charts are presented only as a guideline. Results will vary. You can approximate these results by using the data presented as a starting point, then adjusting for your job.

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.

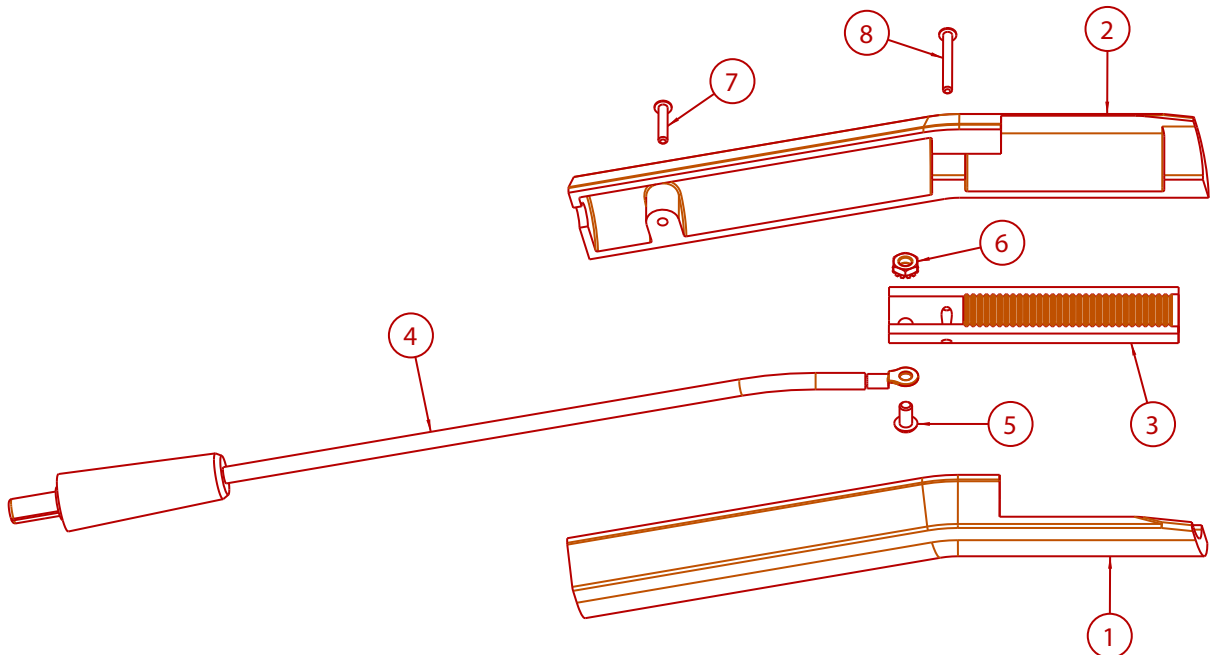
| CUTTING RATES      |           |      |            |     |           |        |
|--------------------|-----------|------|------------|-----|-----------|--------|
| MATERIAL BEING CUT | THICKNESS |      | CUT/IN ROD |     | CUT SPEED |        |
|                    | IN.       | CM   | IN.        | 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     |
|                    | 3/4       | 1.91 |            |     | 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.

## SLICE TORCH REPLACEMENT PARTS



## SLICE STRIKER REPLACEMENT PARTS



| <b>SLICE TORCH REPLACEMENT PARTS LIST</b> |  |                 |
|---|--|-----------------|
| <b>Item No.</b>                           | <b>Description</b>                                 | <b>Part No.</b> |
| 1   | Handle - Rightt Half                               | 94-370-166      |
| 2   | Handle - Left Half                                 | 94-370-167      |
| 3   | Shield   | 94-777-109      |
| 4   | 1/4" Collet Nut Assembly                           | 94-168-022      |
|   | 3/8" Collet Nut Assembly                           | 94-168-024      |
| 5   | 1/4" Collet Chuck                                  | 94-158-048      |
|   | 3/8" Collet Chuck                                  | 94-158-045      |
| 6   | Washer   | 94-940-109      |
| 7   | Flashback Arrestor                                 | 94-305-009      |
| 8   | Head/Body Assembly                                 | 94-378-338      |
| 9   | Lever Assembly                                     | 94-476-082      |
| 10  | Oxygen Hose - 10ft. (3M)                           | 94-396-193      |
| 11  | Cable Assembly for SLICE Torch Part No. 03-003-000 | 96-130-279      |
|   | Cable Assembly (Utility & Industrial Pack)         | 96-130-276      |
|   | Cable Assembly (Battery & Complete Pack)           | 96-130-319      |
|   | Cable Assembly (Cordless Pack)                     | 96-130-324      |
| 12  | Extension - 6" (15.24cm)                           | 94-168-023      |
| 13  | Washer   | 94-940-108      |
| 14  | Extension Shield                                   | 94-777-111      |
| 15  | 3/8" Conversion Kit                                | 94-463-032      |
| 16  | 10-32 Pan Head Screw                               |                 |
| 17  | 6-32 x 9/16" Pan Head Screw                        |                 |

| <b>SLICE STRIKER REPLACEMENT PARTS LIST</b> |                                |                 |
|---|--------------------------------|-----------------|
| <b>Item No.</b>                             | <b>Description</b>             | <b>Part No.</b> |
| 1   | Handle - Right Half            | 94-370-168      |
| 2   | Handle - Left Half             | 94-370-169      |
| 3   | Striker Bar                    | 96-070-031      |
| 4   | Cable Assembly                 | 96-130-320      |
| 5   | #10-32 x 3/8" Pan Head Screw   |                 |
| 6   | #10-32 Hex Nut                 |                 |
| 7   | #6-32 x 1-1/14" Pan Head Screw |                 |
| 8   | #6-32 x 3/4" Pan Head Screw    |                 |

## ARCAIR UNDERWATER CUTTING PRODUCTS

| SEA TORCH "COMBINATION TORCH" | Part No.   |
|-------------------------------|------------|
| 5/16" (7.9mm) Cutting Collet  | 14-050-124 |
| 3/8" (9.5mm) Cutting Collet   | 14-050-126 |

**Specification:** Equipped with 10ft. (3M) Power Cable  
 Length: 8-3/4" (22.2cm)  
 Weight: 4.5 lbs. (2.04kg) with cable

### 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

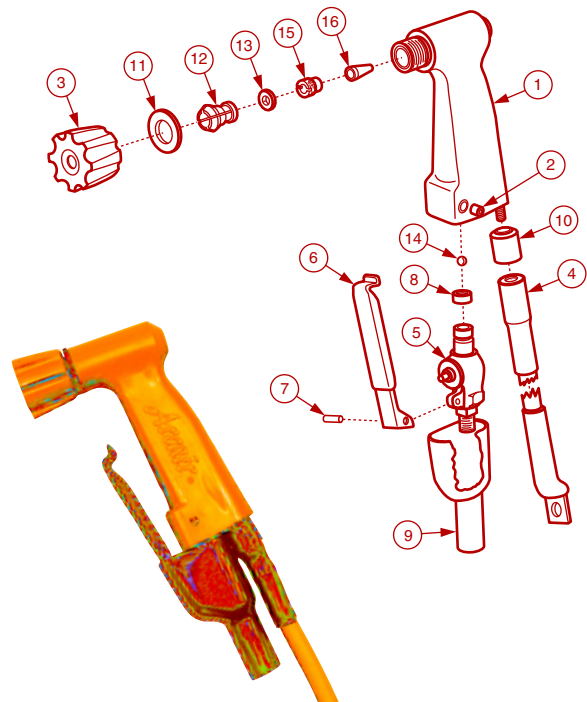
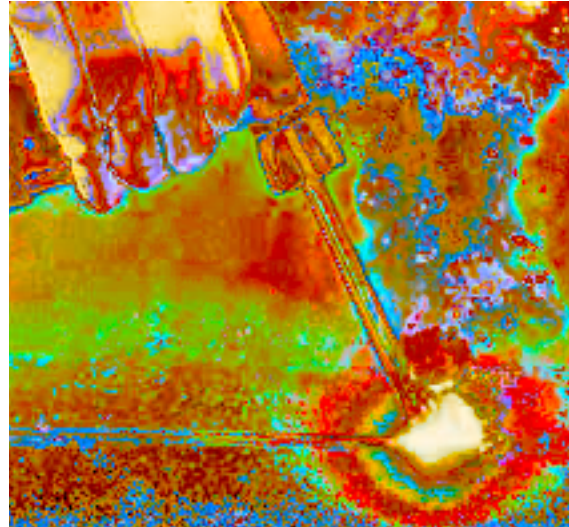
- torch can be used for oxygen-arc cutting
- underwater welding

#### 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



| Item | Description                               | Part No.   |
|------|---|------------|
| 1    | Sea Torch Handle                          | 94-370-157 |
| 2    | Set Screw                                 | 97-373-001 |
| 3    | Molded Collet Ring                        | 94-168-018 |
| 4    | Cable Assembly                            | 96-130-234 |
| 5    | Oxygen Valve                              | 94-921-057 |
| 6    | Valve Lever                               | 94-476-061 |
| 7    | Lever Hinge                               | 94-632-108 |
| 8    | Washer                                    | 94-940-098 |
| 9    | Boot                                      | 94-105-013 |
| 10   | Cable Tip Insulator                       | 94-433-177 |
| 11   | Washer                                    | 94-940-097 |
| 12   | 1/8" (3.2mm) Welding Collet Chuck         | 94-158-047 |
|      | 5/32" (4.0mm) Welding Collet Chuck        | 94-158-042 |
|      | 3/16" (4.8mm) Welding Collet Chuck        | 94-158-044 |
|      | 5/16" (7.9mm) Cutting Collet Chuck        | 94-158-043 |
|      | 3/8" (9.5mm) Cutting Collet Chuck         | 94-158-045 |
|      | 5/16" (7.9mm) Cutting Stubby Collet Chuck | 94-158-051 |
|      | 3/8" (9.5mm) Cutting Stubby Collet Chuck  | 94-158-050 |

| Item | Description                | Part No.   |
|------|----------------------------|------------|
| 13   | Collet Washer              | 94-940-099 |
|      | Stubby Collet Washer       | 94-940-114 |
| 14   | Ball Check Valve           | 94-071-003 |
| 15   | Stubby Blowback Retainer   | 94-695-065 |
|      | Standard Blowback Retainer | 94-695-037 |
| 16   | Spark Arrestor             | 94-305-009 |

## 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

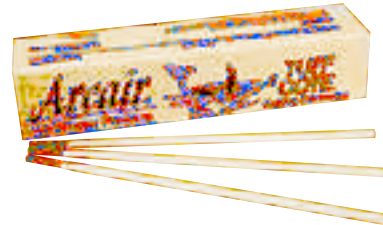
#### Water-proof coating

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

| SEA-CUT® I CUTTING ELECTRODES<br>"OXYGEN-ARC PROCESS" (50 PER CARTON) |              |            |
|---|--------------|------------|
| Diameter  | Length       | Part No.   |
| 5/16" (7.9mm) - .113" ID (2.9mm)                                      | 14" (45.7cm) | 42-059-007 |



| TUFF-COTE® CUTTING ELECTRODES FLUX COATED<br>"OXYGEN-ARC PROCESS" (50 PER CARTON) |              |            |
|---|--------------|------------|
| Diameter  | Length       | Part No.   |
| 5/16" (7.9mm) - .113" ID (2.9mm)  | 14" (45.7cm) | 42-059-008 |



| SEA-JET® CUTTING ELECTRODES<br>"EXOTHERMIC PROCESS" (50 PER CARTON) |              |            |
|---|--------------|------------|
| Diameter  | Length       | Part No.   |
| 3/8" (9.5mm)  | 18" (45.7cm) | 42-066-006 |



| SEA-DRAGON™ CUTTING ELECTRODES<br>"EXOTHERMIC PROCESS" (50 PER CARTON) |              |            |
|--|--------------|------------|
| Diameter   | Length       | Part No.   |
| 3/8" (9.5mm)   | 18" (45.7cm) | 42-075-005 |



## UNDERWATER WELDING PRODUCTS

| Description          | Part No.   |
|----------------------|------------|
| SEA-STINGER II TORCH | 14-050-128 |

**Specification:** Equipped with 10ft. (3M) Power Cable  
 Length: 6" (15.24cm)  
 Weight: 3.65 lbs. (1.66kg) with cable



### FEATURES & BENEFITS

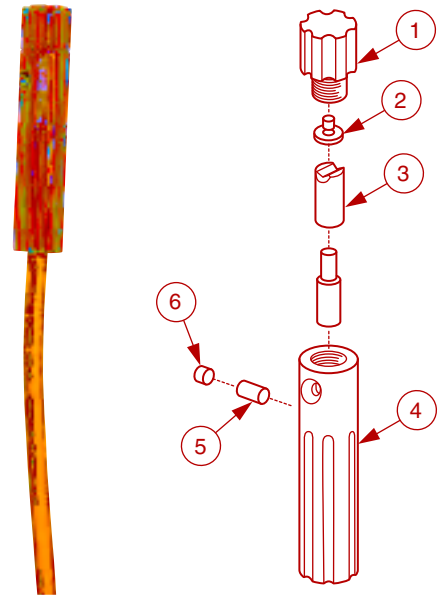
#### Lightweight and durable

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

| Item | Description | Part No.   |
|------|-------------|------------|
| 1    | Head        | 94-378-351 |
| 2    | Cap         | 94-131-067 |
| 3    | Body        | 94-103-228 |
| 4    | Handle      | 94-370-175 |
| 5    | Plug        | 94-638-086 |
| 6    | Set Screw   | 97-373-006 |



## SEA-WELD® WELDING ELECTRODES

### FEATURES & BENEFITS

#### Excellent bead contour

- all position, flux coated SMAW electrode

#### Fillet welds are flat with good base metal wetting

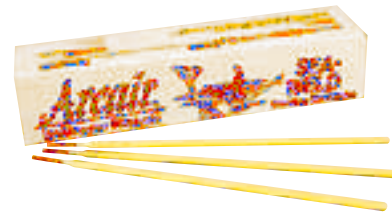
- helps keep undercut to a minimum

#### 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



| Electrode Size               | Part No.   | Current Amperes | Burn Off Time (SEC) |
|------------------------------|------------|-----------------|---------------------|
| 1/8" (3.2mm) x 14" (35.6cm)  | 42-024-002 | 150 - 180       | 40 - 46             |
| 5/32" (4.0mm) x 14" (35.6cm) | 42-984-004 | 170 - 210       | 44 - 56             |
| 3/16" (3.2mm) x 14" (35.6cm) | 42-034-007 | 190 - 230       | 59 - 66             |

Note: Burn off time based on 12" (305mm)



## UNDERWATER GOUGING PRODUCTS

| Description       | Part No.   |
|-------------------|------------|
| ARCWATER II TORCH | 14-050-127 |

**Specification:** Equipped with 10ft. (3M) Power Cable  
 Length: 9-3/4" (22.2cm)  
 Weight: 5.5 lbs. (2.5kg) with cable



### 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 (6.32kg/cm<sup>2</sup> 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

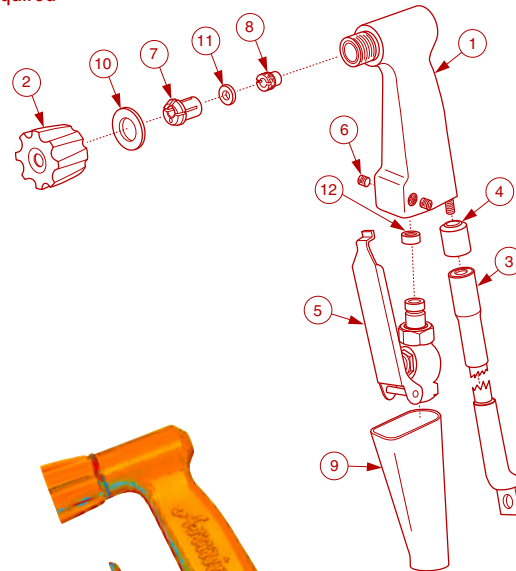
- eliminates the risk of hydrogen gas pockets explosions

#### 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



| Item | Description                 | Part No.   |
|------|-----------------------------|------------|
| 1    | Torch Handle                | 94-370-174 |
| 2    | Molded Collet Ring Assembly | 94-168-018 |
| 3    | Cable Assembly              | 96-130-234 |
| 4    | Cable Tip Insulator         | 94-433-177 |
| 5    | Valve & Lever Assembly      | 94-921-063 |
| 6    | Set Screw (2 Required)      | 97-373-001 |
| 7    | Collet Chuck                | 94-158-049 |
| 8    | Blow Back Retainer          | 94-695-037 |
| 9    | Boot                        | 94-105-021 |
| 10   | Washer                      | 94-940-097 |
| 11   | Washer                      | 94-940-105 |
| 12   | Washer                      | 94-940-098 |

### ARCWATER® GOUGING ELECTRODES (50 PER CARTON)

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



## ARCAIR METALWORKING CHEMICALS

### PROTEX® ORIGINAL

| Description                        | Part No.   |
|------------------------------------|------------|
| 1 Gallon (3.8L) Pail – (case of 4) | 53-011-000 |
| 5 Gallon (19L) Pail                | 53-015-000 |
| 55 Gallon (208L) Drum              | 53-018-000 |

#### FEATURES AND 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



### PROTEX EXTRA ANTI-SPATTER

| Description                          | Part No.   |
|--------------------------------------|------------|
| 7 oz (207 ml) Bottle – (case of 12)  | 53-007-500 |
| 24 oz (710 ml) Bottle – (case of 12) | 53-024-500 |
| 1 Gallon (3.8L) Pail – (case of 4)   | 53-014-500 |
| 5 Gallon (19L) Pail                  | 53-015-500 |
| 55 Gallon (208L) Drum                | 53-018-500 |

#### FEATURES AND 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



### PROTEX PLUS ANTI-SPATTER

| Description                       | Part No.   |
|-----------------------------------|------------|
| 16 oz. (473ml) Can – (case of 12) | 57-021-106 |

#### FEATURES AND BENEFITS

**Reduces spatter 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



## PROTEX ALCLEAN®

| Description                               | Part No.   |
|---|------------|
| 1 Quart (946 ml) Container – (case of 12) | 57-021-200 |
| 1 Gallon (3.8L) Pail – (case of 4)        | 57-014-000 |



### FEATURES AND BENEFITS

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

- spray or brush on large areas
- smaller parts can be dipped into an Alclean bath

**Note:** May turn 2000 series aluminum black

## PROTEX CLEAR ANTI-SPATTER

| Description                        | Part No.   |
|------------------------------------|------------|
| 1 Gallon (3.8L) Pail – (case of 4) | 53-014-201 |
| 5 Gallon (19L) Pail                | 53-015-201 |
| 55 Gallon (208L) Drum              | 53-018-201 |



### FEATURES AND 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

## PROTEX TIP DIP ANTI-SPATTER GEL

| Description                       | Part No.   |
|-----------------------------------|------------|
| 16 oz. (473ml) Jar – (case of 12) | 57-021-105 |



### FEATURES AND 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

## PROTEX ZINC RICH COLD GALVANIZING

| Description                       | Part No.   |
|-----------------------------------|------------|
| 16 oz. (473ml) Can – (case of 12) | 57-031-002 |



### FEATURES AND 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

## ARCAIR CUTSKILL® GOUGING TORCHES

### CS3000 CUTSKILL GOUGING TORCH

#### Specifications

- Accepts Pointed Carbons – 1/8" (3.2mm) to 3/8" (9.5mm)
- Accepts Flat Carbons – 3/8" (9.5mm) and 5/8" (15.9mm)
- Maximum Amperage – 600 Amps
- Compressed Air – 80 psi (5.6kg/cm<sup>2</sup>)
- Compressed Air Flow Rate – 21 cfm (0.23m<sup>3</sup>/min)
- Torch and Cable Weight: 5.4 lbs (2.4kg)



### CSK4000 CUTSKILL GOUGING TORCH

#### Specifications

- Accepts Pointed Carbons – 5/32" (4mm) to 1/2" (12.7mm)
- Accepts Flat Carbons – 3/8" (9.5mm) and 5/8" (15.9mm)
- Maximum Amperage – 1000 Amps
- Compressed Air – 80 psi (5.6kg/cm<sup>2</sup>)
- Compressed Air Flow Rate – 28 cfm (0.79m<sup>3</sup>/min)
- Torch and Cable Weight: 5.4 lbs (2.4kg)



#### 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

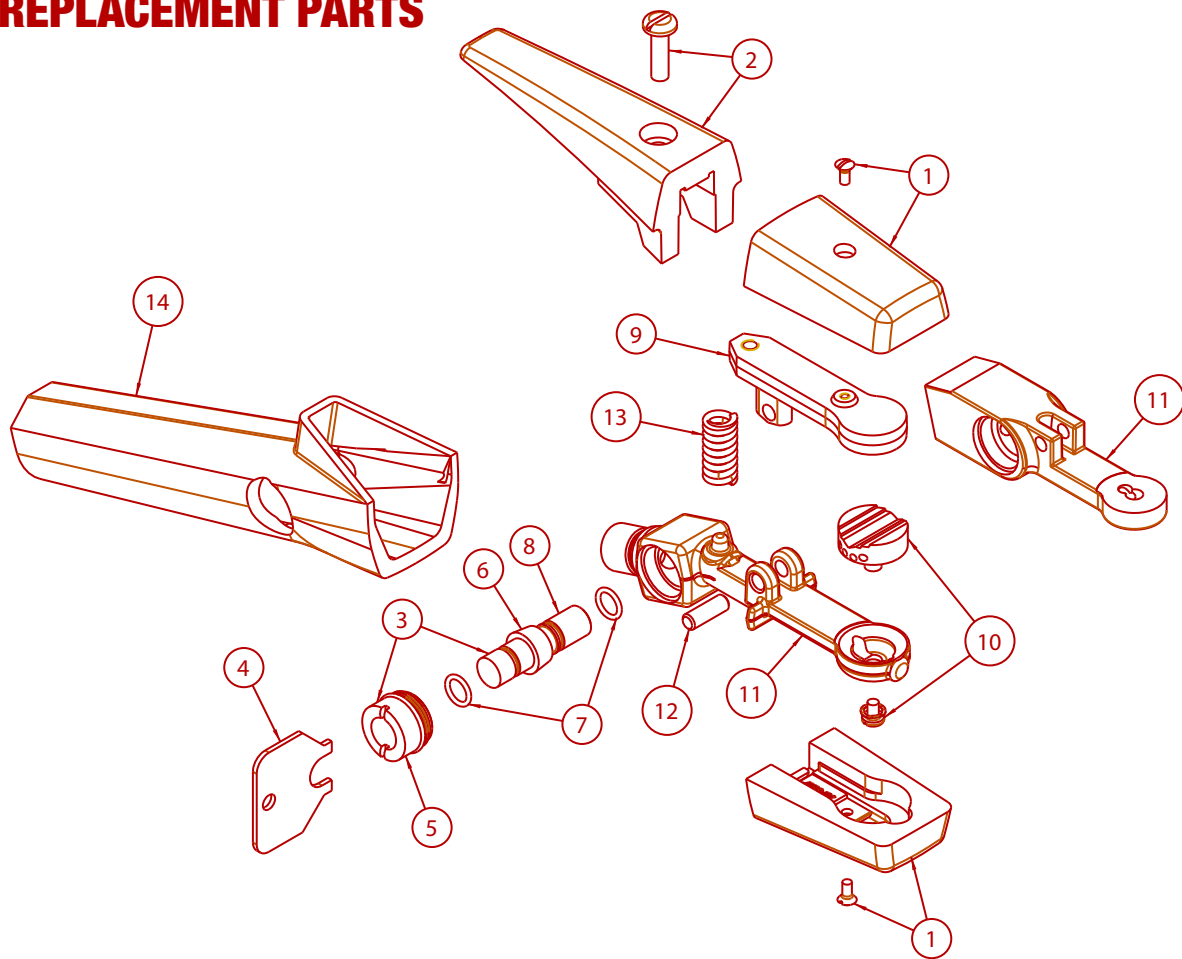
- optimum cable and torch weight to minimize fatigue

##### High quality cable hose

- best quality cable hose offers high heat and abrasion resistance
- non conductive

|         | Torch Only | Torch & 7ft. (2.1M) Cable Assembly | Torch & 10ft. (3M) Cable Assembly | Cable Assembly | 10ft. (3M) Cable Assembly |
|---------|------------|------------------------------------|-----------------------------------|----------------|---------------------------|
| CS3000  | 01-066-000 | 61-066-007                         | 61-066-010                        | 70-066-007     | 70-066-010                |
| CSK4000 | 01-088-000 | 61-088-007                         | 61-088-010                        | 70-088-007     | 70-088-010                |

## CS3000 & CSK4000 CUTSKILL GOUGING TORCH REPLACEMENT PARTS



### TORCH REPLACEMENT PARTS LIST

| Item | Description          | CS3000       | CSK4000       |
|------|----------------------|--------------|---------------|
| 1    | Insulators & Screws  | 94-433-193CS | 94-433-183CSK |
| 2    | Lever & Screw        | 94-476-080CS | 94-476-066CSK |
| 3    | Valve Bonnet & Spool | 94-104-016   | 94-104-016    |
| 4    | Bonnet Wrench        | 94-960-001   | 94-960-001    |
| 5    | Valve Bonnet Only    | 94-104-012   | 94-104-012    |
| 6    | Spool & O-Rings      | 94-801-011   | 94-801-011    |
| 7    | O-Ring (2 Required)  | 94-710-036   | 94-710-036    |
| 8    | Spool Only           | 94-801-010   | 94-801-010    |
| 9    | Upper Arm            | 94-048-120   | 94-048-088    |
| 10   | Head & Screw         | 94-378-366CS | 94-378-368    |
| 11   | Torch Body           | 94-103-232   | 94-103-206    |
| 12   | Hinge Pin            | 94-632-101   | 94-632-094    |
| 13   | Spring               | 94-800-191   | 94-800-077    |
| 14   | Handle               | 94-370-192   | 94-370-163CSK |

## ARCAIR CUTSKILL® AIR CARBON-ARC ELECTRODES

### POINTED COPPERCLAD DC ELECTRODES

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.

| Description                               | Part No.      |
|---|---------------|
| 1/8" (3.2mm) x 12" (30.5cm) CCDC Pointed  | 22-023-003C * |
| 5/32" (4.0mm) x 12" (30.5cm) CCDC Pointed | 22-983-003C   |
| 3/16" (4.8mm) x 12" (30.5cm) CCDC Pointed | 22-033-003C   |
| 1/4" (6.4mm) x 12" (30.5cm) CCDC Pointed  | 22-043-003C   |
| 5/16" (7.9mm) x 12" (30.5cm) CCDC Pointed | 22-053-003C   |
| 3/8" (9.5mm) x 12" (30.5cm) CCDC Pointed  | 22-063-003C   |
| 1/2" (12.7mm) x 14" (35.6cm) CCDC Pointed | 22-082-003C   |

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

### HOLLOW POINTED COPPERCLAD DC ELECTRODES

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.

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

**Note:** Standard 50 pieces per carton

### JOINTED COPPERCLAD DC ELECTRODES

Provides continuous electrode feed for greatly increased savings, especially in production operations.

| Description                               | Part No.      |
|---|---------------|
| 3/8" (9.5mm) x 17" (43.2cm) CCDC Jointed  | 24-064-003 C  |
| 1/2" (12.7mm) x 17" (43.2cm) CCDC Jointed | 24-084-003 C  |
| 5/8" (15.9mm) x 17" (43.2cm) CCDC Jointed | 24-104-003 C  |
| 3/4" (19.5mm) x 17" (43.2cm) CCDC Jointed | 24-124-003 C  |
| 1" (25.4mm) x 17" (43.2cm) CCDC Jointed   | 24-164-003C * |

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

# STATEMENT OF WARRANTY

(as of March 15, 2009)

**LIMITED WARRANTY:** THERMADYNE 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 THERMADYNE products as stated below, THERMADYNE shall, upon written notification thereof and substantiation that the product has been stored, installed, operated, and maintained in accordance with THERMADYNE's specifications, instructions, recommendations and recognized standard industry practice, and not been subject to misuse, repair, neglect, alteration, or accident, correct such defects by suitable repair or replacement, at THERMADYNE's sole option, of any components or parts of the product determined by THERMADYNE to be defective.

**THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

**LIMITATION OF LIABILITY:** THERMADYNE shall not under any circumstances be liable for special, indirect or consequential damages, such as, but not limited to, damage or loss of purchased or replacement goods, business interruption or loss of profit, or claims of customers of distributor (hereinafter the "Purchaser") for service interruption. The remedies of the Purchaser set forth herein are exclusive and the liability of THERMADYNE 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 THERMADYNE 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 THERMADYNE PRODUCT.**

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

This warranty is effective for the time stated in the Warranty Schedule beginning on the date that the authorized distributor delivers the products to the Purchaser.

Warranty repairs or replacement claims under this limited warranty must be submitted by an authorized THERMADYNE repair facility within thirty (30) days of the repair. No transportation costs of any kind will be paid under this warranty. Transportation charges to send products to an authorized warranty repair facility shall be the responsibility of the Purchaser. All returned goods shall be at the Purchaser's risk and expense. This warranty supersedes all previous THERMADYNE warranties.

**ISO 9001  
REGISTERED FIRM**

The Quality System of  
Thermadyne at our  
Denton, Roanoke 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 • [www.thermadyne.com/arcair](http://www.thermadyne.com/arcair)**

***A Global Cutting & Welding Market Leader™***

**WORLD HEADQUARTERS: 16052 Swingley Ridge Road, Suite 300 • St. Louis, Missouri 63017 U.S.A.**

**THE AMERICAS**

**Denton, TX USA  
U.S. Customer Care**  
Ph: 1-800-426-1888 (tollfree)  
Fax: 1-800-535-0557 (tollfree)  
**International Customer Care**  
Ph: 1-940-381-1212  
Fax: 1-940-483-8178

**Miami, FL USA  
Sales Office, Latin America**  
Ph: 1-954-727-8371  
Fax: 1-954-727-8376

**Oakville, Ontario, Canada  
Canada Customer Care**  
Ph: 1-905-827-4515  
Fax: 1-800-588-1714 (tollfree)

**EUROPE**

**Chorley, United Kingdom  
Customer Care**  
Ph: +44 1257-261755  
Fax: +44 1257-224800

**Milan, Italy  
Customer Care**  
Ph: +39 0236546801  
Fax: +39 0236546840

**ASIA/PACIFIC**

**Cikarang, Indonesia  
Customer Care**  
Ph: 6221-8990-6095  
Fax: 6221-893-6067

**Rawang, Malaysia  
Customer Care**  
Ph: +603 6092-2988  
Fax: +603 6092-1085

**Melbourne, Australia  
Australia Customer Care**  
Ph: 1300-654-674 (tollfree)  
Ph: 61-3-9474-2988  
Fax: 61-3-9474-7391

**International**  
Ph: 61-3-9474-7508  
Fax: 61-3-9474-7488

**Shanghai, China  
Sales Office**  
Ph: +86 21-64072626  
Fax: +86 21-64483032

**Singapore  
Sales Office**  
Ph: +65 6832-8066  
Fax: +65 6763-5812