

# XMS<sup>®</sup> 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		
<b>Wire Feeder and Guns</b>				
● ▲ 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		
<b>Cables</b>				
● 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.)		
<b>Secondary Weld Cable</b>				
<b>Accessories</b>				
▲ 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		
<b>Miscellaneous</b>				
Gas Hose and Fittings				
Regulator/Flow Meter				
Welding Wire		Consult Elga for application		
Helmet				
Welding Gloves				

Date: Total Quoted Price:

Distributed by:

