

XMT[®] 350/450 MPa Series

Issued Feb. 2011 • Index No. DC/18.84

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)

Input Power

350: Requires 3- or 1-Phase Power, 208–575 VAC, 50/60 Hz

450: Requires 3-Phase Power, 230/460 VAC, 60 Hz

Rated Output

350: 10–38 V, 15–425 A

450: 10–38 V, 15–600 A

Net Weight

350: 80 lb (36.3 kg)

450: 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.

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
1635 West Spencer Street
Appleton, WI 54914 USA

Equipment Sales US and Canada
Phone: 866-931-9730
FAX: 800-637-2315
International Phone: 920-735-4554
International FAX: 920-735-4125

Web Site
www.MillerWelds.com



XMT[®] 350/450 MPa Specifications (Subject to change without notice.)



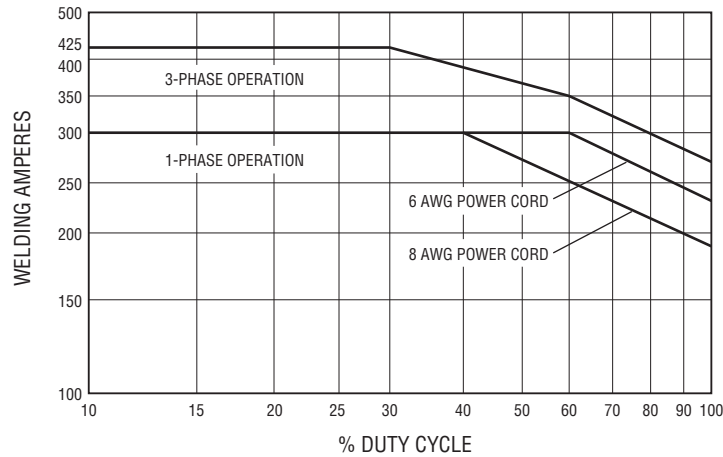
(XMT 450 MPa is 3-Phase only.)

| 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) | |

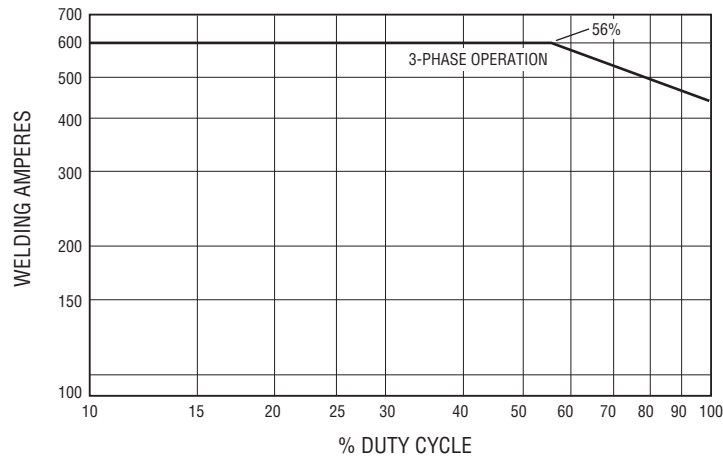
Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

XMT[®] 350/450 MPa Performance Data

XMT 350 MPa DUTY CYCLE CHART

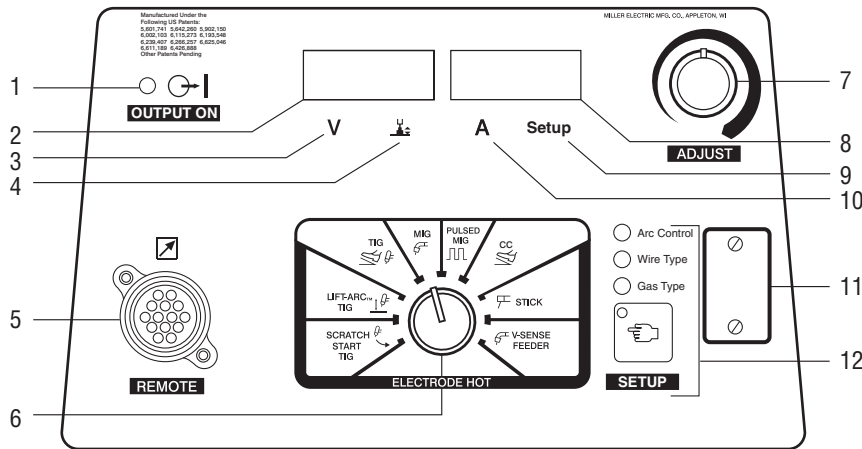


XMT 450 MPa DUTY CYCLE CHART



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
- 2. Left Display
- 3. Voltage Display
- 4. Arc Length Indicator
- 5. Remote Control Receptacle
- 6. Process Selector Switch (Rotary Switch)
- 7. Adjustment Control
- 8. Right Display
- 9. Setup Indicator
- 10. Amperage Indicator
- 11. Remote PC Interface
- 12. Setup Indicator Lights
 - Arc Control Indicator
 - Wire Type Indicator
 - Gas Type Indicator
 - 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 ₂ (Argon/Carbon Dioxide) 95% ARGN / 5% OXY (Argon/Oxygen) | |
| | .052 STL (450 model only) 1/16 STL (450 model only) | 90% ARGN / 10% CO ₂ (Argon/Carbon Dioxide) 95% ARGN / 5% OXY (Argon/Oxygen) | |
| Metal Core | .035 MCOR | 90% ARGN / 10% CO ₂ (Argon/Carbon Dioxide) | |
| | .045 MCOR | | |
| | .052 MCOR | | |
| | 1/16 MCOR (450 model only) | | |
| Stainless Steel | .035 SSTL, .045 SSTL | TRI MIX (Tri-gas mixture: 81% ARGN / 18% HE / 1% CO ₂ [Argon/Helium/Carbon Dioxide]) 98% ARGN / 2% OXY (Argon/Oxygen) 98% ARGN / 2% CO ₂ (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



WC-24 Weld Control
#137 549
 Designed for use with Miller CV power sources supplying 24 VAC and 14-pin receptacles. For use with Spoolmatic 30A spool gun.



HF-251D-1 High-Frequency Arc Starter and Stabilizer **#042 388**

Portable 250 amp, 60% duty cycle unit adds high frequency to the welding circuit to help start the arc when using the DC TIG (GTAW) process. Operates on 115 VAC, 50/60 Hz. See Lit. Index No. AY/5.1.



Wireless Remote Foot Control **#300 429**
 For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 90 ft (27.4 m) operating range.



Wireless Remote Hand Control **#300 430**
 For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 300 ft (91.4 m) operating range.



RFCS-14 Foot Control
#043 554
 Heavy-duty foot current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.



RHC-14 Hand Control*
#242 211 020 20 ft (6 m) cord
#242 211 100 100 ft (30.5 m) cord
 Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3-1/4 in (102 x 102 x 82 mm). Includes cord and 14-pin plug.

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



RMLS-14 **#129 337** 14-pin plug
 Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and back for momentary contact. Includes 20 ft (6 m) cord.



RCC-14 Remote Contactor and Current Control **#151 086** 14-pin plug
 Rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 26.5 ft (8 m) control cord.



RCCS-14 Remote Contactor and Current Control **#043 688** 14-pin plug
 Up-and-down rotary-motion fingertip control. Great for applications that require a finer amperage control. Includes 26.5 ft (8 m) control cord.

Extension Cables for Remote Controls and 24 VAC Wire Feeders*
#242 208 025 25 ft (7.6 m)
#242 208 050 50 ft (15 m)
#242 208 080 80 ft (24.3 m)
 14-pin plug to 14-pin socket. Not for use with XR-AlumaFeed or 70 Series MPa feeder.

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

Running Gear



Regular Cart

Dual Feeder Cart

MIGRunner™ Cart **#195 445**
Running Gear Cylinder Rack
#300 408 (For dual feeders)

Small footprint and easily maneuverable, with cylinder rack low enough that you do not have to lift bottles.



XMT Cylinder Cart
#042 537

Carries two 160 lb (72.6 kg) gas cylinders, or one gas cylinder and one coolant system for TIG (GTAW) welding.

Feeder mounts to tray above power source.



Universal Carrying Cart and Cylinder Rack **#042 934**

Holds power source, and gas cylinder up to 56 in (142.2 cm)

high measuring 6 to 9 in (15.2 to 22.8 cm) in diameter.

Protective Cover



#195 478

Mildew and water resistant, odor-free cover protects your machine's finish. For 300/350 A inverters: XMT, Maxstar and Dynasty.

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)

Water Coolant Systems

For more information, see the Miller Coolant Systems literature sheet, Index No. AY/7.2.



Coolmate™ 3

#043 007 115 VAC

#043 008 230 VAC

For use with water-cooled torches rated up to 600 amps. Unique paddle-wheel indicator, external filter and easy-fill spout.

Coolmate™ V3 #043 009 115 VAC

For use with water-cooled torches rated up to 500 amps. Vertical design conveniently mounts to Miller cylinder rack in place of one cylinder.

Coolmate™ 4 #042 288 115 VAC

For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

Coolant #043 810

Sold in cases of four 1-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37°F (-38°C) or boiling to 227°F (108°C). Also contains a compound that resists algae growth.

Cable Connectors and Adapters

Note: XMT 350 MPa power sources are equipped with Dinse- or Tweco-style connectors for secondary connections.

Dinse-Style Connectors

#042 418

Accepts #4 AWG to #1/0 cable size.

#042 533

Accepts #1/0 to #2/0 AWG cable size.

Kit includes one Dinse-style male plug which attaches to the work and/or weld cables and plugs into the Dinse-style receptacles on the power source.

Extension Kit for Dinse-Style Cable Connectors

#042 419

Accepts #4 AWG to #1/0 cable size.

#042 534

Accepts #1/0 to #2/0 AWG cable size.

Used to adapt or extend weld and/or work cables. Kit includes one male Dinse-style plug and one in-line female Dinse-style receptacle.



Dinse/Tweco® Adapter

#042 465

Dinse/Cam-Lok Adapter

#042 466

One-piece adapter with Dinse-style male plug (to power source) on one end and female receptacle (Tweco or Cam-Lok for weld cable connection) on other end.

Ordering Information

| Power Source and Options | Stock No. | Description | Qty. | Price |
|---|------------------------------------|--|------|-------|
| XMT® 350 MPa | #907 366 | 208–575 VAC with Auto-Line™ | | |
| | #907 366-01-1 | 208–575 VAC with Auto-Line™ and Auxiliary Power | | |
| | #907 366 002 | 230–460 VAC with Auto-Line™ and Auxiliary Power and CE | | |
| | #907 366-01-4 | 208–575 VAC with Auto-Line™ and Tweco connectors | | |
| XMT® 450 MPa | #907 479 | 230–460 VAC | | |
| | #907 479 001 | 230–460 VAC with Auxiliary Power | | |
| Inverter Racks (full or empty) | | See Lit. Index No. DC/18.81 | | |
| Accessories | | | | |
| WC-24 Weld Control | #137 549 | For use with Spoolmatic® 30A and power sources with 14-pin | | |
| HF-251D-1 HF Starter/Stabilizer | #042 388 | See Lit. Index No. AY/5.1 | | |
| Wireless Remote Foot Control | #300 429 | Foot control with wireless 90 ft (27.4 m) operating range | | |
| Wireless Remote Hand Control | #300 430 | Hand control with wireless 300 ft (91.4 m) operating range | | |
| RFCS-14 | #043 554 | Foot control | | |
| RHC-14 | #242 211 020 | Hand control with 20 ft (6 m) cord | | |
| | #242 211 100 | Hand control with 100 ft (30.5 m) cord | | |
| RMLS-14 | #129 337 | Rocker switch | | |
| RCC-14 | #151 086 | Fingertip control | | |
| RCCS-14 | #043 688 | Fingertip control | | |
| Extension Cables | | See pages 4 and 5 | | |
| Running Gear | | | | |
| MIGRunner™ Cart | #195 445 | | | |
| Running Gear Cylinder Rack | #300 408 | For dual feeders | | |
| XMT Cylinder Cart | #042 537 | | | |
| Universal Carrying Cart and Cylinder Rack | #042 934 | | | |
| Protective Cover | #195 478 | | | |
| Wire Feeders/Guns | | | | |
| SuitCase® X-TREME 8VS | #951 181 | See Lit. Index No. M/6.41 | | |
| SuitCase® X-TREME™ 12VS | #951 184 | See Lit. Index No. M/6.41 | | |
| SuitCase® 8RC | #951 186 | See Lit. Index No. M/6.5 | | |
| SuitCase® 12RC | #951 188 | See Lit. Index No. M/6.5 | | |
| XR™-S Control | #300 601 | Standard model with wire feed speed digital display, jog/purge, run-in control, and trigger hold. See Lit. Index No. M/1.7 | | |
| XR™-D Control | #300 687 | Enhanced model has same features as XR-S model plus advanced digital and programming capabilities. See Lit. Index No. M/1.7 | | |
| 70 Series | #951 196 | S-74S. See Lit. Index No. M/3.0 | | |
| | #951 198 | S-74D. See Lit. Index No. M/3.0 | | |
| | #951 200 | S-74DX. See Lit. Index No. M/3.0 | | |
| 70 Series MPa Plus | #951 291 #951 292 | S-74 MPa (single-wire). Works synergically with MPa power sources D-74 MPa (dual-wire). Works synergically with MPa power sources | | |
| XR-AlumaFeed™ | #300 509 | Advanced model adds Profile Pulse™, synergic control, trigger schedule select, lock capabilities and flow meter | | |
| Spoolmatic® 30A Spool Gun | #130 831 | Requires WC-24 for use with 14-pin receptacles | | |
| Ironmate™ Flux Cored Guns | | See Lit. Index No. AY/16.0 | | |
| Water Coolant Systems | | See page 6. See Lit. Index No. AY/7.2 | | |
| Cable Connectors and Adapters | | See page 6 | | |

Date:

Total Quoted Price:

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