

# XMT<sup>®</sup> 350 Series

Issued October 2007 • Index No. DC/18.83

**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)  
*\*XMT-350 MPa; XMT 350 CC/CV with  
required optional control; not available with  
XMT 350 VS model.*

**Input Power** Requires 3- or 1-Phase Power,  
208–575 VAC, 50/60 Hz  
**Rated Output** 10–38 V, 5–425 A  
**Weight** Net: 80 lb (36.3 kg)  
Ship: 89.1 lb (40.4 kg)

## The Power of Blue.<sup>®</sup>



**New!**

**XMT 350 MPa with  
Built-In Pulse MIG  
(see page 4)**

**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.

**The XMT 350 Series is packed with features to meet the most demanding welding needs.**

**Please see page 2 to determine which model is right for your application.**

**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.

**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 models further expand line voltage compensation on 460 VAC to an amazing +37%, -59%.

**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.

**TRUE BLUE<sup>®</sup>**  
3YR. WARRANTY

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 **USA**



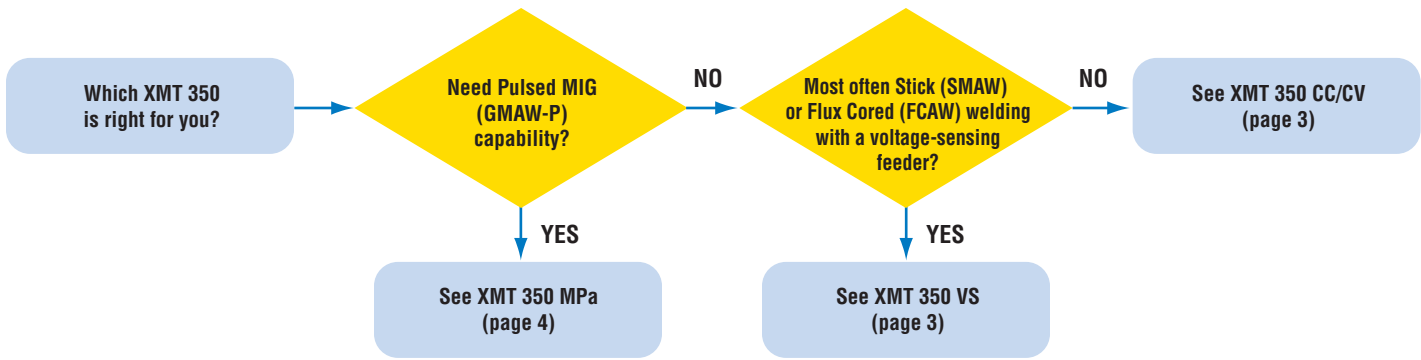
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www.MillerWelds.com



# Which XMT® is Right for You?



Amperage Class*	Power Processing	Industrial Inverters	Remote Capability	Process Capability	Pulsed MIG Capability	Connectors	Auxiliary Power	For more Information
300 A	Auto-Link®	XMT 304 CC/CV, 230/460 VAC	Yes	Stick, DC TIG, MIG, CAC-A	Optima™ Pulse Control Required	Dinse only	Optional	Lit. No. DC/18.8
350 A	Auto-Line™	XMT 350 MPa, 208–575 VAC	Yes		Built-In	Dinse or Tweco	Optional	Page 4
		XMT 350 CC/CV, 208–575 VAC	Yes		Optima™ Pulse Control Required	Dinse or Tweco	Optional	Page 3
		XMT 350 VS, 208–575 VAC	No		No	Tweco only	No	Page 3
565 A	Manual	XMT 456 CC/CV, 230/460 VAC	Yes	Optima™ Pulse Control Required	Ring Lug only	Standard	Lit. No. DC/18.8	

\*60% Duty Cycle Rating

## XMT® 350 Specifications (Subject to change without notice.)



Input Power	Rated Output at 60% Duty Cycle	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			
Three-Phase	350 A at 34 VDC	10–38 V	5–425 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	10–38 V	5–425 A	75 VDC	60.8	54.6	29.7	24.5	19.9	11.7	11.2			

Certified to both the Canadian and U.S. Standards for welding equipment.

### Additional Features

Exceptional electrical efficiency. At 400 A, efficiency is 87.24%!

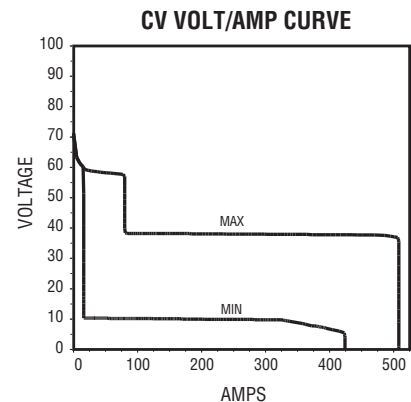
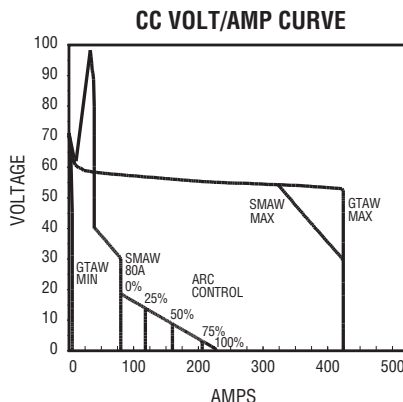
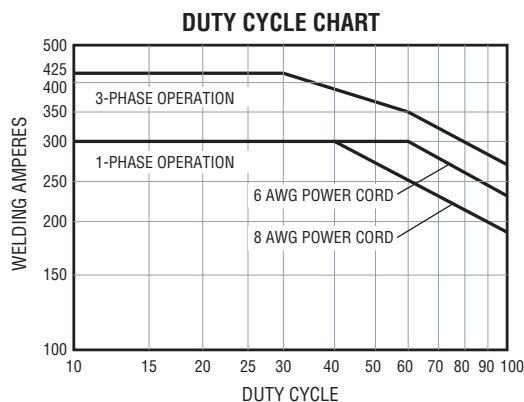
350 A of welding output at 60% duty cycle with superior low-end performance.

Power factor of .95 enables smaller fuses/breakers and primary wiring. Primary amperage draw at rated output is 25% less than the competition.

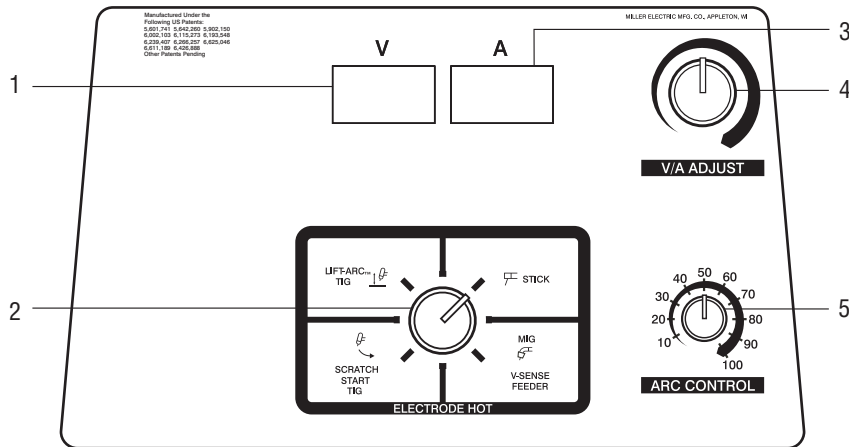
Ultra-tough, polycarbonate-blended cover for control panel protects front controls from damage.

Optional gas solenoid for TIG welding.

## XMT® 350 Performance Data



# XMT® 350 VS Control Panel



1. Voltmeter
2. Process Selector Switch (Rotary Switch)
3. Ammeter
4. Voltage/Amperage Adjustment Control
5. Arc Control

**NOTE:** VS model is equipped with Tweco-style output connector.

## Additional Features

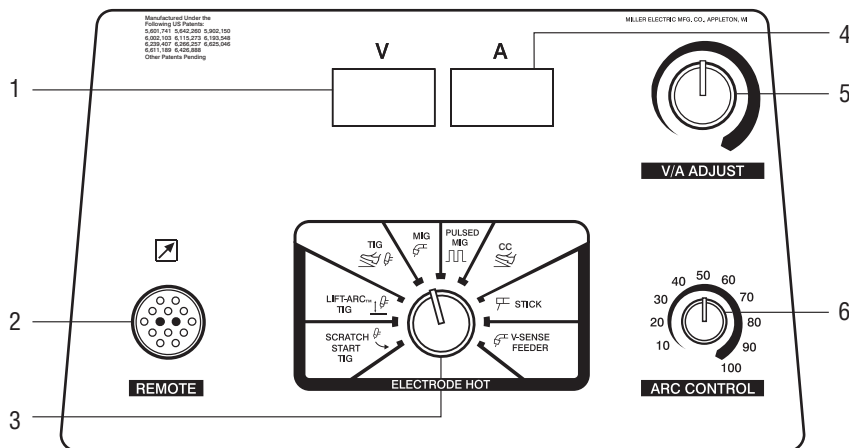
**Low OCV Stick** — A built-in, selectable feature, that reduces the Stick mode open-circuit voltage (OCV) to nearly 15 volts when the welding power source is not in use. Eliminates the need for add-on voltage reducers.

*Note: VS model is available only with Tweco-style weld cable disconnects. Tweco cable connectors are not supplied with the unit and must be ordered separately.*

*Optional 115 VAC auxiliary power is not available on VS model.*

*Pulsed MIG (GMAW-P) capability is not available on VS model.*

# XMT® 350 CC/CV Control Panel



1. Voltmeter
2. Remote Control Receptacle
3. Process Selector Switch (Rotary Switch)
4. Ammeter
5. Voltage/Amperage Adjustment Control
6. Arc Control

## Additional Features

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

**Low OCV Stick** — A built-in, selectable feature, that reduces the Stick mode open-circuit voltage (OCV) to nearly 15 volts when the welding power source is not in use. Eliminates the need for add-on voltage reducers.

**Dinse International-style weld disconnects** provide high-quality weld cable connections. Dinse and Tweco connectors are available. When Dinse connectors are specified, two connectors are supplied with the unit.

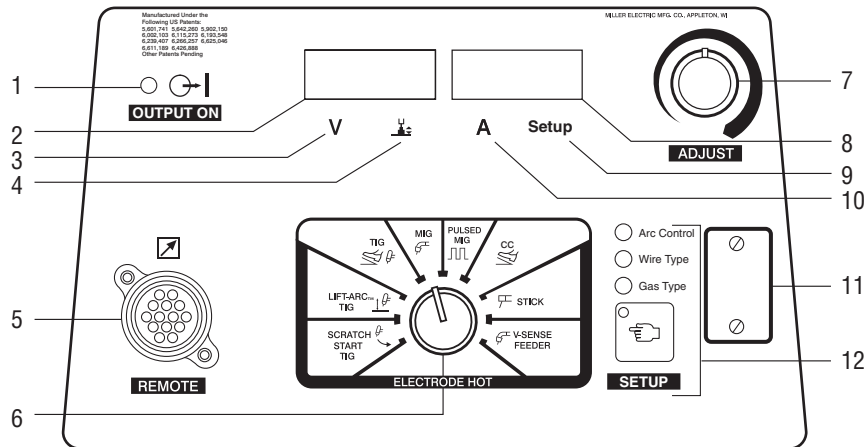
**Optional 115 VAC auxiliary power** provides 10 amps of circuit-breaker-protected power for water circulators, etc.

**Pulsed MIG (GMAW-P) capabilities** with optional Optima™ control reduces spatter and distortion, allows better out-of-position puddle control, and provides potential reduction of fume particle emission.

# XMT® 350 MPa Control Panel



The simple, powerful XMT 350 MPa can handle almost any portable welding application.



- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1. Output ON Indicator Light</li> <li>2. Left Display</li> <li>3. Voltage Display</li> <li>4. Arc Length Indicator</li> <li>5. Remote Control Receptacle</li> <li>6. Process Selector Switch (Rotary Switch)</li> </ul> | <ul style="list-style-type: none"> <li>9. Setup Indicator</li> <li>10. Amperage Indicator</li> <li>11. Remote PC Interface</li> <li>12. Setup Indicator Lights                             <ul style="list-style-type: none"> <li>• Arc Control Indicator</li> <li>• Wire Type Indicator</li> <li>• Gas Type Indicator</li> <li>• Setup Button</li> </ul> </li> </ul> |
|--|---|

## Built-In Pulsed MIG Programs

The XMT 350 MPa expands the process capability of an XMT 350 with built-in Pulse MIG operation. See the table below for the wide range of Pulsed MIG (GMAW-P) welding applications the XMT 350 MPa can handle.

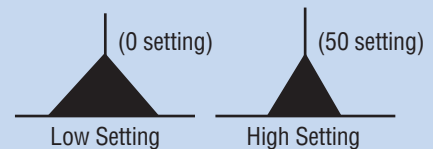
	Wire Types	Gas Types
Steel	.035 STL .045 STL	90% ARGN/10% CO <sub>2</sub> (Argon/Carbon Dioxide) 95% ARGN/5% OXY (Argon/Oxygen)
Metal Core	.035 MCOR .045 MCOR .052 MCOR	90% ARGN/10% CO <sub>2</sub> (Argon/Carbon Dioxide)
Stainless Steel	.035 SSTL .045 SSTL	TRI MIX (Tri-gas mixture: 81% ARGN/18% HE/1% 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) 3/64 AL4X (4000 Series) .035 AL4X (5000 Series) 3/64 AL4X (5000 Series)	100% ARGN (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.

## 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.

**Dinse International-style weld disconnects** provide high-quality weld cable connections. Dinse and Tweco connectors are available. When Dinse connectors are specified, two connectors are supplied with the unit.

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



# XMT® 350 Wire Feeder Packages



**SuitCase™ X-TREME™ 8VS  
with XMT® 350 VS and Bernard®  
Q300 gun #951 096**

Pulse MIG	Stick MIG TIG	Remote Control Cable	Feeder Remote Control	Weight w/ steel wire
No	Yes	No	No	32 lb



**SuitCase™ X-TREME™ 12VS  
with XMT® 350 CC/CV and Bernard®  
Q300 gun #951 099**

Pulse MIG	Stick MIG TIG	Remote Control Cable	Feeder Remote Control	Weight w/ steel wire
No	Yes	No	No	66 lb



**SuitCase™ 8RC with XMT® 350 MPa  
and Bernard® Q300 gun #951 079**

Pulse MIG	Stick MIG TIG	Remote Control Cable	Feeder Remote Control	Weight w/ steel wire
Yes	Yes	Yes	Yes	32 lb



**SuitCase™ 12RC with XMT® 350 MPa  
and Bernard® Q300 gun #951 078**

Pulse MIG	Stick MIG TIG	Remote Control Cable	Feeder Remote Control	Weight w/ steel wire
Yes	Yes	Yes	Yes	66 lb



**SuitCase™ X-TREME™ 8VS  
with XMT® 350 MPa and Bernard®  
Q300 gun #951 081**

Pulse MIG	Stick MIG TIG	Remote Control Cable	Feeder Remote Control	Weight w/ steel wire
Yes	Yes	No	No	32 lb



**SuitCase™ X-TREME™ 12VS  
with XMT® 350 MPa and Bernard®  
Q300 gun #951 080**

Pulse MIG	Stick MIG TIG	Remote Control Cable	Feeder Remote Control	Weight w/ steel wire
Yes	Yes	No	No	66 lb



**XR-Control, XMT® 350 MPa  
and XR-Aluma-Pro™ Gun #951 097**

Pulse MIG	Stick MIG TIG	Remote Control Cable	Feeder Remote Control	Weight w/ alum. wire
Yes	Yes	Yes	Yes	57 lb



**XMT® 350 CC/CV MIGRunner™ #907 233**

**Comes Complete With:**

- XMT 350 CC/CV power source
- 22A wire feeder
- Bernard® Q™-Gun
- Consumables
- .035/.045 in drive roll kit
- Regulator/flow gauge with gas hose
- MIGRunner Cart with cylinder rack
- Bottom tray will hold optional Coolmate 3 (sold separately)

## Genuine Miller Accessories



**Optima™ #043 389**  
A multipurpose, microprocessor-based pulse control for both synergic MIG (wire welding or GMAW) or manual MIG pulsing. Use this control with the XMT 304/350 CC/CV

power sources and any Miller wire feeder, including automatic feeders and spool guns. Includes a 25 ft (7.6 m) cord with 14-pin plug. (Not for use with XMT 350 MPa or VS models.)

### Extension Cords for Optima

- #043 725 25 ft (7.6 m)
- #043 726 50 ft (15.2 m)
- #043 727 75 ft (22.9 m)



### 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.



### WC-115A Weld Control #137 546-01-1

Operates on 115 VAC and is designed for power sources without a 14-pin receptacle. For use with Spoolmatic 30A spool gun. Includes 10 ft (3 m) wall-type plug and power cord.



### 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, 50/50 Hz. See Lit. Index No. AY/5.1.

### Process Selector Control #042 872

Designed for use with dual wire feeders, applications where electrical isolation and/or polarity reversing of weld current is required, and for welding process changes. Includes 115 VAC/2 amp receptacle, two 14-pin receptacles and a 10 ft (3 m) 14-pin cord.

### Gas Solenoid Kit #195 286

Easy to install, optional gas solenoid kit for TIG welding applications. Kit only works with XMT 350.



### 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 #129 340

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 20 ft (6 m) cord and 14-pin plug.



### 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 28 ft (8.5 m) control cord.



### RCCS-14 Remote Contactor and Current Control #043 688

Up-and-down rotary-motion fingertip control. Great for applications that require a finer amperage control. Includes 28 ft (8.5 m) control cord.

### Extension Cords for Remote Controls and 24 VAC Wire Feeders

- #122 973 25 ft (7.6 m)
- #122 974 50 ft (15.2 m)
- #122 975 75 ft (22.8 m)

14-pin plug to 14-pin socket.  
*Note: Not for use with Optima or 60M Series.*

## 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 456 power sources

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

## Running Gear



### MIGRunner™ Cart #195 445

### MIGRunner™ XL Cart #195 246

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.

## Wire Feeders/Guns



**SuitCase™ 8VS #194 890**  
**SuitCase™ X-TREME™ 12VS #195 500**

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/6.4 and M/6.41.



**SuitCase™ 8RC/12RC #194 938/#194 940**  
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 Control #181 538**  
Push-pull wire feed system offers unparalleled performance for aluminum MIG welding. See Lit. Index No. M/1.7.



**70 Series**  
**S-74S #195 057**  
**S-74D #195 058**  
**S-74DX #195 059**  
Wire feeder features Posifeed™ wire

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



**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 for 14 pin.)

**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.

## International-Style Connectors

*Note: XMT 350 power sources are equipped with International-style connectors for secondary connections. (Power source is shipped with two 50-mm male International-style plugs for use with #1 or #2 AWG size cable.)*



**International/Tweco® Adapter #042 465**  
**International/Cam-Lok Adapter #042 466**

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

## International-Style Connector Kit

**#042 418** 50 mm  
Accepts #4 or #1/0 AWG cable size. Required if male plugs shipped with power source must be replaced, or if additional plugs are needed.

**#042 533** 70 mm  
Accepts #1/0 or #2/0 AWG cable size. Required if #1/0 or #2/0 AWG size cable is to be used.

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

## Extension Kit for International-Style Cable Connectors

**#042 419** 50 mm  
Accepts #4 or #1/0 AWG size cable.

**#042 534** 70 mm  
Accepts #1/0 or #2/0 AWG size cable.

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



# Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
<b>XMT® 350 CC/CV</b>	#907 161	208–575 VAC with Auto-Line™		
	#907 161-01-1	208–575 VAC with Auto-Line™ and Auxiliary Power		
	#907 161-01-2	230–460 VAC with Auto-Line™ and Auxiliary Power and <b>CE</b>		
	#907 161-01-4	208–575 VAC with Auto-Line™ and Tweco connectors		
<b>XMT® 350 VS</b>	#907 224	208–575 VAC with Auto-Line™ (without 14-pin, Tweco connectors)		
<b>XMT® 350 MPa</b>	#907 366	208–575 VAC with Auto-Line™		
	#907 366-01-1	208–575 VAC with Auto-Line™ and Auxiliary Power		
	#907 366-01-4	208–575 VAC with Auto-Line™ and Tweco connectors		
<b>XMT® 350 Wire Feeder Packages</b>		See page 5		
<b>Inverter Racks</b> (full or empty)		See Lit. Index No. DC/18.81		
<b>Accessories</b>				
Optima™ MIG Pulse Control	#043 389	For CC/CV models only. Not for use with XMT 350 MPa or VS.		
Optima™ Extension Cords		See page 6		
WC-24	#137 549	For use with Spoolmatic® 30A and power sources <b>with</b> 14-pin		
WC-115A	#137 546-01-1	For use with Spoolmatic® 30A and power sources <b>without</b> 14-pin		
Process Selector Control	#042 872			
Gas Solenoid Kit	#195 286	For XMT 350 models only		
HF-251D-1 HF Starter/Stabilizer	#042 388	See Lit. Index No. AY/5.1		
RFCS-14	#043 554	Foot control		
RHC-14	#129 340	Hand control		
RMLS-14	#129 337	Rocker switch		
RCC-14	#151 086	Fingertip control		
RCCS-14	#043 688	Fingertip control		
Extension Cords (For 24 VAC wire feeders and remote controls)		See page 6. Not to be used with Optima, 60M or XR-M		
<b>Running Gear</b>				
MIGRunner™ Cart	#195 445			
MIGRunner™ XL Cart	#195 246			
XMT Cylinder Cart	#042 537			
Universal Carrying Cart and Cylinder Rack	#042 934			
<b>Protective Cover</b>	#195 478			
<b>Wire Feeders/Guns</b>				
SuitCase™ 8VS/X-TREME™ 12VS	#194 890/#195 500	See Lit. Index No. M/6.4 and M/6.41		
SuitCase™ 8RC/12RC	#194 938/#194 940	See Lit. Index No. M/6.5		
XR Control	#181 538	See Lit. Index No. M/1.7		
70 Series	#195 057	S-74S. See Lit. Index No. M/3.0		
	#195 058	S-74D. See Lit. Index No. M/3.0		
	#195 059	S-74DX. See Lit. Index No. M/3.0		
Spoolmatic® 30A Spool Gun	#130 831	Includes 30 ft (9.1 m) cable assembly		
Ironmate™ Flux Cored Guns		See Lit. Index No. AY/16.0		
<b>Water Coolant Systems</b>		See page 7. See Lit. Index No. AY/7.2		
<b>International-Style Connectors</b>		See page 7		

Date:

Total Quoted Price:



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