



**Miller**<sup>®</sup>

The Power of Blue<sup>®</sup>

# WE BUILD™



***with you***

2015 FULL-LINE CATALOG

| [MillerWelds.com](http://MillerWelds.com)

# WE BUILD™ *with you*



From left to right:  
Mark Donnelly  
*Ironworkers Local 40*  
Jake Wirkuty  
*Miron Construction*  
Stacy Tucker  
Kyle Tucker  
*Detroit Speed*  
Scott Shriver  
*Hendrick Motorsports*



**Dreams**



**Commerce**



**Tomorrow**



**Legends**



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Hard-working Miller products and the hard-working people who use them — people like you.

Together, we build things that have a lasting impact. An impact that benefits many ... for many generations to come.

Most of all, we build skills. We build confidence. We build careers. We build our world.

Miller and you. **Together, we build.**

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# New from Blue

## Get More on Your Mobile

Scan QR codes found throughout the catalog for access to additional content such as videos, product details, etc.



**7** Millermatic® 141  
Millermatic® 190



**21** Continuum™ System



**30** Dimension™ 650



**48** Syncrowave® 210 Runner  
TIG/MIG Complete



**70** Big Blue® 500 Pro



**72** Big Blue® 800 Duo Pro  
Big Blue® 800 Duo Air Pak™



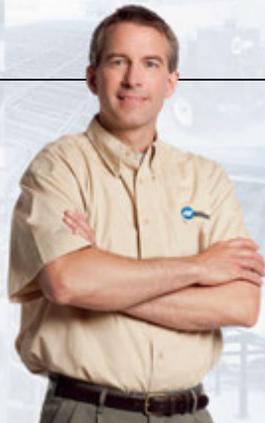
**74** SubArc Digital Series



**92** LiveArc™ Welding Performance  
Management System



**95/96** New Helmet Graphics  
and Weld-Mask™  
Auto-Darkening Goggles



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# Help me choose.

Finding the welding or cutting 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 or cut.

### Welding processes



#### 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

**Process Skill Level** ★ Low ★★ Moderate ★★★ High

#### Metal Type

S Steel

AL Aluminum

Ti Titanium

SS Stainless Steel

CI Cast Iron

Mg Magnesium Alloys

Ni Nickel Alloys

CB Copper/Brass

EC All Electrically Conductive



#### Resistance Spot ★

S SS Ni

- Simple, easy-to-operate welder for light industrial applications



#### 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

### Cutting processes



#### Plasma Arc Cutting and Gouging (PAC) ★

S SS Ni AL CI CB Ti Mg EC

- Use with any electrically conductive metals
- Small and precise cut
- Small heat-affected zone which helps prevent warping or paint damage



#### Oxy-Fuel Cutting ★

S

- Cuts ferrous (containing iron) steels
- Requires no electricity
- Highly portable

*Note: Oxy-Fuel equipment can also be used for welding, heating, brazing and soldering*



#### 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 gas- or 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** is found in most homes and garages. Check to see if the machine you're considering requires single-phase power, and whether its voltage requirements (120 or 240 volts) are met by the electrical service at the intended location.

**Three-phase power** is common in industrial settings. 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 home hobbyist or occasional user. They are designed to be easy to operate, are affordably priced and typically have a 20 percent duty cycle and rated output of 230 amps or lower.

● **Industrial** products are suitable for applications that do not require high-volume production. They typically have a 40 to 60 percent duty cycle and/or rated output of 300 amps or lower. 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

<b>1</b> Phase	Unit requires single-phase input power	<b>AC</b> <b>DC</b>	Unit supplies alternating current and direct current weld output
<b>3</b> Phase	Unit requires three-phase input power	<b>CC</b>	Unit supplies constant-current weld output
<b>AC</b>	Unit supplies alternating current weld output	<b>CV</b>	Unit supplies constant-voltage weld output
<b>DC</b>	Unit supplies direct current weld output	<b>CC</b> <b>CV</b>	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 120- or 240-volt 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 pickup 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.

Product Guide	Page	Class	Portability	Weldable Metals	Welding Output Range	Special Features	Typical Applications
Millermatic® 141	7	Light Industrial	Handles, optional running gear	Steel, stainless, aluminum	30-140 A	All-in-one, 120 VAC input, Auto-Sec™ Smooth-Start™	Up to 3/16 in.*** using self-shielded wire
Millermatic® 150	7	Light Industrial		Steel, stainless, aluminum	30-190 A	All-in-one, 240 VAC input, Auto-Sec™ Smooth-Start™	Up to 5/16 in.*** maintenance/repair, auto
Millermatic® 211 Auto-Sec™/MVP®	8	Industrial		Steel, stainless, aluminum	30-212 A	All-in-one, 120 or 230 VAC input, Auto-Sec™ Smooth-Start™	Up to 3/8 in.*** maintenance/repair, auto
Millermatic® 212 Auto-Sec™	8	Industrial	Installed running gear	Steel, stainless, aluminum	30-210 A	All-in-one, 230 VAC input, Fan-On-Demand™ Gas-On-Demand™	Up to 3/8 in.*** fabrication, farm, garage
Millermatic® 252	9	Industrial		Steel, stainless, aluminum	30-300 A	All-in-one, standard times menu, Fan-On-Demand™ can connect MIG aux. auto.	Up to 1/2 in.*** industrial grade
Millermatic® 380P	9	Heavy Industrial		Steel, stainless, aluminum	30-300 A	All-in-one, standard times menu, Fan-On-Demand™ can connect MIG aux. auto.	Up to 1/2 in.*** industrial grade

## 4 Go to product descriptions.

(Specifications are subject to change without notice.)

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

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

For more product specifications, give the product name and literature number to your distributor, visit us on the Web at MillerWelds.com or call 1-800-4-A-MILLER.

**Millermatic® 211 Auto-Sec™ with MVP**

See literature no. DC12.54

**Welding Capability**

MIG Steel	Max. 1/8 in. (3.2 mm)
Aluminum	Max. 1/8 in. (3.2 mm)
Aluminum	Max. 24 ga. (0.8 mm)
Aluminum	Max. 18 ga. (1.2 mm)

Auto-Sec™ makes set-up quick and easy. On the Millermatic 211, it works with .030- and .035-inch wire (see page 7 for more information).

**Infinite voltage control.** When used in manual mode provides broader operating range with finer control than a tap machine.

**Welds thickest material in its class — up to 3/8 inch (9.5 mm)!**

**Multi-voltage plug (MVP)™** allows connection to 115- or 230-volt receptacles without tools.

**Heavy-duty aluminum drive system is designed to provide superior feeding and durability.** The toolless, quick-change reversible drive rolls and easy-to-set scaled tension knob make it the easiest to use in the industry.

**Thermal overload protection.** Designed to protect your investment, every Millermatic is now equipped with built-in thermal overload protection.

**Smooth-Start™** technology provides smooth, spatter-free starts — no pop gun starts and no spatter to clean up.

**Tip saver™** shuts down output when tip is charred to the work. Extends contact tip life and protects internal components from damage.

**Uses 4- or 8-inch (102 or 203 mm) spools.**

**Recommended accessories:** Spoolmate™ 100 (9-300-271)

**Light Industrial icon CV DC 1**

**Processes**

**Comes complete with**

- 10-A, 12-A, 15-A, 18-A, 20-A, 22-A, 24-A, 26-A, 28-A, 30-A, 32-A, 34-A, 36-A, 38-A, 40-A, 42-A, 44-A, 46-A, 48-A, 50-A, 52-A, 54-A, 56-A, 58-A, 60-A, 62-A, 64-A, 66-A, 68-A, 70-A, 72-A, 74-A, 76-A, 78-A, 80-A, 82-A, 84-A, 86-A, 88-A, 90-A, 92-A, 94-A, 96-A, 98-A, 100-A, 102-A, 104-A, 106-A, 108-A, 110-A, 112-A, 114-A, 116-A, 118-A, 120-A, 122-A, 124-A, 126-A, 128-A, 130-A, 132-A, 134-A, 136-A, 138-A, 140-A, 142-A, 144-A, 146-A, 148-A, 150-A, 152-A, 154-A, 156-A, 158-A, 160-A, 162-A, 164-A, 166-A, 168-A, 170-A, 172-A, 174-A, 176-A, 178-A, 180-A, 182-A, 184-A, 186-A, 188-A, 190-A, 192-A, 194-A, 196-A, 198-A, 200-A, 202-A, 204-A, 206-A, 208-A, 210-A, 212-A, 214-A, 216-A, 218-A, 220-A, 222-A, 224-A, 226-A, 228-A, 230-A, 232-A, 234-A, 236-A, 238-A, 240-A, 242-A, 244-A, 246-A, 248-A, 250-A, 252-A, 254-A, 256-A, 258-A, 260-A, 262-A, 264-A, 266-A, 268-A, 270-A, 272-A, 274-A, 276-A, 278-A, 280-A, 282-A, 284-A, 286-A, 288-A, 290-A, 292-A, 294-A, 296-A, 298-A, 300-A, 302-A, 304-A, 306-A, 308-A, 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# MIG | GMAW

Also see Multiprocess section for machines that can MIG weld.

For more detailed information, visit

[MillerWelds.com/mig](http://MillerWelds.com/mig)



## Product Guide

	Page	Class	MIG	Pulsed MIG*	Flux-Cored**	CAC-A	Portability	Weldable Metals	Welding Output Range	Special Features	Typical Applications
Power Sources	Millermatic® 141	7	●	●	●		Handle, optional running gear	Steel, stainless, aluminum	30-140 A	All-in-one, 120 VAC input, Auto-Set™ Smooth-Start™	Up to 3/16 in.*** using self-shielded wire maintenance/repair, auto body, hobby
	Millermatic® 190	7	●	●	●				30-190 A	All-in-one, 240 VAC input, Auto-Set™ Smooth-Start™	Up to 5/16 in.*** maintenance/repair, auto body, hobby
	Millermatic® 211 Auto-Set™ w/ MVP™	8	●	●	●				30-210 A	All-in-one, 120 or 230 VAC input, Auto-Set™ Smooth-Start™	Up to 3/8 in.*** maintenance/repair, auto body, hobby
	Millermatic® 212 Auto-Set™	8	●	●	●		Installed running gear	Steel, stainless, aluminum	30-210 A	All-in-one, 230 VAC input, Fan-On-Demand™, Gun-On-Demand™	Up to 3/8 in.*** fabrication, farm, garage/body shops
	Millermatic® 252	9	●	●	●				30-300 A	All-in-one, standard timers menu, Fan-On-Demand™ can connect MIG gun, push-pull gun or spool gun	Up to 1/2 in.*** industrial production/fabrication, farm
	Millermatic® 350P	9	●	●	●				25-400 A	All-in-one, can connect standard MIG gun, push-pull gun or spool gun	Up to 1/2 in.*** industrial production/fabrication, Pulsed MIG ideal for thin gauge aluminum
	CP-302	11	●	●	●		Lift eye, optional running gear, MIGRunner	Most metals	14-44 V	Hi/Lo stabilizer, power efficient	Equip/auto mfg, metal fab, construction, agri equipment
	Deltaweld® 302	11	●	●	●				15-32 V	Power efficient, material-specific output terminals	Equip/auto mfg, metal fab, construction, agri equipment
	Deltaweld® 452	11	●	●	●	1/4"			15-38 V	Power efficient, material-specific output terminals	Equip/auto mfg, metal fab, construction, agri equipment
	Deltaweld® 652	11	●	●	●	3/8"			15-44 V	Power efficient, material-specific output terminals	Equip/auto mfg, metal fab, construction, agri equipment
	Invision™ 352 MPa Plus System	12	●	●	●	1/4"	Handles, optional cart, MIGRunner	Most metals	5-425 A 10-38 V	Alumination™ allows push/pull gun, optimized with 74 MPa Plus wire feeder	Manufacturing and production
	Invision™ 450 MPa Plus System	12	●	●	●	5/16"			15-600 A 10-38 V	Alumination™ allows push/pull gun, optimized with 74 MPa Plus wire feeder	Manufacturing and production
	Millermatic® 350P Aluminum	14	●	●	●		Installed running gear	Aluminum	25-400 A	All-in-one, optimized for feeding aluminum wire only using a push-pull gun or spool gun	Up to 1/2 in.*** industrial aluminum production/fab, Pulsed MIG ideal for thin gauge aluminum
	AlumaFeed™ 350 Aluminum System	15	●	●	●		Handles, optional cart, MIGRunner	Aluminum	5-425 A 10-38 V	Profile Pulse™ lightweight feeder can be up to 100 feet from power source	Heavy-industrial aluminum production/fabrication, truck trailer, shipbuilding
AlumaFeed™ 450 Aluminum System	15	●	●	●		15-600 A 10-38 V			Profile Pulse™ lightweight feeder can be up to 100 feet from power source	Heavy-industrial aluminum production/fabrication, truck trailer, shipbuilding	
Controls and Guns	Spoolmate™ Spool Guns	16	●	●			12-ft. (100) or 20-ft. (200/3035) cable	Steel, stainless, aluminum	—	.023-.035 in. (0.6-0.9 mm) wire capacity, economical, 135 A (100), 160 A (200), 150 A (3035)	Light-industrial aluminum fabrication
	Spoolmatic® Spool Guns	17	●	●	●		15- or 30-ft. cable			.023-1/16 in. (0.6-1.6 mm) wire capacity; easy-to-rotate, self-seating head tube on Pro model	Industrial aluminum fabrication
	XR™-Pistol Push-Pull Guns	18	●	●	●		15- or 30-ft. (Pistol) or 15-, 30- or 35-ft. (Pistol-Pro) cable	Aluminum	—	.030-1/16 in. (0.8-1.6 mm) wire capacity, air- and water-cooled models; easy-to-rotate, self-seating head tube on Pro model	Heavy-industrial aluminum fabrication
	XR-Aluma-Pro™ Lite Push-Pull Gun	18	●	●	●		25-ft. cable			.030-3/64 in. (0.8-1.2 mm) wire capacity, lightweight, air-cooled	Industrial aluminum fabrication
	XR-Aluma-Pro™ Push-Pull Guns	18	●	●	●		15-, 30- or 35-ft. cable			.030-1/16 in. (0.8-1.6 mm) wire capacity, high-amperage, air- and water-cooled models	Heavy-industrial aluminum fabrication
XR™-Controls	19	●	●	●		Handles, optional cart			.030-1/16 in. (0.8-1.6 mm) wire capacity, push-pull	Heavy-industrial aluminum 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. \*Guns and controls require MPa inverter power source or optional Optima control with a recommended inverter power source.

\*\*If using self-shielded wire on a CC/CV machine, use CV weld output. \*\*\*In a single pass.

See MIG packages chart (page 10) and aluminum solutions chart (page 13) for additional information.



# Millermatic® 141 and 190

See literature no.  
DC/12.42 (141) and DC/12.44 (190)

Light industrial ● CV DC 1 Phase

## Processes

- MIG (GMAW) • Flux-Cored (FCAW)

## Comes complete with

- 10-ft. (3 m) M-100 MIG gun and cable assembly (#248 282)
- 10-ft. (3 m) work cable with clamp
- 6.5-ft. (2 m) power cord with plug
- Quick Select™ drive roll for .024-in. (0.6 mm) or .030/.035-in. (0.8/0.9 mm) solid wire, and .030/.035-in. (0.8/0.9 mm) flux-cored wire



- Flow gauge regulator and gas hose for argon or AR/CO<sub>2</sub> mix, two .030-in. contact tips, Hobart® spool of .030-in. solid wire, hook-and-loop cord wraps and material thickness gauge (#229 895)

## Most popular accessories

- Spoolmate™ 100 #300 371 (pg 16)



- Running Gear/Cylinder Rack #301 239 (pg 101)
- Protective Cover #301 262 (pg 104)

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



Scan this tag to see videos on Millermatic features.



Millermatic 141



Millermatic 190



### Mild Steel Welding Capability

Max.	3/16 in. (4.8 mm)	5/16 in. (7.9 mm)
Model	141	190
Min.	24 ga. (0.8 mm)	24 ga. (0.8 mm)

### Aluminum Welding Capability

Max.	14 ga. (1.9 mm)	1/4 in. (6.4 mm)
Model	141	190
Min.	18 ga. (1.2 mm)	18 ga. (1.2 mm)

Aluminum welding uses optional Spoolmate 100 spool gun and 4043 series aluminum wire.

### Recommended aluminum solution

Spoolmate 100 (#300 371).



**Auto-Set™** automatically provides the right settings to weld mild steel while **infinite voltage control** allows the flexibility to manually set your own parameters.

- Set the wire diameter (.024- or .030-inch diameter solid steel wire), a blue light shows Auto-Set is activated



- Dial in the thickness of what you're welding
- Start welding with the exact parameters you need!

**Angled cast-aluminum drive system** with calibrated tension knob creates consistent feeding and easy setup with included 10-foot (3 m) MIG gun or optional 15-foot (4.6 m) MIG gun.

**Quick Select™ drive roll** makes setup quicker by offering three grooves – two for different size solid wire and a third for flux-cored wire.

**Auto Spool Gun Detect™** automatically detects when a MIG gun or spool gun is connected eliminating the need for a switch.

**Smooth-Start™** provides a smooth, spatter-free start. It's the best-starting machine in the small MIG machine category.

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

**Uses 4- or 8-inch (102 or 203 mm) spools.**

### Millermatic 190 model additional features

**Miller inverter technology** combines best-in-class arc characteristics with the portability of a 35-pound machine. The arc is extremely forgiving to variations in arc length and travel speeds.

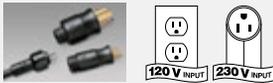
**Fan-On-Demand™** power source cooling system operates only when needed, reducing noise, energy use and the amount of contaminants pulled through the machine.

Model/Stock Number	Input Power	Amperage Range	Rated Output	Amps Input at Rated Output, 60 Hz	Wire Feed Speed	Wire Type and Diameter Capacity	Machine Only Dimensions	Machine Only Net Weight
Millermatic 141 (#907 612) (#951 601) with running gear/cylinder rack	120 V	30-140	90 A at 18.5 VDC, 20% duty cycle	20    –    3.0    2.45	15-360 IPM (0.4-9.1 m/min.)	Solid Steel .023-.030 in. (0.6-0.8 mm) Stainless .023-.030 in. (0.6-0.8 mm) Flux-Cored .030-.035 in. (0.8-0.9 mm)	H: 12.5 in. (318 mm) W: 11.25 in. (286 mm) D: 20.5 in. (521 mm)	51 lb. (23.1 kg)
Millermatic 190 (#907 613) (#951 602) with running gear/cylinder rack	240 V	30-190	140 A at 21 VDC, 40% duty cycle	–    21    5.0    3.8	60-600 IPM (1.5-15.2 m/min.)	Solid Steel .023-.035 in. (0.6-0.9 mm) Stainless .023-.035 in. (0.6-0.9 mm) Flux-Cored .030-.035 in. (0.8-0.9 mm)		35 lb. (15.9 kg)



# Millermatic® 211 Auto-Set™ with MVP™

See literature no. DC/12.54



MVP allows connection to 120 V and 230 V receptacles.



**Recommended aluminum solution**  
Spoolmate 100 (#300 371).

### Welding Capability

Max. 3/8 in. (9.5 mm)	Max. 3/8 in. (9.5 mm)
Mild Steel	Aluminum
Min. 24 ga. (0.8 mm)	Min. 18 ga. (1.2 mm)

Aluminum welding uses optional Spoolmate 100 spool gun and 4043 series aluminum wire.

**Auto-Set** makes setup quick and easy. On the Millermatic 211, it works with .030- and .035-inch wire (see page 7 for more information).

**Infinite voltage control.** When used in manual mode provides broader operating range with finer control than a tap machine.

**Welds thickest material in its class** – up to 3/8 inch (9.5 mm)!

**Multi-voltage plug (MVP™)** allows connection to 115- or 230-volt receptacles without tools.

**Heavy-duty aluminum drive system is designed to provide superior feeding and durability.** The toolless, quick-change reversible drive rolls and easy-to-set scaled tension knob make it the easiest to use in the industry.

**Thermal overload protection.** Designed to protect your investment, every Millermatic is now equipped with built-in thermal overload protection.

**Smooth-Start™** technology provides smooth, spatter-free starts – no pop gun starts and no spatter to clean up.

**“Tip saver”** shuts down output when tip is shorted to the work. Extends contact tip life and protects internal components from damage.

**Uses 4- or 8-inch (102 or 203 mm) spools.**

Light Industrial ● **CV DC 1**  
Phase

### Processes

- MIG (GMAW) • Flux-Cored (FCAW)

### Comes complete with

- 10-ft. (3 m) M-100 MIG gun and cable assembly (#248 282)
- 10-ft. (3 m) work cable with clamp
- 6-ft. (1.8 m) power cord with MVP plugs for 115 V and 230 V
- Factory-installed gas solenoid valve
- Dual groove quick-change drive rolls for .024-in. (0.6 mm) or .030/.035-in. (0.8/0.9 mm) wire
- Flow gauge regulator and gas hose for argon or AR/CO<sub>2</sub> mix, extra contact tips, Hobart® spool of solid wire, information/settings chart and material thickness gauge (#229 895)

### Most popular accessories

- Spoolmate™ 100 #300 371 (pg 16)
- Running Gear/Cylinder Rack #301 239 (pg 101)
- Protective Cover #195 149 (pg 104)
- V-Knurled Drive Roll #202 926

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

Stock Number (#907 422) (#951 375) with standard running gear/cylinder rack	Input Power	Amperage Range	Rated Output	Amps Input at Rated Output, 60 Hz		Wire Feed Speed	Wire Type and Diameter Capacity	Machine Only Dimensions	Machine Only Net Weight
	120 VAC	30-140	90 A at 20 V, 20% duty cycle	20	230 V				
	230 VAC	30-210	150 A at 23.5 V, 30% duty cycle	–	24.3	5.5	4.8		

# Millermatic® 212 Auto-Set™

See literature no. DC/12.46

### Welding Capability

Max. 3/8 in. (9.5 mm)	Max. 3/8 in. (9.5 mm)
Mild Steel	Aluminum
Min. 22 ga. (0.9 mm)	Min. 14 ga. (1.9 mm)

Aluminum welding uses optional Spoolmate 200 spool gun.

**Auto-Set** makes setup quick and easy. On the Millermatic 212, it works with .030- and .035-in. wire (see page 7 for more information).

**Infinite voltage control.** When used in manual mode provides broader operating range with finer control than a tap machine.

**Gun-On-Demand™** Simply pull the trigger for either gun and you're ready to weld. No wasted time installing modules and using gas valve kits.

**Heavy-duty aluminum, two-drive-roll system.**

**Fan-On-Demand™** cooling system only operates when needed reducing power consumption and keeping internal components cleaner.

**Aluminum MIG welding** with optional Spoolmate™ 200 spool gun. Wire feed speed control on the gun saves time by reducing trips back to the machine. Also compatible with the more industrial Spoolmatic® spool guns.

Light Industrial ● **CV DC 1**  
Phase

### Processes

- MIG (GMAW) • Flux-Cored (FCAW)

### Comes complete with

- 15-ft. (4.5 m), 250-amp M-25 gun
- 10-ft. (3 m) work cable with clamp
- 7-ft. (2.1 m) power cord and plug
- Flow gauge regulator and gas hose for argon or AR/CO<sub>2</sub> mix
- Factory-installed lowered running gear/cylinder rack
- .030/.035-in. reversible dual-groove drive rolls
- Extra contact tips and material thickness gauge (#229 895)

### Most popular accessories

- Spoolmate™ 200 #300 497 (pg 16)
- Dual EZ-Change™ Low Cylinder Rack #300 337 (pg 101)
- Elevated Gun and Cable Rack #300 335 (pg 101)
- Protective Cover #195 142 (pg 104)
- Full KVA Adapter Cord #300 517

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



**Recommended aluminum solution**  
Spoolmate 200 (#300 497).

Stock Number (#907 405) 200(208)/230 V (#951 177) 200(208)/230 V with Spoolmate 200, regulator, gas hose and dual cylinder rack	Amperage Range	Rated Output	Amps Input at Rated Output, 60 Hz		Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight		
	30-210	160 A at 24.5 VDC, 60% duty cycle	200 V	230 V					KVA	KW
			31	28	6.2	5.2	50-700 IPM (1.3-17.8 m/min.)	<b>Solid Steel</b> .023-.035 in. (0.6-0.9 mm) <b>Stainless</b> .023-.035 in. (0.6-0.9 mm) <b>Flux-Cored</b> .030-.045 in. (0.8-1.2 mm)	H: 30 in. (762 mm) W: 19 in. (483 mm) D: 40 in. (1016 mm)	183 lb. (83 kg)



# Millermatic® 252

See literature no. DC/12.49

## Welding Capability

Max. 1/2 in. (13 mm)	Max. 3/8 in. (9.5 mm)
Mild Steel	Aluminum
Min. 22 ga. (0.9 mm)	Min. 14 ga. (1.9 mm)

Aluminum welding uses optional Spoolmatic 15A or 30A spool gun.



### Recommended aluminum solution

Spoolmatic 15A (#195 156) or 30A (#130 831).



\*With Spoolmatic 30A, regulator, gas hose and dual cylinder rack.

**Infinite voltage control with self-calibrating digital meters** that permit presetting of voltage and wire feed speed. Ensures precise parameters and accuracy.

**EXCLUSIVE! Auto-Gun Detect™** automatically adjusts voltage, wire speed and timers for faster switching between MIG, push-pull and spool guns.

**Integrated digital timers** come complete with presettable preflow/postflow, bumback, spot and delay (stitch) timers. Independent timers for MIG and spool gun.

**Heavy-duty aluminum, two-drive-roll system.**

**Fan-On-Demand™** cooling system only operates when needed reducing power consumption and keeping internal components cleaner.

**Superior aluminum MIG welding with direct connection** of optional XR™ push-pull guns, Spoolmatic®/Spoolmatic Pro and Spoolmate™ 200 spool guns. No extra module to buy or install.

Industrial ● CV DC 1 Phase

### Processes

• MIG (GMAW) • Flux-Cored (FCAW)

### Comes complete with

- 15-ft. (4.5 m), 250-amp M-25 gun
- 10-ft. (3 m) work cable with clamp
- 10-ft. (3 m) industrial power cord (and plug on 200/230 V model)
- Factory-installed gas solenoid
- Flow gauge regulator and gas hose for argon or AR/CO<sub>2</sub> mix
- Factory-installed lowered running gear/cylinder rack
- .030/.035-in. reversible dual-groove drive rolls
- Extra contact tips

### Most popular accessories

- Spoolmate™ 200 and Spoolmatic® Spool Guns (pg 16/17)
- XR™ Air-Cooled Push-Pull Guns (pg 18)
- Dual EZ-Change™ Low Cylinder Rack #300 337 (pg 101)
- Elevated Gun and Cable Rack #300 335 (pg 101)
- Protective Cover #195 142 (pg 104)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model/Stock Number	Amperage Range	Rated Output	Amps Input at Rated Output, 60 Hz 200 V 230 V 460 V 575 V KVA KW	Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight
(#907 321) 200(208)/230 V (#951 066*) 200(208)/230 V	30-300	200 A at 28 VDC, 60% duty cycle	48 42 — — 9.5 7.5 (at 60% duty cycle)	50-700 IPM (1.3-17.8 m/min.)	<b>Solid Steel</b> .023-.045 in. (0.6-1.2 mm) <b>Stainless</b> .023-.045 in. (0.6-1.2 mm) <b>Flux-Cored</b> .030-.045 in. (0.8-1.2 mm)	H: 30 in. (762 mm) W: 19 in. (483 mm) D: 40 in. (1016 mm)	205 lb. (94 kg)
(#907 322) 230/460/575 V (#951 065*) 230/460/575 V		250 A at 28 VDC, 40% duty cycle	— 46 23 18 9.5 7.5 (at 60% duty cycle)				

# Millermatic® 350P

See literature no. DC/12.51

## Welding Capability

Max. 1/2 in. (13 mm)	Max. 1/2 in. (13 mm)
Mild Steel	Aluminum
Min. 24 ga. (0.8 mm)	Min. 18 ga. (1.2 mm)

Aluminum welding uses optional Aluma-Pro push-pull gun.



### Recommended aluminum solution

XR-Aluma-Pro push-pull gun (see page 18).

**Built-in Pulsed MIG programs.** All programmed information is restored after each power up — aluminum/steel/stainless steel/metal-cored.

**Infinite voltage control with self-calibrating digital meters** that permit presetting of voltage and wire feed speed. Ensures precise parameters and accuracy.

**EXCLUSIVE! Auto-Gun Detect™** automatically adjusts voltage, wire speed and timers for faster switching between MIG, push-pull and spool guns.

**Integrated digital timers** come complete with presettable preflow/postflow and spot timers. Independent timers for MIG and push-pull guns.

**Heavy-duty aluminum, four-drive-roll system.**

**Fan-On-Demand™** cooling system only operates when needed reducing power consumption and keeping internal components cleaner.

Industrial ● CV DC 3 1 Phase Phase

### Processes

• MIG (GMAW) • Flux-Cored (FCAW)  
• Pulsed MIG (GMAW-P)

### Comes complete with

- 15-ft. (4.5 m) Bernard™ Q300 MIG gun with Centerfire™ consumables
- 10-ft. (3 m) work cable with clamp
- 10-ft. (3 m) industrial power cord (without plug) for single- or three-phase
- Factory-installed gas solenoid
- Flow gauge regulator and gas hose for argon or AR/CO<sub>2</sub> mix
- Factory-installed, low-mounted running gear/cylinder rack
- .035/.045-in. reversible V-groove drive rolls (order U-groove drive rolls for aluminum welding)
- Extra contact tips

### Most popular accessories

- Spoolmatic® Spool Guns (pg 17)
- XR™ Air-Cooled Push-Pull Guns (pg 18)
- Dual Cylinder Rack #195 299 (pg 101)
- Protective Cover #195 142 (pg 104)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Stock Number	Input Power	Amperage Range	Rated Output	Amps Input at Rated Output, 60 Hz 200 V 230 V 460 V KVA KW	Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight
(#907 300) 200/230/460 V	Three-phase	25-400	300 A at 32 VDC, 60% duty cycle	34 30 15 11.6 11.5	<b>MIG Gun</b> 50-700 IPM (1.3-17.8 m/min.)	<b>Solid Steel</b> .023-.045 in. (0.6-1.2 mm) <b>Stainless</b> .030-.045 in. (0.8-1.2 mm) <b>Aluminum</b> .035-.047 in. (0.9-1.2 mm) <b>Metal-Cored</b> .035-.052 in. (0.9-1.3 mm) <b>Flux-Cored</b> .030-.052 in. (0.8-1.3 mm)	H: 34 in. (863 mm) W: 19 in. (483 mm) D: 41 in. (1041 mm)	181 lb. (82 kg)
	Single-phase			69 61 30 13.1 11.2	<b>Optional Spool Gun/ Push-Pull Gun</b> 50-800 IPM (1.3-20 m/min.)			



# MIG packages for demanding industrial applications.

## Power Source Welding Performance

		300 Amp				450 Amp			650 Amp	
		CP-302 with 22A (pg 11)	Deltaweld® 302 with S-74D (pg 11)	Invision™ 352 MPa w/S-74 MPa Plus (pg 12)	Access® 300 w/Access Feeder (pg 20)	Deltaweld® 452 with S-74D (pg 11)	Invision™ 450 MPa w/S-74 MPa Plus (pg 12)	Access® 450 w/Access Feeder (pg 20)	Deltaweld® 652 with S-74D (pg 11)	Access® 675 w/Access Feeder (pg 20)
Material	Mild Steel	●	●	●	●	●	●	●	●	●
	Stainless Steel	○	○	●	●	○	●	●	○	●
	Aluminum		○	●	●	○	●	●	○	●
Material Thickness	Gauge (.020 - .125 in.)	●	●	●	○	○	●	○	○	○
	Sheet (.125 - .375 in.)	●	●	●	●	●	●	●	●	●
	Plate (.375 - 1 in.)	○	○	○	○	●	●	●	●	●
	Plate (1+ in.)					○	○	●	●	●
Wire Size	.030 in.	●	●	●		○	●			
	.035 in.	●	●	●	●	●	●	●	●	●
	.045 and .052 in.	○	●	●	●	●	●	●	●	●
	1/16 in.	○	○	●		●	●	●	●	●
	5/64 in.					●	●	●	●	●
	3/32 in.					○	○	○	●	●
Process All machines designed for MIG Spray Transfer and Flux-Cored.	Short Circuit	★★	★★	★★★★	★★★★	★★	★★★★	★★★★	★★	★★★★
	Pulsed Spray			★★★★	★★★★		★★★★	★★★★		★★★★
	Accu-Pulse®				★★★★			★★★★		★★★★
	RMD®				Optional ★★★★★			Optional ★★★★★		Optional ★★★★★
	CAC-A			1/4 in.		1/4 in.	5/16 in.	1/4 in.	3/8 in.	3/8 in.

**ICON KEY**

**CAPABILITY:** ● Designed for ○ Capable of

**PROCESS QUALITY:** ★ Good ★★ Better ★★★ Best ★★★★★ Optimized

## Miller recommends

It's the tie that binds



Finding the right filler metal solution for your welding needs is critical in an industry that is about getting the job done right. Filler metals are more than just a component of welding — they are **the tie that binds science and people**. The right solutions. Solutions to make our world more secure. More dynamic. More of what you need.

Every day, every project, every weld is another opportunity for Hobart to earn and secure your trust by helping you find the right filler metal solution.

That kind of help and finding your welding solutions is our passion.

Visit [HobartBrothers.com](http://HobartBrothers.com) for more information.

**SCIENCE + PEOPLE**

**Find Your Solution. Today.**



# CP-302

See literature no. DC/13.0

**Cost-effective, simple MIG power source designed for manufacturing.**



**EQUIP to WELD**  
Build your own system at  
[MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld)  
or see packages below.

**Large analog meters** are easy to read and display preset and actual voltage and amperage.

**14-pin receptacle** provides a quick, direct connection to Miller® wire feeders.

**115-VAC power** for tools and coolant systems.

CP-302 MIGRunner package (#951 230) shown.

# Deltaweld® Series

See literature no. DC/16.2

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



Deltaweld 452  
MIGRunner package  
(#951 302) shown.

**EQUIP to WELD**  
Build your own system at  
[MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld)  
or see packages below.

**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.

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

**115-VAC 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.

**Industrial** ● 302 models

**Heavy Industrial** ● 452/652 models



**Processes**

- MIG (GMAW) ▪ Flux-Cored (FCAW)
- Air Carbon Arc Gouging (CAC-A)
- (Deltaweld 452: 1/4-in. carbons)
- (Deltaweld 652: 3/8-in. carbons)

**Stationary package includes**

- Power source
- 22A (CP-302) or S-74D (Deltaweld) feeder with .035/.045 drive rolls
- Bernard™ Q300 (CP-302) or Q400 (Deltaweld) MIG gun
- Industrial MIG 4/0 kit consisting of flowmeter regulator with 10-ft. (3 m) gas hose, 10-ft. (3 m) 4/0 feeder weld cable with lugs, and 15-ft. (4.6 m) work cable with 600-amp C-clamp.

**MIGRunner™ package includes above plus**

- Factory-installed standard running gear and standard cylinder rack

**Most popular accessories**

- 20 Series Feeders (pg 40)
- 70 Series Feeders (pg 40)
- Standard Running Gear #042 886 (pg 101)
- Standard Cylinder Rack #042 887 (pg 101)
- Industrial MIG 4/0 Kit (with lug connectors) #300 390 (pg 104)
- Extension Cables (pg 110)
  - #247 831 025 25 ft. (7.6 m)
  - #247 831 050 50 ft. (15 m)
  - #247 831 080 80 ft. (24.4 m)
- Bernard™ MIG Guns

When purchasing components separately, visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld) or your distributor for other Miller® options and accessories.

**Models/Packages**

\*Additional packages are available – visit [MillerWelds.com](http://MillerWelds.com) or your distributor.



Deltaweld 652  
(#903 396) shown.



Deltaweld 452 Stationary  
package (#951 301) shown.



Deltaweld 452 MIGRunner  
package (#951 302) shown.

Models	Power Source Only Stock Number	Stationary Package Stock Number*	MIGRunner Package Stock Number*
CP-302	(#903 786) 200/230/460 V	(#951 231)	(#951 230)
Deltaweld 302	(#903 376) 200-208/230/460 V	(#951 235)	(#951 234)
	(#903 392) 230/460/575 V	–	(#951 300)
Deltaweld 452	(#903 377) 200-208/230/460 V	(#951 237)	(#951 236)
	(#903 394) 230/460/575 V	(#951 301)	(#951 302)
Deltaweld 652	(#903 396) 230/460/575 V	(#951 239)	(#951 238)

Model	Voltage Range	Rated Output	Amps Input at Rated Output, 60 Hz					Open-Circuit Voltage	Dimensions (Includes lift eye and strain relief)	Net Weight
			200 V	230 V	460 V	575 V	KVA			
CP-302	14–44	300 A at 32 VDC, 100% duty cycle	38	33	16.5	–	13.1	12.3	14–44 VDC	H: 30 in. (762 mm) 332 lb. (151 kg)
Deltaweld 302	10–32	300 A at 32 VDC, 100% duty cycle	48	42	21	17	16.9	12.9	42 VDC max.	W: 23 in. (585 mm) 323 lb. (147 kg)
Deltaweld 452	10–38	450 A at 38 VDC, 100% duty cycle	72	63	32	25	25.1	21.1	48 VDC max.	302 D: 30.5 in. (775 mm) 384 lb. (174 kg)
Deltaweld 652	10–44	650 A at 44 VDC, 100% duty cycle	–	96	48	38	38.2	34.2	54 VDC max.	452/652 D: 38 in. (966 mm) 472 lb. (214 kg)



# Invision™ MPa Plus System

See literature no. DC/23.6

**MIG and synergic Pulsed MIG system with optimized weld programs for both steel and aluminum.**



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



Build your own system at  
[MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld)  
or see packages below.



**Recommended Aluminum Solution**  
Dedicated XR Plus guns work with MPa Plus feeders to coordinate wire feed speed of the gun and the feeder. This provides optimized aluminum feeding and welding performance. See page 41 for stock numbers.

**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.



**AUTOLINE** Invision 352 model allows for any input voltage hookup (208–575 V) with no manual linking, 450 model is 230/460 V manual link or 575 V, three-phase only.

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

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

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

**Heavy Industrial** Invision 450 is 3-phase only.

**Processes**

- MIG (GMAW) • Flux-Cored (FCAW)
- Pulsed MIG (GMAW-P)
- Air Carbon Arc Gouging (CAC-A) (Invision 352: 1/4-in. carbons) (Invision 450: 5/16-in. carbons)

**Optimized wire feeding options**

- 70 Series MPa Plus feeders (pg 40)
- XR-Aluma-Pro™ Plus and XR™-Pistol Plus push-pull guns (pg 41)
- 70 Series Swingarc™ with MPa Plus control box (pg 42)
- Single- and dual-remote configurations (pg 42, for more information see literature no. DC/23.6)

**Most popular accessories**

- MIGRunner™ Cart (single feeders only) #195 445 (pg 102)
- Running Gear Cylinder Rack #300 408 (pg 102)
- Coolmate™ 3 #043 007 (pg 102)
- Industrial MIG 4/0 Kits (pg 104) #300 405 With Dinse connectors (352 MPa only) #300 390 With lug connectors (450 MPa only)

Consists of flowmeter regulator with 10-ft. (3 m) gas hose, 10-ft. (3 m) 4/0 feeder weld cable, and 15-ft. (4.6 m) work cable with 600-amp C-clamp.

- Extension Cables (pg 110) #247 831 025 25 ft. (7.6 m) #247 831 050 50 ft. (15 m) #247 831 080 80 ft. (24.4 m)

When purchasing components separately, visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld) or your distributor for other Miller® options and accessories.

**Models/Packages**

\*Additional packages are available – visit [MillerWelds.com](http://MillerWelds.com) or your distributor.



Power Source Only Stock Number	Package Stock Number*	70 Series MPa Plus Feeder with Bernard™ Q400 Push-Only MIG Gun and .035/.045 Drive Rolls	XR-Aluma-Pro™ Plus Push-Pull MIG Gun	Industrial MIG 4/0 Kit	Cart	
<b>Invision 352 MPa</b> (#907 431) 208–575 V (#907 431 001) 208–575 V with auxiliary power	<b>Alum</b>	(#951 287) w/352 model (#907 431)	S-74 (single-wire feeder with one gun)	25-ft. air-cooled	With Dinse connectors	MIGRunner cart
		(#951 501) w/352 model (#907 431)	D-74 (dual-wire feeder with two guns)	25-ft. air-cooled	With Dinse connectors	Running gear cylinder rack
		(#951 411) w/352 model (#907 431)	S-74 (single-wire feeder with one gun)	–	With Dinse connectors	MIGRunner cart
		(#951 500) w/352 model (#907 431)	D-74 (dual-wire feeder with two guns)	–	With Dinse connectors	Running gear cylinder rack
<b>Invision 450 MPa</b> (#907 485) 230/460 V with auxiliary power (#907 486) 575 V with auxiliary power	<b>Steel</b>	(#951 499) w/450 model (#907 485)	S-74 (single-wire feeder with one gun)	–	With lug connectors	MIGRunner cart
		(#951 457) w/450 model (#907 485)	D-74 (dual-wire feeder with two guns)	–	With lug connectors	Running gear cylinder rack

Note: See aluminum solutions comparison chart on page 13.

Model	Input Power	Amp/Volt Ranges	Rated Output	Amps Input at Rated Load Output, 60 Hz					KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
				208 V	230 V	400 V	460 V	575 V					
<b>Invision 352 MPa</b>	Three-phase	5–425 A 10–38 V	350 A at 34 VDC, 60% duty cycle	40.4	36.1	20.6	17.8	14.1	14.2	13.6	75 VDC	H: 17 in. (432 mm) W: 12.5 in. (318 mm) D: 24 in. (610 mm)	80 lb. (36.3 kg)
	Single-phase	5–425 A 10–38 V	300 A at 32 VDC, 60% duty cycle	60.8	54.6	29.7	24.5	19.9	11.7	11.2			
<b>Invision 450 MPa</b>	Three-phase	15–600 A 10–38 V	450 A at 36.5 VDC, 100% duty cycle	–	49.4	–	27.2	23.6	21.6 (23.5 on 575 V)	18.3	90 VDC	H: 17.25 in. (438 mm) W: 14.5 in. (368 mm) D: 27.125 in. (689 mm)	122 lb. (55.3 kg)



# Choose the right industrial aluminum MIG solution.

For additional aluminum MIG solutions, see spool guns, push-pull guns and controls on pages 16 – 19.



Millermatic 350P Aluminum push-pull gun welding system shown with XR-Aluma-Pro gun (page 14).



AlumaFeed synergic aluminum system shown with XR-Aluma-Pro gun and AlumaPower 450 MPa (page 15).



Invision 352 MPa Plus system shown with dual-feeder stationary package (page 12).



Scan this tag to see videos of aluminum system success stories.

	Millermatic® 350P Aluminum	AlumaFeed™ Synergic Aluminum System	Invision™ MPa Plus System
	<b>Cost-effective light-industrial all-in-one MIG/Pulsed MIG solution with easy-to-use interface for aluminum welding on material up to 1/2-inch thick. Features built-in running gear for mobility.</b>	<b>Dedicated industrial-fabrication aluminum-welding solution with advanced welding features that can handle larger weldments. Its lightweight push-pull feeder can easily be carried up to 100 feet from the power source.</b>	<b>Versatile, industrial advanced system for large, high-duty-cycle aluminum and steel weldments. Features push and/or push-pull bench feeder for easy switchover between solid, aluminum and tubular wires.</b>
<b>Power Source</b>	Millermatic 350P Aluminum (all-in-one)	AlumaPower™ 350 MPa or 450 MPa	Invision 352 MPa or 450 MPa
<b>Feeder</b>	All-in-one – built-in running gear with cylinder rack is easily maneuverable from area to area	Single-wire XR-AlumaFeed – portable feeder can be carried up to 100 feet from power source	Single- or dual-wire 74 MPa Plus – stationary feeders can be mounted up to 100 feet from power source
<b>Input Voltage</b>	Single- or three-phase	Single- or three-phase (450 MPa is three-phase only)	Single- or three-phase (450 MPa is three-phase only)
<b>Rated Output</b>	300 A at 60% duty cycle	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
<b>Primary Connection</b>	Auto-Link® – Automatically links the power source to primary voltage being applied. Auto-link is used to link to 208 or 230 V and manually moving a link board is required to link to 460 V.	350 MPa: Auto-Line™ – Allows for any primary input voltage (208–575 V, single- or three-phase, 50 or 60 hertz) with no manual linking. Also adjusts for voltage spikes within the entire range. 450 MPa: 230/460 V manual linking	352 MPa: Auto-Line™ – Allows for any primary input voltage (208–575 V, single- or three-phase, 50 or 60 hertz) with no manual linking. Also adjusts for voltage spikes within the entire range. 450 MPa: 230/460 V manual linking
<b>Aluminum Wire Diameters</b>	.035–.047 in. (0.9–1.2 mm)	.035–1/16 in. (0.9–1.6 mm)	.035–1/16 in. (0.9–1.6 mm)
<b>Gun Capability</b>	XR-Aluma-Pro™, XR-Aluma-Pro™ Lite, or XR™-Pistol	XR-Aluma-Pro™, XR-Aluma-Pro™ Lite, or XR™-Pistol	XR-Aluma-Pro™ Plus, XR™-Pistol Plus or standard MIG gun
<b>MIG Modes</b>			
<b>Profile Pulse™</b>	–	Yes – achieve a “stacked dime” appearance quickly and easily without gun manipulation	Yes – achieve a “stacked dime” appearance quickly and easily without gun manipulation
<b>Synergic Pulsed MIG</b>	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	Yes – “one-knob” control, only need to change wire feed speed to weld different material thicknesses
<b>MIG</b>	Spray Transfer MIG – for aluminum wires	Spray Transfer MIG – for aluminum wires	Conventional MIG – modes for aluminum, steel and other wires
<b>Features</b>			
<b>Built-In Pulsed Programs</b>	Aluminum	Aluminum	Aluminum, steel, stainless and others
<b>Portability</b>	Built-in running gear with cylinder rack – easily maneuverable from area to area	Lightweight, portable feeder with handle – can be carried up to 100 feet from power source	Stationary feeder – can be mounted up to 100 feet from power source
<b>Trigger Hold</b>	Yes – reduces operator fatigue from holding trigger	Yes – reduces operator fatigue from holding trigger	Yes – reduces operator fatigue from holding trigger
<b>Trigger Schedule Select</b>	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	Yes – allows operator to switch between two preset weld conditions by tapping the trigger
<b>Program Locks</b>	–	Yes – prevents unintended changes to the welding program weld parameters	Yes – prevents unintended changes to the welding program weld parameters
<b>Flow Meter</b>	–	Yes – allows flow to be set at feeder even when gas supply is a long distance away	–

# Millermatic® 350P Aluminum

See literature no. DC/12.56



### Welding Capability

Max. 1/2 in. (13 mm)



Aluminum

Min. 18 ga. (1.2 mm)

Aluminum welding uses optional Aluma-Pro push-pull gun. Not compatible with standard MIG gun.

**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.

**Electronic wire spool brake** allows wire spool to free spool while welding resulting in smooth wire delivery.

**Built-in aluminum Pulsed MIG programs** for simplicity and improved puddle control. Pulsed welding virtually eliminates burnthrough and warping issues on thinner materials.

**Synergic MIG and Synergic Pulsed MIG** provide communication between power source, feeder and gun. As wire speed increases/decreases, the pulse or MIG parameters also increase/decrease to match the right amount of power needed.

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

**Trigger hold** reduces operator fatigue on extended welds.

**Standard jog and purge.**

Industrial ● **CV DC 3 1**  
Phase Phase

### Processes

- Aluminum MIG (GMAW)
- Aluminum Pulsed MIG (GMAW-P)

### Comes complete with

- 10-ft. (3 m) work cable with clamp
- 10-ft. (3 m) industrial power cord (without plug) for single- or three-phase
- Factory-installed gas solenoid
- Flow gauge regulator and gas hose for argon
- Factory-installed, low-mounted running gear/cylinder rack
- .035- and .047-in. (0.9 and 1.2 mm) U-groove drive rolls for aluminum welding

### Push-pull gun system includes above plus

- XR™ air-cooled push-pull gun (see choices far left in chart below)

### Most popular accessories

- XR™ Air-Cooled Push-Pull Guns (pg 18)
- Dual Cylinder Rack #195 299 (pg 101)
- Protective Cover #195 142 (pg 104)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.



Scan this tag to find out how the Millermatic 350P Aluminum makes welding aluminum faster and easier.

Note: See aluminum solutions comparison chart on page 13.

Model/Stock Number	Input Power	Amperage Range	Rated Output	Amps Input at Rated Output, 60 Hz		Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight
				200 V	230 V	460 V	KVA	KW	
Millermatic 350P Aluminum Push-Pull Gun System (#951 451) w/15-ft. XR-Aluma-Pro™ air-cooled gun (#951 452) w/25-ft. XR-Aluma-Pro™ air-cooled gun (#951 453) w/25-ft. XR™-Pistol Pro air-cooled gun (#951 454) w/25-ft. XR-Aluma-Pro™ Lite air-cooled gun Millermatic 350P Aluminum (gun NOT included) (#907 474) 200/230/460 V, standard unit	Three-phase	25-400	300 A at 32 VDC, 60% duty cycle	34	30	15	11.6	11.5	Optional Spool Gun/ Push-Pull Gun 50-800 IPM (1.3-20 m/min.)
	Single-phase			69	61	30	13.1	11.2	
				Aluminum			.035-.047 in. (0.9-1.2 mm)	H: 34 in. (863 mm) W: 19 in. (483 mm) D: 41 in. (1041 mm)	181 lb. (82 kg)

## Feeding aluminum choose the right gun solution

Push-only guns (pg 105)

UPGRADE → Spool guns (pg 16/17)

UPGRADE → Push-pull guns (pg 18)



Also known as standard MIG guns, these guns are only used for occasional aluminum work.

- Typically used with hard wire or flux-cored wires in general manufacturing
- For aluminum, guns should be limited to 12-foot lengths and configured with correct aluminum liner and consumables



Integrated wire spools and better feedability make spool guns great for repair and small jobs.

- Low initial cost versus push-pull guns
- Works with many power sources
- Light and simple to use
- Usually lower duty cycles
- Limited deposition because of wire size



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

- Built for longevity
- Can feed various wire sizes
- Great arc starts and performance
- Higher duty cycles and amp ratings
- Air- and water-cooled models

Learn more at [MillerWelds.com/aluminum](http://MillerWelds.com/aluminum)



# AlumaFeed™ Synergic Aluminum Welding System

See literature no. DC/34

**Dedicated aluminum system for the most advanced MIG and synergic Pulsed MIG performance.**



AlumaPower 350 MPa and XR-AlumaFeed with XR-Aluma-Pro gun air-cooled package (#951 147) shown.



AlumaPower™ 350 model allows for any input voltage hookup (208–575 V) with no manual linking. 450 model is 230/460 V manual link or 575 V, three-phase only.

**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.



**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.

**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.

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

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

**Heavy industrial** ●  
**CV DC 3 1** AlumaPower 450  
Phase Phase is 3-phase only.

**Processes**

- Aluminum MIG (GMAW)
- Aluminum Pulsed MIG (GMAW-P)

**Most popular accessories**

- XR™ Push-Pull Guns (pg 18)
- MIGRunner™ Cart #195 445 (pg 102)
- Coolmate™ 3 #043 007 (pg 102)
- Coolant #043 810 (pg 102)
- Industrial MIG 4/0 Kits (pg 104)
  - #300 405 With Dinse connectors (350 MPa only)
  - #300 390 With lug connectors (450 MPa only)

Consists of flowmeter regulator with 10-ft. (3 m) gas hose, 10-ft. (3 m) 4/0 feeder weld cable, and 15-ft. (4.6 m) work cable with 600-amp C-clamp.

- Extension Cables (pg 110)
  - #247 831 025 25 ft. (7.6 m)
  - #247 831 050 50 ft. (15 m)
  - #247 831 080 80 ft. (24.4 m)
- 1/16-Inch (1.6 mm) Liner and Wire Kit for Gun #230 708
- 1/16-Inch (1.6 mm) Drive Roll Kit for Control Box #195 591
- For gun and feeder remote options, please refer to spec sheet or visit MillerWelds.com.

When purchasing components separately, visit MillerWelds.com/equiptoweld or your distributor for other Miller® options and accessories.

**Models/Packages**

\*Additional packages are available – visit MillerWelds.com or your distributor.



Power Source Only Stock Number	Package Stock Number*	XR-AlumaFeed Feeder	XR-Aluma-Pro™ Push-Pull MIG Gun	XR™-Pistol Grip Push-Pull MIG Gun	Industrial MIG 4/0 Kit	Coolmate™ with Coolant	Cart
<b>AlumaPower 350 MPa</b> (#907 420) 208–575 V (#907 420 001) 208–575 V with auxiliary power	(#951 147) w/350 model (#907 420)	(#300 509)	25-ft. air-cooled	–	–	–	–
	(#951 149) w/350 model (#907 420)	(#300 509)	–	30-ft. air-cooled	–	–	–
	(#951 151) w/350 model (#907 420)	(#300 509)	25-ft. air-cooled	–	With Dinse connectors	–	MIGRunner cart
<b>AlumaPower 450 MPa</b> (#907 483) 230/460 V with auxiliary power (#907 484) 575 V with auxiliary power	(#951 460) w/450 model (#907 483)	(#300 509)	25-ft. air-cooled	–	–	–	–
	(#951 459) w/450 model (#907 483)	(#300 509)	25-ft. air-cooled	–	With lug connectors	–	MIGRunner cart
	(#951 558) w/450 model (#907 483)	(#300 509)	–	30-ft. water-cooled	–	Coolmate 3	–
	(#951 559) w/450 model (#907 483)	(#300 509)	25-ft. water-cooled	–	With lug connectors	Coolmate 3	MIGRunner cart

Note: All packages listed include gun drive rolls, feeder drive rolls and consumables for .035 and 3/64 inch (0.9 and 1.2 mm) wire. All systems come set up out of the box to run 3/64-inch wire. 1/16-inch consumables not included – order separately above. See aluminum solutions comparison chart on page 13.

Model	Input Power	Amp/Volt Ranges	Rated Output	Amps Input at Rated Load Output, 60 Hz					KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
				208 V	230 V	400 V	460 V	575 V					
<b>AlumaPower 350 MPa</b>	Three-phase	5–425 A 10–38 V	350 A at 34 VDC, 60% duty cycle	40.4	36.1	20.6	17.8	14.1	14.2	13.6	75 VDC	H: 17 in. (432 mm) W: 12.5 in. (318 mm) D: 24 in. (610 mm)	80 lb. (36.3 kg)
	Single-phase	5–425 A 10–38 V	300 A at 32 VDC, 60% duty cycle	60.8	54.6	29.7	24.5	19.9	11.7	11.2			
<b>AlumaPower 450 MPa</b>	Three-phase	15–600 A 10–38 V	450 A at 36.5 VDC, 100% duty cycle	–	49.4	–	27.2	23.6	21.6 (23.5 on 575 V)	18.3	90 VDC	H: 17.25 in. (438 mm) W: 14.5 in. (368 mm) D: 27.125 in. (689 mm)	122 lb. (55.3 kg)

XR-AlumaFeed Wire Feeder	Input Power	Input Welding Circuit Rating	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
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	50–900 IPM (1.3–22.9 m/min.)	.035–.062 in. (0.9–1.6 mm) Requires wire kit #230 708 for gun and drive roll kit #195 591 for control box to run 1/16-in. (1.6 mm) wire	12 in. (305 mm)	H: 16 in. (406 mm) W: 9.5 in. (241 mm) D: 21.25 in. (540 mm)	42.5 lb. (19.2 kg)



# Spoolmate™ Spool Guns

See literature no. M/1.45 (100),  
M/1.47 (200) and M/1.5 (3035)

Reliable and economical spool guns designed for home hobbyists and light fabricators.



Spoolmate 100

Spoolmate 100 carrying case holds gun and cable, extra contact tips, nozzle and wire (wire sold separately).



Spoolmate 200

**Portable!**

## Spoolmate 100

For use with Millermatic 141, 190 and 211, Multimatic 200 and Syncrowave 210 TIG/MIG Complete.

**Light industrial gun** for 4043 series aluminum wire rated at 135 amps at 30 percent duty cycle.

**12-foot direct-connect cable** with heavy-duty strain relief provides extended reach and accessibility to your work.

**Dual V-knurled drive rolls with adjustable tension control** for consistent feeding of different types of wire.

**Clear spool canister** protects the wire and allows you to easily see the spool.

**Includes carrying case, extra contact tips and nozzle.**

## Spoolmate 200

For use with Millermatic 212 and 252 models.

**Light industrial gun** for 4000 or 5000 series aluminum wire rated at 160 amps at 60 percent duty cycle.

**20-foot weld/control cables** with strain relief and sheath provide extended reach and accessibility to your work.

**Wire feed speed adjustment on the gun** – not the machine – for easy setup.

**Easy access to drive assembly and drive rolls.**

**Two-stage trigger with built-in gas valve** allows for gas preflow and postflow.

**Toolless head tube removal** for easy replacement. Three optional head tubes.

## Spoolmate 3035

For use with vintage Millermatic tapped-voltage 210 and 212 models. Use with current Millermatic and Bobcat 225 models requires an SGA 100 or 100C control.

**Light industrial gun** for 4000 or 5000 series aluminum wire rated at 150 amps at 60 percent duty cycle.

**20-foot weld/control cables** with strain relief and sheath provide extended reach and accessibility to your work.

**Light weight and well balanced** for operator comfort.

**Clear spool canister** protects the wire and allows you to easily see the spool.

**Easy-to-remove barrel assembly.**



Spoolmate 3035

Light industrial ● **CV DC**

Use with CV, DC power sources.

### Processes

- MIG (GMAW) with aluminum and other soft alloy wires
- MIG (GMAW) with hard wires

### Suggested power sources

#### For Spoolmate 100

- Millermatic® 141 (pg 7)
- Millermatic® 190 (pg 7)
- Millermatic® 211 Auto-Set™ with MVP™ (pg 8)
- Multimatic™ 200 (pg 28)
- Syncrowave™ 210 TIG/MIG Complete (pg 48)

#### For Spoolmate 200

- Millermatic® 212 Auto-Set™ (pg 8)
- Millermatic® 252 (pg 9)

#### For Spoolmate 3035

- Direct connect to vintage Millermatic 210/212 tapped-voltage models
- Millermatic® 141/190/211/212 (pg 7/8) with SGA 100 control
- Bobcat™ 225 (pg 64) with SGA 100C control

### Most popular accessories

#### For Spoolmate 200

- 45-Degree Head Tube #300 591
- 9-Inch Extension Head Tube #300 592
- Heavy-Duty Head Tube #300 593
- Spoolmatic Adaptor Cable #195 287 Allows connection to older Millermatic 210 and 212 (non-Auto-Set).

#### For Spoolmatic 3035

- SGA 100 #043 856 (pg 110)
- SGA 100C #043 857 (pg 110)
- Heavy-Duty Head Tube #195 375

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model/ Stock Number	Welding Current Rating	Wire Feed Speed	Wire Type and Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight with Cable Assembly
<b>Spoolmate 100</b> (#300 371)	135 A at 30% duty cycle	5 - 625 IPM (1.7 - 15.9 m/min.) Wire speed dependent on power source used	<b>Aluminum</b> .030 - .035 in. (0.8 - 0.9 mm) <b>Solid Steel</b> .023 - .035 in. (0.6 - 0.9 mm) <b>Stainless</b> .023 - .035 in. (0.6 - 0.9 mm)	4 in. (102 mm)	H: 11.5 in. (291 mm) W: 3 in. (76 mm) L: 13 in. (330 mm)	6 lb. (2.7 kg) 9 lb. (4.1 kg) with case
<b>Spoolmate 200</b> (#300 497)	160 A at 60% duty cycle, 200 A at 60% duty cycle with optional heavy-duty head tube	70 - 875 IPM (1.8 - 22.2 m/min.)	<b>Aluminum</b> .030 - .035 in. (0.8 - 0.9 mm) <b>Solid Steel</b> .023 - .035 in. (0.6 - 0.9 mm) <b>Stainless</b> .023 - .035 in. (0.6 - 0.9 mm)	4 in. (102 mm)	H: 9 in. (229 mm) W: 2.5 in. (64 mm) L: 14.5 in. (368 mm)	11 lb. (5 kg)
<b>Spoolmate 3035</b> (#195 016)	150 A at 60% duty cycle, 200 A at 60% duty cycle with optional heavy-duty head tube	115 - 715 IPM (2.9 - 18.1 m/min.)	<b>Aluminum</b> .023 - .035 in. (0.6 - 0.9 mm) <b>Solid Steel</b> .023 - .035 in. (0.6 - 0.9 mm) <b>Stainless</b> .023 - .035 in. (0.6 - 0.9 mm)	4 in. (102 mm)	H: 11.5 in. (291 mm) W: 2.25 in. (57 mm) L: 8 in. (203 mm)	9.1 lb. (4.1 kg)



# Spoolmatic® Spool Guns

See literature no. M/1.73 (Spoolmatic) and M/1.76 (Spoolmatic Pro)

Portable, aluminum wire feed system for industrial applications.



Spoolmatic

Portable!



Spoolmatic Pro

**Integrated spool canister** rotates 180 degrees for operator flexibility and comfort.

**Available in 15- or 30-foot cable lengths**, providing flexibility to be used in the shop and in the field.

**Two-stage trigger with built-in gas valve** allows for gas preflow, and eliminates the need to purge long gas lines.

**Wire feed speed adjustment on the gun handle and reversible drive rolls** save time and money.

**Quick-change, single-turn contact tip** provides excellent performance and is easy to replace.

## Spoolmatic

Cost-effective, industrial aluminum spool gun.

## Spoolmatic Pro

The most reliable, easy-to-use spool gun in the industry for the professional welder.

**Wire tension settings.** 4000- or 5000-specific tension settings ensure the very best wire feeding performance and arc consistency.



**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.

**Easy-to-rotate, self-seating head tube** allows for better access into tight spots, preventing leaks and providing excellent current transfer. Head tubes are common with the XR-Aluma-Pro gooseneck-style guns.

**Head tube options in several different lengths and bend configurations** are available for use when a standard head tube doesn't fit the application.

Industrial CC CV DC

Use with CC/CV, DC power sources.

### Processes

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

### Suggested power sources

- Millermatic® 212 Auto-Set™ (pg 8)
- Millermatic® 252 (pg 9)
- Millermatic® 350P/350P Aluminum (except Spoolmatic Pro) (pg 9/14)
- Shopmate™ 300 DX (pg 28)
- Bobcat™ Series (pg 64) – with SGA 100C control

These power sources require WC-24 control (#137 549)

- CP-302 (pg 11)
- Deltaweld® Series (pg 11)
- Invision™ MPa (pg 12)
- AlumaPower™ MPa (pg 15)
- Dimension™ Series (pg 29/30)
- XMT® Series (except VS model) (pg 31)
- Trailblazer® Series (pg 66)

### Most popular accessories

- WC-115A #137 546 (pg 110)
- WC-115A (with contactor) #137 546-01-1 (pg 110)
- WC-24 #137 549 (pg 110)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

\*Wire kit #230 708 required to run 1/16-in. (1.6 mm) wire.

Model/Stock Number	Welding Current Rating	Wire Feed Speed	Wire Type and Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight (Gun only)
<b>Spoolmatic</b> (#195 156) 15-ft. (4.5 m) cable (#130 831) 30-ft. (9 m) cable	200 A at 100% duty cycle	70–875 IPM (1.8–22.2 m/min.) Wire speed dependent on control or Millermatic used	<b>Aluminum*</b> .030–1/16 in. (0.8–1.6 mm)	4 in. (102 mm)	H: 10.25 in. (260 mm) W: 2.5 in. (64 mm) L: 15.125 in. (384 mm)	2.9 lb. (1.3 kg)
<b>Spoolmatic Pro</b> (#301 147) 15-ft. (4.5 m) cable (#301 148) 30-ft. (9 m) cable	200 A at 100% duty cycle	70–900 IPM (1.8–23 m/min.) Wire speed dependent on control or Millermatic used	<b>Hard Wire</b> .030–.045 in. (0.8–1.1 mm)		H: 10.75 in. (273 mm) W: 2.5 in. (64 mm) L: 15.375 in. (390 mm)	3.0 lb. (1.4 kg)

# XR™ Push-Pull Guns

See literature no. M/1.75 (Aluma-Pro Lite), M/1.71 (Aluma-Pro), M/1.73 (Pistol) and M/1.74 (Pistol-Pro)

XR-Aluma-Pro and XR-Pistol guns work in conjunction with XR-Controls, XR-AlumaFeed or select Millermatic machines 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™ Lite

**Lightest weight gooseneck-style gun features rear trigger that allows access to hard-to-reach welds.**

## XR-Aluma-Pro™

**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

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

## XR™-Pistol-Pro

**Exceptional aluminum 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.

**Industrial** ● XR-Aluma-Pro Lite  
**Heavy industrial** ● XR-Aluma-Pro and all Pistol models

Use with CC/CV, DC power sources.

### Processes

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

### Suggested feeders/controls

- XR-AlumaFeed™ (pg 15)
- XR™-S Control (pg 19)
- XR™-D Control (pg 19)

### Suggested power sources

- Millermatic® 252 (pg 9)
- Millermatic® 350P/350P Aluminum (pg 9/14)

These power sources require XR-AlumaFeed (pg 15) or XR-Control (pg 19)

- Deltaweld® Series (pg 11)
- Invision™ MPa (pg 12)
- AlumaPower™ MPa (pg 15)
- XMT® Series (except VS model) (pg 31)
- Trailblazer® Series (pg 66)

### Most popular accessories

- Hardwire Liner Kit #198 377

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

\*Dependent on control box or Millermatic used. \*\*Wire kit #230 708 required to run 1/16-in. (1.6 mm) wire.

Model	Cable Length				Welding Current Rating	Wire Feed Speed*	Wire Type and Diameter Capacity	Dimensions	Net Weight (Gun only)
	15-ft. (4.6 m)	25-ft. (7.6 m)	30-ft. (9 m)	35-ft. (10.6 m)					
XR-Aluma-Pro Lite (Air-cooled)	–	(#300 948)	–	–	175 A at 60% duty cycle	70-900 IPM (1.8-23 m/min.)	Aluminum .030-.047 in. (0.8-1.2 mm)	H: 4 in. (102 mm) W: 1.9 in. (48 mm) L: 15 in. (381 mm)	2.0 lb. (0.9 kg)
XR-Aluma-Pro (Air-cooled)	(#300 000)	(#300 001)	–	(#300 264)	300 A at 100% duty cycle	70-900 IPM (1.8-23 m/min.)	Aluminum** .030-1/16 in. (0.8-1.6 mm)	H: 5 in. (127 mm) W: 2.5 in. (64 mm) L: 17 in. (432 mm)	2.5 lb. (1.1 kg)
XR-Aluma-Pro (Water-cooled)	(#300 003)	(#300 004)	–	(#300 265)	400 A at 100% duty cycle				2.9 lb. (1.3 kg)
XR-Pistol (Air-cooled)	(#198 127)	–	(#198 128)	–	200 A at 100% duty cycle	70-875 IPM (1.8-22.2 m/min.)	Aluminum .030-1/16 in. (0.8-1.6 mm)	H: 7.375 in. (187 mm) W: 1.875 in. (48 mm) L: 10.625 in. (270 mm)	2.2 lb. (1 kg)
XR-Pistol (Water-cooled)	(#198 129)	–	(#198 130)	–	400 A at 100% duty cycle	2.4 lb. (1.1 kg)			
XR-Pistol-Pro (Air-cooled)	(#300 782)	(#300 783)	–	(#300 784)	200 A at 100% duty cycle	70-900 IPM (1.8-23 m/min.)	Aluminum** .030-1/16 in. (0.8-1.6 mm)	H: 7.375 in. (187 mm) W: 1.875 in. (48 mm) L: 10.625 in. (270 mm)	2.2 lb. (1 kg)
XR-Pistol-Pro (Water-cooled)	(#300 786)	(#300 787)	–	(#300 788)	400 A at 100% duty cycle	2.4 lb. (1.1 kg)			



# XR™ Controls

See literature no. M/1.7

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



Includes both .035- and factory-installed 3/64-in. drive rolls.  
Order 1/16-in. control box drive roll kit (#195 591) separately.

**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 wire feed speed readout, standard jog and purge plus 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-S

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

## XR-D

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

**Heavy industrial**

Use with CC/CV, DC power sources.

### Processes

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

### Suggested guns

- Push-pull guns (pg 18)

### Suggested power sources

- Deltaweld® Series (pg 11)
- Invision™ MPa (pg 12)
- AlumaPower™ MPa (pg 15)
- XMT® Series (except VS model) (pg 31)
- Trailblazer® Series (pg 66)

### Most popular accessories

- Optima™ MIG Pulse Control (pg 104)
- Extension Cables (pg 110)
- PSA-2 Control (pg 110)
- Gas Flowmeter Kit #246 127

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model/Stock Number	Input Power	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
XR-S (#300 601) XR-D (#300 687)	24 VAC, 50/60 or 100 Hz	50-900 IPM (1.3-23 m/min.)	Aluminum .030-1/16 in. (0.8-1.6 mm) Requires drive roll kit #195 591 to run 1/16-in. (1.6 mm) wire	12 in. (305 mm)	H: 16 in. (406 mm) W: 9.25 in. (235 mm) D: 21.25 in. (540 mm)	42.5 lb. (19.2 kg)

**Miller recommends**



Hobart® aluminum filler metals — wire and cut lengths — have been designed to provide the best performance for the best welds. These products are backed by the deep industry knowledge of Hobart welding specialists who can help customers find the right aluminum filler metal solution. Every time. No matter how challenging the application.

Visit [HobartBrothers.com](http://HobartBrothers.com)  
or your local distributor to learn more.

**Questions? Hobart is here to help.**



## Access® and Auto-Access™ Systems

See literature no. DC/8.0 (Access) and AU/8.0 (Auto-Access)

**Advanced industrial MIG systems for both hand-held and robotic applications, which improve arc performance and productivity.**



**EQUIP to WELD**  
Build your own system at [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld) or see packages below.



Allows for any input voltage hookup (208-575 V) with no manual linking. Assures rock-solid, consistent output on fluctuating primary lines.

**Accu-Pulse** MIG process delivers precise control of the arc even over tack welds and in tight corners. Additional MIG welding processes include Accu-Curve, conventional MIG and Metal-Cored.

**SureStart**® technology provides consistent arc starts by precisely controlling power levels for specific wire and gas combinations.

**AA-40GB wire drive motor assembly with OCP (Over Current Protection)** to protect against current surges. Direct-panel-mounted to eliminate motion stress on the motor's power and tachometer feedback wires. (Required for Auto-Access and used for Access remote configurations.)

**Various wire feeding options for Access available.** See literature no. DC/8.0 for more information.

**Optional welding software and processes.** Accu-Speed, RMD and Access File Management for PC. Accu-Pulse tandem is a factory option available on Auto-Access models only.

Access 450 MIGRunner package (#951 228) shown.

Auto-Access 450 shown with required AA-40GB motor (ordered separately).

Automated MIG applications may require additional support to ensure the system and components needed are properly selected and installed. Contact Miller at **1-920-954-3813**.

### Multi-MIG® Welding Process Capabilities

Process	Standard Spray	Pulsed Spray	Accu-Pulse,® Accu-Curve™ Accu-Speed™ (Optional)	Standard Short Circuit	RMD® Regulated Metal Deposition (Optional)
<b>Weld Puddle Control</b>	Flat/Horizontal		All Position Performance	Thin Materials/Gap Filling	

Note: Look for high-speed video clips of Accu-Pulse, Accu-Curve, Accu-Speed and Front Panel Simulator at [MillerWelds.com/advanced](http://MillerWelds.com/advanced).

### Models/Packages

\*Additional packages are available – visit [MillerWelds.com](http://MillerWelds.com) or your distributor.

\*\*Order wire drive motor assembly and required motor control cable length separately.



Access 300 (#907 150) shown.



Access 450 Stationary package (#951 227) shown.



Access 450 MIGRunner package (#951 228) shown.

Power Source Only Stock Number		Stationary Package Stock Number*	MIGRunner Package Stock Number*
Access 300 (#907 150)	Auto-Access 300 (#907 151)**	(#951 227) with Access 300 (#907 150)	(#951 226) with Access 300 (#907 150)
Access 450 (#907 152)	Auto-Access 450 (#907 153)**	(#951 229) with Access 450 (#907 152)	(#951 228) with Access 450 (#907 152)
Access 675 (#907 154)	Auto-Access 675 (#907 155)**	–	–

Model	Amp/Volt Ranges	Rated Output	Amps Input at Rated Output, 50/60 Hz, 3-Phase					Max. Open-Circuit Voltage	Dimensions	Net Weight		
			208 V	230 V	400 V	460 V	575 V	KVA	KW			
Access 300 and Auto-Access 300	5-400 A, 10-44 V	300 A at 29 VDC, 60% duty cycle	33	29.7	16.9	14.6	11.6	11.7	11.2	80 VDC	300 H: 23 in. (584 mm) 450 H: 31 in. (787 mm) 675 H: 39 in. (991 mm) W: 17 in. (432 mm) D: 22.5 in. (572 mm)	112 lb. (50.8 kg)
Access 450 and Auto-Access 450	5-600 A, 10-44 V	450 A at 36.5 VDC, 100% duty cycle	–	60	33.7	28.8	22.8	23.8	22.9	80 VDC	163 lb. (73.9 kg)	
Access 675 and Auto-Access 675	5-900 A, 10-44 V	675 A at 38 VDC, 100% duty cycle	–	89.7	–	43.7	34.8	35.7	34.4	80 VDC	215 lb. (97.5 kg)	

**Industrial** ● 300 models  
**Heavy industrial** ● 450/675 models



Auto-Access is CV only.

### Processes

#### Multi-MIG

- Accu-Pulse MIG (GMAW-P)
  - Accu-Curve
  - Accu-Speed (optional)
  - Accu-Pulse tandem (factory option available on Auto-Access only)
- Pulsed MIG (GMAW-P) ▪ MIG (GMAW)
- Metal-Cored ▪ RMD (optional)
- Air Carbon Arc Gouging (CAC-A) can also be activated

#### Stationary package includes

- Power source
- Access feeder with Bernard™ Q-Gun™ and drive rolls
- DeviceNet interconnecting feeder control cable
- Industrial MIG 4/0 kit consisting of flowmeter regulator with 10-ft. (3 m) gas hose, 10-ft. (3 m) 4/0 feeder weld cable with lugs, and 15-ft. (4.6 m) work cable with 600-amp C-clamp.

#### MIGRunner™ package includes above plus

- Running gear cylinder rack (pg 102)

#### Wire feeding options

(see lit. no. DC/8.0 and AU/8.0 for more information and required cables)

- Access Feeders
  - #951 311 Single-wire
  - #951 431 Dual-wire
- Access ROI Swingarc™ Boom-Mounted Feeders
- Single- and Dual-Remote Configurations
- AA-40GB Wire Drive Motor (includes 50-ft. volt-sense lead)
  - #195 426 Left-hand drive
  - #195 515 Right-hand drive

Note: AA-40GB wire drive motor is required for Auto-Access and used for Access remote configurations.

#### Most popular accessories

- Access File Management Software for PC #300 529
- Industrial MIG 4/0 Kit (with lug connectors) #300 390 (pg 104)

The following are for Auto-Access only

- Coolant Flow Switch (pg 101)
- Receptacle/Adapter Kits (one required per machine)
  - ABB (#194 793), Fanuc (#194 791), Motoman (#194 790), Panasonic (#300 056), Universal (#195 002)
- Smart Adapter #300 012 (enables semi-automatic function)
- Fanuc/Motoman Motor Bracket #300 013



# Continuum™ System

See literature no. DC/36.0

New generation of advanced industrial welding solutions builds on the proven performance of Access®. Continuum systems improve productivity through weld quality, ease of use and system modularity.



**NEW!**

Continuum 500 power source shown with Continuum wire feeder, Bernard Q400 gun and running gear/cylinder rack. Filler metal sold separately.

### Improved processes

Improvements to Accu-Pulse®, RMD® and MIG processes allow you to take the performance of each process to the highest level.

### All-new power source design

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

Developed as a platform to meet current and future needs with integrated expansion capabilities.

### Designed to deliver information management.

The Continuum is compatible with Insight welding information management systems developed by Miller to help welding operations increase productivity, improve quality and manage costs.

### All-new feeder design

Balanced-pressure drive-roll design and tensioners feed wire in its truest and straightest form for consistent feedability, resulting in better welding performance.

### New low-inertia motor features

- Faster motor response provides the best arc starts with the least amount of spatter
- Precise feeding operation for stable arc performance

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

Heavy industrial DC 3 Phase

### Processes

- Accu-Pulse MIG (GMAW-P)
- RMD • MIG (GMAW)
- High-Deposition MIG (GMAW)
- Air Carbon Arc Gouging (CAC-A)

### Most popular accessories

- Insight Centerpoint™ Software (pg 23)
- Continuum Running Gear/Cylinder Rack #301 264 (pg 102)
- Coolmate™ 3 Coolant System (pg 102) #043 007 115 VAC #043 008 230 VAC
- Coolmate™ 4 Coolant System (pg 102) #042 288 115 VAC
- Industrial MIG 4/0 Kit #300 390 (pg 104) Consists of flowmeter regulator with 10-ft. (3 m) gas hose, 10-ft. (3 m) 4/0 feeder weld cable with lugs, and 15-ft. (4.6 m) work cable with 600-amp C-clamp.
- Continuum Control Cables #263 368 003 3 ft. (0.9 m) #263 368 015 15 ft. (4.6 m) #263 368 020 20 ft. (6.1 m) #263 368 025 25 ft. (7.6 m) #263 368 050 50 ft. (15 m) #263 368 080 80 ft. (24.4 m)
- Bernard™ MIG Guns

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Visit [MillerWelds.com/continuum](http://MillerWelds.com/continuum) for additional information.

Note: As the technological advances offered by Continuum extend beyond the capability of Access 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	Amp/Volt Ranges	Rated Output	Amps Input at Rated Output, 50/60 Hz, 3-Phase					Max. Open-Circuit Voltage	Dimensions (Includes lift eye)	Net Weight	
Model/Stock Number	Input Power	Input Welding Circuit Rating	Wire Feed Speed	Wire Diameter Capacity		Maximum Spool Size Capacity	Dimensions	Net Weight			
<b>Continuum 500 Power Source</b> (Visit <a href="http://MillerWelds.com/continuum">MillerWelds.com/continuum</a> for ordering information)	15 - 600 A, 10 - 44 V	500 A at 40 VDC, 100% duty cycle	230 V	400 V	460 V	575 V	KVA	KW	75 VDC	H: 27.187 in. (691 mm) W: 17.5 in. (444 mm) D: 28.125 in. (714 mm)	128 lb. (58.1 kg)
<b>Continuum Wire Feeder</b> (Visit <a href="http://MillerWelds.com/continuum">MillerWelds.com/continuum</a> for ordering information)	50 VDC	75 V, 500 A at 100% Duty Cycle	Standard 50-1000 IPM (1.3-25.4 m/min.)	.035-5/64 in. (0.9-2.0 mm)		18 in. (457 mm), 60 lb. (27 kg)	H: 13.812 in. (351 mm) W: 16.312 in. (414 mm) D: 29.687 in. (754 mm)	42.9 lb. (19.4 kg)			



# Welding Info Mgmt.

Insight welding information management solutions help your operation be more competitive and profitable by delivering accurate, decision-ready information about your welding processes.

For more detailed information, visit

[MillerWelds.com/insight](http://MillerWelds.com/insight)



## Insight Core™

Monitor welding activity and deliver actionable knowledge that can improve productivity, efficiency and quality.



Insight Core delivers accurate, up-to-date weld reports on any Web-enabled device.



### Increase productivity

Evaluate key indicators of operator productivity



### Improve weld quality

Measure important indicators of weld quality



### Manage costs

Monitor and analyze welding costs

## Knowledge to drive your business forward

**Compatible with both Axxess®/Auto-Axxess™ and 14-pin compliant Miller® power sources.** See [MillerWelds.com/insight](http://MillerWelds.com/insight) for a list of 14-pin compatible power sources.

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

**No special software or applications required,** for easier installation and more accessible reports.

## Turn data into actionable information

**Main dashboard — daily status overview.** Your first destination for a full overview of essential reports about your welding operations. Productivity, quality and goals dashboards are also available. See [MillerWelds.com/insight](http://MillerWelds.com/insight) for more information.



Asset tree — organize your fleet by building, department and/or machine

Status indicators

Productivity comparisons of arc-on time

Performance relative to goals such as arc-on time and weld deposition

Links to dashboard screens revealing more detailed information about productivity, quality, goals and recent events

Number of welds inside and outside of quality limits



## How Insight Core Works

1. As each power source is used, data is generated and automatically transmitted.
2. Data is sent to the cloud, where it's processed, organized, securely stored and made available to view.
3. Reports are delivered on the browser of any Web-enabled device.



## More options for more applications: Insight Core and Insight Centerpoint

### Insight Core™

Focused on monitoring welding outputs

**14-pin products (Deltaweld®, Dimension™, Invision™ and XMT®)**



Basic monitoring

- Arc-on time and weld parameters (volts, amps)
- Deposition is available when using an MPA feeder

**Access® and Auto-Access™**



Basic monitoring with advanced features

- Arc-on time, deposition, wire feed speed, process, wire type/diameter, gas type, machine error codes

### Insight Centerpoint™

Brings advanced process control into weld cell

**Access® E and Auto-Access™ E**



Monitor and control

- Part Tracking™ – Human Machine Interface (HMI) in the cell for real-time feedback; sequence and weld quality control; reports by part, arc time, welds, deposition, cell downtime and more
- Work Flow™ – non-welding work instructions to govern entire fabrication process

SOPHISTICATION OF INFORMATION

For more information regarding Insight Core visit [MillerWelds.com/insight](http://MillerWelds.com/insight) or see literature no. DC/8.0 (Access) or AU/8.0 (Auto-Access).

For more information regarding Insight Centerpoint visit [MillerWelds.com/insight](http://MillerWelds.com/insight) or see literature no. DC/8.05 (Access E) or AU/9.5 (Auto-Access E).

## Insight Core wireless and wired Ethernet options

### Factory-built Access® and Auto-Access™

- #907 150 002 Access 300 with Insight Core
- #907 152 002 Access 450 with Insight Core
- #907 154 002 Access 675 with Insight Core
- #907 151 004 Auto-Access 300 with Insight Core
- #907 153 004 Auto-Access 450 with Insight Core
- #907 155 006 Auto-Access 675 with Insight Core
- #907 151 005 Auto-Access 300 DeviceNet with Insight Core
- #907 153 005 Auto-Access 450 DeviceNet with Insight Core
- #907 155 005 Auto-Access 675 DeviceNet with Insight Core



Auto-Access 450 with Insight Core shown.

For more information regarding DeviceNet power sources visit [MillerWelds.com/advanced](http://MillerWelds.com/advanced) or see literature no. AU/8.0.

### Retrofit/field installed options

#### Access/Auto-Access Upgrade Module

- #301 081 Access Insight Core Module



#### 14-pin Compliant Miller® Power Source Upgrade Module

- #301 072 14-pin Insight Core Module
- #951 617 14-pin Insight Core Module with S-74 MPA Plus Wire Feeder





# Automation

For more detailed information, visit



MillerWelds.com/automation

## PERFORMARC™ ROBOTIC WELDING SYSTEM

A family of pre-engineered solutions integrating Miller® welding technology to solve your manufacturing challenges.



**Fast installation.** Pre-wired and pre-assembled making set up fast and easy. Most systems are up and running in under two hours from delivery (connect power/wire/gas and mounting tooling).

**Integrated controls.** Control station and full-color teach pendant keep the operator informed, maximizing production uptime.

**Flexibility.** Fully welded frame allows for easy relocation and reconnection as production plans or layouts change.

**To order automation solutions:**

Contact local Miller District Manager or email [MWASales@MillerWelds.com](mailto:MWASales@MillerWelds.com)

**For automation service/parts:**

Call **1-630-653-6819** or email [MWAService@MillerWelds.com](mailto:MWAService@MillerWelds.com)

### Single-station load and unload A/B-style turntable configurations



**PA250M** 250 lb./side  
60-in. manually indexed table

**PA350S** 350 lb./side  
66-in. servo indexing table

**PA750S/PA750SW** 750 lb./side  
92- or 107-in. servo indexing table

### Side-by-side configurations – operator walks around system



**Robot between dual head and tailstock/single- or dual-robot configuration**

**PA1100SS** 1100 lb./side  
120-in. long x 44-in. turning diameter

**PA2200SS** 2200 lb./side  
120-in. long x 60-in. turning diameter

### Single-station load and unload H-frame configurations



**Dual head and tailstock/single- or dual-robot configuration**

**PA550H** 550 lb./side  
48-in. long x 34-in. turning diameter on 92-in. servo indexer

**PA550HW** 550 lb./side  
**PA1100HW** 1100 lb./side  
60-in. long x 40-in. turning diameter on 108-in. servo indexer

### Ferris wheel configurations – high-volume production



**Dual head and tailstock/single-, dual- or triple-robot configuration**

**PA1100FW** 1100 lb./side  
118-in. long x 43-in. turning diameter

### Automation components



Auto-Access™/Auto-Access™ E power sources



Panasonic robots



Tregaskiss™ MIG guns



FILTAIR® system with Low Profile Hood



Miller® recommends Hobart® filler metals



## Fixed automation

Fixed automation systems integrate MIG, Submerged Arc and TIG weld process solutions based on your application requirements.

- Longitudinal Seamers (LS)** for straight line welding.
- Circumferential Seamers (CS)** for circular welding.
- Weld Head Locators (WHL)** for customized welding.



Circumferential Seamer



Longitudinal Seamer



Weld Head Locator

## TM/TL Series welding robots

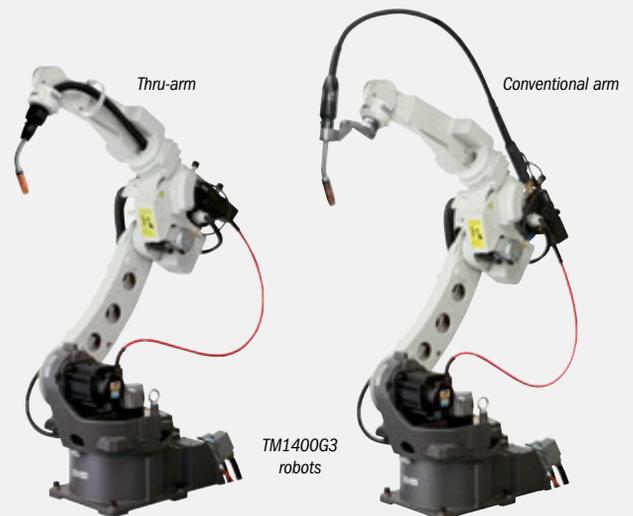
Best-in-class robot speed and greatly improved trajectory control—now 20% faster with 16X better trajectory control than TA/TB Series robots. For thermal process applications including MIG, TIG or Laser welding and Plasma or Laser cutting.

**TM Series.** Versatile design accepting conventional or thru-arm torch configurations.

**TL Series.** Dedicated design accepting conventional torch configurations (long arm, niche application support).

### TM/TL Series features include

- Dedicated welding robot design (application specific)
- Collision detection software (reduced downtime)
- Password protection software (increased security)
- Automated program backup including storage device (program recovery)
- Advanced error recovery (better uptime)
- Axis mastering pins (improved maintenance)
- Optional wire conduit through the base axis (reduced maintenance)



Thru-arm

Conventional arm

TM1400G3 robots

Model	Reach	Payload
<b>TM1100</b>	45.7 in. (1163 mm)	12.2 lb. (6 kg)
<b>TM1400</b>	56.5 in. (1437 mm)	12.2 lb. (6 kg)
<b>TM1600</b>	64.7 in. (1645 mm)	8.8 lb. (4 kg)
<b>TM1800</b>	71.2 in. (1809 mm)	12.2 lb. (6 kg)
<b>TL1800</b>	70.9 in. (1801 mm)	17.6 lb. (8 kg)
<b>TL2000</b>	78.7 in. (1999 mm)	12.2 lb. (6 kg)



## Active Wire Process (AWP)

Active wire is an advanced short arc welding process combining the robot motion path, welder waveform and servo wire feed control simultaneously reversing the wire at the short circuit to control the weld deposition precisely.

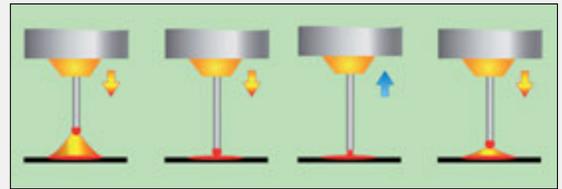
**Spatter control.** Spatter is virtually eliminated in all phases of the weld using Argon 90/10 or 100 percent CO<sub>2</sub> gas.

**Fast and clean arc striking.** At the moment the wire touches the base the wire is reversed, reducing arc strike spatter by up to 90 percent.

**Flexibility.** Large variations in torch angle are possible allowing push-pull in and out of corners without increasing spatter.

**Appearance.** The precise nature of the process allows many customers an alternative to TIG welding.

**Wide range of materials.** Mild steels, stainless steels and aluminum from thin to medium gauge benefit from AWP.



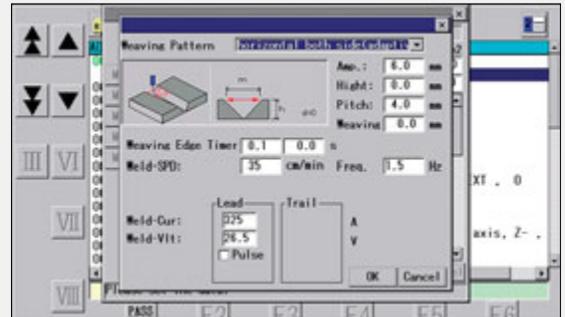
## Thick plate welding

Fast and easy programming even on the most complex multi-pass weldments. All required commands and sensor setup in a single menu screen. Welding procedures can be developed quickly and transported easily from part to part.

**Graphical, menu-driven interface.** Pop-up graphical windows allow for fast programming of any welding joint in a single location.

**Multi-layer path control.** Easy-to-use interface to sequence the location of starts/stops and create multi-layer weld paths with appropriate offsets.

**Advanced sensors.** High-voltage touch sensing with menu-driven touch macros, a specialized high-amperage arc sensor system, and adaptive fill capability allow the weld process to adapt to incoming/varying production parts.



## Desktop Programming and Simulation (DTPS)

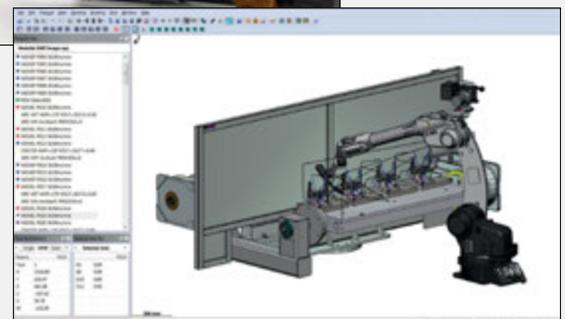
**Software allows the development of programs offline,** minimizing robot downtime and maximizing throughput and productivity.

**Specialized software** generates programs and simulates the actual taught paths from your desktop.

**Cutting edge technology and innovation** to manage the challenges of manufacturing and create customer success in metal fabrication.

**Native language programming.** Same language and functions that the technician will see on the teaching pendant, making program generation off-line easier than competitive code-based systems.

**File transfer (from old to new).** DTPS has the ability to transfer robot programs between robot types, sizes and controller generations with no additional formatting requirements.





For more detailed information, visit

MillerWelds.com/multiprocess

# Multiprocess



## Power Source Welding Performance

		150 A	250 A	300 Amp		350 Amp			450 Amp				650 Amp
		Multimatic™ 200 (1-Phase) (pg 28)	Shopmate™ 300 DX (1-Phase) (pg 28)	Dimension™ 302 (pg 29)	XMT® 304 CC/CV (pg 31)	XMT® 350 VS (pg 31)	XMT® 350 CC/CV (pg 31)	XMT® 350 MPa (pg 31)	Dimension™ 452 (pg 29)	Dimension™ NT 450 (pg 29)	XMT® 450 CC/CV (pg 31)	XMT® 450 MPa (pg 31)	Dimension™ 650 (pg 30)
Material	Mild Steel	●	●	●	●	●	●	●	●	●	●	●	●
	Stainless Steel	●	●	○	●	●	●	●	○	●	●	●	●
	Aluminum*	○	○	○	○	○	○	●	○	○	○	●	○
Material Thickness	Gauge (.020 - .125 in.)	●	●	●	●	●	●	●	○	●	●	●	●
	Sheet (.125 - .375 in.)	●	●	●	●	●	●	●	●	●	●	●	●
	Plate (.375 - 1 in.)								●	●	●	●	●
	Plate (1+ in.)								○	○	○	○	●
Wire Size	.023 in.	●	●	○	○	○	○	○	○	○	○	○	○
	.030 in.	●	●	●	●	●	●	●	○	●	●	●	●
	.035 in.	●	●	●	●	●	●	●	●	●	●	●	●
	.045 in.	○	○	●	●	●	●	●	●	●	●	●	●
	.052 in.			●	●	●	●	●	●	●	●	●	●
	1/16 in.			○	○	●	●	●	●	●	●	●	●
	5/64 in.					●	●	●	●	●	●	●	●
3/32 in.								○	○	○	○	●	
Process	Short Circuit	★★★★	★★★★	★★	★★★★	★★★★	★★★★	★★★★	★★	★★★★	★★★★	★★★★	★★★★
	Pulsed Spray				Optional ★★		Optional ★★	★★★★			Optional ★★	★★★★	
	Stick	★★	★★★★	★★	★★★★	★★★★	★★★★	★★★★	★★	★★★★	★★★★	★★★★	★★★★
	TIG	★★★★	★★★★	★	★★★★	★★★★	★★★★	★★★★	★	★★★★	★★★★	★★★★	★★★★
	CAC-A		3/16 in.	1/4 in.	1/4 in.	1/4 in.	1/4 in.	1/4 in.	5/16 in.	5/16 in.	5/16 in.	5/16 in.	3/8 in.

### ICON KEY

CAPABILITY: ● Designed for ○ Capable of

PROCESS QUALITY: ★ Good ★★ Better ★★★ Best ★★★★ Optimized

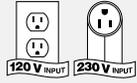
New! or Improved! products appear in blue type. \*XR Push-Pull System recommended for best results.



# Multiprocess

## Multimatic™ 200

See literature no. DC/12.57



See page 109 for wireless remote controls.



Scan this tag to see the Multimatic 200 in action.

### Recommended aluminum solution

Spoolmate 100 (#300 371).



### Welding Capability

Max. 3/8 in. (9.5 mm)	Max. 1/4 in. (6.4 mm)	Max. 3/16 in. (4.8 mm)
MIG Mild Steel	MIG Aluminum	TIG Mild Steel
Min. 24 ga. (0.8 mm)	Min. 18 ga. (1.2 mm)	Min. 0.020 in. (0.5 mm)

Aluminum welding uses optional Spoolmate 100 spool gun and 4043 series aluminum wire. TIG welding uses optional TIG contractor kit.

The only all-in-one, portable, multiprocess power source from Miller® is our most versatile machine to date. Weighing only 29 pounds (13.2 kg) and running on either 120 or 230 volts, the Multimatic 200 can go anywhere you need to MIG, TIG or Stick weld.



Multi-voltage plug (MVP™) allows connection to 115- or 230-volt receptacles without tools.

Auto-Set™ Elite can be used on multiple materials and multiple processes with the ability to fine-tune your settings. Simple to set up and use!

Excellent arc characteristics! Unit offers positive arc starts and an extremely stable arc with minimal spatter on both mixed gas and straight CO<sub>2</sub>.

Impact-resistant case provides strength and durability while protecting the internal components and welding wire.

Light industrial ● CC CV DC 1 Phase

### Processes

- MIG (GMAW) • Flux-Cored (FCAW)
- DC Stick (SMAW) • DC TIG (DC GTAW)

### Comes complete with

- 10-ft. (3 m) Bernard™ Q150 MIG gun
- 13-ft. (4 m) cable with electrode holder and 25-mm Dinse connector
- 10-ft. (3 m) work cable with clamp and 25-mm Dinse connector
- Power cord with MVP plugs for 115 V and 230 V
- Quick Select™ drive roll for .024-in. (0.6 mm) or .030/.035-in. (0.8/0.9 mm) solid wire, and .030/.035-in. (0.8/0.9 mm) flux-cored wire
- Flow gauge regulator and gas hose for argon or AR/CO<sub>2</sub> mix, extra contact tips, information/settings chart and material thickness gauge (#229 895)

### Most popular accessories

- Spoolmate™ 100 #300 371 (pg 16)
- TIG Contractor Kit #301 287 (pg 108)
- 14-Pin to 6-Pin Adapter Cord #300 507 (pg 108)
- RCCS-6M Remote Fingertip Control #195 184 (pg 108)

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

Stock Number	Welding Mode/Process	Input Power	Amperage Range	Rated Output	Amps Input at Rated Output, 50/60 Hz				Wire Feed Speed	Max. Open-Circuit Voltage	Dimensions	Net Weight
					120 V	230 V	KVA	KW				
#907 518) 120/230 V #951 649) 120/230 V with TIG contractor kit (see page 108 for kit contents)	CV: MIG/Flux-Cored	120 VAC	30-140	90 A at 18.5 V, 60% duty cycle	18	—	2.2	2	70-425 IPM (1.8-10.8 m/min.)	90 VDC	H: 14.5 in. (368 mm) W: 9.75 in. (248 mm) D: 17 in. (432 mm)	29 lb. (13.2 kg)
				110 A at 19.5 V, 20% duty cycle	20	—	2.7	2.6				
	230 VAC	30-200	150 A at 21.5 V, 20% duty cycle	—	17.5	4.0	3.8					
			150 A at 21.5 V, 20% duty cycle	—	17.5	4.0	3.8					
	CC: TIG	120 VAC	5-150	150 A at 16 V, 30% duty cycle	27	—	3.3	3.2	—	90 VDC (22-25 VDC, sense voltage for Stick and Lift-Arc™ TIG)	90 VDC	29 lb. (13.2 kg)
				150 A at 16 V, 30% duty cycle	—	13.8	3.2	3.0				
CC: Stick	120 VAC	20-150	100 A at 24 V, 35% duty cycle	24	—	2.9	2.8	—	90 VDC	29 lb. (13.2 kg)		
			150 A at 26 V, 30% duty cycle	—	20.8	4.8	4.5					

## Shopmate™ 300 DX

See literature no. DC/12.7

An economical single-phase DC multiprocess power source that provides versatility and outstanding arc performance in CV mode (MIG) and CC mode (Stick and TIG).



Shopmate 300 DX with MIG package shown.

Process selector switch is an "operator-friendly" single process switch that eliminates the confusion of several switch combinations.

Digital meters for presetting or monitoring voltage and amperage.

Built-in 10-pin connector for direct hookup of Spoolmatic® spool guns and built-in 14-pin connector for direct hookup of 14-pin, Miller wire feeders and accessories.

Fan-On-Demand™ cooling system operates only when needed.

Line voltage compensation keeps welding parameters constant.

Arc control adjusts inductance in MIG mode and DIG in Stick mode to optimize weld performance.

Lift-Arc™ start provides DC TIG arc starting without the use of high frequency. Starts the arc without contaminating the weld with tungsten.

Light industrial ● CC CV DC 1 Phase

### Processes

- MIG (GMAW) • Flux-Cored (FCAW)
- DC Stick (SMAW) • DC TIG (DC GTAW)

### MIG package comes complete with

- 22A wire feeder with Bernard™ gun
- Shopmate 300 MIG kit consisting of flow gauge regulator and 10-ft. (3 m) gas hose for argon or AR/CO<sub>2</sub> mix, 10-ft. (3 m) 1/0 interconnecting cable, 15-ft. (4.6 m) 1/0 work cable with clamp and consumable storage box.

### Most popular accessories

- Shopmate Running Gear/Dual Cylinder Rack #300 145 (pg 102)
- Shopmate 300 MIG Kit #300 150 (pg 104)

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

Stock Number	Amperage Range	Voltage Range	Rated Output	Amps Input at Rated Load Output, 60 Hz				Max. Open-Circuit Voltage	Dimensions (Includes lift eye)	Net Weight		
				208 V	230 V	460 V	575 V				KVA	KW
#907 315) 200(208)/230 V #907 316) 230/460/575 V #951 076) 200(208)/230 V w/MIG package #951 077) 230/460/575 V w/MIG package	5-400	10-35	250 A at 30 VDC, 60% duty cycle	66	57	29	23	13	11.2	80 VDC	H: 24.5 in. (622 mm) W: 19 in. (483 mm) D: 25.5 in. (648 mm)	177 lb. (80.3 kg)



## Dimension™ 302, 452 and NT 450

See literature no. DC/19.2 (302 and 452), DC/19.5 (NT 450) and DC/19.55 (NT 450 ArcReach)

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



Dimension NT 450  
MIGRunner package  
(#951 279) shown.



Build your own system at  
[MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld)  
or see packages below.

**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-VAC power** for tools and coolant systems.

### Dimension NT 450

**With expanded capabilities, the Dimension NT 450 improves on arc performance and power efficiency.**

**Improved arc performance** for Stick, MIG/FCAW and Lift-Arc™ TIG. Arc control allows fine-tuning in Stick or Solid Wire modes.

**ArcReach™** Remote control of the power source without a cord. With an ArcReach-equipped SuitCase® feeder and power source you can change the 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. For more information see pages 38 and 39 or literature no. DC/19.55.

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)  
(Dimension 302: 1/4-in. carbons)  
(Dimension 452: 5/16-in. carbons)  
(Dimension NT 450: 5/16-in. carbons)

#### Stationary package includes

- Power source
- S-74D feeder with Bernard™ Q400 MIG gun and .035/.045 drive rolls
- Industrial MIG 4/0 kit consisting of flowmeter regulator with 10-ft. (3 m) gas hose, 10-ft. (3 m) 4/0 feeder weld cable with lugs, and 15-ft. (4.6 m) work cable with 600-amp C-clamp.

#### MIGRunner™ package includes above plus

- Factory-installed running gear with cylinder rack

#### Most popular accessories

- SuitCase® X-TREME™ Feeders (pg 38)
- 70 Series Feeders (pg 40)
- Standard Running Gear #042 886 (pg 101)
- Standard Cylinder Rack #042 887 (pg 101)
- Industrial MIG 4/0 Kit (with lug connectors) #300 390 (pg 104)
- Extension Cables (pg 110)  
#247 831 025 25 ft. (7.6 m)  
#247 831 050 50 ft. (15 m)  
#247 831 080 80 ft. (24.4 m)
- Bernard™ MIG Guns

When purchasing components separately, visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld) or your distributor for other Miller® options and accessories.

### Models/Packages

\*Additional packages are available – visit [MillerWelds.com](http://MillerWelds.com) or your distributor.



Dimension 452  
(#903 254) shown.



Dimension NT 450 Stationary  
package (#951 275) shown.



Dimension NT 450 MIGRunner  
package (#951 279) shown.

Model	Power Source Only Stock Number	Stationary Package Stock Number*	MIGRunner Package Stock Number*
Dimension 302	(#903 216) 230/460/575 V	(#951 272)	(#951 276)
Dimension 452	(#903 254) 200-208/230/460 V (#903 255) 230/460/575 V	–	–
Dimension NT 450	(#907 256) 230/460/575 V	(#951 275)	(#951 279)
Dimension NT 450 ArcReach	(#907 417) 230/460/575 V	–	–

Note: Dimension 652 still available for a limited time; see page 30 for new Dimension 650.

\*\*While idling.

Model	Amperage/ Voltage Ranges	Rated Output	Amps Input at Rated Output, 60 Hz 200 V 230 V 460 V 575 V KVA KW	Max. Open- Circuit Voltage	Dimensions (Includes lift eye and strain relief)	Net Weight
Dimension 302	CC mode: 15–375 A	300 A at 32 VDC, 100% duty cycle	57.5 50 25 20 20 12.9	60 VDC	H: 30 in. (762 mm) W: 23 in. (585 mm) D: 30.5 in. (775 mm)	361 lb. (164 kg)
	CV mode: 10–32 V		69 60 30 24 23.7 13.4	36 VDC		
Dimension 452	CC mode: 20–565 A	450 A at 38 VDC, 100% duty cycle	91 79 39 31 31.4 22	65 VDC	H: 30 in. (762 mm) W: 23 in. (585 mm) D: 38 in. (966 mm)	424 lb. (192 kg)
	CV mode: 10–38 V		104 90 45 36 35.3 22.3	43 VDC		
Dimension NT 450 and NT 450 ArcReach	CC mode: 5–500 A	450 A at 38 VDC, 100% duty cycle	– 57 29 23 22.6 21.0	80 VDC	H: 32.5 in. (826 mm) W: 23 in. (585 mm) D: 38 in. (966 mm)	376 lb. (171 kg)
	CV mode: 10–38 V		– 2.18** 1.04** 0.84** 0.87** 0.29**			



# Multiprocess

## Dimension™ 650

See literature no. DC/19.3

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



**NEW!**

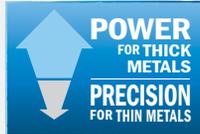


**All aluminum construction** helps the machine resist corrosion for long life.

**Exclusive protection** from “dirty” input power.

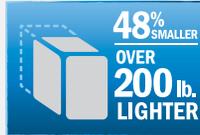
**Wind Tunnel Technology™** protects internal components, greatly improving reliability.

**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. New Dimension 650 is 3.5 times lighter than the Dimension 652 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. New Dimension 650 uses 32 percent fewer amps than the Dimension 652.

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 3/8-in. carbons)

### Stationary package includes

- Power source
- S-74D feeder with Bernard™ Q400 MIG gun and .035/.045 drive rolls
- Industrial MIG 4/0 kit consisting of flowmeter regulator with 10-ft. (3 m) gas hose, 10-ft. (3 m) 4/0 feeder weld cable with lugs, and 15-ft. (4.6 m) work cable with 600-amp C-clamp.

### MIGRunner™ package includes above plus

- Running gear cylinder rack
- **Most popular accessories**
- SuitCase® X-TREME™ Feeders (pg 38)
- 70 Series Feeders (pg 40)
- Running Gear Cylinder Rack #300 408 (pg 102)
- Industrial MIG 4/0 Kit (with lug connectors) #300 390 (pg 104)
- Extension Cables (pg 110)
  - #247 831 025 25 ft. (7.6 m)
  - #247 831 050 50 ft. (15 m)
  - #247 831 080 80 ft. (24.4 m)
- Bernard™ MIG Guns

When purchasing components separately, visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld) or your distributor for other Miller® options and accessories.



Build your own system at [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld) or see packages below.

Stock Number	Amperage/ Voltage Ranges	Rated Output	Amps Input at Rated Output, 50/60 Hz				Max. Open- Circuit Voltage	Dimensions (Includes lift eye)	Net Weight
	CC mode: 10–815 A CV mode: 10–44 V SAW mode: 10–65 V	650 A at 44 VDC, 100% duty cycle	380 V	460 V	KVA	KW			
(#907 617) 380/460 V Machine only (#951 638) 380/460 V Stationary package (#951 637) 380/460 V MIGRunner package			53.2	42.8	34	30.7	87 VDC	H: 28.187 in. (716 mm) W: 16.687 in. (424 mm) D: 31.625 in. (803 mm)	158 lb. (71.7 kg)

Miller recommends



When people look for solutions, they turn to someone they can trust.

Finding the right filler metal solution for your welding needs is critical in an industry that is about getting the job done right. Every day, every project, every weld is another opportunity for Hobart to help you find the right filler metal solution—or create a new one.

To request a product catalog—visit [HobartBrothers.com](http://HobartBrothers.com) or call **1-800-424-1543**.



Find Your Solution. Today.



## 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 304

XMT 350

XMT 450

### Input power choices

**Auto-Link®** (304 model) automatically links the power source to primary voltage being applied (230/460 VAC, single- or three-phase).



**Auto-Line** (350 models) allows for any input voltage hookup (208–575 VAC, single- or three-phase) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable input power.

**Standard hookup** (450 models). Available as 230/460 VAC manual link or 575 VAC models, three-phase only.

### 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 Information Management System.** XMT 14-pin models are Insight capable to monitor weld voltage, amperage, and arc-time and percentage.

### Reliability

**Wind Tunnel Technology™** Internal air flow that protects electrical components and PC boards from dirt, dust, debris... 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- or Tweco®-style weld disconnects** (304/350 models) provide high-quality weld cable connections.

*Note: Two Dinse connectors are supplied with each Dinse machine. Tweco connectors must be ordered separately.*

**Studs** (450 models).

**Choose the right XMT.** See pages 32–34 to compare models.

XMT	304 CC/CV	350 VS	350 CC/CV	350 MPa	350 ArcReach™	450 CC/CV	450 MPa	450 ArcReach™
<b>Input Power</b>	3- or 1-phase power	3- or 1-phase power				3-phase		
<b>Primary Operating Range</b>	Auto-Link (230 or 460 VAC) <b>UPGRADE</b>	Auto-Line (208–575 VAC)				Manual link (230 or 460 VAC)		
<b>Weld Output</b>	300 A at 32 VDC (3-phase input power at 60% duty cycle) <b>UPGRADE</b>	350 A at 34 VDC (3-phase input power at 60% duty cycle) <b>UPGRADE</b>				450 A at 38 VDC (3-phase input power at 100% duty cycle)		
<b>Carbon Arc Gouging</b>	Rated: 1/4 in. (6.4 mm) <b>UPGRADE</b>	Rated: 5/16 in. (7.9 mm) <b>UPGRADE</b>				Rated: 3/8 in. (9.5 mm)		
<b>Net Weight</b>	79.5 lb. (36.1 kg)	80 lb. (36.3 kg)				122 lb. (55.3 kg)		
<b>Output Connector</b>	Dinse	Tweco	Dinse or Tweco	Dinse or Tweco	Dinse or Tweco	1/2-in. stud		
<b>Pulsed MIG</b>	–	–	<b>UPGRADE</b>	Yes	–	–	<b>UPGRADE</b>	Yes
<b>Remote Control</b>	Yes	–	<b>UPGRADE</b>	Yes	Yes <b>UPGRADE</b> ArcReach™	Yes	Yes <b>UPGRADE</b> ArcReach™	–



# Multiprocess



## XMT® 304 CC/CV See literature no. DC/18.8

**Cost-effective multiprocess machine.**

**Auto-Link®** automatically links the power source to primary voltage being applied (230 or 460 VAC, single- or three-phase).



## XMT® 350 VS See literature no. DC/18.83

**This simplified version is ideal for construction or fabrication applications in which the 14-pin receptacle is not needed for remote control or 14-pin feeders.**



## XMT® 350 CC/CV and 450 CC/CV

See literature no. DC/18.83

**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.**

**Stronger weld output for increased capabilities.**

The XMT 350 provides 24 percent more output than the 304 model for larger wires and stick electrodes. The XMT 450 provides 43 percent more output for Carbon Arc Gouging.



## XMT® 350 MPa and 450 MPa See literature no. DC/18.84

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

**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.



## XMT® 350 and 450 ArcReach™ Systems

See literature no. DC/18.87



**ArcReach™** Remote control of the power source without a cord. With an ArcReach-equipped SuitCase® feeder and power source you can change the 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.

For more information see pages 38 and 39 or literature no. DC/18.87.

Feeders include Bernard S-Gun or Q300 MIG gun with reversible dual size (.045 and 1/16 in.) VK drive rolls.



**More arc-on time and reduced exposure to workplace hazards** for operators can be realized using ArcReach because less time is spent going back to the

XMT to set process and arc voltage.

**Automatic process select** to MIG/FCAW (with gas) if DCEP is detected or FCAW (no gas) if DCEN is detected, when ArcReach communication is established between the feeder and the XMT. Reduces need to access XMT.

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

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



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

**Remote override of XMT.** When an ArcReach feeder is connected to an XMT the feeder has full control and the XMT controls are disabled.



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

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

**Fleet compatibility.** Works with any SuitCase feeder, but ArcReach benefit is realized with the ArcReach system.

**Heavy industrial** ●  
 CC CV DC 3 1 XMT 450  
 Phase Phase is 3-phase only.

### Processes

- MIG (GMAW) • Pulsed MIG (GMAW-P)\*
- Stick (SMAW) • TIG (GTAW)
- Flux-Cored (FCAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (Carbons – 304: 1/4 in., 350: 5/16 in., 450: 3/8 in.)

\*Only XMT CC/CV models with optional control and XMT MPa models.

### Most popular accessories for non-VS models

- XR-AlumaFeed™ Feeder for aluminum #300 509 (pg 15)
- Spoolmatic®/WC-24 (pg 17)
- XR™-Controls (pg 19)
- 20 and 70 Series Feeders (pg 40)
- Optima™ MIG Pulse Control #043 389 (pg 104)

### Most popular accessories for all models

- XMT Rack (pg 34)
- SuitCase® X-TREME™ VS Feeders (pg 38)
- Cylinder Cart #042 537 (pg 101)
- MIGRunner™ Cart #195 445 (pg 102)
- Running Gear Cylinder Rack #300 408 (pg 102)
- Coolmate™ Coolant System (pg 102)
- Industrial MIG 4/0 Kits (pg 104) #300 405 XMT 304/350 #300 390 XMT 450
- Protective Cover (XMT 304/350 only) #195 478 (pg 108)
- Gas Valve Kit #195 286 XMT 350 #300 928 XMT 450
- Bernard™ MIG Guns

When purchasing components separately, visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld) or your distributor for other Miller® options and accessories.

\*Feeders include gun and drive rolls. MIGRunners add Industrial MIG 4/0 Kit and MIGRunner Cart.  
 \*\*Duty cycle rating below achieved with 6-gauge input power cord (8-gauge cord supplied with unit).

	Power Source Model/Stock Number	Input Power	Amperage/Voltage Ranges	Rated Output	Amps Input at Rated Load Output, 60 Hz	Max. Open-Circuit Voltage	Dimensions	Net Weight
300 A	XMT 304 CC/CV (Dinse) (#907 471) 208-230/460 V (#951 343) 208-230/460 V MIGRunner w/22A*	3-phase	5-400 A 10-35 V	300 A at 32 VDC, 60% duty cycle	33.7 30.5 – 18.9 – 12.2 11.6	90 VDC	H: 17 in. (432 mm) W: 12.5 in. (318 mm) D: 24 in. (610 mm)	79.5 lb. (36.1 kg)
		1-phase		225 A at 29 VDC, 60% duty cycle	52.4 47.4 – 24.5 – 11.3 7.6			
350 A	XMT 350 CC/CV (Dinse) (#907 161) 208-575 V (#907 161-01-1) 208-575 V w/auxiliary power (#951 549) 208-575 V w/SuitCase XT 12VS* (#951 327) 208-575 V MIGRunner w/22A* (#951 314) 208-575 V MIGRunner w/S-74D* XMT 350 VS (no remote control) (Tweco®) (#907 224) 208-575 V XMT 350 MPa (Dinse except where noted) (#907 366) 208-575 V (#907 366-01-1) 208-575 V w/auxiliary power (#907 366-01-4) 208-575 V w/Tweco® XMT 350 ArcReach (Tweco®) (#907 224 002) 208-575 V	3-phase	5-425 A 10-38 V	350 A at 34 VDC, 60% duty cycle	40.4 36.1 20.6 17.8 14.1 14.2 13.6	75 VDC	H: 17 in. (432 mm) W: 12.5 in. (318 mm) D: 24 in. (610 mm)	80 lb. (36.3 kg)
		1-phase	5-425 A 10-38 V	300 A at 32 VDC, 60% duty cycle**	60.8 54.6 29.7 24.5 19.9 11.7 11.2			
450 A	XMT 450 CC/CV (1/2-in. stud) (#907 481) 230/460 V (#907 482) 575 V XMT 450 MPa (1/2-in. stud) (#907 479) 230/460 V (#907 479 001) 230/460 V w/auxiliary power (#907 480) 575 V (#907 480 001) 575 V w/auxiliary power XMT 450 ArcReach (1/2-in. stud) (#907 481 002) 230/460 V	3-phase	15-600 A 10-38 V	450 A at 38 VDC, 100% duty cycle	– 51 – 27.6 24.4 22 18.9	90 VDC	H: 17.25 in. (438 mm) W: 14.5 in. (368 mm) D: 27.125 in. (689 mm)	122 lb. (55.3 kg)
				450 A at 36.5 VDC, 100% duty cycle	– 51 – 27.6 23.6 21.6 18.3 (KVA is 23.5 on 575 V)			
		450 A at 38 VDC, 100% duty cycle	– 51 – 27.6 24.4 22 18.9					



# Multiprocess

## XMT® Racks

See literature no. DC/18.81

**XMT Rack conveniently houses multiple power sources for multiple welders. This is an ideal system for onsite applications including construction and shipbuilding.**



XMT 350 6-pack Rack shown.

**Custom build your own rack** by mix and matching XMT 304 CC/CV, 350 CC/CV, 350 VS, 350 MPa, 450 CC/CV and 450 MPa. (Rack holds a maximum of four of the XMT 450 models.)

**All racks with factory-equipped power sources include fuses** to provide primary power line protection for each inverter power supply on 460 or 575 VAC. (XMT 304 and 350: 20-amp fuses, XMT 450: 30-amp fuses.)

Four-rack and six-rack models are available and come with **two lift eyes** for transportation and **rugged skids** for dragging or pushing.

**Lift truck side and end pockets** in base for forklift loading and worksite repositioning.

Rack roof panel and power source shelves are **fabricated from galvanized steel and painted** for added protection in harsh environments.

**Liquid-tight strain reliefs** designed to resist salt water, alcohol, oil, grease and common solvents are provided on both the welding power source and electrical junction box.

**Isolated work terminal** provides a connection point for common workpiece construction.

**Meets IP23** which is more stringent than IP23S or IP23M ratings.

**One connection** allows up to six inverters to be connected with one primary power drop.

Model	Stock Number with 4 Units	Stock Number with 6 Units	Input Power to Rack	Dimensions	Net Weight
XMT 304 CC/CV Rack	(#907 292) Dinse	(#907 291) Dinse	3-phase, 230/460 VAC, 60 Hz (20 A fuses included)	H: 59.375 in. (1508 mm) W: 43 in. (1092 mm) D: 34.375 in. (873 mm)	<b>4 Units</b> 560 lb. (254 kg) <b>6 Units</b> 712 lb. (323 kg)
XMT 350 VS Rack	—	(#907 228) Tweco®	3-phase, 208–575 VAC, 50/60 Hz (20 A fuses included)		
XMT 350 CC/CV Rack	(#907 231) Dinse (#907 407) Tweco®	(#907 232) Dinse (#907 406) Tweco®			<b>4 Units</b> 599 lb. (272 kg) <b>6 Units</b> 759 lb. (344 kg)
XMT 450 CC/CV Rack	(#907 607) 1/2-in. studs (#907 608) 1/2-in. studs	—	3-phase, 230/460 VAC, 60 Hz (30 A fuses included) 3-phase, 575 VAC, 60 Hz (30 A fuses included)		780 lb. (354 kg)
Empty Rack	(#195 466) Can contain XMT 304 or 350 (6 units); XMT 450 (4 units).		(Order required fuse kit separately)		279 lb. (127 kg)

# Stay connected with Miller®.



Join the Miller community to keep up to date with the welding industry, ask and get answers to your questions and share your welding experiences.

Our YouTube channel is the welder's destination for helpful tips and welding instruction, product overviews and demonstrations, welding process information and engaging stories and applications.

We hope you'll join us!





## PipeWorx FieldPro™ System

See literature no. PWS/6.0



**Simplicity-driven performance for your pipe construction site**

PipeWorx 350 FieldPro shown with optional FieldPro Remote, FieldPro Smart Feeder, and FieldPro Feeder.



See page 109 for wireless remote controls.

**FREE! PipeWorx 350 FieldPro System DVD** showcases the features and benefits of PipeWorx 350 FieldPro System and new pipe welding techniques. Visit PipeWorx page at [MillerWelds.com](http://MillerWelds.com) to order your DVD today.

### Simplified cable management

- Save time by eliminating the need to trace cables back to change welding parameters and processes
- No control cables to string and manage on the jobsite

### 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, FCAW, 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 chromoly applications

### New durability standard for field construction

- Designed and built to withstand the harshest field environments

### RMD® (Regulated Metal Deposition)

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



RMD Carbon Steel

### Pulsed MIG

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



Pulsed MIG Stainless

Heavy industrial  
 CC CV DC 3 1  
 Phase 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) (1/4-in. carbons)

### PipeWorx FieldPro Stick/TIG System includes

- PipeWorx 350 FieldPro power source
- FieldPro Remote #300 934
- Work sense lead with clamp

### PipeWorx FieldPro MIG/Flux-Cored System includes

- PipeWorx 350 FieldPro power source
- FieldPro Feeder
- Work sense lead with clamp
- PipeWorx 300-amp MIG gun

### PipeWorx FieldPro RMD/Pulse System includes

- PipeWorx 350 FieldPro power source
- FieldPro Smart Feeder
- PipeWorx 300-amp MIG gun

### Most popular accessories



- **PipeWorx FieldPro Rack**
    - #907 588 4-pack rack
    - #907 589 6-pack rack
  - Includes four or six PipeWorx 350 FieldPro power sources, mounting kits and one rack.
  - Empty FieldPro Rack #195 466
  - FieldPro Rack Mounting Kit #301 100
    - Kit to mount single units in rack.
  - Rack Running Gear #195 114
    - For all XMT- and CST-style racks.
  - Bernard™ PipeWorx™ Guns
    - #195 399 15 ft. (4.6 m) 250-15
    - #195 400 15 ft. (4.6 m) 300-15
- Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

### PipeWorx Memory Card, Accu-Power #300 667

Displays instantaneous power during welding to meet the new ASME Requirement for calculating heat input on complex waveform processes (RMD and Pulsed MIG).

\*Dimensions and weight are for power source only. \*\*Welding with the Smart Feeder requires the PipeWorx 350 FieldPro to be hooked up to three-phase power.

Model/Stock Number	Input Power	Amperage/Voltage Ranges	Rated Output at 60% Duty Cycle	Amps Input at Rated Output, 60 Hz			KVA	KW	Max. Open-Circuit Voltage	Dimensions*	Net Weight*
				230 V	460 V	575 V					
<b>PipeWorx FieldPro System</b> (#951 547) Stick/TIG (#951 572) MIG/Flux-Cored (#951 573) RMD/Pulse <b>PipeWorx FieldPro Power Source only</b> (#907 533) 230-575 V	Three-phase	CC mode: 10-350 A CV mode: 10-44 V	350 A at 34 VDC	36.1	17.8	14.1	15.0	14.4	75 VDC	H: 17 in. (432 mm) W: 12 in. (305 mm) D: 22 in. (559 mm)	95 lb. (43.1 kg)
	Single-phase	CC mode: 10-350 A CV mode: 10-44 V	300 A at 32 VDC	54.6	25.4	19.9	11.7	11.2			
Model/Stock Number	Input Power	Input Welding Circuit Rating	Wire Feed Speed	Wire Diameter Type and Capacity			Maximum Spool Size Capacity	Dimensions	Net Weight		
<b>FieldPro Feeder only (#301 228)</b> (Use with CC or CV, DC power source)	Operates on open-circuit voltage and arc voltage: 14-110 VDC	425 A at 60% duty cycle	50-800 IPM (1.3-20.3 m/min.) dependent on arc voltage	<b>Solid Wire</b> .023-5/64 in. (0.6-2.0 mm) <b>Flux-Cored</b> .030-5/64 in. (0.8-2.0 mm)			12 in. (305 mm), 45 lb. (20 kg)	H: 15.5 in. (394 mm) W: 9 in. (229 mm) D: 21 in. (533 mm)	35 lb. (15.9 kg)		
<b>FieldPro Smart Feeder only (#300 935)</b> (Use with PipeWorx 350 FieldPro only)	Operates on open-circuit voltage and arc voltage: 14-110 VDC**	275 A at 60% duty cycle	50-500 IPM (1.3-12.7 m/min.) dependent on arc voltage	.035-.045 in. (0.9-1.1 mm)			12 in. (305 mm), 33 lb. (15 kg)	H: 13 in. (330 mm) W: 18 in. (457 mm) D: 21.5 in. (546 mm)	50 lb. (23 kg)		



## PipeWorx Welding System

See literature no. PWS/2.0

Optimized for pipe fabrication shops

PipeWorx Welding System (#951 381) shown with Accessory Kit (#300 568). Feeder includes drive rolls. Filler metal and shielding gas sold separately.



See page 109 for wireless remote controls.

FREE! PipeWorx Welding System CD showcases the features and benefits of PipeWorx Welding System and new pipe welding techniques. Visit PipeWorx page at [MillerWelds.com/pipeworxcd](http://MillerWelds.com/pipeworxcd) to order your CD today.

### RMD® (Regulated Metal Deposition)

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



RMD Carbon Steel

### Pulsed MIG

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



Pulsed MIG Stainless

### PipeWorx Memory Card, Accu-Power #300 667

Displays instantaneous power during welding to meet the new ASME Requirement for calculating heat input on complex waveform processes (RMD and Pulsed MIG). Requires version 1.07 software minimum.

\*Dimensions and weight are for power source only.

Heavy Industrial

### Processes

- Stick (SMAW)
- DC TIG (GTAW) (HF and Lift-Arc™)
- MIG (GMAW) • Flux-Cored (FCAW)
- RMD • Pulsed MIG (GMAW-P)

### PipeWorx Welding System comes complete with

- Power source with cable hangers #907 382 or #907 384
- Running gear with gas cylinder rack and handles #300 368
- Dual feeder with drive rolls #300 366
- Cable kit with 25-ft. (7.6 m) work sense lead #300 367
- Two 15-ft. (4.6 m) PipeWorx 300 guns #195 400

### Most popular accessories

- PipeWorx Accessories Kit for Dual Feeder #300 568
  - Includes 25-ft. work cable, EG500 work clamp, two flowmeter regulators and two 4-ft. gas hoses.
- Cable Kit #300 367
  - For feeder used on power source. Includes feeder cable, weld cable and 25-ft. work sense lead.
- Composite Cable Kit
  - #300 454 25 ft. (7.6 m)
  - #300 456 50 ft. (15.2 m)
  - For remote feeder applications. Includes composite cable which encases feeder cable, gas hose and weld cable in protective sheath, and either 25- or 50-ft. work sense lead.
- PipeWorx Running Gear #300 368
  - Includes gas cylinder rack and handles.
- Feeder Cart with drawer #300 467
  - For remote feeder applications.
- PipeWorx Cooler #300 370
- PipeWorx Remote Feeder Interface with gun triggers and cable #300 597
- Spool Covers
  - #057 607 Single/dual feeder (left)
  - #090 389 Dual feeder (right)
- DSS-9 Dual Schedule Switch #071 833
- RFCS-14 HD #194 744
- Foot Control Bracket #300 676
- RPBS-14 On-Off Switch Remote #300 666
- Bernard™ PipeWorx™ Guns
  - #195 399 15 ft. (4.6 m) 250-15
  - #195 400 15 ft. (4.6 m) 300-15

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model/Stock Number	Welding Mode/Process	Amperage/Voltage Ranges	Rated Output at 100% Duty Cycle	Amps Input at Rated Output, 60 Hz, 3-Phase			KVA			KW			Max. Open-Circuit Voltage	Dimensions*	Net Weight*
				230 V	460 V	575 V	230 V	460 V	575 V	230 V	460 V	575 V	90 VDC		
PipeWorx Welding System (#951 381) 230/460 V (#951 382) 575 V	CC: Stick	40-400 A	400 A at 36 VDC	43.9	26.6	22.4	17.5	21.2	22.3	16.1	16.3	16.4	90 VDC	H: 28.5 in. (724 mm) W: 19.5 in. (495 mm) D: 31.75 in. (806 mm)	225 lb. (102 kg)
	CC/DC: TIG	10-350 A	350 A at 24 VDC	29.3	18.2	13.5	11.8	14.5	13.4	10.7	10.6	10			
PipeWorx Power Source only (#907 382) 230/460 V (#907 384) 575 V	CV: MIG/Flux-Cored	10-44 V	400 A at 34 VDC	42.9	24	20.5	17.3	19.2	20.5	16	15.8	16.2			

Model/Stock Number	Input Power	Input Welding Circuit Rating	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
PipeWorx Feeder only (#300 365) Single-wire model (#300 366) Dual-wire model	24 VAC, 11 A	100 V, 750 A at 100% duty cycle	50-780 IPM (1.3-19.8 m/min.)	.035-.062 in. (0.9-1.6 mm)	60 lb. (27 kg)	H: 14 in. (356 mm) W: 19 in. (483 mm) D: 29 in. (737 mm)	<b>Single</b> 65 lb. (29.5 kg) <b>Dual</b> 90 lb. (41 kg)



For more detailed information, visit

MillerWelds.com/wirefeeders

# Wire Feeders



Also see Advanced/Automated MIG and Multiprocess sections for wire feeding options.



## Product Guide

Product	Page	Class	MIG	Pulsed MIG*	Flux-Cored**	Portable	Power Source Required	Wire Types				Wire Diameters	Special Features	Typical Applications	
								Hard	Flux-Cored Dual-Shld	Flux-Cored Self-Shld	Alum				
SuitCase® X-TREME™ 8VS/12VS	38	Industrial	Light Industrial	Light Industrial	Light Industrial	Light Industrial	CC/CV	Light Industrial	Light Industrial	Light Industrial	Light Industrial	.023-5/64 in. (0.6-2.0 mm)	8-in. (8VS) or 12-in. (12VS) diameter spool capacity, lightweight, powered by arc voltage	Construction, site fabrication, field maintenance	Portable
SuitCase® X-TREME™ 8VS/12VS ArcReach	38	Industrial	Light Industrial	Light Industrial	Light Industrial	Light Industrial	CC/CV	Light Industrial	Light Industrial	Light Industrial	Light Industrial	.023-5/64 in. (0.6-2.0 mm)	8-in. (8VS) or 12-in. (12VS) diameter spool capacity, powered by arc voltage, remote voltage control without a control cord	Construction, site fabrication, field maintenance	
SuitCase® 12RC	38	Industrial	Light Industrial	Light Industrial	Light Industrial	Light Industrial	CV	Light Industrial	Light Industrial	Light Industrial	Light Industrial	.023-5/64 in. (0.6-2.0 mm)	Standard remote voltage control, 12-in. diameter spool capacity, powered by 14-pin control cord	Field maintenance, site fabrication	
22A	40	Industrial	Light Industrial	Light Industrial	Light Industrial	Light Industrial	CV	Light Industrial	Light Industrial	Light Industrial	Light Industrial	.023-5/64 in. (0.6-2.0 mm)	Two quick-change drive rolls	Manufacturing, fabrication	Bench
24A	40	Industrial	Light Industrial	Light Industrial	Light Industrial	Light Industrial	CV	Light Industrial	Light Industrial	Light Industrial	Light Industrial	.023-3/32 in. (0.6-2.4 mm)	Four quick-change drive rolls	Manufacturing, fabrication	
70 Series S/D/DX – Singles and Duals	40	Heavy Industrial	Light Industrial	Light Industrial	Light Industrial	Light Industrial	CV	Light Industrial	Light Industrial	Light Industrial	Light Industrial	.023-1/8 in. (0.6-3.2 mm) Low-speed option recommended for 1/8-in. wires	Four drive roll, adjustable weld control	Heavy and light manufacturing, fabrication	
70 Series MPa Plus – Singles and Duals	40	Heavy Industrial	Light Industrial	Light Industrial	Light Industrial	Light Industrial	CV	Light Industrial	Light Industrial	Light Industrial	Light Industrial	.035-5/64 in. (0.9-2.0 mm)	Aluma-Pro Plus or Pistol Plus guns for feeding soft wires	Manufacturing requiring multiple wire types	
70 Series Swingarc™ – Singles and Duals	42	Heavy Industrial	Light Industrial	Light Industrial	Light Industrial	Light Industrial	CV	Light Industrial	Light Industrial	Light Industrial	Light Industrial	.023-5/64 in. (0.6-2.0 mm)	8-, 12- and 16-ft. booms, four drive roll, adjustable weld control	Heavy and light manufacturing, fabrication	
70 Series Remote Configurations – Singles and Duals	42	Heavy Industrial	Light Industrial	Light Industrial	Light Industrial	Light Industrial	CV	Light Industrial	Light Industrial	Light Industrial	Light Industrial	.023-5/64 in. (0.6-2.0 mm)	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 or optional Optima control with a recommended inverter power source.  
 \*\*Certain self-shielded wires require CV output. Miller recommends a CV power source whenever possible. \*\*\*MPa models are designed for aluminum 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 Series Features

Feature	X-TREME		X-TREME ArcReach		
	8VS	12VS	8VS	12VS	12RC
Available with Q300 gun	●	●	●	●	●
Available w/Dura-Flux gun		●		●	
Available with S-Gun			●	●	
Remote voltage control (control cord required)					●
Remote voltage control without a cord			●	●	
Digital meters	●	●	●	●	●
Impact-resistant case	●	●	●	●	●
Gas purge	●	●	●	●	●
Wire jog	●	●	●	●	●
● Standard ● Optional					



SuitCase X-TREME 8VS

SuitCase X-TREME 12VS

SuitCase X-TREME 12VS ArcReach

SuitCase 12RC



Bernard Q300 gun shown.



Models include Bernard™ Q300 MIG gun with reversible dual size (.045 and 1/16 in.) VK drive rolls. 12VS model is also available with Dura-Flux™ Flux-Cored gun with reversible dual size (.068/.072 and 5/64 in.) VK drive rolls. ArcReach™ models are also available with Bernard S-Gun™ with reversible dual size (.045 and 1/16 in.) VK drive rolls. For more options, visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld).

### 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. (X-TREME™ feeders only.)

**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. (Meters are 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 can change wire while feeder is standing upright or laying down.

**Case is available in two sizes.** (X-TREME™ feeders only.)

### 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 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 no. M/6.42

Voltage-sensing feeders designed to run off of arc voltage from almost any welding power source. 8VS model is sized for an 8-inch spool of wire, can be carried to remote welding sites and fits through a 14-inch manhole/manway. 12VS model is sized for an 8- or 12-inch spool of wire. 12-inch spools are the most common in structural steel and fabrication.

**SuitCase® X-TREME™ 8VS and 12VS ArcReach™**

See literature no. DC/18.87 (XMT ArcReach System) and DC/19.55 (Dimension NT 450 ArcReach System)

**ArcReach™** Remote control of the power source without a cord. With an ArcReach-equipped SuitCase® feeder and 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. See page 29, 31 and 33 for ArcReach power sources.

**SuitCase® 12RC** See literature no. M/6.5

Standard remote voltage control saves the operator a trip back to the power supply for welding adjustments. For applications where the feeder is within 100 feet of the power source and control cords are acceptable.

\*Additional packages are available — visit MillerWelds.com or your distributor.

Industrial 

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

**Processes**

- MIG (GMAW) ▪ Flux-Cored (FCAW)

**Suggested power sources**

- Invision™ MPa Series (pg 12)
- Dimension™ Series (pg 29/30)
- XMT™ Series (VS model not compatible with RC feeder) (pg 31)
- Bobcat™ Series (pg 64)
- Trailblazer® Series (pg 66)
- Big Blue® Series (pg 69–72)

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

RC feeder requires power source with 14-pin connector.

**Suggested guns**

- Bernard™ Q300 (GMAW) (pg 105)
- Bernard™ S-Gun™ (GMAW) (pg 105)
- Bernard™ Dura-Flux™ (FCAW) (pg 105)
- Roughneck® (GMAW) (pg 105)
- Ironmate™ FC-1260 (FCAW) (pg 105)

**Most popular accessories**

- Extension Cables (12RC only, 1 required) (pg 110)
- Flowmeter Kit #300 343
- Shielding Gas Filter #195 189

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

Model	Stock Number*	Input Power	Input Welding Circuit Rating	Wire Feed Speed	Wire Type and Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
SuitCase X-TREME 8VS	(#951 583) w/ Bernard Q300 gun (no meters)	Operates on open-circuit voltage and arc voltage: 14–48 VDC/110 Max. OCV	330 A at 60% duty cycle	50–780 IPM (1.3–19.8 m/min.) Actual range in CC mode is dependent on arc voltage applied	Solid Wire .023–.052 in. (0.6–1.4 mm) Flux-Cored .030–5/64 in. (0.8–2.0 mm)	8 in. (203 mm), 14 lb. (6.4 kg)	H: 12.75 in. (324 mm) W: 7.25 in. (184 mm) D: 18 in. (457 mm)	28 lb. (13 kg)
	(#951 582) w/ Bernard Q300 gun		425 A at 60% duty cycle					
SuitCase X-TREME 12VS	(#951 543) w/ Bernard Q300 gun (#951 544) w/ Bernard Dura-Flux gun		425 A at 60% duty cycle		Solid Wire .023–.052 in. (0.6–1.4 mm) Flux-Cored .030–5/64 in. (0.8–2.0 mm)	12 in. (305 mm), 45 lb. (20 kg)	H: 15.5 in. (394 mm) W: 9 in. (229 mm) D: 21 in. (533 mm)	35 lb. (15.9 kg)
SuitCase X-TREME 8VS ArcReach	(#951 588) w/ Bernard S-Gun (#951 584) w/ Bernard Q300 gun	Operates on open-circuit voltage and arc voltage: 14–48 VDC/110 Max. OCV	330 A at 60% duty cycle	50–780 IPM (1.3–19.8 m/min.) Actual range in CC mode is dependent on arc voltage applied	Solid Wire .023–.062 in. (0.6–1.6 mm) Flux-Cored .030–.062 in. (0.8–1.6 mm)	8 in. (203 mm), 14 lb. (6.4 kg)	H: 12.75 in. (324 mm) W: 7.25 in. (184 mm) D: 18 in. (457 mm)	28 lb. (13 kg)
			425 A at 60% duty cycle					
SuitCase X-TREME 12VS ArcReach	(#951 589) w/ Bernard S-Gun (#951 581) w/ Bernard Q300 gun		425 A at 60% duty cycle		Solid Wire .023–5/64 in. (0.6–2.0 mm) Flux-Cored .030–5/64 in. (0.8–2.0 mm)	12 in. (305 mm), 45 lb. (20 kg)	H: 15.5 in. (394 mm) W: 9 in. (229 mm) D: 21 in. (533 mm)	35 lb. (15.9 kg)
SuitCase 12RC	(#951 580) w/ Bernard Q300 gun (#951 599) w/ Bernard Q300 gun, lift eye, and flowmeter	24 VAC, 10 A, 50/60 Hz	425 A at 60% duty cycle	50–700 IPM (1.3–17.8 m/min.)	Solid Wire .023–.052 in. (0.6–1.4 mm) Flux-Cored .030–5/64 in. (0.8–2.0 mm)	12 in. (305 mm), 45 lb. (20 kg)	H: 15.5 in. (394 mm) W: 9 in. (229 mm) D: 21 in. (533 mm)	31 lb. (14.1 kg)

**ArcReach™**

**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.

**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.

## 20 Series Industrial Bench Feeders

## 70 Series Heavy-Industrial Bench Feeders



24A

S-74D

S-74DX

D-74 MPA Plus

Bernard Q300  
gun shown.

### 20 and 70 Series Features

Feature	20 Series		70 Series			
	22A	24A	74S	74D	74DX	74MPA
Includes Q300 gun	●	●				
Includes Q400 gun						●
Trigger hold	●	●	●	●	●	●
Adjustable run-in control		●			●	
Automatic run-in control			●	●	●	
Digital meters	●	●		●	●	●
Remote voltage control		●				
Preflow/postflow	● <sup>1</sup>	●	●			
Spot control	● <sup>1</sup>	●	●	●	●	●
Dual-wire models		●				
Rotatable drive assembly			●	●	●	●
Dual schedule control						●
Trigger program select						●
Trigger dual schedule						●
Sequence control					●	●
Locks and limits					●	●
Weld programs					4	2
Trigger schedule select						●
Accu-Mate™						●
Alumination™						●
Synergic Pulsed MIG						●
Profile Pulse™						●

● Standard ● Optional <sup>1</sup>Field option.

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



Models include Bernard™ Q300 (20 Series) or Q400 (70 Series) MIG gun (two with D-74 models), .035/.045-in. drive rolls and Centerfire™ contact tips. For more options, visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld).

**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.**

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

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

**Each feeder includes a 15-foot Bernard Q300 (20 Series) or Q400 (70 Series) MIG gun (two with dual-wire models), plus a 10-foot 14-pin interconnecting cord.**

### 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.

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

**Trigger dual schedule** for easily changing weld parameters while welding. Achieves the best weld settings for different joint configurations. (DX and MPA models only.)

## 22A and 24A See literature no. M/11.0

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

**Ideal for most high-duty-cycle applications** requiring day-in/day-out trouble-free operation.

**On-board burnback and motor ramp control** for excellent starting and stopping performance.

**Two gear-driven drive rolls** on 22A and **four gear-driven drive rolls** on 24A provide smooth, positive wire feed.

### Additional features for 24A feeder

**Remote voltage control** at feeder for easier adjustments in the weld cell.

**Adjustable run-in control** for better arc-starting performance on a variety of wires.

**Four gear-driven drive rolls** provide more consistent feeding on larger wire diameters.

## 74S and 74D See literature no. M/3.0

**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.

## 74DX See literature no. M/3.0

**Adds features for weld control and programs.**

**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 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, bumback 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.

## 74 MPa Plus See literature no. M/3.0

**Adds push-pull aluminum capabilities. Optimized with Invision™ MPa or XMT® MPa power sources.**

**Recommended aluminum 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 aluminum feeding and welding performance. See chart below for gun models and stock numbers.



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

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

**Alumination™** gives you the ability to use the extended reach of a push-pull system for consistent, versatile and dependable aluminum wire feeding.

### 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.



\*Additional packages are available—visit MillerWelds.com or your distributor. \*\*Wire kit #230 708 required to run 1/16-in. (1.6 mm) wire.

**Industrial** ● 20 Series  
**Heavy Industrial** ● 70 Series

**CVDC** 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

- CP-302 (22A only) (pg 11)
- Deltaweld® Series (pg 11)
- Invision™ MPa Series (pg 12)
- Dimension™ Series (pg 29/30)
- XMT® Series (except VS model) (pg 31)

### Suggested guns

- Bernard™ (pg 105)
- XR-Aluma-Pro™ Plus and XR™-Pistol Plus (see chart below)

### Most popular accessories

- Feeder Cart #142 382 (pg 101)
- Extension Cables (pg 110)
- Spool Adapter #047 141 (pg 110)
- Turntable Assembly #146 236 (pg 110)
- Wire Straightener (pg 110)
- Hanging Bail #058 435
- Wire Reel Assembly #108 008
- Spool Covers
  - #057 607 For 20 and 70 Series single-wire models and left side of dual-wire models
  - #090 389 For right side of dual-wire models
- Single- and dual-remote configurations are available for 70 Series. For more information, see literature no. M/3.0.

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

Model	Stock Number*	Input Power	Wire Feed Speed	Wire Type and Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight		
20 Series	22A (#951 190)	24 VAC, 7 A, 50/60 Hz	75–750 IPM (1.9–19 m/min.)	22A	60-lb. (27 kg) coil with optional wire reel assembly #108 008	H: 11 in. (279 mm) W: 10.75 in. (273 mm) D: 23.5 in. (597 mm)	22A		
	.023–5/64 in. (0.6–2.0 mm)			36 lb. (15.4 kg)					
	22A (#951 191) w/run-in control			24A			24A		
	22A (#951 192) w/digital display and voltage control			.023–3/32 in. (0.6–2.4 mm)			40 lb. (18 kg)		
	24A (#951 193)								
	24A (#951 194) w/digital display								
	24A (#951 195) w/digital display and pre/post flow								
70 Series (Single-wire models)	S-74S (#951 196)	24 VAC, 10 A, 50/60 Hz	50–780 IPM (1.3–19.8 m/min.)	.023–1/8 in. (0.6–3.2 mm)	60-lb. (27 kg) coil with optional wire reel assembly #108 008	H: 14 in. (356 mm) W: 12.5 in. (318 mm) D: 28 in. (711 mm)	58 lb. (26 kg)		
	S-74D (#951 198)			Low speed motor required for 1/8-in. (3.2 mm) diameter wire (factory option)					
	S-74DX (#951 200)								
	S-74 MPa Plus (#951 291)								
70 Series (Dual-wire models)	D-74S (#951 203)	24 VAC, 10 A, 50/60 Hz	50–780 IPM (1.3–19.8 m/min.)	<b>MPa Plus model</b>	60-lb. (27 kg) coil with optional wire reel assembly #108 008	H: 14 in. (356 mm) W: 21 in. (533 mm) D: 35 in. (889 mm)	87 lb. (39.5 kg)		
	D-74D (#951 204)			<b>Hard Wire</b>					
	D-74DX (#951 206)			.035–5/64 in. (0.9–2.0 mm)					
	D-74 MPa Plus (#951 292)			<b>Aluminum**</b>					
				.035–1/16 in. (0.9–1.6 mm)					
<b>Optional Push-Pull Gun</b> <i>(For MPa Plus feeders only)</i>		<b>Cable Length</b>			<b>Welding Current Rating</b>	<b>Wire Feed Speed</b>	<b>Wire Type and Diameter Capacity</b>	<b>Dimensions</b>	<b>Net Weight</b>
		15 ft. (4.6 m)	25 ft. (7.6 m)	35 ft. (10.6 m)					
	<b>XR-Aluma-Pro Plus</b> (Air-cooled)	(#300 000 001)	(#300 001 001)	(#300 264 001)	300 A at 100% duty cycle	70–900 IPM (1.8–23 m/min.)	<b>Aluminum**</b>	H: 5 in. (127 mm) W: 2.5 in. (64 mm) L: 17 in. (432 mm)	2.5 lb. (1.1 kg)
	<b>XR-Aluma-Pro Plus</b> (Water-cooled)	(#300 003 001)	(#300 004 001)	(#300 265 001)	400 A at 100% duty cycle				2.9 lb. (1.3 kg)
	<b>XR-Pistol Plus</b> (Air-cooled)	(#300 753)	(#300 754)	(#300 755)	200 A at 100% duty cycle	70–900 IPM (1.8–23 m/min.)	<b>Aluminum**</b>	H: 7.375 in. (187 mm) W: 1.875 in. (48 mm) L: 10.625 in. (270 mm)	2.2 lb. (1 kg)
	<b>XR-Pistol Plus</b> (Water-cooled)	(#300 756)	(#300 757)	(#300 758)	400 A at 100% duty cycle				2.4 lb. (1.1 kg)

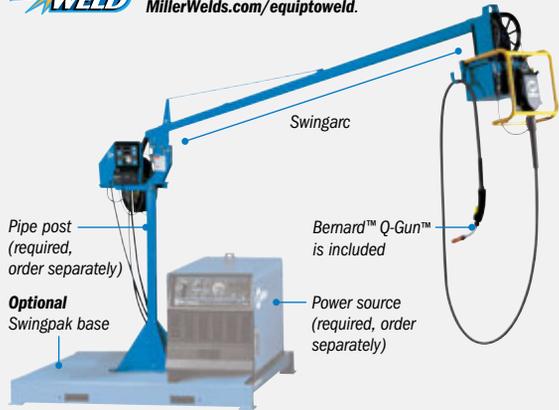
## 70 Series Swingarc™

See literature no. M/13.11

Swingarc boom-mounted wire feeders bring an extra dimension of flexibility and efficiency to weld stations dealing with large weldments, or wherever operator mobility is required.



Includes same gun, drive rolls and tips as 70 Series. For more options, visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld).



Single- and dual-wire models with 8-, 12- or 16-foot booms are sized to accommodate a variety of weld cell layouts (16-, 24- or 32-foot diameter work area).

Counterbalance design makes it easy to position boom and 360-degree rotation and 60-degree lift angle maximizes work area.

In-boom cable routing organizes hoses and cables for a cleaner work environment.

Each feeder includes a 15-foot Bernard Q400 MIG gun (two with dual-wire models), plus a 10-foot 14-pin interconnecting cord to connect power source to boom control.

MPa Plus Swingarcs. Optimized for the Invision™ MPa and XMT™ MPa power sources and available with single- or dual-wire feeders and three boom lengths.

### Heavy Industrial ● CV DC

Use with CV, DC power sources.

#### Processes

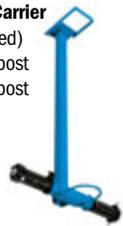
- MIG (GMAW) • Flux-Cored (FCAW)

#### Suggested power sources/guns

- Same as 70 Series

#### Most popular accessories

- Swingpak™ Base #183 997
  - Pipe Post with 18-in. Base 4-ft. #149 838 / 6-ft. #149 839
  - Single/Dual Spool Carrier (Pipe Post not included) #300 353 For 4-ft. post #300 352 For 6-ft. post
- Designed to put spool hub assembly at 36 inches from base for easier wire spool installation.



Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Stock Number with Single-Wire Feeders	Stock Number with Dual-Wire Feeders	Input Power	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Net Weight with Feeder
8-ft. (2.4 m) Boom	SS-74S8 (#951 522) w/S-74S	DS-74S8 (#951 531) w/D-74S	24 VAC, 10 A, 50/60 Hz	50-780 IPM (1.3-19.8 m/min.)	.023-5/64 in. (0.6-2.0 mm)	60-lb. (27 kg) coil with optional wire reel assembly #108 008	Single-Wire Feeder 110 lb. (50 kg)
	SS-74D8 (#951 525) w/S-74D	DS-74D8 (#951 534) w/D-74D					Dual-Wire Feeder 134 lb. (61 kg)
	SS-74DX8 (#951 528) w/S-74DX	DS-74DX8 (#951 537) w/D-74DX					
	SS-74MPa Plus-8 (#951 437) w/S-74 MPa Plus	DS-74MPa Plus-8 (#951 440) w/D-74 MPa Plus					
12-ft. (3.7 m) Boom	SS-74S12 (#951 523) w/S-74S	DS-74S12 (#951 532) w/D-74S	Consult factory for low- and high-speed motor options on non-MPa feeders				Single-Wire Feeder 160 lb. (73 kg)
	SS-74D12 (#951 526) w/S-74D	DS-74D12 (#951 535) w/D-74D					Dual-Wire Feeder 207 lb. (94 kg)
	SS-74DX12 (#951 529) w/S-74DX	DS-74DX12 (#951 538) w/D-74DX					
	SS-74MPa Plus-12 (#951 438) w/S-74 MPa Plus	DS-74MPa Plus-12 (#951 441) w/D-74 MPa Plus					
16-ft. (4.9 m) Boom	SS-74S16 (#951 524) w/S-74S	DS-74S16 (#951 533) w/D-74S					Single-Wire Feeder 210 lb. (95 kg)
	SS-74D16 (#951 527) w/S-74D	DS-74D16 (#951 536) w/D-74D					Dual-Wire Feeder 280 lb. (127 kg)
	SS-74DX16 (#951 530) w/S-74DX	DS-74DX16 (#951 539) w/D-74DX					
	SS-74MPa Plus-16 (#951 439) w/S-74 MPa Plus	DS-74MPa Plus-16 (#951 442) w/D-74 MPa Plus					

## 70 Series Remote Configurations

See literature no. M/3.0

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



- Single-wire control box**
- #300 881 S-74S
  - #300 882 S-74D
  - #300 883 S-74DX
  - #300 738 S-74 MPa Plus

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



- Wire drive motor assembly**
- #300 904 Standard left-hand drive
  - #300 740 MPa Plus left-hand drive
- MPa Plus drive can be used with push-only guns, or XR-AlumaPro™ Plus and Pistol Plus push-pull guns.

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

- Motor Control Cable**
- 11 conductor

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



- Push-only wire drive motor assembly**
- #300 741 001 Standard right-hand drive
  - #300 741 MPa Plus right-hand drive

- Dual-wire control box**
- #300 886 D-74S
  - #300 887 D-74D
  - #300 888 D-74DX
  - #300 739 D-74 MPa Plus

- Wire drive motor assembly**
- #300 904 Standard left-hand drive
  - #300 740 MPa Plus left-hand drive
- MPa Plus drive can be used with push-only guns, or XR-AlumaPro™ Plus and Pistol Plus push-pull guns.

### Heavy Industrial ● CV DC

Use with CV, DC power sources.

#### Processes

- MIG (GMAW) • Flux-Cored (FCAW)

#### Suggested power sources/guns

- Same as 70 Series

#### Most popular accessories

- Motor Control Cable (11 conductor)\* #254 935 010 10 ft. (3 m) #254 935 025 25 ft. (7.6 m)
- For push-only gun configurations.
- MPa Plus Motor Control Cable (14 conductor)\* #254 864 010 10 ft. (3 m) #254 864 025 25 ft. (7.6 m)
- For MPa Plus configurations only – single-wire or left side of dual-wire.

\*For additional lengths visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld).



- Feeder Base #195 369
- For use with spooled wire.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.



For more detailed information, visit

MillerWelds.com/stick

SMAW

# Stick



Also see TIG and Multiprocess sections for machines that can Stick weld.

## Product Guide

	Page	Class	Stick	DC TIG	Flux-Cored*	CAC-A	Portability	Weldable Metals	Welding Amperage Range	Special Features	Typical Applications	
<b>Thunderbolt® XL 225 AC</b>	43	●	●				Optional running gear	Steel, stainless	30-235 AC	Infinite control	Education, maintenance/repair, farm	1-Phase
<b>Thunderbolt® XL 225 AC/150 DC</b>	43	●	●					30-235 AC 30-160 DC	Infinite control	Education, maintenance/repair, farm		
<b>Dialarc® 250 AC/DC</b>	43	●	●	●	●	3/16"	Lift eye, optional running gear		35-300 AC 35-265 DC	One control knob with high/low range	Education, maintenance/repair, fabrication	
<b>Maxstar® 150 S</b>	44	●	●				Shoulder strap, optional case		20-150 DC	120-240 V Auto-Line™ MVP™ plugs	MRO, ship installation/repair, farm/ranch	
<b>Maxstar® 200 STR</b>	44	●	●	●			Shoulder strap, handle, optional cart	Steel, stainless	1-200 DC	120-480 V Auto-Line™ Stick/TIG machine	Construction, fabrication, pipe, steel erection, shipbuilding	1- & 3-Ph
<b>CST™ 280</b>	45	●	●	●			Handle, optional cart		5-280 DC	High output, portable at 41 lb., also available in multi-unit rack	Construction, fabrication, pipe, steel erection, shipbuilding	
<b>CST™ 280 Rack</b>	45	●	●	●	5/16"	**	Lift eye, optional running gear	Steel, stainless	5-280 DC	Up to 4 or 8 operators, lightweight	Construction, maintenance/repair, shipbuilding	3-Phase
<b>Gold Star® 452</b>	44	●	●	●	5/16"				20-590 DC	Built-in arc control	Steel erection, pipe, fab, shipbuilding, foundries	
<b>Gold Star® 652</b>	44	●	●	●	3/8"				50-850 DC	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. \*\*Two machines paralleled.

## Thunderbolt® XL 225 AC and 225 AC/150 DC

See literature no. AC/2.0 (AC model) and AD/8.0 (AC/DC model)



Thunderbolt XL 225 AC shown.

### Economical Stick machines with precise, dependable control.

**Accu-Set™ amperage indicator** provides precise heat control.

**Unit allows higher duty cycle when amperage decreases.**

**Infinite current control** allows the operator to adjust output by as little as one-amp increments.

**Output selector switch on AC/DC units** allows you to quickly select AC, DCEP or DCEN without adjusting the output leads.

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

Light industrial ● CC AC/DC 3 1 225 AC model is AC only.

### Process - Stick (SMAW)

#### Comes complete with

- 15-ft. (4.5 m) No. 4 electrode cable with heavy-duty electrode holder
- 10-ft. (3 m) work cable with clamp
- Power cord with plug

#### Most popular accessories

- Thunderbolt XL Running Gear #043 927 (pg 102)

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

Model	Stock Number	Welding Mode	Welding Amperage Range	Rated Output at 20% Duty Cycle, 60 Hz (15% Duty Cycle, 50 Hz)	Rated Output at 100% Duty Cycle	Amps Input at Rated Output	Max. Open-Circuit Voltage	Dimensions	Net Weight
Thunderbolt XL 225 AC (CSA)	(#903 641) 230 V, 50/60 Hz	AC	30-235	225 A at 25 VAC	100 A	47.5	80	H: 18.75 in. (476 mm) W: 12.75 in. (323 mm) D: 17.5 in. (445 mm)	85 lb. (39 kg)
Thunderbolt XL 225 AC/150 DC (CSA)	(#903 642) 230 V, 50/60 Hz	AC	30-235	225 A at 25 V	100 A	47.5	80		104 lb. (47 kg)
		DC	30-160	150 A at 25 V	65 A				

## Dialarc® 250 AC/DC

See literature no. AD/2.1



### Superb performance and versatility in a flexible Stick machine.

**Single-dial infinite current control** simplifies and allows precise weld output adjustment.

**High and low ranges for both AC and DC** allow greater control of weld performance.

**Forced-draft cooling fan** ensures cooler running product, extending life of power source.

**Superior 6010 and 7018 Stick welding performance** offers wide range of electrode versatility.

**High output and duty cycle** allow unit to handle nearly all Stick welding needs.

**Optional remote weld output control** provides current control without going back to power source saving time and effort.

Light industrial ● CC AC/DC 3 1

### Processes

- Stick (SMAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (3/16-in. carbons)

#### Most popular accessories

- RFC-23A Remote Foot Control #242 199 020
- RHC-3 Remote Hand Control #242 210 020
- No. 19 Running Gear #041 580

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

Model	Stock Number	Welding Mode	Welding Amperage Range	Rated Output at 30% Duty Cycle	Amps Input at Rated Output, 60 Hz	Max. Open-Circuit Voltage	Dimensions	Net Weight
Dialarc without Power Factor Correction	(#907 017) 200(208)/230/460 V (#907 016) 230/460/575 V	AC	35-300	225 A at 29 VAC	84 - 73 36 29 16.8 9.8	70	H: 24.25 in. (616 mm) W: 19 in. (483 mm) D: 28 in. (711 mm)	360 lb. (163 kg)
		DC	35-265	225 A at 29 VAC	92 - 80 40 32 18.6 11.8	79		
Dialarc with Power Factor Correction	(#907 015) 208/230/460/575 V	AC	35-300	225 A at 29 VAC	- 60 55 27 22 12.5 9.9	70		365 lb. (166 kg)
		DC	35-265	225 A at 29 VAC	- 66 60 30 24 13.7 10.8	79		



## Maxstar® 150 S

See literature no. DC/27.0



Maxstar 150 S with X-CASE (#907 134 012) shown.

**Best in class – provides maximum portability and performance in the most compact Stick package in the industry. Packs dependability and performance all in one machine.**

**Multi-voltage plug (MVP™)** allows connection to 120- or 240-volt receptacles without tools. Choose the plug that fits the receptacle and connect it to the power cord.

**Portable with adjustable shoulder strap.** Easy to transport at only 13.2 pounds.



Allows for any input voltage hook-up (120–240 V) with no manual linking, providing convenience in any job setting.

**Adaptive Hot Start™ for Stick arc starts** reduces electrode sticking.

**Single amperage range** allows operator to accurately set amperage on both 120- or 240-volt primary power.

Note: See page 49 in the TIG section for Maxstar 150 STL and STH.  
\*Sense voltage for Stick.

Light industrial ● CC DC 1 Phase

**Process** • Stick (SMAW)

**Comes complete with**

- 10-ft. power cord with MVP plugs for 120 V and 240 V
- 13-ft. (4 m) electrode cable with holder and 25-mm Dinse connector
- 10-ft. (3 m) work cable with clamp and 25-mm Dinse connector

**#907 134 012 includes above plus**

- Protective X-CASE™

**Most popular accessories**

- MVP Plugs (pg 106)
- Protective X-CASE™ #300 184 (pg 106)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Stock Number	Input Power	Welding Amperage Range	Rated Output	Amps Input at Rated Output, 50/60 Hz	KVA at Duty Cycle	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
#907 134 115–230 VAC, 50/60 Hz #907 134 012 115–230, 50/60 Hz with X-CASE	115 VAC	20–100	100 A at 24 VDC, 35% duty cycle	26.4	3.0	3.0	90 (12–16 VDC*)	H: 9 in. (229 mm) W: 5.5 in. (140 mm) D: 13.25 in. (337 mm)	13.2 lb. (6.0 kg)
	230 VAC	20–150	150 A at 26 VDC, 30% duty cycle	21.6	4.9	4.7			

## Maxstar® 200 STR

See literature no. DC/29.5



Note: See page 50 in the TIG section for Maxstar 200 Series.

**Maximum flexibility with automatic connection to any input power while maintaining the best DC Stick/TIG welding performance in its product class.**



Allows for any input voltage hook-up (120–480 V) with no manual linking, providing convenience in any job setting.

**Lift-Arc™** provides TIG arc starting without the use of high frequency.

**Low OCV Stick model** reduces open-circuit voltage to 9–14 VDC. This eliminates the need for add-on voltage reducers.

**Excellent for thin/medium wall pipe welds.**

**Remote amperage control.**

**Adaptive Hot Start™ for Stick arc starts.**

**Portable with adjustable shoulder strap.**

\*Sense voltage for Stick and Lift-Arc TIG.

Industrial ● CC DC 3 1 Phase

**Processes**

- Stick (SMAW) • TIG (GTAW)

**Comes complete with**

- 8-ft. (2.4 m) power cord (no plug)
- Two 50-mm Dinse connectors

**Most popular accessories**

- 12.5-ft. (3.8 m) Weldcraft™ A-150V TIG torch #WP-17V-12-R (pg 55)
- Protective Cover #195 321 (pg 108)
- Remote Controls (pg 108)
- Air-Cooled TIG Torch Connector (pg 109)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Stock Number	Welding Process	Input Power	Welding Amperage Range	Rated Output	Amps Input at Rated Load Output, 50/60 Hz				Max. Open-Circuit Voltage	Dimensions	Net Weight	
					115 V	230 V	400 V	460 V				KVA
#907 036 Low OCV #907 036 001 Normal OCV	Stick	3-phase	1–200	150 A at 26 V, 60% duty cycle	–	13.1	7.4	6.4	5.2	5.0	80 VDC (9–14 VDC*) H: 13.5 in. (343 mm) W: 7.5 in. (191 mm) D: 17.5 in. (445 mm)	32 lb. (14.5 kg)
			1–90	125 A at 25 V, 50% duty cycle	34.1	–	–	4.0	3.8			
	TIG	3-phase	1–200	175 A at 17 V, 60% duty cycle	–	10.5	6.0	5.2	4.2	4.0		
			1-phase	1–200	175 A at 17 V, 60% duty cycle	–	17.4	–	–	4.0		
			1–150 (120 V)	150 A at 16 V, 70% duty cycle	29.7	14.1	–	–	3.4	3.4		

## Gold Star® Series

See literature no. DC/8.1



Gold Star 452 shown.



See page 109 for wireless remote controls.

**Rugged, reliable performance and superior arc characteristics.**

- Hot Start™ and built-in arc control
- Enclosed circuit board
- Thermal overload protection with light
- Fan-On-Demand™
- 15 A, 115 VAC duplex receptacle
- Power efficient
- Remote control capability
- Optional digital volt and amp meters

Heavy industrial ● CC DC 3 Phase

**Processes**

- Stick (SMAW) • TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (carbons – 452: 5/16 in., 652: 3/8 in.)
- Flux-Cored (FCAW)
- MIG Spray Transfer (GMAW) with voltage-sensing feeder

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for Miller® options and accessories.

Model	Stock Number	Amperage Range in CC Mode	Rated Output	Amps Input at Rated Output, 60 Hz				KVA	KW	Max. Open-Circuit Voltage	Dimensions (Includes lift eye and strain relief)	Net Weight
				200 V	230 V	460 V	575 V					
Gold Star 452	#903 374) 200(208)/230/460 V #903 400) 230/460/575 V	20–590	450 A at 38 VDC, 60% duty cycle	102	89	45	36	35.5	23.3	72 VDC	H: 30 in. (762 mm) W: 23 in. (585 mm) D: 38 in. (966 mm)	404 lb. (183 kg)
Gold Star 652		#903 402) 230/460/575 V	50–850	650 A at 44 VDC, 60% duty cycle	–	124	62	50	49.4	36	72 VDC	505 lb. (229 kg)



# CST™ 280

See literature no. DC/29.55

**Durable power source designed for the construction industry. Ideal for Stick electrodes up to 3/16-inch and TIG welding of pipe and plate.**



See page 109 for wireless remote controls.

**Easy voltage changeover between voltage ranges** through a two-position manual switch located on the rear panel. Simplifies voltage change in racks.

**Process selector knob automatically sets proper DIG setting** on E6010 and E7018 stick electrodes for better performance.

**Lift-Arc™** for TIG arc starts without the use of high frequency.

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

**Remote amperage control** through the 14-pin connector.

**Optional 4- or 8-pack rack** (see below) available for multioperator applications.

Industrial ● CC DC 3 1 Phase Phase

**Processes**

- Stick (SMAW)
- TIG (GTAW)

**Comes with**

- One set of male connectors (Dinse-style model only)

**Most popular accessories**

- CST 280 Rack (see below)
- Remote Controls (pg 108/109)
- For TIG torches see literature no. DC/29.55

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Note: Primary input current draw is limited to 50 amps.

Stock Number	Welding Process	Input Power	Welding Amperage Range	Rated Output	Amps Input at Rated Load Output, 50/60 Hz							Max. Open-Circuit Voltage	Dimensions	Net Weight	
					208 V	220 V	230 V	400 V	440 V	460 V	575 V				KVA
#907 244) Dinse 220-230/460-575 V #907 244 011) Tweco® 220-230/460-575 V	Stick/TIG	Three-phase	5-280	280 A at 31.2 V, 35% duty cycle	—	35.0	34.2	—	—	17.8	14.7	14.6	77 VDC	H: 13.5 in. (343 mm) W: 7.5 in. (191 mm) D: 18 in. (457 mm)	41 lb. (18.6 kg)
				200 A at 28 V, 100% duty cycle	—	23.3	22.5	—	—	11.7	9.7	9.6			
	Single-phase	5-200	200 A at 28 V, 50% duty cycle	—	43.9	43.0	—	—	—	—	10.1	6.6			
			150 A at 26 V, 100% duty cycle	—	32.7	32.0	—	—	—	—	7.3	4.6			
#907 251) Dinse 208-230/400-460 V #907 251 011) Tweco® 208-230/400-460 V	Stick/TIG	Three-phase	5-280	280 A at 31.2 V, 35% duty cycle	36.0	—	34.0	19.8	18.0	17.5	—	14.0	67 VDC		
				200 A at 28 V, 100% duty cycle	23.5	—	22.8	13.5	12.0	12.7	—	10.2			
	Single-phase	5-200	200 A at 28 V, 50% duty cycle	43.9	—	43.0	—	—	—	—	9.9	6.5			
			150 A at 26 V, 100% duty cycle	35.0	—	32.9	—	—	—	—	7.6	4.8			

# CST™ 280 Racks

See literature no. DC/18.82

**Rugged enclosure provides simple means for protecting and transporting multiple welding power sources for construction, maintenance/repair and shipbuilding applications.**



CST 280 8-Pack Rack shown.



See page 109 for wireless remote controls.

**Light weight and small footprint** for easy transportation. The low weight enables the use of elevators to move the rack.

**All controls including power switch are located on front of machine** for easy access.

**Top cover** protects machines from falling debris.

**Lift eye** simplifies crane or overhead lifting device transport.

**Lift truck fork pockets.**

**One main disconnect box with branched fusing** for each machine.

**Common output ground connection** (for same polarity use only).

**Optional rack running gear** available for moving the rack.

Heavy industrial ● CC DC 3 Phase

**Processes**

- Stick (SMAW)
- TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (5/16-in. carbons with paralleled CST 280s)

**Most popular accessories**



- 4-Pack Rack Running Gear #195 114
- 8-Pack Rack Running Gear #195 436

Model/Stock Number	Rack Capacity	Input Power to Rack	Amps Input at Rated Output, 50/60 Hz							KVA	KW	Dimensions	Net Weight
			220 V	230 V	400 V	440 V	460 V	575 V	V				
4-Pack Rack (#907 247) Tweco® #907 245) Dinse	4 units	Three-phase, 220-230/460-575 V, 50/60 Hz. Note: CST 280s are factory-linked for 460-575 V. Dinse units include one set of male connectors; Tweco units do not. See above for information on CST 280.	137	134	79	72	70	57	58.4	40.8	H: 50.75 in. (1289 mm) 4-pack W: 25.5 in. (648 mm) 8-pack W: 46 in. (1168 mm) D: 26.5 in. (673 mm)	355 lb. (161 kg)	
			274	268	158	145	140	114					116.8
Empty Rack (#195 051)	4 units	—	—	—	—	—	—	—	—	—	Same as 4-pack rack	166 lb. (75 kg)	



# TIG | GTAW

Also see Multiprocess section for machines that can TIG weld.

For more detailed information, visit



[MillerWelds.com/tig](http://MillerWelds.com/tig)



Product Guide		Page	TIG	Pulsed TIG	Stick	CAC-A	MTG/Flux-Cored	Max. Electrode Diameter				Material Thickness Range (TIG)	Welding Amperage Range	Pulse Capability	Weight	Generator Power Requirement		
								E6010/11	E6013	E7018	E7024	CAC-A						
DC (Steel)	Maxstar® 150	49	●	●	●			—	1/8 in.	1/8 in.	3/32 in.	—	.020-3/16 in.	5-150 A	0.5, 1, 2.5, 60 PPS (STH model)	13.7 lb. (6.2 kg)	5 kW	
	Maxstar® 200	50	●	●	●	●		3/16 in.	3/16 in.	5/32 in.	1/8 in.	5/32 in.	.004-1/4 in.	1-200 A	0.1-500 PPS (DX model)	37 lb. (16.8 kg)	5.5 kW	
	Maxstar® 280	51	●	●	●	●		7/32 in.	3/16 in.	3/16 in.	3/16 in.	3/16 in.	3/16 in.	.004-3/8 in.	1-280 A	0.01-250 PPS (base model) 0.01-500 PPS (DX model)	47 lb. (21.3 kg)	8 kW
	Maxstar® 350	52	●	●	●	●		5/16 in.	5/16 in.	1/4 in.	1/4 in.	1/4 in.	1/4 in.	.012-5/8 in.	3-350 A	0.1-5000 PPS	135 lb. (61 kg)	12 kW
	Maxstar® 700	52	●	●	●	●		5/16 in.	5/16 in.	5/16 in.	5/16 in.	3/8 in.	3/8 in.	.020-1 in.	5-700 A	0.1-5000 PPS	198 lb. (90 kg)	32 kW
AC/DC (Aluminum/Steel)	Diversion™ 165/180	47	●					—	—	—	—	—	.030-3/16 in. (alum.) .025-3/16 in. (steel)	10-165 A (165) 10-180 A (180)	—	50 lb. (23 kg)	5.5 kW	
	Syncrowave® 210	48	●	●	●	●	●	5/32 in.	1/8 in.	1/8 in.	3/32 in.	—	.020-1/4 in. (aluminum/steel)	5-210 A	0.1-50 PPS (expandable)	133.5 lb. (61 kg)	6 kW	
	Dynasty® 200	50	●	●	●	●		3/16 in.	3/16 in.	5/32 in.	1/8 in.	5/32 in.	.020-1/4 in. (alum.) .004-1/4 in. (steel)	5-200 A (AC) 1-200 A (DC)	0.1-500 PPS (DX model)	45 lb. (20.5 kg)	8.5 kW	
	Dynasty® 280	51	●	●	●	●		7/32 in.	3/16 in.	3/16 in.	3/16 in.	3/16 in.	.012-3/8 in. (alum.) .012-1/2 in. (steel)	2-280 A (AC) 1-280 A (DC)	0.01-250 PPS (base, DC) 0.01-500 PPS (DX model)	52 lb. (23.6 kg)	11 kW	
	Dynasty® 350	52	●	●	●	●		5/16 in.	5/16 in.	1/4 in.	1/4 in.	1/4 in.	.015-5/8 in. (alum.) .012-5/8 in. (steel)	3-350 A	0.1-500 PPS (AC) 0.1-5000 PPS (DC)	135 lb. (61 kg)	13 kW	
	Dynasty® 700	52	●	●	●	●		5/16 in.	5/16 in.	5/16 in.	5/16 in.	3/8 in.	3/8 in.	.020-1 in. (aluminum/steel)	5-700 A	0.1-500 PPS (AC) 0.1-5000 PPS (DC)	198 lb. (90 kg)	35 kW
	Syncrowave® 250 DX	53	●	●	●	●		1/4 in.	1/4 in.	7/32 in.	3/16 in.	3/16 in.	3/16 in.	.015-3/8 in. (alum.) .012-1/2 in. (steel)	3-310 A	0.25-10 PPS (optional)	378 lb. (172 kg)	22 kW
Syncrowave® 350 LX	53	●	●	●	●		5/16 in.	5/16 in.	1/4 in.	1/4 in.	1/4 in.	1/4 in.	.015-1/2 in. (alum.) .012-5/8 in. (steel)	3-400 A	0.25-10 PPS	496 lb. (225 kg)	30 kW	

**PRODUCT KEY**

CAPABILITY: ● All models ● Some models **New! or Improved! products appear in blue type.**

# Diversion™ 165 and 180 AC/DC TIG See literature no. AD/1.5

Professional-grade arc in a package designed specifically for personal users. Contains all of the features you need – simplicity combined with superior performance and value.



### TIG Welding Capability

Max. 3/16 in. (4.8 mm)	Max. 3/16 in. (4.8 mm)
<b>Steel</b>	<b>Aluminum</b>
Min. 0.025 in. (0.6 mm)	Min. 0.030 in. (0.75 mm)

**Easy-to-understand operator interface.** Power up, select material type, set material thickness range and start welding!

**Inverter-based, AC/DC power source** provides a more consistent welding arc while using less power.

**HF arc starting** provides non-contact arc starting that eliminates tungsten or material contamination.

**Fan-On-Demand™** cooling system only operates when needed to reduce noise and maintenance.

**Portable.** Easy to transport at 50 pounds.

**Auto-postflow** protects the weld end zone and electrode by optimizing postflow time based on welding amperage.

**Advanced squarewave AC** provides a fast freezing weld puddle and deeper penetration.

**Weldcraft™ A-150 torch with Diamond Grip™** provides more comfortable grip and reduces operator fatigue.



**Diversion 180 includes multi-voltage plug (MVP™)** which allows connection to 120- or 240-volt receptacles without tools. Choose the plug that fits the receptacle and connect it to the cord.

Light industrial **CC** AC/DC Phase 1

### Process

• TIG (GTAW)

### Comes with

- Power cord with 50 A, 240 V plug (165 model) or MVP plugs for 120 V and 240 V (180 model)
- 12.5-ft. (3.8 m) Weldcraft™ A-150 TIG torch
- 12-ft. (3.7 m) work cable with clamp
- RFCS-RJ45 remote foot control
- Flow gauge regulator with hose

### Most popular accessories

- Running Gear/Cylinder Rack #301 239 (pg 101)
- Protective Cover #300 579 (pg 108)
- RCCS-RJ Remote Fingertip Control #301 146 (pg 108)
- RJ45 to 14-Pin Adapter Cord #300 688
- Weldcraft™ Flexible Torch Body Kits (requires handle #105Z55R) A-125F (#WP-9F) A-150F (#WP-17F)
- Accessory Kit #AK2C

Includes one short back cap, one of each size (#4, #5, #6) alumina nozzle, and one of each size (.040, 1/16, 3/32 in.) of the following: collet, collet body, and 7-inch 2% ceriated tungsten electrode.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

\*While idling.

AC/DC	Model/ Stock Number	Input Power	Welding Amperage Range	Rated Output	Amps Input at Rated Output	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
	AC/DC	Diversion 165 (#907 626)	230 VAC	10 - 165	150 A at 16 V, 20% duty cycle	23 (.20*)	5.3 (.04*)	3.7 (.02*)	80 VDC	H: 17 in. (433 mm) W: 9.875 in. (251 mm) D: 23.875 in. (608 mm)
165 A at 16.6 V, 15% duty cycle					25.5 (.20*)	5.9 (.04*)	4.2 (.02*)			
AC/DC		Diversion 180 (#907 627)	115 VAC	10 - 125	125 A at 15 V, 35% duty cycle	26.5 (.88*)	3.1 (.1*)	3.0 (.03*)	80 VDC	H: 17 in. (433 mm) W: 9.875 in. (251 mm) D: 23.875 in. (608 mm)
	230 VAC		10 - 180	150 A at 16 V, 20% duty cycle	16 (.44*)	3.7 (.1*)	3.6 (.03*)			
				180 A at 17.2 V, 10% duty cycle	20.5 (.44*)	4.7 (.1*)	4.6 (.03*)			



## Syncrowave® 210 Series

### AC/DC TIG and Stick

 See literature no. AD/4.6

Continuing the tradition of innovation through advanced inverter technology for light-industrial and personal users.



Syncrowave 210 Runner TIG/MIG Complete package (#951 616) shown.



See page 109 for wireless remote controls.



#### Easy to use.

- 1) Turn power on.
  - 2) Select the process.
  - 3) Set amperage or voltage based on material thickness.
- Then weld! It's easy as 1,2,3.**

#### TIG Welding Capability

Max. 1/4 in. (6.4 mm)

Steel

Aluminum

Min. 0.020 in. (0.5 mm)



Allows for any input voltage hook-up (120-240 V) with no manual linking, providing convenience in any job setting.



**Multi-voltage plug (MVP™)** allows connection to 120- or 240-volt receptacles without tools. Choose the plug that fits the receptacle and connect it to the cord.

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

**Low power draw.** Inverter-based power source provides full welding output from 240 volts while drawing less than 30 amps.

**Pro-Set™ (TIG/Stick)** eliminates the guesswork when setting weld parameters. Use Pro-Set when you want the speed, convenience and confidence of preset controls.

**AC balance (TIG)** control provides adjustable oxide removal which is essential for creating the highest quality aluminum welds.

**Pulse (TIG).** Pulsing can increase puddle agitation, arc stability and travel speeds while reducing heat input and distortion. Expandable feature.

**DIG (Stick)** 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.

**Auto-Set™ (MIG)** automatically sets your welder to the proper parameters. Simply set the wire size, material thickness, and shielding gas, and you're ready to weld. (TIG/MIG complete package only.)

Light Industrial ● CC AC/DC 1 Phase

#### Processes

- AC/DC TIG (GTAW) ▪ DC Stick (SMAW)
- Pulsed TIG (GTAW-P) ▪ MIG (GMAW)\*
- Flux-Cored (FCAW)\*

\*TIG/MIG Complete package only.

#### Comes with

- 10-ft. power cord with MVP plugs for 120 V and 240 V
- 12.5-ft. (3.8 m) Weldcraft™ A-150 TIG torch (#WP1712MFDI50)
- 12-ft. (3.7 m) work cable with clamp and Dinse connector
- Electrode holder with Dinse connector
- RFCS-14 remote foot control
- Flow gauge regulator with hose
- Factory-installed running gear with EZ-Change™ low cylinder rack

#### TIG/MIG Complete package comes with above plus

- Spoolmate™ 100 spool gun (#300 371)
- 4-14 pin connector
- Flow-thru Dinse connector
- Memory card

#### Most popular accessories

- 25-ft. (7.6 m) Weldcraft™ A-150 TIG Torch #WP-17-25-R (pg 55)
- Protective Cover #195 142 (pg 108)
- RCC-14 Remote Control #151 086 (pg 108)
- Wireless Remote Foot Control #300 429 (pg 109)
- Memory Card Expansion #301 128 DC pulse expansion #301 127 AC frequency expansion
- TIG Torch Accessory Kit #AK2C Includes one short back cap, one of each size (#4, #5, #6) alumina nozzle, and one of each size (.040, 1/16, 3/32 in.) of the following: collet, collet body, and 7-inch 2% ceriated tungsten electrode.
- TIG Torch 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.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Stock Number (#907 596) Runner (#951 616) Runner TIG/MIG Complete

Input Power	Welding Process	Welding Amperage Range	Rated Output (R.M.S.)	Amps Input at Rated Output	Max. Open-Circuit Voltage	Dimensions	Net Weight
115 V	DC TIG	5-125 A	95 A at 13.8 V, 60% duty cycle	17.4 (.58 while idling)	47 VDC	H: 31.5 in. (800 mm) W: 18.5 in. (470 mm) D: 43 in. (1092 mm)	Runner package: 133.5 lb. (61 kg) Runner TIG/MIG Complete package: 139.5 lb. (63 kg)
	AC TIG	5-125 A	90 A at 13.6 V, 60% duty cycle	12.4 (.58 while idling)			
	DC Stick	20-90 A	70 A at 22.8 V, 60% duty cycle	20.5 (.58 while idling)			
230 V	DC TIG	5-210 A	125 A at 15 V, 60% duty cycle	11.9 (.35 while idling)			
	AC TIG	5-210 A	114 A at 14.6 V, 60% duty cycle	8.62 (.35 while idling)			
	DC Stick	20-150 A	90 A at 23.6 V, 60% duty cycle	11.9 (.35 while idling)			

# Maxstar® 150 STL and STH

## DC TIG and Stick

See literature no. DC/27.1 (STL) and DC/27.2 (STH)

Maximum portability and performance provided in one compact TIG/Stick package.



### TIG Welding Capability

Max. 3/16 in. (4.8 mm)
Steel
Min. 0.020 in. (0.5 mm)

Maxstar 150 STH TIG/Stick package with remote fingertip control, and X-CASE (#907 136 017) shown.

### Two models available.

**STL:** DC TIG/Stick with Lift-Arc™ starting without the use of high frequency.

**STH:** DC TIG/Stick with high frequency and Lift-Arc™ starting, plus built-in pulsing with a selection of four fixed-pulse frequencies.

Note: See page 44 in the Stick section for Maxstar 150 S.



**AUTOLINE** Power Management Technology Allows for any input voltage hook-up (120–240 V) with no manual linking, providing convenience in any job setting.



**Multi-voltage plug (MVP™)** allows connection to 120- or 240-volt receptacles without tools. Choose the plug that fits the receptacle and connect it to the power cord.

### Portable with adjustable shoulder strap.

Easy to transport at 13.7 pounds.

**Built-in gas solenoid** eliminates the need for bulky torch with a gas valve.

Light industrial ● **CC DC 1** Phase

### Processes

- TIG (GTAW) • Stick (SMAW)
- Pulsed TIG (GTAW-P) w/STH model

### Comes with

- 10-ft. power cord with MVP plugs for 120 V and 240 V
- 13-ft. (4 m) electrode cable with holder and 25-mm Dinse connector
- 10-ft. (3 m) work cable with clamp and 25-mm Dinse connector

### TIG/Stick package includes above plus

- 12.5-ft. (3.8 m) Weldcraft™ A-150 TIG torch (#WP1712RDI25)
- Protective X-CASE™
- Flow gauge regulator with hose
- Remote fingertip control (only in packages #907 135 017 and #907 136 017)
- AK2C accessory kit

### Most popular accessories

- Protective X-CASE™ #300 184 (pg 106)
- RCCS-6M Remote Fingertip Control #195 184 (pg 108)
- RFCS-6M Remote Foot Control #195 183 (pg 108)
- Remote Controls (pg 108)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

\*Sense voltage for Stick and Lift-Arc™ TIG.

DC	Model / Stock Number	Welding Process	Input Power	Welding Amperage Range	Rated Output	Amps Input at Rated Output, 50/60 Hz	KVA at Duty Cycle	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
Maxstar 150 STL (#907 135 016) TIG/Stick package	TIG	230 VAC	5–150	150 A at 16 VDC, 30% duty cycle	14.2	3.2	3.1				
Maxstar 150 STL (#907 135 017) TIG/Stick package with remote fingertip control	TIG	115 VAC	20–100	100 A at 24 VDC, 35% duty cycle	26.4	3.0	3.0				
Maxstar 150 STH (#907 136) Machine only	Stick	230 VAC	20–150	150 A at 26 VDC, 30% duty cycle	21.6	4.9	4.7				

# The Miller® Owners Club



Created for welders who are passionate about what they do, the Miller Owners Club provides a personalized experience at [Owners.MillerWelds.com](http://Owners.MillerWelds.com). Since membership is limited to Miller equipment owners, members have exclusive access to product previews, welding tips and project ideas that support a welder's ability to do great work.



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## Maxstar® and Dynasty® 200 Series DC (Maxstar) and AC/DC (Dynasty) TIG and Stick

See literature no. DC/32.0 (Maxstar) and AD/4.8 (Dynasty)



Maxstar 200 DX

Dynasty 200 DX



See page 109 for wireless remote controls.

### TIG Welding Capability

Max. 1/4 in. (6.4 mm)	Max. 1/4 in. (6.4 mm)
Steel	Aluminum (Dynasty only)
Min. 0.004 in. (0.1 mm)	Min. 0.020 in. (0.5 mm)

**Multiple models available.** SD model provides basic TIG and Stick functions. DX model adds pulser and sequencer functions. LX model (Maxstar only) adds pulser and sequencer functions and an automation connection.

Note: See page 44 in the Stick section for Maxstar 200 STR.



Allows for any input voltage hook-up (120-480 V) with no manual linking, providing convenience in any job setting.

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

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

**Hot Start™** adaptive control provides positive arc starts.

**Auto-postflow** calculates the length of postflow time based on the amperage setting. Eliminates need to independently set postflow time.

**Portable with adjustable shoulder strap.** Easy to transport at 37 or 45 pounds.

### Dynasty welders add AC TIG capabilities and the following AC features

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

**Balance** control to provide adjustable oxide removal enabling high-quality aluminum TIG welds.

**Frequency** to control arc cone width and improve directional control of arc.

Dynasty 200 DX package (#951 397) shown.



Industrial  
CC AC 3 1  
DC Phase Phase Maxstar is DC only

### Processes

- TIG (GTAW) • Stick (SMAW)
- Pulsed TIG (GTAW-P) except SD model
- Air Carbon Arc (CAC-A)

### Comes with

- 8-ft. (2.4 m) power cord (no plug)
- Two 50-mm Dinse connectors
- One air-cooled TIG torch connector (except Maxstar LX)
- Setup DVD

### Contractor packages come with

- 8-ft. (2.4 m) power cord (no plug)
- Two 50-mm Dinse connectors
- One air-cooled TIG torch connector
- Setup DVD
- Contractor kit with remote control (fingertip or foot)

### Complete packages come with

- 8-ft. (2.4 m) power cord (no plug)
- Two 50-mm Dinse connectors
- One air-cooled TIG torch connector
- Setup DVD
- 2-wheel trolley cart
- Coolmate™ 1
- Coolant (1 one-gallon bottle)
- Remote control (fingertip, foot or wireless foot)
- Weldcraft™ W-250 (WP-20) water-cooled torch kit

### Most popular accessories

- 2-Wheel Trolley Cart #300 480 (pg 102)
- Coolmate™ 1 #300 360 (pg 102)
- Coolant #043 810 (pg 102)



- **Contractor Kits** (pg 108)
  - #195 055 w/RCCS-14 finger control
  - #195 054 w/RFCS-14 HD foot control
- Weldcraft™ W-250 (WP-20) Water-Cooled Torch Kit #300 185 (pg 108)
- Remote Controls (pg 108/109)
  - #043 688 RCCS-14 fingertip control
  - #194 744 RFCS-14 HD foot control
  - #300 429 Wireless foot control

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

Note: Duty cycle is limited on 120 V power. Coolmate 1 must be plugged into a 120 V source (wall). \*Sense voltage for Low OCV Stick and Lift-Arc™ TIG.

	Model/Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output	Amps Input at Rated Load Output, 50/60 Hz				Max. Open-Circuit Voltage	Machine Only Dimensions	Machine Only Net Weight			
						115 V	230 V	400 V	460 V	KVA	KW				
DC	Maxstar 200 SD (#903 701) Machine only DX (#903 701 011) Machine only DX (#951 173) Contractor w/fingertip DX (#951 172) Contractor w/foot DX (#951 138) Complete w/fingertip DX (#951 137) Complete w/foot DX (#951 396) Complete w/wireless foot LX (#903 701 012) Machine only	TIG	3-phase	1-200	175 A at 17 V, 60% duty cycle	—	11	6	5	4.2	4.0	80 VDC (9-14*)	H: 13.5 in. (343 mm) W: 7.5 in. (191 mm) D: 17.5 in. (445 mm)	37 lb. (16.8 kg)	
				1-200	175 A at 17 V, 60% duty cycle	—	17	—	—	4.0	4.0				
				1-150 (120 V)	150 A at 16 V, 70% duty cycle	30	14	—	—	3.4	3.4				
		Stick	3-phase	1-200	150 A at 26 V, 60% duty cycle	—	13	7	6	5.2	5.0				
				1-phase	1-200	150 A at 26 V, 60% duty cycle	—	22	—	—	5.0				5.0
				1-90	125 A at 25 V, 50% duty cycle	34	—	—	—	4.0	3.8				
AC/DC	Dynasty 200 SD (#907 099) Machine only DX (#907 099 011) Machine only DX (#951 175) Contractor w/fingertip DX (#951 174) Contractor w/foot DX (#951 140) Complete w/fingertip DX (#951 139) Complete w/foot DX (#951 397) Complete w/wireless foot	TIG	3-phase	1-200	150 A at 16 V, 60% duty cycle	—	10	6	5	3.8	3.6	80 VDC (5-10 VDC*)	H: 13.5 in. (343 mm) W: 7.5 in. (191 mm) D: 21.5 in. (546 mm)	45 lb. (20.5 kg)	
				1-phase	1-200	150 A at 16 V, 60% duty cycle	—	16	—	8	3.6				3.6
				1-150	140 A at 16 V, 40% duty cycle	31	—	—	—	3.6	3.5				
		Stick	3-phase	1-200	130 A at 25 V, 60% duty cycle	—	13	8	6	4.8	4.6				
				1-phase	1-200	130 A at 25 V, 60% duty cycle	—	20	—	10	4.7				4.7
				1-105	100 A at 24 V, 60% duty cycle	31.3	—	—	—	3.6	3.6				

# Maxstar® and Dynasty® 280 Series DC (Maxstar) and AC/DC (Dynasty) TIG and Stick

See literature no. DC/35.0 (Maxstar) and AD/4.9 (Dynasty)



Dynasty 280

Dynasty 280 DX



See page 109 for wireless remote controls.

### TIG Welding Capability

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

**Base and DX models available.** Base model provides essential TIG and Stick functions. DX model adds extended ranges to sequencer, full trigger options, and full preflow and pulser functions.



Allows for any input voltage hook-up (208–575 V) with no manual linking, providing convenience in any job setting.

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

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

**Hot Start™** adaptive control provides positive arc starts.

**Auto-postflow** calculates the length of postflow time based on the amperage setting. Eliminates need to independently set postflow time.

**Pro-Set™** provides the speed, convenience and confidence of preset parameters for balance, frequency, pulse and DIG.

**Sleep timer** conserves energy by powering down system if left idle for a user-adjustable amount of time.

**Memory card port** for easy software updates and expansions.

**Optional Cooler Power Supply (CPS)** is an integrated 120-volt dedicated-use receptacle to power the Coolmate™ 1.3. The power switch on the power source also activates the receptacle to help prevent torch failure.

**Dynasty welders add AC TIG capabilities and the following AC features (limited on base model)**

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

**Balance** control to provide adjustable oxide removal enabling high-quality aluminum TIG welds.

**Frequency** to control arc cone width and improve directional control of arc.

Dynasty 280 DX package (#951 469) shown.



Industrial   
CC AC 3 1 Maxstar is DC only  
DC Phase Phase

### Processes

- TIG (GTAW) • Stick (SMAW)
- Pulsed TIG (GTAW-P)
- Air Carbon Arc (CAC-A)

### Comes with

- 8-ft. (2.4 m) power cord (no plug)
- Two 50-mm Dinse connectors
- Quick reference guide (Dynasty 280 model only)

### Complete packages come with

- 8-ft. (2.4 m) power cord (no plug)
- Quick reference guide (Dynasty 280 model only)
- Small Runner™ cart
- Coolmate™ 1.3
- Coolant (4 one-gallon bottles)
- Remote control (foot or wireless foot)
- Weldcraft™ W-280 (WP-280) water-cooled torch kit

### Most popular accessories

- Small Runner™ Cart #300 988 (pg 102)
- Coolmate™ 1.3 #300 972 (pg 102)
- Coolant #043 810 (pg 102)
- Contractor Kits (pg 108)
  - #195 055 w/RCCS-14 finger control
  - #195 054 w/RFCs-14 HD foot control



### Weldcraft™ Water-Cooled Torch Kits

- (pg 108)
  - #300 185 W-250 (WP-20)
  - #300 990 W-280 (WP-280)
  - #301 268 W-375
- Remote Controls (pg 108/109)
  - #043 688 RCCS-14 fingertip control
  - #194 744 RFCs-14 HD foot control
  - #300 429 Wireless foot control

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

\*Refer to owner's manual for 208 V output ratings and duty cycle. \*\*Sense voltage for Low OCV Stick and Lift-Arc™ TIG.

DC	Model/Stock Number (Additional packages are available – visit <a href="http://MillerWelds.com">MillerWelds.com</a> or your distributor)	Welding Process	Input Power	Welding Amp Range	Rated Output	Amps Input at Rated Load Output, 50/60 Hz								Max. Open-Circuit Voltage	Machine Only Dimensions	Machine Only Net Weight
						208 V	230 V	400 V	460 V	575 V	KVA	KW				
DC	Maxstar 280 (#907 552) Machine only (#907 538) Machine only w/CPS	TIG	3-phase	1-280	235 A at 19.4 V, 60% duty cycle	17	15	9	7	6	6.2	6.0	60 VDC (11 VDC**)	H: 13.6 in. (346 mm) W: 8.6 in. (219 mm) D: 22.5 in. (569 mm)	47 lb. (21.3 kg) 50 lb. (22.7 kg) with CPS	
			1-phase		235 A at 19.4 V, 60% duty cycle*	28	26	15	13	10	6.0	6.0				
	Maxstar 280 DX (#907 553) Machine only (#907 539) Machine only w/CPS	Stick	3-phase	5-280	200 A at 28 V, 60% duty cycle	20	18	10	9	7	7.2	7.0				
			1-phase		180 A at 27.2 V, 60% duty cycle*	30	27	15	13	10	6.2	6.2				
AC/DC	Dynasty 280 (#907 550) Machine only (#907 537) Machine only w/CPS (#951 466) Complete w/foot and CPS	TIG	3-phase	1-280 (DC) 2-280 (AC)	235 A at 19.4 V, 60% duty cycle	19	17	10	9	7	7.0	6.7	60 VDC (11 VDC**)	H: 13.6 in. (346 mm) W: 8.6 in. (219 mm) D: 22.5 in. (569 mm)	52 lb. (23.6 kg) 55 lb. (25 kg) with CPS	
			1-phase	235 A at 19.4 V, 60% duty cycle*	33	30	17	15	12	6.9	6.8					
	Dynasty 280 DX (#907 551) Machine only (#907 514) Machine only w/CPS (#951 468) Complete w/foot and CPS (#951 469) Complete w/wireless foot and CPS	Stick	3-phase	5-280	200 A at 28 V, 60% duty cycle	22	20	11	10	8	8.2	7.9				
			1-phase		180 A at 27.2 V, 60% duty cycle*	34	31	17	15	12	7.1	7.0				



## Maxstar® and Dynasty® 350 and 700 DC (Maxstar) and AC/DC (Dynasty) TIG and Stick

See literature no. DC/24.0 (Maxstar) and AD/5.0 (Dynasty)



Dynasty 350

Dynasty 700

**AUTOLINE** Power Management Technology Allows for any input voltage hook-up (208-575 V) with no manual linking, providing convenience in any job setting.

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

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

**Hot Start™** adaptive control provides positive arc starts.

**Auto-postflow** calculates the length of postflow time based on the amperage setting. Eliminates need to independently set postflow time.

**120-volt auxiliary power dual receptacle** to power cooling system or small tools.

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

**High-speed DC TIG pulse controls** capable of 5000 pulses per second.



See page 109 for wireless remote controls.

### TIG Welding Capability

Steel		Aluminum (Dynasty only)	
700 Max. 1 in. (25.4 mm)	350 Max. 5/8 in. (15.9 mm)	700 Max. 1 in. (25.4 mm)	350 Max. 5/8 in. (15.9 mm)
350 Min. 0.012 in. (0.3 mm)	700 Min. 0.020 in. (0.5 mm)	350 Min. 0.015 in. (0.4 mm)	700 Min. 0.020 in. (0.5 mm)

### Dynasty welders add AC TIG capabilities and the following AC features

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

**Balance** control to provide adjustable oxide removal enabling high-quality aluminum TIG welds.

**Frequency** to control arc cone width and improve directional control of arc.

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

Dynasty 350 package (#951 627) shown.



**Heavy Industrial**  
CC AC 3 1 DC Phase Phase Maxstar is DC only

### Processes

- TIG (GTAW) • Stick (SMAW)
- Pulsed TIG (GTAW-P)
- Air Carbon Arc (CAC-A)

### 350 models come with

- 8-ft. (2.4 m) power cord (no plug)
- Two 50-mm Dinse connectors (350)
- Setup video and reference guide

### 700 models come with\*

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

\*Power cord NOT included.

### Complete packages come with above plus

- Runner™ cart
- Coolmate™ 3.5
- Coolant (4 one-gallon bottles)
- Remote control (foot or wireless foot)
- Weldcraft™ water-cooled torch kit (350: W-375, 700: W-400)

### Most popular accessories

- Runner™ Cart #300 244 (pg 102)
- Coolmate™ 3.5 #300 245 (pg 102)
- Coolant #043 810 (pg 102)



### Weldcraft™ Water-Cooled Torch Kits (pg 108)

- #300 185 W-250 (WP-20)
- #301 268 W-375
- #300 186 W-400 (WP-18SC)
- Remote Controls (pg 108/109)
- #043 688 RCCS-14 fingertip control
- #194 744 RFCS-14 HD foot control
- #300 429 Wireless foot control

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

\*Sense voltage for Low OCV Stick and Lift-Arc™ TIG.

DC	Model/Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output	Amps Input at Rated Load Output, 50/60 Hz						Max. Open-Circuit Voltage	Machine Only Dimensions	Machine Only Net Weight	
	208 V					230 V	400 V	460 V	575 V	KVA	KW				
	<b>Maxstar 350</b> (#907 334) Machine only (#951 624) Complete w/foot (#951 625) Complete w/wireless foot	TIG/ Stick	3-phase	3-350	300 A at 32 V, 60% duty cycle	33	30	17	15	12	12.0	11.5	75 VDC (10-15 VDC*)	H: 24.75 in. (629 mm) W: 13.75 in. (349 mm) D: 22 in. (559 mm)	135 lb. (61 kg)
						41	37	-	19	15	8.6	8.2			
	<b>Maxstar 700</b> (#907 103) Machine only	TIG/ Stick	3-phase	5-700	600 A at 44 V, 60% duty cycle	89	80	46	40	32	32	31	75 VDC (10-15 VDC*)	H: 34.5 in. (876 mm) W: 13.75 in. (349 mm) D: 22 in. (559 mm)	198 lb. (90 kg)
						106	96	-	48	38	22	21			
AC/DC	<b>Dynasty 350</b> (#907 204) Machine only (#951 626) Complete w/foot (#951 627) Complete w/wireless foot	TIG/ Stick	3-phase	3-350	300 A at 32 V, 60% duty cycle	35	32	16	16	13	12.7	12.1	60 VDC (11 VDC*)	H: 24.75 in. (629 mm) W: 13.75 in. (349 mm) D: 22 in. (559 mm)	135 lb. (61 kg)
						47	43	-	21	17	9.8	9.1			
	<b>Dynasty 700</b> (#907 101) Machine only (#951 403) Complete w/foot (#951 404) Complete w/wireless foot	TIG/ Stick	3-phase	5-700	600 A at 44 V, 60% duty cycle	97	88	51	44	35	35	34	75 VDC (10-15 VDC*)	H: 34.5 in. (876 mm) W: 13.75 in. (349 mm) D: 22 in. (559 mm)	198 lb. (90 kg)
						115	104	-	52	42	24	22			

# Syncrowave® 250 DX and 350 LX

AC/DC TIG and Stick See literature no. AD/4.2

The world's first conventional squarewave TIG power source with decades of proven performance.



Syncrowave 250 machine only

Syncrowave 350 Complete Package

### TIG Welding Capability

350 Max. 5/8 in. (15.9 mm)	350 Max. 1/2 in. (12.7 mm)
250 Max. 1/2 in. (12.7 mm)	250 Max. 3/8 in. (9.5 mm)
Steel	Aluminum
Min. 0.012 in. (0.3 mm)	Min. 0.015 in. (0.4 mm)



See page 109 for wireless remote controls.

Heavy industrial ● CC AC/DC 1 Phase

- Processes**
- TIG (GTAW) • Stick (SMAW)
  - Pulsed TIG (GTAW-P) (optional on 250 DX)
  - Air Carbon Arc (CAC-A)

- Comes with\***
- Two 50-mm Dinse connectors
- \*Power cord NOT included.

- Complete packages come with\***
- No. 37 running gear
  - Coolmate™ 3X cooler
  - Coolant (four gallons)
  - 25-ft. (7.6 m) water-cooled torch with Dinse connector (Syncrowave 250: Weldcraft™ W-250) (Syncrowave 350: Weldcraft™ W-375)
  - 15-ft. (4.6 m) work cable with clamp and Dinse connector
  - RFCS-14 remote foot control
  - Flowmeter regulator with hose
  - Torch accessory kit with tungsten
  - Cable cover
- \*Power cord NOT included.

- Most popular accessories**
- Wireless Remote Foot Control #300 429 (pg 109)
  - Pulser Module #300 548 (250 DX ONLY, standard on 350 LX) For welding thin materials. Provides a heating and cooling effect of the weld puddle to reduce heat input and control distortion of the material. Provides 0.25 to 10 pulses per second.
  - Sequencer Module #300 547 (250 DX/350 LX) Provides a starting current higher or lower than the welding current. Provides final slope and final current for trailing the weld. Provides a spot timer for TIG spot application.

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

**Squarewave output with AC balance control** features adjustable cleaning action while increasing arc stability on various aluminum alloys, and helps eliminate tungsten spitting and arc rectification.

**120-volt auxiliary power receptacle** for cooling system or small tools.

**Syncro Start™ technology** for customized arc starts. Allows more precise arc starts and fine-tuning based on tungsten diameter and material thickness.

**HF arc starting** provides non-contact arc starting that eliminates tungsten or material contamination.

**Dual digital meters** allow for quick and easy viewing of actual and preset values of amperage and voltage.

**Adjustable postflow** of 0 – 50 seconds protects the electrode and area near the termination of the weld.

**Coolmate™ 3X cooler** (shown in Complete package). Three-gallon cooling system features a flow indicator to visually indicate system is working and an external filter to stop objects from entering the water-cooled torch cable.

**Last procedure recall** automatically recalls the last procedure setup when switching polarity.

**Line voltage compensation** keeps power source constant regardless of fluctuations in input power (±10 percent).

**Lift-Arc™** provides DC arc starting without the use of high frequency.

\*Add 12.75 inches to height with Complete package. \*\*Add 139 pounds with Complete package.

AC/DC	Model / Stock Number (Additional packages are available – visit MillerWelds.com or your distributor)	Welding Amperage Range	Rated Output					Max. Open-Circuit Voltage	Dimensions*	Net Weight**	
			230 V	460 V	575 V	KVA	KW				
	Syncrowave 250 DX (#907 195) 230/460/575 V, 50/60 Hz, Machine only (#951 118) 230/460/575 V, 50/60 Hz, Complete	3-310	200 A at 28 VAC, 60% duty cycle	77	38	31	17.6	8.6	80 VDC	H: 36.25 in. (921 mm) W: 22.5 in. (572 mm) D: 25 in. (635 mm)	378 lb. (172 kg)
			250 A at 30 VAC, 40% duty cycle	96	48	38	21.98	11.76			
	Syncrowave 350 LX (#907 199) 230/460/575 V, 50/60 Hz, Machine only (#951 623) 230/460/575 V, 50/60 Hz, Complete	3-400	300 A at 32 VAC, 60% duty cycle	110	55	42	25	10.6	80 VDC	H: 36.25 in. (921 mm) W: 22.5 in. (572 mm) D: 25 in. (635 mm)	496 lb. (225 kg)
			350 A at 34 VAC, 40% duty cycle	128	65	50	29.5	13.7			



## Weldcraft™ 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.

For more detailed information or to see the entire Weldcraft product offering, visit



MillerWelds.com/tigtorches

## Weldcraft™ A-80 Series

Formerly known as WP-24 Series See literature no. AY/21.0



**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.

**Easy gas-flow adjustment** using the fingertip gas valve (A-80 Flex Valve).

**Flexible neck** can be adjusted in any direction to facilitate welding in difficult joints (A-80 Flex).

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

### Most popular consumables

#### Collets

<b>53N16</b>	.040 in. (1.0 mm)
<b>53N14</b>	1/16 in. (1.6 mm)
<b>24C332</b>	3/32 in. (2.4 mm)

#### Collet Bodies

<b>53N18</b>	.040 in. (1.0 mm)
<b>53N19</b>	1/16 in. (1.6 mm)
<b>24CB332</b>	3/32 in. (2.4 mm)

#### Alumina Nozzles

<b>A53N24</b>	#4, 1/4 in.
<b>A53N25</b>	#5, 5/16 in.
<b>A53N27</b>	#6, 3/8 in.

#### Most popular accessories

- Collet Body Wrench 53N20

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	Type	Rated Output	Electrode Range
A-80	WP-24-12-R	WP-24-25-R	Air-cooled	DC: 80 A at 60% duty cycle AC: 50 A at 60% duty cycle	.020-3/32 in. (0.5-2.4 mm)
A-80 Flex	WP-24F-12-R	WP-24F-25-R			
A-80 Flex Valve	WP-24FV-12-R	WP-24FV-25-R			

## Weldcraft™ A-125 Series

Formerly known as WP-9 Series See literature no. AY/22.0



**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.

**Perfected control.** The gas valve in the A-125 Valve offers improved shielding gas control.

**Flexibility.** Using the A-125 Flex, the flexible neck easily adjusts to any angle for improved torch control.

**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.

### Most popular consumables

#### Collets

<b>13N22</b>	1/16 in. (1.6 mm)
<b>13N23</b>	3/32 in. (2.4 mm)
<b>13N24</b>	1/8 in. (3.2 mm)

#### Collet Bodies

<b>13N27</b>	1/16 in. (1.6 mm)
<b>13N28</b>	3/32 in. (2.4 mm)
<b>13N29</b>	1/8 in. (3.2 mm)

#### Alumina Nozzles

<b>13N10</b>	#6, 3/8 in.
<b>13N11</b>	#7, 7/16 in.
<b>13N12</b>	#8, 1/2 in.

#### Most popular accessories

- Accessory Kit #AK1C

Includes one long back cap, one of each size (#4, #5, #6) alumina nozzle, and one of each size (.040, 1/16 in.) of the following: collet, collet body, and 7-inch 2% ceriated tungsten electrode.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	2-Piece Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	Type	Rated Output	Electrode Range
A-125	WP-9-12-R	WP-9-25-R	—	—	Air-cooled	DC: 125 A at 60% duty cycle AC: 100 A at 60% duty cycle	.020-1/8 in. (0.5-3.2 mm)
A-125 Valve	WP-9V-12-R	WP-9V-25-R	WP-9V-12-2	WP-9V-25-2			
A-125 Flex	WP-9F-12-R	WP-9F-25-R	—	—			
A-125 Flex Valve	WP-9FV-12-R	WP-9FV-25-R	WP-9FV-12-2	WP-9FV-25-2			
A-125 Pencil	WP-9P-12-R	WP-9P-25-R	—	—			



## Weldcraft™ A-150 Series

Formerly known as WP-17 Series See literature no. AY/23.0



**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.

**Ribbed handle and torch design** provide cool operation and maximum operator comfort while reducing downtime caused by operator fatigue.

**Available with 12.5- or 25-foot, single- or heavy-duty two-piece cable assembly** determined by the compatibility of the power source. Heavy-duty cable assembly allows use of a larger conductor for the power cable which simplifies repair and replacement making it ideal for field applications.

\*PSH = Positive Stop Handle (threaded handle).

### Most popular consumables

Collets	
10N23	1/16 in. (1.6 mm)
10N24	3/32 in. (2.4 mm)
10N25	1/8 in. (3.2 mm)

Collet Bodies	
10N31	1/16 in. (1.6 mm)
10N32	3/32 in. (2.4 mm)
10N28	1/8 in. (3.2 mm)

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.



Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Rubber		Mono-Flex™		2-Piece Rubber		Type	Rated Output	Electrode Range
	12.5 ft. (3.8 m)	25 ft. (7.6 m)	12.5 ft. (3.8 m)	25 ft. (7.6 m)	12.5 ft. (3.8 m)	25 ft. (7.6 m)			
A-150	WP-17-12-R	WP-17-25-R	WP-17-12-MF	WP-17-25-MF	WP-17-12-2	WP-17-25-2	Air-cooled	DC: 150 A at 60% duty cycle AC: 115 A at 60% duty cycle	.020-1/8 in. (0.5-3.2 mm)
A-150 Valve	WP-17V-12-R	WP-17V-25-R	-	WP-17V-25-MF	WP-17V-12-2	WP-17V-25-2			
A-150 Flex	WP-17F-12-R	WP-17F-25-R	-	-	WP-17F-12-2	WP-17F-25-2			
A-150 Flex Valve	WP-17FV-12-R	WP-17FV-25-R	-	-	WP-17FV-12-2	WP-17FV-25-2			
A-150 Flex Valve Redhead™	WP-R17FV-12-R	WP-R17FV-25-R	-	-	-	-			
A-150 PSH*	-	WP-17-25-R-PSH	-	-	WP-17-12-2-PSH	-			
A-150 Valve PSH*	WP-17V-12-R-PSH	WP-17V-25-R-PSH	-	-	-	-			

## Weldcraft™ A-200 Series

Formerly known as WP-26 Series See literature no. AY/24.0



**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.

**Robust performance.** The heavy copper construction delivers maximum welding capacity for rugged fieldwork.

**Effortless adjustments.** The A-200 Valve provides a gas control valve to ensure a quick, easy adjustment of shielding gas flow.

**Flexibility.** Using the A-200 Flex, the flexible neck easily adjusts to any angle for better torch control in limited-access joints.

**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 (see literature no. AY/24.0) in a variety of welding applications without adding expenses.

### Most popular consumables

Collets	
10N23	1/16 in. (1.6 mm)
10N24	3/32 in. (2.4 mm)
10N25	1/8 in. (3.2 mm)

Collet Bodies	
10N31	1/16 in. (1.6 mm)
10N32	3/32 in. (2.4 mm)
10N28	1/8 in. (3.2 mm)

Alumina Nozzles	
10N47	#7, 7/16 in.
10N46	#8, 1/2 in.
10N45	#10, 5/8 in.

### Most popular accessories

**Accessory Kit**  
#AK3C  
Includes one short back cap, one of each size (#5, #6, #8) alumina nozzle, and one of each size (1/16, 3/32, 1/8 in.) of the following: collet, collet body, and 7-inch 2% ceriated tungsten electrode.



Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Rubber		2-Piece Rubber	Type	Rated Output	Electrode Range
	12.5 ft. (3.8 m)	25 ft. (7.6 m)				
A-200	WP-26-12-R	WP-26-25-R	WP-26-25-2	Air-cooled	DC: 200 A at 60% duty cycle AC: 150 A at 60% duty cycle	.020-5/32 in. (0.5-4.0 mm)
A-200 Valve	WP-26V-12-R	WP-26V-25-R	WP-26V-25-2			
A-200 Flex	-	WP-26F-25-R	WP-26F-25-2			
A-200 Flex Valve	WP-26FV-12-R	WP-26FV-25-R	WP-26FV-25-2			



## Weldcraft™ W-125 Micro Series

Formerly known as WP-125 Series See literature no. AY/25.0



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

**Low-profile nozzle** fits into holes as small as 5/8-inch 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.

### Most popular consumables

#### 90° Chucks

<b>125C40-90</b>	.040 in. (1.0 mm)
<b>125C116-90</b>	1/16 in. (1.6 mm)
<b>125C332-90</b>	3/32 in. (2.4 mm)

#### 90° Glass Nozzles

<b>125N90</b>	All sizes
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Other nozzles are available.



### Most popular accessories

- Chuck Wrench 53N20

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Braided Rubber 25 ft. (7.6 m)	Vinyl 25 ft. (7.6 m)	Type	Rated Output	Electrode Range
W-125 Medium Micro	WP-125M-25-R	WP-125M-25	Water-cooled	DC: 125 A at 100% duty cycle AC: 80 A at 100% duty cycle	.040-3/32 in. (1.0-2.4 mm)
W-125 Long Micro	WP-125L-25-R	WP-125L-25			

## Weldcraft™ W-180

Formerly known as WP-24W See literature no. AY/26.0



**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.

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

### Most popular consumables

#### Collets

<b>53N16</b>	.040 in. (1.0 mm)
<b>53N14</b>	1/16 in. (1.6 mm)
<b>24C332</b>	3/32 in. (2.4 mm)

#### Collet Bodies

<b>53N18</b>	.040 in. (1.0 mm)
<b>53N19</b>	1/16 in. (1.6 mm)
<b>24CB332</b>	3/32 in. (2.4 mm)

#### Alumina Nozzles

<b>A53N24</b>	#4, 1/4 in.
<b>A53N25</b>	#5, 5/16 in.
<b>A53N27</b>	#6, 3/8 in.

### Most popular accessories

- Collet Body Wrench 53N20

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Braided Rubber 25 ft. (7.6 m)	Vinyl 25 ft. (7.6 m)	Type	Rated Output	Electrode Range
W-180	WP-24W-25-R	WP-24W-25	Water-cooled	DC: 180 A at 100% duty cycle, AC: 115 A at 100% duty cycle	.020-3/32 in. (0.5-2.4 mm)

## Weldcraft™ W-200 Pencil Flex

Formerly known as WP-25 See literature no. AY/27.0



**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 light, well-balanced body design.

### Most popular consumables

#### Collets

<b>13N21</b>	.040 in. (1.0 mm)
<b>13N22</b>	1/16 in. (1.6 mm)
<b>13N23</b>	3/32 in. (2.4 mm)

#### Collet Bodies

<b>13N26</b>	.040 in. (1.0 mm)
<b>13N27</b>	1/16 in. (1.6 mm)
<b>13N28</b>	3/32 in. (2.4 mm)

#### Alumina Nozzles

<b>13N09</b>	#5, 5/16 in.
<b>13N10</b>	#6, 3/8 in.
<b>13N11</b>	#7, 7/16 in.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Braided Rubber 25 ft. (7.6 m)	Vinyl 25 ft. (7.6 m)	Type	Rated Output	Electrode Range
W-200 Pencil Flex	WP-25-25-R	WP-25-25	Water-cooled	DC: 200 A at 100% duty cycle, AC: 140 A at 100% duty cycle	.020-1/8 in. (0.5-3.2 mm)



# Weldcraft™ W-225 Pencil

Formerly known as WP-20P See literature no. AY/28.0



**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.

### Most popular consumables

#### Insulator (non-gas lens and gas lens)

<b>598882</b>	Required
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#### Collets (non-gas lens and gas lens)

<b>13N20</b>	.020 (0.5 mm)
<b>13N21</b>	.040 in. (1.0 mm)
<b>13N22</b>	1/16 in. (1.6 mm)
<b>13N23</b>	3/32 in. (2.4 mm)
<b>13N24</b>	1/8 in. (3.2 mm)

#### Collet Bodies

<b>13N25</b>	.020 in. (0.5 mm)
<b>13N26</b>	.040 in. (1.0 mm)
<b>13N27</b>	1/16 in. (1.6 mm)
<b>13N28</b>	3/32 in. (2.4 mm)
<b>13N29</b>	1/8 in. (3.2 mm)

#### Gas Lens

<b>45V41</b>	.020 in. (0.5 mm)
<b>45V42</b>	.040 in. (1.0 mm)
<b>45V43</b>	1/16 in. (1.6 mm)
<b>45V44</b>	3/32 in. (2.4 mm)
<b>45V45</b>	1/8 in. (3.2 mm)

#### Alumina Nozzles

<b>13N08</b>	#4, 1/4 in.
<b>13N09</b>	#5, 5/16 in.
<b>13N10</b>	#6, 3/8 in.
<b>13N11</b>	#7, 7/16 in.
<b>13N12</b>	#8, 1/2 in.
<b>13N13</b>	#10, 5/8 in.
<b>53N58</b>	#4, 1/4 in. (gas lens)
<b>53N59</b>	#5, 5/16 in. (gas lens)
<b>53N60</b>	#6, 3/8 in. (gas lens)
<b>53N61</b>	#7, 7/16 in. (gas lens)
<b>53N61S</b>	#8, 1/2 in. (gas lens)

#### W-250 Series Back Caps

<b>41V33</b>	Short
<b>41V35</b>	Medium
<b>41V24</b>	Long

### Most popular accessories



#### ▪ Cable Covers

- #WC-3-10 10 ft. (3 m)
- #WC-3-22 22 ft. (6.7 m)



#### ▪ Accessory Kit #AK4C

Includes one long back cap, one of each size (#5, #6, #7) alumina nozzle, and one of each size (1/16, 3/32, 1/8 in.) of the following: collet, collet body, and 7-inch 2% ceriated tungsten electrode.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Vinyl - 25 ft. (7.6 m)	Type	Rated Output	Electrode Range
W-225 Pencil	WP-20P-25	Water-cooled	DC: 225 A at 100% duty cycle, AC: 160 A at 100% duty cycle	.020-1/8 in. (0.5-3.2 mm)

# Weldcraft™ W-250 Series

Formerly known as WP-20 Series See literature no. AY/29.0



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.

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

**Minimize leakages** of gas and water with a secure connection in the mechanical fittings (W-250 Valve).

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

Model	Braided Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	Vinyl 25 ft. (7.6 m)	Type	Rated Output	Electrode Range
W-250	WP-20-12-R	WP-20-25-R	WP-20-25	Water-cooled	DC: 250 A at 100% duty cycle AC: 180 A at 100% duty cycle	.020-1/8 in. (0.5-3.2 mm)
W-250 Valve	-	-	WP-20V-25			



## Weldcraft™ W-280 Super Cool™

Formerly known as WP-280 See literature no. AY/30.0



**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.

**Extend torch life** with dependable water-cooled technology.

**Minimizes leakage** of gas and water through secure connections in the mechanical fittings.

Model	Braided Rubber 12.5 ft. (3.8 m) 25 ft. (7.6 m)		Braided Rubber with 50 mm Dinse 12.5 ft. (3.8 m) 25 ft. (7.6 m)		Type	Rated Output	Electrode Range
	WP-280-12-RM	WP-280-25-RM	WP28012RMD50	WP28025RMD50			
W-280 Super Cool	WP-280-12-RM	WP-280-25-RM	WP28012RMD50	WP28025RMD50	Water-cooled	DC: 280 A at 100% duty cycle AC: 195 A at 100% duty cycle	.020-1/8 in. (0.5-3.2 mm)

## Weldcraft™ W-375 Super Cool™

See literature no. AY/32.5



**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.

**Extend torch life** with dependable water-cooled technology.

**Minimizes leakage** of gas and water through secure connections in the mechanical fittings.

Model	Braided Rubber 12.5 ft. (3.8 m) 25 ft. (7.6 m)		Braided Rubber with 50 mm Dinse 25 ft. (7.6 m)		Type	Rated Output	Electrode Range
	#301 253 012	#301 253 025	#301 253 001				
W-375 Super Cool	#301 253 012	#301 253 025	#301 253 001		Water-cooled	DC: 375 A at 100% duty cycle AC: 265 A at 100% duty cycle	.020-1/8 in. (0.5-3.2 mm)

### Most popular consumables

#### Insulator (non-gas lens and gas lens)

**598882** Required

#### Collets (non-gas lens and gas lens)

**13N20** .020 (0.5 mm)  
**13N21** .040 in. (1.0 mm)  
**13N22** 1/16 in. (1.6 mm)  
**13N23** 3/32 in. (2.4 mm)  
**13N24** 1/8 in. (3.2 mm)

#### Collet Bodies

**13N25** .020 in. (0.5 mm)  
**13N26** .040 in. (1.0 mm)  
**13N27** 1/16 in. (1.6 mm)  
**13N28** 3/32 in. (2.4 mm)  
**13N29** 1/8 in. (3.2 mm)

#### Gas Lens

**45V41** .020 in. (0.5 mm)  
**45V42** .040 in. (1.0 mm)  
**45V43** 1/16 in. (1.6 mm)  
**45V44** 3/32 in. (2.4 mm)  
**45V45** 1/8 in. (3.2 mm)

#### 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



▪ **Cable Covers**  
**#WC0183** 11.75 ft. (3.6 m)  
**#WC0182** 24.25 ft. (7.4 m)



▪ **Accessory Kit #AK4C**  
Includes one long back cap, one of each size (#5, #6, #7) alumina nozzle, and one of each size (1/16, 3/32, 1/8 in.) of the following: collet, collet body, and 7-inch 2% ceriated tungsten electrode.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.



# Weldcraft™ W-350 Series

Formerly known as WP-18 Series See literature no. AY/32.0



**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).

### Most popular consumables

Collets	
10N24	3/32 in. (2.4 mm)
10N25	1/8 in. (3.2 mm)
54N20	5/32 in. (4.0 mm)

Collet Bodies	
10N32	3/32 in. (2.4 mm)
10N28	1/8 in. (3.2 mm)
406488	5/32 in. (4.0 mm)

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.

### Most popular accessories

▪ Accessory Kit #MAK-2S  
 Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Rubber 12.5 ft. (3.8 m) 25 ft. (7.6 m)		Vinyl 12.5 ft. (3.8 m) 25 ft. (7.6 m)		Type	Rated Output	Electrode Range
	WP-18-12-R	WP-18-25-R	WP-18-12	WP-18-25			
W-350	WP-18-12-R	WP-18-25-R	WP-18-12	WP-18-25	Water-cooled	DC: 350 A at 100% duty cycle AC: 250 A at 100% duty cycle	.020-5/32 in. (0.5-4.0 mm)
W-350 Valve	-	WP-18V-25-R	-	WP-18V-25			

# Weldcraft™ W-400 Super Cool™

Formerly known as WP-18SC See literature no. AY/33.0



**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.

**Comfort and maximum torch control** with the textured handle.

### Most popular consumables

Heavy-Duty Collets	
10N25HD	1/8 in. (3.2 mm)
54N20HD	5/32 in. (4.0 mm)
18C36	3/16 in. (4.8 mm)

Heavy-Duty Nose Collet Body	
NCB-36	All sizes

Alumina Nozzles	
54N16	#6, 3/8 in.
54N15	#7, 7/16 in.
54N14	#8, 1/2 in.

Back Caps	
57Y04	Short
300M	Medium

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Rubber 12.5 ft. (3.8 m) 25 ft. (7.6 m)		Vinyl 25 ft. (7.6 m)	Type	Rated Output	Electrode Range
	WP-18SC-12-R	WP-18SC-25-R	WP-18SC-25			
W-400 Super Cool	WP-18SC-12-R	WP-18SC-25-R	WP-18SC-25	Water-cooled	DC: 400 A at 100% duty cycle, AC: 280 A at 100% duty cycle	.020-3/16 in. (0.5-4.8 mm)

# Weldcraft™ W-410

Formerly known as CS410 See literature no. AY/34.0



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

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

**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.

### Most popular consumables

Collets	
10N24	3/32 in. (2.4 mm)
10N25	1/8 in. (3.2 mm)
54N20	5/32 in. (4.0 mm)

Collet Bodies	
10N32	3/32 in. (2.4 mm)
10N28	1/8 in. (3.2 mm)
406488	5/32 in. (4.0 mm)

Alumina Nozzles	
10N46	#8, 1/2 in.
10N45	#10, 5/8 in.
10N44	#12, 3/4 in.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Braided Rubber - 25 ft. (7.6 m)	Type	Rated Output	Electrode Range
W-410	CS410-25	Water-cooled	DC: 410 A at 100% duty cycle, AC: 310 A at 100% duty cycle	.020-5/32 in. (0.5-4.0 mm)



## Weldcraft™ W-500 Formerly known as WP-12

See literature no. AY/35.0



**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.

### Most popular consumables

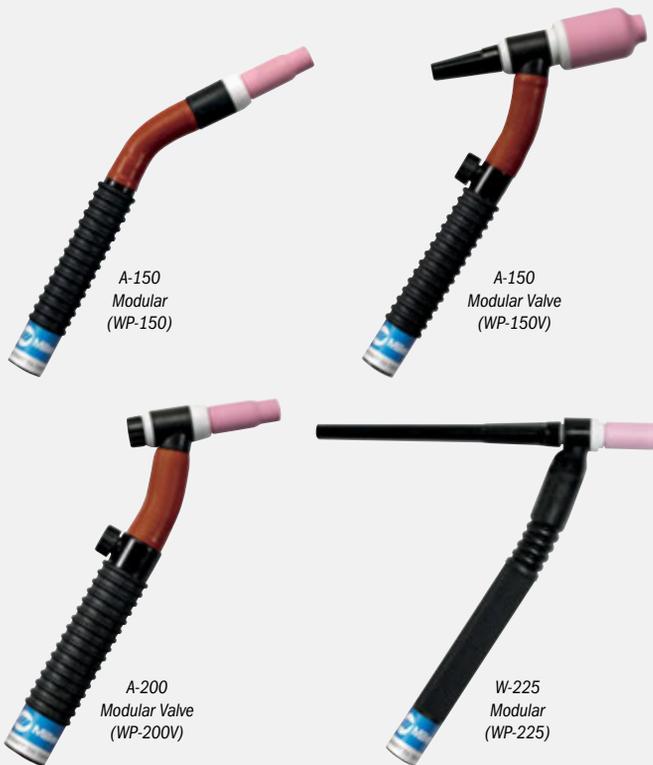
Insulator	
<b>12NG</b>	Required
Collets	
<b>85Z17</b>	5/32 in. (4.0 mm)
<b>85Z18</b>	3/16 in. (4.8 mm)
<b>85Z19</b>	1/4 in. (6.4 mm)
Collet Body	
<b>11WP65</b>	All sizes
Alumina Nozzles	
<b>14N59</b>	#6, 3/8 in.
<b>14N60</b>	#7, 7/16 in.
<b>14N61</b>	#8, 1/2 in.
<b>14N61-10</b>	#10, 5/8 in.
<b>14N61-12</b>	#12, 3/4 in.
Back Caps	
<b>56Y45</b>	Short
<b>56Y44</b>	Long

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Rubber - 25 ft. (7.6 m)	Type	Rated Output	Electrode Range
W-500	WP-12-25	Water-cooled	DC: 500 A at 100% duty cycle, AC: 350 A at 100% duty cycle	1/16-1/4 in. (1.6-6.4 mm)

## Weldcraft™ Modular Series

See literature no. AY/36.0



**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).

### 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.



▪ **Accessory Kit #AK-225MFC**  
Supplements W-225 torch packages. Includes five additional torch heads, collets, collet bodies, nozzles, handle and more.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

\*Ratings are torch head dependent.

Model	Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	2-Piece Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	Type	Rated Output*	Electrode Range*
A-150 Modular	WP-150-12-R	WP-150-25-R	WP-150-12-2	WP-150-25-2	Air-cooled	DC: 150 A at 60% duty cycle AC: 105 A at 60% duty cycle	.020-1/8 in. (0.5-3.2 mm)
A-150 Modular Valve	WP-150V-12-R	WP-150V-25-R	WP-150V-12-2	-			
A-200 Modular Valve	WP-200V-12-R	WP-200V-25-R	-	-	Air-cooled	DC: 200 A at 60% duty cycle AC: 150 A at 60% duty cycle	.020-5/32 in. (0.5-4.0 mm)
Model	Braided Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	Vinyl 12.5 ft. (3.8 m)	25 ft. (7.6 m)	Type	Rated Output*	Electrode Range*
W-225 Modular	WP-225-12-R	WP-225-25-R	-	WP-225-25	Water-cooled	DC: 225 A at 100% duty cycle AC: 160 A at 100% duty cycle	.020-5/32 in. (0.5-4.0 mm)



## Weldcraft™ Automation Series

See literature no. AY/37.0



**Air-cooled and water-cooled torches designed for high- and low-amperage mechanized applications.**

**Minimize downtime** associated with tungsten changeover by using the front or back tungsten loading areas.

**Pencil-style model** offers outstanding durability on mechanized applications (W-500 Pencil Automation).

**Built-in gas lens** improves gas coverage to minimize shielding gas turbulence and improve weld quality (W-500A Automation, W-500B Automation).

**Handle the most demanding** high-amperage applications with the W-900 Automation torch.

### Most popular accessories



- **Cable Covers**
- #WC-3-10 10 ft. (3 m)
- #WC-3-22 22 ft. (6.7 m)
- #WC-4-10 10 ft. (3 m)
- #WC-4-22 22 ft. (6.7 m)



- **Air-Cooled Torch 1-Piece Power Cable Connector** (pg 109)
- #195 378 50-mm Dinse-style



- **Water-Cooled Torch 1-Piece Power Cable Connectors** (pg 109)
- #195 377 50-mm Dinse-style
- #225 028 50-mm thread-lock

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	2-Piece Rubber 12.5 ft. (3.8 m)	Type	Rated Output	Electrode Range	
A-150 Automation	WP-23A-12-R	WP-23A-25-R	WP-23A-12-2	Air-cooled	DC: 150 A at 60% duty cycle AC: 120 A at 60% duty cycle	.040-3/32 in. (1.0-2.4 mm)	
Model	3 ft. (0.9 m)	6 ft. (1.8 m)	12.5 ft. (3.8 m)	25 ft. (7.6 m)	Type	Rated Output	Electrode Range
W-250 Automation	WP-22A-3 (Vinyl)	WP-22A-6 (Vinyl)	WP-22A-12 (Vinyl)	WP-22A-25-R (Rubber) WP-22A-25 (Vinyl)	Water-cooled	DC: 250 A at 100% duty cycle AC: 180 A at 100% duty cycle	.040-1/8 in. (1.0-3.2 mm)
W-500 Pencil Automation	—	—	WP-18P-12 (Vinyl)	WP-18P-25 (Vinyl)	Water-cooled	DC: 500 A at 100% duty cycle AC: 350 A at 100% duty cycle	.020-5/32 in. (0.5-4.0 mm)
W-500A Automation	WP-27A-3 (Rubber)	—	WP-27A-12 (Rubber)	WP-27A-25 (Rubber)	Water-cooled	DC: 500 A at 100% duty cycle AC: 350 A at 100% duty cycle	.040-1/4 in. (1.0-6.4 mm)
W-500B Automation	WP-27B-3 (Rubber)	—	WP-27B-12 (Rubber)	WP-27B-25 (Rubber)	Water-cooled	DC: 500 A at 100% duty cycle AC: 350 A at 100% duty cycle	.040-1/4 in. (1.0-6.4 mm)
W-900 Automation	WP-27BHD-3 (Rubber)	—	—	—	Water-cooled	DC: 900 A at 100% duty cycle AC: 630 A at 100% duty cycle	.040-1/4 in. (1.0-6.4 mm)

## 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 seven-inch (175 mm) tungsten electrodes.

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

Type	Diameter in. (mm)	Part Number	Type	Diameter in. (mm)	Part Number
<b>2% Ceriated (EWCa-2)</b>			<b>Pure (EWP)</b>		
Performs well in DC welding and arc starting at low-current settings, and offers excellent performance in AC processes.	0.040 (1.0)	WC040X7	Forms a clean, balled end when heated and provides good arc stability for AC welding with a balanced or unbalanced squarewave or sine wave.	0.040 (1.0)	—
	1/16 (1.6)	WC116X7		1/16 (1.6)	WP116X7
	3/32 (2.4)	WC332X7		3/32 (2.4)	WP332X7
	1/8 (3.2)	WC018X7		1/8 (3.2)	WP018X7
	5/32 (4.0)	WC532X7		5/32 (4.0)	—
<b>2% Lanthanated (EWLa-2)</b>			<b>Rare Earth (EWG)</b>		
Provides excellent arc starting, arc stability and re-ignition, and less tip erosion in AC or DC welding. Can substitute for 2% Thoriated.	0.040 (1.0)	WL2040X7	Combines the best of all alloying elements, and provides excellent arc stability in AC or DC welding.	0.040 (1.0)	—
	1/16 (1.6)	WL2116X7		1/16 (1.6)	WG116X7
	3/32 (2.4)	WL2332X7		3/32 (2.4)	WG332X7
	1/8 (3.2)	WL2018X7		1/8 (3.2)	WG018X7
	5/32 (4.0)	WL2532X7		5/32 (4.0)	—



# Engine-Driven

For more detailed information, visit

MillerWelds.com/enginedriven



## Product Guide

	Page	Class	Stick	MIG	Flux-Cored*	AC TIG	DC TIG	PAC**	CAC-A	Portability	Weldable Metals	Std. Generator Pwr. (Watts)	Welding Amperage Range	Engine Brand	Special Features	Typical Applications				
Gasoline	Blue Star® 185	63	●	●			●	●		Optional lift eye or running gear	Steel	6500	60-195 DC	Kohler	Compact, portable	Maintenance, service trucks				
	Bobcat™ 225	64	●	●	●	●	●	●		Lift eye, pickup mount, optional running gear or trailer	Steel, aluminum, stainless	11,000	70-150 AC 50-225 DC	Kohler	Cost-effective AC/DC Stick	Maintenance, farm/ranch, construction				
	Bobcat™ 3 Phase	64	●	●	●	●	●	●									11,000	50-200 AC 50-210 DC	Kohler	Backup power for pivot irrigation
	Trailblazer® 325	66	●	●	●	●	●	●	3/16"		Steel, stainless	12,000	10-325 DC	Kohler	Long run times, quiet, optional EFI, Excel power and battery charge/jump start	Fab, structural, maintenance, repair, pipe				
	Trailblazer® 302 Air Pak™	68	●	●	●	●	●	●	3/16"			13,000	10-225 AC 10-350 DC	Kohler	AC/DC, CC/CV, 31 CFM air, battery charge/jump start	Service/maintenance, construction				
Gas or LP	Bobcat™ 250	64	●	●	●	●	●	3/16"		Lift eye, pickup mount, optional running gear or trailer	Steel, aluminum, stainless	11,000 12,000 w/EFI	40-250 DC 40-275 DC w/EFI	Kohler	Most popular engine drive, AC/DC, optional EFI	Fab, maintenance, farm/ranch, construction				
	Trailblazer® 275	66	●	●	●	●	●	3/16"									Steel, stainless	12,000 11,000 w/LP	10-275 DC	Kohler
Diesel	Bobcat™ 250 Diesel	64	●	●	●	●	●	3/16"		Lift eye, optional running gear or trailer	Steel, aluminum, stainless	11,000	40-250 DC	Kubota	Contractor's choice, AC/DC Stick, strong FCAW	Fab, maintenance, farm, construction				
	Trailblazer® 325 Diesel	66	●	●	●	●	●	3/16"									Steel, stainless	12,000	10-325 DC	Kubota
	Big Blue® 350 PipePro®	69	●	●	●	●	●	1/4"		Lift eye, pickup mount, optional trailer	Steel, stainless	12,000	20-400 DC	CAT, Mitsubishi	Premium pipe arc, LINE-X® cover	Pipeline				
	Big Blue® 400 Pro	69	●	●	●	●	●	3/16"									12,000	20-400 DC	Kubota, Mitsubishi	Quiet, compact, fuel efficient
	Big Blue® 500 Pro	70	●	●	●	●	●	3/8"		Lift eye, generally mounted on optional trailer	Steel, stainless	21,000	20-500 DC	Deutz, Perkins	Quiet, powerful, fuel efficient	Construction, rental, repair				
	Big Blue® 400 CC	70	●	●	●	●	●	5/16"									5500	15-500 DC	Deutz, Perkins	Reliable, powerful, easy to use
	Big Blue® 500 CC	70	●	●	●	●	●	3/8"				5500	15-500 DC	Deutz	Reliable, powerful, easy to use	Maintenance, repair, construction				
	Big Blue® 450 Duo CST™	71	●	●				1/4"		Lift eye, pickup mount, optional trailer	Steel, stainless	10,000	5-450 DC	Mitsubishi	Dual operator in a compact package	Construction, fabrication, pipe				
	Big Blue® 700 Duo Pro	71	●	●	●	●	●	3/8"		Lift eye, generally mounted on optional trailer	Steel, stainless	27,000	20-800 DC	Deutz	Premium pipe arc, dual operator	Pipeline, construction, mining				
Big Blue® 800 Duo Pro	72	●	●	●	●	●	1/2"		27,000								20-800 DC	Deutz	Heavy duty, dual operator	Mining, construction, railroad
Big Blue® 800 Duo Air Pak™	72	●	●	●	●	●	1/2"		27,000								20-800 DC	Deutz	Heavy duty, dual operator, air compressor	Mining, construction, railroad, repair

### EFI advantages (vs. carburetor models)

- Up to 27% better fuel efficiency
- Extended runtimes up to 27%
- Fast, easy starts in all climates
- Reliable operation, even with infrequent use
- Fewer emissions – 27% less CO and 33% lower HC+NOx levels

### Gasoline advantages (vs. diesel)

- Lower product cost (by 50 to 70%)
- Smaller size and less weight
- Less expensive repairs
- Easier cold weather starting

### Diesel advantages (vs. gas)

- 1.5 to 2.5 times the engine life
- Required on some jobsites for safety
- Typically have longer maintenance intervals
- Convenient if other equipment is diesel

#### 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, use CV weld output. \*\*With appropriate Spectrum plasma cutter.



## Blue Star® 185

See literature no. ED/2.5

Reliable outdoor portable power! Great for farm, ranch, maintenance, construction and hobbyist.

**Improved!**  
All engine controls on front panel, lighter weight, more power and greater fuel capacity!



**Compact and portable**, its small footprint uses little truck space. Optional running gear also makes the Blue Star one-man portable.

**Stick and TIG capable.**

**Accu-Rated™ peak generator power** is usable for maximum generator loads such as plasma cutting, Millermatic® MIG welders and motor starting.

**Includes electric start, 120 VAC GFCI and 240 VAC receptacles, 6.25-gallon fuel capacity, auto-idle and engine hour meter.**

Light industrial ● **CC DC**

### Processes

- Stick (SMAW) • TIG (GTAW)

### Gasoline engine

#### Kohler CH440:

13.4 HP at 3600 RPM

One-cylinder, four-cycle, OHV, air-cooled

Note: Engine is warranted separately by engine manufacturer.

### Most popular accessories

- Lifting Eye #195 353 (pg 103)
- Running Gear #301 246 (pg 103)
- Protective Cover #301 245 (pg 103)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Gasoline	Stock Number (#907 664) Kohler	Welding Mode CC/DC	Welding Process DC Stick/TIG	Amperage Range 60-195	Rated Output at 104° F (40° C) 185 A at 25 V, 20% duty cycle 150 A at 25 V, 100% duty cycle	Single-Phase Generator Power at 104° F (40° C) Peak: 6500 watts Continuous: 6200 watts	Dimensions H: 24.75 in. (629 mm) W: 20.625 in. (524 mm) D: 31.25 in. (794 mm)	Net Weight 296 lb. (134 kg)
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## Bobcat™/Trailblazer®: Which is right for you?

### Gas Model Comparison

#### Bobcat™ (page 64)

##### The most popular welder/generator:

- Cost-effective price point
- Good for Stick and Flux-Cored welding
- Standalone generator power
- Rugged and powerful performance



#### Trailblazer® (page 66)

##### The best performer in the industry:

- Professional welder's choice
- Independent weld and generator power
- Exceptional fuel efficiency and quiet operation
- Unbeatable arc performance



	Bobcat 225	UPGRADE	Bobcat 250	UPGRADE	Trailblazer 275	UPGRADE	Trailblazer 325
Sound Levels (at 23 feet)							
At Maximum Load/At 150 Amps	73.5 dB/72 dB	➔	72.5 dB/72 dB	➔	73.5 dB/65 dB	➔	73.5 dB/65 dB
Compared to Previous Model	up to 25 percent less noise	➔	up to 33 percent less noise	➔	up to 68 percent less noise	➔	up to 68 percent less noise
Sound Quality	Good	➔	Very good	➔	Excellent	➔	Excellent
Fuel System							
Typical Runtime per 12 Gallon Tank	13 hours	➔	13/15.5 hours with EFI	➔	Up to 19.5 hours with options	➔	Up to 19.5 hours with options
Efficiency	Good	➔	Good/Very good with EFI	➔	Excellent	➔	Excellent
Type	Gasoline		Gasoline or LP		Gasoline or LP		Gasoline
Delivery	Carburetor	➔	Carburetor or <b>EFI</b> available		Carburetor	➔	Carburetor or <b>EFI</b> available
Generator							
Watts	11,000	➔	11,000/12,000 with EFI	➔	12,000/11,000 with LP	➔	12,000
Clean Power Quality	Very good/Excellent	➔	Very good/Excellent	➔	Excellent	➔	Excellent
Power While Welding	Fair/Good With voltage control set near maximum	➔	Good Easier to fine-tune with arc voltage control near maximum	➔	Smart-Cor™ delivers excellent independent weld and generator power with no interaction between tools and welding arc	➔	Smart-Cor™ delivers excellent independent weld and generator power with no interaction between tools and welding arc
Excel™ Power Generator (120 V, 60 Hz at all Engine Speeds)	N/A		N/A	➔	N/A		<b>Excel Power</b> available
Weld Performance							
Stick	Good/Very good	➔	Very good	➔	Excellent	➔	Excellent
MIG – Wire (Solid/FCAW), Steel	Fair (.035 in.)	➔	Good (.035-1/16 in.)	➔	Excellent (.023-1/16 in.)	➔	Excellent (.023-5/64 in.)
MIG – Wire, Aluminum w/Spool Gun	Fair/Good (add WC-115A with contactor)	➔	Very good (add WC-115A with contactor)	➔	Excellent (add WC-24)	➔	Excellent (add WC-24)
DC TIG (Steel)	Good	➔	Very good	➔	Excellent	➔	Excellent
Pulsed DC TIG (Thin Metal, Out of Position)	N/A		N/A	➔	Yes		Yes
AC Weld	70-150 amps (TIG: add HF-251D-1 and contactor kit)	➔	40-250 amps (TIG: add HF-251D-1 and contactor kit)	➔	Add Dynasty®	➔	Add Dynasty®
Carbon Arc Gouging	N/A	➔	Good/Very good Carbons: Rated 3/16 in.	➔	Very good Carbons: Rated 3/16 in.	➔	Very good Carbons: Rated 3/16 in., Capable 1/4 in.
Key Features							
Digital Meters with SunVision™	N/A		N/A	➔	Yes	➔	Yes
Maintenance Displays	Hours/Oil change	➔	Hours/Oil change/Fuel	➔	Hours/Oil change/Fuel/RPMs	➔	Hours/Oil change/Fuel/RPMs
Battery Charge/Jump Start	N/A		N/A	➔	N/A	➔	12/24-volt available
14-pin Receptacle	N/A		N/A	➔	Yes	➔	Yes



# Engine-Driven

## Bobcat™ Series

### Gas, LP and Diesel

The most popular welder/generators in the industry are better than ever. Building on their exceptional value, the redesigned Bobcats are:

- Quieter to operate
- Smaller and lighter
- More fuel efficient with EFI
- Easier to maintain

Our Bobcat engine-driven welder/generators have been the top-selling in their class because they are engineered to be reliable, powerful and durable from the start.



Bobcat 225

Bobcat 3 Phase

Bobcat 250 EFI

Bobcat 250 Diesel

#### Improvements (compared to previous model)



**Quieter and better sound.** Gas models deliver significant improvements in sound level and quality for better jobsite communication and a safer, more efficient working environment. By rotating the engine toward the front we created a more efficient airflow, resulting in significantly quieter operation. Now you can start jobs earlier, end later, and work around noise-sensitive areas.



**Smaller and lighter design.** Bobcat welder/generators take up less space on trucks and trailers — leaving more room for other equipment and tools. Plus, they're easier to move around jobsites — even with weld cables and running gear attached. Five inches shorter and up to 55 pounds lighter with the gas models. Seven inches shorter and over 60 pounds lighter with the diesel model.

**Easier maintenance.** Easy-to-read front panel maintenance displays show when your equipment needs to be serviced. With the intuitive design, the daily maintenance is fast and easy:

- Oil checks from the top by the front panel
- Toolless panels that allow for quick access
- Single-side fuel fill and oil drain/filter

#### Additional features



#### Optional Electronic Fuel Injection (EFI).

Available on the Bobcat 250 gas model only. Use up to 27 percent less fuel, saving money and improving your bottom line. See page 65 for details.



**Smooth power.** Better power means better performance. Our Bobcat welder/generators have smoother power — not the spiked power found with other brands — because of:

- Revolutionary ten-degree skewed-rotor design
- Optimized generator performance

**Accu-Rated™ — not inflated generator power.** Our Accu-Rated peak power is usable for maximum generator loads, including plasma cutters, wire welders and motor starting. It also beats the competition's very short-duration peak or surge power. Accu-Rated power delivers:

- 11,000 watts (12,000 on Bobcat 250 with EFI) of *usable* peak power
- Peak power delivered for a minimum of 30 seconds

**Large 12-gallon fuel capacity** means many hours of run time before refueling.

**Versatile AC and DC weld output** provides quality welds on all types of metals. DC is smooth and easy to run while AC Stick is used when arc blow occurs.

**Maintenance displays** show engine hours and hours left before an oil change is due.

**Heavy-duty construction.** All internal components are designed to handle the harshest environments and will run better and last longer.



Scan this tag to hear more about the Bobcat gas models.



## Bobcat™ 225 (Gas) See literature no. ED/4.4

Cost-effective, multiprocess machine primarily used for Stick welding. Great for farm, ranch, maintenance/repair operations and as a stand-alone generator.

## Bobcat™ 3 Phase (Gas) See literature no. ED/4.33

Designed for farm and ranch owners in need of single- and three-phase power to run 480 V three-phase pivot irrigation systems or to provide backup power for home, farm and ranch.

## **Most Popular!** Bobcat™ 250 (Gas, LP or Diesel) See literature no. ED/4.4 (Gas/LP) and ED/4.34 (Diesel)

Rugged multipurpose engine drives are ideal for mobile maintenance trucks where reduced size and weight are essential. They are great for Stick and Flux-Cored welding, add Carbon Arc gouging, and are designed to handle maintenance/repair, construction, farm/ranch, and generator use.

Front panel fuel gauge provides convenient fuel level indication.

Smoother weld output and better generator power while welding.

More weld output than 225-amp welder generators for more versatility. 72 percent more power for MIG/FCAW, 67 percent more for AC welding, and 11 percent more for DC Stick.



### Recommended option (Bobcat 250 gas models)

Electronic fuel injection (EFI) gas engines optimize the air/fuel ratio for all engine speeds and engine loads, resulting in lower operational costs, fewer emissions, longer runtimes and better performance when compared to carbureted models. The payback from fuel savings alone is a matter of months.

#### EFI advantages (vs. carburetor models):

- 12,000 watts of generator power
- Up to 27% better fuel efficiency
- Extended runtimes up to 27%
- Fast, easy starts in all climates
- Reliable operation, even with infrequent use
- Fewer emissions – 27% less CO and 33% lower HC+NOx levels

\*Recommended for operation at altitudes above 5000 feet.

Industrial CC CV AC DC

#### Processes

- AC/DC Stick (SMAW)
- MIG (GMAW)<sup>1</sup> • Flux-Cored (FCAW)<sup>1</sup>
- AC<sup>2</sup>/DC TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A)<sup>3</sup> (rated 3/16-in. carbons)

<sup>1</sup>With voltage-sensing feeder only.

<sup>2</sup>With Dynasty® 200 Series or HF-251 (non-critical).

<sup>3</sup>Bobcat 250 models only.

#### Engines

**Gas – Kohler CH730:**

23.5 HP at 3600 RPM

**EFI Gas – Kohler ECH730:**

23 HP at 3600 RPM

**LP – Kohler CH730:**

Liquid withdrawal LP system

21 HP at 3600 RPM

V-twin-cylinder, four-cycle, overhead valve, industrial, air-cooled

**EPA Tier 4 compliant!**

**Diesel – Kubota D722:**

19 HP at 3600 RPM

Three-cylinder, industrial, liquid-cooled

Note: Engines are warranted separately by engine manufacturer.

#### Most popular accessories

- SuitCase® X-TREME™ Feeders (pg 38)
- Dynasty® 200 Series (pg 50)
- Spectrum® 625 X-TREME™ (pg 78)
- Multi-Terrain Running Gear (pg 103)
- Off-Road Running Gear (pg 103)
- Protective Cage with Cable Holders (pg 103)
- Hose and LP Tank Mounting Assembly (pg 103)
- Remote Oil Drain/Filter Kit (pg 103)
- All-Purpose Running Gear (pg 103)
- Full KVA Adapter Cord #300 517 (pg 103)
- Protective Cover (pg 103)
- HWY-1000 Trailer #195 013 (pg 104)
- GFCI Panel Mount 120 VAC Duplex Kit #300 975
- Electric Fuel Pump Kit\* (gas models only) #300 976
- Spark Arrestor Kit (gas models only) #300 924

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

	Model	Stock Number	Welding Mode	Process	Amp/Volt Ranges	Rated Output at 104° F (40° C)	Generator Power at 104° F (40° C)	Dimensions	Net Weight
Gasoline	Bobcat 225	#907 498 001 Kohler #907 498 Kohler with GFCI	CC/AC	Stick/TIG	70–150 A	150 A at 25 V, 100% duty cycle	Single-phase Peak: 11,000 watts Continuous: 9500 watts	H: 28 in. (711 mm) H: 32.75 in. (832 mm) to top of exhaust W: 20 in. (508 mm) D: 40.5 in. (1029 mm)	485 lb. (220 kg)
			CC/DC	Stick/TIG	50–225 A	225 A at 25 V, 100% duty cycle			
			CV/DC	MIG/FCAW	19–28 V	200 A at 20 V, 100% duty cycle			
	Bobcat 3 Phase	#907 505 Kohler with GFCI	CC/AC	Stick/TIG	50–200 A	200 A at 25 V, 100% duty cycle	Single-phase/Three-phase Peak: 11,000 watts Continuous: 9500 watts/10,000 watts		495 lb. (225 kg)
			CC/DC	Stick/TIG	50–210 A	210 A at 25 V, 100% duty cycle			
			CV/DC	MIG/FCAW	19–28 V	200 A at 20 V, 100% duty cycle			
Gas or LP	Bobcat 250	#907 500 001 Kohler #907 500 Kohler with GFCI #907 500 002 Kohler with electric fuel pump* #907 502 EFI Kohler #907 504 LP Kohler with GFCI (order hose and LP tank mounting assembly #300 917 separately)	CC/AC	Stick/TIG	40–250 A 40–275 A w/EFI	250 A at 25 V, 60% duty cycle 225 A at 25 V, 100% duty cycle	Single-phase Peak: 11,000 watts Continuous: 9500 watts  EFI Model Peak: 12,000 watts Continuous: 10,500 watts	H: 28 in. (711 mm) H: 32.75 in. (832 mm) to top of exhaust W: 20 in. (508 mm) D: 40.5 in. (1029 mm)	501 lb. (227 kg)
			CC/DC	Stick/TIG	40–250 A 40–275 A w/EFI	250 A at 25 V, 100% duty cycle			
			CV/DC	MIG/FCAW	17–28 V	275 A at 25 V, 60% duty cycle 250 A at 25 V, 100% duty cycle			
Diesel	Bobcat 250 Diesel	#907 565 Kubota with GFCI	CC/AC	Stick/TIG	40–275 A	250 A at 25 V, 100% duty cycle	Single-phase Peak: 11,000 watts Continuous: 9500 watts	H: 28 in. (711 mm) H: 32.375 in. (873 mm) to top of exhaust W: 20 in. (508 mm) D: 45.375 in. (1153 mm)	638 lb. (289 kg)
			CC/DC	Stick/TIG	40–275 A	250 A at 25 V, 100% duty cycle			
			CV/DC	MIG/FCAW	17–28 V	275 A at 25 V, 60% duty cycle 250 A at 28 V, 100% duty cycle			



# Engine-Driven

## Trailblazer® Series

### Gas, LP and Diesel

See lit. no. ED/4.75 (Gas/LP) and ED/4.8 (Diesel)

Designed for the professional welder, our Trailblazer welder/generators are better than ever. Building on their outstanding performance, the redesigned Trailblazers are:

- More fuel efficient
- Quieter to operate
- Smaller and lighter
- Easier to maintain



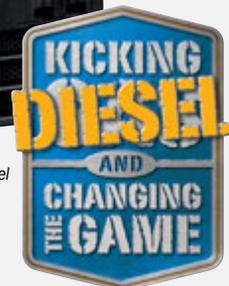
See page 109 for wireless remote controls.



Trailblazer 275

Trailblazer 325 EFI

Trailblazer 325 Diesel



Our Trailblazer welder/generators deliver unbeatable arc performance, the smoothest, most stable arc in the industry and an independent welder and generator power system.

#### Improvements (compared to previous model)



**Longer runtimes.** Stop less for refueling and get more work done. The gas models equipped with EFI and Excel power can run up to 50 percent longer. The diesel model equipped with Excel power can run up to 55 percent longer.



**More fuel efficient.** Save money and improve your bottom line. The gas models equipped with EFI and Excel power can use up to 35 percent less fuel. The diesel model equipped with Excel power uses up to 25 percent less fuel.

**More user friendly.** Easy-to-read front panel maintenance displays show when your equipment needs to be serviced. With the intuitive design, the daily maintenance is faster and easier:

- Oil checks from the top by the front panel
- Sunvision™ technology that provides easy-to-read digital meter
- Toolless panels that allow for quick access
- Single-side fuel fill and oil drain/filter



**Quieter and better sound.** Redesigned engine/generator packaging plus advanced generator technologies mean less sound output – so you can work earlier, later, and around noise-sensitive areas. Up to 68 percent quieter with the gas models and up to 40 percent quieter with the diesel model.



**Smaller and lighter design.** Size-reducing, weight-reducing Smart-Cor™ technology and a new internal design mean a lighter Trailblazer that takes up less space. Five inches shorter and up to 108 pounds lighter with the gas models and seven inches shorter and up to 80 pounds lighter with the diesel model.

#### Arc performance

- Three Stick modes – EXX18, EXX10 and Gouge
- Two Wire modes – Solid and Flux-Core
- Three Lift-Arc™ TIG modes – Auto-Stop™, Auto-Crater™ and Pulse

#### Additional features

##### Self-calibrating digital weld meters with maintenance displays

- Preset and actual weld amperage/voltage
- Process settings
- Fuel gauge
- Hour meter function and oil change interval
- Engine speed (RPM)

##### Accu-Rated™ – not inflated generator power.

Our Accu-Rated peak power is usable for maximum generator loads, including plasma cutters, wire welders and motor starting. It also beats the competition's very short-duration peak or surge power. Accu-Rated power delivers:

- 12,000 watts of *usable* peak power
- Peak power delivered for a minimum of 30 seconds

**Large 12-gallon fuel capacity** means many hours of run time before refueling.

**Heavy-duty construction.** All internal components are designed to handle the harshest environments and will run better and last longer.



Scan this tag to hear more about the Trailblazer gas models.



## Exclusive, game-changing technology

Our Trailblazer welder/generators include innovative technologies designed with the professional welder in mind. These Miller® exclusives deliver superior runtimes, increased fuel efficiency, and improved welder and generator performance.

### Base model exclusive technologies

#### Smart-Cor™ technology.

Independent weld and generator power in an improved, more compact design. Benefits it provides:

- No interaction between jobsite tools and the welding arc
- Stronger, cleaner, more efficient generator power
- Reduced size and weight
- Improved arc performance

#### Auto-Speed™ technology.

Automatically adjusts the engine speed to run at lower speeds depending on the total power needed. Benefits it provides:

- Exceptional fuel efficiency
- Extended runtimes
- Quieter operation
- Reduced emissions

#### Innovative design.

Engine is rotated to the front in the gas model to create more efficient airflow. Benefits it provides:

- Quieter operation
- Reduced size and weight
- Easier maintenance

## Options to maximize your Trailblazer 325 performance.

	(gas models)	Battery charge/jump start (gas models)
Excel power improves generator performance by providing 120-volt, 60 hertz of pure sine wave generator power at idle speed and while welding. When connected to the Excel power receptacle, you get up to 2400 watts of the cleanest generator power available. Plus you can run most jobsite tools – like lights, drills, grinders and chop saws – at idle speed, which provides: <ul style="list-style-type: none"> <li>• Exceptional fuel efficiency</li> <li>• Extended runtimes</li> <li>• Quieter operation</li> <li>• Longer engine life</li> </ul>	Electronic fuel injection (EFI) maximizes performance by optimizing the air/fuel ratio for all engine speeds and loads. Choose EFI for: <ul style="list-style-type: none"> <li>• Up to 27% better fuel economy</li> <li>• Extended runtimes up to 27%</li> <li>• Fast, easy starts in all climates</li> <li>• Reliable operation, even with infrequent use</li> <li>• Fewer emissions – 27% less CO and 33% lower HC+NOx levels</li> </ul>	Reduce downtime with battery charge/jump start capability. Designed and recommended for mechanics or anyone else responsible for a fleet of trucks or equipment. By using your Trailblazer to charge dead batteries or jump a stubborn engine, you'll keep your crew working and the fleet up and running. <p><i>Note: Battery charge/jump cables (#300 422) must be ordered separately.</i></p>

### Heavy industrial

#### Processes

- Stick (SMAW)
- MIG (GMAW)<sup>1</sup>
- Flux-Cored (FCAW)<sup>1</sup>
- DC TIG/Pulsed TIG (GTAW/GTAW-P)<sup>2</sup>
- Air Carbon Arc Cutting and Gouging (CAC-A) (rated 3/16-in. carbons, capable 1/4-in. carbons)<sup>3</sup>

<sup>1</sup>With wire feeder.

<sup>2</sup>Two-piece TIG torch recommended.

<sup>3</sup>Trailblazer 325 model only.

#### Engines

##### Gas – Kohler CH730:

23.5 HP at 3600 RPM

##### EFI Gas – Kohler ECH730:

23 HP at 3600 RPM

##### LP – Kohler CH730:

Liquid withdrawal LP system

21 HP at 3600 RPM

V-twin-cylinder, four-cycle, overhead valve, industrial, air-cooled

##### EPA Tier 4 compliant!

##### Diesel – Kubota D902:

24.8 HP at 3600 RPM

Three-cylinder, industrial, liquid-cooled

*Note: Engines are warranted separately by engine manufacturer.*

#### Most popular accessories

- Spoolmatic® 30A / WC-24 Control #130 831 / #137 549 (pg 17)
- SuitCase® X-TREME™ 12VS (pg 38)
- Dynasty® Series (pg 50/51/52)
- Spectrum® 625 X-TREME™ (pg 78)
- Multi-Terrain Running Gear (pg 103)
- Off-Road Running Gear (pg 103)
- Protective Cage with Cable Holders (pg 103)
- Hose and LP Tank Mounting Assembly (pg 103)
- All-Purpose Running Gear (pg 103)
- Full KVA Adapter Cord #300 517 (pg 103)
- Protective Cover (pg 103)
- HWY-1000 Trailer #195 013 (pg 104)
- Electric Fuel Pump Kit\* (gas models only) #300 976
- 25-ft. Battery Charge/Jump Cables with Plug (for Trailblazer 325 EFI #907 512-002 only) #300 422

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

\*Recommended for operation at altitudes above 5000 feet.

Gas or LP	Model	Stock Number	Welding Mode	Process	Amp/Volt Ranges	Rated Output at 104° F (40° C)	Single-Phase Generator Power at 104° F (40° C)	Dimensions	Net Weight
Gas or LP	Trailblazer 275	(#907 506) Kohler with GFCI (#907 509) LP Kohler with GFCI (order hose and LP tank mounting assembly #300 917 separately)	CC/DC	Stick/TIG	10-275 A	275 A at 28 V, 100% duty cycle	Peak: 12,000 watts 11,000 watts (LP) Continuous: 10,500 watts 9500 watts (LP) <b>Excel Power (optional) 2400 watts</b> 20 A at 120 V, 60 Hz pure generator power at idle speed and while welding.	H: 28 in. (711 mm) H: 32.75 in. (832 mm) to top of exhaust W: 20 in. (508 mm) D: 40.5 in. (1029 mm)	459 lb. (208 kg)
			CV/DC	MIG/FCAW	10-35 V	275 A at 28 V, 100% duty cycle			
Gasoline	Trailblazer 325	(#907 510 001) Kohler (#907 510) Kohler with GFCI (#907 510 002) Kohler w/electric fuel pump* (#907 512) EFI Kohler (#907 512 001) EFI Kohler with Excel power (#907 512 002) EFI Kohler with Excel power and battery charge/jump start	CC/DC	Stick/TIG	10-325 A	325 A at 28 V, 100% duty cycle	H: 28 in. (711 mm) H: 32.75 in. (832 mm) to top of exhaust W: 20 in. (508 mm) D: 40.5 in. (1029 mm)	460 lb. (209 kg)	
			CV/DC	MIG/FCAW	10-35 V	325 A at 28 V, 100% duty cycle			
Diesel	Trailblazer 325 Diesel	(#907 566 001) Kubota (#907 566) Kubota with GFCI (#907 566 002) Kubota with Excel power	CC/DC	Stick/TIG	10-325 A	325 A at 33 V, 100% duty cycle	H: 28 in. (711 mm) H: 34.375 in. (873 mm) to top of exhaust W: 20 in. (508 mm) D: 45.375 in. (1153 mm)	620 lb. (281 kg)	
			CV/DC	MIG/FCAW	10-35 V	325 A at 33 V, 100% duty cycle			



# Engine-Driven

## Trailblazer® 302 Air Pak™ See literature no. ED/4.78

Powerful all-in-one tool designed for repair and construction with multiprocess weld quality, generator power, air compressor and battery charge/jump start.



**Superior arc performance.** Preset dig settings optimized for the majority of Stick welding applications, best-in-class Wire arc performance, and two Lift-Arc™ TIG modes for most DC TIG applications.

**Strongest combined generator/compressor power.** Delivers an industry-leading 13,000 watts of peak generator power independent of weld settings – can power a Spectrum® 875 plasma cutter, and provide air for plasma cutting at the same time (rated 5/8-inch mild steel).

**Rotary screw air compressor.** Delivers up to 31 CFM and 160 PSI of air with no storage tank. Gives 100 percent deliverable air and runs many tools at idle speed. Air outputs are rated at an industry-high 104 degrees Fahrenheit (40° C). Front panel air pressure adjustment and automatic overpressure shutdown with indication. Designed for more than 30,000 hours of operation and warranted for three years by Miller.

**Battery charge/jump start.** Provides selectable 12- or 24-volt battery charging capability with up to 450 amps of battery jump-starting capability. Convenient front panel battery charger/jump starter access.

*Note: Battery charge/jump cables (#300 422) must be ordered separately.*



See page 109 for wireless remote controls.

\*Recommended for operation at altitudes above 5000 feet.

Heavy industrial

### Processes

- AC/DC Stick (SMAW)
- MIG (GMAW)<sup>1</sup> ▪ Flux-Cored (FCAW)<sup>1</sup>
- AC<sup>2</sup>/DC<sup>3</sup> TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (rated 3/16-in. carbons, capable 1/4-in. carbons)

<sup>1</sup> With wire feeder.

<sup>2</sup> With Dynasty® 200 Series or HF-251 (non-critical).

<sup>3</sup> Two-piece TIG torch recommended.

### Gasoline engine

**Kohler CH750:** 27 HP at 3600 RPM V-twin-cylinder, four-cycle, overhead valve, industrial, air-cooled

*Note: Engine is warranted separately by engine manufacturer.*

### Most popular accessories

- Spoolmatic® 30A Aluminum Spool Gun / WC-24 Control #130 831 / #137 549 (pg 17)
- SuitCase® X-TREME™ 12VS (pg 38)
- 25-ft. Battery Charge/Jump Cables with Plug #300 422

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Gasoline

Stock Number	Welding Mode	Process	Amp/Volt Ranges	Rated Weld Output at 104° F (40° C)	Single-Phase Generator Power at 104° F (40° C)	Dimensions	Net Weight
#907 549 001 Kohler #907 549 Kohler with GFCl and electric fuel pump* #907 549 003 Kohler with GFCl, cooler/separator and electric fuel pump*	CC/DC	Stick/TIG	10–300 A	280 A at 32 V, 100% duty cycle	Peak: 13,000 watts Continuous: 11,000 watts	H: 28 in. (711 mm) H: 34.5 in. (876 mm) to top of exhaust W: 20 in. (508 mm) D: 59.625 in. (1514 mm)	771 lb. (350 kg)
	CV/DC	MIG/FCAW	13–35 V, 350 A	300 A at 32 V, 100% duty cycle 350 A at 32 V, 60% duty cycle			
	CC/AC	TIG/Stick	10–225 A	200 A at 25 V, 60% duty cycle			
Air Compressor	Features	Free Air Delivery at 3600 RPM	Free Air Delivery at 3000 RPM	Free Air Delivery at 2400 RPM (Idle)	Working Pressure Constant	Duty Cycle	Oil Capacity
	Rotary screw with electric clutch for on/off. Oil change intervals 500 hours.	31 CFM (0.88 m <sup>3</sup> /min.)	28 CFM (0.79 m <sup>3</sup> /min.)	22 CFM (0.62 m <sup>3</sup> /min.)	80–160 PSIG	100%	1.75 qt. (1.7 L)

Big Blue® 350 PipePro® • Big Blue® 400 Pro • Big Blue® 450 Duo CST™  
Big Blue® 500 Pro • Big Blue® 800 Duo Pro • Big Blue® 800 Duo Air Pak™



## EPA Tier 4 Final cleaner equipment, cleaner air

Tier 4 Final (T4F) is the U.S. Environmental Protection Agency's (EPA's) latest step in a series of increasingly strict emission standards for diesel engines. It has resulted in diesel engines that not only operate more cleanly, but also produce power more efficiently. As the world becomes more environmentally conscious to care for future generations; Miller has redesigned its diesel engine-driven welder/generator product line.

For every job, there's a Miller® welder/generator to get the job done right.

Selecting the right size of welder/generator helps maximize your resource efficiency and reduce your emissions footprint. Demanding tasks such as welding thick metals and gouging large-diameter carbons may require amperage that only a higher-horsepower machine can provide. Jobs requiring less amperage often can be handled by machines having less than 25 horsepower, which are not subject to the same T4F regulations.

Learn more at [MillerWelds.com/tier4](http://MillerWelds.com/tier4)



## Big Blue® 350 PipePro®

See literature no. ED/5.4

Designed for transmission pipeline work, this system offers a complete welding solution. With Stick as well as MIG/FCAW welding capabilities it is ideal for the most demanding pipeline jobs.



See page 109. Wireless antenna kit (#300 749) recommended.

### System components (order items separately)

- Miller® Big Blue 350 PipePro engine drive
- Miller SuitCase® X-TREME™ wire feeder (now both 8VS and 12VS meet PipePro system needs, see page 39 for specs)
- Bernard™ PipePro Dura-Flux™ gun
- Hobart Brothers Fabshield® 71T8/X80 wire
- Miller Wireless Remote Hand Control

Visit [MillerWelds.com/pipeline](http://MillerWelds.com/pipeline) for complete information and spec sheets.

**Easy arc starts and better arc control** provide improved performance to produce more consistent welds.

**Enhanced MIG/FCAW arc control** for best in class performance.

**The Vault – ultimate control board reliability.** A sealed aluminum case protects the circuit board from dust, dirt, moisture and heat.

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

**Auto Remote Sense™ (ARS)** eliminates confusion of a remote/panel switch.

**Compact size and weight** optimizes truck space.

**LINE-X® cover** provides superior impact, corrosion and abrasion protection.

**Quiet operation.** Only 70.7 decibels under full load. Improves jobsite communication and safety.

**EPA, CSA, IEC and NEMA compliant.**

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

**Optional stainless steel package available.**

### Heavy industrial ● CC CV DC

#### Processes

- Stick (SMAW) • MIG (GMAW)
- Flux-Cored (FCAW) • TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (rated 1/4-in. carbons)

#### Diesel engines

##### EPA Tier 4 Final choices

- CAT C1.5T:** 24.7 HP at 1800 RPM Turbo 3-cylinder, industrial, liquid-cooled
- Mitsubishi S4L2:** 24.7 HP at 1800 RPM Four-cylinder, industrial, liquid-cooled

Note: Engines are warranted separately by engine manufacturer.

#### Big Blue 350 PipePro System (order items separately)

- Big Blue 350 PipePro Engine Drive
- SuitCase X-TREME Feeder w/Bernard PipePro Dura-Flux Gun
  - #951 593 8VS
  - #951 592 12VS
- Bernard PipePro Dura-Flux Gun with 10-ft. (3 m) Cable #301 011 (included with feeders above)
- Hobart Brothers Fabshield
  - #S228519-P32 FS 71T8 1/16 in.
  - #S228525-P32 FS 71T8 5/64 in.
  - #S228825-P32 FS X80 5/64 in.
- Wireless Remote Hand Control/ Wireless Antenna Kit
  - #300 430 / #300 749 (pg 109)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for Miller® options and accessories.

Diesel	Model/Stock Number	Welding Mode	Process	Amp/Volt Ranges	Rated Output at 104° F (40° C)	Single-Phase Generator Power at 104° F (40° C)	Dimensions	Net Weight
		<b>Big Blue 350 PipePro (engine drive only)</b> #907 478 CAT Turbo #907 478 001 CAT Turbo w/stainless steel #907 428 Mitsubishi #907 428 001 Mitsubishi w/stainless steel	CC/DC	TIG/Stick	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	Peak: 12,000 watts Continuous: 10,000 watts	H: 32 in. (813 mm) W: 26.25 in. (667 mm) D: 56 in. (1422 mm)
		CV/DC	MIG/FCAW	14-40 V				

## Big Blue® 400 Pro

See literature no. ED/5.7

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



See page 109. Wireless antenna kit (#300 749) recommended.

**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 aluminum 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.

**CSA, IEC and NEMA 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) • TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (rated 3/16-in. carbons)

#### Diesel engines

##### EPA Tier 4 Final choices

- Kubota V150S:** 20.2 HP at 1800 RPM Four-cylinder, industrial, liquid-cooled
- Mitsubishi S4L2:** 24.7 HP at 1800 RPM Four-cylinder, industrial, liquid-cooled

Note: Engines are warranted separately by engine manufacturer.

#### Most popular accessories

- SuitCase® Feeders (pg 38)
- Dynasty® 200 Series (pg 50)
- Spectrum® 875 (pg 78)
- HWY-224 Trailer #043 805 (pg 104)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Diesel	Stock Number	Welding Mode	Process	Amp/Volt Ranges	Rated Output at 104° F (40° C)	Single-Phase Generator Power at 104° F (40° C)	Dimensions	Net Weight
		#907 606 Kubota #907 605 Mitsubishi	CC/DC	TIG/Stick	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	Peak: 12,000 watts Continuous: 10,000 watts	H: 32 in. (813 mm) W: 26.25 in. (667 mm) D: 56 in. (1422 mm)
		CV/DC	MIG/FCAW	14-40 V				



# Engine-Driven

## **NEW!** Big Blue® 500 Pro

See literature no. ED/11.0

Clean, quiet, multiprocess machine delivers 500 amps of welding power with EPA T4F and T4i compliant engines, ideal for heavy use.



CA model not available for sale in the USA!



See page 109. Wireless antenna kit (#300 749) recommended.

**Electronic engine display** simultaneously displays fuel level, engine hours, coolant temperature, oil pressure, battery volts, and engine RPM. Also tracks oil change intervals and displays engine diagnostics for quick and easy servicing. *Not available on Perkins or CA (Tier 4i) models which use meter maintenance displays as seen on Big Blue 400 below.*

**Infinite arc control** allows the arc characteristics to be changed for specific applications in Stick, MIG and FCAW.

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

**CSA, IEC and NEMA compliant.**

**Deluxe model** adds a polarity reversing switch and a vandalism lockout (protects control panel and receptacles, see photo at right).



### Heavy Industrial ● CC DC

#### Processes

- Stick (SMAW) • MIG (GMAW)
- Flux-Cored (FCAW) • DC TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (rated 3/8-in. carbons)

#### Diesel engines

##### EPA Tier 4 Final choices

###### Deutz D2.9 L4:

34.8 HP at 1800 RPM  
Four-cylinder, industrial, liquid-cooled

###### Perkins 404D.22:

32.6 HP at 1800 RPM  
Four-cylinder, industrial, liquid-cooled

##### CA model – EPA Tier 4i

###### Deutz D2011L03:

32 HP at 1800 RPM  
Three-cylinder, industrial, air/oil-cooled

*Note: Engines are warranted separately by engine manufacturer.*

#### Most popular accessories

- Protective Covers (pg 103)
  - #301 113 T4F model
  - #194 683 CA model
- HWY-224 Trailer #043 805 (pg 104)
- Wireless Remote Hand Control/Wireless Antenna Kit
  - #300 430/#300 749 (pg 109)
- Spark Arrestor Kit #195 012

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Diesel	Stock Number	Welding Mode/Process	Amp/Volt Ranges	Rated Output at 104° F (40° C)	Generator Power at 104° F (40° C)	Dimensions	Net Weight
	<b>Tier 4 Final</b> (#907 561) Deutz (#907 561 001) Deutz Deluxe model (#907 667) Perkins (#907 667 001) Perkins Deluxe model CA Model (NOT Available for Sale in the USA) – Tier 4i (#907 635) Deutz (#907 635 001) Deutz Deluxe model	CC/DC (Stick/TIG)	20–500 A	400 A at 36 V, 100% duty cycle 450 A at 38 V, 60% duty cycle 500 A at 38 V, 40% duty cycle	Three-phase Peak: 21,000 watts Continuous: 15,000 watts Single-phase Peak: 15,000 watts Continuous: 12,000 watts	<b>Deutz T4F models</b> H: 46 in. (1168 mm) W: 28.5 in. (724 mm) D: 69.5 in. (1765 mm) <b>Perkins T4F/Deutz CA models</b> H: 42 in. (1067 mm) W: 28.5 in. (724 mm) D: 65.125 in. (1654 mm)	<b>Deutz T4F models</b> 1800 lb. (816.5 kg) <b>Perkins T4F models</b> 1400 lb. (653 kg) <b>Deutz CA models</b> 1550 lb. (703 kg)
	CV/DC (MIG/FCAW)	14–40 V					

## Big Blue® 400 and 500 CC

See literature no. ED/10.8

Designed for fleet owners, construction contractors and rental companies who want a powerful diesel welder/generator and place a premium on rugged reliability with proven performance.



Big Blue 400 CC shown.

Not available for sale in the USA!

#### Meter maintenance displays

- Fuel gauge, hour meter function and oil change interval
- High coolant temperature, low oil pressure and low fuel shutdowns

**Designed and built with reliable, heavy-duty industrial components** to allow operation in remote locations.

**Hot Start™** makes it easy to start all types of Stick electrodes.

**Arc-Drive™** enhances Stick welding, especially on pipe, by focusing arc and preventing electrode from going out.

**Quick and easy maintenance** with single-side access to oil level check, oil fill, oil filter, fuel filter and air cleaner.

**CSA, IEC and NEMA compliant.**

### Heavy Industrial ● CC DC

#### Processes

- Stick (SMAW) • TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (400: rated 5/16-in. carbons, capable 3/8-in. carbons; 500: rated 3/8-in. carbons)

#### Diesel engines

##### EPA Tier 4i choices

###### 400 – Deutz D2011L03i:

32 HP at 1800 RPM  
Three-cylinder, industrial, air/oil-cooled

###### 400 – Perkins 404D-22:

32.6 HP at 1800 RPM  
Four-cylinder, industrial, liquid-cooled

###### 500 – Deutz D2011L04i:

48.6 HP at 1800 RPM  
Four-cylinder, industrial, air/oil-cooled

*Note: Engines are warranted separately by engine manufacturer.*

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for Miller® options and accessories.

Diesel	Model	Stock Number	Process	Amperage Range	Rated Output at 104° F (40° C)	Single-Phase Generator Power at 104° F (40° C)	Dimensions	Net Weight
	Big Blue 400 CC	(#907 173) Deutz (#907 175) Perkins	DC Stick/TIG	55–500 A	400 A at 36 V, 100% duty cycle	Peak: 5500 watts Continuous: 4000 watts	H: 43 in. (1092 mm) W: 28.5 in. (724 mm) D: 65.125 in. (1654 mm)	<b>Deutz</b> 1655 lb. (751 kg) <b>Perkins</b> 1545 lb. (701 kg)
Big Blue 500 CC	(#907 181) Deutz	DC Stick/TIG	55–600 A	500 A at 40 V, 100% duty cycle	Peak: 5500 watts Continuous: 4000 watts	H: 43 in. (1092 mm) W: 28.5 in. (724 mm) D: 65.125 in. (1654 mm)	<b>Deutz</b> 1695 lb. (769 kg)	



## Big Blue® 450 Duo CST™

See literature no. ED/5.5

**Durable dual-operator welder/generator delivers proven CST 280 Stick/TIG performance for maximum productivity and efficiency. Two separate outputs powered by one low-speed diesel engine delivers 280 amps of output per operator.**



See page 109. Wireless antenna kit (#300 749) recommended.

**Two superior arcs** in one compact package. See CST 280 (page 45) for additional details.

**Save fuel, reduce maintenance costs and increase productivity.**

**Quiet operation.** At 72.2 decibels at 23 feet (7 m) under full load, it's quieter than most single-operator models. Improves jobsite communication and safety.

**Vandalism lockout kit (not shown).** Lockable hinged steel panel protects front control and ignition switch.

Simple-to-operate **process selector knob automatically sets proper DIG setting** on E6010 and E7018 electrodes providing superior Stick performance.

**Lift-Arc™** start for TIG starts without the use of high frequency.

**Remote amperage control** permits the use of standard and wireless amperage control devices.

**Increased efficiency.** More arcs and better fuel economy equal increased profits for your business. Estimated savings are 34 percent with a dual-operator unit versus two single-operator units.

### Heavy industrial ● CC DC

#### Processes

- Stick (SMAW) • TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (rated 3/16-in. carbons, capable 1/4-in. carbons)

#### Diesel engine

##### EPA Tier 4 Final

**Mitsubishi S4L2:** 24.7 HP at 1800 RPM  
Four-cylinder, industrial, liquid-cooled

*Note: Engine is warranted separately by engine manufacturer.*

#### Most popular accessories

- Spectrum® 875 (pg 78)
- Full KVA Adapter Cord #300 517 (pg 103)
- Single-Phase Full KVA Plug Kit #119 172 (pg 103)
- Protective Cover #195 301 (pg 103)
- HWY-224 Trailer #043 805 (pg 104)
- Wireless Remote Hand Control/Wireless Antenna Kit #300 430/#300 749 (pg 109)
- Spark Arrestor Kit #195 012

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Diesel	Stock Number (#907 477) Mitsubishi	Process	Output Mode	Amperage Range	Rated Output at 122° F (50° C)	Single-Phase Generator Power at 122° F (50° C)	Dimensions	Net Weight
		DC Stick/TIG	Separate (dual outputs)	5-225 A (each side) 5-280 A (one side only)	175 A at 27 VDC, 100% duty cycle			
	Paralleled (combined)	10-450 A	350 A at 27 VDC, 100% duty cycle					

## Big Blue® 700 Duo Pro

See literature no. ED/5.6

**Complete multiprocess and multioperator welder/generator in one rugged package. Up to 400 amps of output per operator can be paralleled with a single switch to provide up to 800 amps of power.**



Not available for sale in the USA!



See page 109. Wireless Antenna Kit (#300 749) recommended.

**Two independent pipe quality arcs** in one compact package.

**Multiprocess CC/CV** provides independent operator controls and the best Stick, Flux-Cored and TIG performance available with no interaction.

**Easy arc starts and better arc control** for best in class performance.

**Quiet operation.** At 74.7 decibels at 23 feet (7 m) under full load, it's quieter than many single-operator models. Improves jobsite communication and safety.

**Independent remote control connections** allow the use of standard and wireless volt/amperage control devices for each operator.

**Compatible with Big Blue® 350 PipePro® system components** (see page 69).

**Standard features** include oil pan heater, intake manifold heater, output paralleling switch and automatic idle.

**Increased efficiency.** More arcs and better fuel economy equal increased profits for your business. Estimated savings are 34 percent with a dual-operator unit versus two single-operator units.

### Heavy industrial ● CC CV DC

#### Processes

- Stick (SMAW) • MIG (GMAW)
- Flux-Cored (FCAW) • TIG (GTAW)
- Air Carbon Arc Cutting and Gouging (CAC-A) (rated 3/8-in. carbons)

#### Diesel engine

##### EPA Tier 4i

**Deutz D2011L04i:** 48.6 HP at 1800 RPM  
Four-cylinder, industrial, air/oil-cooled

*Note: Engine is warranted separately by engine manufacturer.*

#### Most popular accessories

- SuitCase® X-TREME™ 8VS/12VS (pg 38)
- Full KVA Adapter Cord #300 517 (pg 103)
- Full KVA Plug Kit (pg 103) #119 172 Single-phase #254 140 Three-phase
- Protective Cover #194 683 (pg 103)
- HWY-224 Trailer #043 805 (pg 104)
- Wireless Remote Hand Control/Wireless Antenna Kit #300 430/#300 749 (pg 109)
- Spark Arrestor Kit #195 012

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Diesel	Stock Number (#907 461) Deutz	Process	Output Mode	Amp/Volt Ranges	Rated Output at 104° F (40° C)	Generator Power at 104° F (40° C)	Dimensions	Net Weight
		DC Stick/TIG/MIG/FCAW	Separate (dual outputs)	20-400 A 14-40 V	300 A at 32 VDC, 100% duty cycle 400 A at 36 VDC, 40% duty cycle	Single-Phase: 5500 watts peak, 4000 watts continuous <b>Additional Generator Power</b> 3-Phase: 27,000 watts peak, 20,000 watts continuous or 1-Phase: 19,000 watts peak, 12,000 watts continuous		
	Paralleled (combined)	40-800 A 14-40 V	500 A at 34 VDC, 100% duty cycle 700 A at 24 VDC, 60% duty cycle					



# Engine-Driven

## Big Blue® 800 Duo Pro and Duo Air Pak™

See literature no. ED/12.0 (Pro) and ED/13.0 (Air Pak)



**Our most powerful engine drives offer dual-operator productivity and multiprocess flexibility. The clean running EPA Tier 4 compliant engines reduce emissions. The Air Pak model adds independent compressor controls.**



Big Blue 800 Duo Pro

Big Blue 800 Duo Air Pak

CA model not available for sale in the USA!



See page 109. Wireless Antenna Kit (#300 749) recommended.

**Multi-arc welding.** One dependable engine – two independent arcs with up to 400 amps each. Or plug in additional inverters for a true multioperator work platform! Example: Two additional XMTs equals four operators, up to 200 amps each. Premium quality arcs allow operators to work independently with no arc interaction. Multioperator welding has never been easier or more versatile.

**Ingersoll Rand ultra-reliable industrial rotary screw compressor (Air Pak model only).**

30,000-hour life expectancy. Independent on/off control for applications not requiring compressed air – allows greater fuel savings and longer compressor service intervals.

**The Vault – ultimate control board reliability.** Housed in a sealed aluminum case, sealed connections are made through watertight plugs that protect the circuit board from dust, dirt, moisture and heat.



**Low OCV Stick (VRD)** reduces the open-circuit voltage to 15 volts when the welding power source is not in use, increasing 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.

**Electronic engine display** simultaneously displays fuel level, engine hours, coolant temperature, oil pressure, battery volts and engine RPM. Also tracks oil change intervals and displays engine diagnostics for easier servicing. Air Pak model adds air pressure and compressor hours displays.

**Increased efficiency.** More arcs and better fuel economy equal increased profits for your business. Estimated savings are 34 percent with a dual-operator unit versus two single-operator units.

**Infinite arc control** allows the arc characteristics to be changed for specific applications in Stick, MIG and FCAW.

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

**Standard features** include digital weld meters, automatic idle, 120-volt block heater, lockout/tagout battery disconnect switch and 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 1/2-in. carbons)
- Stud (1/2 in.)

### Diesel engines

#### EPA Tier 4 Final

##### Deutz TD2.9 L4:

65.7 HP at 1800 RPM  
Turbo-charged, four-cylinder, industrial, liquid-cooled

##### Big Blue 800 Duo Air Pak CA model – EPA Tier 4i

##### Deutz TD2011L04i:

63.4 HP at 1800 RPM  
Turbo-charged, four-cylinder, industrial, air/oil-cooled

Note: Engines are warranted separately by engine manufacturer.

### Most popular accessories

- SuitCase® X-TREME™ 8VS/12VS (pg 38)
- Full KVA Adapter Cord #300 517 (pg 103)
- Full KVA Plug Kit (pg 103)
  - #119 172 Single-phase
  - #254 140 Three-phase
- Protective Cover #301 113 (pg 103)
- HWY-224 Trailer #043 805 (pg 104)
- Wireless Remote Hand Control/Wireless Antenna Kit #300 430/#300 749 (pg 109)



### Desiccant Air Dry System (Air Pak only)

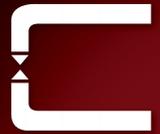
- #195 117 Side mount
- #195 117 001 Rear mount
- Eliminates moisture in the air stream and prevents air line freeze-ups in cold climates.
- Spark Arrestor Kit #195 012

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

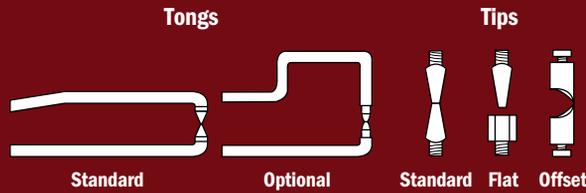
\*Big Blue 800 Duo Air Pak has welder truck specific models available – visit [MillerWelds.com](http://MillerWelds.com) or your distributor.

Model/Stock Number*	Welding Mode/Process	Output Mode	Amp/Volt Ranges	Rated Output at 100% Duty Cycle at 104° F (40° C)	Generator Power at 104° F (40° C)	Dimensions	Net Weight
Big Blue 800 Duo Pro – Tier 4 Final (#907 587) Deutz	CC/DC (Stick/TIG)	Separate (dual outputs)	20–400 A	400 A at 36 V (each side)	Three-phase Peak: 27,000 watts Continuous: 20,000 watts	H: 47 in. (1194 mm) H: 55 in. (1397 mm) to top of exhaust W: 28.5 in. (724 mm) D: 69.5 in. (1765 mm)	<b>Duo Pro</b> 1869 lb. (848 kg)
Big Blue 800 Duo Air Pak – Tier 4 Final (#907 535) Deutz (Tier 4 Final)		Paralleled (combined)	40–800 A	700 A at 44 V, 800 A at 38 V			
Big Blue 800 Duo Air Pak CA Model (NOT Available for Sale in the USA) – Tier 4i (#907 634) Deutz	CV/DC (MIG/FCAW)	Separate (dual outputs)	14–40 V	400 A at 34 V (each side)	Single-phase Peak: 15,000 watts Continuous: 12,000 watts		<b>Duo Air Pak</b> 2095 lb. (968 kg)
		Paralleled (combined)	14–40 V	750 A at 40 V, 800 A at 38 V			
Ingersoll Rand CE55 G1 Air Compressor (Air Pak only)	Features	Free Air Delivery	Working Pressure Constant	Duty Cycle	Oil Capacity	Automatic Compressor Shutdowns	
	Rotary screw with electric clutch for on/off. Oil change intervals of 500 hours. Life expectancy of 30,000 hours.	Idle: 40 CFM (1.13 m <sup>3</sup> /min.) Weld: 60 CFM (1.70 m <sup>3</sup> /min.)	100 PSIG (7 bar)	100%	4 qt. (3.79 L)	Oil temperature	

# Spot Welders



**Tongs and tips.** Miller offers a wide variety of both symmetrical and asymmetrical tong and tip configurations. Maximum capabilities of spot welders are obtained with minimum tong lengths. Tips are made of durable Class 2, long-wearing copper alloy.



See literature no. SW/1.0 for full range of tongs and tips.

For more detailed information, visit



[MillerWelds.com/spotwelders](http://MillerWelds.com/spotwelders)

## Air-Cooled Spot Welders

See literature no. SW/1.0

**MSW and LMSW Series lightweight, air-cooled units are portable, easy to operate, and provide a quick and effective means for spot welding mild, galvanized or stainless materials.**



**“T” models include timer panel** with a 0 to 5 second weld timer and power on/off switch. Timer panel can be mounted on the optional SWP-2 pedestal or any other convenient location. Includes 10-foot (3 m) input power and interconnecting cords.

**Hand lever locks tongs firmly on material**, ensuring positive, accurate fit-up.

**Accommodates a wide variety of tongs and tips (ordered separately).**

**Quick and easy adjustment** for material thickness.

**Reversible for left- or right-hand operation.**

\*Tongs and tips must be ordered separately – see literature no. SW/1.0 for full range of tongs and tips.

**1**  
Phase

### Process

- Resistance Spot Welding
- Note: Not recommended for welding aluminum, copper or copper alloys.

### Most popular accessories

- Gyro Ball**  
#041 979  
Supports weight of welder. Operates with boom and counterweight or from spring-loaded cable (sold separately). Spot welds in any position.
- Spot Welder Pedestal** #040 872



Note: Tongs/tips must be ordered separately. One standard set of tips is supplied with each set of tongs; see diagram above.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model/Stock Number*	Input Power	Work Capacity (Combined thickness uncoated mild steel using 6-in. [152 mm] tongs)	Rated Output	Rated Output Calibrated with Standard-Type Tongs			Max Open-Circuit Voltage	Dimensions	Net Weight
				6 in. (152 mm)	12 in. (305 mm)	18 in. (457 mm)			
<b>MSW-41 (#900 371)</b> <b>MSW-41T (#901 345)</b> with timer	110 VAC, 30 A, 50/60 Hz	1/8 in. (3.2 mm) or two pieces of 20-ga. (1.8 mm) galvanized steel	1.5 kVA at 50% duty cycle	5550 A	4500 A	3600 A	1.6	H: 6 in. (152 mm) W: 3.75 in. (95 mm) D: 13 in. (330 mm)	22 lb. (10 kg) 34 lb. (15 kg) with timer
<b>LMSW-52 (#900 377)</b> <b>LMSW-52T (#901 357)</b> with timer	220 VAC, 30 A, 50/60 Hz	3/16 in. (4.7 mm) or two pieces of 16-ga. (3.0 mm) galvanized steel	2.5 kVA at 50% duty cycle	6750 A	5800 A	4850 A	2.5	H: 6 in. (152 mm) W: 3.75 in. (95 mm) D: 16 in. (406 mm)	30 lb. (14 kg) 42 lb. (19 kg) with timer

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# Submerged Arc

For more detailed information, visit

MillerWelds.com/subarc



Miller offers an array of versatile Submerged Arc components, including power sources, controls, wire drives, torches, tractors and a variety of other accessories.

## **NEW!** SubArc Digital Series

See literature no. AD/7.3

The new 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.



**Low-voltage accessory operation and improved environmental protection.** The new Digital Series accessories are powered with 24 VAC control voltage from the power source. All power sources, interface controls and wire drives are IP-23 rated providing a high level of protection for harsh environments.

**Easy to integrate.** Our new 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.™**

**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).

\*While idling.

### Heavy industrial

CC CV AC DC DC 3 Phase SubArc DC Series is DC only.

#### Processes

- Submerged Arc (SAW)
- Electroslag (ESW)

#### Most popular accessories

- SubArc Flux Hopper Digital Low Voltage #300 942 (pg 107)
- Flux Hopper Extension Cables (pg 107)
  - #260 623 010 10 ft. (3 m)
  - #260 623 025 25 ft. (7.6 m)
  - #260 623 065 65 ft. (19.8 m)
- 15-ft. (4.6 m) SubArc Parallel Cable #260 775 015 (pg 107)
- 15-ft. (4.6 m) SubArc Tandem Cable #260 878 015 (pg 107)
- SubArc Tractor (pg 107)
  - #300 945 Tractor only
  - #951 615 w/SubArc Interface Analog
  - #951 614 w/SubArc Interface Digital

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

Model/Stock Number	Amperage Range (CC Mode)	Voltage Range (Subarc Mode)	Rated Output	Amps Input at Rated Output, 60 Hz						Max Open-Circuit Voltage	Dimensions (Includes lift eye, but not strain relief)	Net Weight
				230 V	460 V	575 V	KVA	KW				
SubArc DC 650 Digital (#907 622) 230/460/575 V	50-815 A	20-44 V	650 A at 44 V, 100% duty cycle	126	63	50.4	50	34.8		75 Vpk	H: 27.25 in. (692 mm) W: 22.25 in. (565 mm) D: 37.5 in. (953 mm)	545 lb. (247 kg)
SubArc DC 1000 Digital (#907 624) 230/460/575 V	100-1250 A	20-44 V	1000 A at 44 V, 100% duty cycle	180	90	72	73	53		68 Vpk	H: 27.25 in. (692 mm) W: 22.25 in. (565 mm) D: 37.5 in. (953 mm)	644 lb. (292 kg)
SubArc AC/DC 1000 Digital (#907 620) 460 V	300-1250 A	20-44 V	1000 A at 44 V, 100% duty cycle	-	122	-	98	53		93 Vpk	H: 43 in. (1092 mm) W: 27.5 in. (699 mm) D: 47.5 in. (1207 mm)	1225 lb. (540 kg)

## SubArc Interface Controls

See literature no. AD/7.3



SubArc Interface Analog

**NEW!**

SubArc Interface Digital

**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 107)
  - #260 622 030 30 ft. (9 m)
  - #260 622 050 50 ft. (15 m)
  - #260 622 080 80 ft. (24.4 m)
  - #260 622 100 100 ft. (30.5 m)
  - #260 622 120 120 ft. (36.6 m)
  - #260 622 200 200 ft. (61.0 m)

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Model/Stock Number	Type of Input from Welding Power Source	Welding Power Source Type	Weld Voltage and Amperage Capacity	Dimensions	Net Weight
SubArc Interface Analog (#300 937)	Single-phase, 24 VAC, 25 A, 50/60 Hz	Constant Current (CC), Constant Voltage (CV), DC, with remote contactor and output control capabilities	0-60 V 0-1500 A	H: 7 in. (178 mm) W: 11.25 in. (286 mm) D: 11.5 in. (292 mm)	18 lb. (8.2 kg)
SubArc Interface Digital (#300 936)	Single-phase, 24 VAC, 25 A, 50/60 Hz	Constant Voltage (CV), AC or DC, with remote contactor and output control capabilities	0-60 V 0-1500 A		



## SubArc Wire Drive Assemblies

See literature no. AD/7.3

### Most popular accessories

- Motor Extension Cables (pg 107)
  - #254 232 010 10 ft. (3 m)
  - #254 232 025 25 ft. (7.6 m)
  - #254 232 065 65 ft. (19.8 m)
- Single-Wire Straightener #199 733 (pg 107)
- Twin-Wire Straighteners (for Twin-Wire torches only) (pg 107)
  - #301 160 Single adjustment
  - #301 162 Double/separate adjustment
- Drive Rolls (pg 107)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.



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 wire drive assembly designed for automated strip clad applications.

**SubArc Strip 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 and each includes an adapter plate for three different bolt-hole patterns.

\*Includes adapter plate allowing mounting to 2.5-, 4.25-, and 4.625-inch bolt-hole patterns.

Model	Stock Number	Wire Feed Speed Range	Wire Diameter Range	Rating	Type of Input Power	Input Power Cord	Net Weight
<b>SubArc Strip Drive 100 Digital Low Voltage</b>	(#300 939) Wire drive only (#300 940)* With mounting bracket	10–69 IPM (0.3–1.6 m/min.)	N/A (strip cladding applications)	1/5 HP, 21 RPM	38 VDC	4 ft. (1.2 m)	20 lb. (9.1 kg)
<b>SubArc Wire Drive 400 Digital Low Voltage</b>	(#300 938)* Standard speed (#300 938 001) Standard speed, for use with tractor	30–400 IPM (0.8–10.2 m/min.)	3/32–7/32 in. (2.4–5.6 mm)	1/5 HP, 85 RPM	38 VDC	4 ft. (1.2 m)	33 lb. (15 kg)
<b>SubArc Wire Drive 780 Digital Low Voltage</b>	(#300 941)* High speed	50–780 IPM (1.3–19.8 m/min.)	1/16–1/8 in. (1.6–3.2 mm)	1/4 HP, 143 RPM	38 VDC	4 ft. (1.2 m)	33 lb. (15 kg)

## SubArc Torches

See literature no. AD/7.3

### Most popular accessories

- OBT 600 Torch Body Extensions (pg 107)
  - #043 967 1 inch (25.4 mm)
  - #043 969 2 inch (50.8 mm)
  - #043 973 4 inch (101.6 mm)
  - #043 975 6 inch (152.4 mm)
- OBT 1200 Torch Body Extension #043 981 (pg 107)
- Contact Tips (pg 107)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.



OBT 600

OBT 1200

1200-Amp Twin-Wire

**OBT 600 (#043 923)** is a 600-amp, 100 percent duty cycle torch with concentric flux flow nozzle. Can be used with 1/16–7/32 inch (1.6–5.6 mm) wire.

**OBT 1200 (#043 900)** is a 1200-amp, 100 percent duty cycle torch with concentric flux flow nozzle. Can be used with 1/16–7/32 inch (1.6–5.6 mm) wire. OBT 1200 features a replaceable breakaway adapter end to prevent costly damage should torch run into an obstruction.

**NEW!** **1200-Amp Single-Wire Torch (#301 141 short)**  
**1200-Amp Twin-Wire Torch (#301 143 short, #301 144 long)**

Both of the short torches are 11.3 inches (288 mm) in length and the long torch is 16.8 inches (427 mm). The single-wire torch uses 1/16–5/32 inch (1.6–4.0 mm) consumables and the twin-wire torches use 3/64–3/32 inch (1.2–2.4 mm) consumables.

**Miller recommends**



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**Questions? Hobart is here to help.**



# Plasma Cutters



For more detailed information, visit [MillerWelds.com/plasmacutters](http://MillerWelds.com/plasmacutters)



## Plasma Product Guide

	Page	Class	Gouging	Piercing	Rated Output/ Duty Cycle	Rated Cutting Thickness*			Max. Sever Thickness Mild Steel	Special Features	Typical Applications
						Mild Steel	Stainless Steel	Aluminum			
1-Phase	Spectrum® 375 X-TREME™	78	●	●	30 A at 35%	3/8 in.	3/8 in.	1/4 in.	5/8 in.	Auto-Line™: 115-230 V, MVP™ plugs, Auto-Refire™, automatic air regulation, only 19 lb., XT30 torch	HVAC, maintenance, light construction, hobbyist, auto restoration, fabrication
	Spectrum® 625 X-TREME™	78	●	●	40 A at 50%	5/8 in.	1/2 in.	3/8 in.	7/8 in.	Auto-Line™: 115-230 V, MVP™ adapters, Auto-Refire™, automatic air regulation, only 21 lb., XT40 or XT40M torch	Maintenance, light construction, body shops, prototyping
	Spectrum® 875	78	●	●	60 A at 50%	7/8 in.	7/8 in.	5/8 in.	1-1/4 in.	Auto-Refire™, automatic air regulation, only 49 lb., XT60 or XT60M torch	Construction, maintenance/repair, fabrication
1 & 3-Ph	Spectrum® 875 Auto-Line™	78	●	●	208: 60 A at 40% 230-380 V: 60 A at 50% 380-575 V: 60 A at 60%	7/8 in.	7/8 in.	5/8 in.	1-1/4 in.	Auto-Line™: 208-575 V, Auto-Refire™, automatic air regulation, only 54 lb., XT60 or XT60M torch	Construction, maintenance/repair, fabrication

Cutting w/Engine Drives	Engine-Driven Welders	Generator Power	Spectrum 375 X-TREME		Spectrum 625 X-TREME		Spectrum 875 / 875 Auto-Line	
			Steel Cut	Output Amp Setting**	Steel Cut	Output Amp Setting**	Steel Cut	Output Amp Setting**
	Big Blue® 400 and 500	5.5 kW	3/8 in.	30 A	Not recommended	Not recommended	Not recommended	Not recommended
	Blue Star® 185	6.5 kW	3/8 in.	30 A	Not recommended	Not recommended	Not recommended	Not recommended
	Big Blue® 400 Pro	10 kW	3/8 in.	30 A	5/8 in.	40 A	Not recommended	Not recommended
	Bobcat™ and Trailblazer®	11/12 kW	3/8 in.	30 A	5/8 in.	40 A	1/2 in.	45 A
	Big Blue® 350 PipePro®, 450 Duo CST™ and 500 Pro	12 kW	3/8 in.	30 A	5/8 in.	40 A	5/8 in.	50 A
	Big Blue® 800 Duo Pro and 800 Duo Air Pak™	15 kW	3/8 in.	30 A	5/8 in.	40 A	7/8 in.	50 A
	Big Blue® 700 Duo Pro	24.5 kW	3/8 in.	30 A	5/8 in.	40 A	7/8 in.	60 A

**\*Note on cut capacity ratings:** The Spectrum Series rating system is designed to provide a guide to help our customers choose the right machine for their application. Rated cut capacity is based on traveling approximately 15 inches per minute to achieve a steady, precise cut. This is the key rating that should meet or exceed your typical cutting thickness requirements. Sever cut is the maximum cut achieved in ideal conditions. Some factors that dictate actual cut speeds, thickness capacity and duty cycles are: types of thermally conductive material being cut, available input power, output power settings and operator technique. For aluminum and other metals with high thermal conductivity, cutting capacities may be derated as much as 30 percent.

**PRODUCT KEY** CLASS: ● Light Industrial ● Industrial ● Heavy Industrial CAPABILITY: ● Designed for this process ● Capable of this process  
 \*See note on cut capacity ratings above. \*\*240 V, full KVA plug. Derate cut capacity with less generator power.  
 For more detailed information, see individual specification sheets.



## Spectrum® Automation-Ready Machines

See literature no. PC/9.6 (625 XT) or PC/9.8 (875 models)



Spectrum 625 X-TREME™ machine torch package (#907 579 002) shown.



Spectrum 875 Auto-Line™ machine torch package (#907 584 002) shown. Spectrum 875 machine torch package also available (without remote pendant control).



**Machine torch capable.** 625 X-TREME and both 875 models can be ordered with a machine torch (see page 78) or can be converted to use a machine torch with optional automation kits (at right).

**Long and short body machine torches.** XT40M (625 X-TREME) and XT60M (875 models) machine torches (see page 106) are available in long or short body configurations. XT60M is also available in 25- or 50-foot cable lengths.

*Note: Machine torch packages above are shown with long body torches.*

### Automation Kits

Converts hand-held torch packages to add machine torch capabilities. Machine torches are NOT included in automation kits and must be ordered separately (see page 106).



- **Spectrum 625 X-TREME Automation Kit #301 158** (pg 106)

*Note: Requires a Spectrum 625 X-TREME with Ultra-Quick Connect™ feature for unit to be converted for use with long or short body machine torches.*



- **Spectrum 875 Automation Kit #301 156** (pg 106)



- **Spectrum 875 Auto-Line Automation Kit #301 157** (pg 106)  
Includes remote pendant control for manual on/off.

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# Plasma Cutters

## Spectrum® Series Plasma Cutters

Our Spectrum line of plasma cutters provides big cutting power in portable packages and with features like more flexible cables and Auto-Refire technology they are better than ever. Step up to Spectrum 625 and 875 models to add Ultra-Quick Connect hand-held torches and machine torch capabilities.



Spectrum 375 X-TREME

Spectrum 625 X-TREME

Spectrum 875

Spectrum 875 Auto-Line

### Spectrum Features

Feature	375 XT	625 XT	875	875 AL
Auto-Line™ (120-240 V)	●	●		
Auto-Line™ (208-575 V)				●
MVP™ Plugs/Adapters	●	●		
Ultra-Quick Connect™		●	●	●
Torch w/Flexible Cable	●	●	●	●
Quick Connect Flexible Work Cable w/Clamp	●	●	●	●
Built-in Gas/Air Filter and Regulator	●	●	●	●
Auto-Refire™	●	●	●	●
Auto Postflow	●	●	●	●
Auto Air Regulation	●	●	●	●
X-CASE™	●	●	●	●
Machine Torch Capable		●	●	●

### Steel/Stainless/Aluminum Rated Cutting Capacity

	375 XT	625 XT	875/875 AL
Steel/Stainless	3/8 in. (9.5 mm)	5/8 in. (15.9 mm)*	7/8 in. (22.2 mm)
Aluminum	1/4 in. (6.4 mm)	3/8 in. (9.5 mm)	5/8 in. (15.9 mm)
Spectrum	375 XT	625 XT	875/875 AL

\*Stainless: 1/2 in. (12.7 mm) for Spectrum 625 X-TREME.

Cut capacity ratings are based on traveling speed of approximately 15 inches per minute to achieve a precise cut. This is the key rating that should meet or exceed your typical cutting thickness requirements. Factors that can affect actual cut speeds, thickness capacity and duty cycles are: types of thermally conductive material being cut, available input power, output power settings and operator technique. For highly thermal conductive metals such as aluminum, cutting capacities may be reduced up to 30 percent compared to mild steel.

**Power Factor Correction (PFC).** Uses less energy by utilizing input power more efficiently and increases productivity by reducing nuisance circuit breaker trips.

**LED indicators for easy troubleshooting.**

**Non-high-frequency arc starting** does not interfere with or damage controls or computers.

**Postflow cooling circuitry** extends life of the consumable and torch by cooling them with postflow air after trigger is released.

**Auto-Refire™** provides ultimate convenience by automatically controlling the pilot arc when cutting expanded metal or multiple pieces of metal.

**Built-in gas/air filter and regulator.** Provides air filtration of airborne particles five microns and larger. Additional filtration and water separation recommended.

**LVC™ line voltage compensation** provides peak performance power under variable input voltage conditions for clean, steady cuts.

**Wind Tunnel Technology™** prevents abrasive dust and particles from damaging internal components.

**Fan-On-Demand™** cooling system only operates when needed, reducing the amount of airborne dust/dirt pulled through the unit.

**Quick connect flexible work cable with heavy-duty clamp.**

### Spectrum® 625 and 875/875 Auto-Line hand-held and machine torches



**Ultra-Quick Connect™ hand-held torches with flexible cables.**

XT40 (625 X-TREME™) and XT60 (875 models) hand-held torches feature quick torch connection,

ergonomic handles to help prevent operator fatigue and flexible cables that make maneuvering easier.



**Machine torch capable.**

625 X-TREME™ and both 875 models can be ordered with a machine torch or can be converted to use a machine torch with optional Automation Kits (page 106).

**Long and short body machine torches.** XT40M (625 X-TREME™) and XT60M (875 models) machine torches are available in long or short body configurations. XT60M is also available in 25- or 50-foot cable lengths.

### Models/Packages



Spectrum 375 X-TREME hand-held torch package (#907 529) shown.



Spectrum 875 Auto-Line machine torch package (#907 584 002) shown.

Model	Hand-Held Torch Packages			Machine Torch Packages			
	12 ft. (3.7 m)	20 ft. (6.1 m)	50 ft. (15.2 m)	25 ft. (7.6 m)		50 ft. (15.2 m)	
				Long Body	Short Body	Long Body	Short Body
Spectrum 375 XT	(#907 529)	–	–	–	–	–	–
Spectrum 625 XT	(#907 579)	(#907 579 001)	–	(#907 579 002)	(#907 579 003)	–	–
Spectrum 875	–	(#907 583)	(#907 583 001)	(#907 583 002)	(#907 583 003)	–	–
Spectrum 875 AL	–	(#907 584)	(#907 584 001)	(#907 584 002)	(#907 584 003)	(#907 584 004)	(#907 584 005)



## Spectrum® 375 X-TREME™/625 X-TREME™ See literature no. PC/9.2 (375 XT) and PC/9.6 (625 XT)



Allows for any input voltage hook-up (120–240 V, single-phase, 50/60 Hz for 375 XT and 60 Hz for 625 XT) with no manual linking, providing convenience in any job setting.

**X-CASE™** provides the ultimate protection during transport and storage. Additional space is ideal for MVP plugs, consumables box, gloves, etc.

**Multi-voltage plug (MVP™) on 375 XT or MVP™ adapter on 625 XT** allows connection to 120- or 240-volt receptacles without tools.

**Automatic air regulation** compensates for input pressure variation to provide constant recommended torch pressure for optimum cutting performance.

**Automatic gouging consumable detection (625 XT only).** Detects gouging consumable and adjusts gas pressure to optimize performance, eliminating the need for a manual regulator.



Spectrum 625 X-TREME shown.

**375 XT model includes XT30 hand-held torch** with ergonomic design and flexible cable.

**625 XT model includes Ultra-Quick Connect™ XT40 hand-held torch** with ergonomic design and flexible cable; or **XT40M long body or short body machine torch.**

## Spectrum® 875/875 Auto-Line™ See literature no. PC/9.8



**Spectrum 875 Auto-Line model** allows for any input voltage hook-up (208–575 V, single- or three-phase) with no manual linking, providing convenience in any job setting. *Standard Spectrum 875 model operates on 208/230 V, single-phase input voltage only.*

**Consumables storage compartment** provides convenient access to consumables and parts.

**Automatic air regulation** compensates for input pressure variation to provide constant recommended torch pressure for optimum cutting performance.



Spectrum 875 shown.

**Includes Ultra-Quick Connect™ XT60 hand-held torch** with ergonomic design and flexible cable; or **XT60M long body or short body machine torch.**

**Light industrial** ● 375 XT/625 XT  
**Industrial** ● 875/875 Auto-Line

**DC 3 1** Only 875 Auto-Line has 3-Phase capabilities.

### Processes

- Air Plasma Cutting
- Air Plasma Gouging (625/875 models)

### 375 X-TREME

#### comes complete with

- XT30 hand-held torch with 12-ft. (3.7 m) cable
- Heavy-duty work clamp with 12-ft. (3.7 m) flexible cable
- 10-ft. (3 m) power cord with MVP 5-15P (120 VAC, 15 A) and 6-50P (240 V, 50 A) plugs
- X-CASE for protection and storage
- Shoulder strap
- Consumables box with two electrodes, two tips, deflector and air fitting

### 625 X-TREME

#### comes complete with

- XT40 hand-held torch with 12-ft. (3.7 m) or 20-ft. (6.1 m) cable; **OR** XT40M long body or short body machine torch with 25-ft. (7.6 m) cable
- Heavy-duty work clamp and flexible cable with quick connect
- 12-ft. (3.7 m) power cord with 240 V, L6-30P twist lock plug
- MVP adapters with 5-15P (120 VAC, 15 A) and 6-50P (240 V, 50 A) plugs
- X-CASE for protection and storage
- Shoulder strap
- Consumables box with two electrodes, two 40 A tips and one 30 A tip, 30 A drag shield, deflector and air fitting
- Machine torch packages include corresponding automation kit

### 875 and 875 Auto-Line

#### come complete with

- XT60 hand-held torch with 20-ft. (6 m) or 50-ft. (15.2 m) cable; **OR** XT60M long body or short body machine torch with 25-ft. (7.6 m) or 50-ft. (15.2 m) cable
- Heavy-duty work clamp and flexible cable with quick connect
- 10-ft. (3 m) power cord
- Extra consumables
- Machine torch packages include corresponding automation kit

### Most popular accessories

- Automation Kits (pg 106)
- Cables and Cable Covers (pg 106)
- Cart (pg 106)
- Cutting Guides (pg 106)
- Filters (pg 106)
- Plugs and Cords (pg 106)
- Protective Covers/Cases (pg 106)
- Torches (pg 106)
- Torch Consumables (pg 106)

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

Model	Input Power	Rated Output at 104° F (40° C)	Amps Input at Rated Output	KVA	KW	Compressor Requirement	Dimensions	Net Weight with Torch
Spectrum 375 X-TREME 120–240 VAC, 50/60 Hz	Single-phase	120 V (15 A): 20 A at 88 VDC, 35% duty cycle	18.1	2.2	2.1	5.0 CFM (142 L/min.) at 90 PSI (621 kPa)	H: 9 in. (229 mm) W: 5.5 in. (140 mm) D: 13.25 in. (337 mm)	19 lb. (8.6 kg)
		120 V (20 A): 27 A at 91 VDC, 20% duty cycle	25.6	3.1	3.0			
		240 V: 40 A at 140 VDC, 50% duty cycle	13.6	3.3	3.1			
Spectrum 625 X-TREME 120–240 VAC, 60 Hz	Single-phase	120 V (15 A): 20 A at 88 VDC, 35% duty cycle	18.1	2.2	2.1	6.0 CFM (170 L/min.) at 90 PSI (621 kPa)	H: 9 in. (229 mm) W: 5.5 in. (140 mm) D: 13.25 in. (337 mm)	12 ft. 21 lb. (9.5 kg) 20 ft. 23 lb. (10.5 kg) 25 ft. 24 lb. (10.7 kg)
		120 V (20 A): 27 A at 91 VDC, 20% duty cycle	25.6	3.0	2.9			
		240 V: 40 A at 140 VDC, 50% duty cycle	13.6	6.4	6.3			
Spectrum 875 208/230 VAC, 50/60 Hz	Single-phase	208 V: 60 A at 140 VDC, 40% duty cycle	208 V: 47	9.9	9.8	6.75 CFM (191 L/min.) at 90 PSI (621 kPa)	H: 13.5 in. (343 mm) W: 8.75 in. (222 mm) D: 18.5 in. (470 mm)	20 ft. 49 lb. (22.2 kg) 50 ft. 58 lb. (26.3 kg)
		230 V: 60 A at 140 VDC, 50% duty cycle	230 V: 42					
Spectrum 875 Auto-Line 208–575 VAC, 50/60 Hz	Three-phase	208 V: 60 A at 140 VDC, 40% duty cycle	208 V: 27.5	9.9	9.4			20 ft. 54 lb. (24.5 kg) 25 ft. 56 lb. (25.4 kg) 50 ft. 63 lb. (28.6 kg)
		230–380 V: 60 A at 140 VDC, 50% duty cycle	230 V: 25					
		380–575 V: 60 A at 140 VDC, 60% duty cycle	380 V: 15					
Spectrum 875 Auto-Line 208–575 VAC, 50/60 Hz	Single-phase	460 V: 12.4	575 V: 9.8	9.9	9.7			
		208 V: 60 A at 140 VDC, 40% duty cycle	208 V: 47.4					
Spectrum 875 Auto-Line 208–575 VAC, 50/60 Hz	Single-phase	230 V: 60 A at 140 VDC, 50% duty cycle	230 V: 42.2	9.9	9.7			
		230 V: 50 A at 140 VDC, 100% duty cycle	230 V: 42.2					



# Gas Equipment



For more detailed information, visit

[MillerWelds.com/gasequipment](http://MillerWelds.com/gasequipment)



## **NEW!** Proportional Gas Mixers

Our line of proportional gas mixers can help your operation save money, work more efficiently and produce better-quality welds by providing proper shielding gas mixtures for frequently used welding processes.



Argon/CO<sub>2</sub> gas mixer 299-006-1C shown.

**Accurate, on-site shield gas mixing.** Various welding processes require different gas mixes for the best results. Our proportional gas mixers are accurate and allow custom mixtures for optimal welds.

**No stocking or handling of premixed gases** saves time, money and reduces the number of cylinders that need to be stored.

**Reduces setup time.** No need to change cylinders, regulators, flow control devices or hoses when switching from one range of mixed gas to another.

**Ideal for education and training.** Operators can quickly see the effect of various gas mixtures on weld appearance, quality and penetration.

**Easy operation.** Simply set the dials for the desired mix and flow. Mixers are mechanical, no electricity is required.

**Serves from one to five welding stations with a single mixer.** Delivers accurate mixtures at flows ranging from 10 to 180 SCFH.

**Covered by a one-year warranty.**

Stock Number	Gases	Adjustment % Range	Flow Range	Outlet Pressure	Required Inlet Pressure	Outlet Connection	Inlet Connection	Conversion Tables
299-006-1C	Argon	0-100%	10-180 SCFH	50 PSIG (3.5 bar)	105-115 PSIG (7.3-7.9 bar)	5/8"-18 RH internal	5/8"-18 RH internal	Argon/helium Argon/oxygen CO <sub>2</sub> /oxygen
	CO <sub>2</sub>	100-0%					5/8"-18 RH internal	
299-006-3C	Argon	0-100%	10-180 SCFH	50 PSIG (3.5 bar)	105-115 PSIG (7.3-7.9 bar)	5/8"-18 RH internal	5/8"-18 RH internal	Argon/CO <sub>2</sub> Argon/oxygen CO <sub>2</sub> /oxygen
	Helium	100-0%					5/8"-18 RH internal	
299-011-1C	Argon	50-100%	10-180 SCFH	50 PSIG (3.5 bar)	105-115 PSIG (7.3-7.9 bar)	5/8"-18 RH internal	5/8"-18 RH internal	Argon/helium Nitrogen/hydrogen Argon/oxygen Argon/CO <sub>2</sub>
	Hydrogen	50-0%					9/16"-18 LH external	
299-014-1C	Argon	80-100%	10-180 SCFH	50 PSIG (3.5 bar)	105-115 PSIG (7.3-7.9 bar)	5/8"-18 RH internal	5/8"-18 RH internal	Argon/CO <sub>2</sub> Argon/hydrogen Argon/helium Nitrogen/hydrogen
	Oxygen	20-0%					5/8"-18 RH internal	



## Regulators



Series 40

Series 30

### Heavy-duty and medium-duty single-stage pressure regulators

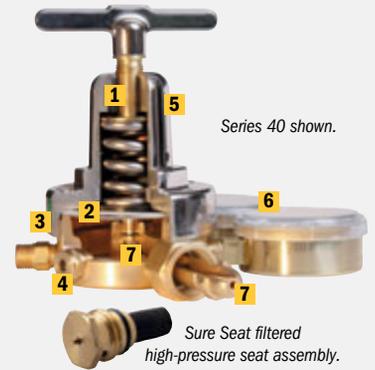
Our Series 40™ and Series 30™ industrial-grade pressure regulators provide accurate pressure readings for welding, cutting, heating and other applications. Extremely durable construction and simplified design provide consistent gas flow and longer trouble-free operation. Covered by a three-year warranty. See page 83 for optional Hard Hat™ regulator guards designed to help prevent broken gauges.

#### Also available

#### Series 30 Single-Stage Regulator Twin Packs



Stock Number	Gas	Regulator	Max. Delivery Pressure or Flow	Inlet Connection
HTP2	Oxygen	30-100-540	100 PSIG (7 Bar)	CGA 540
	LP Acetylene	30-15-510	15 PSIG (1 Bar)	CGA 510
HTP5	Oxygen	30-100-540	100 PSIG (7 Bar)	CGA 540
	Acetylene	30-15-300	15 PSIG (1 Bar)	CGA 300



Series 40 shown.

Sure Seat filtered high-pressure seat assembly.

- 1 Resin bonnet insert (Series 40/46 only)**  
Allows smooth, easy adjustment even at high-pressure levels.
- 2 Stainless steel diaphragm**  
Resists corrosion, leaking and freeze-up if used with liquid (cryogenic) gases for extended service life.  
*Note: Series 30/36 has neoprene composite diaphragm.*
- 3 Color-coded labels**  
Supplies performance capabilities, easy gas service identification and technical information.
- 4 External relief valve**  
Protects regulator from damage due to inadvertent high-pressure surge. Relief valve will release excessive pressure and automatically reset.
- 5 Nickel-plated bonnet**  
Along with brass body protects regulator against corrosion.
- 6 Gauges and lenses**  
2.5-inch corrosion-resistant polished brass gauges with shatter-resistant polycarbonate lenses.  
*Note: Series 30/36 has 2-inch painted steel gauges.*
- 7 Sure Seat™ dual-filtered seat assembly**  
Protects high-pressure seat from debris for reliable operation and long service life.



Series 46

Series 36

### Heavy-duty and medium-duty single-stage station regulators

Our Series 46™ and Series 36™ brass line regulators are rugged, accurate and corrosion-resistant. Station regulators are used to connect pipeline gas delivery systems to the welding stations. Because the pipeline pressure is regulated upstream, station regulators only require a single delivery pressure gauge. Covered by a three-year warranty.

\*In the chart below, oxygen "C" size inlet connection CGA 024 (7/8"-14 RH) fits station valve NCG No. M960R, Rego. No. 7160. Fuel gases "C" size inlet connection CGA 025 (7/8"-14 LH) fits station valve NCG No. M961R, Rego. No. 7161.  
*Note: Body inlet is 1/4-inch (6 mm) NPT.*



### Two-stage regulators

Series 30 two-stage regulators drop cylinder pressure to working pressure in two stages for consistent and accurate outlet pressure and flow regardless of inlet pressure. Recommended where outlet pressure and flow must be maintained without variation. Covered by a three-year warranty.

Model	Stock Number	Gas	Max. Delivery Pressure	Max. Inlet Pressure	Outlet Connection	Inlet Connection
Heavy-Duty Series 40 Single-Stage Pressure Regulators	40-175-540	Oxygen	175 PSIG (12 bar)	3000 PSIG (207 bar)	9/16"-18 RH	CGA 540
	40-275-540	Oxygen	275 PSIG (19 bar)	3000 PSIG (207 bar)	9/16"-18 RH	CGA 540
	40-15-510	Acetylene	15 PSIG (1 bar)	400 PSIG (28 bar)	9/16"-18 LH	CGA 510
	40-15-300	Acetylene	15 PSIG (1 bar)	400 PSIG (28 bar)	9/16"-18 LH	CGA 300
	40-50-510	LP gas	50 PSIG (3 bar)	400 PSIG (28 bar)	9/16"-18 LH	CGA 510
	40-275-580	Inert gas	275 PSIG (19 bar)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 580
Medium-Duty Series 30 Single-Stage Pressure Regulators	30-100-540	Oxygen	100 PSIG (7 bar)	3000 PSIG (207 bar)	9/16"-18 RH	CGA 540
	30-20-540	Oxygen	20 PSIG (1.4 bar)	3000 PSIG (207 bar)	9/16"-18 RH	CGA 540
	30-15-510	Acetylene	15 PSIG (1 bar)	400 PSIG (28 bar)	9/16"-18 LH	CGA 510
	30-15-300	Acetylene	15 PSIG (1 bar)	400 PSIG (28 bar)	9/16"-18 LH	CGA 300
	30-15-520	Acetylene	15 PSIG (1 bar)	400 PSIG (28 bar)	9/16"-18 LH	CGA 520
	30-15-200	Acetylene	15 PSIG (1 bar)	400 PSIG (28 bar)	9/16"-18 LH	CGA 200
	30-50-510	LP gas	50 PSIG (3 bar)	400 PSIG (28 bar)	9/16"-18 LH	CGA 510
Heavy-Duty Series 46 Station Regulators	46-175	Oxygen	175 PSIG (12 bar)	200 PSIG (14 bar)	9/16"-18 RH "B"	CGA 024*
	46-15	Acetylene	15 PSIG (1 bar)	100 PSIG (7 bar)	9/16"-18 LH "B"	CGA 025*
	46-50	LP gas	50 PSIG (3 bar)	100 PSIG (7 bar)	9/16"-18 LH "B"	CGA 025*
Medium-Duty Series 36 Station Regulators	36-150	Oxygen	175 PSIG (12 bar)	500 PSIG (35 bar)	9/16"-18 RH "B"	CGA 024*
	36-15	Acetylene	15 PSIG (1 bar)	200 PSIG (14 bar)	9/16"-18 LH "B"	CGA 025*
	36-50	LP gas	50 PSIG (3 bar)	500 PSIG (35 bar)	9/16"-18 LH "B"	CGA 025*
Series 30 Two-Stage Regulators	35-125-540	Oxygen	125 PSIG (9 bar)	3000 PSIG (207 bar)	9/16"-18 RH "B"	CGA 540
	35-15-510	Acetylene	15 PSIG (1 bar)	400 PSIG (28 bar)	9/16"-18 LH "B"	CGA 510
	35-50-580	Inert gas	50 PSIG (3 bar)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 580



## Regulators



### Premium flowmeter regulators and flowmeters

Our Series 30™ premium flowmeter regulators and flowmeters feature an exclusive self-centering ball guide which provides accurate readings even if tipped. This ensures optimum weld quality and gas savings. Others use a non-self-centering flow tube ball that tends to float off center causing actual gas flow to be up to two times greater than indicated. Covered by a three-year warranty.



### Economy flowmeter regulators and flowmeters

Our economy flowmeter regulators and flowmeters combine exceptional value and a compact design with precise shielding gas regulation for MIG and TIG welding applications and more. Covered by a three-year warranty.



### Single-stage flow gauge regulators

Series 30™ single-stage flow gauge regulators are compact and feature a forged brass body and a self-resetting pressure relief valve. They include a Sure Seat™ protective inlet filter and a durable neoprene-composite diaphragm. Covered by a three-year warranty.



### Premium model features

- 1 Protective housing**  
Protects flow tubes from damage while offering unobstructed view of flow reading.
- 2 Extra-long flow tube**  
Expanded scales are easy to read and accurate within five percent of full reading. Can be attached to regulators or pipeline installations.
- 3 Shatter-resistant multi-scale flow tube**  
Made of shatter-resistant polycarbonate resin and features multiple scales. **Selec-O-Gas™ model** provides four separate, easy-to-read scales for CO<sub>2</sub>, argon, argon/CO<sub>2</sub> mix, helium and a general scale for other non-corrosive gases. Rotate outer tube to desired scale.
- 4 Auto-reset pressure-relief valve**  
Protects regulator from damage due to high-pressure surge. Relief valve will release excessive pressure and automatically reset.
- 5 Sure Seat™ dual-filtered seat assembly**  
Protects high-pressure seat from debris for reliable operation and long service life.

### Economy model features

- 6 Built-in rupture disc**  
Reduces possibility of flow tube damage due to high-pressure surge. Must be replaced if ruptured – not auto-resetting.
- 7 Shatter-resistant triple-scale flow tube**  
Made of shatter-resistant polycarbonate resin and can be rotated to position desired scale for easy reading. Scaled for CO<sub>2</sub>, argon and argon/CO<sub>2</sub> mix, and helium.
- 8 Precision flow-adjustment valve**  
Allows easy adjustment to desired setting.

Model	Stock Number	Gas	Flow Range	Max. Inlet Pressure	Outlet Connection	Inlet Connection
Series 30 Premium Flowmeter Regulators	<b>32-80-580</b> Single-stage	Argon/CO <sub>2</sub>	10-80 SCFH (5-38 LPM)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 580
	<b>32-80-320</b> Single-stage	CO <sub>2</sub> /Argon	10-80 SCFH (5-38 LPM)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 320
	<b>32-30-580</b> Single-stage	Argon/CO <sub>2</sub>	10-60 SCFH (5-28 LPM)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 580
	<b>32-30-580-6</b> Single-stage w/gas hose	Helium	20-190 SCFH (10-90 LPM)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 580
	<b>35-30-320</b> Two-stage high-flow CO <sub>2</sub>	CO <sub>2</sub>	10-80 SCFH (5-38 LPM)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 320
Premium Flowmeters	<b>H1105</b> Argon, CO <sub>2</sub>	Argon, CO <sub>2</sub>	10-80 SCFH (5-38 LPM)	80 PSIG (6 bar) recommended	5/8"-18 RH internal	1/4" NPT male
	<b>H1240</b> Multi-scale (Selec-O-Gas™)	Argon, Helium, CO <sub>2</sub>	Depends on gas	30 PSIG (2 bar) recommended		
		General Gas	Depends on gas	30 PSIG (2 bar) recommended		
H2051 Series Economy Flowmeter Regulators	<b>H2051B-580</b> Single-stage	Argon	0-60 SCFH (0-28 LPM)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 580
	<b>H2051B-580H</b> Single-stage w/gas hose	CO <sub>2</sub>	0-50 SCFH (0-24 LPM)	3000 PSIG (207 bar)		
	<b>33A-50-580</b> Single-stage dual flowmeter regulator	Helium	0-160 SCFH (0-78 LPM)	3000 PSIG (207 bar)		
Economy Flowmeters	<b>H2230A</b> Multi-scale	Argon, Helium, CO <sub>2</sub>	Depends on gas	50 PSIG (3 bar) recommended	5/8"-18 RH internal	1/4" NPT male
	<b>H2231A</b> Multi-scale				5/8"-18 RH external	
Series 30 Flow Gauge Regulators	<b>31-50-580</b> Single-stage	Argon	0-50 SCFH (0-24 LPM)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 580
	<b>31-50-580-6</b> Single-stage w/gas hose					
	<b>31-50-320</b> Single-stage	CO <sub>2</sub>	0-50 SCFH (0-24 LPM)	3000 PSIG (207 bar)	5/8"-18 RH internal	CGA 320



## Regulators



### HVAC/refrigeration purge/leak test regulator

Our single-stage nitrogen regulator is specially designed to meet the specifications of HVAC refrigerant purging applications. This regulator is used with nitrogen to test HVAC systems to locate leaks and to purge an area for installation and repair. It is economical, accurate and its compact size is useful where space is limited. Covered by a one-year warranty.

- 2-inch (51 mm) gauges with shatter-resistant lenses and solid brass body for durability
- Large durable nylon knob for easy pressure adjustment

Stock Number	Gas	Max. Delivery Pressure	Max. Inlet Pressure	Outlet Connection	Inlet Connection
30-450-580	Nitrogen	450 PSIG (31 bar)	3000 PSIG (207 bar)	7/16"-20 external flair fitting	CGA 580



### Heavy-duty high-pressure regulator

820 Series regulators are for use on cylinders with a wide variety of non-corrosive inert gases. Typical applications include high-pressure testing, purging/charging, calibration kits, airline charging carts, chemical plants, manufacturing processes, research/development and laboratories. Covered by a two-year warranty.

- Piston-sensor design gives structural reliability in high-pressure use
- Low-torque-control adjusting screw for easy pressure adjustments in closed/dead end systems
- Due to specific configurations, we cannot accept returns of 820 Series regulators

Model Series	Max. Delivery Pressure	Max. Inlet Pressure	Model Configuration		
			Option 1	Option 2	Option 3
823	500 PSIG	6000 PSIG	Outlet pressure 823 0-500 PSIG	Outlet connection 00 1/4" FNPT	Inlet connection (additional inlet connections available)/Max. inlet pressure 00 1/4" FNPT
824	1000 PSIG		824 0-1000 PSIG	825 0-2000 PSIG	08 CGA 540 (oxygen) 3000 PSIG
825	2000 PSIG		825 0-2000 PSIG	826 0-4000 PSIG	09 CGA 580 (inert) 3000 PSIG
826	4000 PSIG		826 0-4000 PSIG	827 0-6000 PSIG	26 CGA 347 stainless steel 5500 PSIG
827	6000 PSIG		827 0-6000 PSIG		27 CGA 677 stainless steel 7500 PSIG
					28 CGA 680 stainless steel 5500 PSIG



### Rear-entry liquid cylinder regulator

250 Series regulators are ideal for non-corrosive high-purity applications and have a rear-entry connection that provides clearance of the liquid cylinder ring for easier gauge reading. Covered by a two-year warranty.

- Easy-to-read single-scale 2.5-inch (64 mm) gauge with shatter-resistant lens
- Nickel-plated brass body for corrosion resistance
- Large 1-7/8-inch stainless steel diaphragm for precise control of pressure
- Large durable nylon knob for easy pressure adjustment
- Due to specific configurations, we cannot accept returns of 250 Series regulators

Note: Use Series 40™ heavy-duty regulators constructed with a stainless steel diaphragm for high-volume or liquid (cryogenic) cylinder applications.

Model Series	Max. Delivery Pressure	Max. Inlet Pressure	Model Configuration		
			Option 1	Option 2	Option 3
252	100 PSIG	3500 PSIG	Outlet pressure 252 0-100 PSIG	Outlet connection 00 1/4" FNPT	Inlet connection 00 1/4" FNPT
254	200 PSIG		254 0-200 PSIG	20 Chrome needle valve with 1/4" NPT	02 CGA 320
255	350 PSIG		255 0-350 PSIG	82 9/16"-18 RH "B"	08 CGA 540
256	500 PSIG		256 0-500 PSIG		09 CGA 580



### Three-stage nitrogen low-pressure regulator

These preset regulators are specially designed to deliver a highly accurate and consistent 0.50 PSIG supply of nitrogen to the head space of oil-filled power transformers. Available with or without electronic pressure switch. Covered by a one-year warranty.

- Built-in self-relieving valve set at 8 PSIG protects the system from over-pressurization due to temperature variation
- Rapid-fill bypass pressure valve allows rapid filling of the transformer with 6 PSIG of pressure

Note: Operation temperature: -40° to +180° Fahrenheit. Operation voltage (model 16347-3): 5 amps at 12/24 volts DC or 125 volts AC. 3 amps at 250 volts. Pressure switch setting: Adjustable from 70-300 PSIG (ships preset at 250 PSIG), 3/32-inch Allen head screw switch. Switch wiring: Normally open or normally closed (DPDT), three 18-inch flying leads.

Stock Number	Preset Outlet Pressure			Bypass Rapid Fill/Purge	Max. Inlet Pressure	Outlet Connection	Inlet Connection
	1st Stage	2nd Stage	3rd Stage (delivery pressure)				
16391 without pressure switch	150 PSIG (10 bar)	8 PSIG (0.6 bar)	0.4-0.6 PSIG (0.03-0.04 bar) into outlet	6 PSIG (0.4 bar)	3000 PSIG (207 bar)	1/2" FNPT	CGA 580
16347-3 with pressure switch	into 2nd stage	into 3rd stage					

## Most popular accessories



- **Hard Hat™ Regulator Guards**  
HB190 For Series 40  
H195 For Series 30



- **Reverse-Flow Check Valve Set (oxy and fuel)**  
H697 Torch mount  
H698 Regulator mount



- **Flashback Arrestor Set (oxy and fuel)**  
H743 Torch mount  
H753 Regulator mount



- **GASAVER™**  
WDW100 Propylene/oxygen  
WDW101 Acetylene/oxygen  
WDW104 Propane or natural gas/oxygen (4 psi and above)  
- For repetitious brazing and soldering  
- Hang torch to shut off  
- Pilot light for relighting  
- Eliminates flame readjustment



- **Fixed-Flow Adaptors and Surge Protectors**  
H1400 Series fixed-flow adaptors are for welding operations requiring fixed-flow gases. 15001 Series surge protectors are for MIG welding applications to eliminate sudden surges of shielding gas in the wire feeder. Visit MillerWelds.com for more information.

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.



## Heavy-Duty Outfits



HBA-40510

### Combination torch outfits (acetylene or LP)

Oxy-fuel outfits include just about everything needed for your cutting, welding, brazing or heating project.

- Heavy-duty Series 40™ **or** medium-duty Series 30™ regulators with three-year warranty
- Heavy-duty torches with lifetime warranty
- Torch-mount flashback arrestors for added safety (acetylene outfits only)
- Exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing for added resistance to flashbacks
- Both HBA-40510 and HBA-40300 outfits cut up to 1-1/4 inch (32 mm) with tip included, other outfits cut up to 5/8 inch (16 mm)
- All outfits cut up to 8 inches (203 mm) with optional tips

### Combination torch and tip kits (acetylene or LP)

Combination kits are available with cutting, welding and heating tips **or** with multiple cutting tips.

- Heavy-duty torches with lifetime warranty
- Torch-mount flashback arrestors for added safety
- Exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing for added resistance to flashbacks
- Cuts up to 5/8 inch (16 mm) with tip included
- Cuts up to 8 inches (203 mm) with optional tips

### Cutting torch outfits (acetylene)

Hand cutting torch outfits are built for the toughest jobs.

- Corrosion-resistant regulators feature shatter-resistant polycarbonate gauge lenses
- 21-inch nickel-plated torch with lifetime warranty has reversible (top or bottom) mount cutting lever and an ease-on oxygen feature that reduces slag blowback when piercing
- Exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing for added resistance to flashbacks
- HBS outfits include heavy-duty Series 40™ regulators with three-year warranty and Hard Hat™ gauge/regulator guards
- HBAS outfits include medium-duty Series 30™ regulators with three-year warranty, torch-mount flashback arrestors for added safety, plus hose, lighter, safety glasses and tip cleaner
- HBS outfits cut up to 1-1/4 inch (32 mm) with tip included, HBAS outfits cut up to 5/8 inch (16 mm)
- All outfits cut up to 12 inches (305 mm) with optional tips

16206



16280



HBS-H510S

HBAS-30510

\*Acetylene regulator has CGA 300 inlet fitting.

### Heavy-duty torch tips

Stock Number	Max. Metal Thickness Inches (mm)	Cutting Jet Drill Size
<b>Acetylene Cutting</b>		
SC12-00	3/16 (5)	68
SC12-0	3/8 (10)	62
SC12-1	5/8 (16)	56
SC12-2	1-1/4 (32)	54
SC12-3	2 (51)	51
SC12-4	4 (102)	45
SC12-5	8 (203)	41
SC12-6	12 (305)	32
<b>Propane/Natural Gas Cutting</b>		
SC50-00	3/16 (5)	68
SC50-0	3/8 (10)	62
SC50-1	5/8 (16)	56
SC50-2	1-1/4 (32)	54
SC50-3	2 (51)	51
SC50-4	4 (102)	45
SC50-5	8 (203)	41
SC50-6	12 (305)	32
SC50-7	14 (354)	28
SC50-8	18 (457)	17
SC50-9	20 (508)	3
<b>Propylene Cutting</b>		
SC60-0	1/4 (6)	62
SC60-1	5/8 (16)	56
SC60-2	1-1/4 (32)	54
SC60-3	2 (51)	51
SC60-4	4 (102)	45
SC60-5	8 (203)	41
SC60-6	12 (305)	32

### Acetylene Gouging

SC13-3	3/8 (10) wide, 1/4 (6) deep
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### Propane/Natural Gas Gouging

SC23-3	3/8 (10) wide, 1/4 (6) deep
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### Propylene Gouging

SC23-3M	1/4 (6) wide, 3/8 (10) deep
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### Acetylene Heating

ST602	40,000 BTU
ST603	72,000 BTU
ST605	125,000 BTU
ST610	195,000 BTU

See Gas Equipment catalog (#264 059), or visit [MillerWelds.com](http://MillerWelds.com) or your distributor for additional tips, options and accessories.

Outfit	Stock Number	Fuel	Cut Tip	Weld Tip	Heat Tip	Description	Typical Applications
Combination Torch Complete Outfits	HBA-40510	Acetylene	SC12-1	SW205	ST602	Heavy-duty combination torch, heavy-duty regulators, 25-ft. (7.6 m) hose, lighter, safety glasses, tip cleaner and flashback arrestors	Heavy fabrication, construction, pipeline, maintenance/repair, rail and truck repair
	HBA-40300*		SC12-2				
	HBA-30510	Acetylene	SC12-1	SW205	ST602		
	HBA-30300*		SC12-1				
Combination Torch and Tip Kits	16206	Acetylene	SC12-1	SW203	ST602	Heavy-duty combination torch and flashback arrestors	Heavy fabrication, construction, pipeline, maintenance/repair, rail and truck repair
	16280	Acetylene	SC12-0, SC12-1	-	-		
	16280LP	Propane	SC40-0, SC40-1	-	-		
Cutting Torch Outfits	HBS-H510S	Acetylene	SC12-2	-	-	Heavy-duty SC229 hand cutting torch and heavy-duty regulators with Hard Hat™ gauge guards	Heavy fabrication, construction, shipyard, rail car, rail and truck repair
	HBS-H300S*		SC12-1	-	-		
	HBA-30510 HBAS-30300*	Acetylene	SC12-1	-	-	Heavy-duty SC229 hand cutting torch, medium-duty regulators, 20-ft. (7.6 m) hose, lighter, safety glasses, tip cleaner and flashback arrestors	



## Medium-Duty Outfits



### Combination torch outfits (acetylene or LP)

Oxy-fuel outfits include just about everything needed for your cutting, welding, brazing or heating project.

- Medium-duty Series 30™ regulators with three-year warranty
- Medium-duty torches with lifetime warranty
- Torch-mount flashback arrestors for added safety (acetylene outfits only)
- Exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing provides for resistance to flashbacks
- Cuts up to 5/8 inch (16 mm) with tip included
- Cuts up to 6 inches (153 mm) with optional tips



### Combination torch and tip kits (acetylene or LP)

Combination kits are available with cutting, welding and heating tips **or** with multiple cutting tips.

- Medium-duty torches with lifetime warranty
- Torch-mount flashback arrestors for added safety
- Exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing for added resistance to flashbacks
- Cuts up to 5/8 inch (16 mm) with tip included
- Cuts up to 6 inches (153 mm) with optional tips



### Toughcut™ combination torch outfits (acetylene or LP)

Economy outfits include many features found on more expensive outfits.

- Medium-duty Series 30™ regulators and medium-duty torches with three-year warranty
- Check valves for added safety and torch life
- Exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing for added resistance to flashbacks
- Cuts up to 5/8 inch (16 mm) with tip included
- Cuts up to 6 inches (153 mm) with optional tips



### Tag-A-Long™ and Versa-Torch™ portable outfits (acetylene)

Complete, portable outfits housed in carriers designed for mobility and ease of storage, plus long-lasting Graf-Tite® soft-seat cutting tips and check valves for added safety and torch life.

- Tag-A-Long includes medium-duty Series 30™ regulators and medium-duty torch with three-year warranties
- Versa-Torch includes Series 30™ regulators with three-year warranty and standard-duty torch with lifetime warranty

\*Acetylene regulator has CGA 300 inlet fitting.

### Medium-duty torch tips

Stock Number	Max. Metal Thickness Inches (mm)	Cutting Jet Drill Size
<b>Acetylene Cutting</b>		
<b>MC12-00</b>	3/16 (5)	68
<b>MC12-0</b>	3/8 (10)	62
<b>MC12-1</b>	5/8 (16)	55
<b>MC12-2</b>	1 (25)	54
<b>MC12-3</b>	2 (51)	51
<b>MC12-4</b>	4 (102)	45
<b>MC12-5</b>	6 (152)	41
<b>Propane/Natural Gas Cutting</b>		
<b>MC40-00</b>	3/16 (5)	68
<b>MC40-0</b>	3/8 (10)	62
<b>MC40-1</b>	5/8 (16)	55
<b>MC40-2</b>	1-1/4 (32)	54
<b>MC40-3</b>	2 (51)	51
<b>MC40-4</b>	4 (102)	51
<b>Propylene Cutting</b>		
<b>MC60-1</b>	5/8 (16)	55
<b>MC60-2</b>	1-1/4 (32)	54
<b>MC60-3</b>	2 (51)	51
<b>MC60-4</b>	4 (102)	45

### Acetylene Gouging

<b>MC13-3</b>	3/8 (10) wide, 1/2 (6) deep
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Note: Tips above fit medium- and standard-duty torches.

### Acetylene Heating

<b>MT603</b>	40,000 BTU
<b>MT605</b>	73,000 BTU
<b>MT610</b>	129,000 BTU

See Gas Equipment catalog (#264 059), or visit [MillerWelds.com](http://MillerWelds.com) or your distributor for additional tips, options and accessories.

Outfit	Stock Number	Fuel	Cut Tip	Weld Tip	Heat Tip	Description	Typical Applications
Combination Torch Complete Outfits	<b>MBA-30510</b>	Acetylene	MC12-0	MW205	MT603	Medium-duty combination torch, medium-duty regulators, 25-ft. (7.6 m) hose, lighter, safety glasses, tip cleaner and flashback arrestors	Fabrication, farm and ranch, pipe, truck and auto, refrigeration, maintenance/repair
	<b>MBA-30300*</b>	Acetylene	MC12-1				
	<b>MBA-30510LP</b>	Propane	MC40-1	–	MT805	Medium-duty combination torch, medium-duty regulators, 20-ft. (7.6 m) "T"-grade hose, lighter, safety glasses, tip cleaner and check valves	
Combination Torch and Tip Kits	<b>16205</b>	Acetylene	MC12-1	MW203	MT603	Medium-duty combination torch and flashback arrestors	Fabrication, farm and ranch, pipe, truck and auto, refrigeration, maintenance/repair
	<b>16281</b>	Acetylene	MC12-0, MC12-1	–	–		
	<b>16281LP</b>	Propane	MC40-0, MC40-1	–	–		
Toughcut Economy Combination Torch Outfits	<b>MB55A-510</b>	Acetylene	MC12-1	MW205	MT603	Medium-duty combination torch, medium-duty regulators, 20-ft. (7.6 m) hose, lighter, safety glasses and check valves	Fabrication, farm and ranch, pipe, hobby, auto, refrigeration, maintenance/repair
	<b>MB55A-300*</b>	Acetylene	MC12-1	MW205	–		
	<b>MB54A-510</b>	Acetylene	MC12-1	MW205	–	Medium-duty combination torch, medium-duty regulators, safety glasses and check valves	
	<b>MB54-510L</b>	Acetylene	MC12-1	MW205	–		
	<b>MB54-300L*</b>	Acetylene	MC12-1	MW205	–		
<b>MB54A-510LP</b>	Propane	MC40-1	–	–	Medium-duty combination torch, medium-duty regulators, 20-ft. (7.6 m) "T"-grade hose, lighter, safety glasses and check valves		
<b>MB54A-510MP</b>	Propylene	MC60-1	–	–			
Combination Torch Portable Outfits	<b>TL-500</b> (no tanks)	Acetylene	MC12-0	MW203	–	Medium-duty (TL500/TL550) or standard-duty (VT-4T) combination torch, medium-duty regulators, 12.5-ft. (3.8 m) hose, carrier, lighter, safety glasses, check valves and cylinders (cylinders NOT included with TL-500)	Farm and ranch, hobby, DIY, auto, refrigeration, maintenance/repair
	<b>TL-550</b>	Acetylene	MC12-0	MW203	–		
	<b>VT-4T</b>	Acetylene	MC12-00	LT103, 104, 106	13716		



## Torches



Gas Axe  
SC929

Heavy-duty torches



SC229

SC229S

### Cutting torches (acetylene, natural gas or propane/propylene-based fuels)

**Gas Axe™ extra-heavy-duty cutting torches** are ideal for scrap and salvage.

- Covered by one-year warranty
- Reversible (top or bottom) mount cutting lever
- Available in four lengths and three different head angles
- Uses our exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing for added resistance to flashbacks
- Cuts up to 24 inches (610 mm)

**Heavy-duty cutting torches** feature solid construction and ease of operation for industries such as construction, fabrication, shipyards and salvage.

- Covered by lifetime warranty
- Nickel-plated finish for added corrosion resistance and to reflect residual heat
- Reversible (top or bottom) mount cutting lever
- Available in three lengths and three different head angles
- Uses our exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing for added resistance to flashbacks
- Cuts up to 12 inches (305 mm)

### Combination torches (acetylene, natural gas or propane/propylene-based fuels)

Constructed to last a lifetime for safe performance under rugged conditions.

- Covered by lifetime warranty
- Ease-on cutting oxygen valve to reduce slag blowback when piercing
- Thick-wall brass head forgings resist warping and distortion
- Heavy- and medium-duty models are available with 75 or 90 degree head angles
- Uses our exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing for added resistance to flashbacks
- Heavy-duty torches cut up to 8 inches (203 mm), medium-duty up to 6 inches (152 mm) and standard-duty up to 3 inches (76 mm)



SC209

MC509

WH200A

WH100

AC309

AW1A

### Machine torches (acetylene, LP or natural gas)

Superior performance with solid construction.

- Covered by lifetime warranty
- Torch barrels are adjustable to four positions at 90-degree increments and barrel diameters are 1-3/8 inches (9.5 mm) to fit most machines
- Rack pitch is 32-8 teeth per inch
- Uses our exclusive long-lasting Graf-Tite® soft-seat cutting tips with in-tip gas mixing for added resistance to flashbacks
- SC781A high-capacity three-hose torch cuts up to 24 inches (610 mm) with acetylene and 20 inches (508 mm) with LP or natural gas
- SC770 and SC772A two-hose torches cut up to 12 inches (305 mm) with acetylene, LP or natural gas



SC781A

SC772A

SC770

### Torches

Stock Number	Head Angle in Degrees	Length Inches (mm)
<b>Gas Axe Extra Heavy-Duty Cutting Torches</b>		
SC929	90	21 (533)
SC935	75	36 (914)
SC939	90	36 (914)
SC930	180	36 (914)
SC945	75	48 (1219)
SC949	90	48 (1219)
SC940	180	48 (1219)
SC965	75	72 (1829)
SC969	90	72 (1829)
SC960	180	72 (1829)
<b>Heavy-Duty Cutting Torches</b>		
SC175	75	17 (432)
SC179	90	17 (432)
SC225	75	21 (533)
SC225S	75	21 (533)
SC229	90	21 (533)
SC229S	90	21 (533)
SC220	180	21 (533)
SC365	75	36 (914)
SC369	90	36 (914)
SC360	180	36 (914)
<b>Heavy-Duty Combination Torches</b>		
SC205	75	12.5 (318)
SC209	90	12.5 (318)
WH200A	Handle	7.5 (191)
<b>Medium-Duty Combination Torches</b>		
MC505	75	11.25 (286)
MC509	90	11.25 (286)
WH100	Handle	7 (178)
<b>Standard-Duty Combination Torches</b>		
AC309	90	8.5 (216)
AW1A	Handle	5.75 (146)
<b>Machine Torches</b>		
SC781A	—	15.5 (394)
SC772A	—	13.75 (349)
SC770	—	8 (203)

### Most popular accessories



- Safety Glasses (pg 96)
  - #235 661 Blue frame/shade 3
  - #235 657 Blue frame/shade 5
- Safety Gloves (pg 98)



- Circle Cutter Guide 16229



- Flashback Arrestor Set (oxy and fuel)
  - H743 Torch mount
  - H753 Regulator mount

Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

# Fume Extraction



## Choose the right fume extractor.

Miller offers a complete line of solutions for extracting weld fumes for all types of jobs and workspaces. Our family of air filtration systems is developed exclusively for welding applications to help you stay in compliance with environmental regulations.

For more detailed information, visit

[MillerWelds.com/filtair](http://MillerWelds.com/filtair)



FILTAIR	130	Capture 5	MWX	SWX	400	2000 – 12000
<b>Weld Fume Extractor Type</b>	Portable, high-vacuum	Extended capture distance minimizes arm interactions on larger parts	Mobile	Wall or column mounted	High-vacuum system ideally suited for use with Bernard™ FILTAIR fume extraction MIG guns to extract at the source	These models are part of an engineered system and offer the best filter and cleaning technologies to effectively manage weld fume particulate
<b>Ideal For</b>	Contractors, maintenance and repair operations, light fabrication work and light manufacturing	Manufacturing and fabrication – the best solution for weldments over 18 inches long	Fabrication shops, manufacturing, and training centers	Fabrication shops, manufacturing, and training centers where weld areas are near filtration system	Fabrication, manufacturing, and maintenance and repair operations	Manufacturing, hand-held and automation, fabrication shops, and training facilities
<b>Welding Arcs</b>	1	1	1	Up to 2 per unit	Up to 6 per unit	Up to 16 per unit
<b>Filter Type</b>	Manual cleaning	Self-cleaning (automatic)	MWX-D: Disposable MWX-S: Self-cleaning	SWX-D: Disposable SWX-S: Self-cleaning	Self-cleaning (automatic)	Self-cleaning (automatic/programmable)

## FILTAIR® 130 and 400

See literature no. AY/3.1 (130) and AY/3.3 (400)

Portable (130 model) and stationary (400 model) high-vacuum weld fume extractors designed for use with accessories like nozzles and fume guns to collect weld fume particles at the source.



FILTAIR 130  
(includes 8-ft. collection hose)

FILTAIR 400  
(collection hoses not included, order separately)

### FILTAIR 130 features



**Unrivaled filtering performance.** Designed to capture weld fume particles with a cleanable filter and safely deposit them in an integrated particle bin.



**Less noise.** Up to 70 percent quieter than some other extractors. Only 68.5 decibels at five feet.



**Portable and compact.** At only 46 pounds (21 kg) the vertical-shaped machine is easy to move around.

### FILTAIR 400 features



**Extraction flexibility.** Capable of utilizing more than 60 feet of collection hose to extend accessories for fume extraction. Rigid ducting can be used to extend overall reach.

**User flexibility.** With four-port access, the unit can remain centrally located while providing mobility of accessories.



**Extract at the source.** Designed for solid and flux-cored wires for most welding applications. Available in models ranging from 300 to 600 amps.



Designed to capture weld fume.

### Processes

- Stick (SMAW) • Flux-Cored (FCAW)
- MIG (GMAW) • TIG (GTAW)

### Comes with

- FiTek™ XL filter
- 8-ft. collection hose (130 model only)
- 20-ft. power cord (130 model only)

### Most popular accessories

- Replacement Filters
  - #301 267 For 130 model (cleanable)
  - #300 925 For 400 model
- Collection Hose
  - #300 672 17 ft. (5.2 m)
  - #300 673 34 ft. (10.4 m)



### Magnetic Nozzles

- #300 669 11.8 in. (300 mm) width
- #300 670 23.6 in. (600 mm) width (400 model only)



- Flexible Funnel Magnetic Nozzle** #300 668

### Bernard™ FILTAIR

#### Fume Extraction MIG Gun

Ideally suited for almost any solid-wire welding application. Available in 300 and 400 A models. Contact Bernard at 1-800-946-2281 to order gun and required gun adapter.



#### NEW! Bernard™ Clean Air™

#### Fume Extraction MIG Gun

Suited for use with solid and flux-cored wires. Available in 400, 500 and 600 A models. Contact Bernard at 1-800-946-2281 to order gun and required gun adapter.



#### Dual Hose Inlet to Duct Adapter

(400 model only)

#301 070

Y-shaped adapter connects duct to one or two hose attachments.



Model/Stock Number	Accu-Rated™ Airflow	Sound Level	Motor	Input Power	Dimensions	Net Weight
FILTAIR 130 (#300 595)	132 CFM (62 L/sec.)	68.5 dBA at 5 ft. (1.5 m)	1 HP	115 VAC, 1-phase, 60 Hz at 11 A	H: 23 in. (584 mm) W: 12 in. (305 mm) D: 12 in. (305 mm)	46 lb. (21 kg)
FILTAIR 400 (#300 894)	400 CFM (189 L/sec.)	74 dBA at 5 ft. (1.5 m)	8.85 HP	460 VAC, 3-phase, 60 Hz	H: 54 in. (1372 mm) W: 26 in. (660 mm) D: 48 in. (1219 mm)	551 lb. (250 kg)



# Fume Extraction

## FILTAIR® MWX and SWX Series

See literature no. AY/3.0 (MWX) and AY/3.2 (SWX)

Powerful systems that easily move to the weld or are mounted next to the weld area. Disposable or cleanable filter models for multiple applications.

MWX mobile fume extraction systems designed specifically for welding.



MWX-S (self-cleaning) model with 10-ft. extraction arm shown.



SWX wall- or column-mounted fume extraction systems designed specifically for welding.

SWX-D (disposable filter) model with telescoping arm shown.

### Features common to all models



**Designed to capture weld fume.** The MERV 15 rating of FilTek XL filters provides superior filtering of up to 95 percent of weld fume particulate.



**Class-leading suction power** is Accu-Rated at the hood to better capture weld fumes and provide a cleaner environment.

**Superior filters.** Our FilTek XL filters are specifically designed for welding with a MERV 15 rating to outlast, out-filter, and outperform all the rest.

**Durable aluminum pre-assembled extraction arm** with external adjustments for better airflow and longer life.

### Self-cleaning models additional features



**Unrivaled filtering performance.** Designed to capture weld fume particles with a cleanable filter and safely deposit them in an integrated particle bin.

**One-minute cleaning cycle** operates with a push of a button on the control panel.

*Note: Compressed air required to operate cleaning mechanism.*

**Disposal drawer** provides easy and convenient access to empty out collected particles. Handle releases drawer allowing it to slide out.

**Upgrade to self-cleaning models** for high arc-on time, extracting from heavy fume processes, or when welding aluminum or galvanized materials.

### Processes

- Stick (SMAW) • Flux-Cored (FCAW)
- MIG (GMAW) • TIG (GTAW)

### Comes with

- FilTek™ XL filter
- Pre-assembled arm

### Most popular accessories

#### Replacement Filters

- #300 540 Self-cleaning models
- #300 539 Disposable filter models



FilTek XL filters efficiently capture the smallest weld fume particles and offer superior filter life.

#### Hood Light with Arc Sensor

- #300 689 For MWX Series
- #300 763 For SWX Series



Illuminates the welding zone and enables the fume extractor to start automatically when welding begins.



#### SWX Dual-Arm Add-On Packages

- #951 621 With telescoping arm
- #951 519 With 7-ft. standard arm
- #951 520 With 10-ft. standard arm
- #951 521 With 12-ft. standard arm

Includes 8-inch diameter arm, blower, control box, mounting bracket, duct and back draft dampers to turn single-arm weld fume extractor into dual-arm extractor.

#### Arm Mounting Bracket and Ducting Kit

- #300 771



Supporting bracket and collar connects extraction arm to ductwork.

See page 91 for additional information and accessories.



SWX models now available with telescoping arm which can extend from 3 to 4.5 feet, making them ideal for smaller spaces.

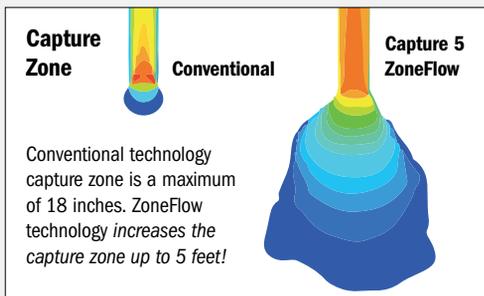
Model/Stock Number	Filter Media	Accu-Rated™ Airflow	Extraction Arm Diameter	Sound Level	Motor	Input Power	Dimensions	Net Weight without Arm
<b>MWX-S (Self-Cleaning Model) Pkg</b> (#951 510) 7-ft. standard arm (#951 511) 10-ft. standard arm (#951 512) 12-ft. standard arm	<b>MWX-D (Disposable Filter) Pkg</b> (#951 507) 7-ft. standard arm (#951 508) 10-ft. standard arm (#951 509) 12-ft. standard arm	490 ft. <sup>2</sup> (45.52 m <sup>2</sup> )	875 CFM (413 L/sec.)	8 in. (203 mm)	Approximately 70 dBA at 5 ft. (1.5 m)	1 HP, 3450 RPM	H: 34.75 in. (883 mm) W: 31.75 in. (806 mm) D: 48 in. (1219 mm)	<b>MWX-S</b> 300 lb. (136 kg) <b>MWX-D</b> 238 lb. (108 kg)
<b>SWX-S (Self-Cleaning Model) Pkg</b> (#951 620) Telescoping arm (#951 516) 7-ft. standard arm (#951 517) 10-ft. standard arm (#951 518) 12-ft. standard arm	<b>SWX-D (Disposable Filter) Pkg</b> (#951 619) Telescoping arm (#951 513) 7-ft. standard arm (#951 514) 10-ft. standard arm (#951 515) 12-ft. standard arm	490 ft. <sup>2</sup> (45.52 m <sup>2</sup> )	875 CFM (413 L/sec.)	8 in. (203 mm)	Approximately 74 dBA at 5 ft. (1.5 m)	1 HP, 3450 RPM	SWX-S H: 33 in. (838 mm) SWX-D H: 29 in. (737 mm) W: 27.25 in. (692 mm) D: 33 in. (838 mm)	<b>SWX-S</b> 195 lb. (88 kg) <b>SWX-D</b> 130 lb. (59 kg) <b>Blower/Bracket</b> 95 lb. (43 kg)



## FILTAIR® Capture 5

See literature no. AY/3.5

The capture zone redefined. Innovative, extended-capture fume extraction system designed specifically for welding.



**ZoneFlow™ technology.** Extends the capture area up to five feet versus 12–18 inches with conventional source capture arms. See illustration above.



**Minimizes downtime with fewer fume extractor adjustments.** With increased capture area, arm interactions are dramatically minimized.



**Designed to capture weld fume.** The MERV 15 rating of FilTek XL filters provides superior filtering of up to 95 percent of weld fume particulate.



**Source capture** is designed to draw weld fume away from the welder's breathing zone and keep the facility clean.

### Processes

- Stick (SMAW) • Flux-Cored (FCAW)
- MIG (GMAW) • TIG (GTAW)

### Comes with

- FilTek™ XL filter
- Durable, easy-to-move, pre-assembled, aluminum extraction arm with toolless external adjustments for higher airflows and longer filter life

### Most popular accessories



- Replacement FilTek XL Filter #301 106**  
Filter is designed for the Capture 5 automatic self-cleaning system.

Stock Number	Filter Media	Accu-Rated™ Airflow	Extraction Arm Diameter	Sound Level	Motor	Input Power	Dimensions	Net Weight	
<b>With 10-ft. Extraction Arm</b> (#951 639) 230 V (#951 574) 460 V (#951 594) 575 V	<b>With 12-ft. Extraction Arm</b> (#951 640) 230 V (#951 575) 460 V (#951 595) 575 V	452 ft. <sup>2</sup> (42 m <sup>2</sup> )	900 CFM (425 L/sec.)	10 in. (254 mm)	Approximately 77 dBA at 5 ft. (1.5 m)	3 HP, 3450 RPM	230 VAC, 1-phase, 60 Hz at 13.5 A 460 VAC, 3-phase, 60 Hz at 3.7 A 575 VAC, 3-phase, 60 Hz at 3.0 A	H: 43 in. (1092 mm) W: 36 in. (915 mm) D: 48 in. (1219 mm)	620 lb. (282 kg) with 12-ft. arm



## Total fume solutions

Miller, Hobart® and Bernard™ are committed to providing exclusive technologies designed specifically around your weld fume challenges. Find out how our portfolio of solutions is uniquely positioned with process modifications, engineered controls and personal protective equipment at [Millerwelds.com/fumesolutions](http://Millerwelds.com/fumesolutions).

Learn more at [MillerWelds.com/fumesolutions](http://MillerWelds.com/fumesolutions)



# Fume Extraction

## FILTAIR® 2000-12000 Industrial Centralized Systems

See literature no. AY/3.4

The Industrial Centralized weld fume extractors are custom engineered solutions designed for multiple capture sources which require ducting and accessories to complete the system.



FILTAIR 4000 model shown. Other models are available (2000, 6000, 8000, and 12000).

Call us toll-free at 855-FILTAIR (855-345-8247) for information and requests for quotes on custom engineered solutions to fit your needs.

**FILTAIR engineering resources.** Design and engineering resources recommend, develop and support custom-engineered solutions.

**Improves operating efficiency.** Creates a cleaner shop with less downtime spent cleaning equipment. Raises productivity with more motivated employees and fewer absences. Lowers insurance premiums and meets OSHA and EPA compliance.



**Stand-alone space saver.** Our fully assembled fume extractor provides up to a 65 percent smaller footprint versus traditional cartridge-style extractors. It provides all the necessary extraction tools, while offering customizable options.



**Less noise.** Up to 75 percent quieter than cartridge-style extractors. High-efficiency motors and integrated silencer housing create a quieter, more productive work area.

**Integrated electrical controls.** Control panel manages all of the collector functions, including the fan, the filter differential, and the pulse cleaning system.



**24 VDC motor start/stop feedback relay** allows an external signal to automate the remote start of collector fan from other equipment.

### FilTek XL filters

**Easy-clean filter** with surface-loaded filter technology allows for more effective weld fume pulse cleaning without penetration into the filter. This provides an easier filter cleaning process, while outlasting conventional cartridge filters.



**Smaller size and fewer filters.** One FilTek XL filter replaces up to three cartridge-style filters increasing efficiency, reducing extractor size, and lowering operational costs.

### Processes

- Stick (SMAW) ▪ Flux-Cored (FCAW)
- MIG (GMAW) ▪ TIG (GTAW)

### Custom solutions

- Configured to source fume extraction
- Configured for ambient push-pull collection

### Comes with

- FilTek™ XL filter
- Top **or** front air inlet
- Configured for indoor **or** outdoor mounting (outdoor models are wind load and seismic rated and include remote-mounted control box and optional weather hood)

### Most popular accessories



- **Replacement High-Efficiency Filter #300 927**
- Extraction Arms (pg 91)
- Arm Mounting Bracket Kit (pg 91)
- Call us toll-free at 855-FILTAIR (855-345-8247) for information on factory options such as HEPA filter kit, weather hood, automation hood, Spark Cooler® and installation services.

\*Based on clean filters. \*\*Dimensions for base models without factory options.

Model	Nominal Airflow Range*	Number of Filter Packs	Sound Level	Input Power	Dimensions** (H x W x D)	Ship Weight
FILTAIR 2000	960-3200 CFM (453-1510 L/sec.)	2	72-75 dBA at 5 ft. (1.5 m) Peak pulse cleaning is 92.7 dBA at 5 ft. (1.5 m)	230, 460 or 575 VAC, 3-phase, 60 Hz	66.6 in. (1692 mm) 31.2 in. (792 mm) 83.2 in. (2113 mm)	1300 lb. (590 kg)
FILTAIR 4000	1920-5500 CFM (906-2596 L/sec.)	4			86.1 in. (2187 mm) 31.2 in. (792 mm) 83.2 in. (2113 mm)	1600 lb. (726 kg)
FILTAIR 6000	2880-8640 CFM (1359-4078 L/sec.)	6			117.2 in. (2977 mm) 31.2 in. (792 mm) 83.2 in. (2113 mm)	2250 lb. (1021 kg)
FILTAIR 8000	3840-11,520 CFM (1812-5437 L/sec.)	8			135 in. (3429 mm) 37.2 in. (945 mm) 83.2 in. (2113 mm)	2900 lb. (1315 kg)
FILTAIR 12000	5760-13,440 CFM (2718-6343 L/sec.)	12			120.3 in. (3056 mm) 59.7 in. (1516 mm) 83.2 in. (2113 mm)	3900 lb. (1769 kg)



## FILTAIR® Industrial Centralized Systems Accessories

Miller offers a full line of accessories for complete system solutions and turnkey installation.



### Easy-to-operate, pre-assembled extraction arms and mounting equipment

- **Telescoping arms** are designed to fit small booth spaces used in training centers and educational booths. Telescopes from 3 to 4.5 feet with a wide range of motion to cover all positions
- **Standard arms** are designed to cover larger spaces, the standard extraction arms are available in 7-, 10-, and 12-foot versions. External brackets and adjustments allow air to pass through with less resistance giving you stronger CFM (airflow)
- **Arm mounting bracket and ducting kit** includes a supporting bracket and collar for connecting an extraction arm to ductwork

Model	6-Inch Diameter	8-Inch Diameter
Telescoping Arm	(#301 242)	(#301 237)
Standard Arm	(#300 953) 7-ft. arm (#300 954) 10-ft. arm (#300 955) 12-ft. arm	(#300 980) 7-ft. arm (#300 981) 10-ft. arm (#300 982) 12-ft. arm
Arm Mounting Bracket and Ducting Kit	(#300 952)	(#300 771)

### Spark Cooler®

- Cools sparks using the fume extractor's airflow
- Very efficient – maximizes the extractor's power
- Simple design is easy to install



### FILTAIR low profile hood

- Available in one foot increments from 4 x 4 feet up to 16 x 16 feet
- Modular design allows easy size and height change
- Exclusive design – capture velocity zone is maximized and distributed over the work area
- Hood airflow design reduces sound for better communication
- Unique airflow offers spark abatement in the standard deflector plate, and also in the recommended Spark Cooler
- Clear, UV-protected polycarbonate ceiling panels allow maximum light into the cell
- Corner lift hooks are convenient for installing or hanging over a work area. The hood can also be placed on an existing cell enclosure or supported with 9-, 10-, 12- or 14-foot post assemblies

More FILTAIR accessories are available to build your system. Call us toll-free at 855-FILTAIR (855-345-8247) for information.

## Cleaner air with FilTek™ XL filters

The FilTek XL filter's higher MERV rating means unrivaled filtering performance.

### MERV Comparison

Applicable Weld Fume MERV Rating Categories <sup>1</sup>	Particle Size Range Efficiency % <sup>2</sup>		
	0.3 to 1 µm	1 to 3 µm	3 to 10 µm
<b>10</b>	Not Rated	50-65%	85%
<b>11</b>	Not Rated	65-80%	85%
<b>12</b>	Not Rated	80-90%	85%
<b>13</b>	<75%	90%	90%
<b>14</b>	75-85%	90%	90%
<b>15 Miller® FilTek XL</b>	85-95%	90%	90%
<b>16 Miller® FilTek XL</b>	≥95%	≥95%	≥95%
<b>HEPA<sup>3</sup></b>	≥99.97%	≥99.97%	≥99.97%
<b>Weld Fume Composition<sup>4</sup></b>	75-95%	≤15%	≤10%

<sup>1</sup>American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) 52.2

<sup>2</sup>National Air Filtration Association (NAFA) Guide

<sup>3</sup>HEPA filters are depth loading and have high restrictions to air flow, reducing system performance versus FilTek XL filters.

<sup>4</sup>Jenkins, Pierce, Edgar, Particle Size Distribution of GMAW and FCAW

Filters are rated on a MERV scale, which measures filter efficiency based on particle count. MERV ratings range from 1-16, with 16 being the best at filtering small particles – such as those found in weld fumes. The vast majority of weld fumes are less than one micron in diameter, or roughly 1/100th the width of a human hair.

Filters in common air filtration systems often have MERV ratings between 7-11. FilTek XL filters are rated at class-leading MERV 15-16 to capture up to 95 percent of weld fume particulates including those found in hexavalent chromium.



# Training Solutions



For more detailed information, visit

[MillerWelds.com/livearc](http://MillerWelds.com/livearc)



## **NEW!** LiveArc™

### Welding Performance Management System

The LiveArc system is built to deliver a real-world, arc-on welding experience. Advanced motion-tracking technology provides feedback on technique parameters during initial simulation (practice) mode as well as live arc training mode.

- Builds higher skill levels
- Produces faster results
- Provides a cost-effective solution

**The solution for industrial, manufacturing and educational markets for developing better welding skills, faster and more cost-effectively than ever before.**

The LiveArc Welding Performance Management System is a new and innovative reality-based training system that utilizes a live welding arc, unlike other virtual training solutions. It's designed to recruit, screen, train, re-qualify and manage the performance of weld operators – better, faster and more cost-effectively than traditional methods.

Advanced motion-tracking technology provides the critical feedback required for improvement of baseline welding skills. Guided by an easy-to-understand interface with graphical icons and instructional pop-ups, users will find navigation intuitive with a quick learning curve. Scoring and performance feedback engage and foster independent self-improvement through repetition. Users can guide themselves through assignment selection and simulated welding runs to acquire desired techniques before moving to actual live arc training experiences.

The system also gives welding instructors the ability to configure assignments and technique parameters. It stores weld operators' performance histories. LiveArc is a powerful teaching tool that allows instructors to better manage their time, reduces the cost of teaching materials and accelerates student progress.

Check out [MillerWelds.com/livearc](http://MillerWelds.com/livearc) for videos, product information and more!



## LiveArc™ Workstation



**Powerful industrial computer** at the heart of the system features solid-state technology and filterless, fanless cooling. The system is compatible with Miller® wire feed power sources and is capable of MIG and Flux-Cored applications.

**Requires 120-volt, single-phase power** for operation.

**Motion-tracking cameras** provide feedback on gun parameters.

**Touchscreen monitor** works with a gloved hand and features a 21.5-inch widescreen HD display.

**Protective monitor cover** disables the power source when opened.

**Calibration tool** is easy to use and enables flexible coupon placement by making the system aware of the exact joint location.



**Rugged ArcStation™ base** features a 1/2-inch reversible steel table top and ships complete with drawers, gun holder, quick-release clamps and heavy-duty casters for mobility.

**SmartGun** is an industry-exclusive 400-amp MIG gun featuring built-in LEDs that are tracked by the system's cameras. The ergonomic soft-grip handle provides tactile vibration feedback that helps guide real-time performance adjustments, reinforcing optimal position and movement.

**OLED display** on gun provides initial visual feedback to guide proper gun positioning. Pushbuttons provide a convenient alternative to the touchscreen for navigation.



## LiveArc options

**#301 233** LiveArc workstation

**#301 233-001** LiveArc workstation with welding positioning arm

**#301 234** Welding positioning arm (includes software)



**Optional welding positioning arm** is available for training in out-of-position welding applications.

## Intuitive user interface



### Assignment selection screen

- Guides the user through a range of targeted exercises
- Includes a library of Miller-designed assignments and the flexibility to configure customized assignments
- Offers assignment completion status, history summary and easy access to detailed performance history data



### Welding Procedure Specifications (WPS) screen

- Guides the user through proper selection and preparation of materials
- Provides correct power source and wire feeder settings
- Provides target values and limits for various parameters
- Displays instructor-determined target score and assignment completion status



### Post-weld feedback screen

- Data is provided following tests in both simulation and live arc modes
- Assignment parameters can be configured to suit the skill level (and scoring potential) of the user
- Performance feedback on various parameters is provided
- All test data is stored and allows for monitoring and evaluation



# Welding Protection



For more detailed information, visit

MillerWelds.com/weldingprotection



## Welding Helmets



Serious dependability backed with a 3-year warranty on select models.

Feature	Classic Series FS#10	Classic Series FS#10 Flip-Up	Classic Series Variable Shade	Classic Series VSI™	Digital Pro-Hobby™	Digital Performance™	Digital Elite™	Titanium 1600™	Titanium 1600i™	Digital Titanium 7300™	Digital Titanium 9400™	Digital Titanium 9400i™
	UPGRADE	UPGRADE	UPGRADE	UPGRADE	UPGRADE	UPGRADE	UPGRADE	UPGRADE	UPGRADE	UPGRADE	UPGRADE	UPGRADE
Viewing Area	5.15 sq. in.	5.07 sq. in.	5.15 sq. in.	5.15 sq. in.	6.06 sq. in.	7.22 sq. in.	9.22 sq. in.	16 sq. in.	16 sq. in.	7.22 sq. in.	9.22 sq. in.	9.22 sq. in.
Shades	10	10	8-12	8-13	8-13	Cut: 5-8 Weld: 8-13	Cut: 5-8 Weld: 8-13	10	10	Cut: 5-8 Weld: 8-13	Cut: 5-8 Weld: 8-13	Cut: 5-8 Weld: 8-13
Modes	Weld	Weld	Weld	Weld/X-mode	Weld/Grind	Weld/Cut/ Grind	Weld/Cut/ Grind/X-mode	N/A	N/A	Weld/Cut/ X-mode/ External Grind	Weld/Cut/ X-mode/ External Grind	Weld/Cut/ X-mode
Integrated Grind Shield	No	Yes	No	Yes	No	No	No	No	Yes	No	No	Yes
Auto-on	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes	Yes
Sensors	2	2	2	3	2	3	4	N/A	N/A	3	4	4
TIG Rating	20 amps	20 amps	20 amps	5 amps/below	20 amps	5 amps	5 amps/below	N/A	N/A	5 amps/below	5 amps/below	5 amps/below
Switching Speed	1/3,600	1/3,600	1/10,000	1/20,000	1/20,000	1/20,000	1/20,000	N/A	N/A	1/20,000	1/20,000	1/20,000
Digital Controls	No	No	No	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Prem. Headgear	No	No	No	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes
InfoTrack™	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Weight	16 oz. (454 g)	14 oz. (396 g)	16 oz. (454 g)	23 oz. (652 g)	16 oz. (454 g)	17 oz. (482 g)	18 oz. (510 g)	17 oz. (482 g)	22.5 oz. (638 g)	19 oz. (539 g)	20 oz. (567 g)	24 oz. (680 g)

### Features

See page 96 for helmet accessories and packages.



**Digital controls** easily allow welder to adjust shade, delay, and sensitivity.



**External grind** on Titanium 7300 and 9400 helmets allows welder to switch to grind mode with the push of a button.



**Premium headgear** features unsurpassed fit and durability. Provides extensive adjustability settings and a pivoting top for better fit and comfort.



**EXCLUSIVE! InfoTrack™** technology on Titanium helmets allows the lens to track arc time while under the hood. Includes a digital clock display with the ability to set an alarm or timer.

## Titanium Series™ Industrial helmets for the most extreme welding and grinding applications.



**Four operating modes:** weld, cut, grind and X-mode (not available on 1600/1600i models).

**X-mode** eliminates sunlight interference and low-amperage lens opening from obstructed sensors (not available on 1600/1600i models).

**Silver shell** reflects heat to keep helmet and user cool.

**Aluminum heat shield** protects analog lens in high-amperage applications.

Note: Titanium 1600i and 1600 models have a 30-day limited warranty.

Titanium 9400i™  
#256 177

(features integrated grinding shield)

Titanium 9400™  
#256 176

Titanium 7300™  
#256 175

Titanium 1600i™  
#255 519

(features integrated grinding shield)

Titanium 1600™  
#245 799

# Welding Protection



## Digital Elite™ Series Ultimate helmets PLUS four modes of digital versatility for most welding and cutting applications.

 Vintage Roadster™ #259 485	 Lucky's Speed Shop™ #257 214	 Inferno™ #257 217	 Fury™ #256 158	 Camouflage #256 173	 Black #257 213
					
 <b>NEW!</b> CAT® Edition 1 #268 618	 <b>NEW!</b> Blue Flame #269 273	 <b>NEW!</b> Hot Rod Garage™ #269 946	 Stars and Stripes™ III #264 852	 Not Forgotten™ #260 127 <small>Miller will be donating \$10 to the National League of POW/MIA Families (pow-miafamilies.org) for each Not Forgotten helmet sold.</small>	

Four arc sensors and four modes: weld, cut, grind and X-mode.  
X-mode eliminates sunlight interference and low-amperage lens opening from obstructed sensors.

## Digital Performance™ Series Mid-range helmets for most welding applications.

 <b>NEW!</b> CAT® Edition 1 #268 739	 America's Eagle™ II #264 851	 Blue Rage™ #256 164	#256 160	 Illusion™ #256 165	 Camouflage #256 163	 Black #256 159
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## Digital Pro-Hobby™ Series Ideal helmets for light-duty welding applications.

 Stars and Stripes™ #264 850	 Metalworks™ #259 486	 Red Flame #256 168	 Camouflage #256 169	 Black #256 166
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## Classic Series Miller quality for the value-minded welder who wants an auto-darkening lens.

		
FS#10 Flip-Up	FS#10	VSi
<b>FS#10 Flip-Up</b> #263 038 Each	<b>FS#10</b> #231 703 4 Pack	<b>Variable Shade VSi™</b> #251 292 Each
		<b>#260 938</b> Each
<ul style="list-style-type: none"> <li>2-year warranty</li> <li>FS#10 Flip-Up and VSi models feature integrated grinding shield plus VSi model adds X-mode</li> <li>Designed with construction market in mind</li> </ul>		

## MP-10™ Series Miller quality for the value-minded welder.

	
<b>Inferno™</b> #238 496 Each	<b>Black</b> #235 626 6 Pack
	<b>#238 497</b> Each
<ul style="list-style-type: none"> <li>Passive shade 10 lens</li> <li>30-day limited warranty</li> <li>Upgradable to auto-darkening lens</li> </ul>	



# Welding Protection

## Goggles and Glasses



**NEW!**

### Weld-Mask™ Auto-Darkening Goggles #267 370

- Uniquely designed auto-darkening welding goggles with face shield and head cover provide alternative protection for specialized welding applications
- Ideal for maintenance, repair, and installation
- Compact design allows users to weld in spaces where access with traditional welding helmets is limited
- Lightweight design virtually eliminates neck strain
- Ideal alternative for cutting glasses for use with plasma cutters
- Eye covering fits tightly to the face to block out light for precision welding in bright surroundings
- Face shield and head cover provide coverage for UV/IR rays and applications with limited spatter
- Goggles feature shades 5, 7, 9, 11, and 13 (light state shade 3)



### Safety Glasses

- Black Frame** #238 979 Clear  
#235 656 Smoked  
#235 662 Shade 3  
#235 658 Shade 5
- Blue Frame** #235 655 Smoked  
#235 661 Shade 3  
#235 657 Shade 5
- Orange Frame** #235 663 Shade 3  
#235 659 Shade 5
- Form fitting orbital eye coverage
  - Shatterproof polycarbonate lenses
  - Soft foam protection keeps dust and perspiration from the eye
  - Shade 3 and 5 glasses feature reflective outer coating providing ultraviolet protection and enhanced contrast with minimal glare
  - ANSI Z87.1 compliant

## Helmet Accessories and Packages



### Helmet Bib #253 882

- Attaches to bottom of the helmet with hook-and-loop fasteners for added neck coverage



### Headgear #256 174

- Extensive adjustability settings and a pivoting top for better fit and comfort
- Fits any helmet in the Arc Armor® line



### Slotted Hard Hat Adapter #259 637

- Compatible with most slotted hard hats. Helmet and hat not included



### Hard Hat Adapter

- #213 110 XL and XLI  
#222 003 All other Miller Series
- Compatible with Fibre Metal and MSA hats. Other brands may fit depending on size and shape. Helmet and hat not included



### Helmet Hook #251 018

- Holds welding helmets, grinding shields or other helmets with a headgear. Silicone strap secures the helmet in place



### 2x4 Auto-Darkening Lens

- #770 660 Shade 8  
#770 659 Shade 9  
#770 226 Shade 10
- Fits all 2x4-inch windows
  - Solar powered, two arc sensors
  - Light state shade 3
  - Two-year warranty



### Jobsite Tool Bag #228 028

- Over twenty separate pockets
- Opening of 12 x 18.5 inches (305 x 470 mm)



Performance Pak shown.

### Protection Paks

- **Starter Pak**  
Includes #251 292 Classic VS helmet and Classic Cloth jacket  
#255 848 Large  
#255 850 X-Large  
#255 851 2X-Large
- **Performance Pak**  
Includes #256 159 Performance helmet and Indura® Cloth jacket  
#240 886 Large  
#240 887 X-Large  
#240 888 2X-Large

## Head Threads



## Head thread size chart

- Bandannas have a sewn-in sweatband
- Caps are reversible with a low, soft bill

Caps	Size 7	Size 7-1/8	Size 7-1/4	Size 7-3/8	Size 7-1/2	Size 7-3/4
American Pride	#230 553	#230 554	#230 555	#230 556	#230 557	#230 558
Blue Flame	#230 535	#230 536	#230 537	#230 538	#230 539	#230 540
Dragon	#230 547	#230 548	#230 549	#230 550	#230 551	#230 552
Ghost Skulls	#230 541	#230 542	#230 543	#230 544	#230 545	#230 546
Miller® Logos	#258 322	#258 323	#258 325	#258 326	#258 327	#258 328
<b>Bandannas (One size only)</b>	Black #250 904 Dragon #230 560 Maple Leaf #250 905		Miller® Logos #258 440 Skull & Barbed Wire #230 559			



## Welding Apparel



**Leather Jacket**  
(See size chart)

- Top grain leather
- Expandable leather strategically placed for optimal mobility
- Flame-resistant inside cuff
- Satin lined
- Tapered, athletic cut



**WeldX™ Jacket**  
(See size chart)

- Lightweight exclusive material with extreme flame-resistant properties
- 7-ounce WeldX front and flame-resistant navy cotton back
- Vented back/extended rear tail
- Zipper closure with hook-and-loop fastened flap
- Chromium free



**Combo Jacket**  
(See size chart)

- Indura® flame-resistant cotton (flame resistance guaranteed for life of jacket)
- Top grain leather
- Allows for patented bib/apron attachment



**Indura® Cloth Jacket**  
Men's and Women's  
(See size chart)

- Indura® flame-resistant cotton (flame resistance guaranteed for life of jacket)
- Nomex® flame-resistant thread



**Classic Cloth Jacket**  
(See size chart)

- 9-ounce flame-resistant navy cotton
- Pre-shrunk fabric
- Fold-in sleeve snaps
- Finished hems and reinforced stitching



**WeldX™ Cape Sleeves**  
(See size chart)

- 7-ounce WeldX front and flame-resistant navy cotton back
- Fold-in sleeve snaps
- Allows for bib attachment (sold separately)



**Classic Cloth Cape Sleeves**  
(See size chart)

- 9-ounce flame-resistant navy cotton
- Fold-in sleeve snaps
- Allows for bib attachment (sold separately)



**Classic Cloth Lab Coat**  
(See size chart)

- 40-inch length
- 9-ounce flame-resistant navy cotton
- Fold-in sleeve snaps
- Finished hems and reinforced stitching



**WeldX™ Apron**  
#247 134

- 35-inch length with accessible front pocket
- Adjustable drawstring ensures a good fit



**Classic Cloth Apron**  
#247 149

- 35-inch length with accessible front pocket
- Adjustable drawstring ensures a good fit



**Bib/Apron**  
#231 125

- Attaches to Indura® Cloth and Combo Jackets with snaps across the chest as a bib or along the bottom as an apron



**WeldX™ Bib**  
#247 133

- 19-inch length
- Attaches to cape sleeves



**Classic Cloth Bib**  
#247 147

- 19-inch length
- Attaches to cape sleeves



**WeldX™ Sleeves**  
#247 137

- 18-inch length
- Fold-in sleeve snaps
- One-handed cinch closure



**Classic Cloth Sleeves**  
#247 148

- 18-inch length
- Fold-in sleeve snaps
- One-handed cinch closure



**Combo Sleeves**  
#231 096

- Indura® flame-resistant cotton/top grain leather
- 21-inch (533 mm) length

## Welding apparel size chart

Apparel	Small	Medium	Large	X-Large	2X-Large	3X-Large	4X-Large	5X-Large
Leather Jacket	#231 088	#231 089	#231 090	#231 091	#231 092	#231 093	#231 094	#231 095
WeldX Jacket	#247 114	#247 115	#247 116	#247 117	#247 118	#247 119	#247 120	#247 121
Combo Jacket	#231 080	#231 081	#231 082	#231 083	#231 084	#231 085	#231 086	#231 087
Indura Cloth Jacket (Men's)	#258 095	#258 097	#258 098	#258 099	#258 100	#258 101	#258 102	#258 104
Indura Cloth Jacket (Women's)	#264 379	#264 380	#264 381	#264 382	#264 383	—	—	—
Classic Cloth Jacket	#244 749	#244 750	#244 751	#244 752	#244 754	#244 755	#244 756	#244 758
WeldX Cape Sleeves	#247 122	#247 123	#247 124	#247 126	#247 127	#247 128	#247 130	#247 131
Classic Cloth Cape Sleeves	#247 138	#247 139	#247 140	#247 142	#247 143	#247 144	#247 145	#247 146
Classic Cloth Lab Coat	—	—	#252 000	#252 001	#252 002	—	—	—



# Welding Protection

## Welding Gloves

**Performance** – unprecedented comfort and performance, redefining the welding glove industry. Three-dimensional pattern, select-grade leather and precision craftsmanship with unique design features for specific welding applications. Exceptional dexterity and flexibility.



### Extra Heavy-Duty MIG/Stick

#263 350 Large  
#263 351 X-Large

- **An industry first!** Silicone patches on back for heat and spatter protection
- Multi-layered insulated palm and back
- Dual-padded, pig grain palm for added comfort



### Heavy-Duty MIG/Stick (Long Cuff)

#263 342 X-Large

- Padded forearm for additional protection and comfort
- Triple-layered insulated back
- Strategically placed patches on pig grain palm and cow split back for extended glove life



### Heavy-Duty MIG/Stick

#263 339 Large  
#263 340 X-Large  
#269 615 2X-Large

- Strategically placed patches on palm and back for extended glove life
- Double-layered insulated palm and back
- Pig grain leather palm provides extreme durability and protection



### MIG/Stick

#263 343 Large  
#263 344 X-Large  
#269 616 2X-Large

- Dual-padded palm for added comfort
- Wool back provides ultimate insulation
- Cow split leather provides extreme durability and protection



### MIG (Lined)

#263 330 X-Small (Women's)  
#263 331 Small (Women's)  
#263 332 Medium  
#263 333 Large  
#263 334 X-Large  
#269 618 2X-Large

- Dual-padded palm
- Fleece insulated palm, foam insulated back
- Cow grain palm, pig split back and goat grain inner fingers provide exceptional dexterity and comfort



### MIG (Unlined)

#263 335 Medium  
#263 336 Large  
#263 337 X-Large  
#269 619 2X-Large

- Unlined palm for heightened feel and dexterity
- Double-layer insulated back and dual-padded palm for added comfort
- Cow grain palm, cow split back and goat grain inner fingers provide exceptional dexterity and comfort



### TIG

#263 345 X-Small (Women's)  
#263 346 Small (Women's)  
#263 347 Medium  
#263 348 Large  
#263 349 X-Large

- Completely unlined for heightened feel and dexterity
- Triple-padded palm for added comfort
- Goat grain leather offers superior flexibility and dexterity



### TIG/Multitask

#263 352 Small  
#263 353 Medium  
#263 354 Large  
#263 355 X-Large

- Dual-padded palm for added comfort
- Wool back provides ultimate insulation
- Goat grain leather offers superior flexibility and dexterity



### Work

#266 041 Medium  
#266 042 Large  
#266 043 X-Large

- Dual-padded palm for added durability
- Fleece back provides ultimate insulation
- Cow grain leather offers superior durability and abrasion resistance



### Metalworker

#251 066 Medium  
#251 067 Large  
#251 068 X-Large

- Durable top grain leather and spandex back for enhanced durability and dexterity
- Neoprene wrist with hook-and-loop closure increases fit and support
- Padded, reinforced palm and thumb saddle for extended wear

**Classic** – standard fit and materials for the value-minded welder.



### Heavy-Duty MIG/Stick

#249 193 Large  
#249 194 X-Large

- Durable side-split cowhide
- Aluminized insulation reflects radiant heat
- Reinforced palm heightens support and durability



### MIG (Long Cuff)

#249 198 X-Large

- Extra long 9-inch cuff for increased forearm protection
- Durable side-split cowhide
- Moisture-wicking cotton fleece lining



### MIG

#249 195 Large  
#249 196 X-Large

- Durable side-split cowhide
- Moisture-wicking cotton fleece lining
- Thumb reinforcement straps increase support and durability



### TIG

#249 199 Large  
#249 200 X-Large

- Unlined pigskin palm offers superior dexterity and wear
- Durable side-split cowhide
- Reinforced palm heightens support and durability



## Respiratory

**NEW!**



**N95 Disposable Mask Respirator** See literature no. AY/4.8

**#267 334** Respirator with valve

**#267 335** Respirator with valve and nuisance level OV relief

- Flame-retardant outer layer designed for welding applications
- Exhaust valve reduces heat build-up and user fatigue
- Fully adjustable double head-straps for superior fit
- Ergonomic design and adjustable nose clip for customized fit
- Full inside foam seal enhances fit and overall protection
- N95 filters provide 95 percent filtration of airborne particles, specifically: hexavalent chromium, zinc oxide, manganese, aluminum, cadmium and lead
- NIOSH 42 CFR 84 certified, assigned protection factor of 10

**NEW!**



**LPR-100 Half Mask Respirator** See literature no. AY/4.5

**#ML00894** Mask with P100 filters, small/medium

**#ML00895** Mask with P100 filters, medium/large

**#ML00994** Mask with P100 nuisance level OV relief filters, small/medium

**#ML00995** Mask with P100 nuisance level OV relief filters, medium/large

### Filters and accessories

**#SA00818** P100 filters, one pair

**#SA00819** P100 nuisance level OV relief filters, one pair

**#261 086** Quantitative fit-test kit adapter

- Low-profile design fits under most welding helmets and provides maximum field of vision
- Wrap-around spark guard protects filters from spatter and other debris
- Large exhaust valve eases breathing
- Odor-free, non-allergenic, latex and silicone free, made from medical-grade materials
- Exclusive pleated filter design provides additional surface area for extended filter life
- Fit testing is required for mandatory use
- P100 filters provide 99.97 percent filtration of airborne particles and oil aerosols, specifically: hexavalent chromium, zinc oxide, manganese, aluminum, cadmium and lead
- NIOSH 42 CFR 84 certified, assigned protection factor of 10



**PAPR Powered Air-Purifying Respirator** See literature no. AY/4.0

### Available packages:

#### With hard hat

**#259 385** With Titanium 9400™ helmet

**#261 659** With Titanium 9400i™ helmet

**#259 386** With hard hat only

#### With Titanium 9400i™ helmet

**#264 877** With auto-darkening lens assembly

**#264 878** Without auto-darkening lens assembly

#### With Titanium 9400™ helmet (external grind button)

**#264 879** With auto-darkening lens assembly

**#264 882** Without auto-darkening lens assembly

- Lightweight, low-profile blower design provides enhanced comfort and unrestricted movement
- Comfortable load-bearing shoulder straps reduce back strain
- Dual air speeds for maximized comfort in varied conditions
- Audible and vibrating alarms notify users in noisy environments
- HEPA filter provides 99.97 percent filtration of airborne particles and oil aerosols, specifically: hexavalent chromium, zinc oxide, manganese, aluminum, cadmium and lead
- NIOSH 42 CFR 84 certified, assigned protection factor of 25

## Heat Stress



*Note: Not compatible with XL Series™, Classic VSi™ and Titanium 9400i™ helmets.*

**CoolBand™ II Integrated Headgear Cooling System #261 970**

- Up to **8 degrees Fahrenheit cooler** under the hood
- Strategically placed air vents reduce fogging
- Constant air movement removes stagnant air
- Comes with headgear (#256 174)



*Note: Not compatible with XL Series™ helmets.*

**CoolBelt™ Belt-Mounted Cooling System #245 230**

- Up to **17 degrees Fahrenheit cooler** under the hood
- Provides all-day comfort through maximized airflow power
- Multiple airflow speeds eliminate stagnant air and reduce fogging
- Lightweight design extends wearability



# Workstations

Count on Miller to design the perfect workbench to make welding projects faster and easier. The Miller ArcStation is the first-ever, all-in-one workstation designed for welding and metalworking. It's versatile, affordable and just the right height to work comfortably. You can organize equipment, tools, and raw materials into one convenient workspace. And you can also customize your workbench with a wide range of handy accessories.

For more detailed information, visit

[MillerWelds.com/arcstation](http://MillerWelds.com/arcstation)



## S-Series ArcStation™



Fully loaded 60SX model (#951 413) shown. See below for other models.

The S-Series is perfect for the welder who needs a tough workbench for the fab shop or the home garage.

Four S-Series models available, depending on your needs:

- 30S (30 x 30 inch with solid tabletop)
- 30SX (30 x 30 inch with X-pattern tabletop)
- 60S (30 x 60 inch with solid tabletop)
- 60SX (30 x 60 inch with X-pattern and solid tabletop combo)

**SX model includes X-pattern tabletop** for trouble-free clamping!

**Durable 1/8-inch steel frame with cross bar and heavy-duty tabletops** provide a sturdy area for welding or metalworking.

**Lower shelf** provides a convenient place to store equipment, tools and raw materials.

**Adjustable leveling feet** keep bench rock-steady.

**Customize with a wide range of handy accessories** to make this the *ultimate* workbench (see at right).

### S-Series accessories

Miller® ArcStation accessories allow you to get the most out of your ArcStation.

- 1** X-clamps  
#300 613 6-inch  
#300 850 5-inch
- 2** Side shelf #300 680
- 3** Tool chest with ball-bearing slides  
#300 610
- 4** Interior shelf #300 679
- 5** Quick-remove vise  
#300 611 5-inch vise and mount  
#300 612 Mount only
- 6** Weld curtain  
#300 685 30S series  
#300 686 60S series
- 7** Casters  
#300 849



Convenience kit #300 614 includes the following:

- 8** Gun holder
- 9** Tool holder
- 10** Clamp bar



Visit [MillerWelds.com](http://MillerWelds.com) or your distributor for other Miller® options and accessories.

## F-Series ArcStation™



Shown with optional 5-inch X-clamps.



When portability or space-savings is a concern, the F-Series ArcStation is your solution.

**Wheels, handle, and fold-up design** make unit easy to take to the jobsite or move around the shop.

**Compact size** makes storing unit a breeze. Unit folds down to 6 x 29 x 48 inches (152 x 737 x 1219 mm).

**30 x 30 inch size tabletop** provides plenty of work surface.

**3/16-inch X-pattern steel tabletop** allows trouble-free clamping.

**1.5-inch diameter steel tube frame** provides strength and durability.

**Includes removable gun holder.**

**Add the optional 5-inch X-clamps (#300 850)** to make this the *ultimate* portable workbench.

### F-Series accessories

5-inch X-clamps #300 850



Scan this tag to see videos on ArcStation workbenches.

### ArcStation Models

	 <b>30FX (#300 837)</b>	 <b>30S (#951 167)</b>	 <b>30SX (#951 168)</b>	 <b>60S (#951 169)</b>	 <b>60SX (#951 170) 60SX Fully Loaded (#951 413)</b>
<b>Steel Top</b>	(1) 29 x 29 x 3/16-in. X-pattern	(1) 29 x 29 x 3/16-in. solid	(1) 29 x 29 x 3/8-in. X-pattern	(2) 29 x 29 x 3/16-in. solid	(1) 29 x 29 x 3/8-in. solid (1) 29 x 29 x 3/8-in. X-pattern
<b>Load Capacity</b>	500 lb. (227 kg)	1000 lb. (454 kg)	1000 lb. (454 kg)	1000 lb. (454 kg)	1000 lb. (454 kg)
<b>Dimensions</b>	35 x 29 x 35 in. (889 x 737 x 889 mm)	35 x 29 x 29 in. (889 x 737 x 737 mm)	35 x 29 x 29 in. (889 x 737 x 737 mm)	35 x 58 x 29 in. (889 x 1473 x 737 mm)	35 x 58 x 29 in. (889 x 1473 x 737 mm)
<b>Weight</b>	74 lb. (34 kg)	123 lb. (56 kg)	177 lb. (80 kg)	230 lb. (104 kg)	318 lb. (144 kg)



For more detailed information visit

MillerWelds.com/accessories

# Accessories



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- Extension Cables (14-pin) • Power Supply Adapter
- Spool Adapter • Spool Gun Controls and Kits
- Turntable Assembly • Wire Straightener

## Automated MIG

For adapters and drive motors, visit MillerWelds.com.



### Coolant Flow Switch #195 461

For Auto-Acess. To ensure coolant is flowing in the system. Lack of coolant flow may cause damage to

water-cooled guns. Module allows wiring into the peripheral connector port. 50-foot (15.2 m) cable with connector and separate shell connector for simple modification to desired length in the field. It can be mounted on Auto-Acess or as desired elsewhere. Quarter-turn quick connection.

### MCS-2 Motorized Cross Slide

#098 380 Control

#045 623 Adapter Plate\*

Provides accurate weld head adjustment with convenient motorized control. Used to align the welding head (gun) to the weld joint, by providing vertical or horizontal adjustments, based on mounting preferences.

\*Required when using two slides.

## Cable Connectors and Adapters

Also see Torch and Weld Cable Connectors in TIG Accessories on page 109.

For Invision 352 MPa, AlumaFeed System, XMT 304/350, CST 280, Maxstars, Dynastys, and Syncrowaves. These power sources are equipped with Dinse- or Tweco-style connectors for secondary connections. Power sources are shipped with two male plugs for use with #4 to #1/0 AWG cable.

### Dinse-Style Connector Kits

#042 418 Accepts #4 to #1/0 AWG cable

#042 533 Accepts #1/0 to #2/0 AWG 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 Kits for Dinse-Style Cable Connectors

#042 419 Accepts #4 to #1/0 AWG 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

#134 460 Male Dinse-style plug

#136 600 Female Dinse-style receptacle

Used to adapt or extend weld and/or work cables.

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



### Tweco-Style Connector #191 981

Accepts #1/0 to #2/0

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



### Dinse/Tweco Adapter #042 465

Dinse/Cam-Lok Adapter #042 466

One-piece adapter with Dinse-style male plug (to power source) on one end and

Tweco or Cam-Lok female receptacle (for weld cable connection) on other end.



### Tweco/Dinse Adapter #210 061

One-piece adapter with Tweco-style

male plug (to power source) on one end and Dinse-style female receptacle (for weld cable connection) on other end.

## Carts, Cylinder Racks and Running Gear

Also see Engine Drive Accessories and Plasma Accessories on pages 103 and 106.



### Carrying Cart #056 301

For XMTs, CST 280, smaller Maxstars/Dynastys, and wire feeders. Cart is 34 inches high x 30 inches wide x 17 inches deep (864 x 762 x 432 mm).



### Cylinder Cart #042 537

For Invisions, XMTs, and CST 280. Has adjustable handles and is slanted for convenient access to power source front panel controls. Carries two 160-pound (72.6 kg) gas bottles with feeder mounted to tray above power source. Accommodates Coolmate 3 or 4 coolant system.



### Universal Cart and Cylinder Rack #042 934

For Invision 352 MPa, XMT 304/350, CST 280, Diversions, Maxstar 200/280, and Dynasty 200/280. Also accommodates single gas cylinder up to

56 inches (142.2 cm) high measuring 6 to 9 inches (15.2 to 22.8 cm) in diameter. Provides storage for auxiliary items such as electrodes, helmets and gloves.



### Feeder Cart #142 382

A low-profile, creeper cart which allows the operator to easily move the feeder around the work area.



### Running Gear/Cylinder Rack #301 239

For Millermatic 141, 190, 211 Auto-Set, and Diversions. Heavy-duty construction with 8-inch rubber rear wheels. Convenient front handles, cable holders and plastic consumable box. For gas cylinders no greater than 7 inches (178 mm) in diameter or 65 pounds (29.5 kg) in weight.



### Dual EZ-Change™ Low Cylinder Rack with Elevated Gun and Cable Rack #300 337

For Millermatic 212 Auto-Set and 252, and Syncrowave 210. Allows operators to easily roll cylinders on and off the rack with no lifting. Gun and cable rack keeps cables off the floor and tangle free.

### Elevated Gun and Cable Rack #300 335

For Millermatic 212 Auto-Set and 252, and Syncrowave 210. For use with single cylinder rack. (Included with Dual EZ-Change Low Cylinder Rack.)



### Dual Cylinder Rack #195 299

For Millermatic 350P and 350P Aluminum. Replaces single cylinder rack.



### Standard Running Gear and Cylinder Rack #042 886

Running gear #042 887 Cylinder rack For CP-302, Deltawelds, Dimensions, and Gold Stars. Running gear has 10-inch (254 mm) rear wheels and 5-inch (127 mm) 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.



# Accessories



### MIGRunner™ Cart #195 445

For Invisions, AlumaFeed System, and XMTs with single feeders. Small footprint and easily maneuverable, with cylinder rack low enough that you do not have to lift bottles. Durable, heavy-duty ergonomic handles are designed for comfort.



### Thunderbolt XL Running Gear #043 927

Mounts easily to unit and provides convenient portability. Includes two wheels, two feet and a handle.



### Runner™ Cart #300 244

For Maxstar 350/700 and Dynasty 350/700 with or without Coolmate 3.5. Cart features single cylinder rack, foot pedal holder, three cable/torch holders and two TIG filler holders.



### Running Gear Cylinder Rack #300 408

For Invisions, Access 300/450, Dimension 650, and XMTs with single or dual feeders. Holds two large gas cylinders and has gun cable hangers and a consumable drawer in front. A convenient handle allows the cart to be pulled easily through doorways. Power source and single or dual feeders can be mounted to cart and secured.



### 2-Wheel Trolley Cart #300 480

For Maxstar/Dynasty 200 with or without Coolmate 1.3. Easy-to-manuever 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.



### No. 37 Running Gear #195 282

For Syncrowave 250 DX/350 LX. Includes two 10-inch (254 mm) wheels, two 5-inch (127 mm) casters, two-compartment rack for gas cylinders, and handles. Provides excellent mobility and easy to install.



### Continuum Running Gear/Cylinder Rack #301 264

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



### Small Runner™ Cart #300 988

For Maxstar/Dynasty 280 with or without Coolmate 1.3. Cart features single cylinder rack, foot pedal holder, two cable/torch holders and two TIG filler holders.



### Shopmate 300 Running Gear/Dual Cylinder Rack #300 145

For Shopmate 300 DX. The large 10-inch (254 mm) rear wheels and 5-inch (127 mm)

front casters on this running gear provide excellent mobility on the shop floor, making it easier to move the power source. Very easy to install. Handles double as a cable holder. Holds two cylinders.

## Coolant Systems

See literature no. AY/7.2 **1** Phase



\*May vary with torch design and cable length. Miller coolant systems are backed by the best warranty in the industry – one full year.

### Coolmate™ 1 #300 360 115 VAC

For Maxstar/Dynasty 200. Light industrial, 1-gallon cooler designed for water-cooled torches on power sources rated up to 200 A\*.

### Coolmate™ 1.3 #300 972 115 VAC

For Maxstar/Dynasty 280. Light industrial, 1.3-gallon cooler designed for water-cooled torches on power sources rated up to 280 A\*.

### Coolmate™ 3 #043 007 115 VAC #043 008 230 VAC

Economical, 3-gallon cooler designed for water-cooled torches rated up to 500 A\*.

### Coolmate™ 3.5 #300 245 115 VAC

For Maxstar 350/700 and Dynasty 350/700. Industrial, 3.5-gallon cooler designed for water-cooled torches rated up to 600 A\*.

### Coolmate™ 4 #042 288 115 VAC

Best performer in its class – industrial, 4-gallon cooler designed for water-cooled torches rated up to 600 A\*.

## Coolant

Sold in multiples of four in 1-gallon recyclable plastic bottles. Miller® coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37° Fahrenheit (-38° C) or boiling to 227° Fahrenheit (108° C).



### Low-Conductivity Coolant (clear, pre-mixed) #043 810

For TIG and MIG applications. NOT for use in push-pull systems or systems where aluminum is in coolant path/circuit.

### Aluminum-Protecting Coolant (green, pre-mixed) #043 809

Primarily used in push-pull systems where aluminum is in coolant path/circuit and high frequency is NOT used.

Model	Motor Input Voltage	Maximum Current Draw	Maximum Cooling Capacity	IEC Cooling Capacity	Tank Capacity	Dimensions	Net Weight
Coolmate 1	115 VAC, 60 Hz	2.1 A (60 Hz)	2850 W (9700 BTU/hr.) 1.8 qt./min. (1.7 L/min.)	1210 W (4120 BTU/hr.) 1.1 qt./min. (1 L/min.)	1 gal. (3.8 L)	H: 8 in. (203 mm) W: 7.5 in. (191 mm) D: 23.75 in. (603 mm)	25 lb. (11 kg)
Coolmate 1.3	115 VAC, 60 Hz	4.7 A (60 Hz)	3400 W (11,600 BTU/hr.) 3.8 qt./min. (3.6 L/min.)	1330 W (4540 BTU/hr.) 1.1 qt./min. (1 L/min.)	1.3 gal. (4.9 L)	H: 11.25 in. (286 mm) W: 10.38 in. (264 mm) D: 24 in. (610 mm)	43 lb. (20 kg)
Coolmate 3	115 VAC, 50/60 Hz 230 VAC, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz) 2.5 A (50 Hz), 3.0 A (60 Hz)	3820 W (13,000 BTU/hr.) 4.2 qt./min. (4.0 L/min.)	1420 W (4840 BTU/hr.) 1.1 qt./min. (1 L/min.)	3 gal. (11.4 L)	H: 13.25 in. (337 mm) W: 12.25 in. (311 mm) D: 23.25 in. (584 mm)	40 lb. (18 kg)
Coolmate 3.5	115 VAC, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	4140 W (14,000 BTU/hr.) 5.0 qt./min. (4.7 L/min.)	1660 W (5660 BTU/hr.) 1.1 qt./min. (1 L/min.)	3.5 gal. (13.2 L)	H: 11.75 in. (298 mm) W: 15.75 in. (400 mm) D: 26 in. (660 mm)	64 lb. (29 kg)
Coolmate 4	115 VAC, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	5500 W (18,000 BTU/hr.) 5.9 qt./min. (5.6 L/min.)	1780 W (6070 BTU/hr.) 1.1 qt./min. (1 L/min.)	4 gal. (15 L)	H: 16.25 in. (413 mm) W: 15.25 in. (387 mm) D: 18.75 in. (476 mm)	38 lb. (17 kg)



## Engine Drive Accessories

Also see Trailers, Remote Controls and HF Arc Starters on pages 104, 107 and 108.

### Big Blue Accessories



**Cable Holder #043 946**  
For Big Blue 400 and 500 CC, 500 Pro, 700 Duo Pro, 800 Duo Pro, and 800 Duo Air Pak.



**Vandalism Lockout Kit #195 118 Field** For Big Blue 400 and 500 CC.

**#399 802 Field** For Big Blue 500 Pro and 700 Duo Pro.

Lockable hinged steel panels cover and protect name plate

gauges and ignition switch (padlock included). Also includes engine compartment door lock and key.

### Blue Star Accessories



**Lifting Eye #195 353**  
For **current model** Blue Star 185.



**Running Gear #301 246**  
For **current model** Blue Star 185. Compact and balanced, light-weight wheelbarrow-style running gear provides easy onsite mobility.

### Bobcat and Trailblazer Accessories (Gas/LP)



**Multi-Terrain Running Gear #300 913**  
With inner tubes.

**#300 914**  
With Never Flat™ tires.

For Gas/LP Bobcats and Trailblazers. Includes two heavy-duty 15-inch tires,

two 8-inch rubber swivel casters and a heavy-duty handle. Recommended for all surfaces and applications and is easy to move around the jobsite.



**Off-Road Running Gear #300 909**  
With inner tubes.

**#300 910**  
With Never Flat™ tires.

For Gas/LP Bobcats and Trailblazers. Includes four heavy-duty 15-inch tires and

a rugged handle to provide maximum maneuverability.



**Off-Road Running Gear with Protective Cage and Never Flat™ Tires #300 912**

For Gas/LP Bobcats and Trailblazers. Running gear and rugged cage with cable holders protects your investment and is easy to move around the jobsite.



**Protective Cage with Cable Holders**

**#300 921** For Gas/LP Bobcats and Trailblazers.

**#300 473** For Trailblazer 302 Air Pak.

Rugged cage with cable

holders protects your investment. Works with Running Gear, Gas Cylinder Mounting Assembly or LP Tank Mounting Assembly.



**Gas Cylinder Mounting Assembly #300 918**

For Gas Bobcats and Trailblazers. Designed for use with Running Gear, Protective Cage, or by itself. Includes base tray with bottle bracket, vertical support rack and safety chain.

Note: Not for use with LP Tank Mounting Assembly. Not recommended for use with Protective Cover.



**Hose and LP Tank Mounting Assembly #300 917**

For LP Bobcats and Trailblazers. Designed for use with Running Gear, Protective Cage, or by itself. Includes bracket and clamp to mount 33- and 43-pound tanks

horizontally, and hose with fittings to converter.

Note: Cannot be used with Gas Cylinder Mounting Assembly. Not recommended for use with Protective Cover.



**Remote Oil Drain and Filter Kit #300 923 Field**

For Gas Bobcats and Trailblazers. Front mount for Kohler engines makes servicing easy when engine drive is mounted in tight spots.

### Bobcat and Trailblazer Accessories (Diesel)



**All-Purpose Running Gear with Never Flat™ Tires #300 477**

For Diesel Bobcats and Trailblazers. Includes two heavy-duty 15-inch tires, two 8-inch rubber swivel casters and a heavy-duty

handle. Recommended for all surfaces and applications and is easy to move around the jobsite.



**Protective Cage with Cable Holders #195 331**

For Diesel Bobcats and Trailblazers. Rugged cage with cable holders protects your investment. Works with Running Gear, Gas Cylinder Mounting Assembly or with trailer.

Note: Not for use with Protective Cover.



**Gas Cylinder Mounting Assembly #195 330**

For Diesel Bobcats and Trailblazers. Designed for use with Protective Cage, or by itself. Includes base tray with bottle bracket, vertical support rack and safety chain. Note: Not recommended for use with Protective Cover.

### Generator Accessories



Female Receptacle

**Full KVA Adapter Cord #300 517**

For Bobcats, Trailblazers, and Big Blues (except 400 and 500 CC). NEMA 14-50P to NEMA 6-50R. Adapts engine drive 120/240-volt plug to common Millermatic and Spectrum 240-volt plug.



**Single-Phase Full KVA Plug Kit #119 172**

For Bobcats, Trailblazers, and Big Blues (except 400 and 500 CC). Can be wired for 120 or 240 VAC loads.

**Three-Phase Full KVA Plug Kit**

**#165 963** For Bobcat 3 Phase.

**#254 140** For Big Blue 500 Pro, 700 Duo Pro, 800 Duo Pro, and 800 Duo Air Pak.

### Protective Covers



#300 919 and #195 301 covers shown.

#### Protective Covers

Heavy-duty, water- and mildew-resistant covers protect and maintain the finish of the welder.

**#301 245** For **current model** Blue Star 185.

**#300 919** For **current model** Gas Bobcats and Trailblazers (except Air Pak) **without** Protective Cage or Running Gear.

**#300 920** For **current model** Gas Bobcats and Trailblazers (except Air Pak) **with** Protective Cage or Running Gear.

**#301 099** For **current model** Diesel Bobcats and Trailblazers **without** Protective Cage or Running Gear.

**#300 379** For Trailblazer 302 Air Pak.

**#195 301** For Big Blue 350 PipePro, 400 Pro, and 450 Duo CST.

**#194 683** For Big Blue 400 and 500 CC, 500 Pro (CA model), and 700 Duo Pro.

**#301 113** For Big Blue 500 Pro (T4F model), 800 Duo Pro and 800 Duo Air Pak.



# Accessories

## Trailers

See literature no. AY/20.0



### HWY-1000 Trailer #195 013

For Bobcats and Trailblazers (except Air Pak model). A 1000-pound (454 kg) capacity highway trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. Includes jack stand, 2-inch (50 mm) ball hitch, fenders and lights.



### 4 West Four-Wheel Steerable Off-Road Trailer #042 801

For Big Blues. Heavy-duty 2570-pound (1166 kg) capacity trailer designed for use in mines, quarries, and other rough terrain. Has narrow 22-foot (6.7 m) turning radius. Includes 3-inch lunette eye, universal hitch and safety chains.



### HWY-224 Trailer #043 805 OFR-224 Trailer #043 802

For Bobcats, Trailblazers, and Big Blues. A 2650-pound (1202 kg) capacity trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. Includes jack stand and 2-inch (50 mm) ball hitch. HWY-224 also includes fenders and lights.

Note: Trailers are shipped unassembled. \*Width at outside of fenders. \*\*Does not include tongue.

Model	Gross Axle Weight Rating	Gross Vehicle Weight Rating	Net Payload	Height of Bed	Road Clearance	Track (Center to Center of tires)	Standard Tires (Standard Rating or P-size Rating)	Dimensions	Net Weight
HWY-1000	1500 lb. (680 kg)	1265 lb. (574 kg)	1000 lb. (454 kg)	18.5 in. (470 mm)	6.5 in. (165 mm)	50 in. (1270 mm)	4.8-12	L: 98 in. (2489 mm) W: 57.5 in. (1460 mm)*	265 lb. (120 kg)
4 West	2000 lb./axle (907 kg/axle)	3000 lb. (1361 kg)	2570 lb. (1166 kg)	21.25 in. (540 mm)	8 in. (203 mm)	55.25 in. (1403 mm)	B78-13	L: 91 in. (2311 mm)** W: 61.25 in. (1556 mm)	430 lb. (195 kg)
HWY-224 OFR-224	3500 lb. (1588 kg)	2960 lb. (1343 kg)	2650 lb. (1202 kg)	18.5 in. (470 mm)	7.25 in. (184 mm)	52 in. (1321 mm)	B-78-13	L: 105 in. (2667 mm) W: HWY-59.5 in. (1511 mm)* OFR-58.437 in. (1484 mm)	320 lb. (145 kg)

## Trailer accessories



### Dual Hitch #300 831

For HWY-1000, HWY-224, and OFR-224. Combination 2-inch (50 mm) ball and 3-inch (76 mm) lunette eye in one reversible assembly.

### Cable Tree

#195 023 For HWY-1000.

#043 826 For HWY-224 and OFR-224. Provides an area to conveniently wrap weld cables and extension cords.

### Fender Kit #300 160

For HWY-224 and OFR-224. Add fenders to OFR-224 or replacement fenders for HWY-224.

## Load Banks



### LBP-350 #043 329

Designed to provide an adjustable load for troubleshooting or calibrating welding power sources or generators. Standard equipment

includes analog meters for both AC and DC output with jacks for external metering connections. It comes with a 13-foot (4 m) 115-volt power cord and has seven 50-amp load switches, providing a maximum capacity of 350 amps.



### Welding Power Load Bank #902 804

Designed to load test the output of transformer-type, engine- or motor-driven generator welding power sources. This unit can be used to test AC or DC welder outputs, and to demonstrate welding equipment to customers.

## Meters

### Digital Meters #300 359 Field

For Gold Star models AFTER serial number KG283595. Easy-to-install, front-panel-mount, digital amp and volt meters.

### Weld Ammeter and Voltmeter Kit #195 131 Field

For Big Blue 400 and 500 CC. Panel-mounted analog meters monitor welding output.

## MIG Accessories

### Accessory Kits



#300 405 kit shown.

### Industrial MIG 4/0 Kit

#300 390 For single feeders.

#300 957 For dual feeders.

Consists of flowmeter regulator with 10-foot (3 m) gas hose, 10-foot (3 m) 4/0 feeder weld cable with lugs, and 15-foot (4.6 m) work cable with 600-amp C-clamp. Dual kit comes with two flowmeter regulators and gas hoses.

### Industrial MIG 4/0 Kit with Dinse Connector

#300 405 For single feeders.

#300 956 For dual feeders.

Same as above except weld and work cables have Dinse connector on one end instead of lug.



### Shopmate 300 MIG Kit #300 150

Includes flow gauge regulator and 10-ft. (3 m) gas hose for argon or AR/CO<sub>2</sub> mix, 10-foot (3 m) 1/0 interconnecting cable, 15-foot (4.6 m) 1/0 work cable with clamp, and consumable storage box.

## Protective Covers



### #301 262

For Millermatic 141 and 190.



### #195 149

For Millermatic 211 Auto-Set with MVP.



### #195 142

For Millermatic 212 Auto-Set, 252, 350P/350P Aluminum, and Syncrowave 210. Features side pocket.

## Pulsing Control

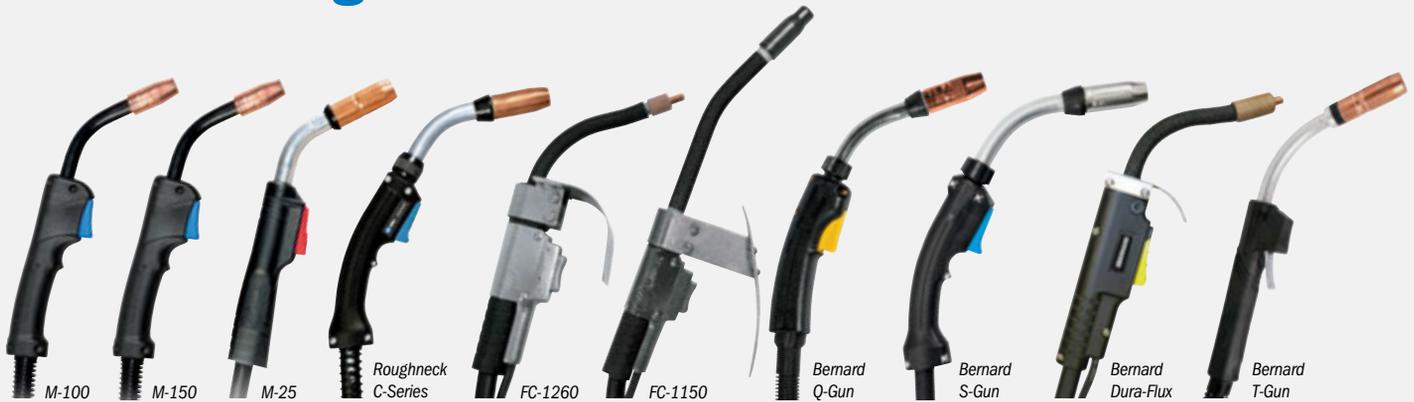


### Optima™ MIG Pulse Control #043 389

For XMT CC/CV models. A multipurpose, microprocessor-based pulse control for synergic MIG (wire welding or GMAW), manual MIG pulsing or standard MIG welding. Use this control with above power sources and any Miller® wire feeder, including automatic feeders and spool guns. Includes 25-foot (7.6 m) cord with 14-pin plug.



## MIG Welding Guns



\*Rated duty cycle for MIGmatic and Roughneck guns using CO<sub>2</sub> gas. Please see individual literature sheets for detailed specifications.

Model	Stock Number	Cable Length	Process	Rated Output	Rated Duty Cycle*	Standard Wire Size	Max. Recommended Wire Size
MIGmatic™ M-Series guns are an ideal match for Miller® integrated MIG packages and other Miller wire feeders. See literature no. AY/15.0							
M-100	#248 282	10 ft. (3 m)	MIG, Flux-Cored	100 Amps	100%	.030-.035 in. (0.8-0.9 mm)	.045 in. (1.2 mm)
M-150	#249 039	10 ft. (3 m)	MIG, Flux-Cored	150 Amps	100%	.030-.035 in. (0.8-0.9 mm)	.045 in. (1.2 mm)
	#249 040	12 ft. (3.7 m)					
	#249 041	15 ft. (4.6 m)					
M-25	#169 594	10 ft. (3 m)	MIG, Flux-Cored	250 Amps	100%	.030-.035 in. (0.8-0.9 mm)	3/64 in. (1.2 mm)
	#169 596	12 ft. (3.7 m)					
	#169 598	15 ft. (4.6 m)				.035-.045 in. (0.9-1.2 mm)	3/64 in. (1.2 mm)
	#169 599	15 ft. (4.6 m)					
Roughneck® C-Series guns are fully compatible with all current Miller wire feeders and are also adaptable to other major brands of welding equipment. See literature no. AY/17.0							
C-3010	#194 751	10 ft. (3 m)	MIG, Flux-Cored	300 Amps	100%	.035-.045 in. (0.9-1.2 mm)	5/64 in. (2.0 mm)
C-3012	#194 752	12 ft. (3.7 m)					
C-3015	#194 753	15 ft. (4.6 m)					
C-4010	#194 754	10 ft. (3 m)	MIG, Flux-Cored	400 Amps	100%	.035-.045 in. (0.9-1.2 mm)	5/64 in. (2.0 mm)
C-4012	#194 755	12 ft. (3.7 m)					
C-4015	#194 756	15 ft. (4.6 m)					
C-5010	#194 757	10 ft. (3 m)	MIG, Flux-Cored	500 Amps	100%	.052-1/16 in. (1.3-1.6 mm)	1/8 in. (3.2 mm)
C-5012	#194 758	12 ft. (3.7 m)					
C-5015	#194 759	15 ft. (4.6 m)					
Ironmate™ Series guns are ideal for feeding self-shielded (gasless) flux-cored wires with portable as well as standard-type wire feeders. See literature no. AY/16.0							
FC-1260	#195 732	10 ft. (3 m)	Self-Shielded Flux-Cored	350 Amps	60%	1/16-3/32 in. (1.6-2.4 mm)	3/32 in. (2.4 mm)
	#195 729	15 ft. (4.6 m)					
FC-1260LM <i>(For Lincoln and Miller wire feeders)</i>	#194 912	10 ft. (3 m)	Self-Shielded Flux-Cored	450 Amps	60%	3/32-1/8 in (2.4-3.2 mm)	1/8 in. (3.2 mm)
	#194 911	15 ft. (4.6 m)					
FC-1150	#194 864	10 ft. (3 m)	Self-Shielded Flux-Cored	450 Amps	60%	3/32-1/8 in (2.4-3.2 mm)	1/8 in. (3.2 mm)
	#194 863	15 ft. (4.6 m)					

Bernard™ Q-Gun™, S-Gun™, T-Gun™ and Dura-Flux™ guns – see Website at BernardWelds.com

### MIG Gun Accessories

#### MIGmatic™ M-Series Consumable Kits

- #234 607 .023-in. wire For M-100/M-150.
- #234 608 .030-in. wire For M-100/M-150.
- #234 609 .035-in. wire For M-100/M-150.
- #234 610 .030-in. wire For M-25.
- #234 611 .035-in. wire For M-25.
- #234 612 .045-in. wire For M-25.

Contains contact tips, tip adapters, nozzle adapters and a standard nozzle.

#### Roughneck® Aluminum Conversion Kit #202 895

Allows 10-foot Roughneck guns to feed 3/64-1/16 inch aluminum wires.

#### Roughneck® Consumable Kit #206 073

Contains contact tips, diffuser, nozzle, nozzle insulator and gun hook.

#### Roughneck® Gun Hook #199 662

Enables Roughneck gun to be stored between welds.

#### Roughneck® Locking Trigger Switch #199 661

Allows Roughneck trigger to be locked during long welds.

#### Roughneck® Machine Adapter Kits

#199 663 For older Hobart and Thermal products.

#199 664 For Lincoln products.

Adapts Roughneck guns to be used with listed products.

#### Ironmate™ .045 Conversion Kit #199 178

Allows FC-1260 and FC-1260LM guns to feed .045-inch self-shielded wire.



# Accessories

## Plasma Cutter Accessories

### Automation Kits



#### Automation Kit for Spectrum 625 X-TREME #301 158

Upgrades new quick-connect hand-held torch packages to add machine torch

capabilities. Includes new front panel with built-in remote control cable receptacle. Machine torches are NOT included in kits and must be ordered separately.



#301 157 kit shown.

#### Automation Kits for Spectrum 875 and 875 Auto-Line #301 156 For 875.

#### #301 157 For 875 Auto-Line.

Automation kits upgrade hand-held torch packages to add machine torch capabilities. Automation kit for Spectrum 875 Auto-Line (#301 157) includes a remote pendant control for manual on/off. Machine torches are NOT included in kits and must be ordered separately.

### Cables and Cable Covers



#### Flexible Work Cable

#234 838 20 ft. (6.1 m)

#234 930 50 ft. (15.2 m)

Work cable with quick connect and heavy-duty clamp.



#### Cable Covers

#239 642 20 ft. (6.1 m)

#231 867 25 ft. (7.6 m)

#231 868 50 ft. (15.2 m)

### Cart



#### No. 30B Economy Cart with Cord Wrap #300 511

For 875 and 875 Auto-Line.

This economical running gear provides mobility, includes a cord wrap and extra storage space, and is angled for easy front panel access.

### Cutting Guides



#### Plasma Circle-Cutting Guides #253 055

For XT30C, XT30, XT40 and XT60. Cut straight lines or circles up to 12 inches in diameter.



#### Suction/Magnetic Pivot Base #195 979

Add this to your cutting guide for convenient attachment to all flat surfaces. The extended arm accommodates holes up to 30 inches in diameter.



#### Plasma Standoff

#### Roller Guide #253 054

Helps maintain recommended standoff distance to maximize cutting performance and improve tip life.

### Filters



#### In-Line Air Filter Kit #228 926

For 375 X-TREME, 625 X-TREME, 875, and 875 Auto-Line. Mounts to back of the plasma cutter. Includes male and female 1/4-inch NPT quick-disconnect fittings and hose for easy on/off connection. The replaceable filter element (#228 928) filters to .85 microns for removal of 99.9 percent of water, dirt and oil.



#### RTI Filter and Bracket #300 491

For 875 and 875 Auto-Line. Dryer will remove water, dirt and oil as small as one micron with 99.9 percent efficiency. Can be mounted on plasma cutter or on wall. Install as close as possible to point of air consumption. Replaceable filter element (#212 771).

### Plugs and Cords

#### MVP™ Plugs



#### #219 258

For power cable 6-50P (230/240 V, 50 A).



#### #219 261

For power cable 5-15P (115/120 V, 15 A).



#### #219 259

For power cable 5-20P (115/120 V, 20 A).

For Spectrum 375 X-TREME, Millermatic 211 Auto-Set with MVP, Maxstar 150 models, Diversion 180, and Multimatic 200. Allows connection of machine to 115/120-volt or 230/240-volt receptacles without tools—just choose the plug that fits the receptacle.

#### MVP™ Adapters



#### #254 328

For connection to 6-50P receptacle (240 V, 50 A).



#### #254 330

For connection to 5-15P receptacle (120 V, 15 A).



#### #254 331

For connection to 5-20P receptacle (120 V, 20 A).

For Spectrum 625 X-TREME. Allows connection of machine to 120- or 240-volt receptacles without tools—just choose the adapter cord that fits the receptacle.



#### Full KVA Adapter Cord #300 517

NEMA 14-50P to NEMA 6-50R. Adapts engine drive 120/240-volt plug to common Millermatic and Spectrum 240-volt plug.

#### 230-Volt Extension Cord #770 644

20-foot (6.1 m) NEMA 6-50P to NEMA 6-50R heavy-duty extension cord. 8-gauge cord has lighted ends that show power is on and a molded, integrated strain relief.

### Protective Covers



#### #300 388

For Spectrum 875.



#### #300 184

X-CASE for Spectrum 375 X-TREME and 625 X-TREME, and Maxstar 150 models.

### Torches

See your Miller® distributor for complete information on the following XT plasma torches and their consumables:



#### Spectrum plasma cutter hand-held torches:

#249 949 12-ft. (3.7 m) XT30 for 375 X-TREME.

#260 633 12-ft. (3.7 m) XT40 for 625 X-TREME.

#260 635 20-ft. (6.1 m) XT40 for 625 X-TREME.

#249 953 20-ft. (6.1 m) XT60 for 875/875 Auto-Line.

#249 954 50-ft. (15.2 m) XT60 for 875/875 Auto-Line.



#### Spectrum plasma cutter machine torches:

##### For Spectrum 625 X-TREME

#259 305 25-ft. (7.6 m) long body XT40M.

#257 462 25-ft. (7.6 m) short body XT40M.

##### For Spectrum 875 and 875 Auto-Line

#249 955 25-ft. (7.6 m) long body XT60M.

#249 956 50-ft. (15.2 m) long body XT60M.

#257 464 25-ft. (7.6 m) short body XT60M.

#263 952 50-ft. (15.2 m) short body XT60M.



#### Plasma Torch Consumable Kits

#253 520 For XT30.

#253 521 For XT40.

#256 033 For XT60.

#127 493 Empty consumable box.



## Polarity Switches/Controls

### DC Polarity Reversing Switch Kit #043 942 Field

For Big Blue 400 and 500 CC. Changes DC polarity without using tools.

### Polarity Control #042 871

This dual-function control is designed for use with dual wire feeders or any application where electrical isolation and/or polarity reversing of weld current is required. Both functions can be used at the same time.



### Process Selector Control

#### #042 872

For CC, CV or CC/CV welding power source. Provides easy way to change welding process. Also includes features of Polarity Control.

## Remote Controls

Also see Remote Controls in TIG Accessories on pages 108 and 109.



### PRHC-14 Hand Control #195 511

For all solid-state power sources after serial number JK674521. Complete current or voltage control brings 120 volts of GFCI power to work area in a single cord. Housed in a durable and light aluminum case and includes 125-foot (38 m) cord with plugs.

### Remote On/Off Control #242 197 025

For Deltawelds, Dimensions, and Gold Stars. Allows you to turn power source on or off from a distance of 25 feet (7.6 m). This is useful if power source is up in a mezzanine.



### RHC-3GD34A Remote

#### Hand Control #041 122

For Big Blue 400 CC and 500 CC. Remote hand amperage control. Includes 20-foot (6 m) cord and plug.

## Stick Accessory Kits



### No. 2 Stick Cable Sets

#195 196 15 ft. (4.6 m)

#300 836 50 ft. (15 m)

Consists of either 15- or 50-foot electrode cable with holder and work cable with clamp. 200 A, 100% duty cycle.



### 2/0 Stick Cable Set

#173 851 50 ft. (15 m), 350 A

#043 952 100/50 ft. (30/15 m), 300 A

Consists of either 50- or 100-foot 2/0 electrode cable with holder and 50-foot work cable with clamp. 100% duty cycle.



### Weld Cables

#195 457 Cable with electrode holder

#195 458 Cable with work clamp

Consists of a stud/Tweco® adapter and 10-foot (3 m) 2/0 weld cable with a Tweco male connector and either an electrode holder or work clamp. Rated up to 400 A.



### 2/0 Weld Cable Extensions

#195 456 50 ft. (15 m)

#195 455 100 ft. (30 m)

For use with weld cables (#195 457) and (#195 458).

## Submerged Arc Accessories

### Flux Hopper



### SubArc Flux Hopper

#### Digital Low Voltage #300 942

25-pound (11 kg) capacity hopper with automatic flux valve and slag screen. The opening is sized to allow hook-up of any flux-hopper-mounted recovery system. Includes 11-foot (3.3 m) power cord.

### Flux Hopper Extension Cables

#260 623 010 10 ft. (3 m)

#260 623 025 25 ft. (7.6 m)

#260 623 065 65 ft. (19.8 m)

Cable between SubArc Interface and flux hopper.

### Interface Control Cables

#### SubArc Control Cables

#260 622 030 30 ft. (9.1 m)

#260 622 050 50 ft. (15 m)

#260 622 080 80 ft. (24.4 m)

#260 622 100 100 ft. (30.5 m)

#260 622 120 120 ft. (36.6 m)

#260 622 200 200 ft. (61.0 m)

Cable between SubArc Interface and power source.

#### SubArc Parallel Cable

#260 775 015 15 ft. (4.6 m)

#### SubArc Tandem Cable

#260 878 015 15 ft. (4.6 m)

### Torch Accessories

#### OBT 600 Torch Body Extensions

#043 967 1 inch (25.4 mm)

#043 969 2 inch (50.8 mm)

#043 973 4 inch (101.6 mm)

#043 975 6 inch (152.4 mm)

#### OBT 1200 Torch Body Extension #043 981

Overall length with extension is 9 inches (228.6 mm).

Actual length of extension is 8.5 inches (215.9 mm).

#### OBT Torch Contact Tips

OBT 600 OBT 1200 Wire Size

#192 700 #192 141 1/16 in. (1.6 mm)

#192 701 #199 026 5/64 in. (2.0 mm)

#192 702 #192 142 3/32 in. (2.4 mm)

#192 703 #200 771 7/64 in. (2.8 mm)

#192 704 #192 143 1/8 in. (3.2 mm)

#192 705 #192 144 5/32 in. (4.0 mm)

#192 706 #192 136 3/16 in. (4.8 mm)

#192 707 #200 756 7/32 in. (5.6 mm)

## 1200-Amp Torch Contact Tips

Single-Wire	Twin-Wire	Wire Size
—	#264 595	3/64 in. (1.2 mm)
#264 590	#264 596	1/16 in. (1.6 mm)
#264 591	#264 597	5/64 in. (2.0 mm)
#264 487	#264 588	3/32 in. (2.4 mm)
#264 593	—	1/8 in. (3.2 mm)
#264 594	—	5/32 in. (4.0 mm)

## Tractor



### SubArc Tractor

#300 945 Tractor only

#951 615 With SubArc Interface Analog

#951 614 With SubArc Interface Digital

SubArc tractor packages include SubArc tractor with remote start/stop control and guide rolls, SubArc Interface weld control (analog or digital), SubArc Wire Drive 400 Digital Low Voltage for Tractor, 25-pound (11.3 kg) capacity flux hopper with valve, 60-pound (27 kg) wire reel, OBT 600 torch and wire straightener. See Lit. No. AD/7.5 for more information.

## Wire Drive Assembly Accessories

### Drive Rolls

#132 955 1/16 in. (1.6 mm)

#132 960 5/64 in. (2.0 mm)

#132 961 3/32 in. (2.4 mm)

#132 962 7/64 in. (2.8 mm)

#132 963 1/8 in. (3.2 mm)

#193 700 5/32 in. (4.0 mm)

#193 701 3/16 in. (4.8 mm)

#193 702 7/32 in. (5.6 mm)

V-knurled drive rolls for use with hard-shelled cored wires.

### Motor Extension Cables

#254 232 010 10 ft. (3 m)

#254 232 025 25 ft. (7.6 m)

#254 232 065 65 ft. (19.8 m)

Cable between SubArc Interface and drive motor.

### Single-Wire Straightener #199 733

For SubArc Wire Drive 400 Digital Low Voltage and SubArc Wire Drive 780 Digital Low Voltage. For 1/16–7/32 inch (1.6–5.6 mm) wire.

### Twin-Wire Straighteners (for Twin-Wire torches only)

#301 160 Single adjustment

#301 162 Double/separate adjustment

### Wire Reel #108 008

Supports 60-pound (27 kg) coil of wire. Requires Spool Support Assembly (#119 438).



# Accessories

## TIG Accessories

### High-Frequency Arc Starters and Stabilizers



**High Frequency Arc Starter/Stabilizer**  
**#042 388** HF251D-1, 115 VAC  
**#042 387** HF251-2, 230 VAC  
 These portable 250-amp, 60 percent duty cycle units add high-frequency to the welding circuit to help start arc when using the TIG process.

### Secondary Contactor Kit

**#041 969 Field** For HF-251D-1.  
**#041 906 Field** For HF-251-2.

For power sources without a contactor. Mounts inside HF-251 cabinet.

### Kits



**#195 055**  
 kit shown.

### Contractor Kit

**#195 055** TIG/Stick Pkg with RCCS-14 Fingertip  
**#195 054** TIG/Stick Pkg with RFCS-14 HD Foot Pedal  
 For Maxstar 200/280 and Dynasty 200/280. All-in-one TIG/Stick welding kit comes with either a RCCS-14 fingertip control or RFCS-14 HD foot control, Weldcraft™ A-150 TIG torch, 200-amp Stick electrode holder with 15-foot (4.6 m) cable, 300-amp work clamp with 15-foot (4.6 m) cable, flow gauge regulator with 12-foot (3.7 m) gas hose, gas hose coupler, AK2C torch accessory kit, and TIG torch connector.



### TIG Contractor Kit #301 287

For Multimatic 200. Kit comes with Weldcraft™ A-150 TIG torch with Dinse-style connector, RFCS-6M foot control, flow gauge regulator with 12-foot (3.7 m) gas hose, and AK2C torch accessory kit.



**Weldcraft™ Water-Cooled Torch Kits** **#300 990**  
 kit shown.

**#300 185** 250 A, W-250 (WP-20)  
**#300 990** 280 A, W-280 (WP-280)  
**#301 268** 375 A, W-375  
**#300 186** 400 A, W-400 (WP-18SC)

For Maxstars (except 150 models), Dynastys, and Syncrowave 250 DX/350 LX. Kit comes with 25-foot (7.6 m) TIG torch with Dinse-style connector (thread-lock on 400-amp kit), torch cable cover, work clamp with 15-foot (4.6 m) cable [12-foot (3.7 m) cable on 400-amp kit], flowmeter regulator with gas hose, and torch accessory kit.

## Protective Covers



**#300 579** and **#195 478** covers shown.

**#195 321** For Maxstar 200 Series.  
**#195 322** For Dynasty 200 Series.  
**#195 142** For Syncrowave 210.  
**#300 579** For Diversion 165 and 180.  
**#195 320** For Syncrowave 250 DX/350 LX.  
**#195 478** For XMT 304 and 350.

## Remote Controls



**14-Pin to 6-Pin Adapter Cord**  
**#300 507**

For Maxstar 150 STL and STH, and Multimatic 200. Adapts Miller® 14-pin foot control or fingertip control to a 6-pin plug.



**RCC-14** (14-pin plug) **#151 086**

Side-to-side (east/west) rotary-motion fingertip current/contacter control attaches to TIG torch using two hook-and-loop fasteners. Great for production or contractors that need quick ramp-up. Includes 26.5-foot (8 m) cord and plug.



**RCCS-6M** (6-pin plug)  
**#195 184** 13.25-ft. (4 m) cord  
**#195 503** 26.5-ft. (8 m) cord

For Maxstar 150 STL and STH.

**RCCS-RJ** (Diversion)

**#301 146** 13.25-ft. (4 m) cord  
 For Diversion 165 and 180.

**RCCS-14** (14-pin plug)

**#043 688** 26.5-ft. (8 m) cord  
 North/south rotary-motion fingertip current/contacter control attaches to TIG torch using two hook-and-loop fasteners. Great for applications that require a finer amperage control. Includes cord and plug.



**RFCS-6M** (6-pin plug)  
**#195 183** 13.25-ft (4 m) cord  
**#195 504** 20-ft (6 m) cord

For Maxstar 150 STL and STH, and Multimatic 200.

**RFCS-5** (5-pin plug)

**#043 716** 20-ft (6 m) cord

**RFCS-14** (14-pin plug)

**#043 554** 20-ft (6 m) cord

Foot pedal current/contacter control. Includes cord and plug.



**RFCS-14 HD** (14-pin plug) **#194 744**

Heavy-duty foot pedal current/contacter control with increased stability and durability from larger base and heavier cord. Reconfigurable cord can exit front, back or either side of the pedal for flexibility. Includes 20-foot (6 m) cord and plug.



**RFCS-RJ45** **#300 432**

For Diversion 165 and 180. Foot pedal current/contacter control. Includes 14-foot (4.3 m) cord and plug.



**RHC-14\*** (14-pin plug)  
**#242 211 020** 20-ft. (6 m) cord  
**#242 211 100** 100-ft. (30.5 m) cord

Miniature hand current/contacter control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 82 mm). Includes cord and plug.

\*For additional lengths visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld).



**RMLS-14** (14-pin plug) **#129 337**

Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and backward for momentary contact. Includes 26.5-foot (8 m) cord and plug.



**RMS-6M** (6-pin plug) **#195 269**  
 For Maxstar 150 STL and STH.

**RMS-14** (14-pin plug) **#187 208**

Momentary-contact switch for contactor control. Rubber-covered pushbutton dome switch ideal for repetitive on-off applications. Includes 26.5-foot (8 m) cord and plug.



**RPBS-14** (14-pin plug) **#300 666**

Attaches to the TIG torch to remotely start and stop the TIG welding process. Includes 25-foot (7.6 m) cord and plug.



## Wireless Remote Foot and Hand Controls

See literature no. AY/6.5 (Foot) and AY/6.6 (Hand)

**Increases productivity, saves money, improves safety and easy to use.**



Wireless 14-pin receiver  
(included with both systems)

Wireless Hand Control

### 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.*

**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 90-foot (27.4 m) 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.)

### 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 300 feet 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 (#300 429) or hand control (#300 430) transmitter
- Wireless 14-pin receiver (#300 722)
- Battery box (#249 297)
- Three AA batteries
- Four Easy-Glide Wear Pads™ (foot control only) (sold individually, #248 274)
- Belt clip (hand control only) (#249 233)

#### Suggested power sources



Look throughout this catalog for the icon above signifying compatibility with a wireless remote. For a complete power source compatibility list visit [MillerWelds.com/wireless](http://MillerWelds.com/wireless).

Model/Stock Number	Component	Power Supply	Battery Life	Rated Range*	Temperature	Radio Frequency	RF Power	Antenna	Dimensions	Weight
<b>Wireless Foot Control System (#300 429)</b>	Foot control (transmitter)	Three AA batteries	250 hours	90 ft. (27.4 m)	-13° F to +158° F (-25° C to +70° C)	2.4 Ghz (ISM band)	<3 mW	Internal	H: 6 in. (152 mm)	3 lb. (1.4 kg)
									W: 5.75 in. (146 mm)	w/batteries
<b>Wireless Hand Control System (#300 430)</b>	Hand control (transmitter)	Three AA batteries	250 hours	300 ft. (91 m)					H: 5 in. (127 mm)	0.6 lb. (0.27 kg)
									W: 2.75 in. (70 mm)	w/batteries
									D: 1.375 in. (35 mm)	

## TIG Accessories (continued)

### Torch and Weld Cable Connectors

#### Air-Cooled TIG (GTAW) Torch Connectors



**#195 234<sup>1,2</sup>**  
For Maxstar 150 and Multimatic 200. 25-mm (small) Dinse-style gas thru for one-piece air-cooled torches.



**#194 723** A-200 (WP26)  
**#194 722<sup>2</sup>** All others  
For Syncrowave 210. 50-mm Dinse-style gas thru for one-piece air-cooled torch.



**#195 379** A-200 (WP26)  
**#195 378<sup>2</sup>** All others  
For CST 280, Maxstar 200/280/350, Dynasty 200/280/350, and Syncrowave 250 DX/350 LX. 50-mm Dinse-style for one-piece air-cooled torch.

### Water-Cooled TIG (GTAW) Torch Connectors



**50-mm Dinse-Style Flow Thru #195 380**  
For Syncrowave 210. Used with all Weldcraft™ water-cooled torches.



**50-mm Dinse-Style with Water Return Line #195 377**  
For Maxstar 200/280/350, Dynasty 200/280/350, and Syncrowave 250 DX/350 LX. Used with all Weldcraft™ water-cooled torches.



**50-mm Thread-Lock Style #225 028**  
For Maxstar/Dynasty 700. Used with all Weldcraft™ water-cooled torches.



**Thread-Lock-Style Weld Cable Connectors #225 029**  
For Maxstar/Dynasty 700. Contains two male connectors that accept #1/0 to #4/0 AWG size cable.

<sup>1</sup>Except A-200 (WP26) torch. <sup>2</sup>A-80 (WP24) torches require 24-5 adapter.



# Accessories

## Wire Feeder Accessories

### Extension Cables (14-Pin)

#### 8-Conductor Cables\*

- #242 208 025 25 ft. (7.6 m)
- #242 208 050 50 ft. (15 m)
- #242 208 080 80 ft. (24.4 m)

For XR-Controls, SuitCase 12RC feeder, 20 Series feeders, and 70 Series (S/D/DX model) feeders. 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\*

- #247 831 025 25 ft. (7.6 m)
- #247 831 050 50 ft. (15 m)
- #247 831 080 80 ft. (24.4 m)

For XR-AlumaFeed, MPa Plus feeders, and 60M feeders. 11-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.

#### 14-Conductor Cables\*

- #242 205 025 25 ft. (7.6 m)
- #242 205 050 50 ft. (15 m)
- #242 205 080 80 ft. (24.4 m)

For HDC and WC-115 weld controls, XR-Controls prior to serial number KK309906, and 50 Series feeders. Fully-loaded 14-pin extension cables for remote controls, and 24-volt and 115-volt feeders.

\*For additional lengths visit [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld).

## Power Supply Adapter



#### PSA-2 Control #141 604

Required when using SuitCase 12RC, 20 Series, and 70 Series feeders with power sources having only 115 VAC available. Control is equipped with a 14-pin receptacle and a 10-foot interconnecting cable with Hubbell connections for older style power sources. Can also be used with competitive power sources requiring a contact closure for contactor control.

#### PSA-2 Extension Cord #047 813

25-foot (7.6 m) cord extends 10-foot (3 m) cord supplied with PSA-2 control (4-pin to 4-pin connection).

## Spool Adapter

#### #047 141

For use with 14-pound (6.4 kg) spool of Hobart or Lincoln self-shielding wire.

## Spool Gun Controls and Kits

For more information see literature no. M/1.5, M/1.73 and M/1.76.



#### SGA 100 #043 856

Required to connect Spoolmate 3035 spool gun to any Millermatic 141, 190, or 211. Also allows connection to virtually any

similar MIG welder—Miller or other brands. Includes 10-foot (3 m) 115 VAC power cable and plug, 6-foot (1.8 m) interconnecting cable, and 5-foot (1.5 m) gas hose.



#### SGA 100C #043 857

SGA with contactor required to connect Spoolmate 3035 spool gun to CV engine drives like the Miller Bobcat. Includes 10-foot (3 m) 115 VAC power cable and plug, 6-foot (1.8 m) interconnecting cable, and 5-foot (1.5 m) gas hose.



#### WC-115A Weld Control

#137 546 Without contactor  
#137 546-01-1 With contactor  
Operates on 115 VAC, and designed primarily for constant-current DC power sources. Can also be used with constant-voltage power sources or DC engine drives supplying 115 VAC. Used with a CC source, the control circuit functions in a voltage-sensing mode and with a CV source, it functions as a constant-speed circuit. Includes wire run-in and drive motor acceleration controls which ensure optimum arc starting performance.



#### WC-24 Weld Control

#### #137 549

For Spoolmate 200 and Spoolmatic/Spoolmatic Pro. Easily mounts on power source. Designed for use with Miller CV power sources with 14-pin receptacles and supplying 24 VAC.

## Spool Gun Extension Hose and Cable Kits

#### #132 228 25 ft. (7.6 m)

#### #132 229 50 ft. (15 m)

For Spoolmatic/Spoolmatic Pro. Extends leads, etc. between spool gun and power source.

## Turntable Assembly

#### #146 236

Allows feeder to rotate as operator changes work position. Reduces strain and bending of gun cable.

## Wire Straightener



For 20 Series and 70 Series.

#### #141 580 For .035-.045 inch (0.9-1.1 mm) wire.

#### #141 581 For 1/16-1/8 inch (1.6-3.2 mm) wire.

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