

XMT® 650 ArcReach®

**Multiprocess
Welding System** 

Quick Specs



Heavy Industrial Manufacturing

Fabrication and construction
Structural steel fabrication/erection
Heavy manufacturing
MRO – maintenance/repair
Pressure tank/vessel fabrication
Shipbuilding
Refineries and foundries
Railcar manufacturing
Earth-moving equipment manufacturing

Processes

MIG (GMAW)
Flux-cored (FCAW)
Stick (SMAW)
DC TIG (GTAW)
Submerged arc (SAW)
Air carbon arc (CAC-A)
cutting and gouging
Rated: 3/8-inch carbons
Induction heating

Input Power 380/400 V or 575 V,
50/60 Hz, 3-phase power
Output Range 10–815 A, 10–65 V
50/60 Hz, 3-phase power
Rated Output 650 A at 44 VDC, 100% duty cycle
Net Weight 72.1 kg (159 lb.)
50/60 Hz, 3-phase power
ArcReach®
Remote voltage control without a control cord



Game-changing welding technologies can stop you from wasting hours every day.

ArcReach® welding technology minimizes the non-value-added time spent walking to and from the power source – and maximizes arc-on time, weld quality and jobsite safety.

When operators have complete control at the feeder or remote – even hundreds of feet away from the power source – it minimizes downtime and maximizes productivity, while improving operator safety and delivering high quality welds.

XMT® 650 ArcReach® System

Rugged, durable and built to last, so it can take structural fabrication to the next level.

XMT® 650 ArcReach® System

Ideal for:

- Structural steel fabrication
- General construction
- Shipbuilding

Arc control

Adjusts inductance to optimize MIG arc performance, or Dig control for Stick.

Auto Remote Sense™ (ARS)

Detects if a remote control is plugged into the 14-pin receptacle and eliminates confusion of a remote panel switch

Gouging

New XMT® 650 ArcReach® System includes up to 815 amps of gouging power, so operators can remove more material per pass.



**Next Level
Productivity**



**Next Level
Cost Savings**



**Next Level
Power**

ArcReach®

Remote voltage control at the wire feeder or remote without a control cord. See page 2 for more information.



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



International Headquarters

Miller Electric Mfg. LLC

An ITW Welding Company
1635 W. Spencer Street
Appleton, WI 54914 USA

MillerWelds.com/europe

Miller Europe

Orbitalum Tools GmbH
Josef Schuettler Str. 17
78224 Singen, Germany
Tel.: +49 7731 792 400
sales.MILLER@itw welding.com

ITW WELDING Sales Office UK

77 New Court Way
Ormskirk, Lancashire L39 2YT
United Kingdom
Tel.: +44 1695 585 910
sales.UK@ITWwelding.com

XMT® 650 ArcReach® Systems Benefits



Next Level Productivity

ArcReach® capabilities eliminate the time spent tracing weld cables hundreds of feet back to the power source because weld operators can make adjustments at the ArcReach wire feeder or remote.

- **Cable Length Compensation (CLC™)** ensures that the voltage a weld operator sets is the voltage they get by automatically adjusting voltage based on weld cable length, even hundreds of feet away from the power source.
- **Process selection** at point of use to easily switch between welding and gouging with an ArcReach wire feeder or remote.
- **Return to a previous weld process faster** because the power source is restored to its previous settings once the ArcReach accessory is removed.
- **Decrease the chance of an incorrect weld process used** because Auto-Process Select™ automatically sets the power source to the correct weld process based on the polarity applied to the weld accessory.
- **ArcReach 16 shop cart** option with caster wheels and handle makes it easy to transport the wire feeder across the shop and under I-beams.
- **ArcReach 16 field roller option** is equipped with rollers to make it easier than ever to pull an ArcReach 16 wire feeder across pan decking.



Next Level Cost Savings

Maximize savings by simplifying your fleet and accessories, being ready-to-weld with preassembled wire feeders, eliminating inefficiencies, and minimizing equipment downtime with XMT 650 ArcReach systems.

- **Eliminate the control cable** and reduce inventory and maintenance expense with ArcReach.
- **Eliminate dedicated gouging power sources** with integrated gouging stud at the wire feeder.
- **Eliminate cart/sled custom design and assembly** and be ready-to-weld in minutes with a preassembled ArcReach 16 wire feeder.
- **Enable welder with full control at point of use**, increasing efficiency.
- **Adjust While Welding (AWW™)** allows weld operators to change weld parameters while the arc is on.
- **Rugged and durable** means equipment lasts – with IP23 rating, Wind Tunnel Technology™ and Fan-On-Demand™.



Next Level Power

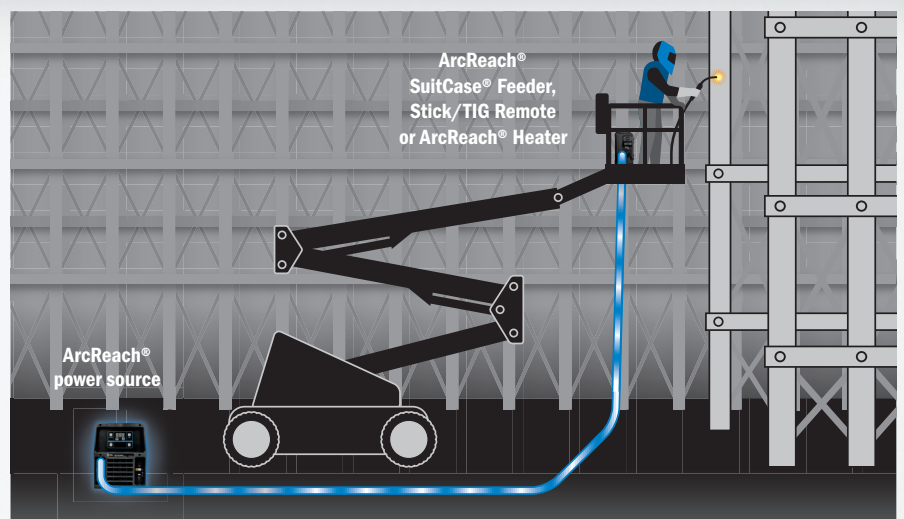
Power for all your welding and gouging needs.

- **Field-proven gouge process.** Remove more material per pass with optimized gouge process without sacrificing control.
- **Weld power to meet productivity needs.** Improve your project timelines with the ability to use large diameter filler wires and minimize downtime with large spools.
- **Elevated arc performance across jobs.** Provides the ability to run a vast range of wire diameters with ideal power. Enables flexibility without sacrificing performance.
- **Rack option** houses four XMT 650 power sources in one convenient package for multiple operators.

ArcReach®

Remote control of the power source without a control cord.

ArcReach® technology uses the existing weld cable to communicate control information at the feeder, ArcReach® Heater or remote and power source. This technology eliminates the need for control cords, and their associated problems and costs.



XMT® 650 Series Features



REMOTE IN USE

Remote in use indicator on front panel provides convenient feedback indicating an ArcReach® wire feeder or a compatible 14-pin device 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 Remote Sense™ enables unit to automatically use remote control if connected to remote control receptacle.

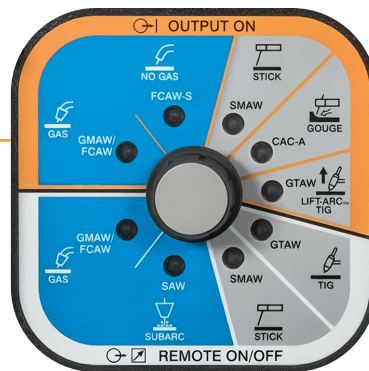
14-pin receptacle has the flexibility to be used with spool guns, feeders, and remote controls.

Arc control is active in the stick and solid-wire processes. It allows the operator to customize arc characteristics to match preference, electrode and joint design from a softer arc with more fluid puddle to a stiffer arc with a more controllable puddle. The Star setting is optimized for most applications and pointing the control at Soft or Stiff is optimal for most arc preferences. Control is fully adjustable from 0 to 25 Soft or 0 to 25 Stiff.



120-volt auxiliary power provides 15 amps of power to run power tools – like grinders, chop saws, drills and lights.

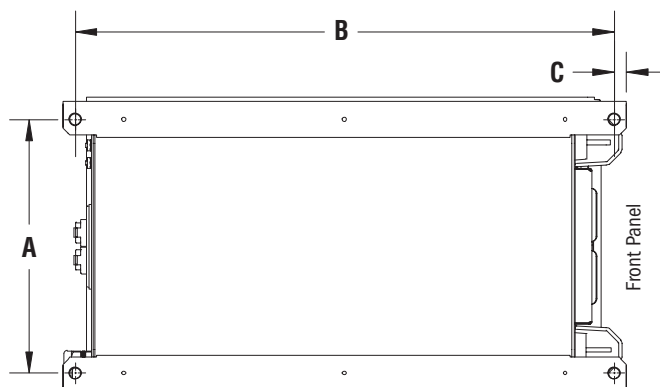
XMT® 650 CC/CV and ArcReach Process Control



LED process indicator. Front panel process selections are illuminated with an LED that identifies the active process. This enables the selected weld process to be seen at a distance from the power source.

- Gouging mode is an optimized stick position for better gouging performance
- Three wire modes (GMAW/FCAW/SAW) for simplified setup and optimized arc performance
 - Solid and flux-cored wires with gas
 - Flux-cored (self-shielded)
 - Sub arc
- Stick mode for all electrode types
- Lift-Arc™ TIG

Mounting Specifications



- A. 362 mm
- B. 768 mm
- C. 17 mm

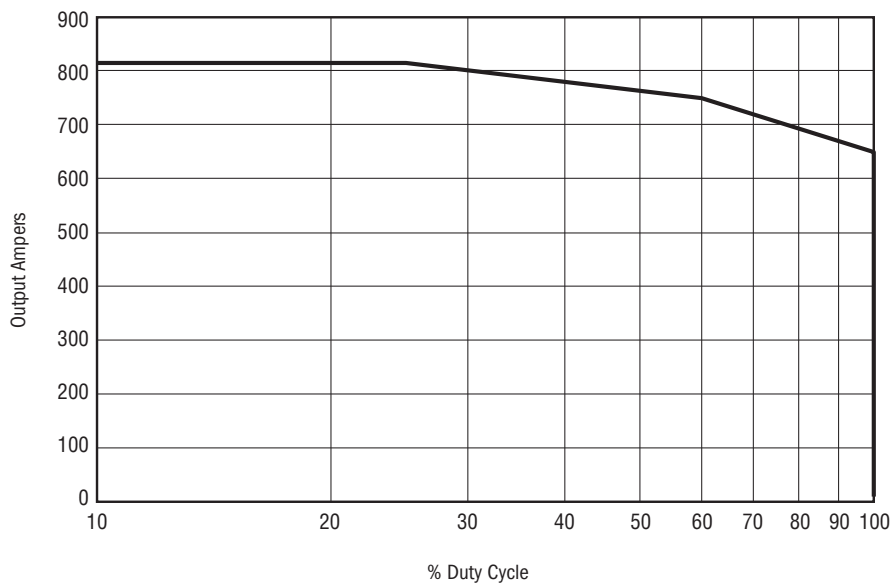
XMT® 650 Series Specifications (Subject to change without notice.)

Process	Output Ratings			Amperes Input At Rated Output	Input Power		Dimensions (H x W x D)	Net Weight
	Current (Amperes)	Voltage (DC)	Duty Cycle (%)		KW*	KVA**		
GTAW (Lift-Arc TIG) GTAW (TIG)	650	34	100	40.6	25.2	26.9	H: 716 mm W: 424 mm D: 803 mm	84.8 kg (shipping weight)
	750	34	60	47.6	29.5	31.4		
	815	34	25	51.6	32.1	34.2		
GMAW/FCAW (Gas) FCAW-S (No Gas) SAW (Subarc) CAC-A (Gouge) SMAW (Stick)	650	44	100	51.5	31.9	33.9		72,1 kg (machine only)
	750	44	60	59.9	37.0	39.5		
	815	44	25	65.3	40.2	43.0		

*Not available with polarity reversing model. **Values in parentheses are for 575 V.

Performance Data

Duty Cycle Chart



ArcReach® Heater System



Take charge of your field preheat and bakeout applications up to 600 degrees Fahrenheit (315°C).

As part of the ArcReach® technology platform, the heater is an accessory for select ArcReach® welding power sources. The induction heating tools (air-cooled cables or air-cooled quick wraps) connect to the ArcReach Heater, which is powered by select on-site welding power sources.

ArcReach® Heater Only 301591 CE model

The ArcReach® Heater is equipped with built-in temperature control allowing for either manual or computer-loaded programming using up to six thermocouples. The ArcReach® Heater can run either one or two heating tools (air-cooled cable or air-cooled quick wrap) simultaneously. Requires ArcReach® Heater extension cable to operate. See literature IN/16.0.

Note: Weld cables are not included.

ArcReach® Heater systems allow economical, insourced weld preheating and bakeout. With ArcReach® Heater systems you can:

- Eliminate the costly overruns common with heating contractors
- Eliminate delays due to transitions between heating and welding crews
- Run your own schedule without depending on third-party contractors
- Use existing on-site welding equipment up to 61 m away as the heating power source
- Lower preheating and bakeout costs
- Automatically and accurately document joint temperatures
- Eliminate safety concerns caused by traditional resistance and open-flame heating

The ArcReach® Heater air-cooled induction heating system is specifically designed for preheating and bakeout applications up to 315°C, without the need for a cooler and coolant. Preheat and bakeout programs can be manually entered or loaded via USB drive. Heating data is automatically recorded and can be used in quality control and documentation needs.

The air-cooled cables and quick wraps are manufactured from durable high-temperature materials, and designed to withstand the tough conditions in both industrial and construction applications.



ArcReach Heater Extension Cable 301451 3 m (10 ft.)

Air-cooled cables or quick wraps connect to the side of the box. Up to six thermocouple sensors connect to the yellow panel, and provide temperature feedback from the piece being heated.



Air-Cooled Quick Wrap 301452

The quick wrap works on pipe up to 25.4 cm diameter, and can heat up to a maximum 315°C. Requires preheat insulation for temperatures over 200°C to protect the tool. Most joints will require simultaneous use of two-air cooled quick wraps – one on each side of the joint.



Preheat Insulation with Cable Harness 301334 1.3 x 41 x 305 cm

Air-cooled heating cable coils of various sizes can be attached directly to this preheat insulation. Once a coil is set up it can easily be moved from part to part reducing setup times. The insulation is 3 m long and can be cut to length to fit your application.

Note: Heating cable not included.

High-Temperature Rope 194965 2.5 cm wide, 15.2 m roll.

ArcReach® Heater Specifications (Subject to change without notice.)

Input Power	Ambient Temperature Range		Rated Output	Dimensions (H x W x D)	Net Weight
	Storage	Usage			
Operates on open-circuit voltage: 50-70 V	-20-55°C	-10-40°C	7.8 kW at 100% duty cycle	H: 472 mm W: 285 mm D: 678 mm	23.4 kg

Genuine Miller® Accessories



ArcReach® SuitCase® 12 Heavy Duty 301604

Feeder only

951000096

With Bernard® IronPro™ flux-cored gun For 3/32-inch cored wire. Portable feeder designed to run off of arc voltage. 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.



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.

Note: Not compatible with XMT 650 ArcReach polarity reversing model.

Remote Controls and Switches



Wireless Remote Foot Control 301580

For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 27.4 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 6 m cord with 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.



Wireless Remote Hand Control 301582

For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 91.4 m operating range.



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.



RHC-14 Hand Control 242211020

Miniature hand control for remote current and contactor control. Dimensions: 102x102x83 mm. Includes 6 m cord and 14-pin plug.

Extension Cables for Remote Controls and 24 VAC Wire Feeders

242208025 7.6 m

242208050 15 m

242208080 24.3 m

14-pin plug to 14-pin socket. Not for use with XR-AlumaFeed® or 70 Series MPa feeder.

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.

Note: Not compatible with XMT 650 ArcReach polarity reversing model.

Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
XMT® 650 ArcReach®	907844	380/400 V, 50/60 Hz		
ArcReach® Heater System		See page 5		
Wire Feeders/Guns				
ArcReach® SuitCase® 8	301457			
ArcReach® SuitCase® 12	301456			
Suitcase 12 RC, heavy duty DR, CE	301121			
S-74 D single feeder	300617			
ST-24	3800000004	New generation of the ST-24		
Remote Controls		See page 6		
Welding Intelligence™		See page 6		

Date:

Total Quoted Price:

Miller® recommends *Elega*® consumables

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