

XMS[®] 425 MPa

Synergic Welding System

**Multiprocess
Welding System** 

Quick Specs



Industrial Applications

Fabrication
Shipbuilding
Rental fleets
Construction
Maintenance repair

Processes

Double pulsed MIG (GMAW-DP)
Pulsed MIG (GMAW-P)
MIG (GMAW)
Lift-Arc™ TIG (GTAW)
Stick (SMAW)

Input Power 230–575 V, 50/60 Hz, 3-phase power

Amperage Range 5–425 A

Rated Output 350 A at 60% duty cycle

Wire Speed 1.27–25.4 mpm (50–1,000 ipm)

Net Weight XMS 425 MPa: 52.5 kg (115.7 lb.)
XMS MPa Feeder: 18 kg (39.6 lb.)
XMS MPa Cooler: 25 kg (55 lb.)

Enhanced double-pulsed and pulsed MIG capabilities reduce spatter and distortion, improve bead shape and provide better out-of-position weld puddle control.

Simple user interface reduces the number of control setup combinations for all processes and programs (including double-pulsed and pulsed MIG capabilities) without minimizing features or welding performance.

Large, dual digital meters are easily preset to the desired weld output, and provide easy-to-view current and voltage measurements during welding to ensure optimal control of the weld bead.

Integrated water-cooling system provides efficient cooling with low-flow shutdown for both MIG and TIG applications.

Flexible design allowing air-cooled and water-cooled configurations.



Inverter arc control technology provides class-leading welding performance on a variety of material, while line voltage compensation (LVC™) maintains constant power even when primary power input varies from +/- 10 percent.

Fan-On-Demand™ cooling system operates only when needed to reduce noise, energy consumption and the amount of contaminants pulled through the machine.

Wind Tunnel Technology™ protects the electrical components and PC boards from contaminants.

Factory-installed running gear (optional) features two heavy-duty 250 mm wheels and two 100 mm rubber swivel casters for maximum maneuverability.

System shown includes power source, feeder, cooler, trolley, feeder swivel, handle kit and Bernard™ E 4215 MIG torch (components sold separately).



Warranted for three years, parts and labour.



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XMS® MPa Feeder Specifications (Subject to change without notice.)



Input Power	IP Rating	Wire Speed	Electrode Wire Diameter Capacity	Max. Spool Size Capacity	Dimensions	Net Weight
24 VAC, 7 A, 50/60 Hz	IP23	1.27–25.4 mpm (50–1,000 ipm)	0.6–1.8 mm (.023–.068/.072 in.) solid steel, aluminum and flux-cored	305 mm (12 in.), 15 kg (33 lb.)	H: 425 mm (16.7 in.) W: 235 mm (9.3 in.) D: 700 mm (27.6 in.)	18 kg (39.6 lb.)



Easily update firmware, configure machine settings, view diagnostics and more.

USB functionality allows custom settings to be saved on a USB flash drive to update the machine's settings for a specific operator or job, or to manage fleet configurations with quick and easy duplication of machines in your operation.

Easily add processes and programs via the USB interface.

TFT display shows complete words, graphics and numeric values in multiple languages.

Display and controls for program select, volts/arc length and wire feed speed.

Memory buttons allow weld operators to quickly recall programs.

Industrial, four-roll gear-driven, cast aluminum drive system with heavy-duty motor.

Provides exceptional feed performance, reliability and wire speeds ranging from 1–20 meters per minute.

“No tools required” quick-change, dual-groove, reversible drive rolls. Large diameter design (41 mm) provides smooth, positive and accurate wire feeding with long uninterrupted service life.

Trigger hold, jog and purge buttons.



XMS® 425 MPa Specifications (Subject to change without notice.)



Amperage Range	Rated Output	IP Rating	Amps Input at Rated Output, 50/60 Hz						Max. Open-Circuit Voltage	Dimensions	Net Weight
			230 V	400 V	460 V	575 V	KVA	KW			
5–425 A	350 A at 34 VDC, 60% duty cycle	IP23	36.1	20.6	17.8	14.1	14.2	13.6	75 V	H: 597 mm (23.5 in.) W: 349 mm (13.7 in.) D: 560 mm (22 in.)	52.5 kg (115.7 lb.)



Advanced arc control enables an improved pulse welding arc. The operator has more control over puddle and bead characteristics using SharpArc.® In addition, the unit provides a more robust and stable arc at very low arc length, reducing heat input, and providing the ability to weld on a wider range of material thickness.

Built-in pulsed MIG programs for manufacturing and fabrication applications that have benefits for standard steels, high-strength steels and aluminum. They provide reduced heat affected zone, weld in all positions, are great for thick-to-thin metal, provide good gap filling ability and faster travel speeds and deposition.

XMS® MPa Cooler Specifications (Subject to change without notice.)



Motor Input Voltage	Maximum Current Draw		IP Rating	Maximum Cooling Capacity*	Rated Cooling Capacity*	Tank Capacity	Dimensions	Net Weight
	50 Hz	60 Hz						
115 V, 50/60 Hz	5.9 A	4.7 A	IP23	4,140 W (14,000 Btu/hr.) 4.7 L/min. (5.0 qt./min.)	1,660 W (5,660 Btu/hr.) 1 L/min. (1.1 qt./min.)	13.2 L (3.5 gal.)	H: 298 mm (11.75 in.) W: 400 mm (15.75 in.) D: 660 mm (26 in.)	25 kg (55 lb.) without coolant



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.

Internal check valves 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.

Drive Rolls and Wire Guides

Wire Size	V-Grooved Kit	V-Knurled Kit	V-Grooved Drive Roll Only	Wire Guides		U-Grooved Kit	U-Cogged Kit	Nylon Wire Guides	
				Inlet	Intermediate			Inlet	Intermediate
0.6 mm (.023/.025 in.)	087132	—	—	056192	056206	—	—	—	—
0.8 mm (.030 in.)	046780	—	—	056192	056206	—	—	—	—
0.8/1.0 mm (.030/.040 in.)	—	—	203526	056193	056207	—	—	—	—
0.9 mm (.035 in.)	046781	046792	—	056193	056207	044750	—	058854	058853
1.0 mm (.040 in.)	191917	—	—	056193	056207	—	—	—	—
1.0/1.2 mm (.040/.045 in.)	—	—	189285	056193	056207	—	—	—	—
1.2 mm (.045 in.)	046782	046793	—	056193	056207	046785	083319	058854	058853
1.3/1.4 mm (.052 in.)	046783	046794	—	056195	056209	046786	083320	058836	058837

Base selection of drive rolls upon the following recommended usages:

1. V-Grooved rolls for hard wire.
2. V-Knurled rolls for hard-shelled cored wires.
3. U-Grooved rolls for soft and soft-shelled cored wires.
4. U-Cogged rolls for extremely soft-shelled wires (usually hard surfacing types).

Genuine Miller® Accessories



Water-cooled interconnecting cable assembly shown.

Interconnecting Cable Assembly

Air-Cooled

- 058019242 1.5 m (4.9 ft.)
- 058019243 2.5 m (8.2 ft.)
- 058019244 5 m (16.4 ft.)
- 058019245 10 m (32.8 ft.)
- 058019246 15 m (49.2 ft.)
- 058019247 20 m (65.6 ft.)

Water-Cooled

- 027112337 1.5 m (4.9 ft.)
- 058019237 2.5 m (8.2 ft.)
- 058019236 5 m (16.4 ft.)
- 058019239 10 m (32.8 ft.)
- 058019240 15 m (49.2 ft.)
- 058019241 20 m (65.6 ft.)

70 mmq weld cable, control cable and gas hose. Water-cooled assemblies adds water hose.

Work Cables with Clamp

- 057014148 300 A, 50 mmq, 3 m (10 ft.)
- 057014149 300 A, 50 mmq, 5 m (16.4 ft.)
- 057014150 400 A, 70 mmq, 3 m (10 ft.)
- 057014151 400 A, 70 mmq, 5 m (16.4 ft.)
- 057014141 500 A, 95 mmq, 3 m (10 ft.)
- 057014142 500 A, 95 mmq, 5 m (16.4 ft.)



Power source and cooler shown with universal running gear and handles.

Universal Trolley 018035028

Features two heavy-duty 250 mm wheels and two 100 mm rubber swivel casters for maximum maneuverability.

Handle Kit 058066130

Durable, heavy-duty ergonomic handles are designed for comfort, aid maneuverability and double as cable holders. For XMS/Dynasty/Maxstar with the universal trolley (018035028).



Feeder Swivel 028066300

Assembly rotates feeder as welding operator changes positions to reduce gun cable strain. For XMS MPa, ST-24 and ST-44 wire feeders.

Feeder Wheel Kit 028066302

Running gear for feeder includes four swivel wheels. Provides mobility for XMS MPa, ST-24 and ST-44 wire feeders.



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. Sold in multiples of four in 3.78-liter 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).

Ordering Information

Basic package recommendation

- = Air-cooled package
- ▲ = Water-cooled package

Power Source	Stock No.	Description	Qty.	Price
● ▲ XMS® 425 MPa	029015507	Power source only		
Wire Feeder and Guns				
● ▲ XMS® MPa Feeder	029007427	Wire feeder, 4 drive roll		
● Bernard™ BTB Gun	Q4015TE3EEQ	Air-Cooled, 400 A, 4.6 m (15 ft.). TOUGH LOCK™ HD consumables and QUICK LOAD™ liner AutoLength™ system		
▲ Bernard™ BTB Gun	E4215-45-5-445-Q	Water-cooled, 400 A, 4.6 m (15 ft.). TOUGH LOCK™ HD consumables and QUICK LOAD™ liner AutoLength™ system		
Cables				
● Air-Cooled Interconnecting Cables	058019242	1.5 m (4.9 ft.)	70 mmq weld cable, control cable and gas hose	
	058019243	2.5 m (8.2 ft.)		
	058019244	5 m (16.4 ft.)		
	058019245	10 m (32.8 ft.)		
	058019246	15 m (49.2 ft.)		
	058019247	20 m (65.6 ft.)		
▲ Water-Cooled Interconnecting Cables	027112337	1.5 m (4.9 ft.)	70 mmq weld cable, control cable, gas and water hose	
	058019237	2.5 m (8.2 ft.)		
	058019236	5 m (16.4 ft.)		
	058019239	10 m (32.8 ft.)		
	058019240	15 m (49.2 ft.)		
	058019241	20 m (65.6 ft.)		
Work Cables with Clamps	057014148	300 A, 50 mmq, 3 m (10 ft.)		
	057014149	300 A, 50 mmq, 5 m (16.4 ft.)		
	057014150	400 A, 70 mmq, 3 m (10 ft.)		
	057014151	400 A, 70 mmq, 5 m (16.4 ft.)		
	057014141	500 A, 95 mmq, 3 m (10 ft.)		
	057014142	500 A, 95 mmq, 5 m (16.4 ft.)		
Secondary Weld Cable				
Accessories				
▲ XMS MPa Cooler	028042109	Coolant system		
▲ Industrial Coolant	043810	3.78-liter plastic bottle (<i>must be ordered in quantities of 4</i>)		
● ▲ Universal Trolley	018035028			
Handle Kit	058066130	For XMS/Dynasty/Maxstar with the universal trolley (018035028)		
● Middle Support Plate	058066127	Elevated support plate to be used when configuring an air-cooled system		
Feeder Swivel	028066300	For XMS MPa, ST-24 and ST-44 wire feeders		
Feeder Wheel Kit	028066302	Running gear for XMS MPa, ST-24 and ST-44 wire feeders		
Drive Rolls and Wire Guides		See page 3		
Miscellaneous				
Gas Hose and Fittings				
Regulator/Flow Meter				
Welding Wire		Consult Elga for application		
Helmet				
Welding Gloves				

Date: Total Quoted Price:

Distributed by:

