

# Coolmate™ Series



## Quick Specs



### Light/Heavy Industrial Applications

Manufacturing  
Aerospace  
Automotive  
Tube Mills  
Automation

### Processes

TIG (GTAW)  
MIG (GMAW)  
Plasma Cutting  
Resistance Welding

**Input Power** Single-Phase

**Input Voltage** 115 VAC or 230 VAC, 50/60 Hz

**Max. Cooling Capacity** 9,700–18,000 BTU/hr.

### Coolant



**Closed-loop design with radiator** reduces coolant temperatures and prevents the system from overheating. Closed-loop design also recirculates the coolant through a fan-cooled heat exchanger.

**Rustproof coolant reservoir** molded of polyethylene for durability and corrosion resistance.

**Standard inlet/outlet torch fittings** are compatible with TIG and MIG torches having standard 5/8-18 left-hand fittings.

**10-foot (3 m) power cords with plugs** are longer than most power cords in the industry—providing the extra length when required.

**Compatible with Miller® coolants** and are ideal for warm and cold weather conditions, while providing HF or corrosion protection.



Coolant systems are warranted for 1 year, parts and labor.



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### MillerWelds.com



| Model                       | Motor Input Voltage | Maximum Current Draw |       | Maximum Cooling Capacity*                                | Rated Cooling Capacity**                              | Tank Capacity        | Dimensions  | Weight Without Coolant         |
|-----------------------------|---------------------|----------------------|-------|--|---|----------------------|---|--------------------------------|
|                             |                     | 50 Hz                | 60 Hz |  |   |                      |   |                                |
| Coolmate 1                  | 115 VAC, 60 Hz      | —                    | 2.1 A | 2,850 W<br>(9,700 BTU/hr.)<br>1.8 qt./min. (1.7 L/min.)  | 1,210 W<br>(4,120 BTU/hr.)<br>1.1 qt./min. (1 L/min.) | 1 gal.<br>(3.8 L)    | H: 8 in. (203 mm)<br>W: 7.5 in. (191 mm)<br>D: 23.75 in. (603 mm)       | 25 lb.<br>(11 kg)<br>Net       |
| Coolmate 1.3                | 115 VAC, 60 Hz      | —                    | 4.7 A | 3,400 W<br>(11,600 BTU/hr.)<br>3.8 qt./min. (3.6 L/min.) | 1,330 W<br>(4,540 BTU/hr.)<br>1.1 qt./min. (1 L/min.) | 1.3 gal.<br>(4.9 L)  | H: 11.25 in. (286 mm)<br>W: 10.38 in. (264 mm)<br>D: 24 in. (610 mm)    | 43 lb.<br>(20 kg)<br>Net       |
| Coolmate 3 CE               | 115 VAC, 50/60 Hz   | 5.9 A                | 4.7 A | 3,820 W<br>(13,000 BTU/hr.)<br>4.2 qt./min. (4.0 L/min.) | 1,420 W<br>(4,840 BTU/hr.)<br>1.1 qt./min. (1 L/min.) | 3 gal.<br>(11.4 L)   | H: 13.25 in. (337 mm)<br>W: 12.25 in. (311 mm)<br>D: 23.25 in. (584 mm) | 40 lb.<br>(18 kg)<br>Net       |
|                             | 230 VAC, 50/60 Hz   | 2.5 A                | 3.0 A |  |   |                      |   |                                |
| Coolmate 3.5                | 115 VAC, 50/60 Hz   | 5.9 A                | 4.7 A | 4,140 W<br>(14,000 BTU/hr.)<br>5.0 qt./min. (4.7 L/min.) | 1,660 W<br>(5,660 BTU/hr.)<br>1.1 qt./min. (1 L/min.) | 3.5 gal.<br>(13.2 L) | H: 11.75 in. (298 mm)<br>W: 15.75 in. (400 mm)<br>D: 26 in. (660 mm)    | 64 lb.<br>(29 kg)<br>Net       |
| Coolmate 4<br>Coolmate 4 CE | 115 VAC, 50/60 Hz   | 5.9 A                | 4.7 A | 5,500 W<br>(18,000 BTU/hr.)<br>5.9 qt./min. (5.6 L/min.) | 1,780 W<br>(6,070 BTU/hr.)<br>1.1 qt./min. (1 L/min.) | 4 gal.<br>(15 L)     | H: 16.25 in. (413 mm)<br>W: 15.25 in. (387 mm)<br>D: 18.75 in. (476 mm) | 38 lb.<br>(17 kg)<br>Net       |
| Coolmate 3X                 | 115 VAC, 50/60 Hz   | 5.9 A                | 4.7 A | 4,140 W<br>(14,000 BTU/hr.)<br>5.0 qt./min. (4.7 L/min.) | 1,660 W<br>(5,660 BTU/hr.)<br>1.1 qt./min. (1 L/min.) | 3 gal.<br>(11.4 L)   | H: 17 in. (432 mm)<br>W: 27 in. (686 mm)***<br>D: 39 in. (991 mm)       | 158 lb.<br>(72 kg)<br>Shipping |

\* Maximum cooling capacity is based on a 25° Celsius (77° F) environment at maximum flow with a 65° Celsius (149° F) coolant temperature rise.

\*\* Rated IEC standard cooling capacity is based on a 25° Celsius (77° F) environment at a flow of one liter per minute with a 40° Celsius (104° F) coolant temperature rise.

\*\*\* Width measurement includes rear wheels and axle. Cooler width without rear wheels and axle is 22.25 inches (565 mm).

All models are certified by Canadian Standards Association to both the Canadian and U.S. Standards.

All CE models conform to the applicable parts of the IEC 60974 series of standards.

## Product Descriptions

### Coolmate™ 1



#300 360 115 VAC, 60 Hz

**Light-industrial 1-gallon cooler designed for water-cooled torches on power sources rated up to 200 amps.\***

- Designed to integrate with the Dynasty® 200 and Maxstar® 200
- Compact horizontal design allows stacking and convenient mounting
- Lightweight at 25 pounds (11 kg) dry
- Equipped with lighted on/off power switch on front panel
- Filter and coolant filling spout are conveniently located for easy access
- Fluid level sight window
- Polyethylene-molded coolant tank and filler spout are rustproof
- Thermally protected piston pump guards against overheating
- Stainless steel oscillating piston pump provides consistent coolant flow and pressure rating with long pump-life expectancy

### Coolmate™ 1.3



#300 972 115 VAC, 60 Hz

**Light-industrial 1.3-gallon cooler designed for water-cooled torches on power sources rated up to 280 amps.\***

- Designed to integrate with Dynasty 280 and Maxstar 280 models
- Compact horizontal design allows stacking and convenient mounting
- Weighs 43 pounds (20 kg) dry
- Equipped with power-on indicator light on front panel
- Filter and coolant filling spout are conveniently located for easy access
- Fluid level sight window
- Polyethylene-molded coolant tank and filler spout are rustproof
- Factory-set pressure-relief valve (55 PSI) maintains consistent pressure during operation
- Thermally protected 1/4-HP motor guards against overheating
- Efficient fin-and-tube heat exchanger
- Brass-body positive-displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

\*May vary with torch design and cable length.

## Product Descriptions

### Coolmate™ 3



#043 007 115 VAC, 50/60 Hz CE  
#043 008 230 VAC, 50/60 Hz CE

#### Economical 3-gallon cooler designed for water-cooled torches rated up to 500 amps.\*

- Compact horizontal design allows stacking and convenient mounting
- Midsize cooler weighs 40 pounds (18 kg) dry
- On/off power switch, “paddle wheel” coolant flow indicator, filter and coolant filling spout are all conveniently located on front panel
- Polyethylene-molded coolant tank, fan shroud and filler spout are rustproof
- Factory-set pressure-relief valve (55 PSI) maintains consistent pressure during operation
- Thermally protected 1/4-HP motor guards against overheating
- Efficient fin-and-tube heat exchanger
- Brass-body positive-displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

### Coolmate™ 3X



#300 419  
115 VAC, 50/60 Hz



Includes  
wheels and  
handles.

#### Industrial 3-gallon cooler designed for water-cooled torches rated up to 500 amps.\*

- Includes easy-load dual cylinder rack, running gear and handles for Syncrowave® 250 DX/350 LX
- “Paddle wheel” coolant flow indicator, filter and coolant filling spout are all conveniently located on front panel
- Polyethylene-molded coolant tank, fan shroud and filler spout are rustproof
- Factory-set pressure-relief valve (55 PSI) maintains consistent pressure during operation
- Thermally protected 1/4-HP motor guards against overheating
- Efficient fin-and-tube heat exchanger
- Brass-body positive-displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

### Coolmate™ 3.5



#300 245 115 VAC, 50/60 Hz CE

#### Industrial 3.5-gallon cooler designed for water-cooled torches rated up to 600 amps.\*

- Designed to integrate with Dynasty® 350/700 and Maxstar® 350/700
- Horizontal design allows stacking or convenient mounting onto a MIGRunner™ cart
- Weighs only 64 pounds (29 kg) dry
- Polyethylene-molded coolant tank, fan shroud and filler spout are rustproof
- Factory-set pressure-relief valve (55 PSI) maintains consistent pressure during operation
- Thermally protected 1/4-HP motor guards against overheating
- Efficient fin-and-tube heat exchanger
- Equipped with internal check valves to prevent coolant flow when torch is disconnected
- Brass-body positive-displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

### Coolmate™ 4



#042 288  
115 VAC, 50/60 Hz  
#042 288-01-5  
115 VAC, 50/60 Hz CE

#### The best performer in its class — industrial 4-gallon cooler designed for water-cooled torches rated up to 600 amps.\*

- Weighs only 38 pounds (17 kg) dry
- Tough one-piece case is portable and rustproof
- Convenient carrying handle and filler spout are molded into case
- Easily accessible coolant filter
- Factory-set pressure-relief valve (60 PSI) maintains consistent pressure during operation
- Thermally protected 1/4-HP motor guards against overheating
- Efficient fin-and-tube heat exchanger
- Coolant system has a constant flow of coolant inside to keep the pump primed and to reduce algae buildup in the tank
- Brass-body positive-displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

\*May vary with torch design and cable length.

# Genuine Miller® Accessories

## Water-Cooled TIG Torch Adapters



### 50-mm Dinse with Water Return Line #195 377

For Maxstar 200, 280 and 350, Dynasty 200, 280 and 350, and Syncrowave 250 and 350. Used with all Miller I Weldcraft water-cooled torches.



With gas and water return line.

### 50-mm Dinse Flow Thru #195 380

For Syncrowave 210. Used with all Miller I Weldcraft water-cooled torches.



### 50-mm Thread Lock Style #225 028

For Dynasty 700 and Maxstar 700. Used with all Miller I Weldcraft water-cooled torches.



### Water-Cooled TIG Block Adapter #45V11

For Miller power sources with stud-type output terminals.



### Replacement Water Hose for Dinse Adapter #222 809 18 in. (457 mm)

## Water Hoses and Connectors



### Water Hose Extension #40V76R6 6 ft. (1.8 m)

Hose with two male 5/8-inch 18 LH thread connections.



### Water Coupler #057 020

Brass hose fitting with 5/8-inch 18 LH thread.

## Coolants



Sold in multiples of four in 1-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37° Fahrenheit (-38° C) or boiling to 227° Fahrenheit (108° C).

### Low-Conductivity Coolant (Clear, Pre-Mixed) #043 810

For TIG and MIG applications. NOT for use in push-pull systems or systems where aluminum is in coolant path/circuit.

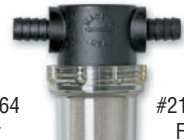
### Aluminum-Protecting Coolant (Green, Pre-Mixed) #043 809

Primarily used in push-pull systems where aluminum is in coolant path/circuit and high frequency is NOT used.

## Replacement Filter Assemblies



#166 564 Filter



#215 667 Filter

### Filter Assemblies

#166 564 For Coolmate 1, 1.3, 3 and 3X

#215 667 For Coolmate 3.5



### Filter Strainer

#146 249 For Coolmate 4

Located inside pump assembly. See owner's manual.

# Genuine Miller® Accessories (Continued)

## Torch Kits



### 250 A Water-Cooled Torch Kit #300 185

- 25-foot (7.6 m) Weldcraft® WP20 torch with Dinse
- Torch cable cover
- AK4C torch accessory kit includes shielding cups, collets, collet bodies and

- 2% ceriated tungsten electrodes (1/16, 3/32 and 1/8 inch)
- Miller I Smith® regulator/flowmeter HM2051A-580
- Gas hose (regulator to machine)
- 15-foot (4.6 m) 1/0 weld lead with clamp (work or ground lead) and Dinse connector



### 310 A Water-Cooled Torch Kit #300 183

- 25-foot (7.6 m) Weldcraft® CS310 torch with Dinse
- Torch cable cover
- CS310AKC torch accessory kit includes shielding cups, collets, collet bodies

- and 2% ceriated tungsten electrodes (1/16, 3/32 and 1/8 inch)
- Miller I Smith® regulator/flowmeter HM2051A-580
- Gas hose (regulator to machine)
- 15-foot (4.6 m) 1/0 weld lead with clamp (work or ground lead) and Dinse connector



### 280 A Water-Cooled Torch Kit #300 990

- 25-foot (7.6 m) Weldcraft® WP280 torch with Dinse
- Torch cable cover
- AK4C torch accessory kit includes shielding cups, collets, collet bodies and

- 2% ceriated tungsten electrodes (1/16, 3/32 and 1/8 inch)
- Miller I Smith® regulator/flowmeter HM2051A-580
- Gas hose (regulator to machine)
- 15-foot (4.6 m) 1/0 weld lead with clamp (work or ground lead) and Dinse connector



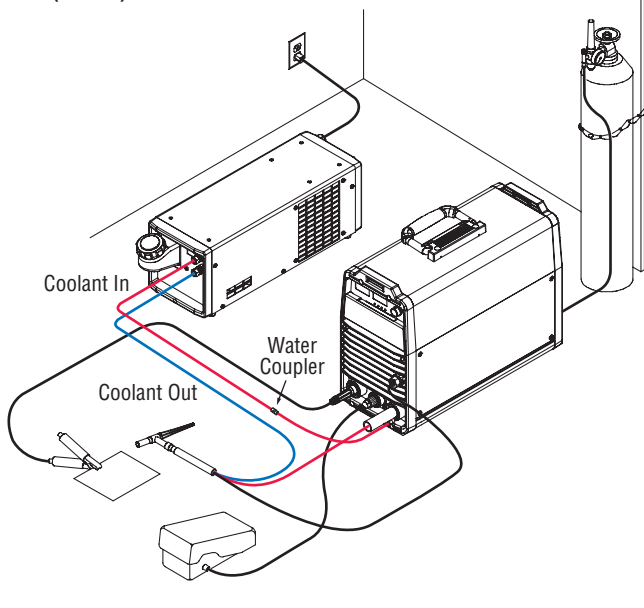
### 400 A Water-Cooled Torch Kit #300 186

- 25-foot (7.6 m) Weldcraft® WP18SC torch with thread-lock
- Torch cable cover
- AK18C torch accessory kit includes shielding cups, collets, collet bodies

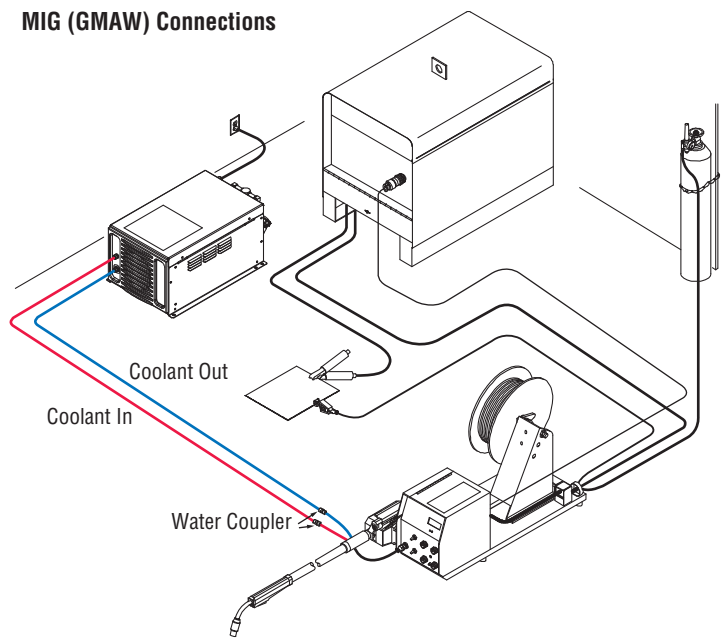
- and 2% ceriated tungsten electrodes (3/32, 1/8 and 5/32 inch)
- Miller I Smith® regulator/flowmeter H1954D-580
- Gas hose (regulator to machine)
- 12-foot (3.7 m) 4/0 weld lead with clamp (work or ground lead)

## Typical Coolmate™ Connections

### TIG (GTAW) Connections



### MIG (GMAW) Connections



## Typical Coolmate™ Usages



Coolmate 1 shown with  
Maxstar® 200 DX TIGRunner®



Coolmate 3.5 shown with  
Dynasty® 350 and 700 TIGRunners®



Coolmate 1.3 shown with  
Maxstar® 280 DX TIGRunner®



Coolmate 3X shown with  
Syncrowave® 250 DX TIGRunner®

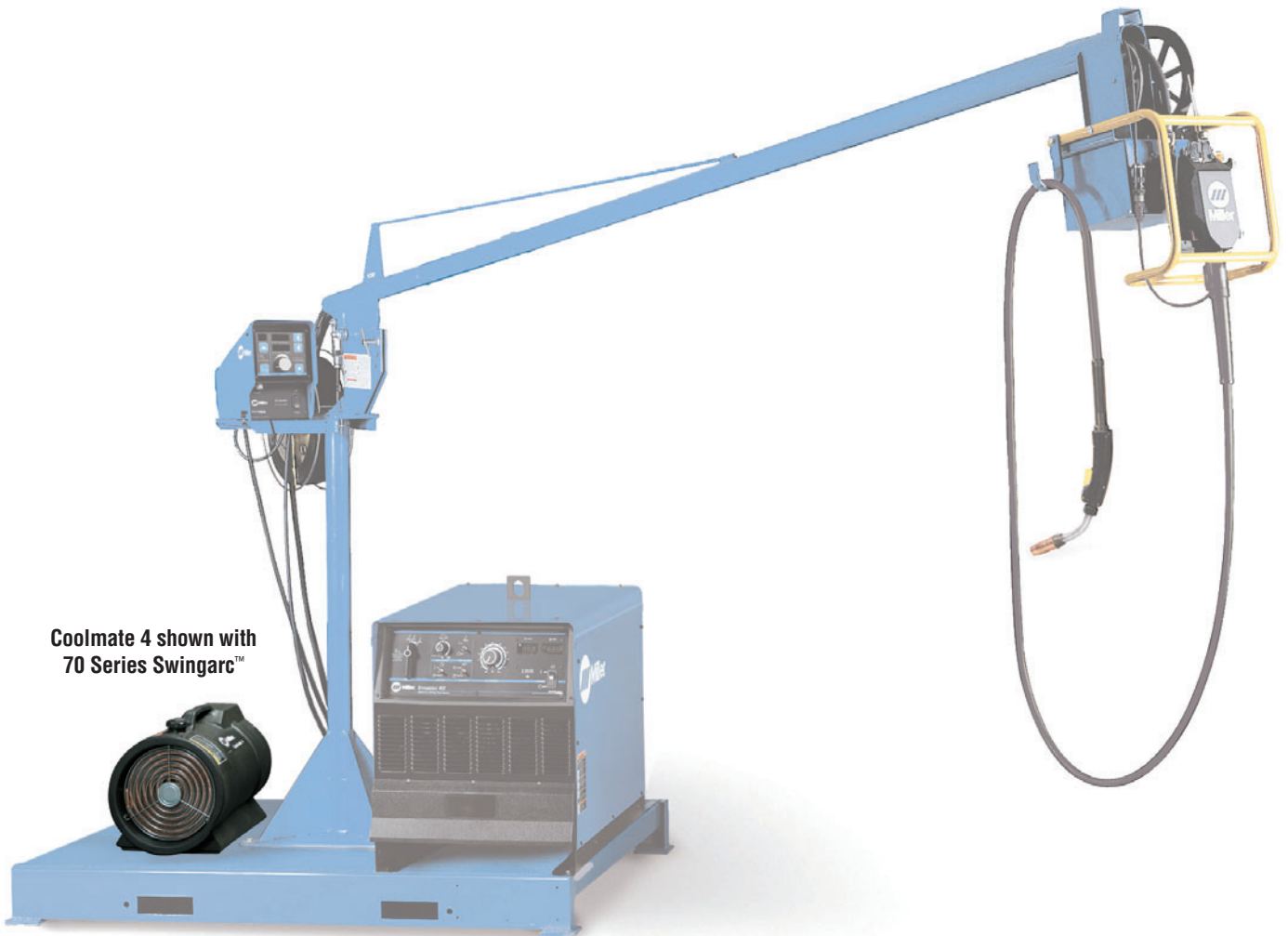
## Typical Coolmate™ Usages



Coolmate 3 shown with  
XMT® 350 MIGRunner™



Coolmate 3.5 shown with  
XMT® 350 MIGRunner™



Coolmate 4 shown with  
70 Series Swingarc™

## Ordering Information

| Equipment and Options                             | Stock No.     | Description  | Qty. | Price |
|---|---------------|--|------|-------|
| Coolmate™ 1                                       | #300 360      | 115 VAC, 60 Hz   |      |       |
| Coolmate™ 1.3                                     | #300 972      | 115 VAC, 60 Hz   |      |       |
| Coolmate™ 3                                       | #043 007      | 115 VAC, 50/60 Hz with CE  |      |       |
|   | #043 008      | 230 VAC, 50/60 Hz with CE  |      |       |
| Coolmate™ 3.5                                     | #300 245      | 115 VAC, 50/60 Hz with CE  |      |       |
| Coolmate™ 4                                       | #042 288      | 115 VAC, 50/60 Hz  |      |       |
|   | #042 288-01-5 | 115 VAC, 50/60 Hz with CE  |      |       |
| Coolmate™ 3X                                      | #300 419      | 115 VAC, 50/60 Hz  |      |       |
| <b>Accessories</b>                                |               |  |      |       |
| Water-Cooled TIG Torch Adapters                   | #195 377      | 50-mm Dinse with water return line   |      |       |
|   | #195 380      | 50-mm Dinse flow thru with gas and water return line   |      |       |
|   | #225 028      | 50-mm thread lock style  |      |       |
|   | #45V11        | Water-cooled TIG block   |      |       |
|   | #222 809      | 18-in. (457 mm) replacement water hose   |      |       |
| Water Hose Extensions                             | #40V76R6      | 6-ft. (1.8 m) hose with two male 5/8-in. 18 LH thread connections                                    |      |       |
| Water Coupler                                     | #057 020      | Brass hose fitting with 5/8-in. 18 LH thread   |      |       |
| Low-Conductivity Coolant<br>(Clear, Pre-Mixed)    | #043 810      | For TIG and MIG applications. NOT for push-pull systems or where aluminum is in coolant path/circuit |      |       |
| Aluminum-Protecting Coolant<br>(Green, Pre-Mixed) | #043 809      | For push-pull systems where aluminum is in coolant path/circuit and high frequency is NOT used       |      |       |
| Filter Assemblies                                 | #166 564      | For use with Coolmate 1, 3 and 3X  |      |       |
|   | #215 667      | For use with Coolmate 3.5  |      |       |
| Filter Strainer                                   | #146 249      | For use with Coolmate 4  |      |       |
| Torch Kits  | #300 185      | 250 A with WP20 water-cooled torch   |      |       |
|   | #300 990      | 280 A with WP280 water-cooled torch  |      |       |
|   | #300 183      | 310 A with CS310 water-cooled torch  |      |       |
|   | #300 186      | 400 A with WP18SC water-cooled torch   |      |       |

Date:

Total Quoted Price:

Distributed by:

