Miller®

The Power of Blue®

Full-line Catalog
MillerWelds.com 2017

EU•CE Edition

WE BUILD™ with you

WE BUILD™ with you

When imagination meets determination, we can do anything.

It begins with a spark of inspiration That inspiration builds to an idea — and then, a plan.

Work begins. Challenges are overcome. And soon, we've built something new for ourselves and for our world.

The wonder of your imagination. The power of your determination. The capabilities of Miller products. **Together, we build.**

MillerWelds.com/webuild

Miller®

New from Blue

13 **XMS® 425 MPa**

15 **Continuum™ Systems**

16 **Auto-Continuum™ Systems**

18 **SuitCase® 12RC**

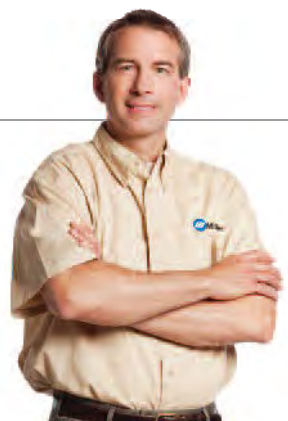
31 **Dimension™ 650**

34 **XMT® 350 FieldPro™ System**

45 **Maxstar® 400**
Dynasty® 400

45 **Maxstar® 800**
Dynasty® 800

61 **External Cladding Head**



Shop with expert advice and attention

Visit your local Miller distributor for in-depth knowledge and one-on-one assistance in product selection. **MillerWelds.com/wheretobuy**

Help me choose

Finding the welding equipment that's right for you doesn't have to be complicated. Follow the steps below.

1 Pick the right process for the metals to be welded.

Process skill level ★ Low ★★ Moderate ★★★ High

Metal type

S Steel	AL Aluminium	Ti Titanium
SS Stainless Steel	CI Cast Iron	Mg Magnesium Alloys
Ni Nickel Alloys	CB Copper/Brass	EC All Electrically Conductive

MIG (GMAW) ★

S SS Ni AL CB

- Easiest process to learn
- High welding speeds possible
- Provides better control on thinner metals
- Cleaner welds possible with no slag
- Same equipment can be used for flux-cored welding

Pulsed MIG (GMAW-P) ★

S SS Ni AL CB

- Flexibility and productivity — nearly all metals can be welded in all positions
- Larger diameter electrode wires for higher deposition rates
- Virtually no spatter
- Welds thin to thick metals

Flux-cored (FCAW) ★

S SS

- Can work as well as stick on dirty or rusty material
- Out-of-position welding
- Deep penetration for welding thick sections
- Increased metal deposition rate

Stick (SMAW) ★★

S SS Ni CI

- Well suited for windy, outdoor conditions
- More forgiving when welding on dirty or rusty metal

TIG (GTAW) ★★★

AC AL Mg **DC** S SS Ni CB Ti

- Provides highest quality and most precise welds
- Highly aesthetic weld beads
- Allows adjustment of heat input while welding by use of a remote control

Pulsed TIG (GTAW-P) ★★★

AC AL Mg **DC** S SS Ni CB Ti

- More control on thin metals
- Less heat distortion on thin metals

Submerged Arc (SAW) ★★

S SS

- High deposition rates can enhance weld speed and production
- Excellent mechanical properties for high-quality code and X-ray requirements
- Improves welding operator comfort and appeal

Air Carbon Arc Cutting and Gouging (CAC-A) ★★

AC CB **DC** S SS AL CI

- Wide variety of metals
- Removes discontinuities or inferior welds

2 Evaluate your needs: input power, output power, generator power and portability.

Input power

Does your machine need to be self-powered, or will AC power be available at the location where it's primarily used?

- For locations where an electrical hookup is not practical, consider a diesel-powered engine-driven welder/generator to supply welding and generator power.
- For locations where AC power is available, you need to know its type — and whether it's a match for the machine you're considering:

Single-phase power
Check to see if the machine you're considering requires single-phase power, and whether its voltage requirements are met by the electrical service at the intended location.

Three-phase power
Check to see if the machine you're considering requires three-phase power and whether its voltage requirements are met by the electrical service at the intended location.

Output power

● **Light industrial** products are suitable for the hobbyist or occasional light industrial user. They are designed to be easy to operate, are affordably priced and typically have a low duty cycle and lower-rated output.

● **Industrial** products are suitable for applications that do not require high-volume production. They typically have a 60 percent duty cycle and/or rated output of 300 amps. Industrial products are an appropriate choice for professional welders.

● **Heavy industrial** products are suited to high-volume production and/or welding of thicker materials. They typically have a duty cycle of 60 to 100 percent and a rated output of at least 300 amps. Heavy industrial products are designed with the arc characteristics and product features professional welders demand for code-quality work.

Note: Units listed in more than one classification share attributes of both.

About duty cycles

Duty cycle is an indication of how long a power source can continuously weld (at a specific amperage and voltage) in a 10-minute period of time before it needs to cool down. For example, a machine with a 60 percent duty cycle at 300 amps and 32 volts of welding output can be used (at 300 amps and 32 volts) for 6 minutes out of a 10-minute period. When comparing two similar-sized power supplies it is important to pay close attention to both the amperage and voltage values that determine the rated load.

Power icons

- 1 Phase — Unit requires single-phase input power
- 3 Phase — Unit requires three-phase input power
- AC — Unit supplies alternating current weld output
- DC — Unit supplies direct current weld output
- AC/DC — Unit supplies alternating current and direct current weld output
- CC — Unit supplies constant-current weld output
- CV — Unit supplies constant-voltage weld output
- CC/CV — Unit supplies constant-current and constant-voltage weld output

Generator power

Out in the field, you may need an engine-driven welder/generator to supply AC power to run tools and lights, or supply 12-volt DC power to charge automotive batteries and jump-start vehicles. Miller® welder/generators are packed with power; larger units even offer option packages that add 10 to 20 kW of generator power.

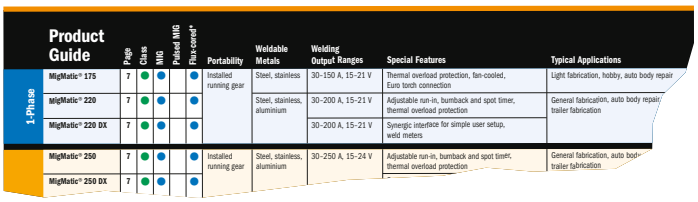
Portability

Can you bring the work to the machine, or does the machine need to go to the work? Check the Product Guide pages for types of portability:

- Shoulder strap, handles, running gear, carts, etc.
- Many engine-driven welding generators fit in the back of a truck, enabling them to be driven to wherever the welding is needed. Heavy-duty trailers are also available for engine drives.

3 Check out the Product Guides.

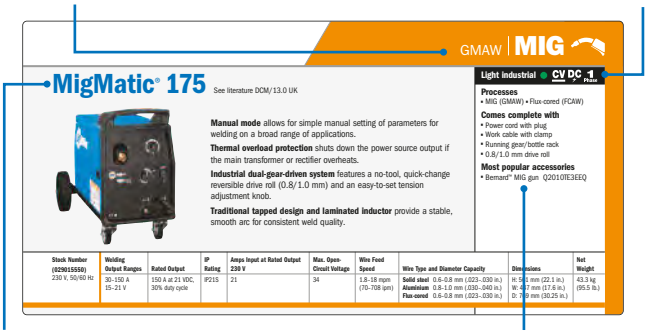
The Product Guides (at the start of each major section) briefly describe and compare power sources within that section.



4 Go to product descriptions.
(Specifications are subject to change without notice.)

Color-coded sections are identified by a primary process icon and title.

Colored bullets indicate output power classification. Power icons indicate power supplied or required (see descriptions above). Listing of recommended processes.



For more product specifications, give the product name and literature number to your distributor, visit us on the Web at MillerWelds.com.

Brief listing of most popular accessories. Refer to pages listed for more details.

MIG | GMAW

Also see Multiprocess section for machines that can MIG weld.

Product Guide

	Product Guide	Page	Class	MIG	Pulsed MIG	Flux-cored *	Portability	Weldable Metals	Welding Output Ranges	Special Features	Typical Applications
1-Phase	MigMatic® 175	7	●	●		●	Installed running gear	Steel, stainless	30–150 A, 15–21 V	Thermal overload protection, fan-cooled, Euro torch connection	Light fabrication, hobby, auto body repair
	MigMatic® 220	7	●	●		●		Steel, stainless, aluminium	30–200 A, 15–21 V	Adjustable run-in, burnback and spot timer, thermal overload protection	General fabrication, auto body repair, trailer fabrication
	MigMatic® 220 DX	7	●	●		●			30–200 A, 15–21 V	Synergic interface for simple user setup, weld meters	
3-Phase	MigMatic® 250	7	●	●		●	Installed running gear	Steel, stainless, aluminium	30–250 A, 15–24 V	Adjustable run-in, burnback and spot timer, thermal overload protection	General fabrication, auto body repair, trailer fabrication
	MigMatic® 250 DX	7	●	●		●				Synergic interface for simple user setup, weld meters	
	MigMatic® 300	8	●	●		●			30–300 A, 15–28 V	Industrial two-gear drive system, spot timer, digital meter	General fabrication, trailer fabrication, construction
	MigMatic® 300 DX	8	●	●		●				Synergic interface for simple user setup, digital meter, run-in and burnback	
	MigMatic® 380	8	●	●		●			30–350 A, 15–32 V	Industrial four-gear drive system, spot timer, digital meter	General fabrication, trailer fabrication, construction
	MigMatic® 380 DX	8	●	●		●				Synergic interface for simple user setup, digital meter, run-in and burnback	
	XPS 350	9	●	●		●		Most metals	30–350 A, 15–32 V	Fan-On-Demand,™ dual digital meters, 115-volt aux power socket, step voltage control	Structural steel, trailer manufacturing, general fabrication
	XPS 450	9	●	●		●			30–450 A, 15–34 V		
	AlumaFeed™ 350 Aluminium System	11	●	●	●		Optional running gear	Aluminium	5–425 A, 10–38 V	Profile Pulse,™ lightweight feeder with multiple gun options	Heavy industrial aluminium production/fabrication, truck and shipbuilding
	AlumaFeed™ 450 Aluminium System	11	●	●	●				15–600 A, 10–38 V		
	Deltaweld® 402	13	●	●		●		Most metals	30–375 A, 10–32 V	Fan-On-Demand,™ dual digital meters, 115-volt aux power socket, tried and tested	Structural steel, trailer manufacturing, general fabrication
	Deltaweld® 602	13	●	●		●			30–575 A, 10–38 V		
	Deltaweld® 852	13	●	●		●			30–825 A, 10–44 V		
	XMS® 425 MPa Welding System	13	●	●	●	●			5–425 A, 10–38 V	Advanced pulse and double-pulsed inverter with simplified user interface	Heavy manufacturing and production, aluminium fabrication
	Invision™ 352 MPa Plus System	14	●	●	●	●			5–425 A, 10–38 V	Push/pull gun capability, optimised with 74 MPa Plus wire feeder	Heavy manufacturing and production, aluminium fabrication
	Invision™ 450 MPa Plus System	14	●	●	●	●			15–600 A, 10–38 V		
	Continuum™ 350	15	●	●	●	●		Steel, stainless	20–400 A, 10–44 V	Advanced arc performance, Welding Intelligence™	Mid-to-high volume manufacturing
	Continuum™ 500	15	●	●	●	●			20–600 A, 10–44 V		
	Auto-Continuum™ 350	16	●	●	●	●	Lift eye	Steel, stainless	20–400 A, 10–44 V	Available for EtherNet/IP,™ DeviceNet and analogue protocol	Fixed and flexible automation
	Auto-Continuum™ 500	16	●	●	●	●			20–600 A, 10–44 V		

Product Key

Class: ● **Light industrial** ● **Industrial** ● **Heavy industrial** **Capability:** ● **Designed for this process** ◉ **Capable of this process**

New! or Improved! products appear in blue type. *If using self-shielded wire on a CC/CV machine, use CV weld output.

See aluminium MIG solutions chart (page 10) and industrial MIG solutions chart (page 12) for additional information.

MigMatic® 175

See literature DCM/13.0 UK

Manual mode allows for simple manual setting of parameters for welding on a broad range of applications.

Thermal overload protection shuts down the power source output if the main transformer or rectifier overheats.

Industrial dual-gear-driven system features a no-tool, quick-change reversible drive roll (0.8/1.0 mm) and an easy-to-set tension adjustment knob.

Traditional tapped design and laminated inductor provide a stable, smooth arc for consistent weld quality.

Light industrial ● CV DC 1 Phase

Processes
- MIG (GMAW) ▪ Flux-cored (FCAW)

Comes complete with
- Power cord with plug
- Work cable with clamp
- Running gear/bottle rack
- 0.8/1.0 mm drive roll

Most popular accessories
- Bernard™ MIG gun Q2010TE3EEQ

Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Output 230 V	Max. Open-Circuit Voltage	Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight
(029015550) 230 V, 50/60 Hz	30–150 A 15–21 V	150 A at 21 VDC, 30% duty cycle	IP21S	21	34	1.8–18 mpm (70–708 ipm)	**Solid steel** 0.6–0.8 mm (.023–.030 in.) **Aluminium** 0.8–1.0 mm (.030–.040 in.) **Flux-cored** 0.6–0.8 mm (.023–.030 in.)	H: 561 mm (22.1 in.) W: 447 mm (17.6 in.) D: 769 mm (30.25 in.)	43.3 kg (95.5 lb.)

MigMatic® 220/220 DX and 250/250 DX

See literature DCM/9.0 UK (220/220 DX) and DCM/10.0 UK (250/250DX)

MigMatic 220 and 220DX shown.

Manual mode allows for simple manual setting of parameters for welding on a broad range of applications.

Thermal overload protection shuts down the power source output if the main transformer or rectifier overheats.

Industrial dual-gear-driven system features no-tool, quick-change reversible drive roll (0.8/1.0 mm) and an easy-to-set tension adjustment knob.

Professional wire drive motor withstands even the most demanding applications.

Superior arc control technology provides the operator with state-of-the-art welding performance on a wide variety of materials.

Traditional tapped design (10 steps) and laminated inductor provide a stable, smooth arc for consistent weld quality.

Adjustable run-in control allows the operator to optimize arc starting with a variety of different wires.

Adjustable burnback control reduces wire stubbing, arc flaring and prevents wire burnback to protect contact tips.

Spot weld timer provides consistent spot welds every time. (Base models only.)

Synergic user interface with digital display to simplify setup and offer precise settings for welding a variety of materials. (DX models only.)

Light industrial ●

CV DC 1 Phase *220/220DX*

CV DC 3 Phase *250/250DX*

Processes
- MIG (GMAW) ▪ Flux-cored (FCAW)

Comes complete with
- Power cord with plug
- 3 m work cable with clamp
- Running gear/bottle rack
- 0.8/1.0 mm drive roll

Weld Ready packages include above plus
- Bernard™ MIG gun Q2010TE3EEQ

Model/Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Output 230 V	400 V	Max. Open-Circuit Voltage	Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight
MigMatic 220 **(029015520)** 230 V, 50/60 Hz **(029083116)** Weld Ready package	30–200 A 15–21 V	220 A at 28 VDC, 25% duty cycle	IP23S	34	–	40	1.0–20 mpm (39–787 ipm)	**Solid steel** 0.6–1.2 mm (.023–.047 in.) **Stainless** 0.8–1.0 mm (.030–.040 in.) **Aluminium** 0.8–1.2 mm (.030–.047 in.) **Flux-cored** 0.9–1.2 mm (.035–.047 in.)	H: 712 mm (28 in.) W: 480 mm (18.88 in.) D: 920 mm (36.19 in.)	66 kg (152 lb.)
MigMatic 220DX **(029015521)** 230 V, 50/60 Hz **(029083117)** Weld Ready package										
MigMatic 250 **(029015524)** 230/400 V, 50/60 Hz **(029083115)** Weld Ready package	30–250 A 15–24 V	240 A at 26 VDC, 35% duty cycle	IP23S	27	16	43	1.0–20 mpm (39–787 ipm)	**Solid steel** 0.6–1.2 mm (.023–.047 in.) **Stainless** 0.8–1.0 mm (.030–.040 in.) **Aluminium** 0.8–1.2 mm (.030–.047 in.) **Flux-cored** 0.9–1.2 mm (.035–.047 in.)		73 kg (161 lb.)
MigMatic 250DX **(029015525)** 230/400 V, 50/60 Hz **(029083118)** Weld Ready package										

MigMatic® 300/300 DX and 380/380 DX

See literature DCM/11.0 UK (300/300 DX) and DCM/12.0 UK (380/380DX)

MigMatic 380 and 380 DX shown.

Industrial ● CV DC 3 Phase

Processes
- MIG (GMAW) ▪ Flux-cored (FCAW)

Comes complete with
- Power cord with plug
- 5 m work cable with clamp
- Running gear/bottle rack
- Two 0.6–0.8 mm drive rolls (300 models)
  Four 1.0–1.2 mm drive rolls (380 models)

Weld Ready packages include above plus
- Bernard™ MIG gun Q3015TE3EEQ

Manual mode allows for simple manual setting of parameters for welding on a broad range of applications.

Thermal overload protection shuts down the power source output if the main transformer or rectifier overheats.

Industrial dual-gear-driven system features no-tool, quick-change reversible drive rolls and an easy-to-set tension adjustment knob.

Professional wire drive motor withstands even the most demanding applications.

Superior arc control technology provides the operator with state-of-the-art welding performance on a wide variety of materials.

Traditional tapped design (20 steps) and laminated inductor provide a stable, smooth arc for consistent weld quality.

Adjustable run-in control allows the operator to optimize arc starting with a variety of different wires.

Adjustable burnback control reduces wire stubbing, arc flaring and prevents wire burnback to protect contact tips.

Spot weld timer provides consistent spot welds every time. (Base models only.)

Synergic user interface with digital display to simplify setup and offer precise settings for welding a variety of materials. (DX models only.)

Model/Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Output 230 V	400 V	Max. Open-Circuit Voltage	Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight
MigMatic 300 **(029083119)** 400 V, 50 Hz Weld Ready pkg **(029015540)** 400 V, 50 Hz	30–300 A 15–28 V	300 A at 28 VDC, 35% duty cycle	IP22S	35	20	43	1.3–26 mpm (51–1,024 ipm)	**Solid steel** 0.6–1.2 mm (.023–.047 in.) **Stainless** 0.8–1.0 mm (.030–.040 in.) **Aluminium** 0.8–1.2 mm (.030–.047 in.) **Flux-cored** 0.9–1.4 mm (.035–.055 in.)	H: 825 mm (32.5 in.) W: 471 mm (18.5 in.) D: 1,066 mm (42 in.)	88 kg (194 lb.)
MigMatic 300 DX **(029015541)** 400 V, 50/60 Hz **(029083120)** 400 V, 50/60 Hz Weld Ready pkg										
MigMatic 380 **(029015547)** 230/400 V, 50/60 Hz **(029083121)** 400 V, 50 Hz Weld Ready pkg **(029015542)** 400 V, 50 Hz	30–350 A 15–32 V	350 A at 29 VDC, 35% duty cycle	IP22S	40	23	43	1.3–26 mpm (51–1,024 ipm)	**Solid steel** 0.6–1.2 mm (.023–.047 in.) **Stainless** 0.8–1.0 mm (.030–.040 in.) **Aluminium** 0.8–1.2 mm (.030–.047 in.) **Flux-cored** 0.9–1.4 mm (.035–.055 in.)	H: 825 mm (32.5 in.) W: 471 mm (18.5 in.) D: 1,066 mm (42 in.)	102.6 kg (227 lb.)
MigMatic 380 DX **(029083122)** 400 V, 50/60 Hz Weld Ready pkg **(029015543)** 400 V, 50/60 Hz										

XPS Series

See literature DCM/42.0 UK

XPS 450 shown.

Traditional tapped transformer power source. Simple and precise with 30 voltage steps (XPS 350) or 40 voltage steps (XPS 450). Provides the operator with a superior range and arc performance for even the most demanding applications.

Two inductance terminals and laminated inductor provides a stable, smooth arc operators appreciate.

Standard 14-pin connection to Miller wire feed units connects to a variety of Miller wire feeders.

Thermal overload protection shuts down the power source output if the main transformer or rectifier overheats.

Optional 115-volt auxiliary power receptacles. Auxiliary power for water-cooling unit.

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

Optional dual digital meters with hold function display clear, precise readings of arc voltage and amperage.

Industrial ● CV DC 3 Phase

Processes

- MIG (GMAW) ▪ Flux-cored (FCAW)

Comes complete with

- Industrial power cord
- Work cable with clamp
- Factory-installed running gear

Most popular accessories

- ST®-44 Series Wire Feeders (pg 20)
  029007406 Base model
  029007404 Digital model
- ST®-24 Series Wire Feeders (pg 20)
  029007395 Base model
  029007397 Digital model
- Cylinder Rack 058066064 (pg 63)
- Cylinder/Cooler Rack 058066065 (pg 63)
- HydraCool® 1 028042103 (pg 64)

Model	Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Output, 50 Hz 230 V	400 V	Max. Open-Circuit Voltage	Dimensions	Net Weight
XPS 350	**(029015531)** 400 V, 50 Hz **(029015528)** 400 V, 50 Hz with aux power, digital meters and Fan-On-Demand	30–350 A 15–32 V	350 A at 32 VDC, 45% duty cycle	IP22	–	23	38	H: 930 mm (37 in.) W: 570 mm (22.5 in.) D: 860 mm (34 in.)	125 kg (275 lb.)
XPS 450	**(029015535)** 230/400 V, 50 Hz with aux power, digital meters and Fan-On-Demand **(029015532)** 400 V, 50 Hz with aux power **(029015529)** 400 V, 50 Hz with aux power, digital meters and Fan-On-Demand	30–450 A 15–34 V	450 A at 37 VDC, 45% duty cycle	IP22	56	32	47		153 kg (337 lb.)

Choose the Right Industrial Aluminium MIG Solution

For additional aluminium MIG solutions see push-pull guns and controls on pages 26–27.

	AlumaFeed® Synergic Aluminium Welding System (page 11)	Invision™ MPa Plus System (page 14)
	 *AlumaPower 450 MPa and XR-AlumaFeed with XR-Aluma-Pro gun shown.*	 *Invision 352 MPa and D-74 MPa Plus feeder with XR-Aluma-Pro and Bernard BTB Gun 400 A guns shown.*
	Dedicated heavy-industrial-fabrication solution for aluminium welding, with advanced features that can handle larger weldments. Its lightweight push-pull feeder can easily be carried up to 30.5 meters from the power source.	Versatile, heavy-industrial advanced system for large, high-duty-cycle aluminium and steel weldments. Features push and/or push-pull bench feeder for easy switchover between solid, aluminium and tubular wires.
Power Source	AlumaPower™ 350 MPa or 450 MPa	Invision 352 MPa or 450 MPa
Feeder	Single-wire XR-AlumaFeed – portable feeder can be carried up to 30.5 meters from power source	Single- or dual-wire 74 MPa Plus – stationary feeders can be mounted up to 30.5 meters from power source
Input Voltage	Three-phase	Three-phase
Rated Output	350 MPa: 350 A at 60% duty cycle 450 MPa: 450 A at 100% duty cycle	352 MPa: 350 A at 60% duty cycle 450 MPa: 450 A at 100% duty cycle
Primary Connection	350 MPa: Auto-Line™ – Allows for any primary input voltage (230–575 V, three-phase, 50 or 60 Hz) with no manual linking. Also adjusts for voltage spikes within the entire range. 450 MPa: 400 V only, 50 or 60 Hz	352 MPa: Auto-Line™ – Allows for any primary input voltage (230–575 V, three-phase, 50 or 60 Hz) with no manual linking. Also adjusts for voltage spikes within the entire range. 450 MPa: 400 V only, 50 or 60 Hz
Aluminium Wire Diameters	0.9–1.6 mm (.035–1/16 in.)	0.9–1.6 mm (.035–1/16 in.)
Gun Capability	XR-Aluma-Pro™ or XR™-Pistol	XR-Aluma-Pro™ Plus, XR™-Pistol Plus or standard MIG gun
MIG Modes		
Profile Pulse™	Yes – achieve a “stacked dime” appearance quickly and easily without gun manipulation	Yes – achieve a “stacked dime” appearance quickly and easily without gun manipulation
Synergic Pulsed MIG	Yes – “one-knob” control, only need to change wire feed speed to weld different material thicknesses	Yes – “one-knob” control, only need to change wire feed speed to weld different material thicknesses
MIG	Spray transfer MIG – for aluminium wires	Conventional MIG – modes for aluminium, steel and other wires
Features		
Built-In Pulsed Programs	Aluminium	Aluminium, steel, stainless and others
Portability	Lightweight, portable feeder with handle – can be carried up to 30.5 meters from power source	Stationary feeder – can be mounted up to 30.5 meters from power source
Trigger Hold	Yes – reduces operator fatigue from holding trigger	Yes – reduces operator fatigue from holding trigger
Trigger Schedule Select	Yes – allows operator to switch between two preset weld conditions by tapping the trigger	Yes – allows operator to switch between two preset weld conditions by tapping the trigger
Program Locks	Yes – prevents unintended changes to the welding program weld parameters	Yes – prevents unintended changes to the welding program weld parameters
Flow Meter	Yes – allows flow to be set at feeder even when gas supply is a long distance away	–

AlumaFeed® Synergic Aluminium Welding System

See literature DC/34.0

Dedicated aluminium system for the most advanced MIG and synergic pulsed MIG performance.

AlumaPower 350 MPa and XR-AlumaFeed with XR-Aluma-Pro gun air-cooled system shown.

AUTOLINE Power Management Technology AlumaPower™ 350 model allows for any input voltage hookup (230–575 V, three-phase) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power. *450 model is 400 V only, three-phase.*

Built-in MIG and pulsed MIG programs automatically set the optimal parameters for a wide variety of wires making it easy to set up and use.

Synergic pulsed MIG. As wire speed increases/decreases, pulse parameters also increase/decrease to match the right amount of power needed, eliminating the need to make additional adjustments.

Synchronized, true push-pull wire feed system for precise wire feeding and arc performance.

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.

Parameter and system locks enhance quality assurance and protect weld consistency.

Trigger schedule select allows operator to change between two sets of weld parameters.

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

Heavy industrial ● CV DC 3 Phase

Processes

- Aluminium MIG (GMAW)
- Aluminium pulsed MIG (GMAW-P)

AlumaFeed System consists of the following (sold separately)

- AlumaPower 350 MPa power source (907420003) **OR** 450 MPa power source (907526)
- XR-AlumaFeed feeder
- XR-Aluma-Pro™ **OR** XR™-Pistol Grip push-pull MIG gun
- Coolmate™ 3 cooling system with coolant (water-cooled systems only)
- Universal trolley

Most popular accessories

- XR™ Push-Pull Guns (pg 26)
- Universal Trolley 018035028 (pg 63)
- MIG Kit for Universal Trolley 058066129 (pg 63)
- Coolmate™ 3 Mounting Brackets for Universal Trolley 028066301 (pg 63)
- Coolmate™ 3 043007 (pg 64)
- Coolant 043810 (pg 64)
- Extension Cables (pg 66)
  247831025 7.6 m (25 ft.)
  247831050 15 m (50 ft.)
  247831080 24.4 m (80 ft.)
- 1.6 mm (1/16 in.) Liner and Wire Kit for Gun 230708
- 1.6 mm (1/16 in.) Drive Roll Kit for Control Box 195591

Note: All systems come set up out of the box to run 1.2 mm wire. 1.6 mm consumables not included – order separately above.
See aluminium solutions comparison chart on page 10.

Model	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Load Output, 60 Hz 230 V	400 V	460 V	575 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
AlumaPower 350 MPa (907420003) 230–575 V with auxiliary power	5–425 A 10–38 V	350 A at 34 VDC, 60% duty cycle	IP23	36.1	20.6	17.8	14.1	14.2	13.6	75 VDC	H: 432 mm (17 in.) W: 318 mm (12.5 in.) D: 610 mm (24 in.)	36.3 kg (80 lb.)
AlumaPower 450 MPa (907526) 400 V with auxiliary power	15–600 A 10–38 V	450 A at 36.5 VDC, 100% duty cycle	IP23	–	29.8	–	–	21.6	18.3	90 VDC	H: 438 mm (17.25 in.) W: 368 mm (14.5 in.) D: 689 mm (27.125 in.)	55.3 kg (122 lb.)

	Input Power	Input Welding Circuit Rating	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
XR-AlumaFeed Wire Feeder 14-pin compliant, but only operates synergically w/MPa power sources	24 VAC, 5 A, 50/60 Hz	400 A at 100% duty cycle System duty cycle is limited to gun rating	1.3–22.9 mpm (50–900 ipm)	0.9–1.6 mm (.035–1/16 in.) Requires wire kit (230708) for gun and drive roll kit (195591) for control box to run 1.6 mm (1/16 in.) wire	305 mm (12 in.)	H: 406 mm (16 in.) W: 241 mm (9.5 in.) D: 540 mm (21.25 in.)	19.2 kg (42.5 lb.)

Choose the Right Industrial MIG Solution

Feature	Deltaweld® with 74S/D Feeder (page 13)	XMS® 425 MPa with XMS® MPa Feeder (page 13)	Invision™ with 74 MPa Plus Feeder (page 14)	Continuum™ System (page 15)
				
	Basic → Advanced MIG			
	▪ Simple and easy to use ▪ Digital meters on power source provide accurate weld parameter indication ▪ 74D feeder adds voltage control and digital meters on feeder for point-of-use control	▪ Multiprocess power source ▪ Synergic pulsed and double-pulsed programs ▪ USB functionality for increased ease of adding/saving weld programs ▪ Integrated water cooler (optional)	▪ More advanced system with optimized weld programs for steel and aluminium ▪ Push-pull gun for aluminium (optional)	▪ Next generation advanced welding solution ▪ Improves productivity through weld quality, ease of use and system flexibility
Weldable Metals	Steels	Steels and aluminium	Steels and aluminium	Steels
MIG Processes	▪ Short arc ▪ Spray	▪ Short arc ▪ Spray ▪ Pulsed MIG	▪ Short arc ▪ Spray ▪ Pulsed MIG ▪ Profile Pulse™ – provides TIG appearance with MIG productivity	▪ Short arc ▪ Accu-Pulse® – most popular for full range of material thicknesses ▪ Versa-Pulse™ – fast, low-heat, low-spatter for thin material; ideal for automation ▪ RMD® – designed to fill gaps, and for thin material ▪ High-deposition MIG – increased deposition rates on thicker materials
Special Models	–	–	Dedicated aluminium models available (see AlumaFeed® System, page 11)	Semi-auto and automation packages available (see pages 15 and 16)
Welding Intelligence™ (see page 53)	Optional Insight Core™	–	Optional Insight Core™	Standard Insight Core™ and optional Insight Centerpoint™
Input Power	380/400/440 V, 3-phase	Auto-Line™ 230–575 V, 3-phase	352: Auto-Line™ 230–575 V, 3-phase 450: 400 V, 3-phase	Auto-Line™ 230–575 V, 3-phase
Recommended Wire Diameters	402: 0.6–1.6 mm 602: 0.6–2.0 mm 852: 0.8–2.4 mm	0.6–1.8 mm	352: 0.6–1.6 mm 452: 0.6–2.0 mm	0.9–2.0 mm
Bernard™ Gun Included with Feeder	Yes	Yes	Yes	Yes

Deltaweld® Series

See literature DC/16.2

Industry standard for heavy-industrial MIG welding. Designed for manufacturing operations, with 100 percent duty cycle for extended arc-on time.

Deltaweld 602 shown with optional S-74D wire feeder and standard running gear with cylinder rack.

Line voltage compensation ensures consistent weld performance even when primary power varies.

Fan-On-Demand™ cooling system operates only when needed. Reduces contaminants drawn into the machine and excess noise in work areas.

Digital meters are easy to read and display preset and actual voltage and amperage.

Remote control capability allows operators fine tuning capability at an extended distance.

115-volt power for tools and coolant systems.

Thermal overload protection light indicates power shutdown. Helps prevent machine damage if the duty cycle is exceeded or airflow is blocked.

Material specific output studs provide the flexibility to produce the optimal arc characteristics for aluminium, stainless steel and all other materials.

Industrial ● *402 model*
Heavy industrial ● *602/852 models*

CV DC 3 Phase

Processes

- MIG (GMAW) ▪ Flux-cored (FCAW)
- Air carbon arc gouging (CAC-A) (Deltaweld 452: 6 mm carbons) (Deltaweld 652: 10 mm carbons)

Most popular accessories

- 70 Series Feeders (pg 20)
- Standard Running Gear 042886 (pg 63)
- Standard Cylinder Rack 042887 (pg 63)
- Extension Cables (pg 66)
  242208025 7.6 m (25 ft.)
  242208050 15 m (50 ft.)
  242208080 24.4 m (80 ft.)

Model/Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Output, 50/60 Hz 380 V	400 V	440 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions *(Includes lift eye and strain relief)*	Net Weight
Deltaweld 402 (907357) 380/400/440 V, 50/60 Hz	30–375 A 10–32 V	300 A at 32 VDC, 100% duty cycle	IP21	27	25	23	16.9	12.9	42 VDC	H: 762 mm (30 in.) W: 585 mm (23 in.) 402 D: 775 mm (30.5 in.) 602/852 D: 966 mm (38 in.)	147 kg (323 lb.)
Deltaweld 602 (907358) 380/400/440 V, 50/60 Hz	30–575 A 10–38 V	450 A at 38 VDC, 100% duty cycle	IP21	39	37	33	25.1	21.1	48 VDC		174 kg (384 lb.)
Deltaweld 852 (907359) 380/400/440 V, 50/60 Hz	30–825 A 10–44 V	650 A at 44 VDC, 100% duty cycle	IP21	58	54	50	38.2	34.2	54 VDC		214 kg (472 lb.)

XMS® 425 MPa Synergic Welding System

See literature DCM/17.5

XMS 425 MPa Weld Ready water-cooled package shown includes power source, feeder, cooler, trolley, feeder swivel, handle kit and Bernard™ E 4215 MIG torch.

Enhanced double-pulsed and pulsed MIG capabilities reduce spatter and distortion, improve bead shape and provide better out-of-position weld puddle control.

Simple user interface reduces the number of control setup combinations for all processes and programs (including double-pulsed and pulsed MIG capabilities) without minimizing features or welding performance.

Large, dual digital meters are easily preset to the desired weld output, and provide easy-to-view current and voltage measurements during welding to ensure optimal control of the weld bead.

Integrated water-cooling system provides efficient cooling with low-flow shutdown for both MIG and TIG applications.

Inverter arc control technology provides class-leading welding performance on a variety of material, while line voltage compensation (LVC™) maintains constant power even when primary power input varies from +/- 10 percent.

Multiprocess power source. MIG, synergic MIG, synergic pulsed and double-pulsed MIG, Lift-Arc™ TIG and stick processes.

Industrial ● CC CV DC 3 Phase

Processes

- Double-pulsed MIG (GMAW-DP)
- Pulsed MIG (GMAW-P)
- MIG (GMAW) ▪ Flux-cored (FCAW)
- Lift-Arc™ TIG (GTAW) ▪ Stick (SMAW)

Power source comes complete with

- Industrial power cord
- Work cable with clamp

Weld Ready package includes above plus

- XMS MPa wire feeder w/feeder swivel
- Bernard™ water-cooled torch
- XMS MPa cooler with coolant
- Universal trolley with handle kit

Most popular accessories

- Universal Trolley 018035028 (pg 63)
- Handle Kit for Universal Trolley 058066130 (pg 63)
- XMS MPa Cooler 028042109
- Coolant 043810 (pg 64)
- Feeder Swivel 028066300
- Interconnecting Cable Assembly (Water-Cooled) (pg 66)
- Bernard™ air-cooled MIG gun Q4015TE3EEQ
- Bernard™ water-cooled MIG gun E4215-45-5-445-Q

Model/Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Load Output, 50/60 Hz 230 V	400 V	460 V	575 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
XMS 425 MPa (029015507) 230–575 V, 50/60 Hz **(029083123)** Weld Ready package	5–425 A 10–38 V	350 A at 34 VDC, 60% duty cycle	IP23S	36.1	20.6	17.8	14.1	14.2	13.6	75 VDC	H: 597 mm (23.5 in.) W: 349 mm (13.7 in.) D: 560 mm (22 in.)	52.5 kg (116 lb.)

XMS MPa Wire Feeder (029007427)	Input Power	IP Rating	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
	24 VAC, 7 A, 50/60 Hz	IP23S	1.27–25.4 mpm (50–1,000 ipm)	0.6–1.8 mm (.023–.068/.072 in.)	305 mm (12 in.) 15 kg (33 lb.)	H: 425 mm (16.7 in.) W: 235 mm (9.3 in.) D: 700 mm (27.6 in.)	18 kg (40 lb.)

Invision™ MPa Plus System

See literature DC/23.6

MIG and synergic pulsed MIG system with optimized weld programs for both steel and aluminium.

Invision 352 MPa with S-74 MPa Plus feeder shown.

Recommended Aluminium Solution

Dedicated XR Plus guns work with MPa Plus feeders to coordinate wire feed speed of the gun and the feeder. This provides optimized aluminium feeding and welding performance. See page 26 for stock numbers.

AUTOLINE Power Management Technology Invision 352 model allows for any input voltage hookup (230–575 V, three-phase) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power. *450 model is 400 V, three-phase.*

Built-in MIG and pulsed MIG programs automatically set the optimal parameters for a wide variety of wires making it easy to set up and use.

Synergic pulsed MIG. As wire speed increases/decreases, pulse parameters also increase/decrease to match the right amount of power needed, 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.

Easy to set up. Select wire diameter, wire type and gas being used, set your wire speed and strike an arc.

Wind Tunnel Technology™ Air flow that protects internal components, greatly improving reliability.

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

Note: See aluminium solutions comparison chart on page 10.

Heavy industrial ● CC CV DC 3 Phase

Processes

- MIG (GMAW) ▪ Flux-cored (FCAW)
- Pulsed MIG (GMAW-P)
- Air carbon arc gouging (CAC-A)
  (Invision 352: 6 mm carbons)
  (Invision 450: 8 mm carbons)

Invision MPa System consists of the following (sold separately)

- Invision 352 MPa power source (907431002) **OR** 450 MPa power source (907524)
- 70 Series MPa Plus feeder
- XR-Aluma-Pro™ Plus **OR** XR™-Pistol Plus push-pull MIG gun
- Coolmate™ 3 cooling system with coolant (water-cooled systems only)
- Universal trolley

Most popular accessories

- XR™ Push-Pull Guns (pg 26)
- Universal Trolley 018035028 (pg 63)
- MIG Kit for Universal Trolley 058066129 (pg 63)
- Coolmate™ 3 Mounting Brackets for Universal Trolley 028066301 (pg 63)
- Coolmate™ 3 043007 (pg 64)
- Coolant 043810 (pg 64)
- Extension Cables (pg 66)
  247831025 7.6 m (25 ft.)
  247831050 15 m (50 ft.)
  247831080 24.4 m (80 ft.)
- 1.6 mm (1/16 in.) Liner and Wire Kit for Gun 230708

Model	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Load Output, 60 Hz 230 V	400 V	460 V	575 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
Invision 352 MPa (907431002) 230–575 V with auxiliary power	5–425 A 10–38 V	350 A at 34 VDC, 60% duty cycle	IP23	36.1	20.6	17.8	14.1	14.2	13.6	75 VDC	H: 432 mm (17 in.) W: 318 mm (12.5 in.) D: 610 mm (24 in.)	36.3 kg (80 lb.)
Invision 450 MPa (907524) 400 V with auxiliary power	15–600 A 10–38 V	450 A at 36.5 VDC, 100% duty cycle	IP23	–	29.8	–	–	21.6	18.3	90 VDC	H: 438 mm (17.25 in.) W: 368 mm (14.5 in.) D: 689 mm (27.125 in.)	55.3 kg (122 lb.)

Continuum™ Systems

See literature DCM/41.0 UK

Next generation of advanced industrial welding solutions improves productivity through weld quality, ease of use and system flexibility.

Continuum 350 shown with Continuum single-wire feeder, Bernard BTB Gun 400 A and Continuum running gear/cylinder rack. Filler metal sold separately.

More power — better reliability

Up to 26 percent more welding output (than competitive models) for demanding industrial applications.

Power source design

Smart and powerful digital design has the fast response needed to deliver the most stable welding performance for better welding results.

Flexible to meet current and future needs with integrated expansion capabilities.

Welding Intelligence.™ Increase productivity, improve quality and manage costs with Insight Core™ (standard) and Insight Centerpoint™ (optional) welding information management systems (see pages 54 and 55).

Feeder design

Tru-Feed™ technology provides precise feeding operation for stable arc performance.

- **Low-inertia motor** provides faster response for the best arc starts with the least amount of spatter
- **Balanced-pressure drive-roll design and tensioners** feed wire in its truest and straightest form for consistent feedability, resulting in better welding performance

New user interface makes the system easy to set up and adjust with minimal training.

Heavy industrial ● CC CV DC 3 Phase

Processes

- Accu-Pulse® MIG (GMAW-P)
- Versa-Pulse™ ▪ RMD® ▪ MIG (GMAW)
- High-deposition MIG (GMAW)
- Flux-cored (FCAW)
- Air carbon arc gouging (CAC-A)

Weld Ready package includes the following

- Continuum power source
- Continuum single-wire feeder
- Bernard™ water-cooled torch
- Continuum cooler with coolant
- Universal trolley

Most popular accessories

- Bernard™ MIG Guns (pg 23/24)
- Bernard™ water-cooled torch E4215-45-5-445-Q
- Insight Centerpoint™ Software (pg 55)
- Continuum Running Gear/Cylinder Rack 301264 (pg 63)
- Universal Trolley 018035028 (pg 63)
- Continuum Integrated Cooler 301214 Mounts to bottom of Continuum power source. Does not require external power.
- Coolant 043810 (pg 64)
- Continuum Control/Motor Cables
  263368003 0.9 m (3 ft.)
  263368015 4.6 m (15 ft.)
  263368020 6.1 m (20 ft.)
  263368025 7.6 m (25 ft.)
  263368050 15 m (50 ft.)
  263368080 24.4 m (80 ft.)
  263368100 30.5 m (100 ft.)

Continuum Processes

Best For	Standard Spray	High-Deposition MIG	Accu-Pulse	Versa-Pulse	Short Circuit	RMD
Deposition	A	A	A	B	D	D
Gap Filing	D	D	B	B	A	A
Low Heat Input	D	C	B	A	A	A
Out-of-Position Welds			A	B	B	B
Low Spatter	A	A	A	B	C	B
Thick Metals	A	A	A	C	D	D
Thin Metals			B	A	A	A
Increased Travel Speed	A	A	A	A	B	C
	HOT					COLD

***Ratings A, B, C, and D** are relative values. An "A" rating indicates a best fit between your performance needs and process. A "blank" rating indicates that the process is not recommended for that application.*

***Accu-Pulse** is the most popular process for majority of industrial welding applications.*

***Versa-Pulse** is a fast, low-heat, low-spatter process designed for thin-material applications.*

***RMD** is a low-heat modified short-circuit process designed to fill gaps with thin-material applications.*

***High-deposition MIG** provides increased deposition rates over standard spray on thicker materials.*

Note: As the technological advances offered by Continuum extend beyond the capability of Axcess® systems, the two systems are not compatible. Continuum systems are designed to allow future upgradability, to expand with your operation's needs.

**While idling.*

Model/Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Output, 50/60 Hz, 3-Phase 230 V	380 V	400 V	460 V	575 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions (Includes lift eye)	Net Weight
Continuum 350 **(907645)** 230-575 V **(029083124)** Weld Ready package	20-400 A 10-44 V	350 A at 31.5 VDC, 100% duty cycle	IP23	36.7 0-1*	21.8 0-1*	20.8 0-1*	18.8 0-1*	14.6 0-1*	14.4 0.8*	13.8 0.17*	75 VDC	H: 691 mm (27.187 in.) W: 444 mm (17.5 in.) D: 714 mm (28.125 in.)	57.6 kg (127 lb.)
Continuum 500 **(907648)** 230-575 V **(029083125)** Weld Ready package	20-600 A 10-44 V	500 A at 39 VDC, 100% duty cycle	IP23	58.7 0-1*	34.9 0-1*	33.2 0-1*	28.9 0-1*	23.3 0-1*	23.1 0.8*	21.9 0.17*	75 VDC		67.1 kg (148 lb.)

Continuum Feeder	Input Power	Input Welding Circuit Rating	IP Rating	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
(301195010) Single-wire model **(301199010)** Dual-wire model	50 VDC	500 A at 100% duty cycle	IP23	Standard: 1.3-25.4 mpm (50-1,000 ipm)	0.9-2.0 mm (.035-5/64 in.)	457 mm (18 in.), 27 kg (60 lb.)	H: 351 mm (13.812 in.) Single W: 414 mm (16.312 in.) Dual W: 432 mm (17 in.) D: 754 mm (29.687 in.)	**Single** 19.5 kg (43 lb.) **Dual** 27.9 kg (61.5 lb.)

Auto-Continuum™ Systems

See literature AUM/90.0 UK

Next generation automation welding solution delivers advanced arc performance to improve throughput and weld quality.

Auto-Continuum 500 shown with robot arm (not included) and Auto-Continuum wire drive motor assembly.

Closeup of Auto-Continuum wire drive motor assembly (left-hand drive).

Note: As the technological advances offered by Auto-Continuum extend beyond the capability of Axcess® systems, the two systems are not compatible. Continuum systems are designed to allow future upgradability, to expand with your operation's needs.

**While idling.*

More power — better reliability. Up to 26 percent more welding output (than competitive models) for demanding industrial applications.

Improve work environment and reduce spatter. Versa-Pulse and Accu-Pulse processes reduce fume generation, and by precisely controlling the welding arc they also reduce spatter size and quantity. Fume generation can be reduced up to 50 percent over traditional CV MIG.

- **Versa-Pulse** is a fast, low-heat, low-spatter process for high-speed automation on thin materials and is great for gap filling
- **Accu-Pulse** is better for out-of-position welds, provides higher deposition rates and is designed for thicker materials than Versa-Pulse

Easy communication from robot to power source.

Designed for easy integration with fixed and flexible automation.

Fleet standardization. Auto-Continuum can be used for both automation and hand-held applications.

Welding Intelligence.™ Increase productivity, improve quality and manage costs.

- **Insight Core™** (standard) is a simplified, Internet-based welding information solution that reports cell productivity and weld parameter verification (see page 54)
- **Insight Centerpoint™** (optional) is an advanced, real-time feedback solution to ensure consistent weld quality and actively detects a bad weld when it happens, reducing rework costs and improving quality (see page 55)

Heavy industrial ● CV DC 3 Phase

Processes

- Accu-Pulse® MIG (GMAW-P)
- Versa-Pulse™ ▪ RMD® ▪ MIG (GMAW)
- High-deposition MIG (GMAW)
- Flux-cored (FCAW)

Most popular accessories

- Insight Centerpoint™ Software (pg 55)
- Wire Drive Motor Mounting Brackets
  - 301276 ABB® 1600
  - 301277 ABB® 2600
  - 300483 FANUC® 100 and 120 IC
  - 300013 FANUC®/KUKA®/Motoman®
  - 301282 KUKA® KR5 HW
  - 301275 KUKA® KR16 HW
  - 300375 Motoman® EA1400
  - 300376 Motoman® EA1900
- Motor Control Cables
  - 263368025 7.6 m (25 ft.)
  - 263368050 15 m (50 ft.)
  - 263368080 24.4 m (80 ft.)
  - 263368100 30.5 m (100 ft.)
- EtherNet/IP™ Communication Cables
  - 300734 3 m (9.8 ft.)
  - 300735 5 m (16.4 ft.)
  - 300736 10 m (32.8 ft.)
- DeviceNet Communication Cables
  - 300020 2.7 m (9 ft.)
  - 300021 6.1 m (20 ft.)
- DeviceNet to Analog Adapter 301427
  Adapts DeviceNet to analog communication.

Model	Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Output, 50/60 Hz, 3-Phase 230 V	380 V	400 V	460 V	575 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions *(Includes lift eye)*	Net Weight
Auto-Continuum 350	**(907660)** EtherNet/IP™ **(907660001)** DeviceNet	20–400 A 10–44 V	350 A at 31.5 VDC, 100% duty cycle	IP23	36.7 0-1*	21.8 0-1*	20.8 0-1*	18.8 0-1*	14.6 0-1*	14.4 0.8*	13.8 0.17*	75 VDC	H: 691 mm (27.187 in.) W: 444 mm (17.5 in.) D: 717 mm (28.22 in.)	59.4 kg (130 lb.)
Auto-Continuum 500	**(907661)** EtherNet/IP™ **(907660001)** DeviceNet	20–600 A 10–44 V	500 A at 39 VDC, 100% duty cycle	IP23	58.7 0-1*	34.9 0-1*	33.2 0-1*	28.9 0-1*	23.3 0-1*	23.1 0.8*	21.9 0.17*	75 VDC		69 kg (150 lb.)

Auto-Continuum Wire Drive Motor Assembly	Input Power	Input Welding Circuit Rating	IP Rating	Wire Feed Speed	Wire Diameter Capacity	Dimensions	Net Weight
(301207) Left-hand drive **(301208)** Right-hand drive	50 VDC	500 A at 100% duty cycle	IP23	Standard: 1.3–25.4 mpm (50–1,000 ipm)	0.9–2.0 mm (.035–5/64 in.)	H: 222 mm (8.75 in.) W: 254 mm (10 in.) D: 254 mm (10 in.)	7.5 kg (16.5 lb.)

Wire Feeders

Also see MIG, MIG Guns and Multiprocess sections for wire feeding options.

Product Guide

	Page	Class	MIG	Pulsed MIG*	Flux-cored**	Portable	Power Source Required	Wire Types: Hard	Wire Types: Flux-cored Dual-shld	Wire Types: Flux-cored Self-shld	Wire Types: Alum.	Wire Diameter Capacity	Special Features	Typical Applications	
SuitCase® X-TREME™ 8VS/12VS	18	●	●	◉	●	●	CC/CV	◉	●	● CV**	◉	0.6–2.0 mm (.023–5/64 in.)	203 mm (8VS model) or 305 mm (12VS model) diameter spool capacity, lightweight, powered by arc voltage	Construction, site fabrication, field maintenance	Portable
ArcReach® SuitCase® 8/12	18	●	●	◉	●	●	CC/CV	◉	●	● CV**	◉	0.6–2.0 mm (.023–5/64 in.)	203 mm (8 model) or 305 mm (12 model) diameter spool capacity, powered by arc voltage, remote voltage control without a control cord	Construction, site fabrication, field maintenance	
SuitCase® 12RC	18	●	●	◉	●	●	CV	●	●	●	◉	0.6–2.0 mm (.023–5/64 in.)	Standard remote voltage control, powered by 14-pin control cord, 305 mm diameter spool capacity	Field maintenance, site fabrication	
I-24A/ST®-24 Series	20	●	●	◉	●		CV	●	●	●	◉	0.6–2.0 mm (.023–5/64 in.)	Adjustable run-in and burnback, optional meters, remote voltage control and coolant fittings for ST-24	Heavy and light manufacturing, fabrication	Bench
ST®-44 Series	20	●	●	◉	●		CV	●	●	●	◉	0.6–2.0 mm (.023–5/64 in.)	Adjustable run-in and burnback, optional meters, remote voltage control and coolant fittings	Heavy and light manufacturing, fabrication	
70 Series S/D – Singles and Duals	20	●	●	◉	●		CV	●	●	●	◉	0.6–3.2 mm (.023–1/8 in.) Low-speed motor recommended for 2.4 mm and 3.2 mm wires	Four drive roll, remote voltage control (optional field kit for "S" model, standard on "D" model)	Heavy and light manufacturing, fabrication	
70 Series MPa Plus – Singles and Duals	20	●	●	●	●		CV	●	●	●	●	0.6–2.0 mm (.023–5/64 in.)	XR-Aluma-Pro™ Plus or XR™-Pistol Plus guns for feeding soft wires	Manufacturing requiring multiple wire types	
70 Series Remote Configurations – Singles and Duals	22	●	●	◉	●		CV	●	●	●	◉***	0.6–2.0 mm (.023–5/64 in.)	Control box, cables and wire drive motor assemblies for generic booms or fixed automation	Heavy and light manufacturing, fabrication	

Product Key

Class: ● Light industrial ● Industrial ● Heavy industrial Capability: ● Designed for this process ◉ Capable of this process

New! or Improved! products appear in blue type.

*Requires MPa inverter power source. **Certain self-shielded wires require CV output. Miller recommends a CV power source whenever possible.

***74S and 74D models are *capable of* aluminium welding and 74 MPa Plus models are *designed for* aluminium welding.

SuitCase® Series
Portable Feeders

Portable SuitCase feeders that set the standard for performance and provide extreme reliability to stand up to the demands of construction and fabrication.

SuitCase X-TREME 8VS shown with optional meters

SuitCase X-TREME 12VS

ArcReach SuitCase 12

SuitCase 12RC/12RC Euro

*Models **include** male Tweco® connector installed on weld cable and reversible dual size (1.2 and 1.6 mm) VK drive rolls.*

SuitCase Series Features

Feature	X-TREME 8VS	X-TREME 12VS	ArcReach 8	ArcReach 12	12RC
Remote voltage control (control cable required)					●
Remote voltage control without a cord			●	●	
Digital meters	◉	●	●	●	●
Impact-resistant case	●	●	●	●	●
Gas purge	●	●	●	●	●
Wire jog	●	●	●	●	●

● **Standard** ◉ **Optional**

Setting the standard for performance

Heavy-duty drive motor with tachometer control provides wire feed speed that is accurate and consistent from the start of the weld to the finish and from one weld to the next. Consistent wire feed speed is very important with large-diameter cored wire, because small changes in wire feed speed make large changes in deposition rates.

Front panel has trigger hold, wire jog, and gas purge for easy operator access (except 12RC).

Wide voltage range for small and large wires with no contactor chatter or arc outages.

Ultra-low drag inlet guide pins make loading the wire easy and does not deform the wire on the way into the drive rolls improving wire feeding performance.

Scaled wire pressure knob provides easy adjustment and consistent pressure on the drive rolls and wire.

Digital meters with SunVision™ technology can display voltage, wire feed speed, and also amperage if desired. Meters can be seen clearly even in direct sunlight (optional on 8VS).

Unique and durable case

Impact-resistant, flame-retardant case provides strength and durability, and protects components and welding wire from moisture, dust and other contaminants.

Built-in slide rails allow you to drag the feeder into position for welding.

Innovative feeder door design allows you to change wire while feeder is standing upright or laying down.

Case is available in two sizes (except 12RC).

Extreme reliability

Potted and trayed main printed circuit board for the harshest environments adds exceptional reliability. Board has full-trigger isolation so a shorted gun trigger will not affect feeder operation.

Gun locking tab works with guns and Euro-adapter having corresponding locking grooves to prevent gun from being pulled out if the feeder is dragged by the gun.

Gas inlet recessed into back of case is protected from incidental contact by the weld cable, ensuring consistent and contaminant-free shielding gas delivery to the gun. **Double-filtered gas valve** helps keep dirt from clogging and affecting gas flow.

SuitCase® X-TREME™ 8VS and 12VS See literature M/6.42

Voltage-sensing feeders designed to run off of arc voltage from almost any welding power source. 8VS model is sized for a 203 mm spool of wire, can be carried to remote welding sites and fits through a 356 mm manhole/manway. 12VS model is sized for an 203 or 305 mm spool of wire. 305 mm spools are the most common in structural steel and fabrication.

ArcReach® SuitCase® 8 and 12 See literature M/6.55

ArcReach **Remote control of the power source without a cord.** With a SuitCase ArcReach feeder and ArcReach power source you can change output voltage at the feeder, and save a trip to the power supply. No extra control cable to purchase, maintain, string or unstring – saving time and money.

SuitCase® 12RC See literature WFM/60.0 UK

Standard remote voltage control with a control cord. For applications where the feeder is within 30.5 meters of the power source and control cords are acceptable.

Heavy industrial ● CC/CV DC

Use with CC (except 12RC model) and CV, DC power sources.

Processes
- MIG (GMAW) ▪ Flux-cored (FCAW)

Suggested power sources
- Dimension™ Series (pg 31)
- XMT® Series (pg 32–35)
- Big Blue® Series (pg 57/58)

Note: Full functionality of ArcReach is only available with ArcReach power sources.

RC feeder requires power source with 14-pin connector.

Suggested guns
- Bernard™ Guns (pg 23/24)

Most popular accessories
- Extension Cables (12RC only, 1 required) (pg 66)
- Flowmeter Kit 300343
- Shielding Gas Filter 195189

	Model/Stock Number	Input Power	Input Welding Circuit Rating	IP Rating	Wire Feed Speed	Wire Type and Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
	SuitCase X-TREME 8VS (300877)	Operates on open-circuit voltage and arc voltage: 14–48 VDC/ 110 max. OCV	330 A at 60% duty cycle	IP23	1.3–19.8 mpm (50–780 ipm) Actual range in CC mode is dependent on arc voltage applied	**Solid wire** 0.6–1.4 mm (.023–.052 in.) **Flux-cored** 0.8–2.0 mm (.030–5/64 in.)	203 mm (8 in.), 6.4 kg (14 lb.)	H: 324 mm (12.75 in.) W: 184 mm (7.25 in.) D: 457 mm (18 in.)	13 kg (28 lb.)
	SuitCase X-TREME 12VS (300876)		425 A at 60% duty cycle	IP23		**Solid wire** 0.6–1.4 mm (.023–.052 in.) **Flux-cored** 0.8–2.0 mm (.030–5/64 in.)	305 mm (12 in.), 20 kg (45 lb.)	H: 394 mm (15.5 in.) W: 229 mm (9 in.) D: 533 mm (21 in.)	15.9 kg (35 lb.)
ArcReach	**ArcReach SuitCase 8 (301456)**	Operates on open-circuit voltage and arc voltage: 14–48 VDC/ 110 max. OCV	330 A at 60% duty cycle	IP23	1.3–19.8 mpm (50–780 ipm) Actual range in CC mode is dependent on arc voltage applied	**Solid wire** 0.6–1.4 mm (.023–.052 in.) **Flux-cored** 0.8–2.0 mm (.030–5/64 in.)	203 mm (8 in.), 6.4 kg (14 lb.)	H: 324 mm (12.75 in.) W: 184 mm (7.25 in.) D: 457 mm (18 in.)	13 kg (28 lb.)
ArcReach	**ArcReach SuitCase 12 (301457)**		425 A at 60% duty cycle	IP23		**Solid wire** 0.6–1.4 mm (.023–.052 in.) **Flux-cored** 0.8–2.0 mm (.030–5/64 in.)	305 mm (12 in.), 20 kg (45 lb.)	H: 394 mm (15.5 in.) W: 229 mm (9 in.) D: 533 mm (21 in.)	15.9 kg (35 lb.)
	SuitCase 12RC (301121) **(301121E)** w/Euro gun connection	24 VAC, 10 A, 50/60 Hz	425 A at 60% duty cycle	IP23	1.3–17.8 mpm (50–700 ipm)	**Solid wire** 0.6–1.4 mm (.023–.052 in.) **Flux-cored** 0.8–2.0 mm (.030–5/64 in.)	305 mm (12 in.), 20 kg (45 lb.)	H: 394 mm (15.5 in.) W: 229 mm (9 in.) D: 533 mm (21 in.)	14.1 kg (31 lb.)

Increase, improve and maximize

Exclusive Miller® technology uses the weld cables to communicate changes in voltage settings. With an ArcReach system, voltage and wire-feed-speed controls are conveniently located at the operator's fingertips — right at the point of use — not back at the power source. By eliminating control cables to the feeder, cabling is streamlined and operators work at maximum efficiency.

ArcReach®

- **Increase Productivity**
  No time-consuming trips to the power source.
- **Improve Weld Quality**
  Reduces costly "work arounds".
- **Improve Worker Safety**
  Reduces operator hazards and injuries.
- **Maximize Efficiency**
  Reduces costly cord set up, maintenance and repair.

Learn more at MillerWelds.com/arcreach

I-24A and ST® Series
Industrial Bench Feeders

70 Series
Heavy-Industrial Bench Feeders

Designed for manufacturing, our popular bench feeders are available in three series with multiple models to fit your needs.

ST-24 *ST-44 D* *S-74D* *D-74 MPa Plus*

*ST Series models **include** 1.0/1.2 mm reversible drive rolls and 70 Series models **include** 1.2 mm drive rolls.*

I-24A, ST Series and 70 Series Features

Feature	I-24A	ST Series 24	ST Series 44	70 Series 74S	70 Series 74D	70 Series 74MPA
Trigger hold	●	●	●	●	●	●
Adjustable run-in control	◉	●	●			●
Automatic run-in control				●	●	●
Digital meters	◉	◉	◉		●	●
Remote voltage control	◉	◉	◉		●	●
Preflow/postflow	◉			●	●	●
Spot control	◉			●	●	●
Quick-connect coolant fittings		◉	◉			
Dual-wire models				●	●	●
Rotatable drive assembly				●	●	●
Accu-Mate™						●
Dual schedule control						●
Trigger program select						●
Trigger dual schedule						●
Sequence control						●
Locks and limits						●
Weld programs						4
Trigger schedule select						●
Push-pull capability						●
Synergic pulsed MIG						●
Profile Pulse™						●

● **Standard** ◉ **Optional**

Trigger hold allows the operator to make long welds without having to hold the trigger continuously. Reduces operator fatigue.

Miller® standard, quick-change drive rolls save time.

Easy loading and threading of welding wire without having to release the drive roll pressure arm.

Additional features for 70 Series feeders

Available in dual-wire models which allows two different wire types to be available on one feeder, avoiding downtime from changing spools and drive rolls.

Toolless rotatable drive assembly allows operator to rotate the drive housing, allowing a straight path for wire flow.

Quick-release drive-roll pressure arm allows drive roll change without losing spring preload setting.

High-torque permanent-magnet motor, sealed ball bearing gear drive and solid-state speed and brake control are maintenance free for long life.

I-24A, ST-24 and ST-44 See literature M/6.91x (I-24A), WFM/4.0 UK (ST-24) and WFM/51.2 UK (ST-44)

Simple and cost-effective feeders for industrial manufacturing and fabricating.

Industrial, four-roll gear-driven, cast aluminium drive system with heavy-duty motor. Provides exceptional feed performance, reliability and wire speeds ranging from 1.3–20 meters per minute.

Scaled wire pressure knob.

Adjustable run-in and burnback controls allow the operator to set the optimum arc starts and stops, reducing wire stubbing, arc flaring or wire burning back. ST Series only.

Euro-style or US-style torch connections ensure exceptional performance and reliability for various style torches.

Standard 14-pin connection. Connects to any Miller® CV power source with a 14-pin receptacle.

Optional features for ST Series

Dual digital meters display clear, precise readings of arc voltage, wire feed speed and/or amperage. Can be set to hold last reading.

Remote voltage control enables precise remote operation of the welding power source arc voltage.

Quick-connect coolant fittings provide easy hook up for water-cooled torches, no tools required!

Industrial ● *I-24/ST Series*
Heavy industrial ● *70 Series*

CV DC *Use with CV, DC power sources.*

Processes
- MIG (GMAW) ▪ Flux-cored (FCAW)
- Pulsed MIG (GMAW-P) with MPa Plus feeder and optional MPa power source

Suggested power sources
- Deltaweld® Series (pg 13)
- Invision™ MPa Series (pg 14)
- Dimension™ Series (pg 31)
- XMT® Series (pg 32–35)

Suggested guns
- Bernard™ Guns (pg 23/24)
- XR-Aluma-Pro™ Plus and XR™-Pistol Plus (see chart below)

Most popular accessories
- Wire Straightener (pg 66)
- Hanging Bail 058435
- Wire Reel Assembly 108008
- Spool Covers
  - 057607 For I-24 and 70 Series single-wire models and left side of dual-wire models
  - 090389 For right side of dual-wire models

74S and 74D See literature WFM/30.0 UK

Standard, simple feeders for most heavy-industrial applications, with the 74D providing increased accuracy and control of the most common weld parameters.

Digital meters (74D models only) ensure accuracy when presetting and reading actual voltage, amperage and wire feed speed.

Remote voltage control (74D models only) allows you to set both voltage and wire feed speed at the feeder, saving time and increasing weld quality because optimal weld parameters are easy to set.

74 MPa Plus See literature WFM/30.0 UK

Adds features for weld control and programs, plus push-pull aluminium capabilities. Optimized with Invision™ MPa or XMT® MPa power sources.

Adjustable run-in control for improved arc starts.

Dual schedule control allows the operator to switch between two preconfigured welding parameters without readjusting the machine, saving time and enhancing quality.

Trigger schedule select saves time when switching between two weld settings by simply tapping gun trigger.

Trigger program select provides the ability to access any of the four active programs.

Sequence control gives the operator the ability to adjust all of the welding parameters: preflow, run-in, weld time, crater, burnback and postflow.

Locks and limits for restricting or limiting operator adjustments, such as voltage and wire feed speed parameters.

Four weld program memories allow operators to recall up to four previously used processes and their weld settings.

Accu-Mate™ properly seats the MIG gun power pin for best feeding performance.

Push-pull capability provides consistent, versatile and dependable aluminium wire feeding over greater distances.

Recommended aluminium solution. Dedicated XR Plus guns (gooseneck and pistol grip) work with MPa Plus feeders to coordinate wire feed speed of the gun and the feeder. This provides optimized aluminium feeding and welding performance. See chart below for gun models and stock numbers.

Additional features when used with Invision MPa or XMT MPa power sources

Synergic pulsed MIG. As wire speed increases/decreases, pulse parameters also increase/decrease to match the right amount of power needed, 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.

**Requires wire kit (230708) to run 1.6 mm (1/16 in.) wire.*

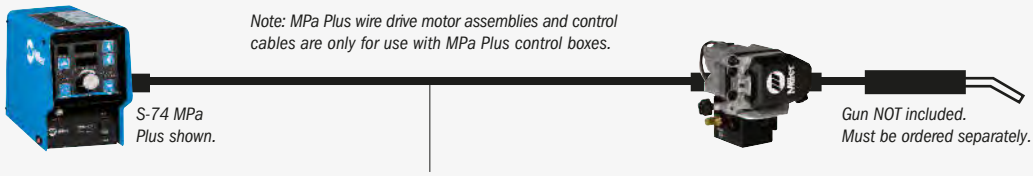
Model	Stock Number*	Input Power	IP Rating	Wire Feed Speed	Wire Type and Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
I-20 Series	**I-24A (186493)**	24 VAC, 4 A, 50/60 Hz	IP21	1.9–16.5 mpm (75–650 ipm)	0.6–2.0 mm (.023–5/64 in.)	305 mm (12 in.), 15 kg (33 lb.)	H: 279 mm (11 in.) W: 273 mm (10.75 in.) D: 597 mm (23.5 in.)	12 kg (26 lb.)
ST-24 Series	**ST-24 (029007395)** Base model **ST-24 (029007396)** w/voltage control and coolant fittings **ST-24 (029007397)** w/meters, voltage control and coolant fittings	24 VAC, 4 A, 50/60 Hz	IP23	1.3–20 mpm (51–790 ipm)	0.6–1.6 mm (.023–1/16 in.)	305 mm (12 in.), 15 kg (33 lb.)	H: 279 mm (11 in.) W: 273 mm (10.75 in.) D: 597 mm (23.5 in.)	16.6 kg (36.5 lb.)
ST-44 Series	**ST-44 (029007406)** Base model **ST-44 D (029007404)** w/meters, voltage control and coolant fittings	24 VAC, 5 A, 50/60 Hz	IP23	1.3–20 mpm (51–790 ipm)	0.6–2.0 mm (.023–5/64 in.)	305 mm (12 in.), 15 kg (33 lb.)	H: 420 mm (16.5 in.) W: 220 mm (8.65 in.) D: 650 mm (25.5 in.)	**ST-44** 18 kg (40 lb.) **ST-44 D** 20 kg (44 lb.)
70 Series (Single-wire models)	**S-74S (300616002)** **S-74D (300617002)** **S-74 MPa Plus (300577)**	24 VAC, 10 A, 50/60 Hz	IP23	1.3–19.8 mpm (50–780 ipm)	0.6–3.2 mm (.023–1/8 in.) Low-speed motor recommended for 2.4 and 3.2 mm wires (factory option) **MPa Plus model** **Hard wire** 0.6–2.0 mm (.023–5/64 in.) **Aluminium*** 0.9–1.6 mm (.035–1/16 in.)	27 kg (60 lb.) coil with optional wire reel assembly (108008)	H: 356 mm. (14 in) W: 318 mm (12.5 in.) D: 711 mm (28 in.)	26 kg (58 lb.)
70 Series (Dual-wire models)	**D-74D (300620002)** **D-74 MPa Plus (300578)**						H: 356 mm (14 in.) W: 533 mm (21 in.) D: 889 mm (35 in.)	39.5 kg (87 lb.)

Optional Push-Pull Gun *(For MPa Plus feeders only)*	Welding Current Rating	IP Rating	Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight
XR-Aluma-Pro Plus (Water-cooled) **(300003001)** 4.6 m (15 ft.) **(300004001)** 7.6 m (25 ft.)	400 A at 100% duty cycle	IP23	1.8–23 mpm (70–900 ipm)	**Aluminium*** 0.8–1.6 mm (.030–1/16 in.)	H: 127 mm (5 in.) W: 64 mm (2.5 in.) L: 432 mm (17 in.)	1.3 kg (2.9 lb.)
XR-Pistol Plus (Water-cooled) **(300757)** 7.6 m (25 ft.) **(300758)** 10.6 m (35 ft.)					H: 187 mm (7.375 in.) W: 48 mm (1.875 in.) L: 270 mm (10.625 in.)	1.1 kg (2.4 lb.)

70 Series Remote Configurations

See literature WFM/30.0 UK

Remote wire feeder control box and wire drive assembly for non-Miller boom applications.



Note: MPa Plus wire drive motor assemblies and control cables are only for use with MPa Plus control boxes.

S-74 MPa Plus shown.

Gun NOT included. Must be ordered separately.

Single-wire control box
300881 S-74S
300882 S-74D
300738 S-74 MPa Plus

Motor control cable
Standard: 11 conductor
MPa Plus: 14 conductor

Wire drive motor assembly
300904 Standard left-hand drive
300740001 MPa Plus left-hand drive
*MPa Plus drive can be used with push-only guns **OR** XR-Aluma-Pro™ Plus and XR™-Pistol Plus push-pull guns.*

Motor control cable
11 conductor

Motor control cable
Standard: 11 conductor
MPa Plus: 14 conductor

Gun NOT included. Must be ordered separately.

D-74D shown.

Gun NOT included. Must be ordered separately.

Push-only wire drive motor assembly
300741001 Standard right-hand drive
300741 MPa Plus right-hand drive

Dual-wire control box
300886 D-74S
300887 D-74D
300739 D-74 MPa Plus

Wire drive motor assembly
300904 Standard left-hand drive
300740001 MPa Plus left-hand drive
*MPa Plus drive can be used with push-only guns **OR** XR-Aluma-Pro™ Plus and XR™-Pistol Plus push-pull guns.*

Heavy industrial ● CV DC

Use with CV, DC power sources.

Processes
- MIG (GMAW) ▪ Flux-cored (FCAW)
- Pulsed MIG (GMAW-P) with MPa Plus control box and optional MPa power source

Suggested power sources/guns
- Same as 70 Series

Most popular accessories
- Motor Control Cable (11 conductor)
  254935010 3 m (10 ft.)
  254935025 7.6 m (25 ft.)
  For push-only gun configurations.
- MPa Plus Motor Control Cable (14 conductor)
  254864010 3 m (10 ft.)
  254864025 7.6 m (25 ft.)
  For MPa Plus configurations only – single-wire or left side of dual-wire.

- **Feeder Base** 195369
  For use with spooled wire.

Product Guide	Page	Class	MIG	Pulsed MIG*	Flux-cored**	Wire Types: Hard	Wire Types: Flux-cored Dual-shld	Wire Types: Flux-cored Self-shld	Wire Types: Alum.	Wire Diameter Capacity	Available Cable Lengths	Typical Applications	
Bernard™ BTB MIG Guns	23	●	●	◉	◉	●	◉	◉CV**	◉	0.6–3.2 mm (.023–1/8 in.)	2.4, 3, 3.7, 4.5, 6, or 7.6 m	Heavy industrial steel fabrication	Steel
Bernard™ Clean Air™ Fume Extraction Guns	24	●	●	◉	◉	●	◉	◉CV**	◉	0.6–3.2 mm (.023–1/8 in.)	2.4, 3, 3.7, 4.5, 6, or 7.6 m	Heavy industrial steel fabrication	
Bernard™ Dura-Flux™ Gun with Fixed Liner	24	●			●			●CV**		1.6–2.4 mm (1/16–3/32 in.)	2.4, 3, 3.7, 4.5, 6, or 7.6 m	Heavy industrial steel fabrication	
Bernard™ Dura-Flux™ Gun with Replaceable Liner	24	●			●			●CV**		1.2–2.0 mm (.045–5/64 in.)	2.4, 3, 3.7, 4.5, 6, or 7.6 m	Heavy industrial steel fabrication	
XR-Aluma-Pro™ Push-Pull Guns	26	●	●	●		◉			●	0.8–1.6 mm (.030–1/16 in.)	4.5, 7.6 or 10.6 m	Heavy industrial aluminium fabrication	Aluminium
XR™-Pistol Push-Pull Guns	26	●	●	●		◉			●	0.8–1.6 mm (.030–1/16 in.)	Pistol: 4.5 or 9 m Pistol-Pro: 4.5, 7.6 or 10.6 m	Heavy industrial aluminium fabrication	
XR™ Controls	27	●	●	●		◉			●	0.8–1.6 mm (.030–1/16 in.)	–	Heavy industrial aluminium fabrication	

Product Key

Class: ● Light industrial ● Industrial ● Heavy industrial Capability: ● Designed for this process ◉ Capable of this process

*Requires MPa inverter power source. **Certain self-shielded wires require CV output. Miller recommends a CV power source whenever possible.

Bernard™ Semi-Automatic Guns

ITW Welding offers rugged and reliable Bernard welding guns that have been customized to match the performance of many of its industrial wire feeders and power sources.

BTB Air-Cooled MIG Guns

See Bernard literature SP-BTB

Our rugged Bernard BTB (Best of the Best) MIG guns bring together all the best features and options from our former Q-Gun™, S-Gun™ and T-Gun™ MIG guns into a single, flexible gun series.

B Series handle (small or large)

O Series handle (small or large)

T Series handle (small or large)

To configure your BTB MIG gun from the following array of options visit BernardWelds.com/ConfigureMyGun

- Compatible with two high-performance consumable lines – TOUGH LOCK™ and Centerfire™ (see page 24 for more information)
- Compatible with Universal Conventional or front-loading QUICK LOAD™ liners (see page 25 for more information)
- Fixed or rotatable aluminium armored necks in various lengths and angles to optimize weld access
- Choice of seven different handles with various trigger options for a comfortable, ergonomic fit
- Internal cable connections are compression fit (instead of crimped) to optimize conductivity, reduce heat and increase gun life
- Optional ultra-heavy-duty steel monocoil cable provides extra reinforcement and high pinch/kink resistance
- One year manufacturer's warranty with lifetime warranty on rear strain relief

For more detailed information, visit **BernardWelds.com**

BERNARD™

Heavy industrial ●

Processes

- MIG (GMAW)
- Flux-cored (FCAW)

Suggested feeders

- Continuum™ Feeder (pg 15)
- SuitCase® Series (pg 18)
- I-24A, ST Series and 70 Series Feeders (pg 20)

Most popular consumables

TOUGH LOCK Consumable Series

Diffusers (amps)
404-18-25 200, 300, 400 SD
404-26-25 300, 400, 500, 600 HD

Copper Nozzles (inches)
401-4-62 5/8 ID, 1/8 Rec., SD
401-6-62 5/8 ID, 1/8 Rec., HD
401-5-62 5/8 ID, 1/4 Rec., HD
401-5-75 3/4 ID, 1/8 rec., HD

Contact Tips (mm)
403-14-35-25 0.9 SD
403-20-35-25 0.9 HD
403-14-45-25 1.2 SD
403-20-45-25 1.2 HD
403-20-52-25 1.4 HD
403-20-116-25 1.6 HD

Centerfire Consumable Series

Diffusers (amps)
DS-1 200, 300, small
D-1 400, 500, 600, large

Brass Nozzles (inches)
NS-1218B 1/2 ID, 1/8 rec., small

Copper Nozzles (inches)
NS-5818C 5/8 ID, 1/8 rec., small
N-5818C 5/8 ID, 1/8 rec., large
N-5814C 5/8 ID, 1/4 rec., large
N-3414C 3/4 ID, 1/4 rec., large

Contact Tips (mm)
T-035 0.9
T-045 1.2
T-052 1.4
T-062 1.6

Bernard™ Semi-Automatic Guns

Industrial-duty fume extraction and flux-cored welding solutions built for the way you weld.

Clean Air

Fume Extraction MIG Gun

See Bernard literature SP-CLA (Clean Air™ gun)

Maintaining a clean working environment is important and Bernard understands the need for a reliable fume extraction solution. Extract fumes at the weld bead using our Clean Air fume extraction MIG gun.

Clean Air™ gun

- Available in 300-, 400-, 500- and 600-amp models
- Compatible with TOUGH LOCK and Centerfire consumables
- Ergonomic, lightweight handle with rear swivel improves operator comfort

Replaceable power cable liner

Fixed power cable liner

Dura-Flux™ Self-Shielded Flux-Cored Guns

See Bernard literature SP-DF

For structural steel applications, bridge construction and heavy equipment repair, Bernard offers two types of 350-amp self-shielded flux-cored guns.

Dura-Flux gun with replaceable power cable liner

- Replaceable power cable liner allows quick and easy power cable maintenance
- Quik Tip consumables provide excellent heat transfer and electrical conductivity

Dura-Flux gun with fixed power cable liner

- Ultra-heavy-duty steel monocoil power cable is highly resistant to kinking
- Centerfire consumables are easy to use and high performing, providing better arc starts, less spatter and more consistent welds

For more detailed information, visit **BernardWelds.com**

BERNARD™

Bernard Welding Consumables (cutaways shown)

TOUGH LOCK™

See Bernard literature SP-TLC

- Dual-taper technology keeps consumables locked from tip to neck for improved weld consistency, positive electrical conductivity and maximized heat dissipation
- Consumables run cooler, improving performance and extending life

Centerfire™

See Bernard literature SP-CFC

- Drop-in contact tip (no tools required to replace tip or nozzle) means quick changeover and reduced downtime
- Spatter shield within nozzle holds tip in place, protects diffuser and directs gas evenly with reduced turbulence
- Diffuser mates securely with contact tip for better conductivity

Heavy industrial

Processes

- MIG (GMAW) • Flux-cored (FCAW)

Suggested feeders

- Continuum™ Feeder (pg 15)
- SuitCase® Series (pg 18)
- I-24A, ST Series and 70 Series Feeders (pg 20)

Most popular consumables

TOUGH LOCK Consumable Series

Diffusers (amps)
404-18-25 200, 300, 400 SD
404-26-25 300, 400, 500, 600 HD

Copper Nozzles (inches)
401-4-62 5/8 ID, 1/8 Rec., SD
401-6-62 5/8 ID, 1/8 Rec., HD
401-5-62 5/8 ID, 1/4 Rec., HD
401-5-75 3/4 ID, 1/8 rec., HD

Contact Tips (mm)
403-14-35-25 0.9 SD
403-20-35-25 0.9 HD
403-14-45-25 1.2 SD
403-20-45-25 1.2 HD
403-20-52-25 1.4 HD
403-20-116-25 1.6 HD

Centerfire Consumable Series

Diffusers (amps)
DS-1 200, 300, small
D-1 400, 500, 600, large

Brass Nozzles (inches)
NS-1218B 1/2 ID, 1/8 rec., small

Copper Nozzles (inches)
NS-5818C 5/8 ID, 1/8 rec., small
N-5818C 5/8 ID, 1/8 rec., large
N-5814C 5/8 ID, 1/4 rec., large
N-3414C 3/4 ID, 1/4 rec., large

Contact Tips (mm)
T-035 0.9
T-045 1.2
T-052 1.4
T-062 1.6

Tregaskiss™ Robotic Guns

Air-Cooled MIG Guns

Compatible with most robotic welding systems, fully configurable TOUGH GUN™ robotic MIG guns are engineered for accurate, reliable and repeatable performance that maximizes production uptime and throughput.

TOUGH GUN TA3 MIG Gun

See Tregaskiss literature SP-TA3

Designed for welding applications where the gun runs internally through the robot arm.

Available in 350-amp models at 100 percent duty cycle with mixed gases.

Available as a complete package from the power pin to the contact tip.

Re-engineered neck clamp improves durability and consistency of clamping force.

Easy maintenance with minimal downtime.

TOUGH GUN CA3 MIG Gun

See Tregaskiss literature SP-CA3

Designed for welding applications where the gun runs external to the robot arm.

Available in 385-amp models at 100 percent duty cycle with mixed gases.

Replaceable unicable reduces downtime through faster repair and extended service life.

Cable guide minimizes stress on cable connection as the robot articulates.

Re-engineered neck clamp improves durability and consistency of clamping force.

Easy maintenance with minimal downtime.

For more information or to configure your Tregaskiss robotic gun online, visit **Tregaskiss.com/ConfigureMyGun**

Tregaskiss™

Tregaskiss Liners

QUICK LOAD™ Liners

See Tregaskiss literature QLL/1.2

This innovative front-loading liner is a two-piece system with the retainer installed inside the power pin on first use.

- Requires less than half the time and effort to replace compared to conventional liner
- Compatible with Tregaskiss TOUGH GUN robotic and automatic air-cooled MIG guns, and Bernard™ BTB MIG Guns

AutoLength pin cutaway shown.

QUICK LOAD™ Liner AutoLength™ System

See Tregaskiss literature QLL/1.2

Pair your QUICK LOAD liner with an AutoLength pin to reap the benefits of the revolutionary QUICK LOAD Liner AutoLength System. Minimize downtime, wire feeding and quality issues commonly associated with short liner length.

- Reduces issues caused by short liners
- Decreases burn-backs caused by misalignment between the liner and contact tip
- Accommodates liner movement during welding
- Improves wire feeding by enhancing wire alignment with the contact tip
- Spring-loaded module allows for up to 2.54 cm (1 in.) forgiveness if the liner is too short

Industrial

Process ▪ MIG (GMAW)

Compatible robots

- Panasonic®
- ABB®
- COMAU®
- FANUC®
- Kawasaki®
- KUKA™
- Motoman®
- OTC Daihen®
- Reis™ (CA3 only)

Most popular accessories

- TOUGH GUN I.C.E.™ (Integrated Cooling Enhancer) Technology – adds water-cooling to air-cooled guns for a boost in duty cycle.
- Neck Checking Fixture
- Reamer Lubricator

TOUGH GUN TT3E reamer shown with TOUGH GUN CA3 MIG gun.

- **TOUGH GUN TT3 Reamers**
  TT3A Analog
  TT3E Ethernet
  Two models available – TT3A (analog) and TT3E (Ethernet) model enhanced with digital Ethernet communication for better integration. Reamers provide automated spatter removal to help extend the life of your robotic MIG guns and consumables, increasing both production uptime and throughput while benefiting your bottom line. Designed to operate reliably in even the harshest welding environments.
- ***NEW!*** TOUGH GUN Reamer Stand – custom height, quick installation, easy on the budget.
- TOUGH GARD Multi-Feed System

Most popular consumables

- TOUGH LOCK™ Consumables (see Tregaskiss literature TLC/1.0)
- QUICK LOAD™ Liners (see Tregaskiss literature QLL/1.2)
- QUICK LOAD Liner AutoLength™ System (see Tregaskiss literature QLL/1.2)

XR™ Push-Pull Guns

XR-Aluma-Pro and XR-Pistol guns work in conjunction with an XR Control or XR-AlumaFeed to provide the best solution for push-pull applications.

Threaded quick-change 360-degree rotatable head tubes are available in different bends and lengths for even those hard-to-reach welds. Over 30 different styles to fit your application and welder's preference.

Wire tension settings (except XR-Pistol). 4000- or 5000-specific tension settings ensure the very best wire feeding performance and arc consistency.

Heavy-duty construction. All internal components are designed to provide long lasting performance and feeding precision.

XR-Aluma-Pro

PORTABLE!

XR-Aluma-Pro™ See literature M/1.71

Robust professional-grade gun has the highest duty cycle rating in its class.

Easy access to drive assembly and removable toolless head tube reduce service time, by allowing a simple means of changing drive rolls and head tube – or performing routine maintenance without disassembly of gun.

XR-Pistol

XR™-Pistol See literature M/1.73

Reliable, cost-effective gun for light- to medium-industrial applications.

XR-Pistol-Pro

XR™-Pistol-Pro See literature M/1.74

Exceptional aluminium welding results for heavy-industrial applications.

Most durable motor and drive design improves feedability and arc consistency while helping reduce downtime and maintenance costs.

Easy access to drive assembly and removable toolless head tube reduce service time, by allowing a simple means of changing drive rolls and head tube – or performing routine maintenance without disassembly of gun.

Heavy industrial CC/CV DC

Use with CC/CV, DC power sources.

Processes

- MIG (GMAW) with aluminium wire (capable of other wires with optional hardwire kits)
- Pulsed MIG (GMAW-P) with optional pulsing power source

Suggested power sources

These power sources require XR-AlumaFeed® (pg 11) ***OR*** *XR™ Control (pg 27)*

- AlumaPower™ MPa (pg 11)
- Invision™ MPa (pg 14)
- XMT® Series (pg 32–35)

Most popular accessories

- Hardwire Liner Kit 198377

**Dependent on control box used. **Requires wire kit (230708) to run 1.6 mm (1/16 in.) wire.*

Model	Cable Length 4.6 m (15 ft.)	7.6 m (25 ft.)	9 m (30 ft.)	10.6 m (35 ft.)	Welding Current Rating	IP Rating	Wire Feed Speed*	Wire Type and Diameter Capacity	Dimensions	Gun Only Net Weight
XR-Aluma-Pro (Water-cooled)	**(300003)**	**(300004)**	–	**(300265)**	400 A at 100% duty cycle	IP23	1.8–23 mpm (70–900 ipm)	**Aluminium**** 0.8–1.6 mm (.030–1/16 in.)	H: 127 mm (5 in.) W: 64 mm (2.5 in.) L: 432 mm (17 in.)	1.3 kg (2.9 lb.)
XR-Pistol (Air-cooled)	**(198127)**	–	**(198128)**	–	200 A at 100% duty cycle	IP23	1.8–22.2 mpm (70–875 ipm)	**Aluminium** 0.8–1.6 mm (.030–1/16 in.)	H: 187 mm (7.375 in.) W: 48 mm (1.875 in.) L: 270 mm (10.625 in.)	1 kg (2.2 lb.)
XR-Pistol (Water-cooled)	**(198129)**	–	**(198130)**	–	400 A at 100% duty cycle	IP23				1.1 kg (2.4 lb.)

XR™ Control

See literature M/1.7

Standard aluminium wire feeding system for fabrication and manufacturing, consisting of a control box and push-pull gun. Beneficial for difficult-to-feed wire types.

XR-S

XR-D

PORTABLE!

***Includes** both 0.9 mm and factory-installed 1.2 mm drive rolls. Order 1.6 mm control box drive roll kit (195591) separately.*

XR-S

Simple, cost-effective push-pull feeder for industrial applications.

True torque feed motor push-pull design provides continuous push force to the wire while the gun motor controls the speed at the gun. The motors work together to provide accurate and positive wire feed speed without wire shaving or deformation.

Digital meters ensure accuracy when presetting and reading actual wire feed speed or voltage.

Trigger hold for making long weldments without hand fatigue.

Adjustable wire run-in control allows arc start fine tuning. Reduces wire stubbing or arc flaring which can result in contact tip burnback.

XR-D (additional features)

Adds basic programmable weld sequencing that allows adjustments for preflow, postflow, start, and crater providing higher quality welds.

Heavy industrial CC/CV DC

Use with CC/CV, DC power sources.

Processes
- MIG (GMAW) with aluminium and other soft alloy wires
- Pulsed MIG (GMAW-P) with optional pulsing power source

Suggested guns
- Push-pull guns (pg 26)

Suggested power sources
- AlumaPower™ MPa (pg 11)
- Invision™ MPa (pg 14)
- XMT® Series (pg 32–35)

Most popular accessories
- Extension Cables (pg 66)
- Gas Flowmeter Kit 246127

Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Model/Stock Number	Input Power	IP Rating	Wire Feed Speed	Wire Type and Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
XR-S (300601) **XR-D (300687)**	24 VAC, 50/60 or 100 Hz	IP23	1.3–23 mpm (50–900 ipm)	**Aluminium** 0.8–1.6 mm (.030–1/16 in.) Requires drive roll kit (195591) to run 1.6 mm (1/16 in.) wire	305 mm (12 in.)	H: 406 mm (16 in.) W: 235 mm (9.25 in.) D: 540 mm (21.25 in.)	19.2 kg (42.5 lb.)

Feeding aluminium – choose the right gun solution

Push-only Guns

23–24

Known as standard MIG guns, these guns are only used for occasional aluminium work.

- Typically used with hard wire or flux-cored wires in general manufacturing
- For aluminium, guns should be limited to 3.7 meter lengths and configured with correct aluminium liner and consumables

UPGRADE

Push-pull Guns

26

Preferred guns for industrial production work with the best overall aluminium wire feedability.

- Built for longevity
- Great arc starts and performance
- Higher amp ratings
- Air- and water-cooled models
- Work in conjunction with designated wire feeders

WE BUILD™ with you

People like you use their talent and tools to make our world a better place.

Miller celebrates those who build dreams, security, industry, adventure, performance…everything that makes a positive difference in our lives.

Together, we build with you.

Miller®

The Power of Blue®

Multiprocess

Power Source Welding Performance		200 A	350 Amp		450 Amp			650 A	
		MPi 220P (1-Phase) (pg 30)	XMT® 350 CC/CV (pg 32)	XMT® 350 MPa (pg 32)	Dimension™ 562 (pg 31)	XMT® 450 CC/CV (pg 32)	XMT® 450 MPa (pg 32)	Dimension™ 812 (pg 31)	Dimension™ 650 (pg 31)
Material	Mild Steel	●	●	●	●	●	●	●	●
	Stainless Steel	●	●	●	◉	●	●		●
	Aluminium*	●	◉	●	◉	◉	●	◉	◉
Material Thickness	Gauge (0.5–3.0 mm)	●	●	●	◉	●	●		●
	Sheet (3.0–9.5 mm)	●	●	●	●	●	●	◉	●
	Plate (9.5–25 mm)				●	●	●	●	●
	Plate (25+ mm)				◉	◉	◉	●	●
Wire Size	0.6 mm	●	◉	◉	◉	◉	◉		◉
	0.8 mm	●	●	●	◉	●	●		●
	1.0 mm	●	●	●	●	●	●		●
	1.2 mm	◉	●	●	●	●	●	●	●
	1.4 mm		●	●	●	●	●	●	●
	1.6 mm		●	●	●	●	●	●	●
	2.0 mm		●	●	●	●	●	●	●
	2.4 mm				◉	◉	◉	●	●
Process	Short Circuit	★★★	★★★★	★★★★	★★	★★★★	★★★★	★★	★★★★
	Pulsed Spray	★★		★★★★			★★★★		
	Stick	★★	★★★★	★★★★	★★	★★★★	★★★★	★★	★★★★
	TIG	★★	★★★	★★★	★	★★★	★★★	★	★★★
	CAC-A		6 mm	6 mm	6 mm	8 mm	8 mm	10 mm	10 mm

Icon Key Capability: ● Designed for ◉ Capable of Process Quality: ★ Good ★★ Better ★★★ Best ★★★★ Optimized

New! or Improved! products appear in blue type. *XR push-pull system recommended for best results.

MPi 220P

See literature DCM/9.5 UK

WELD READY

Synergic welding mode offers the simplicity of single knob control. The machine will select the correct voltage and amperage based on the wire feed speed (WFS) set by the operator.

Note: Complete material library to select from for the targeted market segment.

Large graphical display guides user through process and parameter setup with ease and high visibility.

Durable cast aluminium feedhead incorporates dual-groove quick-change drive roll and spring-loaded tension arm with calibrated tension knob, all designed to make setup easier and faster.

Thermal overload protection shuts down unit and activates **over temperature light** if airflow is blocked or duty cycle is exceeded. Automatically resets when fault is corrected and unit cools.

Adjustable Hot Start™ for stick arc starts. Adjust the optimal start current for the application. The current automatically increases the output amperage at the start of a weld.

Built-in upslope/downslope function for TIG helps provide better arc starts and reduces craters.

Built-in run-in/crater/burnback function for MIG helps provide better arc starts and reduces craters.

Adjustable preflow and postflow gives operator better control of the gas parameters affecting weld zone.

Selectable trigger configuration allows the operator to choose standard or 2T trigger method.

Industrial ● CC/CV DC 1 Phase

Processes
- MIG (GMAW) ▪ Pulsed MIG (GMAW-P)
- Flux-cored (FCAW) ▪ Stick (SMAW)
- TIG (GTAW)

Weld Ready package includes the following
- Power source
- Bernard™ MIG gun Q2010TE3EEQ
- Work cable with clamp

Most popular accessories
- TIG Torch WP-17VS4BXEY3GL 150 amps DC/100 amps AC, 60% duty cycle
- Bernard™ MIG gun Q2010TE3EEQ 200-amp gun with 3 m cable

Stock Number	Welding Mode	Welding Output Ranges	Rated Output	IP Rating	Max. Open-Circuit Voltage	Dimensions	Net Weight
(059016014) 230 V, 50/60 Hz **(029083114)** Weld Ready package	MIG	2–200 A, 15–24 V	180 A at 23.0 VDC, 35% duty cycle 140 A at 21.0 VDC, 60% duty cycle 110 A at 17.5 VDC, 100% duty cycle	IP22S	35	H: 365 mm (14.4 in.) W: 237 mm (9.3 in.) D: 548 mm (21.6 in.)	16 kg (35 lb.)
	Stick	5–200 A, 20.2–28 V	170 A at 26.8 VDC, 35% duty cycle 130 A at 25.2 VDC, 60% duty cycle 100 A at 24.0 VDC, 100% duty cycle		65		
	TIG	5–200 A, 10–18 V	180 A at 17.2 VDC, 35% duty cycle 130 A at 15.2 VDC, 60% duty cycle 100 A at 14.0 VDC, 100% duty cycle		65		

Dimension™ 562 and 812

See literature DC/19.2

Multiprocess performance in a reliable package. Designed for heavy-industrial applications, with 100 percent duty cycle for extended arc-on time.

Dimension 562 shown with 70 Series feeder, MIG gun, weld cable and work cable (components sold separately).

Built-in arc control for stick welding allows operators more flexibility when welding in tight areas where sticking electrodes is a problem.

Line voltage compensation ensures consistent weld performance even when primary power varies.

Fan-On-Demand™ cooling system operates only when needed. Reduces contaminants drawn into the machine and excess noise in work areas.

Digital meters are easy to read and display preset and actual voltage and amperage.

115-volt power for tools and coolant systems.

Heavy industrial ● CC/CV DC 3 Phase

Processes

- MIG (GMAW) ▪ Flux-cored (FCAW)
- Stick (SMAW) ▪ TIG (GTAW)
- Air carbon arc cutting and gouging (CAC-A) (carbons – 562: 6 mm, 812: 10 mm)

Most popular accessories

- SuitCase® X-TREME™ Feeders (pg 18)
- 70 Series Feeders (pg 20)
- Standard Running Gear 042886 (pg 63)
- Standard Cylinder Rack 042887 (pg 63)
- Extension Cables (pg 66)

Model/Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Output, 60 Hz 380 V	400 V	440 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions *(Includes lift eye and strain relief)*	Net Weight
Dimension 562 **(907360)** 380/400/440 V, 50 Hz	CC mode: 20–565 A	450 A at 36.5 VDC, 100% duty cycle	IP23S	48	46	41	31.4	22	65 VDC	H: 762 mm (30 in.) W: 585 mm (23 in.) D: 966 mm (38 in.)	192 kg (424 lb.)
	CV mode: 10–38 V			52.5	51	46	35.3	22.3	43 VDC		
Dimension 812 **(907361)** 380/400/440 V, 50 Hz	CC mode: 50–815 A	650 A at 44 VDC, 100% duty cycle	IP23S	77	73	66	50	34.8	72 VDC	H: 762 mm (30 in.) W: 585 mm (23 in.) D: 966 mm (38 in.)	247 kg (545 lb.)
	CV mode: 10–65 V								67 VDC		

Dimension™ 650

See literature DCM/40.0 UK

Developed for harsh environmental conditions and output requirements that range from power-intensive to precise.

NEW!

All aluminium construction helps the machine resist corrosion for long life.

Exclusive protection input inductor protects machine's performance and reliability from "dirty" input power.

Wind Tunnel Technology™ protects internal components, greatly improving reliability.

Fan-On-Demand™ reduces power consumption and improves reliability.

High-quality performance in all welding processes, from thick to thin metals.

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

Reduced size and weight results in an easier-to-handle package that exceeds the welding performance of larger, heavier machines. Dimension 650 is 3.5 times lighter than the Dimension 812 and also uses 40 percent less floor space.

High electrical efficiency and excellent power factor mean that you can get more welding done using less power. Dimension 650 uses 32 percent fewer amps than the Dimension 812.

Heavy industrial ● CC/CV DC 3 Phase

Processes

- MIG (GMAW) ▪ Flux-cored (FCAW)
- Stick (SMAW) ▪ TIG (GTAW)
- Submerged arc (SAW)
- Air carbon arc cutting and gouging (CAC-A) (rated 10 mm carbons)

Most popular accessories

- SuitCase X-TREME™ Feeders (pg 18)
- 70 Series Feeders (pg 20)
- Bernard™ MIG Guns (pg 23/24)
- Universal Trolley 018035028 (pg 63)
- Dimension 650 Running Gear 301307 (pg 63)
- Extension Cables (pg 66)
  242208025 7.6 m (25 ft.)
  242208050 15 m (50 ft.)
  242208080 24.4 m (80 ft.)

Stock Number	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Output, 50/60 Hz 380 V	460 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions *(Includes lift eye and strain relief)*	Net Weight
(907618) 380/460 V, 50/60 Hz	CC mode: 20–815 A CV mode: 10–44 V SAW mode: 10–65 V	650 A at 44 VDC, 100% duty cycle	IP23	53.2	42.8	34	30.7	87 VDC	H: 716 mm (28.187 in.) W: 424 mm (16.687 in.) D: 803 mm (31.625 in.)	71.7 kg (158 lb.)

XMT® Series

Portability and excellent multiprocess arc performance make the XMT family the most popular in the industry. With many models to choose from the XMT family has the right solution for your business.

XMT 350 *XMT 450*

Input power choices

AUTO-LINE Power Management Technology (350 models) allows for any input voltage hookup (230–575 V, three-phase) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable input power.

Standard hookup (450 models). 400 V only, three-phase.

Advanced features for the professional welder

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.

Insight Core™ **Welding Intelligence**™ **system.** XMT 14-pin models are Insight Core capable to monitor weld voltage, amperage, and arc-time and percentage.

Reliability

Wind Tunnel Technology.™ Air flow that protects internal components, greatly improving reliability.

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

Welder friendly control panel

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

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

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

Output connector choices

Dinse-style weld disconnects (350 models) provide high-quality weld cable connections. Machines come with two Dinse connectors.

Weld studs (450 models).

14-pin receptacle provides a quick, direct connection to Miller® wire feeders. Capable of remote voltage control.

Choose the Right XMT

	350 Amp		450 Amp	
	XMT 350 CC/CV	XMT 350 MPa	XMT 450 CC/CV	XMT 450 MPa
Input Power	3-phase		3-phase	
Primary Operating Range	Auto-Line (230–575 V)		400 V	
Weld Output	350 A at 34 VDC (3-phase input power at 60% duty cycle)		UPGRADE 450 A at 38 VDC (3-phase input power at 100% duty cycle)	
Carbon Arc Gouging	Rated: 6 mm		UPGRADE Rated: 8 mm	
Net Weight	36.3 kg (80 lb.)		55.3 kg (122 lb.)	
Output Connector	Dinse		1/2 in. stud	
Pulsed MIG	–	UPGRADE Yes	–	UPGRADE Yes
14-pin Compliant	Yes		Yes	
Insight Core Capable (requires Insight Core 14-pin module)	Yes (pg 54)		Yes (pg 54)	

XMT® 350 CC/CV and 450 CC/CV

See literature DCM/43.0 UK (350) and DC/18.94 (450)

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.

Strong weld output for increased capabilities. More output for larger wires and stick electrodes.

XMT® 350 MPa and 450 MPa

See literature DCM/43.0 UK (350) and DC/18.94 (450)

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

Pulse 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.

SharpArc® controls the arc in pulsed MIG mode and gives total control over the arc cone shape, puddle fluidity and bead profile.

Additional features when using a 70 Series MPa Plus feeder or XR-AlumaFeed® feeder.

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.

Heavy industrial CC/CV DC 3 Phase

Processes

- MIG (GMAW) ▪ Pulsed MIG (GMAW-P)*
- Stick (SMAW) ▪ TIG (GTAW)
- Flux-cored (FCAW)
- Air carbon arc cutting and gouging (CAC-A) (carbons – 350: 6 mm, 450: 8 mm)

**Only XMT MPa models.*

Most popular accessories

- XR-AlumaFeed® (pg 11)
- SuitCase® X-TREME™ Feeders (pg 18)
- 70 Series Feeders (pg 20)
- XR™ Control (pg 27)
- Universal Trolley 018035028 (pg 63)
- Coolmate™ Coolant System (pg 64)
- HydraCool™ Coolant System (pg 64)
- Coolant 043810 (pg 64)
- Protective Cover (XMT 350 only) 195478 (pg 65)
- Gas Valve Kit
  195286 XMT 350
  300928 XMT 450

Visit MillerWelds.com or your distributor for other Miller® options and accessories.

**Optional 115-volt auxiliary power provides 10 amps of circuit-breaker protected power for coolant systems, etc.*
***Duty cycle rating below achieved with 6-gauge input power cord (8-gauge cord supplied with unit).*

	Model/Stock Number	Input Power	Welding Output Ranges	Rated Output	IP Rating	Amps Input at Rated Load Output, 60 Hz 230 V	400 V	460 V	575 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
350 A	**XMT 350 CC/CV** **(907161011)** 230–575 V w/auxiliary power* **XMT 350 MPa** **(907366011)** 230–575 V w/auxiliary power*	3-phase	5–425 A 10–38 V	350 A at 34 VDC, 60% duty cycle	IP23	36.1	20.6	17.8	14.1	14.2	13.6	75 VDC	H: 432 mm (17 in.) W: 318 mm (12.5 in.) D: 610 mm (24 in.)	36.3 kg (80 lb.) 43 kg (94.8 lb.) w/aux power
450 A	**XMT 450 CC/CV** **(907525)** 400 V w/auxiliary power*	3-phase	15–600 A 10–38 V	450 A at 38 VDC, 100% duty cycle	IP23	–	32.1	–	–	22	18.9	90 VDC	H: 438 mm (17.25 in.) W: 368 mm (14.5 in.) D: 689 mm (27.125 in.)	55.3 kg (122 lb.)
	XMT 450 MPa **(907468)** 400 V w/auxiliary power*					–	32.1	–	–	22.2	19.2			

XMT® 350 FieldPro™ System

See literature DC/18.96

NEW!

XMT 350 FieldPro shown with optional ArcReach Smart Feeder, ArcReach SuitCase 12 and ArcReach SuitCase 8 feeders.

ArcReach® **Remote control of the power source without a cord.**

More jobsite productivity and efficiency

- 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

Exceptional arc performance

- Regulated Metal Deposition (RMD®) and pulsed MIG are fully supported, enabling operators to use these advanced processes in the field for faster, more-efficient welds
- Common weld failures can be minimized with stick stops that are specifically programmed to eliminate arc strikes outside of the heat-affected zone

More operator control

- Weld operators can Adjust While Welding (AWW™) to change weld parameters while the arc is on
- Inadvertent parameter changes by other jobsite workers can be easily avoided because connecting an ArcReach accessory from the power source automatically locks out the power source's panel controls
- 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 being used because Auto-Process Select™ automatically sets the power source to the correct weld process based on the polarity applied to the weld accessory

Increased uptime

- No more expenses related to maintaining or replacing easily damaged control cords because the weld cables are used to communicate weld parameters between the wire feeder and power source

PipeWorx 350 FieldPro™ System

See literature PWSM/6.5 UK

Simplicity-driven performance for your pipe construction site.

PipeWorx 350 FieldPro shown with optional FieldPro Remote, ArcReach Smart Feeder, ArcReach SuitCase 12 and ArcReach SuitCase 8 feeders.

ArcReach® **Remote control of the power source without a cord.**

Complete control at the weld joint

- FieldPro Remote reduces weld defects by automatically setting correct polarity for each welding process – without the need to manually swap cables
- Eliminates the need to "get by" with less than optimal settings without control cables, and allows for easy setup of a new weld process with the touch of a button
- Total remote control of welding processes and parameters improves safety by limiting jobsite movement and reducing slip, trip and fall hazards

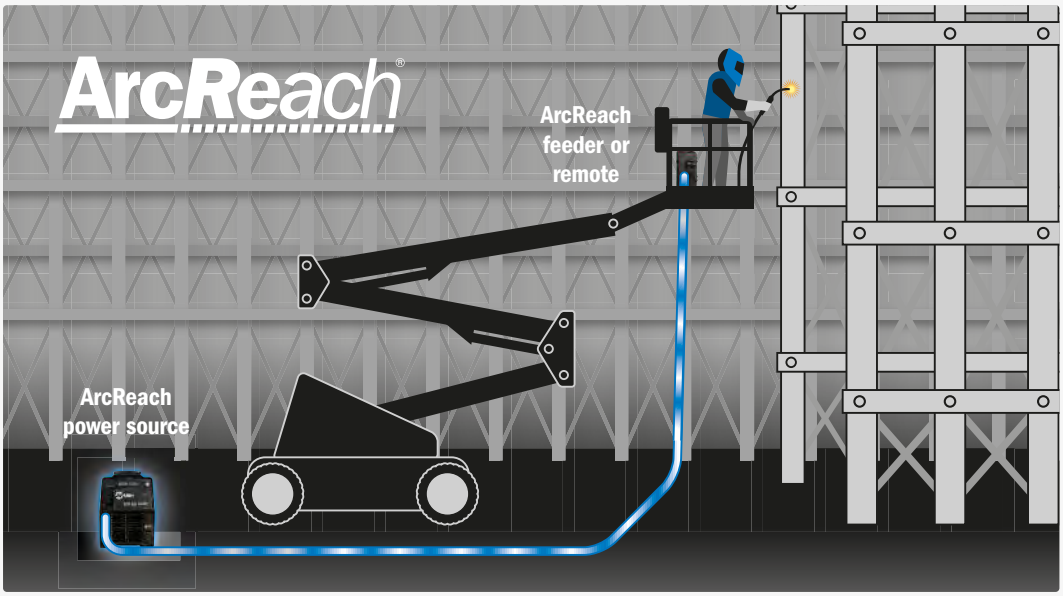
Arc performance optimized for critical pipe welding

- Industry-leading arc performance like the PipeWorx 400 welding system, but in a field-ready package
- True multiprocess system provides conventional stick, TIG, flux-cored and MIG welding, as well as the advanced technologies of RMD® and pulsed MIG
- Smart Feeder delivers excellent RMD and pulsed MIG welding 200 feet from the power source with no control cables. RMD and pulse processes help reduce weld failures and eliminate backing gas on some stainless and chrome-moly applications

New durability standard for field construction

- Designed and built to withstand the harshest field environments

How ArcReach® Works



ArcReach technology uses the existing weld cable to communicate welding control information between the feeder or remote and the power source. This technology eliminates the need for control cords, and their associated problems and costs. Learn more at **MillerWelds.com/arcreach**

Advanced Technologies of FieldPro Systems

RMD® (regulated metal deposition)


RMD carbon steel

- Higher quality root pass
- Calm stable arc
- Less spatter
- More tolerant of hi-lo conditions
- Reduced training requirements
- Less chance of cold lap or lack of fusion reducing rework
- Can eliminate the need for a hot pass
- Can eliminate backing/purge gas in some stainless applications

PipeWorx Memory Card, Accu-Power 300667
Displays instantaneous power during welding to meet the new ASME requirement for calculating heat input on complex waveform processes (RMD and pulsed MIG).

Pulsed MIG


Pulsed MIG stainless

- Less heat input than traditional spray pulse transfer
- Shorter arc length
- Narrower arc cone
- Improved fusion and fill at the toes of the weld resulting in:
  - Faster travel speeds
  - Higher deposition rates
- Less training time required because pulsed MIG:
  - Virtually eliminates arc wander
  - Is easier to control the puddle
  - Compensates for tip to work variations automatically
- When used with RMD, it is possible to use one wire and one gas for all passes

Heavy industrial CC CV DC 3 Phase

Processes
- Stick (SMAW) ▪ DC TIG (GTAW)
- MIG (GMAW) ▪ Flux-cored (FCAW)
- RMD ▪ Pulsed MIG (GMAW-P)
- Air carbon arc cutting and gouging (CAC-A)

XMT 350 FieldPro systems (components sold separately)

MIG/flux-cored system consists of
- XMT 350 FieldPro power source
- ArcReach SuitCase® 8 or 12 feeder with drive rolls, work sense lead and clamp

RMD/pulse system consists of
- XMT 350 FieldPro power source
- ArcReach Smart Feeder with drive rolls, work sense lead and clamp

PipeWorx 350 FieldPro systems (components sold separately)

MIG/flux-cored system consists of
- PipeWorx 350 FieldPro power source
- ArcReach SuitCase® 8 or 12 feeder with drive rolls, work sense lead and clamp

RMD/pulse system consists of
- PipeWorx 350 FieldPro power source
- ArcReach Smart Feeder with drive rolls, work sense lead and clamp

Stick/TIG system consists of
- PipeWorx 350 FieldPro power source
- FieldPro Remote with work sense lead and clamp (301176)

Most popular accessories for both FieldPro systems
- Bernard™ PipeWorx™ 250-15 MIG Gun
  Q2015TF2DEL Euro connection
  Q2015TF2DML Miller connection
- Bernard™ PipeWorx™ 300-15 MIG Gun
  Q3015TF2DEL Euro connection
  Q3015TF2DML Miller connection

**Welding with the Smart Feeder requires the XMT 350 FieldPro or PipeWorx 350 FieldPro to be hooked up to three-phase power.*

Power Source/Stock Number	Input Power	Welding Output Ranges	Rated Output at 60% Duty Cycle	IP Rating	Amps Input at Rated Output, 60 Hz 230 V	380 V	400 V	460 V	575 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
XMT 350 FieldPro (907730002) 230-575 V	Three-phase	CC mode: 5-425 A CV mode: 10-38 V	350 A at 34 VDC	IP23	36.1	23.4	20.6	17.8	14.1	14.2	13.6	75 VDC	H: 432 mm (17 in.) W: 318 mm (12.5 in.) D: 610 mm (24 in.)	42.2 kg (93 lb.)
PipeWorx 350 FieldPro (907633) 230-575 V	Three-phase	CC mode: 10-350 A CV mode: 10-44 V	350 A at 34 VDC	IP23	36.1	27.1	25.9	17.8	14.1	15.0	14.4	75 VDC	H: 432 mm (17 in.) W: 305 mm (12 in.) D: 559 mm (22 in.)	45.4 kg (100 lb.)

Wire Feeder Model/Stock Number	Input Power	Input Welding Circuit Rating	IP Rating	Wire Feed Speed	Wire Diameter Type and Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
ArcReach SuitCase 8 (301456)	Operates on open-circuit voltage and arc voltage: 14-48 VDC/110 max. OCV	330 A at 60% duty cycle	IP23	1.3-19.8 mpm (50-780 ipm) dependent on arc voltage	**Solid wire** 0.6-1.4 mm (.023-.052 in.) **Flux-cored** 0.8-2.0 mm (.030-5/64 in.)	203 mm (8 in.), 6.4 kg (14 lb.)	H: 324 mm (12.75 in.) W: 184 mm (7.25 in.) D: 457 mm (18 in.)	13 kg (28 lb.)
ArcReach SuitCase 12 (301457)	Operates on open-circuit voltage and arc voltage: 14-48 VDC/110 max. OCV	425 A at 60% duty cycle	IP23	1.3-19.8 mpm (50-780 ipm) dependent on arc voltage	**Solid wire** 0.6-1.4 mm (.023-.052 in.) **Flux-cored** 0.8-2.0 mm (.030-5/64 in.)	305 mm (12 in.), 20 kg (45 lb.)	H: 394 mm (15.5 in.) W: 229 mm (9 in.) D: 533 mm (21 in.)	15.9 kg (35 lb.)
ArcReach Smart Feeder (301177)	Operates on open-circuit voltage and arc voltage: 14-48 VDC/110 max. OCV*	275 A at 60% duty cycle	IP23	1.3-12.7 mpm (50-500 ipm) dependent on arc voltage	0.9-1.1 mm (.035-.045 in.)	305 mm (12 in.), 15 kg (33 lb.)	H: 457 mm (18 in.) W: 330 mm (13 in.) D: 546 mm (21.5 in.)	23 kg (50 lb.)

PipePro® XC Welding System

See literature PWSM/5.0

Designed specifically to meet the rugged demands of pipeline applications. System is optimized to provide excellent arc performance using the Hobart® Fabshield® family of self-shielded FCAW filler metals.

PipeWorx 400XC shown with optional PipePro XC Feeder with Bernard PipePro Dura-Flux gun and PipePro XC RMD Feeder with Bernard PipeWorx 250-15 gun.

Power source features

PipeWorx 400XC power source is able to perform simple stick (SMAW) welding to advanced RMD® welding. The arc performance and ease-of-use is optimized to provide quality and productivity, while simplifying welding training.

- Temperature – power source rating is based on 50°C ambient
- Moisture – meets IP23 standards. Horizontal control boards are potted
- Shock and vibration – the power source base is designed with shock mounts to reduce vibration when mounted on tractors
- Dust – Wind Tunnel Technology™ circulates air over components that require cooling (not electronic circuitry). Fan-On-Demand™ cooling system operates only when needed. This reduces the amount of airborne contaminants in the machine

Equipped with a memory card reader to provide new capabilities into the future.

- Stores weld parameters for all welding processes
- Enables the use of custom programs for future applications
- Provides range locks
- Provides Accu-Power™ (instantaneous power display)
- Provides diagnostic information and operational information in a text file format

Feeder features

PipePro XC feeder is uniquely designed to operate with the PipePro 400XC power source to perform the self-shielded flux-cored weld process for fill and cap pass welding on pipelines. This economical solution optimizes the weld process using the Hobart Fabshield family of self-shielded wires.

PipePro XC RMD feeder provides the most versatile welding solution when used with the PipePro 400XC power source. It can provide MIG and RMD (solid wire and metal-cored wire), and flux-cored (self-shielded or gas-shielded wires). All welding processes are optimized for pipe welding.

Gun features

Bernard PipePro Dura-Flux gun is uniquely designed to perform self-shielded flux-cored with the PipePro 400XC system for onshore pipeline applications. The gun features a dual schedule switch to enable two sets of welding parameters – wire feed speed and voltage.

Bernard PipeWorx 250-15 gun is designed by welders to reduce fatigue and improve visibility of the puddle on the root pass.

Bernard PipeWorx 300-15 gun provides a heavy-duty solution to producing root, fill and cap welds on pipe.

Heavy Industrial CC/CV DC 3 Phase

Processes

- Stick (SMAW) ▪ MIG (GMAW)
- Flux-cored (FCAW) ▪ RMD

Most popular accessories

- Bernard™ PipePro Dura-Flux™ Gun
  301011 3 m (10 ft.)
- Bernard™ PipeWorx 250-15 MIG Gun
  Q2015TF2DEL Euro connection
  Q2015TF2DML Miller connection
- Bernard™ PipeWorx 300-15 MIG Gun
  Q3015TF2DEL Euro connection
  Q3015TF2DML Miller connection
- Feeder Control Cable
  (one required per system)
  300845 10 m (32 ft.)
  300846 20 m (64 ft.)
- RHC-14 Remote Control (pg 65)
  242211020 6 m (20 ft.)
  242211100 30.5 m (100 ft.)
- Work Sense Lead
  300947 5 m (16 ft.)
  300461 7.6 m (25 ft.)
  300462 15.2 m (50 ft.)

WIRELESS REMOTE COMPATIBLE

Wireless Hand Control
300430 (pg 66)

Power Source/ Stock Number	Welding Mode/Process	Welding Output Ranges	Rated Output at 100% Duty Cycle	IP Rating	Amps Input at Rated Output, 50/60 Hz 380 V	400 V	KVA 380 V	400 V	KW 380 V	400 V	Max. Open-Circuit Voltage	Dimensions	Net Weight
PipePro 400XC (907675) 380/400 V	CC: Stick	40–350 A	350 A at 34 VDC	IP23	23.5	22.7	15.7	15.9	13.2	13.2	80 VDC	H: 375 mm (14.75 in.) W: 464 mm (18.25 in.) D: 686 mm (27 in.)	56.7 kg (125 lb.)
	CV: MIG/ flux-cored	10–39 V	400 A at 34 VDC		27.1	25.7							

Wire Feeder/ Stock Number	Input Power	Input Welding Circuit Rating	IP Rating	Wire Feed Speed	Wire Diameter Type and Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
PipePro XC (300794) SuitCase XC RMD (300844)	24 VAC, 9 A	100 V, 500 A at 100% duty cycle	IP23	1.3–12.7 mpm (50–500 ipm)	0.9–2.0 mm (.035–5/64 in.)	15 kg (33 lb.)	H: 438 mm (17.25 in.) W: 203 mm (8 in.) D: 508 mm (20 in.)	15.2 kg (33.5 lb.)

PipeWorx 400 Welding System

See literature PWS/2.0

Optimized for pipe fabrication shops.

PipeWorx 400 welding system shown. All components are sold separately.

Simple process setup
- The front panel was designed by welders for welders
- Requires just a few basic steps to set up a new weld process, resulting in less training time and minimizing errors from incorrect setups
- Memory feature stores four programs for each selection: stick, DC TIG, and MIG (left and right side of feeder) – eliminates the need to remember parameters

True multiprocess machine
- Weld processes are optimized to deliver superior arc performance and stability specifically for root, fill, and cap passes on pipe
- RMD® and pulsed MIG increase quality and productivity

Quick process changeover
- Simply push a process selection button to choose a welding process
- Eliminates setup time and reduces the risk of weld reworks due to incorrect cable connections
- PipeWorx "Quick Select" technology automatically selects the welding process, the correct polarity, cable outputs, gas solenoid, and user-programmed welding parameters

Single-system design
- One machine designed to perform all of your pipe welding needs
- Simplified and optimized specifically for pipe welding

Heavy industrial CC/CV DC 3 Phase

Processes
- Stick (SMAW) ▪ DC TIG (GTAW)
- MIG (GMAW) ▪ Flux-cored (FCAW)
- RMD ▪ Pulsed MIG (GMAW-P)
- Air carbon arc cutting and gouging (CAC-A)

System consists of (components sold separately)
- PipeWorx 400 power source with cable hangers (907534)
- Dual feeder with drive rolls (300950)
- Two 4.6 m (15 ft.) PipeWorx 300 guns (Q3015TF2DEL or Q3015TF2DML)
- Running gear with gas cylinder rack and handles (300368)

Most popular accessories
- Bernard™ PipeWorx 250-15 MIG Gun
  Q2015TF2DEL Euro connection
  Q2015TF2DML Miller connection
- Bernard™ PipeWorx 300-15 MIG Gun
  Q3015TF2DEL Euro connection
  Q3015TF2DML Miller connection

- **PipeWorx 400 Insight Module** 301304
- Composite Cable Kit
  300454 7.6 m (25 ft.)
  300456 15.2 m (50 ft.)
- PipeWorx Cooler 300370
- Foot Control Bracket 300676
- DSS-9 Dual Schedule Switch 071833
- RFCS-14 HD 194744 (pg 65)

WIRELESS REMOTE COMPATIBLE

Wireless Hand Control 300430 (pg 66)

Advanced Technologies of PipeWorx 400 Welding System

RMD® (regulated metal deposition)
- Higher quality root pass
- Calm stable arc
- Less spatter
- More tolerant of hi-lo conditions
- Reduced training requirements
- Less chance of cold lap or lack of fusion reducing rework
- Can eliminate the need for a hot pass
- Can eliminate backing/purge gas in some stainless applications

RMD carbon steel

PipeWorx Memory Card, Accu-Power 300667
Displays instantaneous power during welding to meet the new ASME requirement for calculating heat input on complex waveform processes (RMD and pulsed MIG).

Pulsed MIG
- Less heat input than traditional spray pulse transfer
- Shorter arc length
- Narrower arc cone
- Improved fusion and fill at the toes of the weld resulting in:
  - Faster travel speeds
  - Higher deposition rates
- Less training time required because pulsed MIG:
  - Virtually eliminates arc wander
  - Is easier to control the puddle
  - Compensates for tip to work variations automatically
- When used with RMD, it is possible to use one wire and one gas for all passes

Pulsed MIG stainless

Power Source/ Stock Number	Welding Mode/Process	Welding Output Ranges	Rated Output at 100% Duty Cycle	IP Rating	Amps Input at Rated Output, 50/60 Hz 380 V	400 V	KVA 380 V	400 V	KW 380 V	400 V	Max. Open-Circuit Voltage	Dimensions	Net Weight
PipeWorx 400 **(907534)** 380/400 V	CC: Stick	40–400 A	400 A at 36 VDC	IP21	26.3	25.5	17.6	17.8	16.5	16.5	90 VDC	H: 724 mm (28.5 in.) W: 495 mm (19.5 in.) D: 806 mm (31.75 in.)	102 kg (225 lb.)
	CC/DC: TIG	10–350 A	350 A at 24 VDC		19	18.1	12.4	12.5	9.7	9.8			
	CV: MIG/flux-cored	10–44 V	400 A at 34 VDC		27.1	25.7	18.0	18.0	15.5	15.6			

Wire Feeder/ Stock Number	Input Power	Input Welding Circuit Rating	IP Rating	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
PipeWorx Feeder **(300949)** Single-wire model **(300950)** Dual-wire model	24 VAC, 11 A	100 V, 750 A at 100% duty cycle	IP21	1.3–19.8 mpm (50–780 ipm)	0.9–1.6 mm (.035–.062 in.)	27 kg (60 lb.)	H: 356 mm (14 in.) W: 483 mm (19 in.) D: 737 mm (29 in.)	**Single** 30 kg (65 lb.) **Dual** 41 kg (90 lb.)

Miller recommends

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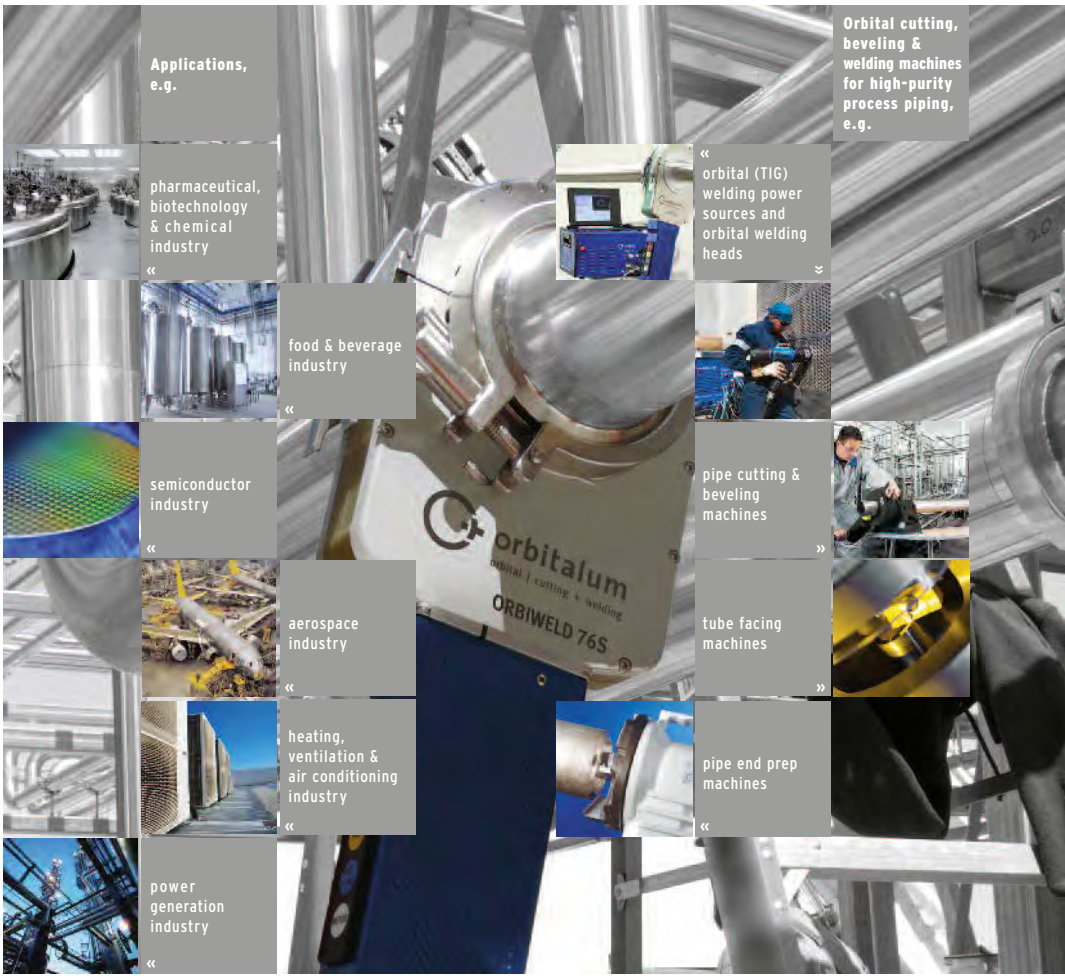

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Product Guide	Page	Class	Stick	DC TIG	Flux-cored*	CAC-A	Portability	Weldable Metals	Welding Amperage Range (DC)	Special Features	Typical Applications	
Si 160/160 PFC	39	●	●				Shoulder strap	Steel, stainless	15–150 A 4–150 A (w/PFC)	VRD device, dual fan technology	MRO, ship installation/repair, farm/ranch	1-Phase
STi 160	40	●	●	●					4–150 A	VRD device, dual fan technology, meters	MRO, ship installation/repair, farm/ranch	
STi 203	40	●	●	●			Handle, shoulder strap, optional carts	Steel, stainless	5–200 A	Meters with preset, Lift-Arc™ TIG	Maintenance/repair, fabrication	3-Phase
STR® 400/400C	41	●	●	●			Running gear		20–400 A	Rugged and simple design	Construction, fabrication, pipe, steel erection	
STR® 500/500C	41	●	●	●					20–500 A	Rugged and simple design	Construction, fabrication, pipe, steel erection	
Blue Thunder® 253	42	●	●	●			Lift eye, running gear		30–220 A	Rugged and simple design	Construction and repair	
Blue Thunder® 343	42	●	●	●					50–320 A	Rugged and simple design	Construction and repair	
Blue Thunder® 403	42	●	●	●					60–400 A	Rugged and simple design	Construction and repair	
Blue Thunder® 443	42	●	●	●					60–420 A	Rugged and simple design	Construction and repair	
Gold Star® 402	42	●	●	●	◉	6 mm	Lift eye, optional running gear		15–395 A	Built-in arc control	Steel erection, pipe, fab, shipbuilding, foundries	
Gold Star® 652	42	●	●	●	◉	8 mm			20–590 A	Built-in arc control	Steel erection, pipe, fab, shipbuilding, foundries	
Gold Star® 852	42	●	●	●	◉	10 mm			50–850 A	Built-in arc control	Steel erection, pipe, fab, shipbuilding, foundries	

Product Key Class: ● Light Industrial ● Industrial ● Heavy Industrial Capability: ● Designed for this process ◉ Capable of this process

*Constant-current (stick) machines can utilize voltage-sensing wire feeders for some flux-cored applications.

Si 160 and Si 160 PFC

See literature DC/27.05 UK

Inverter-based, DC power source with simple-to-use interface providing only the necessary controls in a compact machine.

WELD READY

Si 160 shown.

Portable with adjustable shoulder strap. Easy to transport at under 6.2 kg (13.7 lb.).

Dual fan technology. An optimised power source cooling system which enables the machine to operate at a lower temperature, thus increasing its performance and life cycle.

Thermal overload protection with indicator light helps prevent machine damage if the duty cycle is exceeded or airflow is blocked.

VRD function is a simple design that reduces the open-circuit voltage to 20 volts when the welding power source is not in use.

Best-in-class stick arc characteristics for those demanding jobs.

Preset Hot Start™ for stick arc starts automatically increases the output amperage at the start of a weld should the start require it. Prevents the electrode from sticking and creating an inclusion.

Innovative PFC (power factor control) allows taking full advantage of the available input amps resulting in the required welding current without power leakage (Si 160 PFC model).

Light industrial ● CC DC 1 Phase

Process ▪ Stick (SMAW)

Comes complete with
- 3 m (10 ft.) power cord

Weld Ready package includes above plus
- 3 m (10 ft.) electrode cable with holder
- 3 m (10 ft.) work cable with clamp

Most popular accessories
- Stick Welding Cable Kit 058066079

**VRD sense voltage for stick.*

Model	Stock Number	Welding Mode	Welding Amperage Range	Rated Output	IP Rating	Amps Input at Rated Output, 50/60 Hz	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
Si 160	**(059016011)** 230 V, 50/60 Hz **(029083126)** Weld Ready package	Stick	15–150 A	100 A at 24.0 VDC, 100% duty cycle	IP23	20	4.5	2.8	85 V (20 V)*	H: 245 mm (9.65 in.) W: 145 mm (5.75 in.) D: 380 mm (15 in.)	5.2 kg (11.5 lb.)
				150 A at 26.0 VDC, 25% duty cycle		30	7.0	4.8			
		Scratch start TIG	15–150 A	100 A at 14.0 VDC, 100% duty cycle		13	3.0	2.0			
				150 A at 16.0 VDC, 25% duty cycle		21	4.8	3.2			
Si 160 PFC	**(059016016)** 230 V, 50/60 Hz **(029083112)** Weld Ready package	Stick	4–150 A	100 A at 24.0 VDC, 100% duty cycle	IP23	13.7	3.1	2.8	70 V (20 V)*		6.2 kg (13.7 lb.)
				150 A at 26.0 VDC, 25% duty cycle		22.1	5.0	4.8			
		Scratch start TIG	4–160 A	100 A at 14.0 VDC, 100% duty cycle		13	3.0	2.0			
				160 A at 16.4 VDC, 20% duty cycle		22	5.1	3.5			

STi 160

See literature DC/27.15 UK

Inverter-based, DC power source with simple-to-use interface providing only the necessary controls in a compact machine.

WELD READY

Portable with adjustable shoulder strap. Easy to transport at 6.0 kg (13.2 lb.).

Dual fan technology. An optimised power source cooling system which enables the machine to operate at a lower temperature, thus increasing its performance and life cycle.

Thermal overload protection with indicator light helps prevent machine damage if the duty cycle is exceeded or airflow is blocked.

VRD function is a simple design that reduces the open-circuit voltage to 20 volts when the welding power source is not in use.

Digital meter with presetting shows preset current before welding and actual value during welding.

Full-function remote control connector for precise amperage control for critical welds on thin materials.

Lift-Arc™ start provides TIG arc starting without the use of high frequency or the risk of tungsten contamination.

Adjustable Hot Start™ for stick arc starts. Adjust the optimal start current for the application. The current automatically increases the output amperage at the start of a weld.

Adjustable Arc Force™ prevents sticking. Adjust the optimal arc force value. Adjustable arc force supports positional welding by increasing the output amperage.

**VRD sense voltage for stick and Lift-Arc TIG.*

Light industrial ● CC DC 1 Phase

Processes
- Stick (SMAW) • TIG (GTAW)

Comes complete with
- 3 m (10 ft.) power cord

Weld Ready package includes above plus
- 3 m (10 ft.) electrode cable with holder
- 3 m (10 ft.) work cable with clamp

Most popular accessories
- RCCS-6M Fingertip Control (pg 65)
  195184 4 m (13.25 ft.)
  195503 8 m (26.5 ft.)
- RFCS-6M Foot Control (pg 65)
  195183 4 m (13.25 ft.)
  195504 8 m (26.5 ft.)
- RMS-6M On/Off Control
  195269 (pg 65)
- Stick Welding Cable Kit 058066079
- Dinse-style Flow Thru Adapter
  195234
- 6-pin Remote Plug 217796

Stock Number	Welding Mode	Welding Amperage Range	Rated Output	IP Rating	Amps Input at Rated Output, 50/60 Hz	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
(059016012) 230 V, 50/60 Hz **(029083127)** Weld Ready package	Stick	4–150 A	100 A at 24.0 VDC, 100% duty cycle	IP23	20	4.5	2.8	70 V (20 V)*	H: 245 mm (9.65 in.) W: 145 mm (5.75 in.) D: 380 mm (15 in.)	6.0 kg (13.2 lb.)
			150 A at 26.0 VDC, 25% duty cycle		30	7.0	4.8			
	TIG	15–150 A	100 A at 14.0 VDC, 100% duty cycle		13	3.0	2.0			
			150 A at 16.0 VDC, 25% duty cycle		21	4.8	3.2			

STi 203

See literature DC/29.65 UK

Inverter-based, DC power source with simple-to-use interface providing only the necessary controls in a compact machine.

Portable with adjustable shoulder strap. Easy to transport at 17 kg (37.5 lb.).

Digital meter with presetting shows preset current before welding and actual value during welding.

Remote amperage control provided through 14-pin receptacle on front of machine. This permits use of standard remote amperage control devices.

Lift-Arc™ start provides TIG arc starting without the use of high frequency or the risk of tungsten contamination.

Adaptive Hot Start™ for stick arc starts automatically increases the output amperage at the start of a weld should the start require it. Prevents the electrode from sticking and creating an inclusion.

DIG control allows the arc characteristics to be changed for specific applications and electrodes. Lower the DIG setting for smooth running electrodes like E7018 and increase the DIG setting for stiffer, more penetrating electrodes like E6010.

**VRD sense voltage for stick and Lift-Arc TIG.*

Industrial ● CC DC 3 Phase

Processes
- Stick (SMAW) • TIG (GTAW)

Comes complete with
- 3 m (10 ft.) power cord

Most popular accessories
- RCC-14 Fingertip Control
  151086 (pg 65)
- RCCS-14 Fingertip Control
  043688 (pg 65)
- RFCS-14 HD Foot Control
  194744 (pg 65)
- RHC-14 Hand Control
  242211020 (pg 65)
- SHRC-14 Remote Control (pg 65)
  058040019 5 m (16.4 ft.)
  058040020 10 m (32.8 ft.)
  058040021 20 m (65.6 ft.)
- Stick Welding Cable Kit 058066040

Stock Number	Welding Mode	Welding Amperage Range	Rated Output	IP Rating	Amps Input at Rated Output, 50/60 Hz 380 V	400 V	440 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
(059016015) 400 V, 50/60 Hz	Stick	5–200 A	200 A at 18 V, 40% duty cycle	IP23	8.7	8.3	7.5	5.73	4.2	85 V (12 V)*	H: 345 mm (13.6 in.) W: 190 mm (7.5 in.) D: 460 mm (18.1 in.)	17 kg (37.5 lb.)
	TIG	5–200 A	200 A at 28 V, 40% duty cycle		13.5	12.8	11.5	8.86	6.51			

STR® 400/500 Series

STR 400 STR 400 C

Easy-to-use interface allows the operator to select the correct range to suit the desired electrode.

Auto Hot Start™ makes it easier to start difficult-to-start stick electrodes. (400 C/500 C models have Adjustable Hot Start.)

Auto remote current control automatically detects remote current controls for easier setup.

Enclosed circuit board provides additional protection from contaminants resulting in longer service life.

Superior performance arc control technology provides a smooth, low-spatter class-leading arc suitable for a wide variety of applications.

Lifting eyelets provide a safe means of lifting the power source.

115 V/10 A and 48 V/32 A auxiliary power receptacles provide power for ancillary devices.

Help code display provides simple and convenient indication of primary input power phase loss.

Additional features of 400 C/500 C models.

Welding process selection control knob to select weld process. The weld process selected determines weld output on/off control.

Stick cellulosic function. Use with cellulosic electrodes to provide outstanding arc stability and penetration. It's ideal for welding in all positions.

Adjustable Hot Start™ for stick arc starts. Adjust the optimal start current for the application. The current automatically increases the output amperage at the start of a weld.

Adjustable Arc Force™ (DIG control) prevents sticking. Adjust the optimal arc force value. Adjustable arc force supports positional welding by increasing the output amperage.

Stick gouging process allows the use of gouging electrodes for arc stability and penetration. It's ideal for welding in all positions (500 C model only).

Industrial ● CC DC 3 Phase

Processes

- Stick (SMAW) ▪ TIG (GTAW)
- Air carbon arc cutting and gouging (CAC-A) (carbons – 500 C: 10 mm)

Comes complete with

- 2.4 m (8 ft.) power cord (no plug)
- Industrial running gear with rubber tyres

Most popular accessories

- RHC-14 Remote Hand Control 242211020 (pg 65)
- Stick Welding Cable Kits
  058066045 5 m (16.5 ft.)
  058066046 10 m (33 ft.)
  058066047 15 m (50 ft.)
  058066048 20 m (66 ft.)

Model/Stock Number	Amperage Range	Voltage Range	IP Rating	Rated Output	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
STR 400 (059016017) 400 V, 50/60 Hz	20–400 A	28.8–36 V	IP22	240 A at 29.6 VDC, 100% duty cycle 305 A at 32.2 VDC, 60% duty cycle 400 A at 36.0 VDC, 35% duty cycle	22.8	19.8	82 V	H: 730 mm (28.7 in.) W: 620 mm (24.4 in.) D: 1,120 mm (44.1 in.)	132 kg (291 lb.)
STR 400 C (059016025) 380 V, 50/60 Hz							70 V		145 kg (320 lb.)
STR 500 (059016019) 400 V, 50/60 Hz	20–500 A	20.8–40 V	IP22	300 A at 32.0 VDC, 100% duty cycle 380 A at 35.5 VDC, 60% duty cycle 500 A at 40.0 VDC, 35% duty cycle	32.5	28.2	80 V	H: 730 mm (28.7 in.) W: 620 mm (24.4 in.) D: 1,120 mm (44.1 in.)	164 kg (362 lb.)
STR 500 C (059016020) 380 V, 50/60 Hz							72 V		174 kg (384 lb.)

Blue Thunder® Series

See literature MN/77.1

DC power source, with a rugged simple design for maximum durability and ease of use.

Blue Thunder 343 shown.

Superior performance arc control technology provides the operator with a smooth and low-spatter, class-leading arc suitable for a wide variety of applications.

Fan-cooled design provides efficient cooling in the most demanding environments.

Industrial-rated components and construction designed for long-lasting, trouble-free performance.

Lifting eyelets provide a safe means of lifting the power source.

Industrial running gear designed for a variety of terrain. Includes handle/cable carrier and rubber tyres for smooth and easy manoeuverability.

Easy-to-use interface allows the operator to select the correct range to suit the desired electrode.

Ergonomic design. Angled controls make reading and parameter adjustments easier.

Quick-connect weld terminals provide simple, convenient and robust connection of weld cables.

Industrial ● CC DC 3 Phase

Process ▪ Stick (SMAW)

Most popular accessories

- Stick Welding Cable Kits
  058066045 5 m (16.5 ft.)
  058066046 10 m (33 ft.)
  058066047 15 m (50 ft.)
  058066048 20 m (66 ft.)

Model/Stock Number	Welding Amperage Range	Rated Output	IP Rating	Amps Input at Rated Output, 50 Hz 230 V	380 V	400 V	520 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
Blue Thunder 253 (029016230) 230/400 V, 50 Hz	30–220 A	220 A at 29 VDC, 35% duty cycle	IP22S	36	–	21	–	14.6	12	59–66 VDC	H: 650 mm (25.5 in.) W: 410 mm (16.125 in.) D: 980 mm (38.5 in.)	80 kg (176 lb.)
Blue Thunder 343 (029016232) 230/400 V, 50 Hz	50–320 A	320 A at 33 VDC, 35% duty cycle	IP22S	55	–	32	–	22	18	56–68 VDC		105 kg (231 lb.)
Blue Thunder 403 (029016234) 230/400 V, 50 Hz	60–400 A	400 A at 36 VDC, 35% duty cycle	IP22S	73	–	42	–	28	23	66–73 VDC		115 kg (254 lb.)
Blue Thunder 443 (029016236) 230/400 V, 50 Hz **(029016237)** 380/520 V, 50 Hz	60–420 A	420 A at 37 VDC, 45% duty cycle	IP22S	80	47	47	34	32	26	70–78 VDC	H: 650 mm (25.5 in.) W: 410 mm (16.125 in.) D: 1,150 mm (45.25 in.)	175 kg (386 lb.)

Gold Star® Series

See literature DC/8.1

Rugged, reliable performance and superior arc characteristics.

Gold Star 602 shown.

Built-in arc control lets you get in tight without sticking the electrode.

Hot Start™ makes it easy to start difficult stick electrodes such as E-6010 and E-7018.

Enclosed circuit boards provide additional protection from contaminants resulting in longer service life.

Thermal overload protection light indicates power shutdown. Helps prevent machine damage if the duty cycle is exceeded or airflow is blocked.

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

115 V duplex receptacle provides 15 amps of auxiliary power.

Power efficient for exceptional value and return on your investment.

Remote control capability.

Optional digital volt and amp meters. Easy to install, front-panel mount. 300359 for models after KG283595 and 300321 for models after MF100119C.

Heavy industrial ● CC DC 3 Phase

Processes

- Stick (SMAW) ▪ TIG (GTAW)
- Air carbon arc cutting and gouging (CAC-A) (carbons – 402: 6 mm, 602: 8 mm 852: 10 mm)
- Flux-cored (FCAW)
- MIG spray transfer (GMAW) with voltage-sensing feeder

Most popular accessories

- Standard Running Gear 042886 (pg 63)
- Standard Cylinder Rack 042887 (pg 63)
- Extension Cables (pg 66)
  242208025 7.6 m (25 ft.)
  242208050 15 m (50 ft.)
  242208080 24.4 m (80 ft.)

WIRELESS REMOTE COMPATIBLE

Wireless Foot Control 300429 (pg 66)

Model/Stock Number	Welding Amperage Range	Rated Output	IP Rating	Amps Input at Rated Output, 60 Hz 380 V	400 V	440 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions *(Includes lift eye and strain relief)*	Net Weight
Gold Star 402 (907362) 380/400/440 V, 50 Hz	15–395 A	300 A at 32 VDC, 60% duty cycle	IP21	35	33	31	24.5	13.8	72 VDC	H: 762 mm (30 in.) W: 585 mm (23 in.) 402 D: 775 mm (30.5 in.) 602/852 D: 966 mm (38 in.)	160 kg (352 lb.)
Gold Star 602 (907363) 380/400/440 V, 50 Hz	20–590 A	450 A at 38 VDC, 60% duty cycle	IP21	54	51	47	35.5	23.3	72 VDC		183 kg (404 lb.)
Gold Star 852 (907364) 380/400/440 V, 50 Hz	50–850 A	650 A at 44 VDC, 60% duty cycle	IP21	75	71	65	49.4	36	72 VDC		229 kg (505 lb.)

Product Guide	Page	TIG	Pulsed TIG	Stick	CAC-A	Max. Electrode Diameter E6010/11	E6013	E7018	E7024	CAC-A	Material Thickness Range (TIG)	Welding Amperage Range	Pulse Capability	Net Weight	Generator Power Requirement	
STH 160/160 L	43	●	◉	●		4 mm	4 mm	3.2 mm	3.2 mm	–	0.5–4.0 mm	4–160 A	0.5–300 PPS	6.0 kg (13.2 lb.)	7 kW	DC (Steel)
Maxstar® 210 DX	44	●	◉	●		5 mm	5 mm	4 mm	4 mm	–	0.05–6.4 mm	1–210 A	0.1–500 PPS	17.2 kg (38 lb.)	9 kW	
Maxstar® 280 DX	44	●	●	●	●	5 mm	5 mm	5 mm	5 mm	5 mm	0.1–9.5 mm	1–280 A	0.1–500 PPS	21.3 kg (47 lb.)	11 kW	
Maxstar® 400	45	●	●	●	●	8 mm	8 mm	6 mm	6 mm	6 mm	0.3–15.9 mm	3–400 A	0.1–5,000 PPS	61 kg (134 lb.)	12 kW	
Maxstar® 800	45	●	●	●	●	8 mm	8 mm	8 mm	8 mm	10 mm	0.5–25.4 mm	5–800 A	0.1–5,000 PPS	90 kg (198 lb.)	32 kW	
Dynasty® 210 DX	44	●	●	●		5 mm	5 mm	4 mm	4 mm	–	0.3–6.4 mm (alum.) 0.05–6.4 mm (steel)	2–210 A (AC) 1–210 A (DC)	0.1–500 PPS	21.3 kg (47 lb.)	9 kW	AC/DC (Alum./Steel)
Dynasty® 280 DX	44	●	●	●	●	5.5 mm	5 mm	5 mm	5 mm	5 mm	0.3–9.5 mm (alum.) 0.1–9.5 mm (steel)	2–280 A (AC) 1–280 A (DC)	0.1–500 PPS	23.6 kg (52 lb.)	12.5 kW	
Dynasty® 400	45	●	●	●	●	8 mm	8 mm	6 mm	6 mm	6 mm	0.4–15.9 mm (alum.) 0.3–15.9 mm (steel)	3–400 A	0.1–500 PPS (AC) 0.1–5,000 PPS (DC)	61 kg (134 lb.)	13 kW	
Dynasty® 800	45	●	●	●	●	8 mm	8 mm	8 mm	8 mm	10 mm	0.5–25.4 mm (aluminium/steel)	5–800 A	0.1–500 PPS (AC) 0.1–5,000 PPS (DC)	90 kg (198 lb.)	35 kW	

Product Key Capability: ● All models ◉ Some models New! or Improved! products appear in blue type.

STH 160 and STH 160 L

See literature DC/27.25 UK

Inverter-based, DC power source with simple-to-use interface providing only the necessary controls in a compact machine.

WELD READY

STH 160 shown.

Portable with adjustable shoulder strap. Easy to transport at 6.0 kg (13.2 lb.).

Dual fan technology. An optimised power source cooling system which enables the machine to operate at a lower temperature, thus increasing its performance and life cycle.

Thermal overload protection with indicator light helps prevent machine damage if the duty cycle is exceeded or airflow is blocked.

VRD function is a simple design that reduces the open-circuit voltage to 20 volts when the welding power source is not in use.

Digital meter with presetting shows preset current before welding and actual value during welding.

Full-function remote control connector for precise amperage control for critical welds on thin materials.

Built-in pulsing capabilities allow the operator to select from four fixed pulse frequencies to satisfy the application.

Lift-Arc™ start provides TIG arc starting without the use of high frequency or the risk of tungsten contamination.

HF start for non-contact arc starting that eliminates tungsten or material contamination.

Adjustable Hot Start™ for stick arc starts. Adjust the optimal start current for the application. The current automatically increases the output amperage at the start of a weld.

Adjustable Arc Force™ prevents sticking. Adjust the optimal arc force value. Adjustable arc force supports positional welding by increasing the output amperage.

Low stick output process (STH 160 L only) allows limiting of the maximum input line current.

Light industrial ● CC DC 1 Phase

Processes
- Stick (SMAW) ▪ TIG (GTAW)
- Pulsed TIG (GTAW-P)

Comes complete with
- 3 m (10 ft.) power cord

Weld Ready package includes above plus
- 4 m (13 ft.) WP-17S4NXXF TIG torch
- 3 m (10 ft.) electrode cable with holder
- 3 m (10 ft.) work cable with clamp

Most popular accessories
- RCCS-6M Fingertip Control (pg 65)
  195184 4 m (13.25 ft.)
  195503 8 m (26.5 ft.)
- RFCS-6M Foot Control (pg 65)
  195183 4 m (13.25 ft.)
  195504 8 m (26.5 ft.)
- RMS-6M On/Off Control
  195269 (pg 65)
- Stick Welding Cable Kit 058066079
- Dinse-style Flow Thru Adapter
  195234
- 6-pin Remote Plug 217796

**VRD voltage.*

DC

Model	Stock Number	Welding Mode	Welding Amperage Range	Rated Output	IP Rating	Amps Input at Rated Output, 50/60 Hz	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
STH 160	**(059016013)** 230 V, 50/60 Hz **(029083128)** Weld Ready package	Stick	4–150 A (160) 4–100 A (160 L)	100 A at 24.0 VDC, 100% duty cycle	IP23	20	4.5	2.8	70 V (20 V*)	H: 245 mm (9.65 in.) W: 145 mm (5.75 in.) D: 380 mm (15 in.)	6.0 kg (13.2 lb.)
				150 A at 26.0 VDC, 25% duty cycle		30	7.0	4.8			
STH 160 L	**(059016021)** 230 V, 50/60 Hz **(029083113)** Weld Ready package	TIG	4–160 A	100 A at 14.0 VDC, 100% duty cycle		13	3.0	2.0			
				160 A at 16.4 VDC, 20% duty cycle		22	4.8	3.5			

Maxstar® and Dynasty® 210 DX/280 DX

NEW! ***Maxstar/Dynasty 210 DX models***

See literature DCM/37.0 UK (Maxstar 210 DX) and DCM/35.0 UK (Maxstar 280 DX), and literature ADM/11.0 UK (Dynasty 210 DX) and ADM/9.0 UK (Dynasty 280 DX)

Dynasty 280 DX

Maxstar 210 DX

WELD READY

210 DX TIG Welding Capability

Max. 6.4 mm (1/4 in.)	Max. 6.4 mm (1/4 in.)
Steel	Aluminium (Dynasty only)
Min. 0.05 mm (0.002 in.)	Min. 0.3 mm (0.012 in.)

280 DX TIG Welding Capability

Max. 9.5 mm (3/8 in.)	Max. 9.5 mm (3/8 in.)
Steel	Aluminium (Dynasty only)
Min. 0.1 mm (0.004 in.)	Min. 0.3 mm (0.012 in.)

Industrial

CC AC/DC 3 Phase 1 Phase *Maxstar is DC only*

Processes

- TIG (GTAW) • Stick (SMAW)
- Pulsed TIG (GTAW-P)

Power source comes with

- 2.4 m (8 ft.) power cord (no plug)
- Two 50 mm Dinse-style connectors
- Quick reference guide (Dynasty models only)

Weld Ready packages include above plus

- 8 m (26.2 ft.) WP-280S8AAFD TIG torch
- 5 m (16.4 ft.) work cable with clamp
- Small Runner™ cart
- Coolmate™ 1.3 with coolant

Most popular accessories

- Small Runner™ Cart 301318 (pg 63)
- MH Trolley 018035026 (pg 63)
- Coolmate 1.3 300972 (pg 64)
- Coolant 043810 (pg 64)
- Remote Controls (pg 65)
  043688 RCCS-14 fingertip control
  194744 RFCS-14 HD foot control

WIRELESS REMOTE COMPATIBLE Wireless Foot Control 300429 (pg 66)

AUTO-LINE Power Management Technology Allows for any input voltage hook-up (210 models: 120–480 V, 280 models: 230–575 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

Blue Lightning™ high-frequency (HF) arc starter for non-contact arc initiation. Provides more consistent arc starts and greater reliability compared to traditional HF arc starters.

Lift-Arc™ provides AC or DC arc initiation without the use of high frequency.

Hot Start™ adaptive control provides positive arc starts without sticking.

Auto-postflow adjusts length of postflow time based on amperage setting, shielding your tungsten and eliminating the need to set postflow time.

Pro-Set™ eliminates the guesswork when setting weld parameters. Use Pro-Set when you want the speed, convenience and confidence of preset controls. Select the feature and adjust until Pro-Set appears on display.

Sleep timer conserves electricity. This programmable feature will power down the machine if it sits idle for a specified time.

Update and expand. Front panel memory card data port provides the ability to easily update software and expand product features.

Cooler power supply (CPS) is an integrated 120-volt dedicated-use receptacle for the Coolmate™ 1.3. *Not available on Maxstar 210 DX.*

Cooler-On-Demand™ feature operates the auxiliary cooling system only when needed, reducing noise, energy use, and airborne contaminants pulled through the cooler. *Not available on Maxstar 210 DX.*

Dynasty welders add AC TIG capabilities and the following AC features

Waveforms for advanced squarewave, soft squarewave, sine wave and triangular wave.

Balance control provides adjustable oxide removal, essential for creating the highest quality aluminium welds.

Frequency controls the width of the arc cone and can improve directional control of the arc.

**Refer to owner's manual for 208-volt output ratings and duty cycle. **Sense voltage for low OCV stick and Lift-Arc™ TIG.*

	Model/ Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output at 60% Duty Cycle	IP Rating	Amps Input at Rated Load Output, 50/60 Hz 120 V	230 V	240 V	400 V	460 V	480 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
DC Maxstar	**Maxstar 210 DX (907684001)**	TIG	3-phase	1–210 A	210 A at 18.4 V	IP23	–	–	12	7	–	6	5.2	4.9	80 VDC (11 VDC**)	H: 346 mm (13.6 in.) W: 219 mm (8.6 in.) 210 D: 495 mm (19.5 in.) 280 D: 569 mm (22.5 in.)	17.2 kg (38 lb.)
			1-phase	1–210 A	210 A at 18.4 V	IP23	–	–	20	12	–	10	4.9	4.9			
			1-phase (120 V)	1–150 A	125 A at 15 V	IP23	22	–	–	–	–	–	2.6	2.6			
		Stick	3-phase	5–210 A	160 A at 26.4 V	IP23	–	–	13	8	–	6	5.5	5.2			
			1-phase	5–210 A	160 A at 26.4 V	IP23	–	–	22	13	–	11	5.3	5.3			
			1-phase (120 V)	5–100 A	90 A at 23.6 V	IP23	23	–	–	–	–	–	2.8	2.8			
	Maxstar 280 DX (907539002) (029083131) Weld Ready pkg	TIG	3-phase	1–280 A	235 A at 19.4 V	IP23	–	15	–	9	7	–	6.2	6.0	60 VDC (11 VDC**)		22.7 kg (50 lb.)
			1-phase	1–280 A	235 A at 19.4 V*	IP23	–	26	–	15	13	–	6.0	6.0			
		Stick	3-phase	5–280 A	200 A at 28 V	IP23	–	18	–	10	9	–	7.2	7.0			
			1-phase	5–280 A	180 A at 27.2 V*	IP23	–	27	–	15	13	–	6.2	6.2			
AC/DC Dynasty	**Dynasty 210 DX (907686003) (029083130)** Weld Ready pkg	TIG	3-phase	1–210 A	210 A at 18.4 V	IP23	–	–	12	7	–	6	5.2	4.9	80 VDC (11 VDC**)	H: 346 mm (13.6 in.) W: 219 mm (8.6 in.) D: 569 mm (22.5 in)	22.7 kg (50 lb.)
			1-phase	1–210 A	210 A at 18.4 V	IP23	–	–	20	12	–	10	4.9	4.9			
			1-phase (120 V)	1–150 A	125 A at 15 V	IP23	22	–	–	–	–	–	2.6	2.6			
		Stick	3-phase	5–210 A	160 A at 26.4 V	IP23	–	–	13	8	–	6	5.5	5.2			
			1-phase	5–210 A	160 A at 26.4 V	IP23	–	–	22	13	–	11	5.3	5.3			
			1-phase (120 V)	5–100 A	90 A at 23.6 V	IP23	23	–	–	–	–	–	2.8	2.8			
	Dynasty 280 DX (907514002) (029083132) Weld Ready pkg	TIG	3-phase	1–280 A (DC) 2–280 A (AC)	235 A at 19.4 V	IP23	–	17	–	10	9	–	7.0	6.7	60 VDC (11 VDC**)		25 kg (55 lb.)
			1-phase		235 A at 19.4 V*	IP23	–	30	–	17	15	–	6.9	6.8			
		Stick	3-phase	5–280 A	200 A at 28 V	IP23	–	20	–	11	10	–	8.2	7.9			
			1-phase		180 A at 27.2 V*	IP23	–	31	–	17	15	–	7.1	7.0			

Maxstar® and Dynasty® 400 and 800

See literature DCM/24.8 UK (Maxstar) and ADM/50.0 UK (Dynasty)

Dynasty 400 *Dynasty 800*

TIG Welding Capability

800 Max. 25.4 mm (1 in.)	800 Max. 25.4 mm (1 in.)
400 Max. 15.9 mm (5/8 in.) Steel	400 Max. 15.9 mm (5/8 in.) Aluminium (Dynasty only)
400 Min. 0.3 mm (0.012 in.)	400 Min. 0.4 mm (0.015 in.)
800 Min. 0.5 mm (0.020 in.)	800 Min. 0.5 mm (0.020 in.)

WELD READY

AUTO-LINE Power Management Technology

Allows for any input voltage hook-up (380–575 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

Blue Lightning™ high-frequency (HF) arc starter for non-contact arc initiation. Provides more consistent arc starts and greater reliability compared to traditional HF arc starters.

Lift-Arc™ provides AC or DC arc initiation without the use of high frequency.

Hot Start™ adaptive control provides positive arc starts without sticking.

Auto-postflow adjusts length of postflow time based on amperage setting, shielding your tungsten and eliminating the need to set postflow time.

Cooler power supply (CPS) is an integrated 120-volt dedicated-use receptacle for the Coolmate™ 3.5.

Cooler-On-Demand™ feature operates the auxiliary cooling system only when needed, reducing noise, energy use, and airborne contaminants pulled through the cooler.

Program memory features nine independent program memories that maintain/save your parameters.

High-speed DC TIG pulse controls capable of 5,000 pulses per second.

Dynasty welders add AC TIG capabilities and the following AC features

Waveforms for advanced squarewave, soft squarewave, sine wave and triangular wave.

Balance control provides adjustable oxide removal, essential for creating the highest quality aluminium welds.

Frequency controls the width of the arc cone and can improve directional control of the arc.

AC amplitude/amperage allows EP and EN amperages to be set independently to precisely control heat input to the work and electrode.

**Sense voltage for low OCV stick and Lift-Arc™ TIG.*

Heavy industrial

CC AC/DC 3 Phase *Maxstar is DC only*

Processes

- TIG (GTAW) ▪ Stick (SMAW)
- Pulsed TIG (GTAW-P)
- Air carbon arc cutting and gouging (CAC-A) (carbons – 400: 6 mm, 800: 10 mm)

400 models come with

- 2.4 m (8 ft.) power cord (no plug)
- Two 50 mm Dinse-style connectors
- Setup video and reference guide

Weld Ready packages for 400 models include above plus

- 8 m (26.2 ft.) WP-280S8AAFD (Maxstar 400) **OR** WP-18S8AAFD (Dynasty 400) TIG torch
- 5 m (16.4 ft.) work cable with clamp
- Universal trolley
- Coolmate™ 3.5 with coolant

800 models come with

- Thread-lock torch connector
- Two thread-lock weld cable connectors
- Setup video and reference guide

Note: Power cord is NOT included with 800 models.

Most popular accessories

- Universal Trolley 018035028 (pg 63)
- Coolmate™ 3.5 300245 (pg 64)
- Coolant 043810 (pg 64)
- Remote Controls (pg 65)
  043688 RCCS-14 fingertip control
  194744 RFCS-14 HD foot control

WIRELESS REMOTE COMPATIBLE

Wireless Foot Control 300429 (pg 66)

	Model/Stock Number	Welding Process	Welding Amp Range	IP Rating	Rated Output	Amps Input at Rated Load Output, 50/60 Hz 380 V	400 V	460 V	575 V	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
DC Maxstar	**Maxstar 400 (907716002) (029083133)** Weld Ready pkg	TIG/stick	3-400 A	IP23	250 A at 30 V, 100% duty cycle	14	13	12	9	9.4	9.1	75 VDC (10–15 VDC*)	H: 629 mm (24.75 in.) W: 349 mm (13.75 in.) D: 559 mm (22 in.)	61 kg (134 lb.)
					300 A at 32 V, 60% duty cycle	18	17	15	12	12	11.6			
					400 A at 36 V, 20% duty cycle	27	25	22	17	18.1	17.3			
	Maxstar 800 (907718002)	TIG/stick	5-800 A	IP23	500 A at 40 V, 100% duty cycle	36	34	30	24	24.4	23.3	75 VDC (10–15 VDC*)	H: 876 mm (34.5 in.) W: 349 mm (13.75 in.) D: 559 mm (22 in.)	90 kg (198 lb.)
					600 A at 44 V, 60% duty cycle	48	45	39	31	32.4	31.1			
					800 A at 44 V, 20% duty cycle	65	61	53	42	41.8	40.1			
AC/DC Dynasty	**Dynasty 400 (907717002) (029083134)** Weld Ready pkg	TIG/stick	3-400 A	IP23	250 A at 30 V, 100% duty cycle	15	14	13	10	10.3	9.8	75 VDC (10–15 VDC*)	H: 629 mm (24.75 in.) W: 349 mm (13.75 in.) D: 559 mm (22 in.)	61 kg (134 lb.)
					300 A at 32 V, 60% duty cycle	19	19	16	13	13.1	12.5			
					400 A at 36 V, 20% duty cycle	29	28	24	19	19.4	18.6			
	Dynasty 800 (907719002)	TIG/stick	5-800 A	IP23	500 A at 40 V, 100% duty cycle	39	37	32	25	26.3	25.2	75 VDC (10–15 VDC*)	H: 876 mm (34.5 in.) W: 349 mm (13.75 in.) D: 559 mm (22 in.)	90 kg (198 lb.)
					600 A at 44 V, 60% duty cycle	51	48	42	33	34.7	33.2			
					800 A at 44 V, 20% duty cycle	69	65	57	45	46.9	45.0			

Weldcraft™ Series

TIG Torches

Synonymous with versatility and performance, Weldcraft TIG torches can handle the most intricate to the most demanding TIG welding challenges. From 125-amp hand-held MicroTIG® torches to 900-amp machine-held water-cooled models, there's a Weldcraft torch for nearly every TIG application.

Contact your local sales office to configure your specific torch.

Setting the standard for performance

Super Cool™ technology provides additional surface area to increase cooling efficiency and capacity.

Comfort and control are increased with the lightweight well-balanced body and handle designs, helping to reduce fatigue.

Robust performance through heavy copper construction that delivers maximum welding capacity for rugged fieldwork.

Simplify torch package installation with ColorSmart™ hose and cable sets that differentiate input water, water/power cable, and gas hoses.

Improve gas coverage and cooling capacity through the use of a gas lens.

Extreme reliability

Reduce downtime due to overheating through consistent water-cooled performance.

Extend parts life using the durable copper components, maximizing current capacity.

Reduce leakage of gas and water through secure mechanical fittings.

Works in cold weather with the Tri-flex™ hose and cable assembly that remains flexible to ease handling and extends cable life.

Product Naming

Former Product Name	Current Product Name Breakdown			Current Product Name
	Product Line Descriptor	Air/Water and Amperage	Features Set Label	
WP-9FV	Weldcraft	A-125	Flex Valve	Weldcraft A-125 Flex Valve
WP-17F	Weldcraft	A-150	Flex	Weldcraft A-150 Flex
WP-225	Weldcraft	W-225	Modular	Weldcraft W-225 Modular
CS410	Weldcraft	W-410	–	Weldcraft W-410

Example
Weldcraft A-125 Flex Valve

- "Flex Valve" signifies additional feature
- "125" signifies an amperage of 125
- "A" signifies air-cooled

Weldcraft Air-Cooled Torches

Recommended for welding amperages under 200 amps. Air-cooled torches are great for portable applications as they do not require a water-circulator. For power sources without a built-in gas solenoid, the air-cooled two-piece torch is the solution of choice.

Weldcraft Water-Cooled Torches

Recommended for welding amperages above 200 amps. Offering a small torch design, water-cooled torches allow for precise control due to the efficient around-the-head cooling. This same cooling allows for extended torch life and higher amperage capacities.

Weldcraft Specialty Torches

Specialty torches are designed to fit best in unique applications. For those hard-to-reach areas, the **Micro Series** torches provide access and superior maneuverability. The **Modular Series** torches allow for a quick change of many different torch styles for any joint configuration. If high amperage is your need, the **W-500** torch is the answer.

Weldcraft Automation Torches

Ideal for mechanized applications, the Weldcraft Automation Series offers air-cooled and water-cooled torches designed for both high and low applications. See literature AY/37.0 for more information.

Process ▪ TIG (GTAW)

Suggested power sources

- MPi 220P (pg 30)
  (A-150)
- STH 160/160 L (pg 43)
  (A-150)
- Dynasty®/Maxstar® 210 DX (pg 44)
  (A-150, W-250)
- Dynasty®/Maxstar® 280 DX (pg 44)
  (A-200, W-280)
- Dynasty®/Maxstar® 400 (pg 45)
  (W-375)
- Dynasty®/Maxstar® 800 (pg 45)
  (W-400)

Fingertip controls

- RCC East/West Rotary (pg 65)
  151086 14-pin
- RCCS North/South Rotary (pg 65)
  195184 6-pin, 4 m (13.25 ft.) cord
  195503 6-pin, 8 m (25.5 ft.) cord
  043688 14-pin
- RMS Momentary Push Button (pg 65)
  195269 6-pin
  187208 14-pin
- RMLS Momentary/Maintained (pg 65)
  129337 14-pin
- RPBS Two-Button Start/Stop
  300666 14-pin

Weldcraft™ Tungsten

Tungsten for the most demanding TIG welding applications!

Available in four types and industry-standard diameters, our line of Weldcraft tungsten electrodes has undergone rigorous testing to ensure the highest quality and durability. Color-coded packages include ten 175 mm (7 in.) tungsten electrodes.

Type	Stock Number	Diameter mm (in.)
2% Ceriated (EWCe-2)		
Performs well in DC welding and arc starting at low-current settings, and offers excellent performance in AC processes.	**WC040X7**	1.0 (0.040)
	WC116X7	1.6 (1/16)
	WC332X7	2.4 (3/32)
	WC018X7	3.2 (1/8)
	WC532X7	4.0 (5/32)
2% Lanthanated (EWLa-2)		
Provides excellent arc starting, arc stability and re-ignition, and less tip erosion in AC or DC welding. Can substitute for 2% Thoriated.	**WL2040X7**	1.0 (0.040)
	WL2116X7	1.6 (1/16)
	WL2332X7	2.4 (3/32)
	WL2018X7	3.2 (1/8)
	WL2532X7	4.0 (5/32)

Type	Stock Number	Diameter mm (in.)
Pure (EWP)		
Forms a clean, balled end when heated and provides good arc stability for AC welding with a balanced or unbalanced squarewave or sine wave.	–	1.0 (0.040)
	WP116X7	1.6 (1/16)
	WP332X7	2.4 (3/32)
	WP018X7	3.2 (1/8)
	–	4.0 (5/32)
Rare Earth (EWG)		
Combines the best of all alloying elements, and provides excellent arc stability in AC or DC welding.	–	1.0 (0.040)
	WG116X7	1.6 (1/16)
	WG332X7	2.4 (3/32)
	WG018X7	3.2 (1/8)
	–	4.0 (5/32)

Note: Refer to manufacturer SDS sheets for proper preparation and safety. Use proper ventilation/capture during preparation. Refer to manufacturer warning regarding ventilation.

Weldcraft™ A-80 Series (Air-cooled)

Formerly known as WP-24 Series

A-80 (WP-24)

A-80 Flex (WP-24F)

A-80 Flex Valve (WP-24FV)

Innovative air-cooled torches designed for intricate welding applications, especially in limited-access areas and on thin-gauge materials.

Featherweight torch body is well balanced to improve operator comfort and control.

Minimize discontinuities. Insulating gasket on torch body minimizes gas leakage and minimizes weld discontinuities.

Combining the flexible neck and gas valve is ideal for optimal positioning and gas flow control (A-80 Flex Valve).

Model	Specs	
A-80 **A-80 Flex** **A-80 Flex Valve**	**Rated Output** DC: 80 A at 60% duty cycle AC: 50 A at 60% duty cycle	**Electrode Range** 0.5–2.4 mm (.020–3/32 in.)

Applications

- Shipbuilding • Motorsports
- Aerospace • Restricted areas

Most popular consumables

- Collets
  - 53N16 1.0 mm (.040 in.)
  - 53N14 1.6 mm (1/16 in.)
  - 24C332 2.4 mm (3/32 in.)
- Collet Bodies
  - 53N18 1.0 mm (.040 in.)
  - 53N19 1.6 mm (1/16 in.)
  - 24CB332 2.4 mm (3/32 in.)
- Alumina Nozzles
  - A53N24 #4, 1/4 in.
  - A53N25 #5, 5/16 in.
  - A53N27 #6, 3/8 in.

Most popular accessories

- Collet Body Wrench 53N20

Weldcraft™ A-125 Series (Air-cooled)

Formerly known as WP-9 Series

A-125 Flex Valve (WP-9FV)

A-125 (WP-9)

A-125 Pencil (WP-9P)

Air-cooled torches designed for optimal control while welding thin-gauge materials, especially in hard-to-reach places.

The lightweight body reduces fatigue and downtime, and increases operator comfort.

The pencil-style model without a back cap allows for superior access to confined areas (A-125 Pencil).

Combine the flexible neck and gas valve for welding limited-access joints using power sources without gas solenoids (A-125 Flex Valve).

For maximum versatility on multiple welding applications, without adding expenses, use the A-125 Flex Redhead and A-125 Flex Valve Redhead.

Model	Specs	
A-125 **A-125 Valve** **A-125 Flex** **A-125 Flex Valve** **A-125 Pencil**	**Rated Output** DC: 125 A at 60% duty cycle AC: 100 A at 60% duty cycle	**Electrode Range** 0.5–3.2 mm (.020–1/8 in.)

Applications

- Maintenance and repair
- Home/hobby • Motorsports
- Metal art • Fabrication

Most popular consumables

- Collets
  - 13N22 1.6 mm (1/16 in.)
  - 13N23 2.4 mm (3/32 in.)
  - 13N24 3.2 mm (1/8 in.)
- Collet Bodies
  - 13N27 1.6 mm (1/16 in.)
  - 13N28 2.4 mm (3/32 in.)
  - 13N29 3.2 mm (1/8 in.)
- Alumina Nozzles
  - 13N10 #6, 3/8 in.
  - 13N11 #7, 7/16 in.
  - 13N12 #8, 1/2 in.

Most popular accessories

- Accessory Kit AK-1C
  Includes one long back cap, one of each size (#4, #5, #6) alumina nozzle, and one of each size (1.0, 1.6 mm) of the following: collet, collet body, and 175 mm 2% ceriated tungsten electrode.

Weldcraft™ A-150 Series (Air-cooled)

Formerly known as WP-17 Series

A-150 (WP-17)

A-150 Flex (WP-17F)

A-150 Flex Valve Redhead (WP-R17FV)

A-150 Valve PSH (WP-17V-Positive Stop Handle)

Versatile and innovative air-cooled torches designed for maximum comfort in a variety of applications.

Diamond Grip™ head design (A-150 and A-150 Valve) has ergonomic contact points for thumb and fingers. Provides a more comfortable grip and reduces operator fatigue.

Improve control and comfort with the A-150 Flex and the flexible neck that allows access into hard-to-reach areas.

Maximum versatility. Utilize the Redhead™ Series torches in a variety of welding applications without adding expenses.

Model	Specs
A-150 **A-150 Valve** **A-150 Flex** **A-150 Flex Valve** **A-150 Flex Valve Redhead** **A-150 PSH*** **A-150 Valve PSH***	**Rated Output** DC: 150 A at 60% duty cycle AC: 115 A at 60% duty cycle **Electrode Range** 0.5–3.2 mm (.020–1/8 in.)

**PSH = positive stop handle (threaded handle).*

Applications

- Fabrication ▪ Maintenance and repair
- Aerospace ▪ Food/beverage industry
- Metal art ▪ Petro/chemical
- Shipbuilding

Most popular consumables

- Collets
  - 10N23 1.6 mm (1/16 in.)
  - 10N24 2.4 mm (3/32 in.)
  - 10N25 3.2 mm (1/8 in.)
- Collet Bodies
  - 10N31 1.6 mm (1/16 in.)
  - 10N32 2.4 mm (3/32 in.)
  - 10N28 3.2 mm (1/8 in.)
- Alumina Nozzles
  - 10N48 #6, 3/8 in.
  - 10N47 #7, 7/16 in.
  - 10N46 #8, 1/2 in.

Most popular accessories

- **Accessory Kit** AK-150MFC Allows A-150 torch customization. Converts into 28 different torch styles while using existing cable. Includes collets, collet bodies, nozzles, torch heads, handle and more.

Weldcraft™ A-200 Series (Air-cooled)

Formerly known as WP-26 Series

A-200 (WP-26)

A-200 Flex Valve (WP-26FV)

Dependable, top-performing air-cooled torches designed for heavy-duty welding applications.

Eliminate the expense of a water-cooled system. The air-cooled capability pairs reliability with cost-effectiveness for all field applications.

Combining the flexible neck and gas valve advances capabilities with greater comfort and control (A-200 Flex Valve).

Maximum versatility. Utilize the Redhead Series torches in a variety of welding applications without adding expenses.

Model	Specs
A-200 **A-200 Valve** **A-200 Flex** **A-200 Flex Valve** **A-200 Flex Redhead** **A-200 Flex Valve Redhead**	**Rated Output** DC: 200 A at 60% duty cycle AC: 150 A at 60% duty cycle **Electrode Range** 0.5–4.0 mm (.020–5/32 in.)

Applications

- Fabrication ▪ Maintenance and repair
- Manufacturing ▪ Shipbuilding
- Vocational

Most popular consumables

- Collets
  - 10N23 1.6 mm (1/16 in.)
  - 10N24 2.4 mm (3/32 in.)
  - 10N25 3.2 mm (1/8 in.)
- Collet Bodies
  - 10N31 1.6 mm (1/16 in.)
  - 10N32 2.4 mm (3/32 in.)
  - 10N28 3.2 mm (1/8 in.)
- Alumina Nozzles
  - 10N47 #7, 7/16 in.
  - 10N46 #8, 1/2 in.
  - 10N45 #10, 5/8 in.

Most popular accessories

- Accessory Kit AK-3C

Weldcraft™ W-180 (Water-cooled)

Formerly known as WP-24W

One of the smallest water-cooled TIG torches on the market and designed for welding in confined areas that require high amperage.

Use high amperage in confined areas for efficient welding.

Superior maneuverability in limited-access locations with the compact torch body.

Excellent weld capacity without increasing torch size, due to the efficient cooling system.

Model	Specs	
W-180	**Rated Output** DC: 180 A at 100% duty cycle AC: 115 A at 100% duty cycle	**Electrode Range** 0.5–2.4 mm (.020–3/32 in.)

Applications

- Aerospace • Manufacturing
- Food/beverage industry • Shipbuilding
- Maintenance and repair
- Petro/chemical • Precision fabrication

Most popular consumables

- Collets
  - 53N16 1.0 mm (.040 in.)
  - 53N14 1.6 mm (1/16 in.)
  - 24C332 2.4 mm (3/32 in.)
- Collet Bodies
  - 53N18 1.0 mm (.040 in.)
  - 53N19 1.6 mm (1/16 in.)
  - 24CB332 2.4 mm (3/32 in.)
- Alumina Nozzles
  - A53N24 #4, 1/4 in.
  - A53N25 #5, 5/16 in.
  - A53N27 #6, 3/8 in.

Weldcraft™ W-200 Pencil Flex (Water-cooled)

Formerly known as WP-25

Versatile water-cooled torch optimized for use in limited-access welding situations.

Pencil-style, flexible neck designed for both high-amperage applications and confined area access.

Decreased downtime and longer trouble-free service due to overheating with the innovative cooling design.

Comfort and control are increased with the lightweight, well-balanced body design.

Model	Specs	
W-200 Pencil Flex	**Rated Output** DC: 200 A at 100% duty cycle AC: 140 A at 100% duty cycle	**Electrode Range** 0.5–3.2 mm (.020–1/8 in.)

Applications

- Aerospace • Manufacturing
- Food/beverage industry • Shipbuilding
- Maintenance and repair
- Petro/chemical • Precision fabrication

Most popular consumables

- Insulator (non-gas lens and gas lens) (required) 598882
- Collets (non-gas lens and gas lens)
  - 13N20 0.5 mm (.020 in.)
  - 13N21 1.0 mm (.040 in.)
  - 13N22 1.6 mm (1/16 in.)
  - 13N23 2.4 mm (3/32 in.)
  - 13N24 3.2 mm (1/8 in.)
- Collet Bodies
  - 13N25 0.5 mm (.020 in.)
  - 13N26 1.0 mm (.040 in.)
  - 13N27 1.6 mm (1/16 in.)
  - 13N28 2.4 mm (3/32 in.)
  - 13N29 3.2 mm (1/8 in.)
- Gas Lens
  - 45V41 0.5 mm (.020 in.)
  - 45V42 1.0 mm (.040 in.)
  - 45V43 1.6 mm (1/16 in.)
  - 45V44 2.4 mm (3/32 in.)
  - 45V45 3.2 mm (1/8 in.)
- Alumina Nozzles
  - 13N08 #4, 1/4 in.
  - 13N09 #5, 5/16 in.
  - 13N10 #6, 3/8 in.
  - 13N11 #7, 7/16 in.
  - 13N12 #8, 1/2 in.
  - 13N13 #10, 5/8 in.
  - 53N58 #4, 1/4 in. (gas lens)
  - 53N59 #5, 5/16 in. (gas lens)
  - 53N60 #6, 3/8 in. (gas lens)
  - 53N61 #7, 7/16 in. (gas lens)
  - 53N61S #8, 1/2 in. (gas lens)

Weldcraft™ W-225 Pencil (Water-cooled)

Formerly known as WP-20P

Water-cooled torch designed for long-term, trouble-free service with consistent welding performance in general applications.

Extend torch life and minimize downtime due to overheating with the efficient around-the-head cooling design.

Pencil-style head allows for greater access into hard-to-reach joints.

Comfort and control are increased with the lightweight, compact body design.

Model	Specs	
W-225 Pencil	**Rated Output** DC: 225 A at 100% duty cycle AC: 160 A at 100% duty cycle	**Electrode Range** 0.5–3.2 mm (.020–1/8 in.)

Weldcraft™ W-250 Series (Water-cooled)

Formerly known as WP-20 Series

W-250 (WP-20)

W-250 Valve (WP-20V)

Water-cooled torch provides consistent performance and long-term trouble-free service with around-the-head water cooling.

Extend torch life and minimize downtime due to overheating with the efficient around-the-head cooling design.

Reduce leakage of gas and water through secure mechanical fittings and connections.

Easy hose replacement with the innovative mechanical fittings design (W-250 Valve).

Model	Specs
W-250 **W-250 Valve**	**Rated Output** DC: 250 A at 100% duty cycle AC: 180 A at 100% duty cycle **Electrode Range** 0.5–3.2 mm (.020–1/8 in.)

Weldcraft™ W-280 Super Cool™ (Water-cooled)

Formerly known as WP-280

Reliable water-cooled torch designed for demanding, high-amperage applications.

Super Cool technology provides additional surface area to increase cooling efficiency and capacity.

Reduce downtime due to overheating through consistent water-cooled performance.

Reduce leakage of gas and water through secure mechanical fittings and connections.

Model	Specs	
W-280 Super Cool	**Rated Output** DC: 280 A at 100% duty cycle AC: 195 A at 100% duty cycle	**Electrode Range** 0.5–3.2 mm (.020–1/8 in.)

Weldcraft™ W-375 Super Cool™ (Water-cooled)

Reliable water-cooled torch designed for demanding, high-amperage applications.

Super Cool technology provides additional surface area to increase cooling efficiency and capacity.

Reduce downtime due to overheating through consistent water-cooled performance.

Reduce leakage of gas and water through secure mechanical fittings and connections.

Model	Specs	
W-375 Super Cool	**Rated Output** DC: 375 A at 100% duty cycle AC: 265 A at 100% duty cycle	**Electrode Range** 0.5–3.2 mm (.020–1/8 in.)

Applications

- Aerospace • Aluminium fabrication
- Automotive • Manufacturing
- Exotic material fabrication
- Precision metal fabrication
- Pressure vessel fabrication
- Shipbuilding • Tool and die
- Tube and pipe • Vocational

Most popular consumables

- Insulator (non-gas lens and gas lens) (required) 598882
- Collets (non-gas lens and gas lens)
  - 13N20 0.5 mm (.020 in.)
  - 13N21 1.0 mm (.040 in.)
  - 13N22 1.6 mm (1/16 in.)
  - 13N23 2.4 mm (3/32 in.)
  - 13N24 3.2 mm (1/8 in.)
- Collet Bodies
  - 13N25 0.5 mm (.020 in.)
  - 13N26 1.0 mm (.040 in.)
  - 13N27 1.6 mm (1/16 in.)
  - 13N28 2.4 mm (3/32 in.)
  - 13N29 3.2 mm (1/8 in.)
- Gas Lens
  - 45V41 0.5 mm (.020 in.)
  - 45V42 1.0 mm (.040 in.)
  - 45V43 1.6 mm (1/16 in.)
  - 45V44 2.4 mm (3/32 in.)
  - 45V45 3.2 mm (1/8 in.)
- Alumina Nozzles
  - 13N08 #4, 1/4 in.
  - 13N09 #5, 5/16 in.
  - 13N10 #6, 3/8 in.
  - 13N11 #7, 7/16 in.
  - 13N12 #8, 1/2 in.
  - 13N13 #10, 5/8 in.
  - 53N58 #4, 1/4 in. (gas lens)
  - 53N59 #5, 5/16 in. (gas lens)
  - 53N60 #6, 3/8 in. (gas lens)
  - 53N61 #7, 7/16 in. (gas lens)
  - 53N61S #8, 1/2 in. (gas lens)
- Back Caps
  - 41V33 Short
  - 41V35 Medium
  - 41V24 Long

Most popular accessories

- **Accessory Kit** AK-4C
  Includes one long back cap, one of each size (#5, #6, #7) alumina nozzle, and one of each size (1.6, 2.4, 3.2 mm) of the following: collet, collet body, and 175 mm 2% ceriated tungsten electrode.

Weldcraft™ W-350 Series (Water-cooled)

Formerly known as WP-18 Series

W-350 (WP-18)

W-350 Valve (WP-18V)

Rugged water-cooled torches engineered for high-amperage and continuous hand-held welding in mechanized applications.

Reduce downtime and costs by minimizing overheating with the unique cooling design engineered for operator comfort.

Reduce discomfort and fatigue using the comfortable handle design.

Superior gas flow control offered through the built-in fingertip gas control (W-350 Valve).

Model	Specs
W-350 **W-350 Valve**	**Rated Output** DC: 350 A at 100% duty cycle AC: 250 A at 100% duty cycle **Electrode Range** 0.5–4.0 mm (.020–5/32 in.)

Applications

- Fabrication • Manufacturing
- Maintenance and repair
- Shipbuilding • Tube and pipe

Most popular consumables

- Collets
  - 10N24 2.4 mm (3/32 in.)
  - 10N25 3.2 mm (1/8 in.)
  - 54N20 4.0 mm (5/32 in.)
- Collet Bodies
  - 10N32 2.4 mm (3/32 in.)
  - 10N28 3.2 mm (1/8 in.)
  - 406488 4.0 mm (5/32 in.)
- Alumina Nozzles
  - 10N48 #6, 3/8 in.
  - 10N47 #7, 7/16 in.
  - 10N46 #8, 1/2 in.
  - 10N45 #10, 5/8 in.
  - 10N44 #12, 3/4 in.

Weldcraft™ W-400 Super Cool™ (Water-cooled)

Formerly known as WP-18SC

Water-cooled torch designed to endure some of the most demanding applications while minimizing overheating.

Extend torch and consumable life with the full-flow water chamber that provides around-the-head cooling.

Improve gas coverage and cooling capacity with gas lens usage with heavy-duty stubby collet body.

Extend parts life using the durable copper components, maximizing current capacity.

Model	Specs	
W-400 Super Cool	**Rated Output** DC: 400 A at 100% duty cycle AC: 280 A at 100% duty cycle	**Electrode Range** 0.5–4.8 mm (.020–3/16 in.)

Applications

- Heavy fabrication • Tool and die
- Pipe and tube fabrication
- Pressure vessel fabrication

Most popular consumables

- Heavy-Duty Collets
  - 10N25HD 3.2 mm (1/8 in.)
  - 54N20HD 4.0 mm (5/32 in.)
  - 18C36 4.8 mm (3/16 in.)
- Heavy-Duty Nose Collet Body (all sizes) NCB-36
- Alumina Nozzles
  - 54N16 #6, 3/8 in.
  - 54N15 #7, 7/16 in.
  - 54N14 #8, 1/2 in.
- Back Caps
  - 57Y04 Short
  - 300M Medium

Weldcraft™ W-410 (Water-cooled)

Formerly known as CS410

Water-cooled torch that increases amperage output without increasing torch size. Designed for demanding applications.

D-Handle™ design features a self-indexing flat top that allows for torch orientation by feel.

Work in cold weather with the Tri-Flex™ hose and cable assembly that remains flexible to ease handling and extends cable life.

Improve high-frequency shielding and minimize gas leakages with the double-lip back cap seal.

Model	Specs	
W-410	**Rated Output** DC: 410 A at 100% duty cycle AC: 310 A at 100% duty cycle	**Electrode Range** 0.5–4.0 mm (.020–5/32 in.)

Applications

- Aerospace • Tube and pipe
- Exotic material fabrication
- Pipe and tube fabrication

Most popular consumables

- Collets
  - 10N24 2.4 mm (3/32 in.)
  - 10N25 3.2 mm (1/8 in.)
  - 54N20 4.0 mm (5/32 in.)
- Collet Bodies
  - 10N32 2.4 mm (3/32 in.)
  - 10N28 3.2 mm (1/8 in.)
  - 406488 4.0 mm (5/32 in.)
- Alumina Nozzles
  - 10N46 #8, 1/2 in.
  - 10N45 #10, 5/8 in.
  - 10N44 #12, 3/4 in.

Weldcraft™ W-125 Micro Series (Water-cooled)

Formerly known as WP-125 Series

W-125 Medium Micro (89 mm) (WP-125M)

W-125 Long Micro (127 mm) (WP-125L)

Water-cooled MicroTig® torches designed for limited-access joints.

Low-profile nozzle fits into holes as small as 16 mm diameter.

45-degree, 90-degree, and 180-degree options improve access in tight areas.

Lower maintenance costs incurred with the replaceable silicone rubber insulator and head components.

Model	Specs	
W-125 Medium Micro **W-125 Long Micro**	**Rated Output** DC: 125 A at 100% duty cycle AC: 80 A at 100% duty cycle	**Electrode Range** 1.0–2.4 mm (.040–3/32 in.)

Applications

- Aerospace • Food/beverage industry
- HVAC • Automotive • Petro/chemical
- Precision fabrication

Most popular consumables

- 90° Chucks
  125C40-90 1.0 mm (.040 in.)
  125C116-90 1.6 mm (1/16 in.)
  125C332-90 2.4 mm (3/32 in.)
- 90° Glass Nozzle (all sizes) 125N90
  Other nozzles are available.

Most popular accessories

- **Accessory Kit** AK-125C
  Includes one of each size (180°, 45°, 90°, 90° short) glass nozzle, and one of each size (1.0, 1.6 mm) of the following: 180° chuck, 45° chuck, 90° chuck, and 175 mm 2% ceriated tungsten electrode.

Weldcraft™ W-500 (Water-cooled)

Formerly known as WP-12

Dependable water-cooled torch designed for high-capacity, demanding applications.

Comfort and reduced downtime due to the sealed water chamber that minimizes torch overheating.

Heavy-duty components provide reliable welding performance, even after continuous and demanding use.

100-percent-copper construction ensures maximum thermal conductivity.

Model	Specs	
W-500	**Rated Output** DC: 500 A at 100% duty cycle AC: 350 A at 100% duty cycle	**Electrode Range** 1.6–6.4 mm (1/16–1/4 in.)

Applications

- Heavy fabrication • Tool and die
- Pipe and tube fabrication
- Pressure vessel fabrication

Most popular consumables

- Insulator (required) 12NG
- Collets
  85Z17 4.0 mm (5/32 in.)
  85Z18 4.8 mm (3/16 in.)
  85Z19 6.4 mm (1/4 in.)
- Collet Body (all sizes) 11WP65
- Alumina Nozzles
  14N59 #6, 3/8 in.
  14N60 #7, 7/16 in.
  14N61 #8, 1/2 in.
  14N61-10 #10, 5/8 in.
  14N61-12 #12, 3/4 in.

Weldcraft™ Modular Series

A-150 Modular (WP-150)

A-150 Modular Valve (WP-150V)

A-200 Modular Valve (WP-200V)

W-225 Modular (WP-225)

Air-cooled and water-cooled torches engineered to weld multiple joint configurations for various applications and angles.

Built-in, efficient cooling system reduces overheating to extend parts and consumable life.

Modular design minimizes costs and downtime for torch changeover and parts inventory.

Easy configurable head options provide greater flexibility and joint access, and minimize downtime for torch changeover.

Gas valve provides greater shielding gas flow control (A-150 Modular Valve and A-200 Modular Valve).

Model	Specs *(Torch head dependent)*	
A-150 Modular **A-150 Modular Valve** *(Air-cooled)*	**Rated Output** DC: 150 A at 60% duty cycle AC: 105 A at 60% duty cycle	**Electrode Range** 0.5–3.2 mm (.020–1/8 in.)
A-200 Modular Valve *(Air-cooled)*	DC: 200 A at 60% duty cycle AC: 150 A at 60% duty cycle	0.5–4.0 mm (.020–5/32 in.)
W-225 Modular *(Water-cooled)*	DC: 225 A at 100% duty cycle AC: 160 A at 100% duty cycle	0.5–4.0 mm (.020–5/32 in.)

Applications

- Maintenance and repair • Aerospace
- Metal art • Food/beverage industry
- Petro/chemical • Shipbuilding
- Manufacturing • Vocational
- Precision fabrication • Tube and pipe

Most popular accessories

- **Accessory Kit**
  AK-150MFC For A-150 torch
  AK-225MFC For W-225 torch

Welding Intelligence™

Transform data into actionable information that drives continuous improvement.

- **Increase productivity**
- **Improve weld quality**
- **Manage costs**

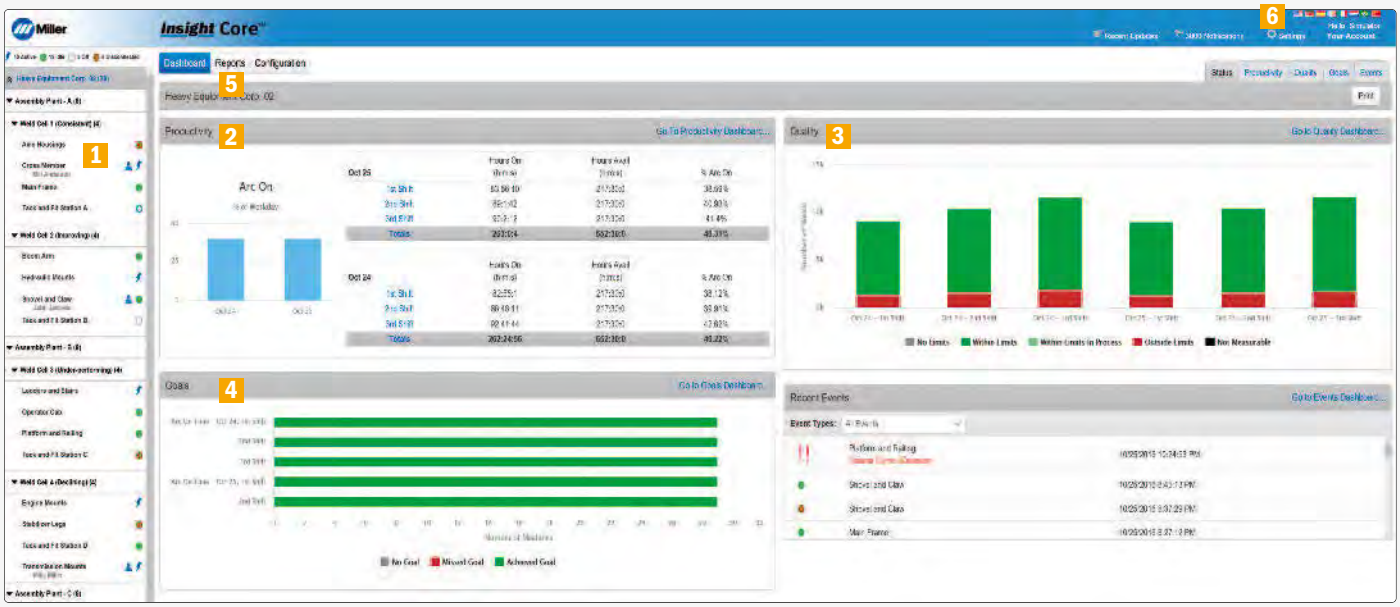
Complete coverage for any application.

Choose the Right Welding Intelligence System

		Insight Core™	Insight Centerpoint™	Insight Pipe and Vessel	Insight ArcAgent™
For Use With	**Factory-Installed**	▪ Continuum™/Auto-Continuum™	▪ Continuum™/Auto-Continuum™	–	▪ ANY welding power source (old or new) ▪ ANY brand ▪ ANY welding process
	Field-Installed/ Activated	▪ 14-pin compliant power source (see MillerWelds.com/insight)	▪ Continuum™/Auto-Continuum™	▪ PipeWorx 400	
Requirements		▪ Internet connection (wired/wireless)	▪ PC and Ethernet connection	▪ PC and Ethernet connection	▪ PC and Ethernet connection
What Capability Do You Need?		▪ Productivity monitoring ▪ Weld parameter verification ▪ Simplicity/basic monitoring ▪ Goal setting	▪ Prevent/detect missed welds ▪ Minimize overwelding/underwelding ▪ Electronic work instructions ▪ Measure overall equipment effectiveness (OEE)	▪ Real time contract, spool, joint documentation ▪ Enterprise resource planning system integration (ERP) ▪ Productivity/quality metrics	With use of Centerpoint: ▪ Prevent/detect missed welds ▪ Minimize overwelding/underwelding ▪ Electronic work instructions
Data Storage		▪ Cloud based	▪ Local server or PC	▪ Local PC	▪ Local server or PC

Insight Core™

Simplified, Internet-based welding information solution that reports operator productivity and weld parameter verification.



Visit our online Insight Core simulator at **Insight-simulator.MillerWelds.com**

How it works

Wi-Fi and wired Ethernet connectivity are built into Insight Core for flexible integration with your company's information network.

Factory installed on Continuum™/Auto-Continuum,™ power sources.

Compatible with 14-pin compliant Miller® power sources. See MillerWelds.com/insight for a list of 14-pin compatible power sources.

Insight Core dashboard descriptions

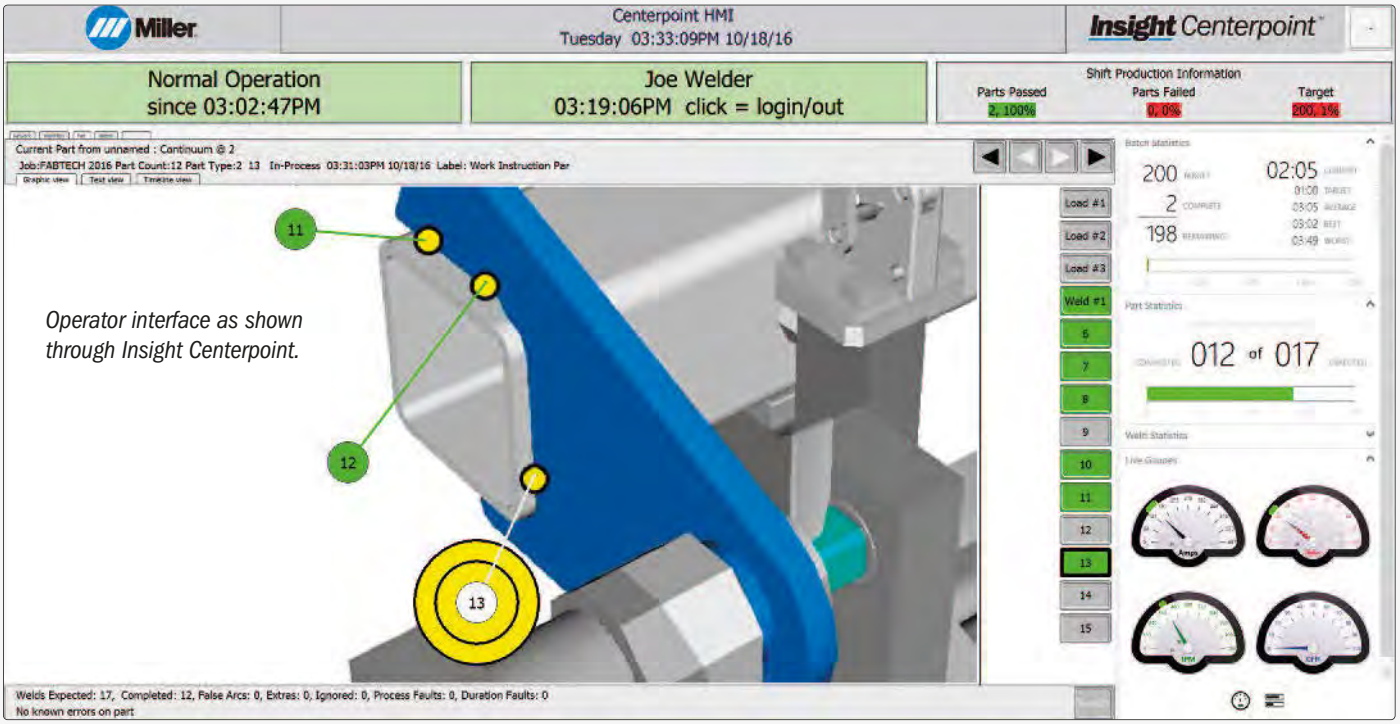
1. **Asset tree.** A list of power sources within your fleet that are enabled with Insight Core – organized by building, department or machine – showing real-time activity status icons and active operators.
2. **Productivity dashboard.** Instant visibility of arc-on time and wire deposition, by location, work cell, power source or operator.
3. **Quality dashboard.** Real-time analysis and reporting of all welds, revealing when quality fails to meet established thresholds for amps, volts and WFS. Includes weld trace.
4. **Goals dashboard.** Shows progress toward continuous improvement goals you set for improving arc-on time, deposition rates and arc starts.
5. **Reports.** In-depth information is available in reports that can be easily modified and displayed in a wide variety of customizable formats.
6. **Multiple languages available.** English, German, Spanish, French, Italian, Dutch, Portuguese and Chinese.

**Additional stock numbers are available – visit MillerWelds.com/insight.*
***SubArc Digital Series requires Insight Core to SubArc Digital Series Adapter Kit (301295).*

Type		Continuum Model /Stock Number*		14-pin Compliant Miller Power Sources
Factory-Installed Insight Core Power Sources	MIG	**Continuum 350 (907645)** **Continuum 500 (907648)** **Auto-Continuum 350 (907660)** **Auto-Continuum 350 DI (907660001)** **Auto-Continuum 500 (907661)** **Auto-Continuum 500 DI (907661001)**	Accessory	–
Field-Installed Insight Core Upgrade Modules		–		**(301072)** Insight Core 14-pin module**

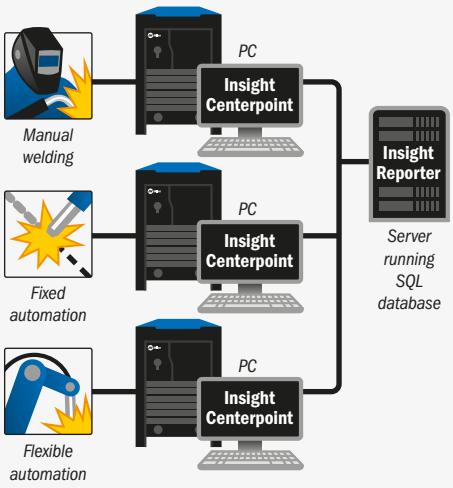
Insight Centerpoint™

Advanced PC software for visualization, analysis and tracking of weld process information.



Operator interface as shown through Insight Centerpoint.

How it works



Standard capability software (SCP)

- **Part Tracking**™ provides real time operator feedback to ensure accurate weld sequence, prevent missed welds and ensure proper weld parameters.
- **Codes and standards** captures required information relating actual welding parameters to the specific operator, contract, joint and weld pass to ensure productivity and quality requirements are met.

Advanced capability software (ACP)

- **WorkFlow**™ enables you to present electronic work instructions for pre/intra/post weld activities (using video, pdf, and more) to ensure consistent standardized production for every operator.

Optional reporting software

- **Insight Reporter**™ provides preconfigured management charts and reports that provide a wide range of information about weld process, productivity and business metrics, stored in an SQL server database.

Pipe and Vessel. Powerful pipe documentation solution that provides traceability by relating weld data to specific contract/spool/joint. PipeWorx 400 requires Insight Module (301304).

**Additional stock numbers are available – visit MillerWelds.com/insight.*

Type		Model/Stock Number*	Capability Software	Insight Centerpoint	Optional Insight Reporter	Accessories
Factory-Installed Insight Centerpoint Power Sources	MIG	**Continuum 350 (907645)** **Continuum 500 (907648)** **Auto-Continuum 350 (907660)** **Auto-Continuum 350 DI (907660001)** **Auto-Continuum 500 (907661)** **Auto-Continuum 500 DI (907661001)**	**(301297)** Standard (SCP) **(301257)** Advanced (ACP) (requires standard capability software) **(301322)** Standard and advanced	**(301255)** Single seat license **(301256)** Site license	**(300709)** Single license (1 required per PC) **(300710)** SQL database (1 required per facility)	**Insight LTD Gun** **(Q4015JS3EML)** For Continuum **M12/RJ45 Ethernet Cables** **(300734)** 3 m (9.8 ft.) **(300735)** 5 m (16.4 ft.) **(300736)** 10 m (32.8 ft.)
Field-Installed Insight Centerpoint Upgrade Module	Pipe	**PipeWorx 400 Module** **(301304)** Only provides Pipe and Vessel	–	–	–	**Field Application Support** **(195480)** Miller field support (contact distributor for details)

NEW! **Insight ArcAgent™** See literature WI/1.0

Premium Welding Intelligence solutions for any brand of welding power source, designed to integrate with Insight Centerpoint™.

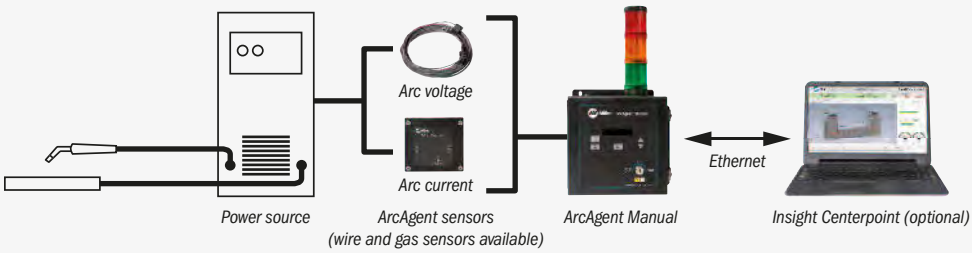
Models

ArcTimer™. Monitors very basic weld data (displayed on LCD): total arc time, last weld time, current weld time and total arc count. Battery operated (4 C-sized).

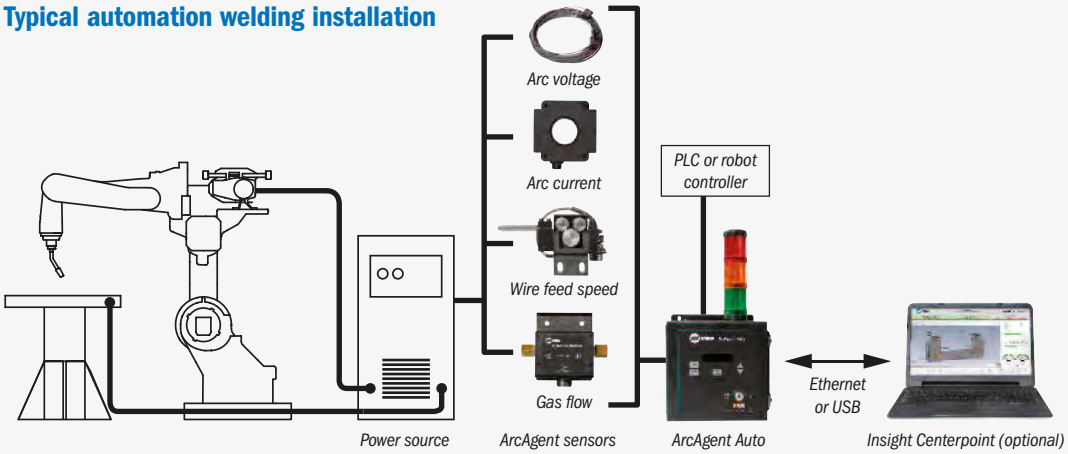
Manual. Designed for manual welding. Provides process control and monitoring that detects and prevents missed welds.

Auto. Designed for automated welding. Real-time monitoring of weld count, length (duration), process set-point parameters (voltage, current, wire feed, gas flow), total arc time, total wire used and total clamp time.

Typical manual welding installation



Typical automation welding installation



Most popular accessories

Voltage monitoring
- TIG Filter Sensor 301359
  Voltage sensing cable used in TIG applications. Requires 7.6 m (25 ft.) TIG filter cable (301384).
- Voltage Sense Cables
  301365 With lugs

Current monitoring
- Standard Current Sensors
  (for up to 4/0 lugged cables)
  301353 150 A
  301351 650 A
- Large Diameter Current Sensors
  (for Dinse- or Tweco®-style cables)
  301357 600 A solid core
  301356 1,000 A solid core
- Current Sensor Cables
  301364 7.6 m (25 ft.) standard
  301367 7.6 m (25 ft.) large diameter

Wire feed speed monitoring
- Wire Speed Sensor 301350
- Wire Speed Sensor Cable
  301368 7.6 m (25 ft.)

Gas flow monitoring
- Gas Flow Sensor 301358
- Gas Flow Sensor Cable
  301369 7.6 m (25 ft.)

Travel speed monitoring
NOT compatible with ArcAgent Manual or ArcAgent Manual with Part Tracking controls.
- Travel Speed Encoder 301362
  Requires Auxiliary Sensor Module and Travel Speed Wheel.
- Auxiliary Sensor Module (24 VDC)
  301374
  Allows for use of travel speed sensors as well as two analog inputs.
- Travel Speed Wheel
  301360 152.4 mm (6 in.)
- Travel Speed Encoder Mounting Bracket 301363
- Travel Speed Encoder Cable
  301376 7.6 m (25 ft.)

For a complete accessory list see literature WI/1.0.

Model/Stock Number	Insight Centerpoint	Optional Insight Reporter
ArcTimer (301349)	–	–
ArcAgent Manual Series **(301342)** Manual **(301343)** Manual with front panel Part Tracking controls **(301345)** Manual with Insight torch capability	**Optional:** **(301255)** Single seat license **(301256)** Site license	**(300709)** Single license (1 required per PC) **(300710)** SQL database (1 required per facility)
ArcAgent Auto **(301346)** Auto	**Optional:** **(301255)** Single seat license **(301256)** Site license	**(300709)** Single license (1 required per PC) **(300710)** SQL database (1 required per facility)

Engine-Driven

Product Guide	Page	Class	Stick	MIG	Flux-cored*	DC TIG	CAC-A	Portability	Weldable Metals	Continuous Generator Pwr. (watts)	Welding Output Ranges (DC)	Engine Brand	Special Features	Typical Applications
Big Blue® 400X Pro	**57**	●	●	●	●	●	4.8 mm	Lift eye, truck mount, optional trailer	Steel, stainless	10,000	20–400 A 14–40 V	CAT, Kubota	Quiet, compact, fuel efficient	Construction, repair
Big Blue® 500X Pro	**58**	●	●	●	●	●	8 mm	Lift eye, generally mounted on optional trailer	Steel, stainless	15,000	20–500 A 14–50 V	Perkins	Quiet, powerful, fuel efficient	Construction, repair
Big Blue® 500X CC	**58**	●	●			●	8 mm			4,000	55–500 A	Perkins	Quiet, powerful, fuel efficient	Construction, repair

Diesel

Product Key **Class:** ● Light industrial ● Industrial ● Heavy industrial **Capability:** ● Designed for this process ◉ Capable of this process

*If using self-shielded wire, use CV weld output.

Big Blue® 400X Pro

See literature ED/5.7

Clean, quiet and reliable low-speed diesel is more efficient than ever before. Ideal for construction, piping and fleet use.

400-amp output now available in a compact package. Provides up to 400 amps at 100 percent duty cycle.

The vault — ultimate control board reliability. A sealed aluminium case protects the circuit board from dust, dirt, moisture and heat.

Low OCV stick (VRD) for improved operator safety without compromising arc starts.

Tailored arc control (DIG) allows arc characteristics to be changed for specific applications and electrodes. Smooth running 7018 or stiffer, more penetrating 6010.

Quiet operation. Only 71.6 decibels (96 Lwa) under full load. Improves jobsite communication and safety.

CE compliant.

Standard features include digital weld meters, auto idle, 120-volt block heater and output contactor control.

Heavy industrial ● CC CV DC

Processes

- Stick (SMAW) ▪ MIG (GMAW)
- Flux-cored (FCAW) ▪ DC TIG (GTAW)
- Air carbon arc cutting and gouging (CAC-A) (rated 4.8 mm carbons)

Diesel engines

CAT C1.5: 21.7 hp at 1,800 rpm
Three-cylinder, industrial, liquid-cooled
Kubota V1505: 20.2 hp at 1,800 rpm
Four-cylinder, industrial, liquid-cooled
Note: Engines are warranted separately by engine manufacturer.

Most popular accessories

- SuitCase® Feeders (pg 18)
- Dynasty® 210 DX/280 DX (pg 44)
- Protective Cover 195301 (pg 64)

WIRELESS REMOTE COMPATIBLE

Wireless Hand Control/ Wireless Antenna Kit 300430/300749 (pg 66)

Diesel

Stock Number	Welding Mode	Process	Welding Output Ranges	Rated Output at 40°C (104°F)	IP Rating	Single-Phase Generator Power at 40°C (104°F)	Dimensions	Net Weight
(907630) CAT **(907631)** Kubota	CC/DC	DC stick/TIG	20–400 A	300 A at 32 V, 100% duty cycle 350 A at 27 V, 100% duty cycle 400 A at 24 V, 100% duty cycle	IP23	Peak: 12,000 watts Continuous: 10,000 watts	H: 813 mm (32 in.) W: 667 mm (26.25 in.) D: 1,422 mm (56 in.)	**CAT** 458 kg (1,010 lb.) **Kubota** 431 kg (950 lb.)
	CV/DC	MIG/FCAW	14–40 V					

Big Blue® 500X Pro

See literature ED/11.0

Clean, quiet, multiprocess machines designed to give welders the output they need for heavy-duty applications on construction and fabrication sites.

Meter maintenance displays include coolant temperature, oil pressure, battery voltmeter and fuel gauge/hour meter/oil change interval/engine shutdown indicator.

Infinite arc control allows the arc characteristics to be changed for specific applications in stick, MIG and flux-cored welding.

Low OCV stick (VRD) for improved operator safety without compromising arc starts.

Auto Remote Sense™ (ARS) detects if a remote control is plugged into the 14-pin receptacle and eliminates confusion of a remote/panel switch.

Thermal overload protection prevents machine damage if the duty cycle is exceeded or airflow is blocked.

CE compliant.

Standard features include digital preset weld meters, automatic idle, and cold weather starting aids.

Deluxe models add a polarity reversing switch and a vandalism lockout (protects control panel and receptacles, see photo at right).

Heavy industrial ● CC/CV DC

Processes
- Stick (SMAW) ▪ MIG (GMAW)
- Flux-cored (FCAW) ▪ DC TIG (GTAW)
- Air carbon arc cutting and gouging (CAC-A) (rated 8 mm carbons)

Diesel engine
Perkins 404D.22:
32.6 hp at 1,800 rpm
Four-cylinder, industrial, liquid-cooled
Note: Engine is warranted separately by engine manufacturer.

Most popular accessories
- SuitCase® Feeders (pg 18)
- Dynasty® 210 DX/280 DX (pg 44)
- Protective Cover 194683 (pg 64)

WIRELESS REMOTE COMPATIBLE

Wireless Hand Control/ Wireless Antenna Kit 300430/300749 (pg 66)

Diesel

Stock Number	Welding Mode	Process	Welding Output Ranges	Rated Output at 40°C (104°F)	IP Rating	Generator Power at 40°C (104°F)	Dimensions	Net Weight
(907602) Perkins **(907602001)** Perkins Deluxe	CC/DC	DC stick/TIG	20–500 A	400 A at 36 V, 100% duty cycle 450 A at 33 V, 60% duty cycle 500 A at 30 V, 40% duty cycle	IP23	Three-phase Peak: 21,000 watts Continuous: 15,000 watts Single-phase Peak: 15,000 watts Continuous: 12,000 watts	H: 1,067 mm (42 in.) W: 724 mm (28.5 in.) D: 1,654 mm (65.125 in.)	694 kg (1,530 lb.)
	CV/DC	MIG/FCAW	14–50 V					

Big Blue® 500X CC

See literature EDX/10.11

Designed for fleet owners that demand the ultimate in reliability and performance. Built with reliable, heavy-duty industrial components for operation in remote locations, without downtime.

Meter maintenance displays include coolant temperature, oil pressure and fuel gauge/hour meter/oil change interval/engine shutdown indicator.

Enclosed robust case design protects internal components from impact and allows air flow to cool and prolong the life of the engine. Also reduces sound levels.

Hot Start™ provides positive stick electrode starts making it easy to start all types of electrodes and it also works great for bead tie-ins.

Arc-Drive™ makes welding easy. Automatically enhances stick welding, especially on pipe, by focusing the arc and preventing the electrode from going out.

5,500-watt peak AC power independent of weld settings means no interaction between tools and welding arc.

Quick and easy maintenance with single-side access to oil level check, oil fill, oil filter, fuel filter and air cleaner.

CE compliant.

Heavy industrial ● CC DC

Processes
- Stick (SMAW) ▪ DC TIG (GTAW)
- Air carbon arc cutting and gouging (CAC-A) (rated 8 mm carbons)

Diesel engine
Perkins 404D.22:
32.6 hp at 1,800 rpm
Four-cylinder, industrial, liquid-cooled
Note: Engine is warranted separately by engine manufacturer.

Most popular accessories
- SuitCase® X-TREME™ 8VS/12VS Feeders (pg 18)
- Dynasty® 210 DX/280 DX (pg 44)
- Protective Cover 194683 (pg 64)

WIRELESS REMOTE COMPATIBLE

Wireless Hand Control/ Wireless Antenna Kit 300430/300749 (pg 66)

Diesel

Stock Number	Welding Mode	Process	Welding Amperage Range	Rated Output at 40°C (104°F)	IP Rating	Single-Phase Generator Power at 40°C (104°F)	Dimensions	Net Weight
(907187) Perkins **(907187021)** Perkins with weld meters and polarity switch	CC/DC	DC stick/TIG	55–500 A	400 A at 36 V, 100% duty cycle 450 A at 38 V, 60% duty cycle 500 A at 30 V, 40% duty cycle	IP23	Peak: 5,500 watts Continuous: 4,000 watts	H: 1,092 mm (43 in.) W: 724 mm (28.5 in.) D: 1,654 mm (65.125 in.)	732 kg (1,614 lb.)

Miller offers an array of versatile submerged arc components, including power sources, controls, wire drives, torches, tractors and a variety of other accessories.

SubArc Digital Series

See literature ADM/10.0 UK

The SubArc Digital Series of power sources, interface controls and accessories include digital control and communication electronics designed to improve weld performance and simplify the integration of the equipment in more advanced applications.

SubArc DC 800 Digital *SubArc DC 1250 Digital* *SubArc AC/DC 1250 Digital*

Two DC power source models and one AC/DC power source model. Power sources have sufficient power capacity to cover applications from traditional DC single-arc to multi-wire tandem welding. In the case of electroslag welding or other high-current demand, two or more power sources can easily be paralleled (both DC and AC/DC machines).

Low-voltage accessory operation and improved environmental protection. The Digital Series accessories are powered with 24 VAC control voltage from the power source. All power sources, interface controls and wire drives are IP23 rated providing a high level of protection for harsh environments.

Easy to integrate. Our SubArc power sources are easy to integrate by using a standard Modbus® connection.

All power sources also feature thermal overload protection, line voltage compensation and Fan-On-Demand.™

Heavy industrial CC/CV AC/DC DC 3 Phase *SubArc DC Series is DC only.*

Processes
- Submerged arc (SAW)
- Electroslag (ESW)
- Air carbon arc cutting and gouging (CAC-A)

Most popular accessories
- 14-pin Insight Core™ Module 301072 (pg 54)
  Requires Insight Core to SubArc Digital Series Adapter Kit (301295).
- ArcAgent™ Auto 301346 (pg 56)
- 4.6 m (15 ft.) SubArc Parallel Cable 260775015 (pg 62)
- 4.6 m (15 ft.) SubArc Tandem Cable 260878015 (pg 62)

**While idling.*

Model/Stock Number	Amperage Range (CC Mode)	Voltage Range (Sub Arc Mode)	Rated Output	IP Rating	Amps Input at Rated Output, 50 Hz 380 V	400 V	440 V	KVA	KW	Max Open-Circuit Voltage	Dimensions *(Includes lift eye, but not strain relief)*	Net Weight
SubArc DC 800 Digital (907623) 380/400/440 V	50–815 A	20–44 V	650 A at 44 V, 100% duty cycle	IP23	95 1.9*	90 1.8*	83 1.6*	50 1.52*	34.8 0.76*	75 Vpk	H: 762 mm (30 in.) W: 584 mm (23 in.) D: 965 mm (38 in.)	269 kg (593 lb.)
SubArc DC 1250 Digital (907625) 380/400/440 V	100–1,250 A	20–44 V	1,000 A at 44 V, 100% duty cycle	IP23	135 5.2*	128 5.0*	117 4.5*	73 3.2*	53 0.5*	68 Vpk		309 kg (682 lb.)
SubArc AC/DC 1250 Digital (907621) 380/400 V	300–1,250 A	20–44 V	1,000 A at 44 V, 100% duty cycle	IP23	179 3.0*	176 3.0*	– –	122 2.37*	67 0.95*	93 Vpk	H: 1,092 mm (43 in.) W: 711 mm (28 in.) D: 1,219 mm (48 in.)	538 kg (1,187 lb.)

SubArc Interface Controls

See literature no. ADM/10.0 UK

Easier setup and operation. The SubArc Digital Series Interface controls recognize the power source and wire drive connected, and automatically configure the system for proper operation.

Internal terminal strip is able to integrate with positioners, sidebeams, turning rolls and other peripheral equipment.

Most popular accessories

- SubArc Control Cables (pg 62)
  - 260622030 9.1 m (30 ft.)
  - 260622050 15 m (50 ft.)
  - 260622060 18.3 m (60 ft.)
  - 260622080 24.4 m (80 ft.)
  - 260622100 30.5 m (100 ft.)
  - 260622120 36.6 m (120 ft.)
  - 260622200 61.0 m (200 ft.)

Model/Stock Number	Input Power from Welding Power Source	Welding Power Source Type	IP Rating	Dimensions	Net Weight
SubArc Interface Digital (300936)	24 VAC, 1-phase, 25 A, 50/60 Hz	Constant voltage (CV), AC or DC, with remote contactor and output control capabilities	IP23	H: 292 mm (11.5 in.) W: 305 mm (12 in.) D: 178 mm (7 in.)	7.2 kg (15.8 lb.)

SubArc Remote Operator Interface

NEW!

Motor Control Digital

Remote Pendant Digital

Point-of-use installation. Remote Pendant can be handheld or secured at point of use to improve operation.

Remote installation. Motor Control can be remotely installed, resulting in reduced cables at the operator workstation.

Side handles on Remote Pendant provides option for handheld operation with full functionality of a traditional SubArc Interface.

Most popular accessories

- Continuum Motor/Control Cables (pg 62)
  - 263368015 4.6 m (15 ft.)
  - 263368020 6.1 m (20 ft.)
  - 263368025 7.6 m (25 ft.)
  - 263368050 15 m (50 ft.)
  - 263368080 24.4 m (80 ft.)
  - 2633680100 30.5 m (100 ft.)
- SubArc Control Cables (pg 62)
  - 260622030 9.1 m (30 ft.)
  - 260622050 15 m (50 ft.)
  - 260622060 18.3 m (60 ft.)
  - 260622080 24.4 m (80 ft.)
  - 260622100 30.5 m (100 ft.)
  - 260622120 36.6 m (120 ft.)
  - 260622200 61.0 m (200 ft.)

Model/Stock Number	Input Power from Welding Power Source	Welding Power Source Type	IP Rating	Dimensions	Net Weight
SubArc Motor Control Digital (301425) (requires SubArc Remote Pendant Digital below and Continuum control/motor cable)	24 VAC, 1-phase, 25 A, 50/60 Hz	Constant voltage (CV), AC or DC, with remote contactor and output control capabilities	IP23	H: 292 mm (11.5 in.) W: 305 mm (12 in.) D: 178 mm (7 in.)	7.2 kg (15.8 lb.)
SubArc Remote Pendant Digital (301424) (requires SubArc Motor Control Digital above and Continuum control/motor cable)	42 VDC, 1 A			H: 279 mm (11 in.) W: 270 mm (10.63 in.) D: 80 mm (3.125 in.)	1.4 kg (3 lb.)

SubArc Wire Drive Assemblies

See literature no. ADM/10.0 UK

SubArc Strip Drive 100 Digital Low Voltage

SubArc Wire Drive 400 Digital Low Voltage

SubArc Strip Drive 100 Digital Low Voltage is a heavy-duty, right-angle drive assembly designed for automated strip clad applications.

SubArc Wire Drive 400 and 780 Digital Low Voltage are right-angle wire drive assemblies. The 400 model is standard speed and the 780 is high speed.

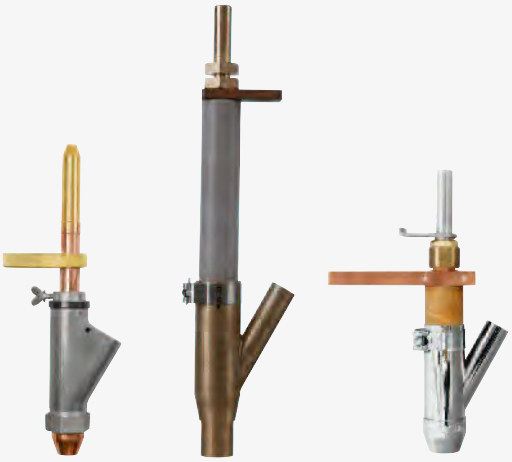
Most popular accessories

- Motor Extension Cables (pg 62)
  - 254232005 1.5 m (5 ft.)
  - 254232010 3 m (10 ft.)
  - 254232025 7.6 m (25 ft.)
  - 254232065 19.8 m (65 ft.)
- Drive Rolls (pg 62)
- Manual Slide (pg 62)
- Single-Wire Straightener 199733 (pg 62)
- Twin-Wire Straighteners (for twin-wire torches only) (pg 62)
  - 301160 Single adjustment
  - 301162 Double/separate adjustment

Model	Stock Number	Input Power	Input Power Cord	Rating	IP Rating	Wire Feed Speed	Wire Diameter Capacity	Net Weight
SubArc Strip Drive 100 Digital Low Voltage	**(300940)** With mounting bracket	38 VDC	1.2 m (4 ft.)	1/5 hp, 21 rpm	IP23	0.3–1.6 mpm (10–69 ipm)	N/A (strip cladding applications)	13 kg (29 lb.)
SubArc Wire Drive 400 Digital Low Voltage	**(300938)** Standard speed	38 VDC	1.2 m (4 ft.)	1/5 hp, 85 rpm	IP23	0.8–10.2 mpm (30–400 ipm)	2.4–4.8 mm (3/32–3/16 in.)	11.8 kg (26 lb.)
SubArc Wire Drive 780 Digital Low Voltage	**(300941)** High speed	38 VDC	1.2 m (4 ft.)	1/4 hp, 143 rpm	IP23	1.3–19.8 mpm (50–780 ipm)	1.6–3.2 mm (1/16–1/8 in.)	11.8 kg (26 lb.)

SubArc Torches

See literature ADM/10.0 UK



OBT 600 *OBT 1200* *1200-Amp Twin-Wire*

OBT 600 is a 600-amp, 100 percent duty cycle torch with concentric flux flow nozzle. Can be used with 1.6–4.0 mm (1/16–5/32 in.) wire.

OBT 1200 is a 1,200-amp, 100 percent duty cycle torch with concentric flux flow nozzle. Can be used with 1.6–4.8 mm (1/16–3/16 in.) wire. OBT 1200 features a replaceable breakaway adapter end to prevent costly damage should torch run into an obstruction.

1200-Amp Twin-Wire Torch (long) is a 1,200-amp, 100 percent duty cycle torch. Can be used with 1.2–2.4 mm (3/64–3/32 in.) wires.

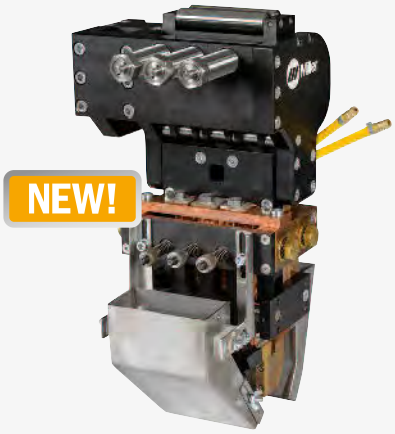
Most popular accessories

- OBT 600 Torch Body Extensions (pg 62)
  043967 25.4 mm (1 in.)
  043969 50.8 mm (2 in.)
  043973 101.6 mm (4 in.)
  043975 152.4 mm (6 in.)
- OBT 1200 Torch Body Extension 043981 (pg 62)
- Contact Tips (pg 62)

Model/Stock Number	Rated Output	Wire Diameter Capacity	Single/Twin	Torch Body Length
OBT 600 (043923)	600 A at 100% duty cycle	1.6–4.0 mm (1/16–5/32 in.)	Single	260.4 mm (10.25 in.)
OBT 1200 (043900)	1,200 A at 100% duty cycle	1.6–4.8 mm (1/16–3/16 in.)	Single	438.2 mm (17.25 in.)
1200-Amp Twin-Wire Torch (301144) Long	1,200 A at 100% duty cycle	1.2–2.4 mm (3/64–3/32 in.)	Twin	431 mm (16.97 in.)

External Cladding Head

See literature AY/52.0



Cost-efficient means of depositing stainless steel and Ni-alloy materials to create corrosion- or wear-resistant overlays on large non- or low-alloyed steel components.

Designed for both submerged arc and electroslag strip cladding applications.

Flexible external cladding head accommodates strip widths from 30 to 90 mm.

Individually adjustable spring-loaded contact jaws provide optimal current transfer, reducing risk of cladding failures.

Most popular accessories

- SubArc Strip Drive 100 Digital Low Voltage (pg 60) 300940
- Coolmate™ 3 (pg 64)
  043007 115 V
  043008 230 V
- Coolant Flow Switch Kit 195461 (pg 64)
- Water Hose Extensions
  40V76R6 1.8 m (6 ft.)
  40V76R 3.8 m (12.5 ft.)
  40V76LR 7.6 m (25 ft.)
- Water Coupler 11N18
- Quick-Release Water Kit QRW

Stock Number	Rated Output	Strip Width Range	Cooling Method	Dimensions	Net Weight
External Cladding Head 30–90 mm (301167)	3,000 A at 100% duty cycle	30–90 mm	Coolant	H: 379 mm (14.92 in.) W: 223 mm (8.76 in.) D: 226 mm (8.9 in.)	17.5 kg (38.5 lb.)

SubArc Flux Hopper

See literature ADM/10.0 UK

Improved flux delivery system. Our SubArc Flux Hopper Digital Low Voltage utilizes a flux valve mechanism that assures continuous delivery of flux to the arc.

Sight glass allows the weld operator to visually monitor the remaining flux in the hopper.

Versatile opening is sized to allow hook-up of any flux-hopper-mounted recovery system.

Includes slag screen to capture fused slag particles from entering the flux hopper.

Most popular accessories

- Flux Hopper Extension Cables (pg 62)
  260623010 3 m (10 ft.)
  260623025 7.6 m (25 ft.)
  260623065 19.8 m (65 ft.)

Stock Number	Input Power	Input Power Cord	Flux Capacity	Net Weight
SubArc Flux Hopper Digital Low Voltage (300942)	12 VDC (PWM signal from SubArc Interface)	3.3 m (11 ft.)	11 kg (25 lb.)	5 kg (11 lb.)

SubArc Digital 4-Wheel Tractor

NEW!

Designed and built to provide maximum reliability in the toughest conditions. Can easily connect to SubArc DC or AC/DC Digital power supplies.

Horizontal and vertical slides with travel up to 300 mm.

Polyurethane wheels with aluminium base for optimum grip on various materials. Wheels are equipped with v-groove for easy track conversion.

Guide rollers for guidance alongside a guide profile or rail.

Travel speed controller integrated into the control box. Individual adjustable speed for forward and reverse. Tacho-feedback assures an accurate digital speed indication.

Required system components (sold separately)

- SubArc Digital 4-Wheel Tractor (includes 27 kg wire reel) 058035008
- SubArc Digital Tractor Interface 301423
- SubArc Wire Drive 400 Digital Low Voltage 300938
- Manual flux hopper with air-powered flux recovery 156102016
- OBT 600 torch 043923
- Wire straightener 199733

Most popular accessories

- SubArc Control Cables (see below)
- Contact Tips (see below)
- Drive Rolls (see below)

Stock Number	Input Power from Welding Power Source	Wire Feed Speed	Wire Diameter Capacity	Gun Positioning Slides	Drive Motor	Travel Speed	System Dimensions	System Net Weight
(058035008) Tractor only	24 VAC, 1-phase, 50/60 Hz, 360 watts	0.8–10.2 mpm (30–400 ipm)	1.6–5.6 mm (1/16–7/32 in.)	101.6 mm (4 in.) vertical and horizontal	24 VDC permanent magnet gear motor	0.1–1.75 mpm (4–70 ipm)	H: 1,050 mm (40.25 in.) W: 440 mm (17.375 in.) D: 960 mm (37.8 in.)	78 kg (172 lb.) without flux or wire

Submerged Arc Accessories

See literature ADM/10.0 UK

Cables

Cable between SubArc Interface or Motor Control and power source.

SubArc Control Cables
260622030 9.1 m (30 ft.)
260622050 15 m (50 ft.)
260622060 18.3 m (60 ft.)
260622080 24.4 m (80 ft.)
260622100 30.5 m (100 ft.)
260622120 36.6 m (120 ft.)
260622200 61.0 m (200 ft.)

Cable between SubArc Interface or Motor Control and flux hopper.

Flux Hopper Extension Cables
260623010 3 m (10 ft.)
260623025 7.6 m (25 ft.)
260623065 19.8 m (65 ft.)

Cable between SubArc Interface or Motor Control and drive motor.

Motor Extension Cables
254232005 1.5 m (5 ft.)
254232010 3 m (10 ft.)
254232025 7.6 m (25 ft.)
254232065 19.8 m (65 ft.)

Cable between SubArc Motor Control and SubArc Remote Pendant.

Continuum Motor/Control Cables
263368015 4.6 m (15 ft.)
263368020 6.1 m (20 ft.)
263368025 7.6 m (25 ft.)
263368050 15 m (50 ft.)
263368080 24.4 m (80 ft.)
263368100 30.5 m (100 ft.)

SubArc Parallel Cable
260775015 4.6 m (15 ft.)

SubArc Tandem Cable
260878015 4.6 m (15 ft.)

Torch Accessories

OBT 600 Torch Body Extensions
043967 25.4 mm (1 inch)
043969 50.8 mm (2 inch)
043973 101.6 mm (4 inch)
043975 152.4 mm (6 inch)

OBT 1200 Torch Body Extension 043981
Overall length with extension is 228.6 mm (9 in.). Actual length of extension is 215.9 mm (8.5 in).

OBT Torch Contact Tips

OBT 600	OBT 1200	Wire Size
192700	192141	1.6 mm (1/16 in.)
192701	199026	2.0 mm (5/64 in.)
192702	192142	2.4 mm (3/32 in.)
192703	200771	2.8 mm (7/64 in.)
192704	192143	3.2 mm (1/8 in.)
192705	192144	4.0 mm (5/32 in.)
–	192136	4.8 mm (3/16 in.)

1200-Amp Twin-Wire Torch Contact Tips
264595 1.2 mm (3/64 in.)
264596 1.6 mm (1/16 in.)
264597 2.0 mm (5/64 in.)
264588 2.4 mm (3/32 in.)

Wire Drive Assembly Accessories

Drive Rolls
132955 1.6 mm (1/16 in.)
132960 2.0 mm (5/64 in.)
132961 2.4 mm (3/32 in.)
132962 2.8 mm (7/64 in.)
132963 3.2 mm (1/8 in.)
193700 4.0 mm (5/32 in.)
193701 4.8 mm (3/16 in.)
V-knurled drive rolls for use with hard-shelled cored wires.

Manual Slide 301137
Provides smooth and accurate movement of the welding head. Allows for 200 mm (7.87 in.) travel adjustment with load capacity of 100 kg (220 lb.) at 500 mm (1.64 ft.). ***Not recommended for tandem.***

Single-Wire Straightener 199733
For use with OBT 600 and OBT 1200 single-wire torches. For 1.6–4.8 mm (1/16–3/16 in.) wire.

Twin-Wire Straighteners
301160 Single adjustment
301162 Double/separate adjustment
For 1200-Amp Twin-Wire torch only.

Wire Reel 108008
Supports 27 kg (60 lb.) coil of wire. Requires Spool Support Assembly **(119438)**.

Accessories

Contents

Cable Connectors and Adapters

For XPS 350/450, AlumaFeed System, XMS 425 MPa, Invision 352 MPa, XMT 350, Maxstar, and Dynasty. These power sources are equipped with Dinse- or Tweco-style connectors for secondary connections and are shipped with two male plugs for use with 25 to 50 mm cable.

Dinse-Style Connector Kits
042418 Accepts 25 mm to 50 mm cable
042533 Accepts 50 mm to 70 mm cable
Kits include one male Dinse-style 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
042419 Accepts 25 mm to 50 mm cable
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.

Extensions for Dinse-Style Cable Connectors
134460 Male Dinse-style plug
136600 Female Dinse-style receptacle
Used to adapt or extend weld and/or work cables. Accepts 50 mm to 70 mm cable.

Carts, Cylinder Racks and Running Gear

XPS Cylinder/Water Cooler Rack
058066065
For XPS 350/450. Two-compartment rack accommodates one HydraCool® 1 coolant system and one gas cylinder up to 1,650 millimeters (65 in.) high and 250 millimeters (9.8 in.) in diameter.

XPS Single Cylinder Rack
058066064
For XPS 350/450. Single-compartment rack accommodates one gas cylinder up to 1,650 millimeters (65 in.) high and 250 millimeters (9.8 in.) in diameter.

Continuum Running Gear/Cylinder Rack
301264
For Continuum 350/500. Small footprint and easily maneuverable, with cylinder rack low enough that you do not have to lift bottles.

Shown with optional cylinder rack (042887).

Standard Running Gear and Cylinder Rack
042886
Running gear
042887
Cylinder rack
For Deltaweld, Dimension 562/812 and Gold Star. Running gear has 254 mm (10 in.) rear wheels and 127 mm (5 in.) front casters for excellent mobility on the shop floor. Very easy to install. Handles double as a cable holder. Cylinder rack only installs on Standard Running Gear.

Dimension 650 Running Gear
301307
For Dimension 650. Large 254 mm (10 in.) rear wheels and 127 mm (5 in.) front casters provide excellent mobility. Easy to install. Compatible with single and dual 70 Series feeders. Handles double as a cable holder.
Note: Does not accommodate gas cylinders. Use Universal Trolley (018035028) when gas cylinders are required.

MH Trolley 018035026
For Maxstar 210 DX/280 DX and Dynasty 210 DX/280 DX with or without Coolmate 1.3. Easy-to-maneuver two-wheel cart features single-cylinder rack, chain for cylinder, straps (quick and easy to detach and carry machine), cable holders, torch holder, storage area, and filler rod storage area.

Small Runner™ Cart 301318
For Maxstar 210 DX/280 DX and Dynasty 210 DX/280 DX with or without Coolmate 1.3. Cart features single-cylinder rack, foot pedal holder, two cable/torch holders and two TIG filler holders.

Runner™ Cart 300244
For Maxstar 400/800 and Dynasty 400/800 with or without Coolmate 3.5. Cart features single-cylinder rack, foot pedal holder, three cable/torch holders and two TIG filler holders.

Universal Trolley

Universal Trolley (base)

Universal Trolley TIG

Universal Trolley MIG

Universal Trolley (base) 018035028
For AlumaFeed System, XMS 425 MPa, Invision 352 MPa, Continuum, Dimension 650, XMT, Maxstar, Dynasty and a coolant system.
Part of a flexible modular system that can be customized for your particular needs. Includes easy-access cylinder rack in a small and easily maneuverable footprint.

Universal Trolley TIG
Order base **018035028** and Shelf Kit 1 **058066127** for a cart that can hold a power source and coolant system.

Universal Trolley MIG
Order base **018035028**, Shelf Kit 1 **058066127**, Shelf Kit 2 **058066129** and Handle Kit **058066130** (not shown) for a cart that can hold a power source, coolant system and wire feeder.

Also available: Wire Feeder Support Swivel **028066300** and Coolmate 3 Mounting Brackets **028066301**.

Coolant Systems

See literature AY/7.2

1 Phase

HydraCool 1 | Coolmate 1.3 | Coolmate 3 | Coolmate 3.5 | Coolmate 4 | HydraCool 2

Coolmate™ 1.3
300972 120 V
For Maxstar 210 DX/280 DX and Dynasty 210 DX/280 DX. Light industrial, 4.9 L cooler designed for water-cooled torches on power sources rated up to 280 amps*.

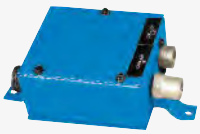
Coolmate™ 3
043007 120 V **043008** 240 V
Economical, 11.4 L cooler designed for water-cooled torches rated up to 500 amps*.

Coolmate™ 3.5
300245 120 V
For Maxstar 400/800 and Dynasty 400/800. Industrial, 13.2 L cooler designed for water-cooled torches rated up to 600 amps*.

HydraCool® 1
028042103 120 V **028042104** 240 V
Economical, 8 L cooler designed for water-cooled torches rated up to 600 amps*.

HydraCool® 2
028042105 120 V **028042106** 240 V
Economical, 8 L cooler designed for water-cooled torches rated up to 600 amps*.

Coolmate™ 4
042288 120 V
Best performer in its class – industrial, 15 L cooler designed for water-cooled torches rated up to 600 amps*.



Coolant Flow Switch 195461
For external cladding head and water-cooled torches. To ensure coolant is flowing in the system. Lack of coolant flow may cause damage to water-cooled torches. Module allows wiring into the peripheral connector port. 15.2 m (50 ft.) cable with connector and separate shell connector for simple modification to desired length in the field. Quarter-turn quick connection.

*May vary with torch design and cable length. Miller coolant systems are backed by the best warranty in the industry – one full year.

Coolant

Low-Conductivity Coolant
043810
Clear, pre-mixed coolant for TIG and MIG applications. NOT for use in push-pull systems or systems where aluminium is in coolant path/circuit. Sold in multiples of four, in 3.78-liter recyclable plastic bottles. Coolant contains a base of ethylene glycol and deionized water to protect against freezing to -38° Celsius (-37° F) or boiling to 108° Celsius (227° F).

Model	Motor Input Voltage	Maximum Current Draw	Maximum Cooling Capacity	IEC Cooling Capacity	Tank Capacity	Dimensions	Net Weight
Coolmate 1.3	115 V, 60 Hz	4.7 A (60 Hz)	3,400 W (11,600 Btu/hr.) 3.6 L/min. (3.8 qt./min.)	1,330 W (4,540 Btu/hr.) 1 L/min. (1.1 qt./min.)	4.9 L (1.3 gal.)	H: 286 mm (11.25 in.) W: 264 mm (10.38 in.) D: 610 mm (24 in.)	20 kg (43 lb.)
Coolmate 3	115 V, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	3,820 W (13,000 Btu/hr.) 4.0 L/min. (4.2 qt./min.)	1,420 W (4,840 Btu/hr.) 1 L/min. (1.1 qt./min.)	11.4 L (3 gal.)	H: 337 mm (13.25 in.) W: 311 mm (12.25 in.) D: 584 mm (23.25 in.)	18 kg (40 lb.)
	230 V, 50/60 Hz	2.5 A (50 Hz), 3.0 A (60 Hz)					
Coolmate 3.5	115 V, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	4,140 W (14,000 Btu/hr.) 4.7 L/min. (5.0 qt./min.)	1,660 W (5,660 Btu/hr.) 1 L/min. (1.1 qt./min.)	13.2 L (3.5 gal.)	H: 298 mm (11.75 in.) W: 400 mm (15.75 in.) D: 660 mm (26 in.)	29 kg (64 lb.)
HydraCool 1	115 V, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	3,820 W (13,000 Btu/hr.) 4.0 L/min. (4.2 qt./min.)	1,670 W (5,698 Btu/hr.) 1 L/min. (1.1 qt./min.)	8 L (2.1 gal.)	H: 674 mm (26.5 in.) W: 263 mm (10.4 in.) D: 305 mm (12 in.)	20.7 kg (45.6 lb.)
	230 V, 50/60 Hz	2.5 A (50 Hz), 3.0 A (60 Hz)					
HydraCool 2	115 V, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	3,820 W (13,000 Btu/hr.) 4.0 L/min. (4.2 qt./min.)	1,760 W (6,005 Btu/hr.) 1 L/min. (1.1 qt./min.)	8 L (2.1 gal.)	H: 286 mm (11.3 in.) W: 324 mm (12.8 in.) D: 585 mm (23 in.)	20.8 kg (45.9 lb.)
	230 V, 50/60 Hz	2.5 A (50 Hz), 3.0 A (60 Hz)					
Coolmate 4	115 V, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	5,500 W (18,000 Btu/hr.) 5.6 L/min. (5.9 qt./min.)	1,780 W (6,070 Btu/hr.) 1 L/min. (1.1 qt./min.)	15 L (4 gal.)	H: 413 mm (16.25 in.) W: 387 mm (15.25 in.) D: 476 mm (18.75 in.)	17 kg (38 lb.)

Engine Drive Accessories

Cable Holder 043946
For Big Blue 500X Pro/500X CC.

Vandalism Lockout Kit
399802 Field
For Big Blue 500X Pro. Lockable hinged steel panels cover and protect name plate gauges and ignition switch (padlock included). Also includes engine compartment door lock and key.

Protective Covers
195301 *For Big Blue 400X Pro.*
194683 *For Big Blue 500X Pro/500X CC.*
Heavy-duty, water- and mildew-resistant covers protect and maintain the finish of the welder.

Spark Arrestor Muffler Kit
300585 *For Big Blue 400X Pro.*
195012 *For Big Blue 500X Pro/500X CC.*

Polarity Reversing Switch Kit
301112 *For Big Blue 500X Pro.*
043942 DC polarity switch. *For Big Blue 500X Pro.*
195095 AC/DC polarity switch. *For Big Blue 500X Pro.*

Engine Filter Kits
246987 CAT. *For Big Blue 400X Pro.*
253901 Kubota. *For Big Blue 400X Pro.*
246985 Perkins. *For Big Blue 500X Pro/500X CC.*

International Plugs
255419 1-phase, 120 V, 16 A plug
255416 1-phase, 240 V, 16 A plug
255421 3-phase, 400 V, 32 A plug

TIG Accessories

Protective Covers

301381 *For Maxstar 210 DX.*
301382 *For Maxstar 280 DX and Dynasty 210 DX/280 DX.*
195478 *For XMT 350/425.*

Remote Controls

14-Pin to 6-Pin Adapter Cord
300507
For STi and STH 160. 305 mm (12 in.) cord adapts Miller® 14-pin foot control or fingertip control to a 6-pin plug.

RCC-6M (6-pin plug)
301118 4 m (13.25 ft.) cord with plug
For STi and STH 160.

RCC-14 (14-pin plug)
151086 8 m (26.5 ft.) cord with plug

East/west rotary-motion fingertip current/contactor control attaches to TIG torch using two hook-and-loop fasteners. Great for production or contractors that need quick ramp-up.

RCCS-6M (6-pin plug)
195184 4 m (13.25 ft.) cord with plug
195503 8 m (26.5 ft.) cord with plug
For STi and STH 160.

RCCS-14 (14-pin plug)
043688 8 m (26.5 ft.) cord with plug

North/south rotary-motion fingertip current/contactor control attaches to TIG torch using two hook-and-loop fasteners. Great for applications that require a finer amperage control.

RFCS-6M (6-pin plug)
195183 4 m (13.25 ft.) cord with plug
195504 6 m (20 ft.) cord with plug
For STi and STH 160.

RFCS-14 (14-pin plug)
043554 6 m (20 ft.) cord with plug

Foot pedal current/contactor control.

RFCS-14 HD (14-pin plug) **194744**
Heavy-duty foot pedal current/contactor control provides increased stability and durability from larger base and heavier cord. Cord can exit front, back or either side of the pedal for flexibility. Includes 6 m (20 ft.) cord with plug.

RHC-14* (14-pin plug)
242211020 6 m (20 ft.) cord with plug
242211100 30.5 m (100 ft.) cord with plug
Miniature hand current/contactor control.
Dimensions: 102 x 102 x 82 mm (4 x 4 x 3.25 in.).

RMLS-14 (14-pin plug) **129337**
Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and backward for momentary contact. Includes 8 m (26.5 ft.) cord with plug.

RMS-6M (6-pin plug) **195269**
For STi and STH 160.

RMS-14 (14-pin plug) **187208**
Momentary-contact switch for contactor control. Rubber-covered pushbutton dome switch ideal for repetitive on-off applications. Includes 8 m (26.5 ft.) cord with plug.

RPBS-14 (14-pin plug) **300666**
Attaches to the TIG torch to remotely start and stop the TIG welding process. Includes 7.6 m (25 ft.) cord with plug.

SHRC-14 Remote Control
058040019 5 m (16.4 ft.)
058040020 10 m (32.8 ft.)
058040021 20 m (65.6 ft.)
Single-hand control for current only.

Torch Connector

273483
For STi and STH 160. 25 mm (small) Dinse-style gas thru for one-piece air-cooled torches.

HF 5000

See literature AYM/5.1

High-frequency arc starter provides excellent arc starting for DC TIG welding.

Excellent arc starting on thin stainless steel, brass, copper, and a range of ferrous and non-ferrous alloys

Compatible with Miller constant-current DC power sources and others that feature a 14-socket receptacle.

Easy-to-read front panel includes ammeter display and a push-button interface with amperage and set-up controls.

115 V (50/60 Hz) input meets most single-phase power configurations, and is rated at 100 percent duty cycle.

Gas solenoid valve offers exact control over pre-flow ranges and built-in post-flow eliminates contamination.

Lightweight, portable design can be easily moved around the workplace.

Thermally protected secondary terminals automatically shut off the unit if duty cycle is exceeded.

Fan-cooled design protects the unit from overheating.

14-pin receptacle on the front panel allows for easy remote control connection.

Quick-connect fittings allow for quick installation of water-cooled TIG welding torch.

Circuit breaker protects unit from primary power overload.

Stock Number	Input Power	Welding Amperage Range	Welding Voltage Range	Rated Output	IP Rating	Dimensions	Net Weight
V29012345	115 V, single-phase, 500 mA, 50/60 Hz	5–450 A	10–95 V	400 A at 34 VDC, 100% duty cycle	IP23	H: 265 mm (10.4 in.) W: 250 mm (9.8 in.) D: 420 mm (16.5 in.)	13 kg (28.7 lb.)

Wireless Remote Foot and Hand Controls

See literature AY/6.5 (Foot) and AY/6.6 (Hand)

Increases productivity, saves money, improves safety and easy to use.

Wireless foot control

Wireless 14-pin receiver (included with both systems)

Wireless hand control

Improves productivity and maneuverability by eliminating cord tangles. Reduces clean up time and work area cord clutter.

Improves safety by eliminating control cord and reducing potential trip hazard.

Improves reliability by eliminating control cord failure.

Multiple frequency sharing allows up to 20 systems to operate in a 27.4 m (90 ft.) radius with accuracy and precision – and without delay, system interference, or crosstalk.

Easy-to-install receiver plugs directly into the 14-pin receptacle of Miller® machines.

Easily programmable. Control can be quickly and easily paired with any other Miller 14-pin wireless receiver. (Control is preprogrammed when purchased with the receiver.)

Foot control

Foot control is designed specifically for TIG welding in manufacturing, fabrication and plant applications, allowing operator to adjust amperage at point of use without the limitations of remote cord.

Auto on feature extends the battery life up to 250 hours of welding without turning the pedal on and off.

Easy-Glide Wear Pads™ glide across concrete, making it easy to reposition the pedal for comfort and speed.

**Some applications are not suitable for wireless communication. Keep in mind that the rated range is subjective, and depends on factors such as obstructions, frequency interference, transmission technology, and weather. The figures listed assume ideal conditions are present.*

Hand control

Hand control is designed for stick, TIG, MIG and flux-cored welding, allowing operator to adjust parameters for different joint configurations, electrodes and wire types/sizes at the point of use instead of walking back to the machine.

Allows parameter adjustments up to 91 m away from welder without returning to machine.

Improves weld quality. Operators can adjust their machines to optimize the parameters for different joint configurations, electrodes, and wire types and sizes.

Smart Touch™ **buttons** allow quick and accurate machine parameter adjustments.

Digital meter display allows presetting percentage of machine output before welding, and viewing amperage and voltage while welding.

Industrial

Processes
- TIG (GTAW) • Pulsed TIG (GTAW-P)

The following processes are with hand control only
- Stick (SMAW) • MIG (GMAW)*
- Flux-cored (FCAW)

**Only with voltage-sensing feeder.*

Comes complete with
- Wireless foot control (300429) or hand control (300430) transmitter
- Wireless 14-pin receiver (300722)
- Battery box (249297)
- Three AA batteries
- Four Easy-Glide Wear Pads™ (for foot control only) (sold individually, 248274)
- Belt clip (for hand control only) (249233)

Suggested power sources

WIRELESS REMOTE COMPATIBLE

Look throughout this catalog for the icon above signifying compatibility with a wireless remote.

Model/Stock Number	Component	Power Supply	Battery Life	Rated Range*	Temperature	Radio Frequency	RF Power	Antenna	Dimensions	Weight
Wireless Foot Control System (300429)	Foot control (transmitter)	Three AA batteries	250 hours	27.4 m (90 ft.)	-25° to +70°C (-13° to +158°F)	2.4 GHz (ISM band)	<3 mW	Internal	H: 152 mm (6 in.) W: 146 mm (5.75 in.) D: 292 mm (11.5 in.)	1.4 kg (3 lb.) w/batteries
Wireless Hand Control System (300430)	Hand control (transmitter)	Three AA batteries	250 hours	91 m (300 ft.)					H: 127 mm (5 in.) W: 70 mm (2.75 in.) D: 35 mm (1.375 in.)	0.27 kg (0.6 lb.) w/batteries

Wire Feeder Accessories

Extension Cables (14-Pin)

8-Conductor Cables
242208025 7.6 m (25 ft.)
242208050 15 m (50 ft.)
242208080 24.4 m (80 ft.)
For SuitCase 12RC and 70 Series (except MPa Plus) feeders, and XR-Control. For 14-pin remote controls/ 24 VAC wire feeders. 14-pin plug to a 14-pin socket. (Not for 115-volt XR or 50 Series feeders.)

11-Conductor Cables
247831025 7.6 m (25 ft.)
247831050 15 m (50 ft.)
247831080 24.4 m (80 ft.)
For XR-AlumaFeed and MPa Plus feeders. Eleven conductors to support contactor control and remote voltage control on all Miller® electronic CV 14-pin power sources. Additional functions supported when using the Invision MPa or XMT MPa power sources include synergic pulsed MIG, remote process select and side select capabilities.

Interconnecting Cables

Air-Cooled Interconnecting Cable Assembly
058019242 1.5 m (4.9 ft.)
058019243 2.5 m (8.2 ft.)
058019244 5 m (16.4 ft.)
058019245 10 m (32.8 ft.)
058019246 15 m (50 ft.)
058019247 20 m (65.6 ft.)

Water-Cooled Interconnecting Cable Assembly
027112337 1.5 m (4.9 ft.)
058019237 2.5 m (8.2 ft.)
058019236 5 m (16.4 ft.)
058019239 10 m (32.8 ft.)
058019240 15 m (50 ft.)
058019241 20 m (65.6 ft.)
For XMS 425 MPa. 70 mmq weld cable, control cable and gas hose. Water-cooled assemblies adds water hose.

Spool Adapter

047141
For use with 6.4 kg (14 lb.) spool of Hobart or Lincoln self-shielding wire.

Turntable Assembly

146236
Allows feeder to rotate as operator changes work position. Reduces strain and bending of gun cable.

Wire Straightener

For 20 Series and 70 Series.
141580 For 0.9–1.1 mm (.035–.045 in.) wire.
141581 For 1.6–3.2 mm (1/16–1/8 in.) wire.

WE BUILD™ connections

MillerWelds.com

Your trusted destination for welding resources, helpful support and high-performance products for all of your projects.

Together, we build connections.

Get Connected

eNewsletters
Get informative email newsletters written for do-it-yourselfers, professionals, instructors and safety specialists.

Protect your investment
Register your product as a precaution against theft or loss.

Owners club
Join for exclusive product previews, welding tips, project ideas and more.

Stay Connected

Video library
Get the how-to tips and guidance you need to tackle even the most challenging welding and cutting applications.

Project gallery
Find inspiration and share welding projects for home or work.

Discussion forums
Connect with other welders to harness the collective intelligence of the welding community.

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New! or **Improved!** products appear in blue type.

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