

# XMT® 350/450 MPa Series

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Multiprocess Welding  
Power Source



## Quick Specs

### Heavy Industrial Applications

Construction  
Shipbuilding  
Railroad  
Truck/Trailer Manufacturing  
Fabrication  
Repair Shops  
Rental Fleets  
Power Generation Plants

### Processes

MIG (GMAW)  
Pulsed MIG (GMAW-P)  
Stick (SMAW)  
TIG (GTAW)  
Flux Cored (FCAW)  
Air Carbon Arc Cutting  
and Gouging (CAC-A)

<b>Input Power</b>	<b>350:</b> Requires 3- or 1-Phase Power, 208–575 VAC, 50/60 Hz <b>450:</b> Requires 3-Phase Power, 230/460 VAC, 60 Hz
<b>Rated Output</b>	<b>350:</b> 10–38 V, 15–425 A <b>450:</b> 10–38 V, 15–600 A
<b>Net Weight</b>	<b>350:</b> 80 lb (36.3 kg) <b>450:</b> 122 lb (55.3 kg)

## The Power of Blue.®

**Wind Tunnel Technology™** protects electrical components and PC boards from contamination.

**Fan-On-Demand™** cooling system operates only when needed, reducing noise, energy use and the amount of contaminants pulled through machine.

**Lift-Arc™** allows TIG starting without the use of high-frequency. Starts the arc without contaminating the weld with tungsten.

**Adaptive Hot Start™** increases the output amperage at the start of a weld if necessary, eliminating electrode sticking.

**Lightweight, aerospace-grade aluminum case** offers protection with the benefit of reduced weight.

**Standard built-in Pulsed MIG programs with synergic capability** (see page 4).



XMT 350 MPa



XMT 450 MPa —  
Higher Output for  
Demanding Applications.

### XMT 350 MPa Model Only

**Auto-Line™ Power Management Technology** allows for any input voltage hook-up (208–575 V) with no manual linking required, providing convenience in any job setting. Ideal solution for dirty or unreliable input power. (450 model is manual link.)

**Dinse- or Tweco-style weld disconnects** provide high-quality weld cable connections. (450 model utilizes studs.)



Build your own system at  
[MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld).

**Inverter arc control technology** provides greater puddle control for superior 6010 Stick electrode performance, and outstanding MIG weld performance.

**Line voltage compensation** keeps welding output constant even if input power varies by +/-10%. XMT 350 model further expands line voltage compensation to an amazing +37% and -59% when operating on 460 VAC.

**Process selector switch** reduces the number of control setup combinations without reducing any features.

**Large, dual digital meters** are easy to view and are presettable to ease setting weld output.

**Optional 115 VAC auxiliary power** provides 10 amps of circuit-breaker-protected power for water circulators, etc.



Power source is warranted for 3 years, parts and labor.  
Original main power rectified parts are warranted for 5 years.  
Gun warranted for 90 days, parts and labor.

MADE IN USA  
APPLETON, WI



**Miller Electric Mfg. Co.**  
An Illinois Tool Works Company  
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Appleton, WI 54914 USA

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International FAX: 920-735-4125

**Web Site**  
[www.MillerWelds.com](http://www.MillerWelds.com)



# XMT<sup>®</sup> 350/450 MPa Specifications (Subject to change without notice.)



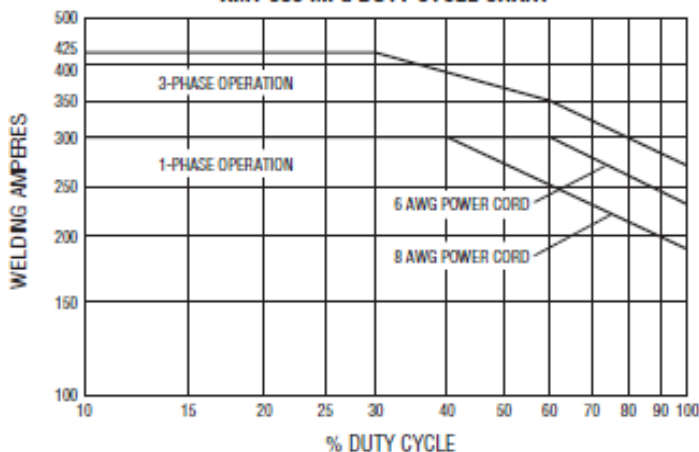
(XMT 450 MPa is 3-Phase only.)

Model	Input Power	Rated Output	Voltage Range in CV Mode	Amperage Range in CC Mode	Max. Open-Circuit Voltage	Amps Input at Rated Load Output, 60 Hz						Dimensions	Weight	
						208 V	230 V	400 V	460 V	575 V	KVA			KW
XMT 350 MPa	Three-Phase	350 A at 34 VDC, 60% Duty Cycle	10–38 V	15–425 A	75 VDC	40.4	36.1	20.6	17.8	14.1	14.2	13.6	H: 17 in (432 mm) W: 12-1/2 in (318 mm) D: 24 in (610 mm)	80 lb (36.3 kg)
	Single-Phase	300 A at 32 VDC, 60% Duty Cycle	10–38 V	15–425 A	75 VDC	60.8	54.6	29.7	24.5	19.9	11.7	11.2		
XMT 450 MPa	Three-Phase	450 A at 38 VDC, 100% Duty Cycle	10–38 V	15–600 A	90 VDC	—	51	—	27.6	—	22	18.9	H: 17-1/4 in (438 mm) W: 14-1/2 in (368 mm) D: 27-1/8 in (689 mm)	122 lb (55.3 kg)

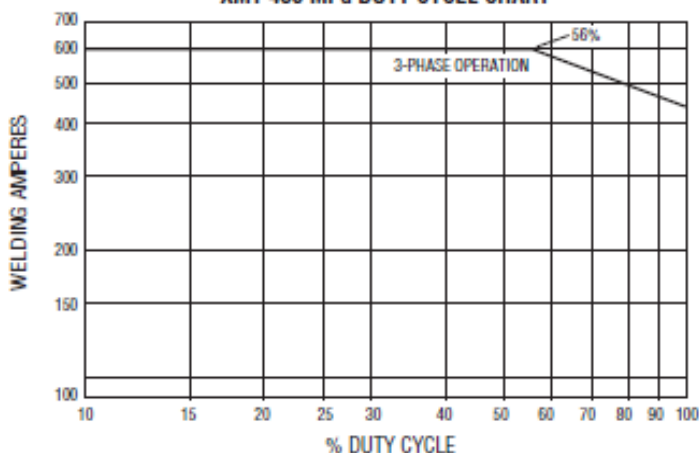
Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

## XMT<sup>®</sup> 350/450 MPa Performance Data

**XMT 350 MPa DUTY CYCLE CHART**

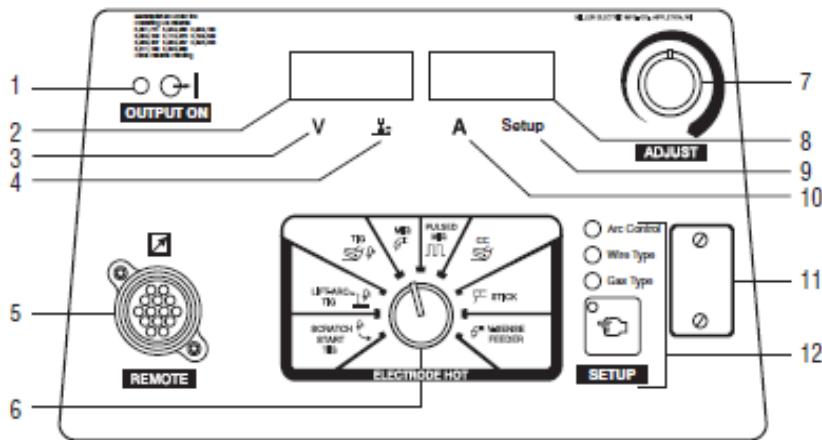


**XMT 450 MPa DUTY CYCLE CHART**



## XMT® 350/450 MPa Control Panel

The simple, powerful XMT MPa models can handle almost any portable welding application. Add the S-74 MPa or XR-AlumaFeed™ feeder for a synergic system that simplifies Pulsed MIG welding applications.



- |  |                            |
|--|----------------------------|
| 1. Output ON Indicator Light               | 9. Setup Indicator         |
| 2. Left Display                            | 10. Amperage Indicator     |
| 3. Voltage Display                         | 11. Remote PC Interface    |
| 4. Arc Length Indicator                    | 12. Setup Indicator Lights |
| 5. Remote Control Receptacle               | • Arc Control Indicator    |
| 6. Process Selector Switch (Rotary Switch) | • Wire Type Indicator      |
| 7. Adjustment Control                      | • Gas Type Indicator       |
| 8. Right Display                           | • Setup Button             |

## Built-In Pulsed MIG Programs

The XMT MPa models have built-in Pulsed MIG programs. See the table below for the wide range of Pulsed MIG (GMAW-P) welding applications the XMT MPa models can handle.

Wire Types	Gas Types	
Steel	.035 STL, .045 STL	90% ARGN / 10% CO <sub>2</sub> (Argon/Carbon Dioxide) 95% ARGN / 5% OXY (Argon/Oxygen)
	.052 STL (450 model only) 1/16 STL (450 model only)	90% ARGN / 10% CO <sub>2</sub> (Argon/Carbon Dioxide) 95% ARGN / 5% OXY (Argon/Oxygen)
Metal Core	.035 MCOR .045 MCOR .052 MCOR 1/16 MCOR (450 model only)	90% ARGN / 10% CO <sub>2</sub> (Argon/Carbon Dioxide)
Stainless Steel	.035 SSTL, .045 SSTL	TRI MIX (Tri-gas mixture: 81% ARGN / 18% HE / 1% CO <sub>2</sub> [Argon/Helium/Carbon Dioxide]) 98% ARGN / 2% OXY (Argon/Oxygen) 98% ARGN / 2% CO <sub>2</sub> (Argon/Carbon Dioxide)
Aluminum	.035 AL4X (4000 Series) .040 AL4X (4000 Series) 3/64 AL4X (4000 Series) 1/16 AL4X (4000 Series)	100% ARGN (Argon)
	.035 AL5X (5000 Series) .040 AL5X (5000 Series) 3/64 AL5X (5000 Series) 1/16 AL5X (5000 Series)	100% ARGN (Argon) 75% HE / 25% ARGN (Helium/Argon)
Nickel	.035 NI, .045 NI	75% ARGN / 25% HE (Argon/Helium)
Silicon Bronze	.035 SIBR	100% ARGN (Argon)
Copper Nickel	.045 CUNI	75% HE / 25% ARGN (Helium/Argon)

## MPa

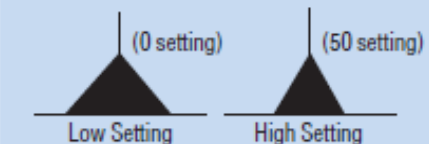
**MPa: M (MIG), P (Pulse), a (Advanced Arc Control).** Advanced arc control enables an improved pulse welding arc. The operator has more control over puddle and bead characteristics using SharpArc™. In addition, the unit provides a more robust and stable arc at very low arc length, reducing heat input, and providing the ability to weld on a wider range of material thickness.

What are some benefits of Synergic Pulsed MIG?

1. Easy to setup
2. No more changing wire speed and then having to go back to reset the weld output.

## SharpArc™

SharpArc controls welding arc cone width in Pulsed MIG (GMAW-P) welding mode.



If a gas is used other than what is listed on the Pulsed MIG welding program chart (below left), the SharpArc™ can be adjusted to help customize your arc to the gas being used.

Lower SharpArc™ settings widen the arc cone, increase puddle fluidity and flattens the weld bead.

## Additional Features

**Auto Remote Sense™** enables unit to automatically use remote control if connected to remote control receptacle.

**Ultra-tough, polycarbonate-blended cover for control panel** protects front controls from damage.



**Synergic Pulsed MIG**— Adding the S-74 MPa Plus feeder or the XR-AlumaFeed™ feeder gives you the benefit of a Synergic Pulsed MIG system. As you increase/decrease the wire feed speed, the pulse parameters increase/decrease, matching the right amount of power output to match the wire speed.

## Genuine Miller Accessories (continued)

### Inverter Racks



#### Four or Six-Arc Welding System

The Inverter Rack conveniently houses multiple XMT power sources for multiple welders. Both 4-pack and 6-pack models are available.

Features include:

- Provision to parallel power sources or common work connections
- Two lifting eyes for transportation
- Rugged skids for dragging or pushing
- Customer can install up to a maximum of 4 XMT 450 MPa power sources

For detailed information on customized Inverter Rack systems see Lit. Index No. DC/18.81.

### Wire Feeders/Guns



**SuitCase® X-TREME™ 8VS #951 181**

**SuitCase® X-TREME™ 12VS #951 184**

Lightweight, portable wire feeder for a variety of wires up to .062 in. Holds up to an 8 in (8VS) or 12 in (12VS) spool of wire. Operates on open-circuit voltage eliminating the need for a control/power cord. See Lit. Index No. M/6.41.



**SuitCase® 8RC #951 186**

**SuitCase® 12RC #951 188**

Lightweight, portable wire feeder for a variety of wires up to .062 in. Holds up to an 8 in (8RC) or 12 in (12RC) spool of wire. Operates using 14-pin control receptacle. See Lit. Index No. M/6.5.



**XR™-S Control #300 601**

**XR™-D Control #300 678**

The updated XR Controls offer unsurpassed performance and reliability for feeding aluminum and other difficult-to-feed wire types. Models include .035 in and factory-installed 3/64 in drive rolls. See Lit. Index No. M/1.7.



#### 70 Series

**S-74S #951 196**

**S-74D #951 198**

**S-74DX #951 200**

Features Posifeed™ wire drive assembly

and handles a variety of wires up to 1/8 in. Comes with FREE Bernard® Q™-Gun. Dual-wire models also available. See Lit. Index No. M/3.0.



#### 70 Series MPa Plus

**S-74 MPa Plus #951 291**

**D-74 MPa Plus #951 292**

Same features as traditional 70 Series plus more. Handles a variety of wires up to 5/64 in. Comes with FREE Bernard® Q™-Gun. Works synergically with MPa power sources. See Lit. Index No. M/3.0.



#### XR-AlumaFeed™

**#300 509**

Advanced push-pull wire feeder designed for high-volume, high-production aluminum MIG welding where

quality and consistency is a high priority. Works synergically with XMT MPa models. See Lit. Index No. DC/34.

#### Extension Cables\*

**#247 831 025** 25 ft (7.6 m)

**#247 831 050** 50 ft (15.2 m)

**#247 831 080** 80 ft (24.4 m)

Eleven conductors to support contactor control and remote voltage control on all Miller electronic CV 14-pin power sources. Additional functions supported include Synergic Pulsed MIG, remote process select and side select capabilities when using MPa power sources with 70 Series MPa Plus feeder or XR-AlumaFeed feeder.

\*Custom lengths available in 5 ft increments up to 50 ft and 10 ft increments up to 100 ft.



**Spoolmatic® 30A #130 831**

A 1-lb, air-cooled spool gun that extends the weld process range by adding a handy portable system for small wire MIG. Rated 200 A at 100% duty cycle. Includes 30 ft (9.1 m) cable assembly. WC-24 (#137 549) required for use with 14-pin receptacles, order separately.

#### Ironmate™ Flux Cored Guns

See Lit. Index No. AY/16.0.

**FC-1260**

**#195 732** 10 ft (3 m)

**#195 729** 15 ft (4.6 m)

**FC-1260LM**

**#194 912** 10 ft (3 m)

**#194 911** 15 ft (4.6 m)

**FC-1150**

**#194 864** 10 ft (3 m)

**#194 863** 15 ft (4.6 m)