

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 1-phase power

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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Specifications (Subject to change without notice.)

1
Phase

MODEL	MOTOR INPUT VOLTAGE	MAXIMUM CURRENT DRAW		MAXIMUM COOLING CAPACITY*	RATED COOLING CAPACITY**	TANK CAPACITY	DIMENSIONS	NET WEIGHT WITHOUT COOLANT
		50 HZ	60 HZ					
Coolmate 1S	120 V, 50/60 Hz	0.7 A	0.7 A	2,100 W (7,100 Btu/hr.) 3.4 qt./min. (3.2 L/min.)	1,140 W (3,890 Btu/hr.) 1.1 qt./min. (1 L/min.)	1.0 gal. (3.8 L)	H: 7.813 in. (198 mm) W: 11.28 in. (289 mm) D: 24 in. (610 mm)	25 lb. (11 kg)
	240 V, 50/60 Hz	0.4 A	0.4 A					
Coolmate 1.3 CE	115 V, 50/60 Hz	5.9 A	4.7 A	3,400 W (11,600 Btu/hr.) 3.8 qt./min. (3.6 L/min.)	1,330 W (4,540 Btu/hr.) 1.1 qt./min. (1 L/min.)	1.3 gal. (4.9 L)	H: 11.38 in. (289 mm) W: 10.38 in. (264 mm) D: 24.25 in. (616 mm)	46 lb. (21 kg)
Coolmate 3 CE	115 V, 50/60 Hz	5.9 A	4.7 A	3,820 W (13,000 Btu/hr.) 4.2 qt./min. (4.0 L/min.)	1,420 W (4,840 Btu/hr.) 1.1 qt./min. (1 L/min.)	3 gal. (11.4 L)	H: 13.25 in. (337 mm) W: 12.25 in. (311 mm) D: 23.25 in. (584 mm)	40 lb. (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	3,770 W (12,900 Btu/hr.) 5.5 qt./min. (5.2 L/min.)	1,460 W (4,980 Btu/hr.) 1.1 qt./min. (1 L/min.)	3.5 gal. (13.2 L)	H: 11.63 in. (295 mm) W: 15.63 in. (397 mm) D: 27 in. (686 mm)	64 lb. (29 kg)
Coolmate 4 Coolmate 4 CE	115 V, 50/60 Hz	5.9 A	4.7 A	5,500 W (18,000 Btu/hr.) 5.9 qt./min. (5.6 L/min.)	1,780 W (6,070 Btu/hr.) 1.1 qt./min. (1 L/min.)	4 gal. (15 L)	H: 16.25 in. (413 mm) W: 15.25 in. (387 mm) D: 18.75 in. (476 mm)	38 lb. (17 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.



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™ 1S



301856
120/240 V, 50/60 Hz

1.0-gallon cooler designed for water-cooled torches up to 250 amps.*

- Designed to integrate with Syncrowave® 212 (also accepts Multimatic® 220 AC/DC — no cooler power)
- Coolant fill spout is conveniently located for easy access
- Energy-efficient motor and pump
- 120- or 240-volt input power (includes 120-volt power cord and a jumper cord for use with the Syncrowave 212)
- Weighs 25 pounds (11 kg) dry
- Polyethylene-molded coolant tank and filler spout are rustproof
- Efficient fin-and-tube heat exchanger

Coolmate™ 1.3



301616
120 V, 50/60 Hz, CE

301617
120 V, 50/60 Hz, CE
with 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

*May vary with torch design and cable length.

Product Descriptions

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.

Coolmate™ 3.5



301788
120 V, 50/60 Hz, CE
301789
120 V, 50/60 Hz, CE
with quick connect

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
- Horizontal design allows stacking or convenient mounting onto Runner™ carts
- 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.*

Genuine Miller® Accessories

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 Flow Thru Dinse for Water Cooler 301884

Adapts machines with flow through gas valves to coolers.



50 mm Thread-Lock-Style 225028

For Dynasty 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.



Weldcraft™ Gas Hose Quick Connect QRG
Sold individually. Allows for quick connection and removal of torch shielding gas hoses.



Weldcraft™ Water Hose Quick Connect QRW
Sold individually. Allows for quick connection and removal of torch coolant hoses.

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.

Genuine Miller® Accessories

Water-Cooled TIG Torch Adapters



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™ 1S shown with Syncrowave® 212



Coolmate 1.3 shown with Dynasty® 300 TIGRunner®



Coolmate 3 shown with XMT® 350 MIGRunner™



Coolmate 3.5 shown with XMT® 350 MIGRunner™



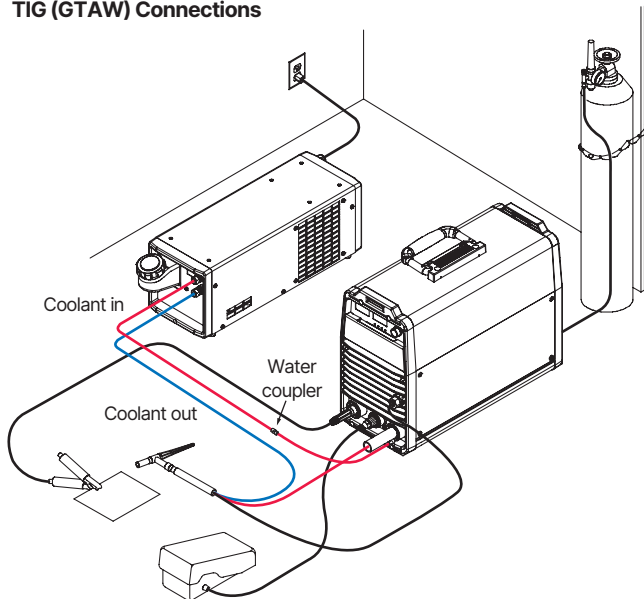
Coolmate 3.5 shown with Dynasty® 400 TIGRunner® and 800 TIGRunner®

Typical Coolmate™ Usages

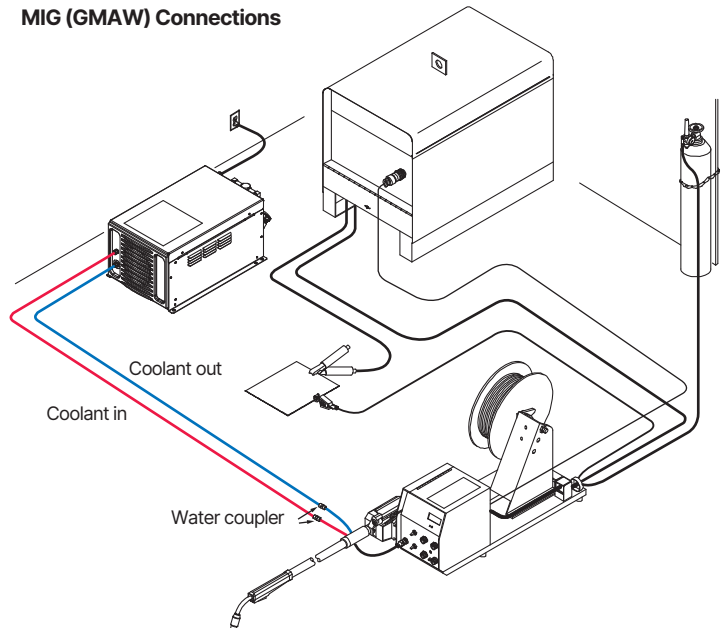


Typical Coolmate™ Connections

TIG (GTAW) Connections



MIG (GMAW) Connections



Ordering Information

EQUIPMENT AND OPTIONS	STOCK NO.	DESCRIPTION	QTY.	PRICE
Coolmate™ 1S	301856	120/240 V, 50/60 Hz. <i>Requires coolant</i>		
Coolmate™ 1.3	301616	120 V, 50/60 Hz, CE . <i>Requires coolant</i>		
	301617	120 V, 50/60 Hz, CE with quick connect. <i>Requires coolant</i>		
Coolmate™ 3	043007	120 V, 50/60 Hz, CE . <i>Requires coolant</i>		
	043008	240 V, 50/60 Hz, CE . <i>Requires coolant</i>		
Coolmate™ 3.5	301788	120 V, 50/60 Hz, CE . <i>Requires coolant</i>		
	301789	120 V, 50/60 Hz, CE with quick connect. <i>Requires coolant</i>		
Coolmate™ 4	042288	120 V, 50/60 Hz. <i>Requires coolant</i>		
	042288015	120 V, 50/60 Hz, CE . <i>Requires coolant</i>		
Weld Accessories				
Water-Cooled TIG Torch Adapters	195377	50 mm Dinse-style with water return line		
	301884	50 mm flow thru Dinse for water cooler		
	225028	50 mm thread-lock-style		
	45V11	Water-cooled TIG block		
	222809	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	057020	Brass hose fitting with 5/8 in. 18 LH thread		
Weldcraft™ Quick Connects (sold individually)	QRG	For gas hoses		
	QRW	For water hoses		
Low-Conductivity Coolant (clear, pre-mixed) (must be ordered in quantities of four)	043810	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 (green, pre-mixed) (must be ordered in quantities of four)	043809	1-gallon plastic bottle. For push-pull systems where aluminum is in coolant path/circuit and high frequency is NOT used		
Filter Assemblies	166564	For use with Coolmate 1.3 and 3		
	215667	For use with Coolmate 3.5		
Filter Strainer	146249	For use with Coolmate 4		
Torch Kits	300185	250 A with W-250 (WP-20) water-cooled torch		
	300990	280 A with W-280 (WP-280) water-cooled torch		
	301268	375 A with W-375 water-cooled torch		
	300186	400 A with W-400 (WP-18SC) water-cooled torch		

DATE :

TOTAL QUOTED PRICE :

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