**XMT® 450 Series**

**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)
  - Rated: 5/16-inch carbons
  - Capable: 3/8-inch carbons
  - *Available on select models.

- **Input Power**
  - 230/460 V or 575 V
  - Requires 3-phase power

- **Output Range**
  - 10–38 V, 15–600 A

- **Net Weight**
  - 122 lb. (55.3 kg)

- **Auxiliary Power (option)**
  - 120 V, 10 amps

- **ArcReach (recommended option)**
  - Remote voltage control without a control cable

**Excellent arc performance make the XMT family the most popular in the industry.**

With multiprocess capabilities and more welding output, the XMT 450 is versatile for applications from jobsites to the factory floor.

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XMT 450 CC/CV shown

**Power source is warranted for three years, parts and labor.**

Original main power rectifier parts are warranted for five years.
Choosing the Correct XMT® 450

XMT 450 CC/CV

Flexibility and simplicity make this the most popular model. It has the core multiprocess capabilities along with the flexibility of a 14-pin for spool guns, feeders, and remote controls.

XMT 450 MPa

Built-in pulse programs for manufacturing and fabrication applications that have benefits for standard steels, high-strength steels and aluminum.

ArcReach® XMT 450 CC/CV (Recommended Option)

Remote control of the power source without a cord.

With an ArcReach® SuitCase® feeder and ArcReach power source you can change the output voltage at the feeder, and save a trip to the power supply. No extra control cord to purchase, maintain, string or unstring — saving time and money.

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<table>
<thead>
<tr>
<th>Input Power</th>
<th>XMT 450 CC/CV</th>
<th>XMT 450 MPa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weld Output</td>
<td>230/460 V, 400 V (CE) or 575 V, 3-phase</td>
<td>230/460 V or 575 V, 3-phase</td>
</tr>
<tr>
<td>Carbon Arc Gouging</td>
<td>450 A at 38 VDC, 100% duty cycle</td>
<td>Rated: 5/16-inch carbons, Capable: 3/8-inch carbons</td>
</tr>
<tr>
<td>Net Weight</td>
<td>122 lb. (55.3 kg)</td>
<td>1/2-inch stud</td>
</tr>
<tr>
<td>Output Connections</td>
<td>1/2-inch stud</td>
<td>1/2-inch stud</td>
</tr>
<tr>
<td>Stick/TIG/MIG</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Pulsed MIG</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

Available with ArcReach® (recommended option) | ● | ● |

Compatible Accessories

| Insight Core™ | ● | ● |
| ArcReach® SuitCase® Feeders | ● | ● |
| Bench Feeders | ● | ● |
| Spool Guns | ● | ● |
| Remote Controls | ● | ● |
**Versatility**

14-pin receptacle has the flexibility to be used with spool guns, feeders, and remote controls.

Optional 115-volt auxiliary power provides 10 amps of circuit-breaker-protected power for coolant systems, etc.

**Insight Core™**

Optional Welding Intelligence™ system.

XMT CC/CV and MPa models are Insight-capable to monitor weld voltage, amperage, and arc-time and percentage.

**Multiprocess weld quality**

High-quality performance in all welding processes.

Adaptive Hot Start™ makes starting stick electrodes easy without creating an inclusion.

Infinite arc control available in the stick and wire modes for easier fine tuning of tough-to-weld materials and out-of-position applications.

Lift-Arc™ provides arc starting that minimizes contamination of the electrode and without the use of high-frequency.

**Reliability**

Wind Tunnel Technology™ internal air flow that protects electrical components and PC boards from dirt, dust and debris...greatly improving reliability.

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

Unique case design helps protect internal components from dirt and dust. To connect input power cord and/or set unit up for correct input power, remove the easy-to-handle panel (1/3 case). The remaining two-thirds of the case never needs to be removed!

**Welder friendly control panel**

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.

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

Primary voltage display shows what primary voltage the power source is linked for without removing the side panels. Saves time and assures you that the power source has been correctly linked for available input voltage.

Auto Remote Sense™ enables unit to automatically use remote control if connected to remote control receptacle.
**Additional XMT 450 MPa Features**

**Built-in pulse programs for manufacturing and fabrication applications that have benefits for standard steels, high-strength steels and aluminum.**

**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** controls the arc in pulsed MIG mode and gives total control over the arc cone shape, puddle fluidity and bead profile. If a gas is used other than what is listed in the chart above, 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.

**Built-in pulsed MIG programs** provide reduced heat affected zone, weld in all positions, great for thick-to-thin metal, good gap filling ability and faster travel speeds and deposition. See the table below for the wide range of pulsed MIG (GMAW-P) welding applications the XMT MPa models can handle.

<table>
<thead>
<tr>
<th>Wire Types — diameter in inches (mm)</th>
<th>Gas Types</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steel</strong></td>
<td><strong>ARGN CO₂ (argon/carbon dioxide)</strong></td>
</tr>
<tr>
<td>.035 (.9) STL, .045 (1.2) STL</td>
<td>80 ARGN CO₂ (argon/carbon dioxide)</td>
</tr>
<tr>
<td>.052 (1.4) STL, 1/16 (1.6) STL</td>
<td>ARGN OXY (argon/oxygen)</td>
</tr>
<tr>
<td><strong>Steel 100S</strong></td>
<td><strong>100S C5 (95 argon/5 carbon dioxide)</strong></td>
</tr>
<tr>
<td>.035 (0.9) STL, .045 (1.2) STL, 1/16 (1.6) STL</td>
<td></td>
</tr>
<tr>
<td><strong>Metal Core</strong></td>
<td><strong>ARGN CO₂ (argon/carbon dioxide)</strong></td>
</tr>
<tr>
<td>.045 (1.2) MCOR, .052 (1.4) MCOR</td>
<td></td>
</tr>
<tr>
<td>1/16 (1.6) MCOR</td>
<td></td>
</tr>
<tr>
<td><strong>Stainless Steel</strong></td>
<td><strong>TRI MIX (tri-gas mixture)</strong></td>
</tr>
<tr>
<td>.035 (0.9) SSTL, .045 (1.2) SSTL</td>
<td>ARGN OXY (argon/oxygen)</td>
</tr>
<tr>
<td>1/16 (1.6) SSTL</td>
<td>ARGN CO₂ (argon/carbon dioxide)</td>
</tr>
<tr>
<td><strong>Aluminum</strong></td>
<td><strong>ARGN (argon)</strong></td>
</tr>
<tr>
<td>.035 (0.9) AL4X (4000 Series)</td>
<td></td>
</tr>
<tr>
<td>.040 (1.0) AL4X (4000 Series)</td>
<td></td>
</tr>
<tr>
<td>3/64 (1.2) AL4X (4000 Series)</td>
<td></td>
</tr>
<tr>
<td>1/16 (1.6) AL4X (4000 Series)</td>
<td></td>
</tr>
<tr>
<td>.035 (0.9) AL49 (4943)</td>
<td><strong>ARGN (argon)</strong></td>
</tr>
<tr>
<td>.040 (1.0) AL49 (4943)</td>
<td></td>
</tr>
<tr>
<td>3/64 (1.2) AL49 (4943)</td>
<td></td>
</tr>
<tr>
<td>1/16 (1.6) AL49 (4943)</td>
<td></td>
</tr>
<tr>
<td>.035 (0.9) AL5X (5000 Series)</td>
<td><strong>ARGN (argon)</strong></td>
</tr>
<tr>
<td>.040 (1.0) AL5X (5000 Series)</td>
<td></td>
</tr>
<tr>
<td>3/64 (1.2) AL5X (5000 Series)</td>
<td></td>
</tr>
<tr>
<td>1/16 (1.6) AL5X (5000 Series)</td>
<td></td>
</tr>
<tr>
<td>.035 (0.9) HE25 (75 argon/25 helium)</td>
<td><strong>HE AR25 (helium/argon)</strong></td>
</tr>
<tr>
<td>1/16 (1.6) Ni</td>
<td><strong>ARGN (argon)</strong></td>
</tr>
<tr>
<td><strong>Nickel</strong></td>
<td><strong>ARGN HE (argon/helium)</strong></td>
</tr>
<tr>
<td>.035 (0.9) Ni, .045 (1.2) Ni</td>
<td><strong>ARGN (argon)</strong></td>
</tr>
<tr>
<td>1/16 (1.6) Ni</td>
<td><strong>ARGN (argon)</strong></td>
</tr>
<tr>
<td><strong>Copper Nickel</strong></td>
<td><strong>HE ARGN (helium/argon)</strong></td>
</tr>
<tr>
<td>.035 (0.9) CUNI, .045 (1.2) CUNI</td>
<td><strong>ARGN (argon)</strong></td>
</tr>
<tr>
<td><strong>Silicon Bronze</strong></td>
<td><strong>ARGN (argon)</strong></td>
</tr>
<tr>
<td>.035 (0.9) SIBR, .045 (1.2) SIBR</td>
<td><strong>ARGN (argon)</strong></td>
</tr>
<tr>
<td><strong>Titanium</strong></td>
<td><strong>ARGN HE25 (75 argon/25 helium)</strong></td>
</tr>
<tr>
<td>.035 (0.9) Ti-5, .045 (1.2) Ti-5</td>
<td><strong>ARGN HE50 (50 argon/50 helium)</strong></td>
</tr>
<tr>
<td>.035 (0.9) Ti-5, .045 (1.2) Ti-5, 1/16 (1.6) Ti-2</td>
<td></td>
</tr>
<tr>
<td>1/16 (1.6) Ti-2</td>
<td><strong>HE100 (100 helium)</strong></td>
</tr>
</tbody>
</table>

**Synergic pulsed MIG.** 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, eliminating the need to make additional adjustments.

**Profile Pulse™** provides TIG appearance with MIG simplicity and productivity. Achieve “stacked dimes” without gun manipulation. Profile Pulse frequency can be changed to increase or decrease the spacing between the ripple pattern to achieve the desired weld appearance.

**Added capabilities with Insight Core™**. When using an MPa Plus feeder, wire deposition is added to the Insight Core capabilities.
ArcReach Features and Advantages (Available on select CC/CV models.)

Remote in use indicator provides convenient feedback indicating an ArcReach wire feeder is controlling the power source. While under ArcReach control, process and voltage/amperage adjustments are locked out, preventing accidental changes by personnel other than the welding operator.

Auto-Bind automatically establishes an exclusive communication between the power source and the wire feeder, using the existing weld cables upon system power up.

Fleet compatibility. ArcReach-equipped power sources and wire feeders work with non-ArcReach equipment; however, the complete ArcReach benefit is only realized with the ArcReach system.

ArcReach provides remote voltage control at the wire feeder without needing a control cable.

More arc-on time and reduced exposure to workplace hazards for operators can be realized using ArcReach because less time is spent going back to the welding power supply to set process and arc voltage.

Auto-Process Select™ System automatically changes to MIG/FCAW (with gas) if electrode positive polarity is detected or FCAW (no gas) if electrode negative polarity is detected, when ArcReach communication is established between the feeder and the XMT® — reducing the need to access the power supply.

Automatic return to panel settings. System automatically returns to XMT setting when ArcReach communication is terminated. For example, if the XMT is set to gouging at 350 amps and an ArcReach feeder is connected, the XMT will go to a MIG/FCAW process. If the feeder is disconnected, the XMT will go back to its previous setting (gouging at 350 amps).

Less operator fatigue by not needing to move or reposition both heavy secondary weld leads bundled with control cords on the jobsite. Control cables are not used.

Remote override of XMT. When an ArcReach feeder is connected to an XMT the feeder has full control and the XMT controls are disabled. While under ArcReach control, process and voltage/amperage adjustments are locked out, preventing accidental changes by personnel other than the welding operator.

Operator can precisely set arc voltage at the feeder and monitor the actual arc voltage and current delivered to the weld using the digital meters on the feeder. This removes guesswork when it comes to adhering to weld procedures.

Save time by no longer needing to troubleshoot welding system problems that result from damaged control cords.

Eliminate costly control cord repairs because control cords are not used.

Increased productivity

Improved weld quality

Reduced maintenance
**Specifications** *(Subject to change without notice.)*

<table>
<thead>
<tr>
<th>Model</th>
<th>Input Power</th>
<th>Voltage Range in CV Mode</th>
<th>Amperage Range in CC Mode</th>
<th>Rated Output</th>
<th>Amps Input at Rated Load Output, 60 Hz</th>
<th>Max. Open-Circuit Voltage</th>
<th>Dimensions</th>
<th>Net Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>XMT 450 MPa</td>
<td>Three-phase</td>
<td>10–38 V</td>
<td>15–600 A</td>
<td>450 A at 38 VDC, 100% duty cycle</td>
<td>51 32.1 27.6 24.4 22 18.9</td>
<td>90 VDC</td>
<td>H: 17.25 in. (438 mm) W: 14.5 in. (368 mm) D: 27.125 in. (689 mm)</td>
<td>122 lb. (55.3 kg)</td>
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<tr>
<td>XMT 450 CC/CV</td>
<td>Three-phase</td>
<td>10–38 V</td>
<td>15–600 A</td>
<td>450 A at 38 VDC, 100% duty cycle</td>
<td>51 27.6 23.6 21.6* 18.3</td>
<td>90 VDC</td>
<td>H: 17.25 in. (438 mm) W: 14.5 in. (368 mm) D: 27.125 in. (689 mm)</td>
<td>122 lb. (55.3 kg)</td>
</tr>
</tbody>
</table>

*KVA is 23.5 on 575 V.

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

**Performance Data**

![Duty Cycle Chart](image)

**Genuine Miller® Accessories**

**XMT® 450 CC/CV ArcReach® Rack 907700** 4-pack rack, fused for 460 V
Conveniently houses multiple XMT power sources for multiple welders. Features include:
- Provision to parallel power sources on common work connections
- Two lifting eyes for transportation
- Rugged skids for dragging or pushing

For detailed information on customized inverter rack systems see literature DC/18.81.

**MIGRunner® Cart 195445** For single feeders
Small footprint and easily maneuverable, with dual-cylinder rack low enough that you do not have to lift bottles. Durable ergonomic handles are designed for comfort.

*Note: Not compatible with dual wire feeders.*

**Running Gear Cylinder Rack 300408** For single or dual feeders
Holds two large gas cylinders and has gun cable hangers and a consumable drawer in front. A convenient handle allows the cart to be pulled easily through doorways. Power source and single or dual feeders can be mounted to cart and secured.
Remote Controls

Wireless Remote Foot Control 301580
For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine.

90-foot (27.4 m) operating range.

Wireless Remote Hand Control 301582
For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine.

300-foot (91.4 m) operating range.

RFCS-14 HD Foot Control 301589
Heavy-duty foot pedal current and contactor control provides increased stability and durability from larger base and heavier cord.

Includes 20-foot (6 m) cord with plug.

RHC-14 Hand Control 242211020
20-foot (6 m) cord
242211100
100-foot (30.5 m) cord
Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 82 mm). Includes cord and 14-pin plug.

RCC-14 Remote Contactor and Current Control 151086
East/west rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord and 14-pin plug.

RCCS-14 Remote Contactor and Current Control 043688
North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord and 14-pin plug.

Wireless Remote
Consumables

Gun with Centerfire fasteners. Includes 26.5-foot (8 m) cord and attaches to TIG torch using two hook-and-loop fasteners.

North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord and 14-pin plug.

Wire Feeder/ Guns

Wire Feeder/Guns

ArcReach™ SuitCase® 8
951726001 With Bernard® BTB Gun 300 A
951728 With Bernard® Dura-Flux™ gun

ArcReach™ SuitCase® 12
951729001 With Bernard® BTB Gun 300 A
951731 With Bernard® Dura-Flux™ gun

Portable feeder designed to run off of arc voltage. Includes BTB Gun with AccuLock™ consumables, or Dura-Flux™ gun with Centerfire™ consumables. When paired with an ArcReach power source, provides remote control of the power source without a control cord — saving time and money. See literature M/6.55.

SuitCase® 12RC 951580001
Lightweight, portable wire feeder for a variety of wires up to .062-inch diameter. Holds up to a 12-inch spool of wire. Includes remote voltage control, drive roll kit and Bernard® BTB Gun 300 A with AccuLock™ consumables. See literature M/6.5.

Spoolmatic® 30A
130831
Air-cooled spool gun that extends the weld process range by adding a handy portable system for small wire MIG. Rated at 200 amps at 100% duty cycle. Includes 30-foot (9.1 m) cable assembly. Requires WC-24 Weld Control 137549 for use with 14-pin receptacles, order separately.

WC-24 Weld Control 137549
Required to use Spoolmatic 30A spool gun. Designed for use with Miller CV power sources with 14-pin receptacles and supplying 24 VAC.

Welding Intelligence™

Insight Core™ 14-pin Module 301072
Easy-to-install module brings Insight Core capabilities to your existing fleet. This simplified, Internet-based weld data solution collects, transmits and presents actionable information to any Web-connected device. Insight Core can help you increase productivity, improve weld quality and manage costs.

Extension Cables for Remote Controls and 24 VAC Wire Feeders

2422080025 25 ft. (7.6 m)
2422080050 50 ft. (15 m)
2422080080 80 ft. (24.3 m)
14-pin plug to 14-pin socket. Not for use with XR-AlumaFeed™ or 70 Series MPa feeder.

Extension Cables

74 MPa Plus
S-74 MPa Plus 951291001
D-74 MPa Plus 951292001
Heavy-duty industrial feeder with features for weld control and programs, plus push-pull aluminum capabilities. Handles a variety of wires up to 5/64 inch. Includes Bernard® BTB Gun 400 A with AccuLock™ consumables. Works synergically with MPa power sources. See literature M/3.0.

Extension Cables

247831025 25 ft. (7.6 m)
247831050 50 ft. (15.2 m)
247831080 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 when using MPa power sources include synergic pulsed MIG, remote process select and side select capabilities.
### Ordering Information

<table>
<thead>
<tr>
<th>Power Source and Options</th>
<th>Stock No.</th>
<th>Description</th>
<th>Qty.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>XMT® 450 CC/CV</td>
<td>907481</td>
<td>230/460 V</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9070525</td>
<td>400 V with auxiliary power and CE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XMT® 450 MPa</td>
<td>907479</td>
<td>230/460 V</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>907479001</td>
<td>230/460 V with auxiliary power</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>907480</td>
<td>575 V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XMT® 450 CC/CV ArcReach™</td>
<td>907481003</td>
<td>230/460 V</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>907481004</td>
<td>230/460 V with auxiliary power</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>907482</td>
<td>575 V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XMT® 450 Rack</td>
<td>907700</td>
<td>Fused 460 V. See literature DC/18.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas Valve Kit</td>
<td>300928</td>
<td>For XMT 450</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Accessories

- **MIGRunner™ Cart**: 195445  
  For single feeders

- **Running Gear Cylinder Rack**: 300408  
  For single or dual feeders

#### Remote Controls

- **Wireless Remote Foot Control**: 301580  
  Foot control with wireless 90 ft. (27.4 m) operating range

- **Wireless Remote Hand Control**: 301582  
  Hand control with wireless 300 ft. (91.4 m) operating range

- **RFCS-14 HD**: 301589  
  Foot control with 20 ft. (6 m) cord and 14-pin plug

- **RHC-14**: 242211020  
  Hand control with 20 ft. (6 m) cord

- **RCC-14**: 242211100  
  Hand control with 100 ft. (30.5 m) cord

- **RCCS-14**: 043688  
  Fingertip control

- **Extension Cables (8-conductor)**: See page 7

#### Wire Feeders/Guns

- **ArcReach® SuitCase® 8**: 951726001  
  With drive rolls and Bernard BTB Gun 300 A with AccuLock™ consumables

- **ArcReach® SuitCase® 12**: 951729001  
  With drive rolls and Bernard BTB Gun 300 A with AccuLock™ consumables

- **SuitCase® 12RC**: 951580001  
  With drive rolls and Bernard BTB Gun 300 A with AccuLock™ consumables

- **XR-AlumaFeed® SuitCase®**: 301567  
  Advanced model adds Profile Pulse™, synergic control, trigger schedule select, and lock capabilities. See literature DC/34.0

- **74 MPa Plus**: 951291001  
  S-74 MPa. With drive rolls and Bernard BTB Gun 400 A with AccuLock™ consumables

- **Extension Cables (11-conductor)**: See page 7

- **Spoolmatic® 30A Spool Gun**: 130831  
  Requires WC-24 for use with 14-pin receptacles

- **WC-24 Weld Control**: 137549  
  Required for use with Spoolmatic® 30A and power sources with 14-pin

- **Bernard® MIG Guns**: See Bernard literature SP-BTB

#### Welding Intelligence

See page 7