

# Coolmate™ Series

**Coolant Systems** 

## 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** 120 or 240 V, 50/60 Hz

**Max. Cooling Capacity** 11,600–18,000 Btu/hr.



**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-inch 18 left-hand fittings.

**10-foot (3 m) power cords** 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 one year, parts and labor.



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### MillerWelds.com



| Model                       | Motor Input Voltage | Maximum Current Draw<br>50 Hz 60 Hz | Maximum Cooling Capacity*                                | Rated Cooling Capacity**                              | Tank Capacity        | Dimensions                                                              | Weight Without Coolant          |
|-----------------------------|---------------------|-------------------------------------|----------------------------------------------------------|-------------------------------------------------------|----------------------|-------------------------------------------------------------------------|---------------------------------|
| Coolmate 1.3 CE             | 115 V, 50/60 Hz     | 5.9 A 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: 11.38 in. (289 mm)<br>W: 10.38 in. (264 mm)<br>D: 24.25 in. (616 mm) | Net:<br>46 lb.<br>(21 kg)       |
| Coolmate 3 CE               | 115 V, 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) | Net:<br>40 lb.<br>(18 kg)       |
|                             | 230 V, 50/60 Hz     | 2.5 A 3.0 A                         |                                                          |                                                       |                      |                                                                         |                                 |
| Coolmate 3.5 CE             | 115 V, 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)    | Net:<br>64 lb.<br>(29 kg)       |
| Coolmate 4<br>Coolmate 4 CE | 115 V, 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) | Net:<br>38 lb.<br>(17 kg)       |
| Coolmate 3X                 | 115 V, 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)       | Shipping:<br>158 lb.<br>(72 kg) |

\* Maximum cooling capacity is based on a 25° Celsius (77°F) environment at maximum flow with a 65° Celsius (117°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 (72°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™ 1.3



**301616**

120 V, 50/60 Hz, CE

**301617**

120 V, 50/60 Hz, CE, quick connect

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

- Designed to integrate with Dynasty 210/300 and Maxstar 210/280 models
- Compact horizontal design allows stacking and convenient mounting
- Weighs 46 pounds (21 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

### Coolmate™ 3



**043007**

120 V, 50/60 Hz, CE

**043008**

240 V, 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

Note: 240 V model **043008** does not include power plug.

\*May vary with torch design and cable length.

## Product Descriptions

### Coolmate™ 3.5



**300245**  
120 V, 50/60 Hz, CE

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

- Designed to integrate with Dynasty® 400/800 and Maxstar® 400/800
- 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



**042288**  
120 V, 50/60 Hz  
**042288015**  
120 V, 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.*

## Water-Cooled TIG Torch Adapters



**50 mm Dinse-Style with Water Return Line 195377**

For Dynasty 210/300/400, Maxstar 210/280/400 and Syncrowave 300/400. Used with all Weldcraft™ water-cooled torches.



With gas and water return line.

**50 mm Dinse-Style Flow Thru 195380**

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



**50 mm Thread-Lock-Style 225028**

For Dynasty 800 and Maxstar 800. Used with all Weldcraft™ water-cooled torches.



**Water-Cooled TIG Block Adapter 45V11**  
For Miller power sources with stud-type output terminals.



**Replacement Water Hose for Dinse-Style Adapter 222809** 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 057020**

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

## Coolants



Must be ordered in quantities of four. One-gallon recyclable plastic bottle. 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) 043810

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) 043809

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

## Replacement Filter Assemblies



166564 filter



215667 filter

### Filter Assemblies

**166564** For Coolmate 1.3, 3 and 3X

**215667** For Coolmate 3.5



### Filter Strainer 146249

For Coolmate 4. Located inside pump assembly. See owner's manual.

### Torch Kits



#### W-250 (WP-20) Torch Kit 300185

- Weldcraft™ W-250 25-foot (7.6 m) TIG torch with Dinse-style connector
- Torch cable cover
- Work clamp with 15-foot (4.6 m) 1/0 cable and Dinse-style connector
- Flowmeter regulator
- Gas hose (regulator to machine)
- AK4GL torch accessory kit includes short back cap, nozzles, gas lenses, collets and 2% ceriated tungsten electrodes (1/16, 3/32 and 1/8 inch)



#### W-375 Torch Kit 301268

- Weldcraft™ W-375 25-foot (7.6 m) TIG torch with Dinse-style connector
- Torch cable cover
- Work clamp with 15-foot (4.6 m) 1/0 cable and Dinse-style connector
- Flowmeter regulator
- Gas hose (regulator to machine)
- AK4GL torch accessory kit includes short back cap, nozzles, gas lenses, collets and 2% ceriated tungsten electrodes (1/16, 3/32 and 1/8 inch)



#### W-280 (WP-280) Torch Kit 300990

- Weldcraft™ W-280 25-foot (7.6 m) TIG torch with Dinse-style connector
- Torch cable cover
- Work clamp with 15-foot (4.6 m) 1/0 cable and Dinse-style connector
- Flowmeter regulator
- Gas hose (regulator to machine)
- AK4GL torch accessory kit includes short back cap, nozzles, gas lenses, collets and 2% ceriated tungsten electrodes (1/16, 3/32 and 1/8 inch)



#### W-400 (WP-18SC) Torch Kit 300186

- Weldcraft™ W-400 25-foot (7.6 m) TIG torch with thread-lock connector
- Torch cable cover
- Work clamp with 12-foot (3.7 m) 4/0 cable with thread-lock connector
- Flowmeter regulator
- Gas hose (regulator to machine)
- AK18C torch accessory kit includes short back cap, nozzles, collets, collet bodies and 2% ceriated tungsten electrodes (3/32, 1/8 and 5/32 inch)

## Typical Coolmate™ Usages



**Coolmate 1.3 shown with  
Maxstar® 280 DX TIGRunner®**



**Coolmate 3 shown with  
XMT® 350 MIGRunner™**

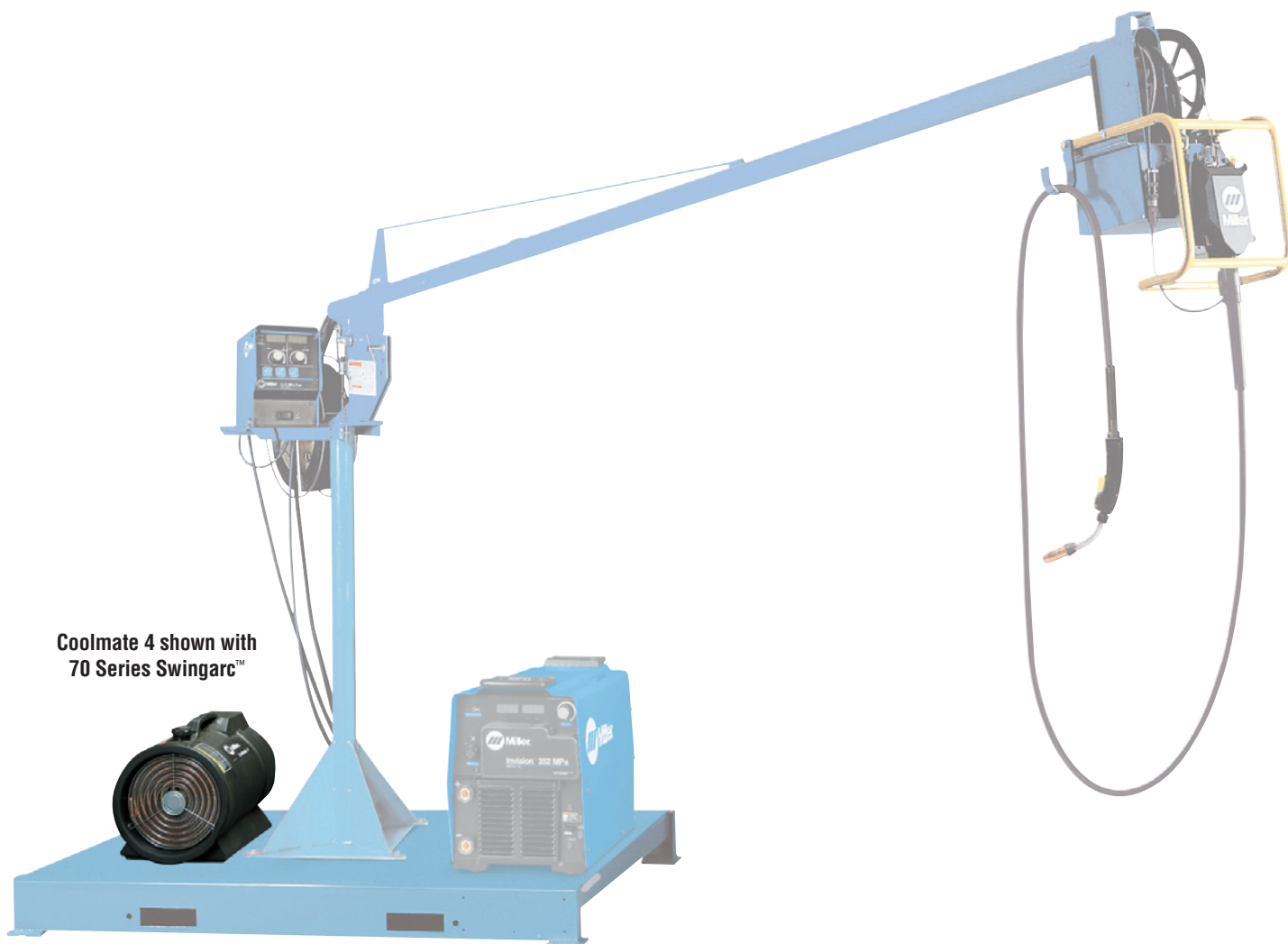


**Coolmate 3.5 shown with  
XMT® 350 MIGRunner™**



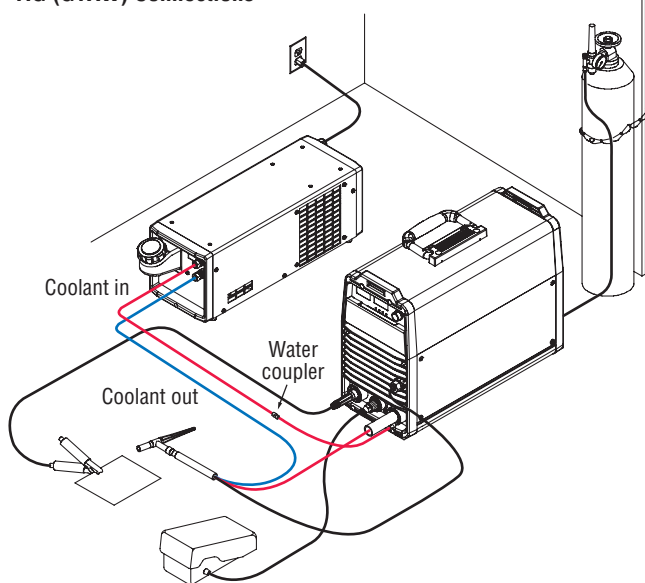
**Coolmate 3.5 shown with  
Dynasty® 400 TIGRunner® and 800 TIGRunner®**

## Typical Coolmate™ Usages

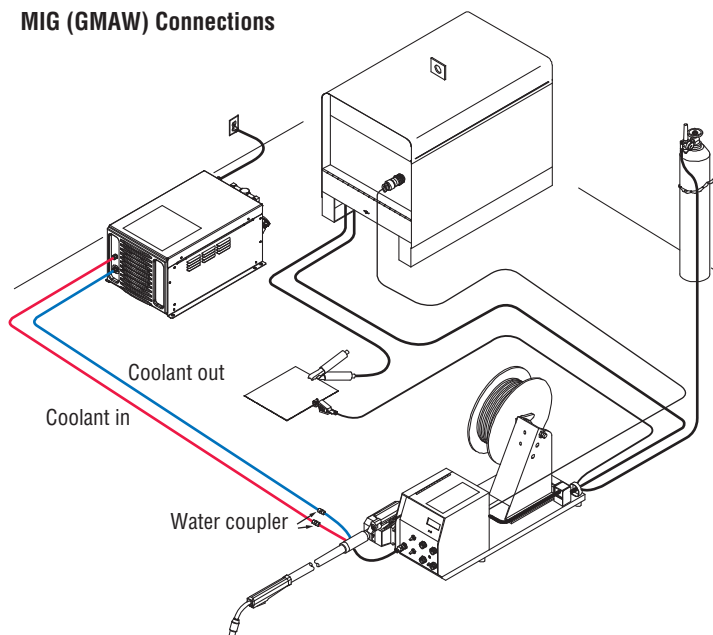


## Typical Coolmate™ Connections

### TIG (GTAW) Connections



### MIG (GMAW) Connections



## Ordering Information

| Equipment and Options                                                                        | Stock No.        | Description                                                                                                                   | Qty. | Price |
|----------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------|------|-------|
| <b>Coolmate™ 1.3</b>                                                                         | <b>301616</b>    | 120 V, 50/60 Hz, <b>CE</b> . <i>Requires coolant</i>                                                                          |      |       |
|                                                                                              | <b>301617</b>    | 120 V, 50/60 Hz, <b>CE</b> . Quick connect. <i>Requires coolant</i>                                                           |      |       |
| <b>Coolmate™ 3</b>                                                                           | <b>043007</b>    | 120 V, 50/60 Hz, <b>CE</b> . <i>Requires coolant</i>                                                                          |      |       |
|                                                                                              | <b>043008</b>    | 240 V, 50/60 Hz, <b>CE</b> . <i>Requires coolant</i>                                                                          |      |       |
| <b>Coolmate™ 3.5</b>                                                                         | <b>300245</b>    | 120 V, 50/60 Hz, <b>CE</b> . <i>Requires coolant</i>                                                                          |      |       |
| <b>Coolmate™ 4</b>                                                                           | <b>042288</b>    | 120 V, 50/60 Hz. <i>Requires coolant</i>                                                                                      |      |       |
|                                                                                              | <b>042288015</b> | 120 V, 50/60 Hz, <b>CE</b> . <i>Requires coolant</i>                                                                          |      |       |
| <b>Accessories</b>                                                                           |                  |                                                                                                                               |      |       |
| Water-Cooled TIG Torch Adapters                                                              | <b>195377</b>    | 50 mm Dinse-style with water return line                                                                                      |      |       |
|                                                                                              | <b>195380</b>    | 50 mm Dinse-style flow thru with gas and water return line                                                                    |      |       |
|                                                                                              | <b>225028</b>    | 50 mm thread-lock-style                                                                                                       |      |       |
|                                                                                              | <b>45V11</b>     | Water-cooled TIG block                                                                                                        |      |       |
|                                                                                              | <b>222809</b>    | 18 in. (457 mm) replacement water hose                                                                                        |      |       |
| Water Hose Extensions                                                                        | <b>40V76R6</b>   | 6 ft. (1.8 m) hose with two male 5/8 in. 18 LH thread connections                                                             |      |       |
| Water Coupler                                                                                | <b>057020</b>    | Brass hose fitting with 5/8 in. 18 LH thread                                                                                  |      |       |
| Low-Conductivity Coolant<br>(clear, pre-mixed)<br>(must be ordered in quantities of four)    | <b>043810</b>    | 1-gallon plastic bottle. 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)<br>(must be ordered in quantities of four) | <b>043809</b>    | 1-gallon plastic bottle. For push-pull systems where aluminum is in coolant path/circuit and high frequency is NOT used       |      |       |
| Filter Assemblies                                                                            | <b>166564</b>    | For use with Coolmate 1.3 and 3                                                                                               |      |       |
|                                                                                              | <b>215667</b>    | For use with Coolmate 3.5                                                                                                     |      |       |
| Filter Strainer                                                                              | <b>146249</b>    | For use with Coolmate 4                                                                                                       |      |       |
| Torch Kits                                                                                   | <b>300185</b>    | 250 A with W-250 (WP-20) water-cooled torch                                                                                   |      |       |
|                                                                                              | <b>300990</b>    | 280 A with W-280 (WP-280) water-cooled torch                                                                                  |      |       |
|                                                                                              | <b>301268</b>    | 375 A with W-375 water-cooled torch                                                                                           |      |       |
|                                                                                              | <b>300186</b>    | 400 A with W-400 (WP-18SC) water-cooled torch                                                                                 |      |       |

Date:

Total Quoted Price:

Distributed by:

