

# WE BUILD with you





# WE BUILD with you

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

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## **New from Blue**

19 Auto-Continuum Systems



35 Multimatic 215



47/50 Maxstar® 161 S Maxstar® 161 STL Maxstar® 161 STH



67 Insight ArcAgent™



PerformArc Laser Welding/Cladding System



**Q** Big Blue® 600 Air Pak™



**26** External Cladding Head



100/103 T94" Series Helmets and Split Leather Jacket



112 AugmentedArc™ Augmented Reality Welding System



**Shop with expert advice and attention** 



## **Shop with speed** and convenience

Visit **MillerWelds.com** for a fast and easy way to buy welding products for your home or shop.



## Help me choose

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

Pick the right process for the metals to be welded or cut.

#### **Welding processes**



#### MIG (GMAW) ★



- 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) ★



- 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) ★



- 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 Cl 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

#### **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 similarsized power supplies it is important to pay close attention to both the amperage and voltage values that determine the rated load.

#### **Power icons**

Unit requires single-phase input power



Unit requires three-phase input power



Unit supplies alternating current weld output



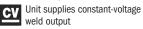
DC Unit supplies direct current weld output

Generator power

Unit supplies alternating current and direct current weld output



Unit supplies constant-current weld output



weld output Unit supplies constant-current and constant-voltage weld output

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.

## Check out the Product Guides.

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



## 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.



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



For more detailed information, visit

MillerWelds.com/mig



	Product Guide	Page	Class	MIG	Pulsed MIG	Flux-cored*	CAC-A	Portability	Weldable Metals	Welding Output Range	Special Features	Typical Applications
	Millermatic® 125 Hobby	7	•					Handle, optional	Steel, stainless	30-130 A	All-in-one, 115 V input, Auto-Set™ for .030 solid wire	Up to 3/16 in. using self-shielded wire, hobby
	Millermatic® 141	8	•					running gear	Steel, stainless, aluminum	30-140 A	All-in-one, 120 V input, Auto-Set,™ Smooth-Start™	Up to 3/16 in. using self-shielded wire maintenance/repair, auto body, hobby
1-Phase	Millermatic® 190	8	•	•						30-190 A	All-in-one, 240 V input, Auto-Set,™ Smooth-Start™	Up to 5/16 in. maintenance/repair, auto body, hobby
후	Millermatic® 211	9	•							30-230 A	All-in-one, 120 or 240 V input, Auto-Set,™ Smooth-Start™	Up to 3/8 in. maintenance/repair, auto body, hobby
	Millermatic® 212 Auto-Set™	10	•			•		Installed running gear	Steel, stainless, aluminum	30-210 A	All-in-one, 230 V input, Fan-On-Demand,™ Gun-On-Demand™	Up to 3/8 in. fabrication, farm, garage/body shops
	Millermatic® 252	10		•						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
e,	Millermatic® 350P	11			•			Installed running gear	Steel, stainless, aluminum	25-400 A	All-in-one, connects to standard MIG gun, push-pull gun or spool gun — auto body aluminum repair system available	Up to 1/2 in. industrial production/fabrication, pulsed MIG ideal for thin gauge aluminum
-Phas	Millermatic® 350P Aluminum	13			•				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
1- and 3-Phase	AlumaFeed™ 350 Aluminum System	14						Handles, optional cart,	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
	Invision™ 352 MPa Plus System	17	•	•	•	•	1/4"	MIGRunner™	Most metals	5-425 A 10-38 V	Push/pull gun capability, optimized with 74 MPa Plus wire feeder	Manufacturing and production
	AlumaFeed™ 450 Aluminum System	14	•		•			Handles, optional cart,	Aluminum	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
	Invision™ 450 MPa Plus System	17	•				5/16"	MIGRunner™	Most metals	15-600 A 10-38 V	Alumination™ allows push/pull gun, optimized with 74 MPa Plus wire feeder	Manufacturing and production
	CP-302	16						Lift eye,	Most metals	14-44 V	Hi/lo stabilizer, power efficient	Equip/auto mfg, metal fab, construction, agri equipment
	Deltaweld® 302	16						optional running gear,		10-32 V	Power efficient, material-specific output terminals	Equip/auto mfg, metal fab, construction, agri equipment
	Deltaweld® 452	16					1/4"	MIGRunner™		10-38 V	Power efficient, material-specific output terminals	Equip/auto mfg, metal fab, construction, agri equipment
ase	Deltaweld® 652	16					3/8"			10-44 V	Power efficient, material-specific output terminals	Equip/auto mfg, metal fab, construction, agri equipment
3-Phase	Continuum™ 350	18	•		•		1/4"	Lift eye, optional	Most metals	20-400 A 10-44 V	Advanced arc performance, Welding Intelligence™	Mid-to-high volume manufacturing
	Continuum™ 500	18					3/8"	running gear, MIGRunner™		20-600 A 10-44 V	Advanced arc performance, Welding Intelligence™	Mid-to-high volume manufacturing
	Auto-Continuum™ 350	19	•	•	•			Lift eye	Steel, stainless	20-400 A 10-44 V	Available for EtherNet/IP,™ DeviceNet and analog protocol	Fixed and flexible automation
	Auto-Continuum™ 500	19									Available for EtherNet/IP,™ DeviceNet and analog protocol	Fixed and flexible automation
	Axcess® and Auto-Axce	SS™	Syste	ms	See	pag	ge 20					

**Product Key** 

Class: Light Industrial Industrial Heavy Industrial Capability: Designed for this process Capable of this process New! or Improved! products appear in blue type. \*If using self-shielded wire on a CC/CV machine, use CV weld output. See aluminum MIG solutions chart (page 12) and industrial MIG solutions chart (page 15) for additional information.

## Millermatic® 125 Hobby See literature DC/12.3



Auto-Set<sup>™</sup> for .030-inch solid wire selects the correct parameters for the material you are welding.

- Turn the wire speed knob to Auto-Set
- Dial in the thickness of material you are welding
- Start welding!

Manual mode allows you to set your own parameters.

Tapped voltage control allows you to easily adjust the voltage when changing material thicknesses.

Cast-aluminum drive system with calibrated tension knob creates consistent feeding and easy setup.

Factory-installed gas solenoid makes it easy to change from MIG welding to flux-cored wire welding.

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

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.

#### Light industrial

#### **Processes**

MIG (GMAW) - Flux-cored (FCAW)

#### **Comes complete with**

- 8 ft. (2.4 m) M-80 MIG gun and cable assembly
- 8 ft. (2.4 m) work cable with clamp
- Power cord with plug
- Quick Select<sup>™</sup> 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
- Fixed flow regulator and gas hose, two .030 in. contact tips, Hobart® spool of .030 in. solid wire and material thickness gauge (229895)

#### Most popular accessories

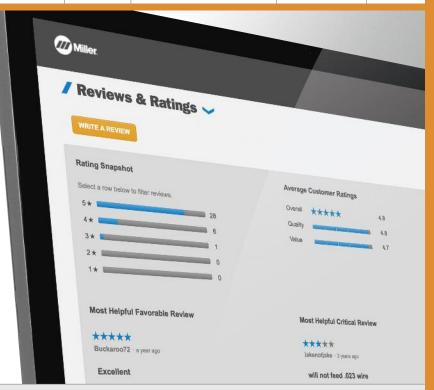
- Running Gear/Cylinder Rack 301239 (pg 114)
- Protective Cover 301333 (pg 117) Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Stock Number	Input Power	Amperage Range	Rated Output	Amps Inp 115 V	Amps Input at Rated Output, 60 Hz 115 V KVA KW Wir		Wire Feed Speed	Wire Type and Diameter Capacity	Power Source Dimensions	Power Source Net Weight	
(907692) (951678) with running gear/cylinder rack	115 V	30-130	85 A at 18.25 VDC, 20% duty cycle	20	2.79	2.65	0-415 ipm (0-11 m/min.)	Solid steel         .023030 in. (0.6-0.8           Stainless         .023 in. (0.6 mm)           Flux-cored         .030035 in. (0.8-0.8	,	H: 16.875 in. (429 mm) W: 9.875 in. (251 mm) D: 12.125 in. (308 mm)	49.7 lb. (22.5 kg)

## **Share your** passion

Min. 24 ga. (0.6 mm)

**Reviews & Ratings offer valuable insights** to help guide your next purchase. They're written and submitted by people who have purchased and used Miller equipment. If you'd like to share your experience and help your fellow welders select the right welding equipment consider writing a review. Simply visit the product page on the website for the product you want to write about and click on "Write a Review".





## Millermatic<sup>®</sup> 141 and 190

See literature DC/12.42 (141) and DC/12.44 (190)



#### Mild Steel Welding Capability

Max.		5/16 in. (7.9 mm)
Wax.	3/16 in. (4.8 mm)	
Model	141	190
Min.	24 ga. (0.6 mm)	24 ga. (0.6 mm)

#### **Aluminum Welding Capability**

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

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



Auto-Set<sup>™</sup> 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 material you are 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) M-150 MIG gun (pg 27).

**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.

**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

**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.

 $\label{eq:cooling} \textbf{Fan-On-Demand}^{\scriptscriptstyle{\square}} \ power \ source \ cooling \ system \ operates \ only \ when \ needed, \ reducing \ noise, \ energy \ use \ and \ the \ amount \ of \ contaminants \ pulled \ though \ the \ machine.$ 

#### Light industrial

#### CV DC 1

#### **Processes**

• MIG (GMAW) • Flux-cored (FCAW)

#### **Comes complete with**

- 10 ft. (3 m) M-100 MIG gun and cable assembly (248282)
- 10 ft. (3 m) work cable with clamp
- 6.5 ft. (2 m) power cord with plug
- Quick Select<sup>™</sup> 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 (229895)

#### Most popular accessories

Spoolmate<sup>™</sup> 100 300371 (pg 30)



- Running Gear/Cylinder Rack 301239 (pg 114)
- Protective Cover 301262 (pg 117) Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Model/Stock Number	Input Power	Amperage Range	Rated Output	Amps In	put at Rate	ed Output KVA	t, 60 Hz KW	Wire Feed Speed	Wire Type and Diameter Capacity	Power Source Dimensions	Power Source Net Weight
Millermatic 141 (907612) (951601) 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   .023030 in. (0.6-0.8 mm)   Stainless   .023030 in. (0.6-0.8 mm)   Flux-cored   .030035 in. (0.8-0.9 mm)	H: 12.5 in. (318 mm) W: 11.25 in. (286 mm)	51 lb. (23.1 kg)
Millermatic 190 (907613) (951602) 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         .023035 in. (0.6-0.9 mm)           Stainless         .023035 in. (0.6-0.9 mm)           Flux-cored         .030035 in. (0.8-0.9 mm)	D: 20.5 in. (521 mm)	35 lb. (15.9 kg)

## Millermatic® 211 See literature DC/12.58

#### **Welding Capability**



Aluminum welding uses optional Spoolmate 100 or Spoolmate 150 spool guns.







Multi-voltage plug (MVP™) allows connection to common 120- and 240-volt power receptacles without the use of any tools - simply choose the plug that fits the receptacle and connect to the power cord.



Advanced Auto-Set™ now includes five different wire/gas combinations and .024-, .030- and .035-inch wire capabilities. The easiest welder to use just became more versatile. Manual mode allows you to set your own parameters while welding.

**Inverter technology** combines best-in-class arc characteristics with the portability of a 38-pound machine. The arc is extremely forgiving to variations in arc length and travel speeds.

Angled cast-aluminum drive system with calibrated tension knob for consistent feeding and easy setup for up to 15-foot (4.6 m) MIG guns.

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.

Fan-On-Demand™ and thermal overload protection protect your investment (see page 8 for more information).

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

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

#### Light industrial

#### **Processes**

MIG (GMAW) - Flux-cored (FCAW)

#### **Comes complete with**

- 10 ft. (3 m) M-100 MIG gun and cable assembly (248282)
- 10 ft. (3 m) work cable with clamp
- 6.5 ft. (2 m) power cord with MVP plugs for 120 V and 240 V
- Quick Select<sup>™</sup> 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 (229895)

#### Most popular accessories

- Spoolmate<sup>™</sup> 100 300371 (pg 30)
- Spoolmate<sup>™</sup> 150 301272 (pg 30)
- Running Gear/Cylinder Rack 301239 (pg 114)
- Protective Cover 301262 (pg 117)
- V-Knurled Drive Roll 202926

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

> **Power Source** Net Weight 38 lb. (17.2 kg)

Stock Number (907614)	Input Power	Amperage Range	Rated Output	Amps Inp 120 V	ut at Rated 240 V	Output, !	50/60 Hz KW	Wire Feed Speed	Wire Type a	nd Diameter Capacity	Power Source Dimensions
( <b>951603</b> ) with running	120 V	30-130	115 A at 19.8 VDC, 20% duty cycle	24.3	-	2.9	2.9	60-600 ipm (1.5-15.2 m/min.)	Solid steel Stainless	.023035 in. (0.6-0.9 mm) .023035 in. (0.6-0.9 mm)	H: 12.5 in. (318 mm) W: 11.25 in. (286 mm
gear/cylinder rack	240 V	30-230	150 A at 21.5 VDC, 40% duty cycle	-	16.6	4.0	4.0		Flux-cored	.030045 in. (0.8-1.2 mm)	D: 20.5 in. (521 mm)



### Miller recommends



Filler metals are a critical component in any weld project. They become part of your end product and choosing the right filler metal can affect the look and quality of your weld. To make your filler metal choice easier, Hobart offers a FREE app for download on both Android<sup>™</sup> and Apple<sup>®</sup> devices. Features of the app include:

- · Recommendations for aluminum, carbon steel and stainless steel welding
- Calculates the amount of filler metal needed for your job
- Heat input calculator
- Hardfacing cross-reference function

## Millermatic® 212 Auto-Set™ See literature DC/12.46

#### **Welding Capability**



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-inch wire (see page 8 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<sup>™</sup> 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

#### **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 with 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
- Extra contact tips and material thickness gauge (229895)

#### Most popular accessories

- Spoolmate<sup>™</sup> 200 300497 (pg 30)
- Dual EZ-Change<sup>™</sup> Low Cylinder Rack 300337 (pg 114)
- Elevated Gun and Cable Rack 300335 (pg 114)
- Protective Cover 195142 (pg 117)
- Full KVA Adapter Cord 300517 (pg 118)

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

Stock Number (907405) 200(208)/230 V (951177) 200(208)/230 V with Spoolmate 200, regulator. gas hose and dual cylinder rack

Recommended

aluminum solution

Spoolmate 200 (300497).

Amperage Range	
30-210	

Range	Rated Output
30-210	160 A at 24.5 VDC, 60% duty cycle

Amps In	put at Rate			
200 V	230 V	KVA	KW	Wire Feed Speed
31	28	6.2	5.2	50-700 ipm (1.3-17.8 m/min.)

Wire Type and Diameter Capacity												
Solid steel	.023035 in. (0.6-0.9											
Stainless	.023035 in. (0.6-0.9											
Flux-cored	.030045 in. (0.8-1.2											

3035 in. (0.6-0.9 mm)	
3035 in. (0.6-0.9 mm)	
0045 in. (0.8-1.2 mm)	

Weight **Dimensions** H: 30 in. (762 mm) W: 19 in. (483 mm) D: 40 in. (1,016 mm)

183 lb. (83 kg)

## Millermatic<sup>®</sup> 252

See literature DC/12.49

#### **Welding Capability**





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

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, burnback, 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 Spoolmate<sup>™</sup> 200 and Spoolmatic<sup>®</sup>/Spoolmatic Pro spool guns or XR™ push-pull guns. No extra module to buy or install.

#### Industrial |

CV DC 1

#### **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<sup>™</sup> 200 and Spoolmatic<sup>®</sup> Spool Guns (pg 30/31)
- XR<sup>™</sup> Air-Cooled Push-Pull Guns (pg 32)
- Dual EZ-Change<sup>™</sup> Low Cylinder Rack 300337 (pg 114)
- Elevated Gun and Cable Rack 300335 (pg 114)
- Protective Cover 195142 (pg 117) Visit MillerWelds.com or your distributor for other Miller® options and accessories.

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

Model/Stock Number	Amperage Range	Rated Output				d Output V 575 V	,		Wire Feed Speed	Wire Type a	and Diameter Capacity	Dimensions	Net Weight
(907321) 200(208)/230 V (951066*) 200(208)/230 V	30-300	200 A at 28 VDC, 60% duty cycle	48	42 (at	– : 60% c	– luty cycle	9.5	7.5	50-700 ipm (1.3-17.8 m/min.)	Solid steel Stainless	.023045 in. (0.6-1.2 mm) .023045 in. (0.6-1.2 mm)	H: 30 in. (762 mm) W: 19 in. (483 mm)	205 lb. (94 kg)
(907322) 230/460/575 V (951065*) 230/460/575 V		250 A at 28 VDC, 40% duty cycle	-	46 (at	23 : 60% c	18 luty cycle	0.0	7.5		Flux-cored	.030045 in. (0.8-1.2 mm)	D: 40 in. (1,016 mm)	

Recommended

or 30A (130831).

aluminum solution

Spoolmatic 15A (195156)

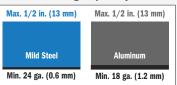


## Millermatic® 350P See literature DC/12.51

All-in-one package with steel and aluminum programs and MIG and pulsed MIG processes.



#### **Welding Capability**



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

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<sup>™</sup> 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.

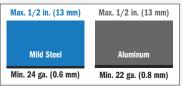
Fan-On-Demand™ cooling system only operates when needed reducing power consumption and keeping internal components cleaner.

#### Millermatic 350P Auto Body Aluminum Repair System

The ideal auto body welding package for aluminum and steel repair.



#### **Welding Capability**



Aluminum welding uses Bernard BTB Gun 200 A aluminum MIG gun.

Complies with 2015 Ford F-150 body shop welding machine certification for aluminum body vehicles.

Optimized low-end aluminum pulse program. Reduces heat input to prevent warping and burn-through on thin 18-gauge aluminum auto body panels

**Customized Bernard**<sup>™</sup> **aluminum MIG gun.** 12-foot (3.7 m) Bernard BTB Gun 200 A with Teflon liner and 30-degree head tube for superior aluminum wire delivery.

Hobart® 5554 aluminum wire specified by Ford. Includes one eight-inch, five-pound spool of .047-inch aluminum wire.

#### **Industrial**

#### **Processes**

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

#### Millermatic 350P comes complete with

- 15 ft. (4.5 m) Bernard<sup>™</sup> BTB Gun 300 A 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/CO2 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

#### Millermatic 350P Auto Body **Aluminum Repair System** comes complete with

- 12 ft. (3.7 m) Bernard™ BTB Gun 200 A aluminum MIG gun
- 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/CO2 mix
- Factory-installed, low-mounted running gear/cylinder rack
- .047 in. (1.2 mm) U-groove drive rolls
- .047 in. (1.2 mm) aluminum Centerfire™ contact tips (T-047AL)
- 8 in. (203 mm), 6 lb. (2.7 kg) spool of Hobart .047 in (1.2 mm) 5554aluminum wire

#### Most popular accessories

- Spoolmatic® Spool Guns (pg 31)
- XR<sup>™</sup> Air-Cooled Push-Pull Guns (pg 32)
- Dual Cylinder Rack 195299 (pg 114)
- Protective Cover 195142 (pg 117) Visit MillerWelds.com or your distributor for other Miller® options and accessories.

ı	vioaei/
5	Stock Number
ı	Willermatic 350P
(	907300)
2	200/230/460 V
ı	Willermatic 350P
ŀ	Auto Body Aluminun
	Repair System
(	(907300002)
-	200/230/460 V

Input Power	Amperage Range	Rated Output
Three- phase	25-400	300 A at 32 VD 60% duty cycle
Single- phase		

		nput at 1 230 V			60 Hz KW	
C,	34	30	15	11.6	11.5	
	69	61	30	13.1	11.2	

Wire Feed Speed
MIG gun 50-700 ipm (1.3-17.8 m/min.)
<b>Optional spool gun/push-pull gun</b> 50-800 ipm (1.3-20 m/min.)

Wire Type and Diameter Capacity								
Solid steel	.023045 in. (0.6-1.2 n							
Stainless	.030045 in. (0.8-1.2 n							
Aluminum	.035047 in. (0.9-1.2 n							
Metal-cored	.035052 in. (0.9-1.3 n							
Flux-cored	.030052 in. (0.8-1.3 n							

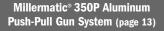
Capacity	Dimensions	Weight
n. (0.6–1.2 mm) n. (0.8–1.2 mm)	H: 34 in. (863 mm)	181 lb. (82 kg)
n. (0.9–1.2 mm)	W: 19 in.	(OZ Ng)
n. (0.9–1.3 mm) n. (0.8–1.3 mm)	(483 mm) D: 41 in.	
	(1,041 mm)	

Net



## **Choose the Right Industrial Aluminum MIG Solution**

For additional aluminum MIG solutions, see spool guns, push-pull guns and controls on pages 30-33.





Millermatic 350P Aluminum with XR-Aluma-Pro gun shown.

Cost-effective industrial all-in-one MIG/pulsed MIG solution with easy-to-use interface for aluminum welding on material

#### AlumaFeed® Synergic Aluminum Welding System (page 14)



AlumaPower 450 MPa and XR-AlumaFeed with XR-Aluma-Pro gun shown.

Dedicated heavy-industrial-fabrication solution for aluminum welding, with advanced features that can handle larger weldments.

## Invision™ MPa Plus System



Invision 352 MPa and D-74 MPa Plus feeder with XR-Aluma-Pro and Bernard BTB Gun 400 A guns shown.

Versatile, heavy-industrial advanced system for large, high-duty-cycle aluminum and steel weldments. Features push and/or

program weld parameters

	up to 1/2-inch thick. Features built-in running gear for mobility.	Its lightweight push-pull feeder can easily be carried up to 100 feet from the power source.	push-pull bench feeder for easy switchover between solid, aluminum and tubular wires.
Power Source	Millermatic 350P Aluminum (all-in-one)	AlumaPower™ 350 MPa or 450 MPa	Invision 352 MPa or 450 MPa
Feeder	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
Input Voltage	Single- or three-phase	Single- or three-phase (450 MPa is three-phase only)	Single- or three-phase (450 MPa is three-phase only)
Rated Output	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
Primary Connection	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 Hz) with no manual linking. Also adjusts for voltage spikes within the entire range. 450 MPa: 230/460 V manual linking or 575 V	352 MPa: Auto-Line™— Allows for any primary input voltage (208–575 V, single- or three-phase, 50 or 60 Hz) with no manual linking. Also adjusts for voltage spikes within the entire range. 450 MPa: 230/460 V manual linking or 575 V
Aluminum Wire Diameters	.035047 in. (0.9-1.2 mm)	.035-1/16 in. (0.9-1.6 mm)	.035-1/16 in. (0.9-1.6 mm)
Gun Capability	XR-Aluma-Pro <sup>™</sup> XR-Aluma-Pro <sup>™</sup> Lite, or XR <sup>™</sup> -Pistol	XR-Aluma-Pro,™ XR-Aluma-Pro™ Lite, or XR™-Pistol	XR-Aluma-Pro <sup>™</sup> Plus, XR <sup>™</sup> -Pistol Plus or standard MIG gun
MIG Modes			
Profile Pulse™	-	Yes — achieve a "stacked dime" appearance quickly and easily without gun manipulation	Yes — achieve a "stacked dime" appearance quickly and easily without gun manipulation
Synergic Pulsed MIG	Yes — "one-knob" control, only need to change wire feed speed to weld different material thicknesses	Yes — "one-knob" control, only need to change wire feed speed to weld different material thicknesses	Yes — "one-knob" control, only need to change wire feed speed to weld different material thicknesses
MIG	Spray transfer MIG — for aluminum wires	Spray transfer MIG — for aluminum wires	Conventional MIG — modes for aluminum, steel and other wires
Features			
Built-In Pulsed Programs	Aluminum	Aluminum	Aluminum, steel, stainless and others
Portability	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
Trigger Hold	Yes — reduces operator fatigue from holding trigger	Yes — reduces operator fatigue from holding trigger	Yes — reduces operator fatigue from holding trigger
Trigger Schedule Select	Yes — allows operator to switch between two preset weld conditions by tapping the trigger	Yes — allows operator to switch between two preset weld conditions by tapping the trigger	Yes — allows operator to switch between two preset weld conditions by tapping the trigger
Program Locks	-	Yes — prevents unintended changes to the welding	Yes — prevents unintended changes to the welding

Yes - allows flow to be set at feeder even when

program weld parameters

gas supply is a long distance away

Flow Meter

## Millermatic® 350P Aluminum See literature DC/12.56



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 burn-through 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 |

#### **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 systems include above plus

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

#### Most popular accessories

- XR<sup>™</sup> Air-Cooled Push-Pull Guns (pg 32)
- Dual Cylinder Rack 195299 (pg 114)
- Protective Cover 195142 (pg 117) Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Note: See aluminum solutions comparison chart on page 12.

#### Model/Stock Number

Millermatic 350P Aluminum Push-Pull Gun System

(951451) w/15 ft. XR-Aluma-Pro™ air-cooled gun
(951452) w/25 ft. XR-Aluma-Pro™ air-cooled gun
(951453) w/25 ft. XR™-Pistol Pro air-cooled gun
(951454) w/25 ft. XR-Aluma-Pro™ Lite air-cooled gun
Millermatic 350P Aluminum (gun NOT included)
(907474) 200/230/460 V standard unit

Input Power	Amperage Range	Rated Output	Amps II	nput at R 230 V	ated Outp 460 V	put, 60 KVA	Hz KW	Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight
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.)	push-pull gun         .035047 in.           50-800 ipm         (0.9-1.2 mm)	H: 34 in. (863 mm) W: 19 in.	181 lb. (82 kg)
Single- phase			69	61	30	13.1	11.2			(483 mm) D: 41 in. (1,041 mm)	

## 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 or your local distributor to learn more.



## **AlumaFeed**® Synergic Aluminum Welding System

See literature DC/34.0

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 (951147) shown.



Build your own system at MillerWelds.com/equiptoweld or see packages below.

AlumaPower™ 350 model allows for any input voltage hookup (208-575 V, single-

or three-phase) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power. 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** AlumaPower 450 CV DC 3 is 3-phase only.

#### **Processes**

- Aluminum MIG (GMAW)
- Aluminum pulsed MIG (GMAW-P)

#### Most popular accessories

- XR<sup>™</sup> Push-Pull Guns (pg 32)
- MIGRunner™ Cart 195445 (pg 115)
- Coolmate<sup>™</sup> 3 043007 (pg 115)
- Coolant 043810 (pg 115)
- Industrial MIG 4/0 Kits (pg 117) 300405 With Dinse connectors (350 MPa only)

300390 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 122) 247831025 25 ft. (7.6 m) 247831050 50 ft. (15 m) 247831080 80 ft. (24.4 m)
- 1/16-Inch (1.6 mm) Liner and Wire Kit for Gun 230708
- 1/16-Inch (1.6 mm) Drive Roll Kit for Control Box 195591
- For gun and feeder remote options, see literature DC/34.0 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
AlumaPower 350 MPa	(951147) w/350 model (907420)	(300509)	25 ft. air-cooled	_	_	_	-
(907420) 208-575 V (907420001) 208-575 V	(951149) w/350 model (907420)	(300509)	_	30 ft. air-cooled	-	_	_
with auxiliary power	(951151) w/350 model (907420)	(300509)	25 ft. air-cooled	_	With Dinse connectors	-	MIGRunner cart
AlumaPower 450 MPa	(951460) w/450 model (907483)	(300509)	25 ft. air-cooled	-	-	_	-
( <b>907483</b> ) 230/460 V with auxiliary power	(951459) w/450 model (907483)	(300509)	25 ft. air-cooled	_	With lug connectors	-	MIGRunner cart
( <b>907484</b> ) 575 V	(951558) w/450 model (907483)	(300509)	_	30 ft. water-cooled	-	Coolmate 3	_
with auxiliary power	(951559) w/450 model (907483)	(300509)	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 12.

Model	Input Power	Amp/Volt Ranges	Rated Output	Amps I 208 V	nput at 230 V	Rated Lo 400 V		ut, 60 Hz 575 V	KVA	KW	Max. Open- Circuit Voltage	Dimensions	Net Weight	
AlumaPower 350 MPa	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	, , ,	W: 12.5 in. (318 mm) (36.3	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				
AlumaPower 450 MPa	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)	
VD Alessa Free I	Instant December 1		with Button I Mills Found		MC D		O 'I			80.00		the Discounting	N. t. W. Calat	

XR-AlumaFeed	Input Power	Input Welding Circuit Rating	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
Wire Feeder 14-pin compliant, but only operates synergically w/MPa power sources	24 VAC, 5 A, 50/60 Hz	400 A at 100% duty cycle System duty cycle is limited to gun rating	50-900 ipm (1.3-22.9 m/min.)	.035–1/16 in. (0.9–1.6 mm) Requires wire kit (230708) for gun and drive roll kit (195591) 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)

**Continuum**™

**System** 

(page 18)

A Rose

**Invision**™ with

74 MPa Plus Feeder

(page 17)

## **Choose the Right Industrial MIG Solution**

**Deltaweld® with** 

74S/D Feeder

(page 16)

Millermatic® 350P

All-In-One

(page 11)

**CP** with

22A Feeder

(page 16)

Feature	Basic ———				→ Advanced MIG
	Cost effective, simple and easy to use For applications where weld settings do not get changed frequently	<ul> <li>Simple and easy to use</li> <li>Digital meters on power source provide accurate weld parameter indication</li> <li>74D feeder adds voltage control and digital meters on feeder for point-of-use control</li> </ul>	<ul> <li>Cost-effective, all-in-one package</li> <li>Integrated running gear</li> <li>Expand capabilities with MIG and synergic pulsed MIG</li> <li>Push-pull gun for aluminum (optional)</li> </ul>	<ul> <li>More advanced system with optimized weld programs for steel and aluminum</li> <li>Push-pull gun for aluminum (optional)</li> </ul>	<ul> <li>Next generation advanced welding solution</li> <li>Improves productivity through weld quality, ease of use and system flexibility</li> </ul>
Weldable Metals	Steels	Steels	Steels and aluminum	Steels and aluminum	Steels
MIG Processes	Spray  Spray	Short arc Spray	Short arc Spray Pulsed MIG	Short arc     Spray     Pulsed MIG     Profile Pulse™ — provides     TIG appearance with MIG     productivity	■ Short arc ■ Accu-Pulse® — most popular for full range of material thicknesses ■ Versa-Pulse™ — fast, low-heat, low-spatter for thin material; ideal for automation ■ RMD® — designed to fill gaps, and for thin material ■ High-deposition MIG — increased deposition rates on thicker materials
Special Models	-	-	Dedicated aluminum model available (see Millermatic 350P Aluminum, page 13)	Dedicated aluminum models available (see AlumaFeed® System, page 14)	Semi-auto and automation packages available (see pages 18 and 19)
Welding Intelligence™ (see page 64)	-	Optional Insight Core™	-	Optional Insight Core™	Standard Insight Core™ and optional Insight Centerpoint™
Input Power	200/230/460 V, 3-phase	200/230/460/575 V, 3-phase	200/230/460 V, 1- and 3-phase	352: Auto-Line™ 208-575 V, 1- and 3-phase 450: 230/460 V or 575 V, 3-phase	Auto-Line™ 230 – 575 V, 3-phase
Recommended Wire Diameters	.023-1/16 in.	302: .023-1/16 in. 452: .023-5/64 in.	.023045 in.	352: .023-1/16 in. 452: .023-5/64 in.	.023-5/64 in.
Bernard <sup>™</sup> Gun Included with Feeder	Yes	Yes	Yes	Yes	Yes

CP-302 See literature DC/13.0

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



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-volt power for tools and coolant systems.

CP-302 MIGRunner package (951230) shown.

## **Deltaweld Series** See literature DC/16.2

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



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

**Fan-On-Demand**<sup>™</sup> 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-volt power for tools and coolant systems.

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

#### 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 packages include

- Power source
- 22A (CP-302) **OR** S-74D (Deltaweld) feeder with .035/.045 in. drive rolls
- Bernard™ BTB Gun 300 A (CP-302) OR BTB Gun 400 A (Deltaweld)
- 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

#### MIGRunner™ packages include above plus

 Factory-installed standard running gear and standard cylinder rack

#### Most popular accessories

- 20 Series Feeders (pg 24)
- 70 Series Feeders (pg 24)
- Bernard<sup>™</sup> MIG Guns (pg 28/29)
- Standard Running Gear 042886 (pg 115)
- Standard Cylinder Rack 042887 (pg 115)
- Industrial MIG 4/0 Kit (with lug connectors) 300390 (pg 117)
- Extension Cables (pg 122) 242208025 25 ft. (7.6 m) 242208050 50 ft. (15 m) 242208080 80 ft. (24.4 m)

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.



or see packages below.





Models	Power Source Only Stock Number	Stationary Package Stock Number*	MIGRunner Package Stock Number*
CP-302	(903786) 200/230/460 V	(951231)	(951230)
Deltaweld 302	(903376) 200(208)/230/460 V	(951235)	(951234)
	(903392) 230/460/575 V	-	(951300)
Deltaweld 452	(903377) 200(208)/230/460 V	(951 237)	(951236)
	(903394) 230/460/575 V	(951301)	(951302)
Deltaweld 652	(903396) 230/460/575 V	(951239)	(951238)

Model	Voltage Range	Rated Output		•		output, 6 575 V		KW	Open-Circuit Voltage	<b>Dimensions</b> (Includes lift eye and strain relief)	Net Weight
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) 302 D: 30.5 in. (775 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.	452/652 D: 38 in. (966 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.	, , , , ,	472 lb. (214 kg)

## Invision™ MPa Plus System See literature 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 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 25 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.



Invision 352 model allows for any input voltage hookup

(208-575 V, single- or three-phase) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power. 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." Air flow that protects internal components, greatly improving reliability.

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

#### **Heavy industrial** 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 24)
- XR-Aluma-Pro™ Plus and XR™-Pistol Plus push-pull guns (pg 25)
- 70 Series Swingarc<sup>™</sup> with MPa Plus control box (pg 26)
- Single- and dual-remote configurations (pg 26, for more information see literature DC/23.6)

#### Most popular accessories

- MIGRunner™ Cart (single feeders only) 195445 (pg 115)
- Running Gear Cylinder Rack 300408 (pg 115)
- Coolmate<sup>™</sup> 3 043007 (pg 115)
- Industrial MIG 4/0 Kits (pg 117) 300405 With Dinse connectors (352 MPa only)

300390 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 122) 247831025 25 ft. (7.6 m) 247831050 50 ft. (15 m) 247831080 80 ft. (24.4 m)

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*	70 Series MPa Plus Feeder with Push-Only Bernard™ BTB Gun 400 A and .035/.045 in. Drive Rolls	XR-Aluma-Pro™ Plus Push-Pull MIG Gun	Industrial MIG 4/0 Kit	Cart
Invision 352 MPa	Alum	(951287) w/352 model (907431)	S-74 (single-wire feeder with one gun)	25 ft. air-cooled	With Dinse connectors	MIGRunner cart
(907431) 208-575 V (907431001)	¥	(951501) w/352 model (907431)	D-74 (dual-wire feeder with two guns)	25 ft. air-cooled	With Dinse connectors	Running gear cylinder rack
208-575 V		(951411) w/352 model (907431)	S-74 (single-wire feeder with one gun)	_	With Dinse connectors	MIGRunner cart
with auxiliary power		(951500) w/352 model (907431)	D-74 (dual-wire feeder with two guns)	_	With Dinse connectors	Running gear cylinder rack
Invision 450 MPa (907485) 230/460 V with auxiliary power	Steel	(951499) w/450 model (907485)	S-74 (single-wire feeder with one gun)	-	With lug connectors	MIGRunner cart
(907486) 575 V		(951457) w/450 model (907485)	D-74 (dual-wire feeder with two guns)	-	With lug connectors	Running gear cylinder rack

Note: See aluminum solutions comparison chart on page 12.

Model	Input Power	Amp/Volt Ranges	Rated Output	Amps I	nput at R 230 V	ated Lo	ad Outpu 460 V	t, 60 Hz 575 V	KVA	KW	Max. Open- Circuit Voltage	Dimensions	Net Weight
Invision 352 MPa	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)	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		D: 24 in. (610 mm)	
Invision 450 MPa	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)

## Continuum™ Systems See literature DC/36.0

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



#### More power — better reliability

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

#### Power source design

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

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

Welding Intelligence.™ Increase productivity, improve quality and manage costs with Insight Core™ (standard) and Insight Centerpoint™ (optional) welding information management systems (see pages 65 and 66).

#### Feeder design

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

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

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

#### **Continuum Processes**

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

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

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

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

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

High-deposition MIG provides increased deposition rates over standard spray on

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

\*While idling.

#### **Heavy industrial**



#### **Processes**

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

#### MIGRunner™ packages include

- Continuum power source
- · Continuum single feeder with Bernard™ BTB Gun 400 A and .035/.045 in. V-groove drive rolls
- Continuum running gear/cylinder rack
- 3 ft. (0.9 m) control/motor 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.

#### Wire feeding options

- Continuum Feeders 951631 Single-wire 951673 Dual-wire Includes Bernard BTB Gun 400 A (two with dual-wire models) and .035/.045 in. V-groove drive rolls.
- Continuum Swingarc™ **Boom-Mounted Feeders** 951633 8 ft. (2.4 m) single-wire 951634 12 ft. (3.7 m) single-wire 951635 16 ft. (4.9 m) single-wire Includes Bernard BTB Gun 400 A and .035/.045 in. V-groove drive rolls.
- See literature DC/36.0 for additional booms and options

#### Most popular accessories

- Bernard<sup>™</sup> MIG Guns (pg 28/29)
- Insight Centerpoint<sup>™</sup> Software (pg 66)
- Continuum Running Gear/Cylinder Rack 301264 (pg 115)
- Industrial MIG 4/0 Kit (with lug connectors) 300390 (pg 117)
- Continuum Integrated Cooler 301214 Mounts to bottom of Continuum power source. Does not require external power.
- Continuum Control/Motor Cables 263368003 3 ft. (0.9 m) 263368015 15 ft. (4.6 m) 263368020 20 ft. (6.1 m) 263368025 25 ft. (7.6 m)

263368050 50 ft. (15 m)

263368080 80 ft. (24.4 m) 263368100 100 ft. (30.5 m)

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

		Amp/Volt		Amps I	nput at	Rated 0	utput, 50	D/60 Hz,	3-Phas	se	Max. Open-	Power Source Dimensions	Power Source
Model	Stock Number	Ranges	Rated Output	230 V	380 V	400 V	460 V	575 V	KVA	KW	Circuit Voltage	(Includes lift eye)	Net Weight
Continuum 350	(907636) 230-575 V power source only (907636001) 230-575 V w/running gear (951671) 230-575 V MIGRunner package	20-400 A, 10-44 V	350 A at 31.5 VDC, 100% duty cycle	36.7 0-1*	21.8 0-1*	20.8 0-1*	18.8 0-1*	14.6 0-1*	14.4 0.8*	13.8 0.17*	75 VDC	H: 27.187 in. (691 mm) W: 17.5 in. (444 mm) D: 28.125 in. (714 mm)	127 lb. (57.6 kg)
Continuum 500	(907640) 230-575 V power source only (907640001) 230-575 V w/running gear (951672) 230-575 V MIGRunner package	20-600 A, 10-44 V	500 A at 39 VDC, 100% duty cycle	58.7 0-1*	34.9 0-1*	33.2 0-1*	28.9 0-1*	23.3 0-1*		21.9 0.17*	75 VDC		148 lb. (67.1 kg)

	Input	input welaing			IVIAXIMUM Spool		
Model/Stock Number	Power	Circuit Rating	Wire Feed Speed	Wire Diameter Capacity	Size Capacity	Dimensions	Net Weight
Continuum Feeder (951631) Single-wire model (951673) Dual-wire model	50 VDC	500 A at 100% duty cycle	Standard: 50-1,000 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) Single W: 16.312 in. (414 mm) Dual W: 17 in. (432 mm) D: 29.687 in. (754 mm)	<b>Single</b> 43 lb. (19.5 kg) <b>Dual</b> 61.5 lb. (27.9 kg)
						` ′	

## Auto-Continuum™ Systems See literature AU/10.0

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





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

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

#### Improve work environment and reduce spatter. Versa-Pulse and Accu-Pulse processes reduce fume generation, and by precisely controlling the

welding arc they also reduce spatter size and quantity. Fume generation can be reduced up to 50 percent over traditional CV MIG.

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

**Easy communication** from robot to power source.

Designed for easy integration with fixed and flexible automation.

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

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

- Insight Core™ (standard) is a simplified, Internetbased welding information solution that reports cell productivity and weld parameter verification (see page 65)
- Insight Centerpoint<sup>™</sup> (optional) is an advanced, real-time feedback solution to ensure consistent weld quality and actively detects a bad weld when it happens, reducing rework costs and improving quality (see page 66)

#### **Heavy industrial**

#### **Processes**

- Accu-Pulse® MIG (GMAW-P)
- Versa-Pulse<sup>™</sup> RMD<sup>®</sup> MIG (GMAW)
- High-deposition MIG (GMAW)
- Flux-cored (FCAW)

#### Most popular accessories

Insight Centerpoint<sup>™</sup> Software (pg 66)



 Auto-Continuum Robotic MIG Kit 301422

Consists of Auto-Continuum wire drive motor assembly (left-hand drive), flowmeter regulator with 50-foot (15.2 m) gas hose, two 50-foot (15.2 m) 4/0 weld cables with lugs, one motor control cable, one 16.4-foot (5 m) Ethernet cable. .035/.045-inch V-groove drive roll kit with four drive rolls and necessary guides, and 30-foot (9 m) conduit assembly with quick disconnects.

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

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

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

\*While idling.

Model	Stock Number		Amp/Volt Ranges	Rated Output	Amps I				0/60 Hz, 575 V	3-Phas		Max. Open- Circuit Voltage	<b>Dimensions</b> (Includes lift eye,	) N	let Weight
Auto-Continuum 350	(907656) EtherNet/IP™ (907658) EtherNet/IP™ w/aux (907656001) DeviceNet (907658001) DeviceNet w/au		20-400 A, 10-44 V	350 A at 31.5 VDC, 100% duty cycle	36.7 0-1*	21.8 0-1*	20.8 0-1*	18.8 0-1*	14.6 0-1*	14.4 0.8*	13.8 0.17*	75 VDC	H: 27.187 in. (691 mm) W: 17.5 in. (444 mm)	(!	130 lb. 59.4 kg)
Auto-Continuum 500	(907657) EtherNet/IP <sup>TM</sup> (907659) EtherNet/IP <sup>TM</sup> w/aux (907657001) DeviceNet (907659001) DeviceNet w/aux	power	20-600 A, 10-44 V	500 A at 39 VDC, 100% duty cycle	58.7 0-1*	34.9 0-1*	33.2 0-1*	28.9 0-1*	23.3 0-1*	23.1 0.8*	21.9 0.17*	75 VDC	D: 28.22 in. (717 mm)		150 lb. 69 kg)
Madal /Stock Numb	OF.	Innut Dowe	lnnut	Wolding Circuit Dating	Ι,	Niro Eoo	d Enood		Wire D	iamata	r Canacity	Dimensions		Not Wo	olah t

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

## **Axcess® and Auto-Axcess™ Systems**

See literature DC/8.0 (Axcess) and AU/8.0 (Auto-Axcess)



## Advanced industrial MIG systems for both hand-held and robotic applications.

Available for customers with existing Axcess fleets. For new advanced industrial MIG systems, see Continuum (pages 18 and 19).



#### **Processes**

- Accu-Pulse® MIG (GMAW-P)
- Accu-Curve™
- Accu-Speed™ (optional)
- Pulsed MIG (GMAW-P)
- MIG (GMAW) RMD® (optional)
- Air carbon arc gouging (CAC-A)

#### Stationary packages include

- Axcess power source
- Axcess feeder with Bernard<sup>™</sup> BTB 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™ packages include above plus

Running gear cylinder rack (pg 115)

#### Wire feeding option

 AA-40GB wire drive motor 195426 Left-hand drive 195515 Right-hand drive

Note: Required for Auto-Axcess and used for Axcess remote configurations — includes 50 ft. volt-sense lead.

*Additional packages are available —	vicit MillarMalde com or	vour distributor
Additional packages are available -	- VISIL IVIIIICI VVCIUS.COIII OI	your distributor.

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

	.,												
Axcess Model/Stock Number*	Auto-Axcess Model/Stock Number	Amp/Volt Ranges	Rated Output		Input at 230 V						Max. Open- Circuit Volta	Power Source ge Dimensions	Power Source Net Weight
Axcess 300 (907150) Power source only (951227) Stationary package (951226) MIGRunner package	Auto-Axcess 300 (907151)** Power source only	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)	112 lb. (50.8 kg)
Axcess 450 (907152) Power source only (951229) Stationary package (951228) MIGRunner package	Auto-Axcess 450 (907153)** Power source only	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	D: 22.5 in. (572 mm)	163 lb. (73.9 kg)
Axcess 675 (907154) Power source only	Auto-Axcess 675 (907155)** Power source only	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)



## Maximizing throughput. Minimizing costs.

Automated welding applications require flexible, repeatable solutions that maximize production uptime and throughput while minimizing costs. This is why industrial manufacturers rely on Tregaskiss and its proven track record of delivering reliable and resilient robotic MIG welding guns and peripherals. See page 71 for more information.



Visit **Tregaskiss.com** to configure a robotic gun for your welding application today. Or call **1-855-MIGWELD** (644-9353) for more information.

## Wire Feeders O O Also see MIG, MIG Guns and Multiprocess sections for wire feeding options.



Product				Sulsed MIG*	red**	e	· Source red	Wire Types							
Guide	Page	Class	MIG	Pulsec	Flux-cored	Portable	Power Requin	Hard	Flux-cored Dual-shid	Flux-cored Self-shid	Alum.	Wire Diameter Capacity	Special Features	Typical Applications	
SuitCase® X-TREME™ 8VS/12VS	22		•				CC/CV		•	●CV**		.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	
SuitCase® X-TREME™ 8VS/12VS ArcReach®	22	•	•	•			CC/CV		•	● CV**		.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	Portable
SuitCase® 12RC	22				•		CV		•			.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	24		•		•		CV	•		•		.023-5/64 in. (0.6-2.0 mm)	Two quick-change drive rolls	Manufacturing, fabrication	
24A	24	•	•		•		CV	•				.023-3/32 in. (0.6-2.4 mm)	Four quick-change drive rolls	Manufacturing, fabrication	_
70 Series S/D — Singles and Duals	24	•	•	•	•		CV	•	•	•		.023-1/8 in. (0.6-3.2 mm) Low-speed motor recommended for 3/32 and 1/8 in. wires	Four drive roll, remote voltage control (optional field kit for "S" model, standard on "D" model)	Heavy and light manufacturing, fabrication	
70 Series MPa Plus — Singles and Duals	24	•	•	•	•		CV	•	•	•		.023-5/64 in. (0.6-2.0 mm)	Aluma-Pro Plus or Pistol Plus guns for feeding soft wires	Manufacturing requiring multiple wire types	Bench
70 Series Swingarc™ – Singles and Duals	26	•					CV	•	•	•	***	.023-5/64 in. (0.6-2.0 mm)	8, 12 and 16 ft. booms, four drive rolls, adjustable weld control	Heavy and light manufacturing, fabrication	
70 Series Remote Configurations — Singles and Duals	26	•	•		•		CV	•	•	•	***	.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

\*Requires MPa inverter power source.

<sup>\*\*</sup>Certain self-shielded wires require CV output. Miller recommends a CV power source whenever possible.

<sup>\*\*\*74</sup>S and 74D models are  $\stackrel{\cdot}{capable}$  of aluminum welding and 74 MPa Plus models are  $\stackrel{\cdot}{das}$  designed for aluminum welding.

## O Wire Feeders | PORTABLE

## 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**

	X-TR	EME	X-TF ArcF		
Feature	8VS	12VS	8VS	12VS	12RC
Available with BTB Gun 300 A 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-TRFMF 8VS

Models **include** male Tweco® connector installed on weld cable and Bernard™ BTB Gun 300 A 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.

#### 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.

## PORTABLE | Wire Feeders o

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

Voltage-sensing feeders designed to run off of arc voltage from almost any welding power source. 8VS model is sized for 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 M/6.42

Remote control of the power source without a cord. With a SuitCase ArcReach feeder and ArcReach power source you can change output voltage at the feeder, and save a trip to the power supply. No extra control cable to purchase, maintain, string or unstring – saving time and money. See pages 37 and 40 for ArcReach power sources.

#### SuitCase® 12RC See literature M/6.5

Standard remote voltage control with a control cord. For applications where the feeder is within 100 feet of the power source and control cords are acceptable.

Input Welding

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

#### Heavy industrial



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

#### **Processes**

MIG (GMAW) - Flux-cored (FCAW)

#### Suggested power sources

- Dimension<sup>™</sup> Series (pg 36/37)
- XMT<sup>®</sup> Series (pg 38/40)
- Bobcat<sup>™</sup> Series (pg 74)
- Trailblazer® Series (pg 76)
- Big Blue® Series (pg 79–82)

Note: Full functionality of ArcReach is only available with ArcReach power sources. RC feeder requires power source with 14-pin connector.

#### Suggested guns

Bernard<sup>™</sup> Guns (pg 28/29)

#### Most popular accessories

- Extension Cables (12RC only, 1 required) (pg 122)
- Flowmeter Kit 300343

Maximum Spool

Shielding Gas Filter 195189

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

Net

Model			Stock Number*	Input Power	Circuit Rating	Wire Feed Speed	Wire Type a	nd Diameter Capacity	Size Capacity	Dimensions	Weight
	uitCa -TREI	se ME 8VS	(951583) w/Bernard BTB Gun 300 A (without meters) (951582) w/Bernard BTB Gun 300 A	Operates on open-circuit voltage and	330 A at 60% duty cycle	50-780 ipm (1.3-19.8 m/min.) Actual range in		.023052 in. (0.6-1.4 mm) .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)
SuitCase X-TREME 12VS			(951543) w/Bernard BTB Gun 300 A (951544) w/Bernard Dura-Flux gun	arc voltage: 14-48 VDC/ 110 max. OCV	425 A at 60% duty cycle	CC mode is dependent on arc voltage applied		.023052 in. (0.6-1.4 mm) .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)
<u>.</u>	5	SuitCase X-TREME 8VS ArcReach	(951588) w/Bernard S-Gun (951584) w/Bernard BTB Gun 300 A	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		.023052 in. (0.6-1.4 mm) .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)
A	ArcR	SuitCase X-TREME 12VS ArcReach	(951589) w/Bernard S-Gun (951581) w/Bernard BTB Gun 300 A		425 A at 60% duty cycle	CC mode is dependent on arc voltage applied		.023052 in. (0.6-1.4 mm) .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)
SuitCa 12RC		se	(951580) w/Bernard BTB Gun 300 A (951599) w/Bernard BTB Gun 300 A, 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.)		.023052 in. (0.6-1.4 mm) .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)

## **Increase, improve** and maximize

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

## **ArcReach**

#### ► Increase Productivity

No time-consuming trips to the power source.

#### ► Improve Weld Quality

Reduces costly "work arounds".

#### ► Improve Worker Safety

Reduces operator hazards and injuries.

#### ▶ Maximize Efficiency

Reduces costly cord set up, maintenance and repair.

## O Wire Feeders | BENCH

20 Series

**Industrial Bench Feeders** 

## **70 Series**

Heavy-Industrial Bench Feeders

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





Models **include** Bernard<sup>™</sup> BTB Gun 300 A (20 Series) **OR** BTB Gun 400 A (70 Series, two with dual-wire models), .035/.045 in. drive rolls and Centerfire™ contact tips. For more options, visit **MillerWelds.com/equiptoweld**.

#### 20 and 70 Series Features

	20 S	eries		70 Serie	s
Feature	22A	24A	748	74D	74MPA
Includes BTB Gun 300 A					
Includes BTB Gun 400 A			•		•
Trigger hold					
Adjustable run-in control	•		_		•
Automatic run-in control			•		
Digital meters					
Remote voltage control	<u></u>	•			
Preflow/postflow	①1 ②1				
Spot control	<u></u>				
Dual-wire models					
Rotatable drive assembly Accu-Mate™					
Dual schedule control					
Trigger program select					
Trigger dual schedule					
Sequence control					
Locks and limits					
Weld programs					4
Trigger schedule select					4
Push-pull capability					
Synergic pulsed MIG					
Profile Pulse™					•
Standard Optional	¹Fie	ld option	٦.		

**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 BTB Gun 300 A (20 Series) or BTB Gun 400 A (70 Series, 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.

## 22A and 24A See literature 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 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.

#### 74 MPa Plus See literature M/3.0

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

Adjustable run-in control for improved arc starts.

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

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

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

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

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

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

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

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

## 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.

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

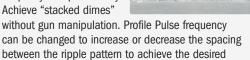
**Synergic pulsed MIG.** As wire speed increases/decreases, pulse parameters also increase/decrease to match the right amount of power needed, eliminating the need to make additional adjustments.

Profile Pulse™ provides
TIG appearance with MIG

simplicity and productivity.

Achieve "stacked dimes"

weld appearance.



## Industrial 20 Series Heavy industrial 70 Series



#### **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 and S-74S) (pg 16)
- Deltaweld® Series (pg 16)
- Invision™ MPa Series (pg 17)
- Dimension<sup>™</sup> Series (pg 36/37)
- XMT® Series (pg 38/40)

#### Suggested guns

- Bernard<sup>™</sup> Guns (pg 28/29)
- XR-Aluma-Pro<sup>™</sup> Plus and XR<sup>™</sup>-Pistol Plus (see chart below)

#### Most popular accessories

- Feeder Cart 142382 (pg 114)
- Extension Cables (pg 122)
- Spool Adapter 047141 (pg 122)
- Turntable Assembly 146236 (pg 122)
- Wire Straightener (pg 122)
- Hanging Bail 058435
- Wire Reel Assembly 108008
- Spool Covers

057607 For 20 and 70 Series single-wire models and left side of dual-wire models

090389 For right side of dual-wire models

 Single- and dual-remote configurations are available for 70 Series. For more information see page 26 and literature M/3 0

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

\*Additional packages are available — visit MillerWelds.com or your distributor. \*\*Requires wire kit (230708) to run 1/16 in. (1.6 mm) wire.

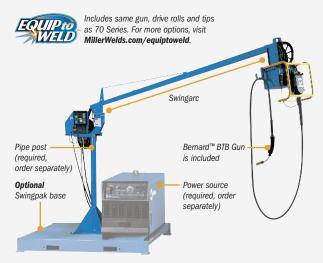
Model	Stock Number*		Input Power	Wire Feed Speed	Wire Type and Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
20 Series	22A (951190) 22A (951191) w/rui 22A (951192) w/dig 24A (951193) 24A (951194) w/dig	gital display and voltage control	24 VAC, 7 A, 50/60 Hz	75–750 ipm (1.9–19 m/min.)	22A .023-5/64 in. (0.6-2.0 mm) 24A .023-3/32 in. (0.6-2.4 mm)	60 lb. (27 kg) coil with optional wire reel assembly (108008)	H: 11 in. (279 mm) W: 10.75 in. (273 mm) D: 23.5 in. (597 mm)	<b>22A</b> 36 lb. (15.4 kg) <b>24A</b> 40 lb. (18 kg)
<b>70 Series</b> (Single-wire models)	S-74S (951196) S-74D (951198) S-74 MPa Plus (951	1291)	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) Low-speed motor recommended for 3/32 and 1/8 in. wires (factory option)	60 lb. (27 kg) coil with optional wire reel assembly	H: 14 in. (356 mm) W: 12.5 in. (318 mm) D: 28 in. (711 mm)	58 lb. (26 kg)
<b>70 Series</b> (Dual-wire models)	D-74S (951203) D-74D (951204) D-74 MPa Plus (951	1292)			MPa Plus model Hard wire .023-5/64 in. (0.6-2.0 mm) Aluminum** .035-1/16 in. (0.9-1.6 mm)	(108008)	H: 14 in. (356 mm) W: 21 in. (533 mm) D: 35 in. (889 mm)	87 lb. (39.5 kg)
0	L Dull Our	Oabla Laur	al.		Wine To			

<b>Optional Push-Pull Gun</b> (For MPa Plus feeders only)	15 ft. (4.6 m)	Cable Length 25 ft. (7.6 m)	35 ft. (10.6 m)	Welding Current Rating	Wire Feed Speed	Wire Type and Diameter Capacity	Dimensions	Net Weight
XR-Aluma-Pro Plus (Air-cooled)	(30000001)	(300001001)	-	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)	2.5 lb. (1.1 kg)
XR-Aluma-Pro Plus (Water-cooled)	(300003001)	(300004001)	_	400 A at 100% duty cycle	(1.6-23 11/111111.)	.030-1/ 10 III. (0.6-1.0 IIIIII)	L: 17 in. (432 mm)	2.9 lb. (1.3 kg)
XR-Pistol Plus (Air-cooled)	(300753)	(300754)	(300755)	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)	2.2 lb. (1 kg)
XR-Pistol Plus (Water-cooled)	R-Pistol Plus (Water-cooled) – (300757)		(300758)	400 A at 100% duty cycle	(1.0-23 []]/[]][].)	.030-1/ 10 III. (0.8-1.0 IIIIII)	W: 1.875 in. (48 mm) L: 10.625 in. (270 mm)	2.4 lb. (1.1 kg)

## o Wire Feeders

## **70 Series Swingarc**™ See literature 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.



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 BTB Gun 400 A (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

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/guns

Same as 70 Series

#### Most popular accessories

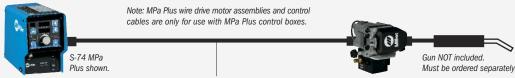
- Swingpak™ Base 183997
- Pipe Post with 18 in. Base 149838 4 ft. 149839 6 ft.
- Single/Dual Spool Carrier (pipe post not included) 300353 For 4 ft. post 300352 For 6 ft. post Designed to put spool hub assembly at 36 inches from base for easier wire spool installation.

Visit 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 Feed	ler
8 ft. (2.4 m) Boom	\$\$-74\$8 (951522) w/\$-74\$ \$\$-74D8 (951525) w/\$-74D \$\$-74MPa Plus-8 (951437) w/\$-74 MPa Plus	<b>DS-74S8 (951531)</b> w/D-74S <b>DS-74D8 (951534)</b> w/D-74D <b>DS-74MPa Plus-8 (951440)</b> w/D-74 MPa Plus	24 VAC, 10 A, 50/60 Hz	50-780 ipm (1.3-19.8 m/min.) Consult factory for	.023-5/64 in. (0.6-2.0 mm)	60 lb. (27 kg) coil with optional wire reel assembly	Single-wire feeder 1 Dual-wire feeder 1	10 lb. (50 kg) 34 lb. (61 kg)
12 ft. (3.7 m) Boom	\$\$-74\$12 (951523) w/\$-74\$ \$\$-74D12 (951526) w/\$-74D \$\$-74MPa Plus-12 (951438) w/\$-74 MPa Plus	<b>DS-74S12 (951532)</b> w/D-74S <b>DS-74D12 (951535)</b> w/D-74D <b>DS-74MPa Plus-12 (951441)</b> w/D-74 MPa Plus		low- and high-speed motor options on non-MPa feeders		(108008)	Single-wire feeder 1 Dual-wire feeder 2	60 lb. (73 kg) 07 lb. (94 kg)
16 ft. (4.9 m) Boom	\$\$-74\$16 (951524) w/\$-74\$ \$\$-74D16 (951527) w/\$-74D \$\$-74MPa Plus-16 (951439) w/\$-74 MPa Plus	DS-74\$16 (951533) w/D-74\$ DS-74D16 (951536) w/D-74D DS-74MPa Plus-16 (951442) w/D-74 MPa Plus					Single-wire feeder 2 Dual-wire feeder 2	10 lb. (95 kg) 80 lb. (127 kg)

## **70 Series Remote Configurations** See literature M/3.0

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



Single-wire control box 300881 S-74S

300882 S-74D 300738 S-74 MPa Plus

Gun NOT included.

Must be ordered separately.

Push-only wire drive motor assembly

300741 MPa Plus right-hand drive

300741001 Standard right-hand drive

#### Motor control cable

Standard: 11 conductor MPa Plus: 14 conductor Wire drive motor assembly

300904 Standard left-hand drive 300740 MPa Plus left-hand drive

MPa Plus drive can be used with push-only guns, or XR-Aluma-Pro™ Plus and Pistol Plus push-pull guns.

#### Motor control cable 11 conductor

**Dual-wire control box** 300886 D-74S

300887 D-74D 300739 D-74 MPa Plus

#### Motor control cable

Standard: 11 conductor MPa Plus: 14 conductor



Wire drive motor assembly 300904 Standard left-hand drive **300740** MPa Plus left-hand drive

MPa Plus drive can be used with push-only guns, or XR-Aluma-Pro™ Plus and Pistol Plus push-pull guns.

#### Heavy industrial



Use with CV, DC power sources.

#### **Processes**

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

#### Suggested power sources/guns

Same as 70 Series

#### Most popular accessories

- Motor Control Cable (11 conductor)\* 254935010 10 ft. (3 m) 254935025 25 ft. (7.6 m) For push-only gun configurations.
- MPa Plus Motor Control Cable (14 conductor)\* 254864010 10 ft. (3 m) 254864025 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.



■ Feeder Base 195369 For use with spooled wire.

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

## MIG Guns



Product				*5IWI	red**		Wire '	Types					
Guide	Page	Class	MIG	Pulsed	Flux-col	Hard	Flux-cored Dual-shid	Flux-cored Self-shld	Alum.	Wire Diameter Capacity	Available Cable Lengths	Typical Applications	
MIGmatic™ M-100 MIG Gun	27	•	•			•		●CV**		.023045 in. (0.6-1.2 mm)	10 ft.	Light industrial steel fabrication	
MIGmatic™ M-150 MIG Gun	27	•	•					●CV**		.023045 in. (0.6-1.2 mm)	10, 12 or 15 ft.	Light industrial steel fabrication	
MIGmatic™ M-25 MIG Gun	27		•					●CV**		.023045 in. (0.6-1.2 mm)	10, 12 or 15 ft.	Industrial steel fabrication	
Bernard™ BTB MIG Guns	28		•			•		●CV**		.023-1/8 in. (0.6-3.2 mm)	8, 10, 12, 15, 20, or 25 ft.	Heavy industrial steel fabrication	
Bernard™ Clean Air™ Fume Extraction Guns	29	•	•		•			<b>● CV**</b>		.023-1/8 in. (0.6-3.2 mm)	8, 10, 12, 15, 20, or 25 ft.	Heavy industrial steel fabrication	Steel
Bernard™ FILTAIR™ Fume Extraction Guns	29	•	•	•	•			<b>○</b> CV**		.023-5/64 in. (0.6-2.0 mm)	8, 10, 12, 15, 20, or 25 ft.	Heavy industrial steel fabrication	<u>e</u>
Bernard™ Dura-Flux™ Gun with Fixed Liner	29	•			•			● CV**		1/16-3/32 in. (1.6-2.4 mm)	8, 10, 12, 15, 20, or 25 ft.	Heavy industrial steel fabrication	
Bernard™ Dura-Flux™ Gun with Replaceable Liner	29	•			•			●CV**		.045-5/64 in. (1.2-2.0 mm)	8, 10, 12, 15, 20, or 25 ft.	Heavy industrial steel fabrication	
Spoolmate™ Spool Guns	30	•	•			•			•	100/200/3035 models: .023035 in. (0.6-0.9 mm) 150 model: .030035 in. (0.8-0.9 mm)	100 model: 12 ft. 150/200/3035 models: 20 ft.	Light industrial aluminum fabrication	
Spoolmatic® Spool Guns	31		•	•				●CV**		.030-1/16 in. (0.8-1.6 mm)	15 or 30 ft.	Industrial aluminum fabrication	₽
XR-Aluma-Pro™ Lite Push-Pull Gun	32									.030047 in. (0.8-1.2 mm)	25 ft.	Industrial aluminum fabrication	Aluminum
XR-Aluma-Pro™ Push-Pull Guns	32									.030-1/16 in. (0.8-1.6 mm)	15, 25 or 35 ft.	Heavy industrial aluminum fabrication	
XR™-Pistol Push-Pull Guns	32	•	•						•	.030-1/16 in. (0.8-1.6 mm)	Pistol: 15 or 30 ft. Pistol-Pro: 15, 25 or 35 ft.	Heavy industrial aluminum fabrication	_=
XR™ Controls	33		•						•	.030-1/16 in. (0.8-1.6 mm)	_	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. \*Requires MPa inverter power source. \*\*Certain self-shielded wires require CV output. Miller recommends a CV power source whenever possible.

## MIGmatic™ M-Series MIG Guns See literature AY/15.0

An ideal match for Miller® all-in-one MIG machines or other Miller wire feeders.



Three-piece nozzle construction extends nozzle life by reducing wear and helps prevent rocking of nozzle on contact tip adapter.

Interchangeable contact tips and monocoil **liners** help reduce parts inventory.

Brass contact tip adapter helps prevent galling, sticking and stripping of threads.

Single-piece high-impact handle is almost indestructible with ergonomic design.

Steel spring strain relief protects power cable from wear and helps prevent liner from kinking, allowing better wire feedability.

360-degree rotatable gooseneck permits trigger activation with either the finger or thumb.

#### **Light industrial** *M-100/M-150* **Industrial** • M-25

#### **Processes**

MIG (GMAW) = Flux-cored (FCAW)

#### Suggested power sources

- Millermatic® 141/190/211 (M-100/M-150) (pg 8/9)
- Millermatic® 212 Auto-Set™/252 (M-25) (pg 10)
- Multimatic 200 (M-150) (pg 35)
- Multimatic 215 (M-100/150) (pg 35)

#### Most popular accessories

 MIGmatic M-Series Consumable Kits (pg 117) For M-100/M-150 234607 .023 in. (0.6 mm)

234608 .030 in. (0.8 mm)

234609 .035 in. (0.9 mm) For M-25

234610 .030 in. (0.8 mm) 234611 .035 in. (0.9 mm) 234612 .045 in. (1.2 mm)

 Aluminum Conversion Kit 172136 (pg 117)

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

Model	Stock Number	Cable Length	Rated Output	Rated Duty Cycle	Wire Diameter Capacity	Gun Only Net Weight
M-100	248282	10 ft. (3 m)	100 A	100% with CO <sub>2</sub> gas, 60% with mixed gas	.023045 in. (0.6-1.2 mm)	3.2 lb. (1.5 kg)
M-150	249039	10 ft. (3 m)	150 A	100% with CO <sub>2</sub> gas, 60% with mixed gas	.023045 in. (0.6-1.2 mm)	4.4 lb. (2.0 kg)
	249040	12 ft. (3.7 m)				4.7 lb. (2.1 kg)
	249041	15 ft. (4.6 m)				6.0 lb. (2.7 kg)
M-25	169594	10 ft. (3 m)	250 A	100% with CO <sub>2</sub> gas, 60% with mixed gas	.023045 in. (0.6-1.2 mm)	5.4 lb. (2.5 kg)
	169596	12 ft. (3.7 m)				6.0 lb. (2.7 kg)
	169598	15 ft. (4.6 m)				7.2 lb. (3.3 kg)
	169599	15 ft. (4.6 m)			.023045 in. (0.6-1.2 mm)	7.2 lb. (3.3 kg)

## **Bernard** Semi-Automatic Guns

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

#### BTB Air-Cooled MIG Guns See Bernard literature SP-BTB

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



**NEW!** C Series gun handle expands our handle lineup to seven choices. The C Series handle provides all the benefits of our current T Series large straight handle, plus additional ergonomic benefits such as the handle overmold and rear swivel at no extra cost!

See chart below for a pre-configured BTB MIG gun that best matches your needs or visit MillerWelds.com to view a complete list. Or you may choose to configure your BTB MIG gun from the following array of options by visiting BernardWelds.com/ConfigureMyGun.

- Compatible with three high-performance consumable lines Centerfire,<sup>™</sup> Quik Tip<sup>™</sup> and TOUGH LOCK<sup>™</sup> (see page 29 for more information)
- Compatible with Universal Conventional or front-loading QUICK LOAD™ liners
- Fixed or rotatable aluminum armored necks in various lengths and angles to optimize weld access
- Choice of seven different handles with various trigger options for a comfortable, ergonomic fit
- Internal cable connections are compression fit (instead of crimped) to optimize conductivity, reduce heat and increase gun life
- Optional ultra-heavy-duty steel monocoil cable provides extra reinforcement and high pinch/kink resistance
- One year manufacturer's warranty with lifetime warranty on rear strain relief



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



All guns in chart come with a Miller® power pin and a Universal Conventional liner except as noted below \*Comes with a Miller power pin and a QUICK LOAD liner AutoLength™ system.

Stock Number	Amperage	Cable Length	Handle	Trigger	Neck	Consumables	Wire Size
Q3015AE8XMC	300	15 ft. (4.5 m) industrial	B Series small curved	Standard	Rotatable med. 45°	Centerfire (flush)	.045 in. (1.2 mm)
Q3015AE8EMC	300	15 ft. (4.5 m) industrial	B Series small curved	Standard	Rotatable med. 45°	Centerfire	.045 in. (1.2 mm)
Q3015TE5EMC	300	15 ft. (4.5 m) industrial	O Series small curved	Standard	Rotatable med. 45°	Quik Tip	.045 in. (1.2 mm)
Q3015AE8HMC	300	15 ft. (4.5 m) industrial	B Series small curved	Standard	Rotatable med. 45°	Centerfire	.052 in. (1.3 mm)
Q4015AE8EMC	400	15 ft. (4.5 m) industrial	B Series large curved	Standard	Rotatable med. 45°	Centerfire	.045 in. (1.2 mm)
Q4015TE5EMC	400	15 ft. (4.5 m) industrial	O Series small curved	Standard	Rotatable med. 45°	Quik Tip	.045 in. (1.2 mm)
Q4015VS3EML*	400	15 ft. (4.5 m) industrial	<b>NEW!</b> C Series straight	Standard	Fixed med. 60°	TOUGH LOCK	.045 in. (1.2 mm)
Q4015MS3EMC	400	15 ft. (4.5 m) industrial	T Series large straight	Standard	Fixed med. 60°	TOUGH LOCK	.045 in. (1.2 mm)
Q4015AE8HMC	400	15 ft. (4.5 m) industrial	B Series large curved	Standard	Rotatable med. 45°	Centerfire	.052 in. (1.3 mm)
Q4020MF8HMC	400	20 ft. (6 m) industrial	T Series large straight	Standard	Rotatable med. 60°	Centerfire	.052 in. (1.3 mm)
Q4015AE8IMC	400	15 ft. (4.5 m) industrial	B Series large curved	Standard	Rotatable med. 45°	Centerfire	1/16 in. (1.6 mm)
Q4025MF8IMC	400	25 ft. (7.6 m) industrial	T Series large straight	Standard	Rotatable med. 60°	Centerfire	1/16 in. (1.6 mm)
S4025MF8IMC	400	25 ft. (7.6 m) steel monocoil	T Series large straight	Standard	Rotatable med. 60°	Centerfire	1/16 in. (1.6 mm)
Q4015MS3IMC	400	15 ft. (4.5 m) industrial	T Series large straight	Standard	Fixed med. 60°	TOUGH LOCK	1/16 in. (1.6 mm)
Q4015NS3IMC	400	15 ft. (4.5 m) industrial	T Series large straight	Locking	Fixed med. 60°	TOUGH LOCK	1/16 in. (1.6 mm)

#### **Heavy industrial**



#### **Processes**

• MIG (GMAW) • Flux-cored (FCAW)

#### Suggested feeders

- Continuum™ Feeder (pg 18)
- Axcess® Feeder (pg 20)
- SuitCase® Series (pg 22)
- 20 and 70 Series Feeders (pg 24-26)

#### Suggested power source

Millermatic® 350P (pg 11)

#### Most popular consumables

#### **Centerfire Consumable Series**

Diffusers (amps)

**DS-1** 200, 300, small **D-1** 400, 500, 600, large

Brass Nozzles (inches)

NS-1218B 1/2 ID, 1/8 rec., small

Copper Nozzles (inches)

 NS-5818C
 5/8 ID, 1/8 rec., small

 N-5818C
 5/8 ID, 1/8 rec., large

 N-5814C
 5/8 ID, 1/4 rec., large

 N-3414C
 3/4 ID, 1/4 rec., large

**Contact Tips** (inches) **T-035** .035 **T-045** .045 **T-052** .052 **T-062** 1/16

#### **Quik Tip Consumable Series**

Diffusers (amps)

**D118Q** 200, 300, 400 **D114Q** 500, 600

Plated Copper Nozzles (inches)

**N1C58Q** 5/8 ID **N1C34HQ** 3/4 ID, HD

**Contact Tips** (inches) **T1035** .035 **T1045** .045

#### **TOUGH LOCK Consumable Series**

Diffusers (amps)

**404-18-25** 200, 300, 400 SD **404-26-25** 300, 400, 500, 600 HD

Copper Nozzles (inches)

**401-4-62** 5/8 ID, 1/8 Rec., SD **401-6-62** 5/8 ID, 1/8 Rec., HD **401-5-62** 5/8 ID, 1/4 Rec., HD **401-5-75** 3/4 ID, 1/8 rec., HD

Contact Tips (inches)

**403-14-35-25** .035 SD **403-20-35-25** .035 HD

**403-14-45-25** .045 SD **403-20-45-25** .045 HD

**403-20-52-25** .052 HD **403-20-116-25** 1/16 HD

Visit BernardWelds.com or your distributor for additional Bernard consumable options.

**Bernard** Semi-Automatic Guns

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



#### **Fume Extraction MIG Guns**

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

Maintaining a clean working environment is important and Bernard understands the need for a reliable fume extraction solution. Extract fumes at the weld bead using either of our two models and a FILTAIR® fume extractor.

#### Clean Air™ gun

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

#### FILTAIR™ gun

- Available in 300- and 400-amp models
- Compatible with Centerfire and Quik Tip consumables
- Small lightweight handle maximizes maneuverability and comfort



#### Dura-Flux<sup>™</sup> Self-Shielded Flux-Cored Guns

See Bernard literature SP-DF

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

#### Dura-Flux gun with replaceable power cable liner

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

#### Dura-Flux gun with fixed power cable liner

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

#### Bernard Welding Consumables (cutaways shown)



#### **Centerfire**<sup>™</sup>

See Bernard literature SP-CFC

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



See Bernard literature SP-QTC

- A 1/4 turn is all it takes to install contact tips
- Threaded taper lock increases tip life and allows excellent heat transfer and electrical conductivity
- Fixed contact tip position for repeatability and consistent quality welds



#### **TOUGH LOCK™**

See Bernard literature SP-TLC

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

#### Heavy industrial

#### **Processes**

MIG (GMAW) - Flux-cored (FCAW)

#### Suggested feeders

- Continuum™ Feeder (pg 18)
- Axcess® Feeder (pg 20)
- SuitCase® Series (pg 22)
- 20 and 70 Series Feeders (pg 24-26)

#### Suggested power source

Millermatic® 350P (pg 11)

#### Suggested fume extractor

■ FILTAIR® 130 (pg 106)

#### Most popular consumables

#### Centerfire Consumable Series

Diffusers (amps)

200, 300, small DS-1 D-1 400, 500, 600, large

Brass Nozzles (inches)

**NS-1218B** 1/2 ID, 1/8 rec., small

Copper Nozzles (inches)

**NS-5818C** 5/8 ID, 1/8 rec., small N-5818C 5/8 ID, 1/8 rec., large N-5814C 5/8 ID, 1/4 rec., large N-3414C 3/4 ID, 1/4 rec., large

Contact Tips (inches) T-035 .035T-045 .045 T-052 .052 T-062 1/16

#### **Quik Tip Consumable Series**

Diffusers (amps)

D118Q 200, 300, 400 D114Q 500,600

Plated Copper Nozzles (inches) N1C580 5/8 ID

N1C34HQ 3/4 ID, HD Contact Tips (inches) T1035 .035 T1045 .045

#### **TOUGH LOCK Consumable Series**

Diffusers (amps)

**404-18-25** 200, 300, 400 SD 404-26-25 300, 400, 500, 600 HD

Copper Nozzles (inches)

401-4-62 5/8 ID, 1/8 Rec., SD 401-6-62 5/8 ID, 1/8 Rec., HD 401-5-62 5/8 ID. 1/4 Rec., HD 401-5-75 3/4 ID, 1/8 rec., HD

Contact Tips (inches) 403-14-35-25 .035 SD 403-20-35-25 .035 HD 403-14-45-25 .045 SD 403-20-45-25 .045 HD

403-20-52-25 .052 HD 403-20-116-25 1/16 HD

Visit BernardWelds.com or your distributor for additional Bernard consumable options.



For more detailed information, visit BernardWelds.com



## **Spoolmate<sup>™</sup> Spool Guns**

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



#### **Spoolmate 100** See literature M/1.45

**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 easy view of spool. Includes carrying case, extra contact tips and nozzle.



Spoolmate 150

#### Spoolmate 150 See literature M/1.46

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

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

Heavy-duty head tube.

**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 easy view of spool.



PORTABLE!

### **Spoolmate 200** See literature M/1.47

**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 machine - for easy setup. Easy access to drive assembly and drive rolls.

**Two-stage trigger with built-in gas valve** allows for gas preflow/postflow. **Toolless head tube removal** allows easy replacement. Comes standard with heavy-duty head tube. Three optional head tubes available.



#### **Spoolmate 3035** See literature M/1.5

**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 easy view of spool. **Easy-to-remove head tube assembly.** 

#### 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 8)
- Millermatic® 190 (pg 8)
- Millermatic® 211 (pg 9)
- Multimatic<sup>™</sup> 200 (pg 35)
- Multimatic<sup>™</sup> 215 (pg 35)
- Syncrowave® 210 (pg 51) requires MIG accessory kit (301254)

#### For Spoolmate 150

- Millermatic® 211 (pg 9)
- Multimatic<sup>™</sup> 200 (pg 35) effective with serial number MF364047N
- Multimatic<sup>™</sup> 215 (pg 35)
- Syncrowave® 210 (pg 51) requires MIG accessory kit (301254)

#### For Spoolmate 200

- Millermatic® 212 Auto-Set™ (pg 10)
- Millermatic® 252 (pg 10)

#### For Spoolmate 3035

- Direct connect to vintage Millermatic 210/212 tapped-voltage models
- Millermatic® 141/190/211
   (pg 8/9) requires SGA 100
   control (043856)
- Bobcat<sup>™</sup> 225 (pg 74) requires
   SGA 100C control (043857)

## Most popular accessories For Spoolmate 200

- 45-Degree Head Tube 300591
- 9-Inch Extension Head Tube 300592
- 5-Inch Head Tube 243385
- Spoolmatic Adapter Cable 195287 Allows connection to older Millermatic 210 and 212 (non-Auto-Set).

#### For Spoolmatic 3035

- SGA 100 043856 (pg 122)
- SGA 100C 043857 (pg 122)
- Heavy-Duty Head Tube 195375

Visit 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
Spoolmate 100 (300371)	135 A at 30% duty cycle	5-625 ipm (1.7-15.9 m/min.) Wire speed dependent on power source used	Aluminum       .030035 in. (0.8-0.9 mm)         Solid steel       .023035 in. (0.6-0.9 mm)         Stainless       .023035 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
Spoolmate 150 (301272)	150 A at 60% duty cycle	115-715 ipm (2.9-18.1 m/min.) Wire speed dependent on power source used	Aluminum	4 in. (102 mm)	H: 11.5 in. (291 mm) W: 3 in. (76 mm) L: 12.5 in. (318 mm)	7.3 lb. (3.2 kg)
Spoolmate 200 (300497)	160 A at 60% duty cycle,	70-875 ipm (1.8-22.2 m/min.)	Aluminum .030035 in. (0.8-0.9 mm)  Solid steel .023035 in. (0.6-0.9 mm)  Stainless .023035 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)
Spoolmate 3035 (195016)	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.)	Aluminum .030035 in. (0.8-0.9 mm)  Solid steel .023035 in. (0.6-0.9 mm)  Stainless .023035 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

Portable, aluminum wire feeder for industrial applications.



#### **PORTABLE!**



#### **Spoolmatic** See literature M/1.73

Cost-effective, industrial aluminum spool gun.

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 Pro (additional features)

See literature M/1.76

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.



More 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.



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 10)
- Millermatic® 252 (pg 10)
- Millermatic® 350P/350P Aluminum except Spoolmatic Pro (pg 11/13)
- Shopmate<sup>™</sup> 300 DX (pg 36)
- Bobcat<sup>™</sup> Series (pg 74) requires WC-115A with contactor (137546011)

These power sources require WC-24 control (137549)

- AlumaPower™ MPa (pg 14)
- CP-302 (pg 16)
- Deltaweld® Series (pg 16)
- Invision™ MPa (pg 17)
- Dimension<sup>™</sup> Series (pg 36/37)
- XMT® Series (pg 38/40)
- Trailblazer® Series (pg 76)

#### Most popular accessories

- WC-115A 137546 (pg 122)
- WC-115A with contactor 137546011 (pg 122)
- WC-24 137549 (pg 122)

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

#### \*Spoolmatic Pro requires wire kit (230708) 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	Gun Only Net Weight
<b>Spoolmatic</b> (195156) 15 ft. (4.5 m) cable (130831) 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	Aluminum* .030-1/16 in. (0.8-1.6 mm) Hard wire	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> ( <b>301147</b> ) 15 ft. (4.5 m) cable ( <b>301148</b> ) 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	.030045 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<sup>™</sup> Push-Pull Guns**

XR-Aluma-Pro and XR-Pistol guns work in conjunction with an XR Control, 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 5000specific 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 See literature M/1.75

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

#### XR-Aluma-Pro™ See literature M/1.71

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

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





#### XR<sup>™</sup>-Pistol See literature M/1.73

Reliable, cost-effective gun for light- to mediumindustrial applications.

#### XR<sup>™</sup>-Pistol-Pro See literature M/1.74

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 14)
- XR<sup>™</sup>-S Control (pg 33)
- XR™-D Control (pg 33)

#### Suggested power sources

- Millermatic® 252 (pg 10)
- Millermatic® 350P/350P Aluminum (pg 11/13)

These power sources require XR-AlumaFeed (pg 14) or XR Control (pg 33)

- AlumaPower<sup>™</sup> MPa (pg 14)
- Deltaweld® Series (pg 16)
- Invision™ MPa (pg 17)
- XMT® Series (pg 38/40)
- Trailblazer® Series (pg 76)

#### Most popular accessories

• Hardwire Liner Kit 198377

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

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

			Cable	Length				Wire Type and		Gun Only
Mode	el	15 ft. (4.6 m)	25 ft. (7.6 m)	30 ft. (9 m)	35 ft. (10.6 m)	Welding Current Rating	Wire Feed Speed*	Diameter Capacity	Dimensions	Net Weight
	luma-Pro Lite cooled)	-	(300948)	-	_	175 A at 60% duty cycle	70-900 ipm (1.8-23 m/min.)	<b>Aluminum</b> .030047 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-AI	luma-Pro (Air-cooled)	(300000)	(300001)	-	(300264)	300 A at 100% duty cycle	70-900 ipm	Aluminum**	H: 5 in. (127 mm)	2.5 lb. (1.1 kg)
XR-AI	luma-Pro (Water-cooled)	(300003)	(300004)	-	(300265)	400 A at 100% duty cycle	(1.8-23 m/min.)	.030-1/16 in. (0.8-1.6 mm)	W: 2.5 in. (64 mm) L: 17 in. (432 mm)	2.9 lb. (1.3 kg)
XR-Pi	istol (Air-cooled)	(198127)	_	(198128)	_	200 A at 100% duty cycle	70-875 ipm	Aluminum	H: 7.375 in. (187 mm)	2.2 lb. (1 kg)
XR-Pi	istol (Water-cooled)	(198129)	-	(198130)	-	400 A at 100% duty cycle	(1.8-22.2 m/min.)	.030-1/16 in. (0.8-1.6 mm)	W: 1.875 in. (48 mm) L: 10.625 in. (270 mm)	2.4 lb. (1.1 kg)
XR-Pi	istol-Pro (Air-cooled)	(300782)	(300783)	-	(300784)	200 A at 100% duty cycle	70-900 ipm	Aluminum**	L. 10.025 III. (270 IIIIII)	2.2 lb. (1 kg)
XR-Pi	istol-Pro (Water-cooled)	(300786)	(300787)	-	(300788)	400 A at 100% duty cycle	(1.8-23 m/min.)	.030-1/16 in. (0.8-1.6 mm)		2.4 lb. (1.1 kg)



## **XR**<sup>™</sup> **Control** See literature 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 (195591) separately.

#### XR-S

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

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

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

Trigger hold for making long weldments without hand fatigue. Adjustable wire run-in control allows arc start fine tuning.

Reduces wire stubbing or arc flaring which can result in contact tip burnback.

#### **XR-D** (additional features)

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

Heavy industrial

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 32)

#### Suggested power sources

- AlumaPower<sup>™</sup> MPa (pg 14)
- Deltaweld® Series (pg 16)
- Invision™ MPa (pg 17)
- XMT® Series (pg 38/40)
- Trailblazer® Series (pg 76)

#### Most popular accessories

- Extension Cables (pg 122)
- PSA-2 Control (pg 122)
- Gas Flowmeter Kit 246127

Visit MillerWelds.com or vour 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
XR-S (300601) XR-D (300687)	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 (195591) 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)

## Feeding aluminum choose the right gun solution

## Push-only Guns **UPGRADE**

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

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

#### **Spool Guns**



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

- · Low initial cost versus push-pull guns
- · Work with many power sources
- · Light and simple to use
- · Limited deposition because of wire spool size

#### **Push-pull Guns UPGRADE**



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

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

**Learn more at MillerWelds.com/aluminum** 





Dawes C				AF AF TANK						450 Amp		
Power S		150 A	200 A	250 A	300	Amp	350 Amp			650 A		
Welding Performance		Multimatic™ 200 (1-Phase) (pg 35)	Multimatic™ 215 (1-Phase) (pg 35)	Shopmate™ 300 DX (1-Phase) (pg 36)	Dimension™ 302 (pg 36)	XMT® 304 CC/CV (pg 38)	XMT® 350 CC/CV (pg 38)	XMT® 350 MPa (pg 38)	Dimension™ 452 (pg 36)	XMT® 450 CC/CV (pg 38)	XMT° 450 MPa (pg 38)	Dimension™ 650 (pg 37)
	Mild Steel	•	•	•	•	•	•	•	•	•	•	•
Material	Stainless Steel	•	•	•		•	•	•		•	•	•
	Aluminum*									•		
	Gauge (.020125 in.)	•	•	•	•	•	•	•	•	•	•	•
Material	Sheet (.125375 in.)	•	•	•	•	•	•	•	•	•	•	•
Thickness	Plate (.375-1 in.)								•	•	•	•
	Plate (1+ in.)											•
	.023 in.											
	.030 in.				•	•	•					•
	.035 in.								•	•		•
Wire Size	.045 in.	•		•	•		•			•		•
	.052 in.				•	•	•		•	•		•
	1/16 in.						•		•	•		•
	5/64 in.						•		•	•		•
	3/32 in.									•		•
	Short Circuit	****	****	***	**	***	****	****	**	****	****	****
	Pulsed Spray							****			****	
Process	Stick	**	**	***	**	****	****	****	**	****	****	****
	TIG	***	***	***	*	***	***	***	*	***	***	***
	CAC-A			3/16 in.	1/4 in.	1/4 in.	1/4 in.	1/4 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

## Multimatic<sup>™</sup> 200













Multi-voltage plug (MVP™) allows connection to common 120- and 240-volt power receptacles without the use of any tools — simply choose the plug that fits the receptacle and connect to the power cord.

#### **Welding Capability**

Max. 3/8 in. (9.5 mm)	Max. 3/8 in. (9.5 mm)	
MIG	MIG	Max. 3/16 in. (4.8 mm)
Mild Steel	Aluminum	TIG Mild Steel
Min. 24 ga. (0.6 mm)	Min. 18 ga. (1.2 mm)	Min. 24 ga. (0.6 mm)

Aluminum welding uses optional Spoolmate 100 and 4000 series aluminum wire or Spoolmate 150 (effective with Multimatic 200 serial number MF364047N) and either 4000 or 5000 series aluminum wire. TIG welding uses optional TIG contractor kit.

Weighing only 29 lb., this lightweight MIG, stick and TIG welder provides portability on the job.

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

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

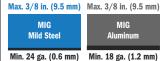
**Excellent arc characteristics!** Positive arc starts and an extremely stable arc with minimal spatter.

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

## Multimatic<sup>™</sup> 215

See literature DC/12.59

#### **Welding Capability**





Max. 3/16 in. (4.8 mm) **TIG Mild Steel** Min. 24 ga. (0.6 mm)

Max. 3/8 in. (9.5 mm) Stick Mild Steel Min. 16 ga. (1.5 mm)

Max. 3/8 in. (9.5 mm)

Mild Steel

Min. 16 ga. (1.5 mm)

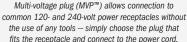
Aluminum welding uses optional Spoolmate 100 and 4000 series aluminum wire or Spoolmate 150 and either 4000 or 5000 series aluminum wire. TIG welding uses optional TIG contractor kit.

## WIRELESS COMPATIBLE See page 121









Intuitive color LCD user interface makes it quick and easy to adjust parameters.

Angled cast-aluminum drive system provides smooth feeding and the ability to use 10, 12 or 15 ft. guns.

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!** Positive arc starts and an extremely stable arc with minimal spatter.

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

#### Light industrial



#### **Processes**

- MIG (GMAW) Flux-cored (FCAW)
- DC stick (SMAW) DC TIG (DC GTAW)

#### **Comes complete with**

- 10 ft. (3 m) Bernard<sup>™</sup> Q150 MIG gun and cable assembly (Multimatic 200) **OR** 10 ft. (3 m) M-100 MIG gun and cable assembly (Multimatic 215)
- 13 ft. (4 m) cable with electrode holder and 25 mm Dinse-style connector
- 10 ft. (3 m) work cable with clamp and 25 mm Dinse-style connector
- Power cord with MVP plugs for 120 V and 240 V
- Ouick Select<sup>™</sup> 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/CO2 mix, extra contact tips, information/settings chart and material thickness gauge (229895) -Hobart® spool of .030 in. solid wire and hook-and-loop cord wraps as seen in photo above are included with Multimatic 215 model only

#### Most popular accessories

- Spoolmate<sup>™</sup> Spool Guns (pg 30) 300371 Spoolmate 100 301272 Spoolmate 150
- Running Gear/Cylinder Rack 301239 (pg 114)
- Protective Cover 301262 (pg 117) (Multimatic 215 only)
- TIG Contractor Kits (pg 120) 301287 For Multimatic 200 301337 For Multimatic 215

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

Stock Number	Welding Mode/Process	Input Power	Amperage Range	Rated Output	Amps In	put at Rated Outp 230 V/240 V	ut, 50/6 KVA	60 Hz KW	Wire Feed Speed	Max. Open- Circuit Voltage	Dimensions	Net Weight
Multimatic 200	CV: MIG/	120 V	30-140	90 A at 18.5 V, 60% duty cycle	18.0	-	2.2	2.0	70-425 ipm	90 VDC	H: 14.5 in.	29 lb.
(907518) (951649) with TIG	flux-cored			110 A at 19.5 V, 20% duty cycle	20.0	-	2.7	2.6	(1.8-10.8 m/min.)		(368 mm) W: 9.75 in. (248 mm)	(13.2 kg)
contractor kit (see page		230 V	30-200	150 A at 21.5 V, 20% duty cycle	-	17.5	4.0	3.8				
120 for kit contents)	CC: TIG	120 V	5-150	150 A at 16 V, 30% duty cycle	27.0	-	3.3	3.2	_	90 VDC (22-25 VDC, sense voltage for stick and	D: 17 in.	
		230 V	5-150	150 A at 16 V, 30% duty cycle	-	13.8	3.2	3.0			(432 mm)	
	CC: Stick	120 V	20-150	100 A at 24 V, 35% duty cycle	24.0	-	2.9	2.8				
		230 V	20-150	150 A at 26 V, 30% duty cycle	-	20.8	4.8	4.5		Lift-Arc™ TIG)		
Multimatic 215	CV: MIG/	120 V	30-125	110 A at 19.5 V, 60% duty cycle	23.0	-	2.8	2.8	60-600 ipm	58 VDC	H: 12.5 in. (318 mm)	38 lb.
(907693)	flux-cored	240 V	30-230	200 A at 24 V, 20% duty cycle	-	25.8	6.2	6.2	(1.5-15.2 m/min.)			(17.2 kg)
(951674) with TIG contractor kit (see page				150 A at 21.5 V, 40% duty cycle	-	16.7	4.0	4.0			W: 11.25 in. (286 mm)	
120 for kit contents)	CC: TIG	120 V	20-150	140 A at 15.6 V, 40% duty cycle	24.6	_	3.0	3.0	_	58 VDC	D: 20.5 in.	
		240 V	20-210	190 A at 17.6 V, 20% duty cycle	-	18.0	6.7	6.7			(521 mm)	
	CC: Stick	120 V	30-100	90 A at 23.6 V, 40% duty cycle	22.7	_	2.7	2.7	1			
		240 V	30-200	190 A at 27.6 V, 20% duty cycle	_	27.0	6.5	6.5	1			

## Shopmate<sup>™</sup> 300 DX See literature 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).



**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**<sup>™</sup> 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



#### **Processes**

- MIG (GMAW) Flux-cored (FCAW)
- DC stick (SMAW) DC TIG (DC GTAW)
- · Air carbon arc cutting and gouging (CAC-A) (3/16 in. carbons)

#### MIG packages come complete with

- 22A wire feeder with Bernard<sup>™</sup> BTB Gun 300 A
- 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, and 15 ft. (4.6 m) 1/0 work cable with clamp.

#### Most popular accessories

- Shopmate Running Gear/Dual Cylinder Rack 300145 (pg 114)
- Shopmate 300 MIG Kit 300150

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

(907315) 200(208)/230 V power source only (907316) 230/460/575 V power source only (951076) 200(208)/230 V w/MIG package (951077) 230/460/575 V w/MIG package

Amperage Range	Voltage Range	Rated Output		Input at 230 V		oad Out 575 V	put, 60 KVA	Hz KW	Max. Open- Circuit Voltage
5-400	10-35	250 A at 30 VDC, 60% duty cycle	66	57	29	23	13	11.2	80 VDC

**Power Source Dimensions Power Source** (Includes lift eye) **Net Weight** H: 24.5 in. (622 mm) W: 19 in. (483 mm) (80.3 kg) D: 25.5 in. (648 mm)

## Dimension™ 302 and 452 See literature DC/19.2

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



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**<sup>™</sup> cooling system operates only when needed. Reduces contaminants drawn into the machine and excess noise in work areas.

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

115-volt power for tools and coolant systems.

#### **Heavy industrial**



#### **Processes**

- MIG (GMAW) Flux-cored (FCAW)
- Stick (SMAW) TIG (GTAW)
- · Air carbon arc cutting and gouging (CAC-A) (carbons - 302: 1/4 in., 452: 5/16 in.)

#### Stationary packages include

- Power source
- S-74D feeder with Bernard™ BTB Gun 400 A and .035/.045 in. 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 standard running gear and standard cylinder rack

#### Most popular accessories

- SuitCase® X-TREME™ Feeders (pg 22)
- 70 Series Feeders (pg 24)
- Standard Running Gear/Cylinder Rack 042886/042887 (pg 115)
- Industrial MIG 4/0 Kit (with lug connectors) 300390 (pg 117)
- Extension Cables (pg 122)

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

Note: Dimension 652 is still available, visit MillerWelds.com for more information; see page 37 for Dimension 650.

Model	Stock Number	Amperage/ Voltage Ranges	Rated Output		•	t Rated 460 V				Max. Open- Circuit Voltage	Power Source Dimensions (Includes lift eye and strain relief)	Power Source Net Weight	
Dimension (903216) 230/460/575 V power source only	CC mode: 15-375 A	300 A at 32 VDC, 100% duty cycle	57.5	50	25	20	20	12.9	60 VDC	,	361 lb. (164 kg)		
302	<b>302</b> ( <b>951272</b> ) 230/460/575 V stationary pkg ( <b>951276</b> ) 230/460/575 V MIGRunner pkg	CV mode: 10-32 V	100% duty tytie	69	60	30	24	23.7	13.4	36 VDC	D: 30.5 in. (775 mm)	(104 kg)	
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)	424 lb. (192 kg)	
<b>452</b> (903255) 230/460/575 V machine only (951273) 230/460/575 V stationary pkg	CV mode: 10-38 V	100% duty cycle	104	90	45	36	35.3	22.3	43 VDC	D: 38 in. (966 mm)	(132 Ng)		

## Dimension<sup>™</sup> 650 and 650 ArcReach<sup>®</sup>

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



**ArcReach** 

Remote control of the power source without a cord. An ArcReach system allows you to change weld settings from your SuitCase® wire feeder or ArcReach Stick/TIG Remote, saving a trip to the power supply. No extra control cable to purchase, maintain, string or unstring saving time and money. See pages 22 and 41 for ArcReach feeders and the Stick/TIG Remote. Learn more at

Dimension 650 ArcReach power source shown with SuitCase X-TREME 12VS ArcReach feeder and ArcReach Stick/TIG Remote (sold separately). Feeder includes Bernard S-Gun OR BTB Gun 300 A with reversible dual size (.045 and 1/16 in.) VK drive rolls.

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

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

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

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

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

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

Reduced size and weight results in an easier-to-handle package that exceeds the welding performance of larger, heavier machines. Dimension 650 is 3.5 times lighter than the Dimension 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. Dimension 650 uses 32 percent fewer amps than the Dimension 652.

### **Heavy industrial**

### **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)

### **Dimension 650 Stationary** package includes

- Power source
- S-74 MPa Plus feeder with Bernard™ BTB Gun 400 A and .035/.045 in. 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.

### Dimension 650 MIGRunner™ package includes above plus

Running gear cylinder rack

### Most popular accessories



4-pack rack shown.

### Dimension 650 Rack

907687 2-pack rack 907688 4-pack rack Rack comes assembled with two or

four Dimension 650 power sources fused for 460 V

### Dimension 650 ArcReach Rack

907702 2-pack rack 907701 4-pack rack

Rack comes assembled with two or four Dimension 650 ArcReach power sources fused for 460 V.

- SuitCase X-TREME<sup>™</sup> Feeders (pg 22)
- 70 Series Feeders (pg 24)
- ArcReach Stick/TIG Remote 301325 (pg 41)
- Bernard<sup>™</sup> MIG Guns (pg 28/29)
- Running Gear Cylinder Rack 300408 (pg 115)
- Dimension 650 Running Gear 301307 (pg 115)
- Industrial MIG 4/0 Kit (with lug connectors) 300390 (pg 117)
- Extension Cables (pg 122) 242208025 25 ft. (7.6 m) 242208050 50 ft. (15 m) 242208080 80 ft. (24.4 m)

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

### Model/Stock Number Dimension 650

(907617) 380/460 V power source only (951638) 380/460 V stationary package (951637) 380/460 V MIGRunner package

**Dimension 650 ArcReach** 

(907617001) 380/460 V power source only

Amperage/	Rated Output	Amps Inpu	ıt at Rated	Output, 5	0/60 Hz	Max. Open-	Power Source Dimensions	Power Source
Voltage Ranges		380 V	460 V	KVA	KW	Circuit Voltage	(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	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)

## XMT<sup>®</sup> 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

### **Input power choices**

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



(350 models) allows for any input voltage hookup (208-575 V, 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 V manual link or 575 V 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<sup>™</sup> Welding Intelligence<sup>™</sup> system. XMT 14-pin models are Insight Core capable to monitor weld voltage, amperage, and arc-time and percentage.

### Reliability

weld output.

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

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

### **Welder friendly control panel**

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

Ultra-tough, polycarbonate-blended cover protects front controls from damage. Large, dual digital meters are easy to view and presettable to ease setting

### **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 Dinse machines. Tweco connectors must be ordered separately.

Weld studs (450 models).

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

## **Choose the Right XMT**

	300 Amp		350	Amp		450 Amp			
	XMT 304 CC/CV		XMT 350 CC/CV	XMT 350 MPa	1	XMT 450 CC/CV	XMT 450 MPa		
Input Power	3- or 1-phase power		3- or 1-ph	ase power		3-p	phase		
Primary Operating Range	Auto-Link (230/460 V)	UPG	Auto-Line (2	208-575 V)		Manual link (230	0/460 V) or 575 V		
Weld Output	300 A at 32 VDC (3-phase input power at 60% duty cycle)	UPGI	PAINE	t 34 VDC er at 60% duty cycle)	UPGI	!/AD1=	at 38 VDC er at 100% duty cycle)		
Carbon Arc Gouging	Rated: 1/4 in. (6.4 mm)	UPG	RADE Rated: 1/4	in. (6.4 mm)	UPG	RADE Rated: 5/16	6 in. (7.9 mm)		
Net Weight	79.5 lb. (36.1 kg)		80 lb. (	36.3 kg)		122 lb.	(55.3 kg)		
Output Connector	Dinse		Dinse o	r Tweco		1/2	in. stud		
Pulsed MIG	_		- UPGF	ADE Yes		- UPG	RADE Yes		
14-pin Compliant	Yes		Y	es		,	Yes		
Insight Core Capable (requires Insight Core 14-pin module)	Yes (pg 65)			es 65)			Yes g 65)		
<b>ArcRe</b> ach	-		Factory option (pg 40)	_		Factory option (pg 40)	_		

## XMT<sup>®</sup> 304 CC/CV See literature DC/18.8

Cost-effective multiprocess machine featuring Auto-Link.®

## XMT<sup>®</sup> 350 CC/CV and 450 CC/CV See literature DC/18.93 (350) and DC/18.94 (450)

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

Stronger weld output for increased capabilities. XMT 350 provides 24 percent more output than the 304 model for larger wires and stick electrodes. XMT 450 provides 43 percent more output for carbon arc gouging.



## XMT<sup>®</sup> 350 MPa and 450 MPa See literature DC/18.93 (350) and DC/18.94 (450)

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

\*Feeders include gun and drive rolls. MIGRunners add 2/0 weld cable and 2/0 work cable with clamp, flowmeter regulator with gas hose and MIGRunner cart.



### 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: 1/4 in., 450: 5/16 in.) \*Only XMT MPa models.

### Most popular accessories



### XMT Rack

907585 XMT 350 CC/CV 4-pack rack 907406 XMT 350 CC/CV 6-pack rack 907607 XMT 450 CC/CV 4-pack rack Available in 4- or 6-pack models for XMT 304 and 350, or 4-pack models for XMT 450. See literature DC/18.81  $\,$ for more information.

- XR-AlumaFeed® (pg 14)
- SuitCase® X-TREME™ Feeders (pg 22)
- 20 and 70 Series Feeders (pg 24)
- Spoolmatic<sup>®</sup>/WC-24 (pg 31)
- XR<sup>™</sup> Control (pg 33)
- Cylinder Cart 042537 (pg 114)
- MIGRunner™ Cart 195445 (pg 115)
- Running Gear Cylinder Rack 300408 (pg 115)
- Coolmate<sup>™</sup> Coolant System (pg 115)
- Industrial MIG 4/0 Kits (pg 117) 300405 XMT 304/350 300390 XMT 450
- Protective Cover (XMT 304/350 only) 195478 (pg 120)
- Gas Valve Kit 195286 XMT 350 300928 XMT 450

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

	Model/Stock Number	Input Power	Amperage/ Voltage Ranges	Rated Output			t Rated I				KW	Max. Open- Circuit Voltage	Power Source Dimensions	Power Source Net Weight
<b>A</b> 0	XMT 304 CC/CV (Dinse) (903471) 208-230/460 V power source only	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)	79.5 lb. (36.1 kg)
300	(951343) 208-230/460 V MIGRunner w/22A*	1-phase	10-35 V	225 A at 29 VDC, 60% duty cycle	52.4	47.4	-	24.5	-	11.3	7.6		D: 24 in. (610 mm)	(30.1 kg)
0 A	XMT 350 CC/CV (Dinse) (907161) 208-575 V power source only (907161011) 208-575 V w/auxiliany power** (951549) 208-575 V w/SuitCase X-TREME 12VS* (951327) 208-575 V MIGRunner w/22A*	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)
350	(951314) 208-575 V MIGRUINIER W/S-74D*  XMT 350 MPa (Dinse except where noted) (907366) 208-575 V power source only (907366011) 208-575 V w/auxiliary power** (907366014) 208-575 V w/Tweco®		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			
	XMT 450 CC/CV (1/2 in. stud) (907481) 230/460 V power source only (907482) 575 V power source only	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	XMT 450 MPa (1/2 in. stud) (907479) 230/460 V power source only (907479001) 230/460 V w/auxiliary power** (907480) 575 V power source only (907480001) 575 V w/auxiliary power**				-	51 (	– KVA is 23		23.6 75 V)	21.6	18.3			

<sup>\*\*</sup>Optional 115-volt auxiliary power provides 10 amps of circuit-breaker protected power for coolant systems, etc.

<sup>\*\*\*</sup>Duty cycle rating below achieved with 6-gauge input power cord (8-gauge cord supplied with unit).

# XMT<sup>®</sup> 350 and 450 ArcReach<sup>®</sup> Systems See literature DC/18.93 (350) and DC/18.94 (450)



## **ArcReach**

### Remote control of the power source without a cord.

An ArcReach system allows you to change weld settings from your SuitCase® wire feeder or ArcReach Stick/TIG Remote, saving a trip to the power supply. No extra control cable to purchase, maintain, string or unstring - saving time and money. See pages 22 and 41 for ArcReach feeders and the Stick/TIG Remote. Learn more at MillerWelds.com/arcreach

XMT 350 and 450 CC/CV ArcReach power sources shown with SuitCase X-TREME 8VS and 12VS ArcReach feeders and ArcReach Stick/TIG Remote (sold separately). Feeders include Bernard S-Gun OR BTB Gun 300 A 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.

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

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

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

**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.

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

**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.

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

Remote in use indicator provides convenient feedback indicating an ArcReach wire feeder is controlling the power source.

### LED process indicator.

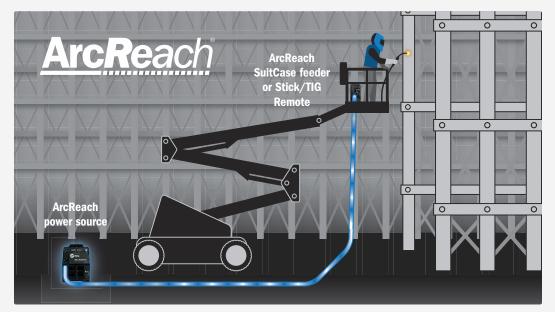
Front panel process selections are illuminated with an LED that identifies the active process. This enables the selected weld process to be seen at a distance from the power source. Includes new carbon arc gouging mode for



enhanced arc stability and control, and two new stick modes (EXX10 and EXX18) designed to reduce spatter and enhance arc starts.

Fleet compatibility. ArcReach-equipped power sources and wire feeders work with non-ArcReach equipment; however the complete ArcReach benefit is only realized with the ArcReach system. This allows you to start investing in ArcReach one power source, one wire feeder at a time.

## **How ArcReach® Works**



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

## **ArcReach® Accessories**



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

Heavy industrial DC 3 is 3-phase only.

### **Processes**

- MIG (GMAW) Stick (SMAW)
- TIG (GTAW) Flux-cored (FCAW)
- Air carbon arc cutting and gouging (CAC-A) (carbons -304: 1/4 in., 350: 1/4 in., 450: 5/16 in.)

### Most popular accessories



XMT® 350 CC/CV ArcReach Rack 907699 4-pack rack 907698 6-pack rack Rack comes assembled with four or six XMT 350 CC/CV ArcReach power sources fused for 460/575 V. See literature DC/18.81 for more information.

 XMT® 450 CC/CV ArcReach Rack 907700 4-pack rack

Rack comes assembled with four XMT 450 CC/CV ArcReach power sources fused for 460 V. See literature DC/18.81 for more information.

- XR-AlumaFeed® 300509 (pg 14)
- 20 and 70 Series Feeders (pg 24)
- Spoolmatic®/WC-24 (pg 31)
- XR<sup>™</sup> Control (pg 33)

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

Model/Stock Number	Input Power	Amperage/ Voltage Ranges	Rated Output		•			utput, 6 575 V			Max. Open- Circuit Voltage	Dimensions	Net Weight
XMT 350 CC/CV ArcReach (Tweco®) (907161032) 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)	80 lb. (36.3 kg)
(907161033) 208-575 V w/auxiliary power*	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		D: 24 in. (610 mm)	
XMT 450 CC/CV ArcReach (1/2 in. stud) (907481003) 230/460 V (907481004) 230/460 V w/auxiliary power* (907482002) 575 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)

# PipeWorx 350 FieldPro™ System See literature PWS/6.0

Simplicity-driven performance for your pipe construction site.



### Stick/TIG system includes

- PipeWorx 350 FieldPro power source (907533)
- FieldPro Remote with work sense lead and clamp (300934)

### MIG/flux-cored system includes

- PipeWorx 350 FieldPro power source (907533)
- FieldPro Feeder with drive rolls, work sense lead and clamp (301228)
- 15 ft. (4.6 m) PipeWorx 300 MIG gun (195400)

### RMD/pulse system includes

- PipeWorx 350 FieldPro power source (907533)
- FieldPro Smart Feeder with drive rolls (300935)
- 15 ft. (4.6 m) PipeWorx 300 MIG gun (195400)

## **ArcReach**

Remote control of the power source without

### Complete control at the weld joint

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

### Arc performance optimized for critical pipe welding

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

### New durability standard for field construction

Designed and built to withstand the harshest field environments

# PipeWorx 400 Welding System See literature PWS/2.0

Optimized for pipe fabrication shops.



### PipeWorx welding system comes complete with

- PipeWorx 400 power source with cable hangers (907382) or (907384)
- Dual feeder with drive rolls (300366)
- Two 15 ft. (4.6 m) PipeWorx 300 guns (195400)
- Running gear with gas cylinder rack and handles (300368)
- Cable kit with 25 ft. (7.6 m) work sense lead (300367)

### Simple process setup

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

### True multiprocess machine

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

### **Quick process changeover**

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

### Single-system design

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

PipeWorx 400 is 3-phase only.

## **Advanced Technologies of PipeWorx Systems**

RMD carbon steel

### RMD® (regulated metal deposition)

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

### PipeWorx Memory Card, Accu-Power 300667

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

### **Pulsed MIG**

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



Pulsed MIG stainless

Most popular accessories for both PipeWorx Systems Bernard<sup>™</sup> PipeWorx<sup>™</sup> Guns

Stick (SMAW) - DC TIG (GTAW)

RMD - Pulsed MIG (GMAW-P) · Air carbon arc cutting and gouging

MIG (GMAW) - Flux-cored (FCAW)

**Heavy industrial** 

(CAC-A)

195399 15 ft. (4.6 m) 250-15 195400 15 ft. (4.6 m) 300-15

### Most popular accessories for **PipeWorx 400 Welding System**



- PipeWorx 400 Insight Module 301304
- PipeWorx Accessories Kit for Dual Feeder 300568 Includes 25 ft. work cable, EG500 work clamp, two flowmeter regulators and two 5 ft. gas hoses.
- Composite Cable Kit 300454 25 ft. (7.6 m) 300456 50 ft. (15.2 m)
- PipeWorx Cooler 300370
- Foot Control Bracket 300676
- DSS-9 Dual Schedule Switch 071833
- RFCS-14 HD 194744 (pg 120)
- RPBS-14 300666 (pg 120)

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

## **PipeWorx 350 FieldPro Racks**

All the benefits of the individual PipeWorx 350 FieldPro in an easy to transport package for multiple arcs in the field.



Flexible solution. The flexibility of the PipeWorx 350 FieldPro makes it ideal for multiple system racks. Every system in a rack can be used for different tasks on-site, increasing fleet utilization and making the best use of equipment budgets.

Easy installation. The power distribution system on the rack allows the entire rack to be wired into a single power drop, isolating high-voltage power in the field.

Model/Stock Number	Rack Capacity	Input Power to Rack	Dimensions	Net Weight
4-Pack Rack (907588)	4 units	230-575 V, three-phase, 50/60 Hz.	H: 59 in. (1,500 mm)	679 lb. (308 kg)
6-Pack Rack (907589)	6 units	(Fuses included for 460 or 575 V operation. Only empty racks require	W: 43 in. (1,092 mm) D: 34.375 in. (873 mm)	879 lb. (399 kg)
Empty Rack (195466)	6 units	ordering appropriate fuse kit.)	2.0.0.0.0(0.0)	279 lb. (127 kg)

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

	Model/Stock Number	Input Power	Amperage/	Voltage F	Ranges	Rated Ou 60% Duty		Amp 230	s Input a		Outpu 5 V	t, 60 Hz	KVA	KW		Open- iit Voltage	Dimensions**	Net Weight**
ше	PipeWorx 350 FieldPro System (951547) Stick/TIG (951572) MIG/flux-cored (951573) RMD/pulse	Three-phase	CC mode: 1 CV mode: 1			350 A at	34 VDC	36.1	17.8	14	.1		15.0	14.4	4 75 VDC		H: 17 in. (432 mm) W: 12 in. (305 mm)	95 lb. (43.1 kg)
dPro System	PipeWorx 350 FieldPro Power Source only (907533) 230-575 V	Single-phase*	CC mode: 1 CV mode: 1			300 A at	32 VDC	54.6	25.4	19	.9		11.7	11.2			D: 22 in. (559 mm)	
350 FieldPro	Model/Stock Number	Input Power		Input W Circuit		Wire Feed	Speed		Wire Di	ameter	Type a	nd Capaci	ty		num Sp apacity		ensions	Net Weight
	FieldPro Feeder (301228) For use with CC or CV, DC power sources	Operates on op voltage and arc 14-48 VDC/11	voltage:	425 A a 60% du		50-800 ip (1.3-20.3 dependen	m/min.)					4 in. (0.6- 4 in. (0.8-			(305 m (20 kg)	) W: 9	5.5 in. (394 mm) in. (229 mm) 1 in. (533 mm)	35 lb. (15.9 kg)
PipeWorx	FieldPro Smart Feeder (300935) For use with PipeWorx 350 FieldPro or SF models of Big Blue 350 PipePro and Big Blue 800 Duo Pro	Operates on op voltage and arc 14-48 VDC/11	voltage:	275 A a 60% du		50-500 ip (1.3-12.7 dependen	m/min.)		.0350	45 in. (	0.9-1.	1 mm)			(305 m (15 kg)	) W: 1	3 in. (457 mm) 3 in. (330 mm) 1.5 in. (546 mm)	50 lb. (23 kg)
System	Model/Stock Number	Welding Mode/ Process	′ Amperaş Voltage				Amps In Output, 230 V		3-Phase	KVA 230 V	460	V 575 V	KW 230 V	460 V 5		Max. Open- Circuit Voltage	Dimensions**	Net Weight**
ıg Sys	<b>PipeWorx 400 Welding System (951381)</b> 230/460 V	CC: Stick	40-400	A	400 A a	t 36 VDC	43.9	26.6	22.4	17.5	21.2	22.3	16.1	16.3 1	6.4	90 VDC	H: 28.5 in. (724 mm)	225 lb. (102 kg)
Neldin	(951382) 575 V PipeWorx 400 Power Source only	CC/DC: TIG	10-350	A	350 A a	t 24 VDC	29.3	18.2	13.5	11.8	14.5	13.4	10.7	10.6 1	0		W: 19.5 in. (495 mm) D: 31.75 in.	
400 \	(907382) 230/460 V (907384) 575 V	CV: MIG/flux-co	red 10-44 V	'	400 A a	t 34 VDC	42.9	24	20.5	17.3	19.2	20.5	16	15.8 1	6.2		(806 mm)	
PipeWorx 400 Welding	Model/Stock Number		nput Welding Circuit Rating		Wire Fee	d Speed	Wir	e Diame	ter Capad	ity		Maximum Size Capa		Dim	nension	s	Net Weight	
Pip	PipeWorx Feeder (300365) Single-wire model (300366) Dual-wire model		100 V, 750 A a 100% duty cyc		50-780 (1.3-19.	ipm 8 m/min.)	.03	5062 i	n. (0.9-1	.6 mm)		60 lb. (27	kg)	W:	19 in. (4	356 mm) 483 mm) 737 mm)	Single 65 lb.  Dual 90 lb.	
							-										•	43

# WE BUILD with you



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

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

Visit us at MillerWelds.com/WeBuild to see what others build with Miller equipment and to share your projects.

Together, we build with you.



# **Engineered for Simplicity. Built for Durability.**



Your welders select the Bernard gun handles, triggers and necks that are **the most comfortable and effective** for accessing their welds.

Management enjoys the resulting increase in productivity, longer gun life, and a reduced parts inventory with consumables designed to work across all of your welding guns.

For more information see pages 28/29, or contact your local welding distributor or Bernard directly.



BernardWelds.com

**1-855-MIGWELD** (644-9353)

## **Miller recommends**





information, visit 4 MillerWelds.com/stick

For more detailed

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

	Product Guide	Page	Class	Stick	DC TIG	Eliv.covod*	riux-coreu	CAC-A	Portability	Weldable Metals	Welding Amperage Range	Special Features	Typical Applications
	Thunderbolt® XL 225 AC	46							Optional running gear	Steel,	30-235 AC	Infinite current control	Education, maintenance/repair, farm
ase	Thunderbolt® XL 225 AC/150 DC	46	•							stainless	30-235 AC 30-160 DC	Infinite current control	Education, maintenance/repair, farm
1-Ph	Dialarc® 250 AC/DC	46	•					3/16"	Lift eye, optional running gear		35-300 AC 35-265 DC	One control knob with high/low range	Education, maintenance/repair, fabrication
	Maxstar® 161 S	47	•	•					Handle/shoulder strap, optional case		20-160 DC	120-240 V Auto-Line™	MRO, ship installation/repair, farm/ranch
3-Ph	Maxstar® 210 STR	47	•	•					Handles, shoulder strap, optional carts	Steel, stainless	5-210 DC	120-480 V Auto-Line,™ digital meters	Construction, fabrication, pipe, steel erection, shipbuilding
1- & :	CST™ 280	48							Handle, optional cart		5-280 DC	Portable at 41 lb., optional meter, also available in multi-unit rack	Construction, fabrication, pipe, steel erection, shipbuilding
se	CST™ 280 Rack	48	•				5,	16"**	Lift eye, optional running gear	Steel,	5-280 DC	Up to 4 or 8 operators, lightweight	Construction, maintenance/repair, shipbuilding
Pha	Gold Star® 452	47	•					5/16"		stainless	20-590 DC	Built-in arc control	Steel erection, pipe, fab, shipbuilding, foundries
3-F	Gold Star® 652	47	•					3/8"			50-850 DC	Built-in arc control	Steel erection, pipe, fab, shipbuilding, foundries
	Product Key	Cla	iss:		Light	Ind	ustr	ial (	Industrial Heavy Industrial C	apability: 🔵 🛭	esigned for this	process	

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

See literature 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.

New! or Improved! products appear in blue type. \*Constant-current (stick) machines can utilize voltage-sensing wire feeders for some flux-cored applications. \*\*Two machines paralleled.

## Light industrial

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 043927 (pg 115)

Visit MillerWelds.com or your distributor for other 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)	( <b>903641</b> ) 230 V, 50/60 Hz	AC	30-235	225 A at 25 V	100 A	47.5	80 VAC	H: 18.75 in. (476 mm) W: 12.75 in. (323 mm)	85 lb. (39 kg)
Thunderbolt XL 225 AC/150 DC (CSA)	(903642) 230 V, 50/60 Hz	AC	30-235	225 A at 25 V	100 A	47.5	80 VAC	D: 17.5 in. (445 mm)	104 lb. (47 kg)
225 AU/ 150 DU (USA)	230 V, 30/ 00 HZ	DC	30-160	150 A at 25 V	65 A	47.5	80 VDC		(41 kg)

# Dialarc® 250 AC/DC See literature 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



### **Processes**

- Stick (SMAW)
- · Air carbon arc cutting and gouging (CAC-A) (3/16 in. carbons)

### Most popular accessories

 No. 19 Running Gear 041580 Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Model	Stock Number	Welding Mode	Welding Amperage Range	Rated Output at 30% Duty Cycle		•			, 60 Hz 575 V	KVA KW	Max. Open- Circuit Voltage	Dimensions	Net Weight
Dialarc without	(907017) 200(208)/230/460 V	AC	35-300	225 A at 29 V	84	-	73	36	29	16.8 9.8	70 VAC	H: 24.25 in. (616 mm)	360 lb.
Power Factor Correction		DC	35-265	225 A at 29 V	92	-	80	40	32	18.6 11.8	79 VDC	W: 19 in. (483 mm) D: 28 in. (711 mm)	(163 kg)
Dialarc with	(907015) 208/230/460/575 V	AC	35-300	225 A at 29 V	-	60	55	27	22	12.5 9.9	70 VAC	D. 20 III. (711 IIIIII)	365 lb.
Power Factor Correction		DC	35-265	225 A at 29 V	_	66	60	30	24	13.7 10.8	79 VDC		(166 kg)

# Maxstar® 161 S See literature DC/27.3



Maxstar 161 S with X-CASE (907709001) shown

Best in class — provides maximum portability and performance in the most compact stick package in the industry.

Allows for any input voltage hook-up (120-240 V) with no manual linking.

Portable with adjustable handle/shoulder strap. Easy to transport at only 13 pounds.

### Adaptive Hot Start™ for stick arc starts.

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

Stick-Stuck detects if the electrode is stuck to the part and turns the welding output off to safely and easily remove the electrode. Menu selectable.

Superior stick arc performance even on the difficult-to-run electrodes like E6010.

### Light industrial CC DC

Process - Stick (SMAW)

### **Comes complete with**

- 6.5 ft. (2 m) 120 V and 240 V power cords
- 13 ft. (4 m) electrode cable with holder and 25 mm Dinse-style connector
- 10 ft. (3 m) work cable with clamp and 25 mm Dinse-style connector

### 907709001 includes above plus

■ Protective X-CASE™

### Most popular accessories

■ Protective X-CASE™ 301429 Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Note: See page 50 in the TIG section for Maxstar 161 STL and STH. \*Sense voltage for stick.

Stock	Number
(9077	09)
(9077	<b>09001)</b> with X-CASE

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
120 V	20-90	90 A at 23.6 V, 30% duty cycle	23.2	2.8	2.8	48 VDC (12-16 VDC*)	H: 10.3 in. (262 mm) W: 5.6 in. (142 mm)	13 lb. (5.9 kg)
240 V	20-160	160 A at 26.4 V, 20% duty cycle	22.6	5.4	5.3	(12-10 VDC*)	D: 13.5 in. (343 mm)	(5.9 kg)

# Maxstar® 210 STR See literature DC/32.1



Note: See page 52 in the TIG section for Maxstar 210 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 initiation without the use of high frequency.

Dual schedule allows operators to switch between welding parameters for specific electrodes without readjusting the machine.

Adaptive Hot Start™ for stick arc starts. Remote amperage control and digital meter. Portable with adjustable shoulder strap.

### Industrial |

### **Processes**

Stick (SMAW) = TIG (GTAW)

### **Comes complete with**

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

### Most popular accessories

- 12.5 ft. (3.8 m) Weldcraft<sup>™</sup> A-150 Valve TIG torch WP-17V-25-2 (pg 59)
- Remote Controls (pg 120)
- Air-Cooled TIG Torch Connector (pg 121)

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

*Sense	voltage	for	ctick	and	Lift_Arc	TIC
Jense	vuitage	101	SUUN	anu	LIIL-VIC	mu.

Stock Number	Welding Process	Input Power	Welding Amperage Range	Rated Output	Phase		•		oad Out 400 V				Max. Open- Circuit Voltage	Dimensions	Net Weight
(907682)	Stick	208-480 V	5-210	160 A at 26.4 V, 60% duty cycle	Three-phase	-	15	13	8	6	5.5	5.2	80 VDC	H: 13.6 in.	36 lb.
					Single-phase	-	26	22	13	11	5.3	5.3	(11 VDC*)	(346 mm) W: 8.6 in.	(16.3 kg)
		120 V	5-100	90 A at 23.6 V, 60% duty cycle	Single-phase	23	-	-	-	-	2.8	2.8		(219 mm)	
	TIG	208-480 V	1-210	210 A at 18.4 V, 60% duty cycle	Three-phase	-	14	12	7	6	5.2	4.9		D: 19.5 in.	
					Single-phase	-	24	20	12	10	4.9	4.9		(495 mm)	
		120 V	1-210	125 A at 15 V, 60% duty cycle	Single-phase	22	-	-	-	-	2.6	2.6			

Rugged, reliable performance and superior arc characteristics.

# Gold Star® Series See literature DC/8.1





Gold Star 452 shown.

- Hot Start™ and built-in arc control
- Enclosed circuit board
- Thermal overload protection with light
- · Fan-On-Demand™
- 15 A, 115 V duplex receptacle
- Power efficient
- Remote control capability
- Optional digital volt and amp meters. Easy to install, front-panel mount. 300359 For models after KG283595 300321 For models after MF100119C

## **Heavy industrial**

### **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 or your distributor for Miller® options and accessories.

Model	Stock Number	Amperage Range in CC Mode	Rated Output	Amps In	iput at Ra 230 V	ted Output 460 V	t, 60 Hz 575 V	KVA	KW	Max. Open- Circuit Voltage	Dimensions (Includes lift eye and strain relief)	Net Weight
Gold Star 452	(903374) 200(208)/230/460 V (903400) 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)	404 lb. (183 kg)
Gold Star 652	(903402) 230/460/575 V	50-850	650 A at 44 VDC, 60% duty cycle	-	124	62	50	49.4	36	72 VDC	D: 38 in. (966 mm)	505 lb. (229 kg)

CST<sup>™</sup> 280 See literature 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.



**Superior stick arc performance** even on the difficult-to-run electrodes like E6010.

Simple voltage-changeover switch saves time when changing primary voltage. Input voltage can be changed without removal from inverter rack or removal of machine case.

Optional digital meter for more precise control when presetting or monitoring welding amperage.

**Portable** in the shop or at the jobsite — at 41 pounds (18.6 kg) the CST 280 is easily moved from location to location.

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

Rack mountable for protection, storage and transportation of multiple power sources while using a single primary power cable.

## Industrial |

### **Processes**

- Stick (SMAW)
- TIG (GTAW)

### **Comes with**

- 6 ft. (1.8 m) power cord
- One set of male connectors (Dinse-style model only)

### Most popular accessories

- CST 280 Rack (see below)
- Remote Controls (pg 120/121)
- For TIG torches see literature DC/29.55

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

Stock Number	Welding Process	Input Power	Welding Amperage Range	Rated Output		•			Output, 440 V	,		KVA KW	Max. Open- Circuit Voltage	Dimensions	Net Weight
(907244) Dinse	Stick/TIG	Three-	5-280	280 A at 31.2 V, 35% duty cycle	-	35.0	34.2	-	-	17.8	14.7	14.6 10.2	77 VDC	H: 13.5 in.	41 lb.
(907244011) Tweco® (907696) Tweco® with meter		phase		200 A at 28 V, 100% duty cycle	-	23.3	22.5	-	-	11.7	9.7	9.6 6.4		(343 mm) W: 7.5 in.	(18.6 kg)
220-230/460-575 V		Single-	5-200	200 A at 28 V, 50% duty cycle*	-	43.9	43.0	-	-	-	-	10.1 6.6		(191 mm)	
220 200/ 100 010 1		phase		150 A at 26 V, 100% duty cycle*	-	32.7	32.0	-	-	-	-	7.3 4.6		D: 18 in.	
(907251) Dinse	Stick/TIG	Three-	5-280	280 A at 31.2 V, 35% duty cycle	36.0	-	34.0	19.8	18.0	17.5	-	14.0 10.2	67 VDC	(457 mm)	
(907251011) Tweco® (907563) Dinse with meter		phase		200 A at 28 V, 100% duty cycle	23.5	-	22.8	13.5	12.0	12.7	-	10.2 6.9			
208-230/400-460 V		Single-	5-200	200 A at 28 V, 50% duty cycle*	43.9	-	43.0	-	-	-	-	9.9 6.5			
200 200, 100 100 1		phase		150 A at 26 V, 100% duty cycle*	35.0	-	32.9	-	-	-	-	7.6 4.8			

\*Output on single-phase reduced to comply with

current limitation on input cable.

CST™ 280 Racks See literature DC/18.82

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



**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.

CST 280 8-pack rack shown.

Note: For additional rack systems see Dimension™ 650 (pg 37), See page 121 XMT® (pg 39/41) and PipeWorx FieldPro™ (pg 43).

### **Heavy industrial**



### **Processes**

- Stick (SMAW)
- TIG (GTAW)
- Air carbon arc cutting and gouging (CAC-A) (5/16 in. carbons with paralleled CST 280 units)

### Most popular accessories



- 4-Pack Rack Running Gear 195114
- 8-Pack Rack Running Gear 195436 Visit MillerWelds.com or your distributor for other Miller® options and accessories.

		Rack		Amps	Input a	t Rated	Output	,50/6	0 Hz					
Model	Stock Number	Capacity	Input Power to Rack	220 V	230 V	400 V	440 V	460 V	575 V	KVA	KW	Dimensions	Net Weight	ı
4-Pack Rack	(907245) Dinse (907247) Tweco®	4 units	220-230/460-575 V, three-phase, 50/60 Hz. Note: CST 280 machines are factory-linked for 460-575 V.	137	134	79	72	70	57	58.4	40.8	H: 50.75 in. (1,289 mm) 4-pack W: 25.5 in. (648 mm)	355 lb. (161 kg)	
8-Pack Rack	(907365) Tweco®	8 units	Dinse units include one set of male connectors; Tweco units do not. See above for information on CST 280.	274	268	158	145	140	114	116.8	81.6	8-pack W: 46 in. (1,168 mm) D: 26.5 in. (673 mm)	640 lb. (290 kg)	
Empty	(195051)	4 units	-	-						-	-	Same as 4-pack rack	166 lb. (75 kg)	ı
Rack	(300580)	8 units										Same as 8-pack rack	280lb. (127 kg)	L

COMPATIBLE



Product			11G				MIG/Flux-cored						Material	Walding			Computation	
Guide	Page	TIG	~	Stick		CAC-A	MIG/FI	E6010/11		ctrode Di E7018	ameter E7024	CAC-A	Thickness Range (TIG)	Welding Amperage Range	Pulse Capability	Weight	Generator Power Requirement	
Maxstar® 161	50	•	•					5/32 in.	1/8 in.	1/8 in.	3/32 in.	_	.020-3/16 in.	5-160 A	0-150 PPS (STH model)	13 lb. (5.9 kg)	5.3 kW	
Maxstar® 210	52							3/16 in.	3/16 in.	5/32 in.	5/32 in.	_	.002-1/4 in.	1-210 A	0.1-250 PPS (base model) 0.1-500 PPS (DX model)	38 lb. (17.2 kg)	9 kW	DC
Maxstar® 280	52	•				•		7/32 in.	3/16 in.	3/16 in.	3/16 in.	3/16 in.	.004-3/8 in.	1-280 A	0.1-250 PPS (base model) 0.1-500 PPS (DX model)	47 lb. (21.3 kg)	11 kW	(Steel)
Maxstar® 350	54	•						5/16 in.	5/16 in.	1/4 in.	1/4 in.	1/4 in.	.012-5/8 in.	3-350 A	0.1-5,000 PPS	135 lb. (61 kg)	12 kW	<u>e</u>
Maxstar® 700	54							5/16 in.	5/16 in.	5/16 in.	5/16 in.	3/8 in.	.020-1 in.	5-700 A	0.1-5,000 PPS	198 lb. (90 kg)	32 kW	
Diversion™ 165/180	50	•						-	-	_	_	-	.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	51				)			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	AC/
Dynasty® 210	52	•			)			3/16 in.	3/16 in.	5/32 in.	5/32 in.	-	.012-1/4 in. (alum.) .002-1/4 in. (steel)	2-210 A (AC) 1-210 A (DC)	0.1-250 PPS (base model) 0.1-500 PPS (DX model)	47 lb. (21.3 kg)	9 kW	C/DC
Dynasty® 280	52	•						7/32 in.	3/16 in.	3/16 in.	3/16 in.	3/16 in.	.012-3/8 in. (alum.) .004-3/8 in. (steel)	2-280 A (AC) 1-280 A (DC)	0.1-250 PPS (base, DC) 0.1-500 PPS (DX model)	52 lb. (23.6 kg)	12.5 kW	(Alun
Dynasty® 350	54	•						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) 0.1-5,000 PPS (DC)	135 lb. (61 kg)	13 kW	(Aluminum/
Dynasty® 700	54							5/16 in.	5/16 in.	5/16 in.	5/16 in.	3/8 in.	.020-1 in. (aluminum/steel)	5-700 A	0.1-500 PPS (AC) 0.1-5,000 PPS (DC)	198 lb. (90 kg)	35 kW	/Steel)
Syncrowave® 250 DX	55		•					1/4 in.	1/4 in.	7/32 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	<u> </u>
Syncrowave® 350 LX	55	•						5/16 in.	5/16 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 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.



**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** for non-contact arc initiation that reduces tungsten and material contamination.

Portable. Easy to transport at 50 pounds.

### **TIG Welding Capability**

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

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

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

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 for connection to 120- or 240-volt receptacles without tools. Choose the

plug that fits the receptacle and connect it to the power cord.

### Light industrial

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<sup>™</sup> 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 301239 (pg 114)
- Protective Cover 300579 (pg 120)
- RCCS-RJ45 Remote Fingertip Control 301146 (pg 120)
- RJ45 to 14-Pin Adapter Cord 300688
- Weldcraft<sup>™</sup> Flexible Torch Body Kits (requires handle 105Z55R) A-125F (WP-9F) A-150F (WP-17F)
- TIG Torch Accessory Kit AK2C (see pg 51 for contents list)

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

\*While idling.

Model/ Stock Number	Input Power	Welding Amp Range	Rated Output	Amps Input at Rated Output	KVA	KW	Max. Open- Circuit Voltage	Dimensions	Net Weight
Diversion 165	230 V	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)	50 lb.
(907626)			165 A at 16.6 V, 15% duty cycle	25.5 (.20*)	5.9 (.04*)	4.2 (.02*)		W: 9.875 in. (251 mm) D: 23.875 in. (608 mm)	(23 kg)
Diversion 180	115 V	10-125	125 A at 15 V, 35% duty cycle	26.5 (.88*)	3.1 (.1*)	3.0 (.03*)		D. 23.073 III. (000 IIIIII)	
(907627)	230 V	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*)			

## Maxstar® 161 STL and STH DC TIG and Stick

See literature DC/27.4 (STL) and DC/27.5 (STH)

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



Maxstar 161 STH TIG/stick package with remote fingertip control (907711001) shown - includes X-CASE

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

Two models available. See page 47 in the Stick section for Maxstar 161 S. **STL:** DC TIG/stick with Lift-Arc™ starting without high frequency. **STH:** DC TIG/stick with high frequency and Lift-Arc<sup>™</sup> starting, plus built-in pulsing from 0-150 pulses per second.



Allows for any input voltage hook-up (120–240 V) with no manual linking.

Portable with adjustable handle/shoulder strap. Easy to transport at only 13 pounds.

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

Fan-On-Demand™ power source cooling system.

Superior stick arc performance even on the difficult-to-run electrodes like E6010.

### Light industrial

### **Processes**

- TIG (GTAW) Stick (SMAW)
- Pulsed TIG (GTAW-P) with STH model

### **Comes with**

- 6.5 ft. (2 m) 120 V and 240 V nower cords
- 13 ft. (4 m) electrode cable with holder and 25 mm Dinse-style connector
- 10 ft. (3 m) work cable with clamp and 25 mm Dinse-style connector

### **TIG/stick packages include** above plus

- 12.5 ft. (3.8 m) Weldcraft<sup>™</sup> A-150 TIG torch (WP1712RDI25)
- Protective X-CASE™ (301429)
- Flow gauge regulator with hose
- RCCS-6M remote fingertip control (packages 907710002 and 907711001 only)
- AK2C TIG torch accessory kit Visit MillerWelds.com or your distributor for Miller® options and accessories.

	Model/Stock Number	Model/Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output	Amps Input at Rated Output, 50/60 Hz	KVA at Duty Cycle	KW	Max. Open- Circuit Voltage	Dimensions	Net Weight	
ပ	Maxstar 161 STL	Maxstar 161 STH	TIG	120 V	5-130	130 A at 15.2 V, 30% duty cycle	22.6	2.73	2.70	48 VDC	H: 10.3 in.	13 lb.	ĺ
_	(907710) Power source only (907710001) TIG/stick package	(907711) Power source only (907711001) TIG/stick package		240 V	5-160	160 A at 16.4 V, 20% duty cycle	15.05	3.62	3.49	(12-16 VDC*)	(262 mm) W: 5.6 in.	(5.9 kg)	ĺ
	(907710001) TIG/stick package	with remote fingertip control	Stick	120 V	20-90	90 A at 23.6 V, 30% duty cycle	23.16	2.78	2.76		(142 mm) D: 13.5 in.		ĺ
	with remote fingertip control			240 V	20-160	160 A at 26.4 V, 20% duty cycle	22.55	5.41	5.25		(343 mm)		

## Syncrowave® 210 Series AC/DC TIG and Stick See literature AD/4.6

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





### 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**





Allows for any input voltage hook-up (120-240 V)

with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.



Multi-voltage plug (MVP™) allows for connection to 120- or 240-volt receptacles

without tools. Choose the plug that fits the receptacle and connect it to the power cord.

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.

HF arc starting for non-contact arc initiation that reduces tungsten and material contamination.

**AC frequency (TIG)** controls the width of the arc cone and can improve directional control of the arc.

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.

**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

### **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-style connector
- · Electrode holder with Dinse-style 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** includes above plus

- Spoolmate<sup>™</sup> 150 spool gun (301272)
- 4-14 pin connector
- Flow-thru Dinse-style connector

### Most popular accessories

- 25 ft. (7.6 m) Weldcraft<sup>™</sup> A-150 TIG Torch WP-17-25-R (pg 59)
- Protective Cover 195142 (pg 120)
- RCC-14 Remote Control 151086 (pg 120)
- Wireless Remote Foot Control 300429 (pg 121)
- 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 or your distributor for other Miller® options and accessories.

Stock Number
(907596) Runner
(951684) Runner TIG/MIG Complete
(includes Spoolmate 150)

Input Power	Welding Process	Welding Amperage Range	Rated Output (R.M.S.)	Amps Input at Rated Output	M Ci
115 V	DC TIG	5-125 A	95 A at 13.8 V, 60% duty cycle	17.4 (.58 while idling)	47
	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)	

Max. Open- Circuit Voltage	Dimensions	Net Weight
47 VDC	H: 31.5 in. (800 mm) W: 18.5 in. (470 mm) D: 43 in. (1092 mm)	Runner pack 133.5 lb. (6 Runner TIG/I Complete pa 139.5 lb. (6



## Maxstar® 210/280 Series DC TIG and Stick

See literature DC/32.1 (210) and DC/35.0 (280)

## **Dynasty**® 210/280 Series AC/DC TIG and Stick

See literature AD/4.81 (210) and AD/4.9 (280)

### 210 Series TIG Welding Capability

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

### 280 Series TIG Welding Capability

Max. 3/8 in. (9.5 mm) Max. 3/8 in. (9.5 mm) Min. 0.004 in. (0.1 mm) Min. 0.012 in. (0.3 mm)





See page 121

Maxstar and Dynasty 210 Series (Maxstar 210 shown).

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. Note: See page 47 in the Stick section for Maxstar 210 STR.



Allows for any input voltage hook-up (210 models: 120–480 V, 280 models: 208–575 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

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

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

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

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

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

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

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

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

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

\*Refer to owner's manual for 208-volt output ratings and duty cycle.

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

	Model/ Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output at 60% Duty Cycle	•	•			. ,	60/60 H 460 V		575 V	KVA	KW	Max. Open- Circuit Voltage	Dimensions	Net Weight
	Maxstar 210	TIG	3-phase	1-210	210 A at 18.4 V	_	14	-	12	7	-	6	_	5.2	4.9	80 VDC	H: 13.6 in.	38 lb.
	(907683) Maxstar 210 DX		1-phase	1-210	210 A at 18.4 V	-	24	-	20	12	-	10	-	4.9	4.9	(11 VDC**)	(346 mm) W: 8.6 in.	(17.2 kg)
<b>≒</b>	(907684)		1-phase (120 V)	1-150	125 A at 15 V	22	-	-	-	-	-	-	-	2.6	2.6		(219 mm)	
Maxstar	` ,	Stick	3-phase	5-210	160 A at 26.4 V	-	15	-	13	8	-	6	-	5.5	5.2		D: 19.5 in.	
Паў			1-phase	5-210	160 A at 26.4 V	_	26	-	22	13	-	11	-	5.3	5.3		(495 mm)	
20			1-phase (120 V)	5-100	90 A at 23.6 V	23	-	-	-	-	-	-	_	2.8	2.8			
	Maxstar 280	TIG	3-phase	1-280	235 A at 19.4 V	-	17	15	-	9	7	-	6	6.2	6.0	60 VDC	H: 13.6 in.	47 lb.
	(907552) (907538) with CPS		1-phase	1-280	235 A at 19.4 V*	_	28	26	-	15	13	_	10	6.0	6.0	(11 VDC**)	(346 mm) W: 8.6 in.	(21.3 kg) 50 lb.
	Maxstar 280 DX (907553)	Stick	3-phase	5-280	200 A at 28 V	-	20	18	-	10	9	-	7	7.2	7.0		(219 mm) D: 22.5 in.	(22.7 kg) with CPS
	(907539) with CPS		1-phase	5-280	180 A at 27.2 V*	-	30	27	-	15	13	-	10	6.2	6.2		(569 mm)	with CP3





### 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 provides adjustable oxide removal which is essential for creating the highest quality aluminum welds. DX models provide extended ranges.

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

### **Dynasty 280 DX with Insight**

Designed to deliver Welding Intelligence." The Dynasty 280 DX with Insight incorporates Insight Core<sup>w</sup> (standard) and Insight Centerpoint™ (optional) welding information management systems into its capabilities. These systems help welding operations improve quality, retain weld records, increase productivity and manage costs. See pages 65 and 66 for more information.

### **Dynasty Water-Cooled Complete Packages**

(Additional packages are available – visit MillerWelds.com or your distributor)

Model	Packages with Foot Control and CPS	Packages with Wireless Foot Control and CPS
Dynasty 210	(951666)	(951667)
Dynasty 210 DX	(951668)	(951669)
Dynasty 280	(951466)	_
Dynasty 280 DX	(951468)	(951469)

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



### Industrial |

CC AC AC AC Phase Phase Maxstar is DC only

### **Processes**

- TIG (GTAW) Stick (SMAW)
- Pulsed TIG (GTAW-P)
- Air carbon arc (CAC-A) w/280 models

### **Comes with**

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

### Complete packages come with

- 8 ft. (2.4 m) power cord (no plug)
- · Quick reference guide (Dynasty models only)
- Small Runner™ cart
- Coolmate<sup>™</sup> 1.3
- Coolant (4 one-gallon bottles)
- Remote control (foot or wireless foot)
- Weldcraft<sup>™</sup> water-cooled torch kit Dynasty 210: W-250 (WP-20) Dynasty 280: W-280 (WP-280)

### Most popular accessories

- 2-Wheel Trolley Cart 300971 (pg 115)
- Small Runner<sup>™</sup> Cart 301318 (pg 115)
- Coolmate<sup>™</sup> 1.3 300972 (pg 115)
- Coolant 043810 (pg 115)



Contractor Kits (pg 120) 301311 w/RCCS-14 finger control 301309 w/RFCS-14 HD foot control



- Weldcraft<sup>™</sup> Water-Cooled Torch Kits (pg 120) 300185 W-250 (WP-20) 300990 W-280 (WP-280)
- 301268 W-375 Remote Controls (pg 120/121) 043688 RCCS-14 fingertip control
- 194744 RFCS-14 HD foot control 300429 Wireless foot control Visit MillerWelds.com or your distributor for other Miller® options and accessories.

	Model/Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output at 60% Duty Cycle		•	t Rated 230 V			,		575 V	KVA	KW	Max. Open- Circuit Voltage	Dimensions	Net Weight
	Dynasty 210	TIG	3-phase	1-210	210 A at 18.4 V	-	14	-	12	7	-	6	-	5.2	4.9	80 VDC	H: 13.6 in.	47 lb.
	(907685) (907685002) with CPS		1-phase	1-210	210 A at 18.4 V	-	24	-	20	12	-	10	-	4.9	4.9	(11 VDC**)	(346 mm) W: 8.6 in.	(21.3 kg) 50 lb. (22.7 kg)
) (1	Dynasty 210 DX		1-phase (120 V)	1-150	125 A at 15 V	22	-	-	-	-	-	-	-	2.6	2.6		1.1   9	
		Stick	3-phase	5-210	160 A at 26.4 V	-	15	-	13	8	-	6	-	5.5	5.2		D: 22.5 in.	with CPS
			1-phase	5-210	160 A at 26.4 V	-	26	-	22	13	-	11	-	5.3	5.3		(569 mm)	
			1-phase (120 V)	5-100	90 A at 23.6 V	23	_	-	_	_	-	_	_	2.8	2.8			
2	Dynasty 280 (907550)	TIG	3-phase	1-280 (DC) 2-280 (AC)	235 A at 19.4 V	-	19	17	-	10	9	-	7	7.0	6.7	60 VDC (11 VDC**)	H: 13.6 in. (346 mm)	52 lb. (23.6 kg)
	(907537) with CPS Dynasty 280 DX		1-phase	2 200 (110)	235 A at 19.4 V*	-	33	30	-	17	15	-	12	6.9	6.8	(11 VDC )	W: 8.6 in.	55 lb.
	(907551) (907514) with CPS (907514003) w/Insight and CPS	Stick	3-phase	5-280	200 A at 28 V	-	22	20	-	11	10	-	8	8.2	7.9		D: 22.5 in.	(25 kg) with CPS
			1-phase		180 A at 27.2 V*	-	34	31	-	17	15	-	12	7.1	7.0		(569 mm)	



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

See literature DC/24.0 (Maxstar) and AD/5.0 (Dynasty)





### 700 Max. 1 in. (25.4 mm) 1 in. (25.4 mm) 5/8 in. (15.9 mm) 5/8 in. (15.9 mm) See page 121 (Dynasty only 350 Min. 350 Min. 0.012 in. (0.3 mm) 0.015 in. (0.4 mm) 700 Min. 700 Min.

0.020 in. (0.5 mm)

**TIG Welding Capability** 



dirty or unreliable power.

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

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

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

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

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

120-volt auxiliary power receptacle for cooling system or small tools.

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

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

- \*Sense voltage for low OCV stick and Lift-Arc™ TIG.
- \*\*See literature DC/24.0 and AD/5.0 for Complete package dimensions and weight.

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

0.020 in. (0.5 mm)

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

Balance control provides adjustable oxide removal which is essential for creating the highest quality aluminum welds.

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

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





### **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-style 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 Note: Power cord is NOT included with

### **Complete packages include** above plus

Runner<sup>™</sup> cart

700 models.

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

### Most popular accessories

- Runner<sup>™</sup> Cart 300244 (pg 115)
- Coolmate<sup>™</sup> 3.5 300245 (pg 115)
- Coolant 043810 (pg 115)



Weldcraft<sup>™</sup> Water-Cooled Torch Kits

(pg 120)

300185 W-250 (WP-20)

300990 W-280 (WP-280)

301268 W-375

300186 W-400 (WP-18SC)

Remote Controls (pg 120/121) 043688 RCCS-14 fingertip control 194744 RFCS-14 HD foot control 300429 Wireless foot control

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

	Model/Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output						50/60 Hz KVA KW	Max. Open- Circuit Voltage	Power Source Dimensions**	Power Source Net Weight**	
	Maxstar 350 (907334) Power source only	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)	135 lb. (61 kg)	
DC Maxstar	(951624) Complete w/foot (951625) Complete w/wireless foot		1-phase	3-350	225 A at 29 V, 60% duty cycle	41	37	-	19	15	8.6 8.2		D: 22 in. (559 mm)		
	Maxstar 700 (907103) Power source 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)	198 lb. (90 kg)	
			1-phase	5-700	450 A at 38 V, 60% duty cycle	106	96	-	48	38	22 21		D: 22 in. (559 mm)		
Ţ.	Dynasty 350   TIG/st	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 H: 24.75 in. (629 mm) W: 13.75 in. (349 mm)		135 lb. (61 kg)	
Dynasty			1-phase	3-350	225 A at 29 V, 60% duty cycle	47	43	-	21	17	9.8 9.1		D: 22 in. (559 mm)		
AC/DC D	Dynasty 700 TI (907101) Power source only (951403) Complete w/foot (951404) 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)	198 lb. (90 kg)	
			1-phase	5-700	450 A at 38 V, 60% duty cycle	115	104	-	52	42	24 22		D: 22 in. (559 mm)		

# Syncrowave® 250 DX and 350 LX AC/DC TIG and Stick See literature AD/4.2

The world's first conventional squarewave TIG power source with decades of proven performance.



### 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**  $^{\text{\tiny M}}$  allows the choice of soft, medium, or hot TIG starts based on the tungsten size and application.

**HF arc starting** for non-contact arc initiation that reduces tungsten and material contamination.

**Dual digital meters** allow for quick and easy viewing of actual and preset values of amperage and voltage.

**Adjustable postflow** of 0 to 50 seconds protects the electrode and area near the termination of the weld.

**Coolmate** \*\* **3CS 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 initiation without the use of high frequency.

### **Heavy industrial**



### Processes

- TIG (GTAW) Stick (SMAW)
- Pulsed TIG (GTAW-P) (optional on 250 DX)
- Air carbon arc (CAC-A)

### **Comes with**

■ Two 50 mm Dinse-style connectors Note: Power cord is NOT included.

### Complete packages come with

- No. 37 running gear
- Coolmate<sup>™</sup> 3CS cooler
- Coolant (four gallons)
- 25 ft. (7.6 m) water-cooled torch with Dinse-style connector (Syncrowave 250: Weldcraft™ W-250) (Syncrowave 350: Weldcraft™ W-375)
- 15 ft. (4.6 m) work cable with clamp and Dinse-style connector
- RFCS-14 remote foot control
- Flowmeter regulator with hose
- Torch accessory kit with tungsten
- Cable cover

Note: Power cord is NOT included.

### Most popular accessories

- Wireless Remote Foot Control 300429 (pg 121)
- Pulser Module 300548
   (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 300547
   (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.

<sup>\*</sup>See literature AD/4.2 for Complete package dimensions and weight.

AC/DC	Model / Stock Number (Additional packages are available — visit MillerWelds.com or your distributor)	Welding Amperage Range	Rated Output			t Rated 460 V				Max. Open- Circuit Voltage	Power Source Dimensions*	Power Source Net Weight*
	Syncrowave 250 DX (907195) 230/460/575 V, 50/60 Hz, power source only (951118) 230/460/575 V, 50/60 Hz, Complete	3-310	200 A at 28 V, 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)
	(907194) 200/230/460 V, 50/60 Hz, power source only (951117) 200/230/460 V, 50/60 Hz, Complete		250 A at 30 V, 40% duty cycle	110	96	48	38	22	11.8		D. 20 III. (000 IIIII)	
	Syncrowave 350 LX (907199) 230/460/575 V, 50/60 Hz, power source only (951623) 230/460/575 V, 50/60 Hz, Complete	3-400	300 A at 32 V, 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)
	(907198) 200/230/460 V, 50/60 Hz, complete (951622) 200/230/460 V, 50/60 Hz, complete		350 A at 34 V, 40% duty cycle	146	128	65	50	29.5	13.7		D. 23 III. (033 IIIII)	

# X TIG Torches

# Weldcraft Series TIG Torches

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





### **Setting the standard for performance**

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

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

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

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

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

### **Extreme reliability**

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

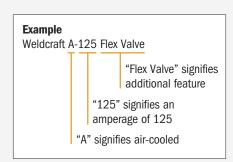
**Extend parts life** using the durable copper components, maximizing current capacity.

Reduce leakage of gas and water through secure mechanical fittings.

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

## **Product Naming**

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





## Weldcraft™ Air-Cooled Torches

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

### Weldcraft<sup>™</sup> Water-Cooled Torches

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

## Weldcraft<sup>™</sup> Specialty Torches

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

## **Weldcraft**<sup>™</sup> **Automation Torches**

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

### **Process**

■ TIG (GTAW)

### Suggested power sources

- Multimatic<sup>™</sup> 200/215 (pg 35) (A-150)
- Maxstar® 161 (pg 50) (A-150)
- Syncrowave® 210 (pg 51) (A-150)
- Dynasty®/Maxstar® 210 (pg 52) (A-150, W-250)
- Dynasty®/Maxstar® 280 (pg 52) (A-200, W-280)
- Dynasty®/Maxstar® 350 (pg 54) (W-375)
- Dynasty®/Maxstar® 700 (pg 54) (W-400)
- Syncrowave® 250 DX (pg 55)
- Syncrowave® 350 LX (pg 55) (W-375)

### **Fingertip controls**

- RCC East/West Rotary 151086 14-pin
- RCCS North/South Rotary 195184 6-pin 195503 6-pin 301146 RJ45 043688 14-pin
- RMS Momentary Push Button 195269 6-pin 187208 14-pin
- RMLS Momentary/Maintained 129337 14-pin
- RPBS Two-Button Start/Stop 300666 14-pin

# **Weldcraft** Tungsten

### Tungsten for the most demanding TIG welding applications!

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

Type 2% Ceriated (EWCe-2)	Stock Number	Diameter in. (mm)	Type	Stock Number	Diameter in. (mm)
` ′		0.040 (4.0)	Pure (EWP)		0.040.44.0)
Performs well in DC welding	WC040X7	0.040 (1.0)	Forms a clean, balled end	_	0.040 (1.0)
and arc starting at low-current settings, and offers excellent	WC116X7	1/16 (1.6)	when heated and provides good arc stability for AC	WP116X7	1/16 (1.6)
performance in AC processes.	WC332X7	3/32 (2.4)	welding with a balanced or unbalanced squarewave or	WP332X7	3/32 (2.4)
	WC018X7	1/8 (3.2)		WP018X7	1/8 (3.2)
	WC532X7	5/32 (4.0) sine wave.	sine wave.	_	5/32 (4.0)
2% Lanthanated (EWLa-2)			Rare Earth (EWG)		
Provides excellent arc starting,	WL2040X7	0.040 (1.0)	Combines the best of all	_	0.040 (1.0)
arc stability and re-ignition,	WL2116X7	1/16 (1.6)	alloying elements, and	WG116X7	1/16 (1.6)
and less tip erosion in AC or DC welding. Can substitute	WL2332X7	3/32 (2.4)	provides excellent arc stability in AC or DC welding.	WG332X7	3/32 (2.4)
for 2% Thoriated.	WL2018X7	1/8 (3.2)		WG018X7	1/8 (3.2)
	WL2532X7	5/32 (4.0)		_	5/32 (4.0)



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

# Weldcraft™ A-80 Series See literature AY/21.0

Formerly known as WP-24 Series



A-80 Flex Valve

(WP-24FV)

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

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

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

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

### **Applications**

- Shipbuilding Motorsports
- Aerospace Restricted areas

### Most popular consumables

Collets

53N16 .040 in. (1.0 mm) 53N14 1/16 in. (1.6 mm) 24C332 3/32 in. (2.4 mm)

Collet Bodies

53N18 .040 in. (1.0 mm) 53N19 1/16 in. (1.6 mm) 24CB332 3/32 in. (2.4 mm)

 Alumina Nozzles A53N24 #4, 1/4 in. A53N25 #5, 5/16 in.

### A53N27 #6, 3/8 in.

Most popular accessories Collet Body Wrench 53N20

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

Model	Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	Туре	Rated Output	Electrode Range
A-80	WP-24-12-R	WP-24-25-R	Air-cooled	DC: 80 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		AC: 50 A at 60% duty cycle	
A-80 Flex Valve	WP-24FV-12-R	WP-24FV-25-R			

# Weldcraft<sup>™</sup> A-125 Series See literature AY/22.0

## Formerly known as WP-9 Series



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

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

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

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

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

### **Applications**

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

### Most popular consumables

Collets

13N22 1/16 in. (1.6 mm) 13N23 3/32 in. (2.4 mm) 13N24 1/8 in. (3.2 mm)

Collet Bodies

13N27 1/16 in. (1.6 mm) 13N28 3/32 in. (2.4 mm) 13N29 1/8 in. (3.2 mm)

Alumina Nozzles

13N10 #6, 3/8 in. 13N11 #7, 7/16 in.

13N12 #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 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)	Туре	Rated Output	Electrode Range
A-125	WP-9-12-R	WP-9-25-R	WP-9-12-2	WP-9-25-2	Air-cooled	DC: 125 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		AC: 100 A at 60% duty cycle	
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<sup>™</sup> A-150 Series See literature AY/23.0

Formerly known as WP-17 Series



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.

### **Applications**

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

### 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 custom-

ization. Converts into 28 different

torch styles while using existing cable. Includes collets, collet bodies, nozzles, torch heads, handle and more.

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

	Rubber		Mono-Flex™		2-Piece Rubber				
Model	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)	Туре	Rated Output	Electrode Range
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	.020-1/8 in.
A-150 Valve	WP-17V-12-R	WP-17V-25-R	WP-17V-12-MF	WP-17V-25-MF	WP-17V-12-2	WP-17V-25-2		AC: 115 A at 60% duty cycle	(0.5-3.2 mm)
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	WP-17-25-2-PSH			
A-150 Valve PSH*	WP-17V-12-R-PSH	WP-17V-25-R-PSH	_	_	_	WP-17V-25-2-PSH			
			•						

# Weldcraft<sup>™</sup> A-200 Series See literature AY/24.0

## Formerly known as WP-26 Series



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

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

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

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

### **Applications**

- Fabrication Maintenance and repair
- Manufacturing Shipbuilding
- Vocational

### 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

Visit 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)	Туре	Rated Output	Electrode Range
A-200	WP-26-12-R	WP-26-25-R	WP-26-12-2	WP-26-25-2		DC: 200 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-12-2	WP-26V-25-2		AC: 150 A at 60% duty cycle	
A-200 Flex	WP-26F-12-R	WP-26F-25-R	WP-26F-12-2	WP-26F-25-2			
A-200 Flex Valve	WP-26FV-12-R	WP-26FV-25-R	WP-26FV-12-2	WP-26FV-25-2			
A-200 Flex Redhead	WP-R26F-12-R	-	-	WP-R26F-25-2			
A-200 Flex Valve Redhead	_	WP-R26FV-25-R	_	_			

# Weldcraft™ W-180 See literature AY/26.0

Formerly known as WP-24W



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

Use high amperage in confined areas for efficient welding. Superior maneuverability in limited-access locations with the compact torch body.

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

### **Applications**

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

### Most popular consumables

Collets

53N16 .040 in. (1.0 mm) 53N14 1/16 in. (1.6 mm) 24C332 3/32 in. (2.4 mm)

Collet Bodies

53N18 .040 in. (1.0 mm) 53N19 1/16 in. (1.6 mm) 24CB332 3/32 in. (2.4 mm)

Alumina Nozzles

A53N24 #4, 1/4 in. A53N25 #5, 5/16 in.

A53N27	#6, 3/8 in.	

Model	12.5 ft. (3.8 m)	25 ft. (7.6 m)	12.5 ft. (3.8 m)	25 ft. (7.6 m)	Туре	Rated Output	Electrode Range
W-180	WP-24W-12-R	WP-24W-25-R	WP-24W-12	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 See literature AY/27.0

Formerly known as WP-25

**Braided Rubber** 



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

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

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

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

W-200 Pencil Flex WP-25-12-R WP-25-25-R WP-25-12 WP-25-25 Water-cooled DC: 200 A at 100% duty cycle, .020-1/8 in.	Mode	el	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)	Туре	Rated Output	Electrode Range
Ac. 140 A at 100% daty space (0.3 5.2 min)	W-20	0 Pencil Flex	WP-25-12-R	WP-25-25-R	WP-25-12	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<sup>™</sup> W-225 Pencil See literature AY/28.0

Formerly known as WP-20P



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

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

Pencil-style head allows for greater access into hard-to-reach joints. Comfort and control are increased with the lightweight, compact body design.

Model	Vinyl 12.5 ft. (3.8 m)	25 ft. (7.6 m)	Туре	Rated Output	Electrode Range
W-225 Pencil	WP-20P-12	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)

### **Applications**

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

### Most popular consumables

- Insulator (non-gas lens and gas lens) (required) 598882
- Collets (non-gas lens and gas lens)

13N20 .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.

#8, 1/2 in. 13N12

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)

### Most popular accessories



 Cable Covers WC-3-10 10 ft. (3 m) WC-3-22 22 ft. (6.7 m)

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



# Weldcraft™ W-250 Series See literature AY/29.0

Formerly known as WP-20 Series



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

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

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

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

Model	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)	Туре	Rated Output	Electrode Range
W-250	WP-20-12-R	WP-20-25-R	WP-20-12	WP-20-25	Water-cooled	, ,	.020-1/8 in. (0.5-3.2 mm)
W-250 Valve	_	_	WP-20V-12	WP-20V-25		AC: 180 A at 100% duty cycle	

# Weldcraft<sup>™</sup> W-280 Super Cool<sup>™</sup> See literature AY/30.0

Formerly known as WP-280



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

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

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

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

Model	Braided Rubber 12.5 ft. (3.8 m)	25 ft. (7.6 m)	50 ft. (15.2 m)	with 50 mm Dinse 25 ft. (7.6 m)	Туре	Rated Output	Electrode Range
W-280 Super Cool	301251012	301251025	301251050	301251001	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<sup>™</sup> W-375 Super Cool<sup>™</sup> See literature 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.

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

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)	Туре	Rated Output	Electrode Range	
W-375 Super Co	ol 301253012	301253025	301253001	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)	

### **Applications**

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

### Most popular consumables

- Insulator (non-gas lens and gas lens) (required) 598882
- Collets (non-gas lens and gas lens)

13N20	.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) 3/32 in. (2.4 mm) 13N28 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

For W-250 Series WC-3-10 10 ft. (3 m) WC-3-22 22 ft. (6.7 m) For W-280 and W-375 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 or your distributor for other Miller® options and accessories.

# Weldcraft™ W-350 Series See literature AY/32.0

Formerly known as WP-18 Series



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).

### **Applications**

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

### 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.

	Rubber		Vinyl		_		
Model	12.5 ft. (3.8 m)	25 ft. (7.6 m)	12.5 ft. (3.8 m)	25 ft. (7.6 m)	Туре	Rated Output	Electrode Range
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	.020-5/32 in. (0.5-4.0 mm)
W-350 Valve	_	WP-18V-25-R	_	WP-18V-25		AC: 250 A at 100% duty cycle	

# Weldcraft<sup>™</sup> W-400 Super Cool<sup>™</sup> See literature AY/33.0

Formerly known as WP-18SC



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

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

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

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

### **Applications**

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

### 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 (all sizes) NCB-36

Medium

Alumina Nozzles

54N16 #6, 3/8 in. 54N15 #7, 7/16 in. 54N14 #8, 1/2 in.

 Back Caps 57Y04 Short

300M

	Rubber		Vinyl				
Model	12.5 ft. (3.8 m)	25 ft. (7.6 m)	12.5 ft. (3.8 m)	25 ft. (7.6 m)	Туре	Rated Output	Electrode Range
W-400 Super Cool	WP-18SC-12-R	WP-18SC-25-R	WP-18SC-12	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<sup>™</sup> W-410 See literature AY/34.0

Formerly known as CS410



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

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

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

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

### **Applications**

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

### 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

3/32 in. (2.4 mm) 10N32 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.

	Braided Rubber						
Model	12.5 ft. (3.8 m)	25 ft. (7.6 m)	50 ft. (15.2 m)	Туре	Rated Output	Electrode Range	
W-410	CS410-12	CS410-25	CS410-50	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-125 Micro Series See literature AY/25.0

WP-125M-25-R

**Rated Output** 

DC: 125 A at 100% duty cycle

AC: 80 A at 100% duty cycle

Formerly known as WP-125 Series



Water-cooled MicroTig® torches designed for limitedaccess ioints.

**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.

Туре

Water-cooled

### **Applications**

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

### Most popular consumables

■ 90° Chucks 125C40-90 .040 in. (1.0 mm) 125C116-90 1/16 in. (1.6 mm)

125C332-90 3/32 in. (2.4 mm) ■ 90° Glass Nozzle (all sizes) 125N90 Other nozzles are available.



.040-3/32 in. (1.0-2.4 mm)

W-125 Long Micro	WP-125L-12-R	WP-125L-25-R
Maldau	<b>CL</b> M	LEOO

WP-125M-12-R

WEIGCRATT W-5UU See literature AY/35.0

Vinvl

12.5 ft. (3.8 m)

WP-125M-12

WP-125L-12

Formerly known as WP-12

W-125 Medium Micro



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

25 ft. (7.6 m)

WP-125M-25

WP-125L-25

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.

### **Applications**

Heavy fabrication • Tool and die

**Electrode Range** 

- Pipe and tube fabrication
- Pressure vessel fabrication

### Most popular consumables

Insulator (required) 12NG

Collets

85Z17 5/32 in. (4.0 mm) 3/16 in. (4.8 mm) 85718 85Z19 1/4 in. (6.4 mm)

- Collet Body (all sizes) 11WP65
- Alumina Nozzles

14N59 #6, 3/8 in. 14N60 #7, 7/16 in. 14N61 #8, 1/2 in. 14N61-10 #10, 5/8 in. 14N61-12 #12, 3/4 in.

12.5 ft. (3.8 m) **Electrode Range** Model 25 ft. (7.6 m) Rated Output Type W-500 WP-12-12 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<sup>™</sup> Modular Series See literature 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).

### **Applications**

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

### Most popular accessories



Accessory Kit

AK-150MFC For A-150 torch AK-225MFC For W-225 torch

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)	Туре	Rated Output (Torch head dependent)	Electrode Range (Torch head dependent)	
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	.020-1/8 in.	
A-150 Modular Valve	WP-150V-12-R	WP-150V-25-R	WP-150V-12-2	WP-150V-25-2		AC: 105 A at 60% duty cycle	(0.5-3.2 mm)	
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)	Туре	Rated Output (Torch head dependent)	Electrode Range (Torch head dependent)	
W-225 Modular	WP-225-12-R	WP-225-25-R	WP-225-12	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)	



# Welding Intelligence<sup>™</sup>



Transform data into actionable information that drives continuous improvement.



## **Choose the Right Welding Intelligence System**

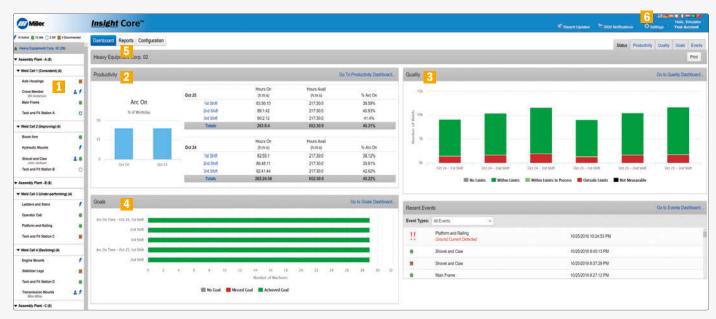
		Insight Core	<u>Insight</u> Centerpoint <sup>™</sup>	<b>Insight</b> Pipe and Vessel	<b>Insight</b> ArcAgent <sup>™</sup>
For Use With Factory- Installed		<ul> <li>Continuum<sup>™</sup>/Auto-Continuum<sup>™</sup></li> <li>Axcess<sup>®</sup>/Auto-Axcess<sup>™</sup></li> <li>Dynasty<sup>®</sup> 280 DX</li> </ul>	■ Continuum <sup>™</sup> /Auto-Continuum <sup>™</sup> ■ Dynasty® 280 DX	_	<ul><li>ANY welding power source (old or new)</li><li>ANY brand</li><li>ANY welding process</li></ul>
	Field- Installed/ Activated	<ul> <li>14-pin compliant power source (see MillerWelds.com/insight)</li> <li>Axcess<sup>®</sup>/Auto-Axcess<sup>™</sup></li> </ul>	■ Continuum <sup>™</sup> /Auto-Continuum <sup>™</sup> ■ Dynasty® 280 DX	■ PipeWorx 400	
Requirements		■ Internet connection (wired/wireless)	■ PC and Ethernet connection	PC and Ethernet connection	■ PC and Ethernet connection
What Capability Do You Need?		<ul> <li>Productivity monitoring</li> <li>Weld parameter verification</li> <li>Simplicity/basic monitoring</li> <li>Goal setting</li> </ul>	Prevent/detect missed welds Minimize overwelding/underwelding Electronic work instructions Measure overall equipment effectiveness (OEE)	Real time contract, spool, joint documentation  Enterprise resource planning system integration (ERP)  Productivity/quality metrics	With use of Centerpoint:  Prevent/detect missed welds  Minimize overwelding/underwelding  Electronic work instructions
Data Storage		■ Cloud based	Local server or PC	■ Local PC	■ Local server or PC

# Welding Intelligence 🔀



## **Insight** Core

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



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



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

Factory installed on Continuum™/Auto-Continuum™ Axcess<sup>®</sup>/Auto-Axcess<sup>™</sup> and Dynasty<sup>®</sup> 280 DX power sources.

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

### **Insight Core dashboard descriptions**

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

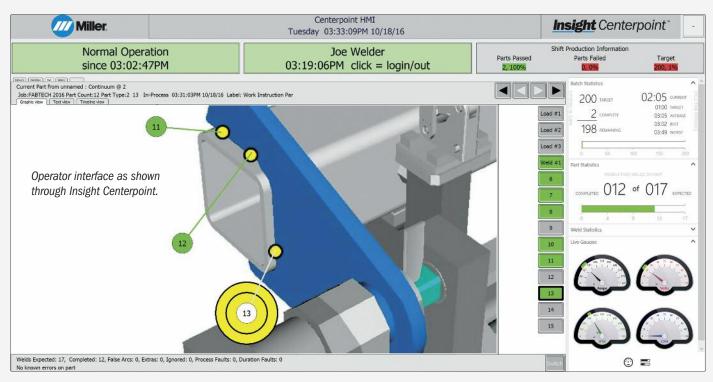
<sup>\*\*</sup>SubArc Digital Series requires Insight Core to SubArc Digital Series Adapter Kit (301295).

Туре	Continuum Model /Stock Number*	Axcess Model/Stock Number*	Dynasty Model/Stock Number	14-pin Compliant Miller Power Sources
Factory-Installed Insight Core Power Sources	Continuum 350 (907636) Continuum 500 (907640) Auto-Continuum 350 (907656) Auto-Continuum 500 (907657)	Axcess 300 (907150002) Axcess 450 (907152002) Axcess 675 (907154002) Auto-Axcess 300 (907151004) Auto-Axcess 450 (907153004) Auto-Axcess 675 (907155006)	Dynasty 280 DX (907514003)	Cessory
Field-Installed Insight Core Upgrade Modules	-	Axcess Module (301081) Auto-Axcess Module (301081)	-	(301072) Insight Core 14-pin module**

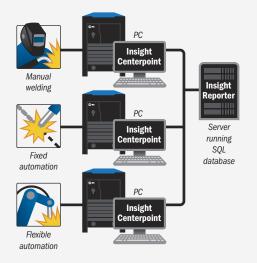
<sup>\*</sup>Additional stock numbers are available — visit MillerWelds.com/insight.

# **Insight** Centerpoint™

Advanced, real-time operator feedback solution to prevent missed welds, enforce proper weld sequence and ensure consistent weld quality.



### **How it works**



### **Standard capability software (SCP)**

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

### **Advanced capability software (ACP)**

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

### **Optional reporting software**

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

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

 ${\it *Additional\ stock\ numbers\ are\ available-visit\ Miller Welds.com/insight.}$ 

Туре		Model/Stock Number*	Capability Software	Insight Centerpoint	Optional Insight Reporter	Accessories	
Factory-Installed Insight Centerpoint Power Sources	MIG	Continuum 350 (907636) Continuum 500 (907640) Auto-Continuum 350 (907656) Auto-Continuum 500 (907657)	(301297) Standard (SCP) (301257) Advanced (ACP) (requires standard capability software) (301322) Standard and advanced	(301255) Single seat license (301256) Site license	(300709) Single license (1 required per PC) (300710) SQL database (1 required per facility)	Insight LTD Gun (3DM4015-45Q) For Continuum M12/RJ45 Ethernet Cables (300734) 9.8 ft. (3 m)	
Ç		Dynasty 280 DX with Insight (907514003)	(301314) Standard (SCP) (301323) Advanced (ACP) (requires standard capability software) (301315) Standard and advanced	(301316) Single seat license (301256) Site license	(300709) Single license (1 required per PC) (300710) SQL database (1 required per facility)	(300735) 16.4 ft. (5 m) (300736) 32.8 ft. (10 m) Field Application Support (195480) Miller field support	
Field-Installed Insight Centerpoint Upgrade Module	Pipe	PipeWorx 400 Module (301304) Only provides Pipe and Vessel	-	-	-	(contact distributor for details)	

# **Welding Intelligence**<sup>™</sup> 🚄

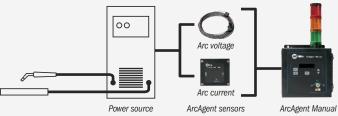


### **Insight** ArcAgent™ See literature WI/1.0 NEW!

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



## **Typical manual welding installation**



(wire and gas sensors available)

### **Models**

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

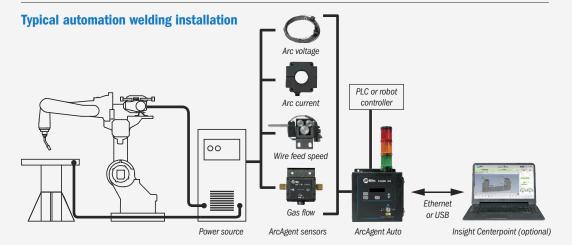
Manual. Designed for manual welding. Provides process control and monitoring that detects and prevents missed welds.

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

Portable. Advanced system for weld procedure qualification and analysis. High-fidelity Weld Signature™ capture with calculation of peak and background amperages/voltages, pulse width, pulse and shorting frequencies. Heat input and deposition available.



Insight Centerpoint (optional)



Model/Stock Number	Insight Centerpoint	Optional Insight Reporter		
ArcTimer (301349)	-	-		
ArcAgent Manual Series (301342) Manual (301343) Manual with front panel Part Tracking controls (301345) Manual with Insight torch capability	Optional: (301255) Single seat license (301256) Site license	(300709) Single license (1 required per PC) (300710) SQL database (1 required per facility)		
ArcAgent Auto (301346) Auto	Optional: (301255) Single seat license (301256) Site license	(300709) Single license (1 required per PC) (300710) SQL database (1 required per facility)		
ArcAgent Portable Series (301347) Ethernet PC interface (301348) USB PC interface	Required: (301255) Single seat license (301256) Site license	(300709) Single license (1 required per PC) (300710) SQL database (1 required per facility)		

### Most popular accessories

### **Voltage monitoring**

- TIG Filter Sensor 301359 Voltage sensing cable used in TIG applications. Requires 25 ft. (7.6 m) TIG filter cable (301384).
- Voltage Sense Cables 301365 With lugs 301366 With quick disconnect 301385 With alligator clips

### **Current monitoring**

- Standard Current Sensors (for up to 4/0 lugged cables) 301353 150 A 301351 650 A 301352 1,000 A
- Large Diameter Current Sensors (for Dinse- or Tweco®-style cables) 301355 600 A split core 301357 600 A solid core 301354 1,000 A split core 301356 1,000 A solid core
- Current Sensor Cables 301364 25 ft. (7.6 m) standard 301367 25 ft. (7.6 m) large diameter

### Wire feed speed monitoring

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

### **Gas flow monitoring**

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

### **Travel speed monitoring**

NOT compatible with ArcAgent Manual or ArcAgent Manual with Part Tracking controls.

- Travel Speed Encoder 301362 Requires Auxiliary Sensor Module and Travel Speed Wheel.
- Auxiliary Sensor Module (24 VDC) 301374

Allows for use of travel speed sensors as well as two analog inputs.

- Travel Speed Wheel 301360 6 in. (152.4 mm) 301361 12 in. (304.8 mm)
- Travel Speed Encoder Mounting Bracket 301363
- Travel Speed Encoder Cable 301376 25 ft. (7.6 m)

For a complete accessory list see literature WI/1.0.

To order automation solutions: Contact local Miller district manager or email MWASales@MillerWelds.com For automation service/parts:

Call 1-630-653-6819 or email MWAService@MillerWelds.com





## A family of pre-engineered automation cells to increase productivity and improve weld quality.

**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 easy relocation and reconnection as production plans or layouts change.

**Increased productivity.** Operator can load and inspect parts while robot is welding.

# A/B 180° Indexing Table Single-station load/unload system



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 108 in. servo indexing table

# Side-by-Side Two-station load/unload system



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

**PA1100SS** 1,100 lb./side, 120 in. long x 44 in. turning diameter **PA2200SS** 2,200 lb./side, 120 in. long x 66 in. turning diameter

# A/B 180° Indexing H-Frame Single-station load/unload system



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, 60 in. long x 40 in. turning diameter on 108 in. servo indexer **PA1100HW** 1,100 lb./side, 60 in. long x 40 in. turning diameter on 108 in. servo indexer

# A/B 180° Indexing Ferris Wheel Single-station load/unload system



Dual head and tailstock/ single-, dual- or triplerobot configuration.

PA1100FW 1,100 lb./side, 118 in. long x 43 in. tuming diameter

## **Laser Welding/Cladding System**





**PL-1100HW** 1,100 lb./side, 60 in. long x 34 in. turning diameter on 108 in. servo indexer

### Integrated laser solution with fiber cable management.

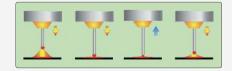
- Autogenous, hotwire, coldwire or hybrid processes
- Class 1 laser-safe enclosure
- · Available with fiber or diode laser configurations

To order automation solutions: Contact local Miller district manager or email MWASales@MillerWelds.com For automation service/parts:
Call 1-630-653-6819 or email MWAService@MillerWelds.com

## **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 mixed argon 90/10 or 100 percent  $CO_2$  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**



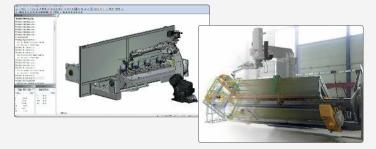
Fast and easy programming even on the most complex multi-pass weldments. All required commands and sensor setup in a single menu screen. Welding procedures can be developed quickly and transported easily from part to part.

**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.

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

**Simplified file transfer.** Transfer robot programs between robot types, sizes and controller generations.

## **Automation Components**



Auto-Continuum™ and Auto-Axcess™ power sources (pg 19/20)



Insight Core™, Centerpoint™ and ArcAgent™ Welding Intelligence™ (pg 64–67)



Tregaskiss™ robotic MIG guns and reamers (pg 71)



FILTAIR® weld fume extraction system with low profile hood (pg 109/110)



Miller recommends Hobart® filler metals (visit HobartBrothers.com)

To order Jetline automation solutions: Contact local Miller district manager or email JetlineSales@MillerWelds.com For Jetline service:
Call 1-630-653-6819 or email JetlineService@MillerWelds.com

## Jetline® Fixed Automation

Jetline offers a partnership to ensure you find the right solution to improve your weld quality and productivity — from design to installation, our engineers will help you get the results you need to stay competitive.



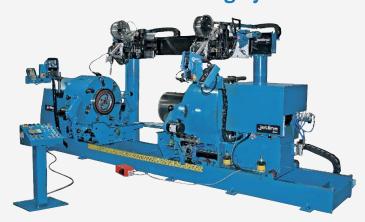
## **Longitudinal Seam Welding Systems**



Jetline longitudinal seam welders deliver speed and precision. Features include linear welding, high-volume cylinder production, joining thin-gauge or coiled sheets and more.

- High-precision travel and positioning result in weld accuracy
- Complete solution, single source
- Bolt-on control modules provide adaptability
- Aluminum hold-down fingers with copper tips absorb and dissipate heat
- Toe-touch tapeswitch control activates finger clamping
- Range includes
- External: flat sheets, cylinders and more
- Internal: flat sheets and internal welds on cylinders
- Combination: internal and external welds
- Elevating: seam welder raises and lowers to various diameters
- Bench: small seam welder for welding shorter, smaller parts

## **Circumferential Welding Systems**



Jetline precision lathes and light-, medium- and heavy-duty circumferential welders handle a wide variety of part sizes and dimensions: as small as one pound and five inches in diameter up to 10,000 pounds and 60 inches in diameter. Whatever the challenge, Jetline can work with you to find the perfect solution.

- Powered variable speed headstock
- Adjustable tailstock can be moved along the bed to accommodate differing part lengths
- Air-operated tailstocks apply a constant clamping pressure to the part throughout the welding cycle
- Range includes
- Light duty: 500 lb. maximum part
- Medium duty: 2,000 lb. maximum part
- Heavy duty: 10,000 lb. maximum part

### 9900 Controller

The 9900 Controller is a touch screen industrial computer with an intuitive graphical user interface.

- Large 15-inch touch screen panel with industrial PC
- User-friendly graphical interface and easy programming using industry-standard terms
- Graphical representation of the parameters during welding
- Standard configuration controls up to 15 channels
- Ethernet and fiber optic communication for flexibility and speed
- Software options



### **9700T Controller**

The 9700T Controller is the standard Jetline control and sequencer used on our motor-driven equipment. It can be used for either longitudinal or circumferential welding systems.

- Microprocessor-based control technology
- User-friendly front panel layout
- Large screen with graphic backlit display
- Closed-loop control for higher accuracy and stability
- Processes: GTAW, GMAW, SAW and PAW
- Integrates with other optional Jetline components
- Arc length control
- Coldwire and hotwire feeders
- Oscillators

# **Tregaskiss**™ **Robotic Guns**Air-Cooled MIG Guns

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



### **TOUGH GUN TA3 MIG Guns**

See Tregaskiss literature SP-TA3

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

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

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

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

Easy maintenance with minimal downtime.

## **TOUGH GUN CA3 MIG Guns**

See Tregaskiss literature SP-CA3

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

Available in 385-amp models at 100 percent duty cycle with mixed gases. Replaceable unicable reduces downtime through faster repair and extended service life.

**Cable guide** minimizes stress on cable connection as the robot articulates. **Re-engineered neck clamp** improves durability and consistency of clamping force.

Easy maintenance with minimal downtime.

# **Tregaskiss<sup>™</sup> Robotic Peripherals**

TOUGH GUN™TT3 reamers provide automated spatter removal to help extend the life of your robotic MIG guns and consumables, increasing both production uptime and throughput while benefiting your bottom line.



## **TOUGH GUN TT3 Reamers**

See Tregaskiss literature SP-TT3

Tough on spatter and designed to operate reliably in even the harshest welding environments.

**Two models now available.** TT3A (analog) and TT3E (Ethernet) model enhanced with digital Ethernet communication for better integration.

**NEW!** TT3E Ethernet model is designed for durability, serviceability and repeatability. Provides greater control optimization, remote monitoring capability and faster troubleshooting to facilitate increased productivity.

One-year warranty on both TOUGH GUN TT3 reamer models.

**NEW!** Extend your warranty from one year to two years with the addition of a factory-installed Lubricator, **OR** from one year to three years with the addition of a factory-installed Lubricator, plus exclusive use of Tregaskiss TOUGH GARD anti-spatter liquid.

### Industrial •

Process • MIG (GMAW)

### **Compatible robots**

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

### **Packages**

 PerformArc Robotic Welding Systems (pg 68)

### Most popular accessories

- TOUGH GUN I.C.E.™ (Integrated Cooling Enhancer) Technology adds water-cooling to air-cooled guns for a boost in duty cycle.
- Neck Checking Fixture
- TOUGH GUN TT3E Ethernet Reamer Robotic Nozzle Cleaning Station
- Reamer Lubricator
- TOUGH GUN TT3 Reamer Robotic Nozzle Cleaning Station
- NEW! TOUGH GUN Reamer Stand custom height, quick installation, easy on the budget.



- TOUGH GARD™ Anti-Spatter Liquid
- TOUGH GARD Multi-Feed System

### Most popular consumables

- TOUGH LOCK<sup>™</sup> Consumables (pg 28)
- QUICK LOAD™ Liners (see Tregaskiss literature SP-QLL)
- QUICK LOAD Liner AutoLength™ System (see Tregaskiss literature SP-QLL)

Visit Tregaskiss.com or your distributor for other Tregaskiss options and accessories.



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



# Hay Engine-Driven



	Product Guide	Page	Class	Stick	MIG	Flux-cored*	AC TIG	DC TIG	PAC**	CAC-A	Portability	Weldable Metals	Continuous Generator Pwr. (watts)	Welding Amperage Range	Engine Brand	Special Features	Typical Applications
	Blue Star® 185	73							•		Optional lift eye or running gear	Steel	6,200	60-185 DC	Kohler	Compact, portable	Maintenance, service trucks
ā	Bobcat™ 225	74			•						Lift eye, Steel, stainless, pickup mount, aluminum	9,500	70-150 AC 50-225 DC	Kohler	Cost-effective AC/DC stick	Maintenance, farm/ranch, construction	
Gasoline	Bobcat™ 3 Phase	74			•						optional running gear or trailer		10,000	50-200 AC 50-210 DC	Kohler	Backup power for pivot irrigation	Farm/ranch
Ğ	Trailblazer® 325	76				•		•		3/16"		Steel, stainless	10,500	10-325 DC	Kohler	Auto-Speed,™ optional EFI, Excel™ power and battery charge/jump start	Fab, maintenance, structural, repair, pipe
	Trailblazer® 302 Air Pak™	78			•	•		•		3/16"			11,000	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	74		•	•					3/16"	Lift eye, Steel, stainless, pickup mount, aluminum	9,500 10,500 w/EFI	40-250 DC 40-275 DC w/EFI	Kohler	Most popular engine drive, AC/DC, optional EFI	Fab, maintenance, farm/ranch, construction	
Gas (	Trailblazer® 275	76	•	•	•	•		•	•	3/16"	optional running gear or trailer	Steel, stainless	10,500 9,500 w/LP	10-275 DC	Kohler	Auto-Speed <sup>™</sup>	Fab, maintenance, structural, repair, pipe
	Bobcat™ 250 Diesel	74		•	•		•		•	3/16"	Lift eye, optional running	Steel, stainless, aluminum	9,500	40-275 DC	Kubota	Contractor's choice, AC/DC stick, strong FCAW	Fab, maintenance, farm/ranch, construction
	Trailblazer® 325 Diesel	76			•	•		•		3/16"	gear or trailer	Steel, stainless	10,500	10-325 DC	Kubota	Auto-Speed,™ optional Excel™ power	Fab, maintenance, structural, repair, pipe
	Big Blue® 350 PipePro® Series	79			•	•		•	•	1/4"	Lift eye, pickup mount,	Steel, stainless	10,000	20-400 DC	Mitsubishi	Premium pipe arc, LINE-X® cover — SF model is Smart Feeder compatible	Pipeline
	Big Blue® 400 Pro	79								3/16"	optional trailer		10,000	20-400 DC	Kubota, Mitsubishi	Quiet, compact, fuel efficient	Construction, repair
Diesel	Big Blue® 450 Duo CST™	81						•		3/16"			10,000	5-450 DC	Mitsubishi	Dual operator in a compact package	Construction, fabrication, pipe
ă	Big Blue® 500 Pro	80			•	•		•		5/16"	mounted on	Steel, stainless	20,000 15,000 w/CA	20-500 DC	Deutz, Kubota	Quiet, powerful, fuel efficient	Construction, repair
	Big Blue® 600 Series	80		•	•	•		•		3/8"	optional trailer		20,000	20-600 DC	Kubota (600 Pro), Deutz (600 Air Pak)	Quiet, powerful, fuel efficient — Air Pak™ model adds air compressor	Construction, repair, maintenance, mining, rail
	Big Blue® 700 Duo Pro	81	•	•	•	•		•	•	3/8"			20,000	20-800 DC	Deutz	Premium pipe arc, dual operator	Pipeline, construction, mining
	Big Blue® 800 Series	82				•			•	1/2"			20,000	20-800 DC	Deutz	Heavy duty, dual operator — SF model is Smart Feeder compatible, Air Pak™ model adds air compressor	Construction, repair, maintenance, mining, rail

### EFI advantages (vs. carburetor models)

- Up to 42 percent more fuel efficient
   Faster, more reliable starts in any weather —
- no choke adjustment needed
   Less refueling time and fewer emissions

### Gasoline advantages (vs. diesel)

- Lower product cost (by 50 to 70 percent)
  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 ED/2.5

Reliable outdoor portable power! Great for farm, ranch, maintenance, construction and hobbyist.



Compact and portable, its small footprint uses little truck space. Optional running gear also makes the Blue Star one-man portable.

All engine controls are on front panel.

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-volt GFCI and 240-volt receptacles, 6.25-gallon fuel capacity, auto-idle and engine hour meter.

#### Light industrial

#### **Processes**

Stick (SMAW) - TIG (GTAW)

#### **Gasoline engine**

Kohler CH440: 13.4 hp at 3,600 rpm One-cylinder, four-cycle, OHV, air-cooled Note: Engine is warranted separately by engine manufacturer.

#### Most popular accessories

- Lifting Eye 195353 (pg 116)
- Running Gear 301246 (pg 116)
- Protective Cover 301245 (pg 116)

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

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(907664) Kohler

**Welding Mode** CC/DC

**Welding Process** DC stick/TIG

**Amperage Range** 60-185

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: 6,500 watts Continuous: 6.200 watts

H: 24.75 in. (629 mm) W: 20.625 in. (524 mm) D: 31 25 in (794 mm)

**Net Weight** 296 lb. (134 kg)

## **Bobcat** Trailblazer: Which is Right for You?

### **Gas Model** Comparison

\*Based on typical usage – 150 amps welding 40% of the time; 20 amps generator power 30% of the time; and idling without load

#### **Bobcat** (page 74)

#### The most popular welder/generator:

- Dependable power and weld output
- Cost-effective multiprocess welder/generator
- Easy to maintain
- Quietest in its class



#### Trailblazer (page 76)

#### The best performer in the industry:

- Unbeatable arc performance
- Independent welder and generator power system
- Exclusive technologies Auto-Speed<sup>™</sup> and Excel<sup>™</sup> power
- Most fuel efficient and quietest in its class



<ul> <li>Quietest in its class</li> </ul>			<ul> <li>Most fuel efficient and quietest in its class</li> </ul>	SS
Bobcat 225 UPC	RADE Bobcat 250	UPGR	ADE Trailblazer 275 UPG	RADE Trailblazer 325
73 dB/72 dB	73 dB/72 dB		74 dB/65 dB	74 dB/65 dB
Good	Very good		Excellent	Excellent
13 hours	13/ 15.5 hours with EFI		15 hours	Up to 21 hours with options
Good	Good/Very good with EFI		Excellent	Excellent
Gasoline	Gasoline or LP		Gasoline or LP	Gasoline
Carburetor	Carburetor or EFI available		Carburetor	Carburetor or EFI available
11,000	11,000 / 12,000 with EFI		12,000 / 11,000 with LP	12,000
Very good / Excellent	Very good / Excellent		Excellent	Excellent
Fair/Good With voltage control set near maximum	Good  Easier to fine-tune with arc voltage control near maximum	1	Independent weld and generator power with no interaction between tools and welding arc	Independent weld and generator power with no interaction between tools and welding arc
N/A	N/A	_	N/A	Excel power available
Good/Very good	Very good		Excellent	Excellent
Fair (.035 in.)	Good (.035-1/16 in.)		Excellent (.023-1/16 in.)	Excellent (.023-1/16 in.)
Fair/Good (add WC-115A with contactor)	Very good (add WC-115A with contactor)	ġ	Excellent (add WC-24)	Excellent (add WC-24)
Good	Very good	_	Excellent	Excellent
N/A	N/A	1	Yes	Yes
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®
N/A	Good/Very good Carbons: Rated 3/16 in.	1	Very good Carbons: Rated 3/16 in.	Very good Carbons: Rated 3/16 in., Capable 1/4 in.
N/A	N/A	_	Yes	Yes
Hours/Oil change	Hours/Oil change/Fuel		Hours/Oil change/Fuel/RPMs	Hours/Oil change/Fuel/RPMs
N/A	N/A		N/A	12/24-volt available
N/A	N/A	- 1	Yes	Yes
	Bobcat 225  73 dB/72 dB  Good  13 hours  Good  Gasoline  Carburetor  11,000  Very good/Excellent  Fair/Good With voltage control set near maximum  N/A  Good/Very good  Fair (.035 in.)  Fair/Good (add WC-115A with contactor)  Good  N/A  70-150 amps (TIG: add HF-251D-1 and contactor kit)  N/A  N/A  N/A  Hours/Oil change  N/A	Bobcat 225  73 dB/72 dB  Good  Very good  13 hours  13/15.5 hours with EFI  Good  Good/ Very good with EFI  Carburetor  Carburetor  Carburetor or EFI available  11,000  11,000/12,000 with EFI  Very good/ Excellent  Fair/Good With voltage control set near maximum  N/A  Good/ Very good  Fair (.035 in.)  Fair/Good (add WC-115A with contactor)  Good  N/A  70-150 amps (TIG: add HF-251D-1 and contactor kit)  N/A  N/A  N/A  Hours/ Oil change  N/A  N/A  N/A  N/A  N/A  Hours/ Oil change N/A  N/A  Porton or EFI available  Carburetor or EFI available  Very good with EFI  Good (.035-1.16 in.)  Very good (add WC-115A with contactor)  Very good (add WC-115A with contactor)  Good Very good  N/A  Hours/ Oil change N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A	Bobcat 225 UPGRADE 73 dB/72 dB Very good 74 dB 75 days on the EFI 600	Bobcat 225 UPGRADE Bobcat 250 UPGRADE Trailblazer 275 UPGRADE 73 dB/72 dB 73 dB/72 dB 74 dB/65 dB/65 dB 74 dB/65 d

# **Bobcat**<sup>™</sup> **Series**Gas, LP and Diesel



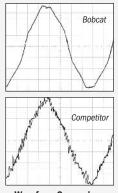
Bobcat engine-driven welder/generators are the top selling in their class because they are engineered to be reliable, powerful and durable. Their multiprocess capabilities

make them ideal for maintenance trucks where reduced size and weight are essential.

#### **Cleaner and stronger generator power**

**11,000** watts (**12,000** on Bobcat **250** with EFI) of clean, truly usable generator power that is Accu-Rated™, not inflated — tested to deliver uninterrupted peak output for a minimum of 30 seconds for big loads, so you can get more jobs done.

Advanced generator technology virtually eliminates power spikes and other electrical imperfections so welds are cleaner and jobsite tools can run without interruption, maximizing quality, productivity and profit.



**Waveform Comparison** 

#### **Fewer refueling trips**

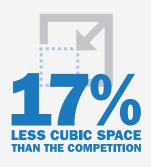
Large 12-gallon fuel capacity means extended runtimes and less refueling.

#### **Versatile AC and DC welding**

**Provides AC and DC welding output** for greater versatility and quality welds on all types of metals. DC is smooth and easy to run while AC stick is used when arc blow occurs.

#### More portable, uses less truck space

Smaller and lighter – 17 percent less cubic space and weighing up to 100 pounds less than the competition – means moving Bobcat welder/generators is faster and easier, for maximum productivity. And because they take up less space, they let work trucks carry more equipment and gear so your work crews can meet weight limits and be ready for anything.



#### **Easier maintenance**

**Easy-to-read front panel maintenance displays** show engine hours and hours left before an oil change is due. This intuitive design makes maintenance 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

### Bobcat<sup>™</sup> 225 (Gas) See literature ED/4.4

Cost-effective, multiprocess welder/generator primarily used for stick welding. Great for farm, ranch, maintenance/repair and as a stand-alone generator.

Features three DC stick/TIG controls, one AC stick/TIG control and one wire range for output control. Stick ranges designed for 3/32, 1/8 and 5/32 inch. Very easy to set.



### Bobcat<sup>™</sup> 3 Phase (Gas) See literature ED/4.33

Designed for farm and ranch owners in need of single- and three-phase power to run 480-volt three-phase pivot irrigation systems or to provide backup power for home, farm and/or ranch.

### Bobcat<sup>™</sup> 250 (Gas, LP or Diesel) See literature ED/4.4 (Gas/LP) and ED/4.34 (Diesel)

Multiprocess engine-driven welder/generator capable of carbon arc gouging features a larger stabilizer for less spatter and smoother arc. Ideal welder/ generator for maintenance/repair, construction, farm/ranch or as a stand-alone generator.

Convenient front panel fuel gauge.

More precise amperage settings with wider range for optimal stick/flux-cored welding.

Features four AC/DC stick/TIG controls and two wire ranges for output control. Stick ranges designed for 3/32, 1/8, 5/32 and 3/16 inch. Very easy to set.



#### Add optional electronic fuel injection (EFI) improved fuel efficiency for maximum productivity and profitability

Adding EFI to your Bobcat 250 welder/generator provides multiple benefits. With EFI you'll get faster, more reliable starts in any weather – no choke adjustments needed. EFI-equipped Bobcat 250 machines are also up to 42 percent more fuel efficient than standard carbureted models, improving profitability. Plus, refueling less frequently means you'll spend more of your time welding, improving productivity.

### Industrial |

#### **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® 210 Series or HF-251 (non-critical). 3 Bobcat 250 models only

#### **Engines**

Gas: Kohler CH730

23.5 hp at 3.600 rpm

EFI gas: Kohler ECH730

23 hp at 3.600 rpm

LP: Kohler CH730

Liquid withdrawal LP system 21.5 hp at 3,600 rpm

V-twin-cylinder, four-cycle, overhead valve, industrial, air-cooled

**EPA Tier 4 Final Diesel: Kubota D722** 

19 hp at 3.600 rpm

Three-cylinder, industrial, liquid-cooled Note: Engines are warranted separately by engine manufacturer.

#### Most popular accessories

- SuitCase® X-TREME™ Feeders (pg 22)
- Dynasty® 210 Series (pg 52)
- Spectrum<sup>®</sup> 625 X-TREME<sup>™</sup> (pg 90)
- Multi-Terrain Running Gear (pg 116)
- Off-Road Running Gear (pg 116)
- Protective Cage with Cable Holders (pg 116)
- Hose and LP Tank Mounting Assembly (pg 116)
- Remote Oil Drain/Filter Kit (pg 116)
- All-Purpose Running Gear (pg 116)
- Full KVA Adapter Cord 300517 (pg 116)
- Protective Cover (pg 116)
- HWY-Mid Frame Trailer 301438 (pg 117)
- GFCI Panel Mount 120 VAC Duplex Kit 300975
- Electric Fuel Pump Kit\* (gas models only) 300976
- Spark Arrestor Kit (gas models only) 300924

Visit 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
	Bobcat	(907498001) Kohler	CC/AC	Stick/TIG	70-150 A	150 A at 25 V, 100% duty cycle	Single-phase		485 lb.
a)	225	(907498) Kohler with GFCI	CC/DC	Stick/TIG	50-225 A	225 A at 25 V, 100% duty cycle			(220 kg)
<u> </u>			CV/DC	MIG/FCAW	19-28 V	200 A at 20 V, 100% duty cycle	Continuous. 5,500 watts	W: 20 in. (508 mm)	
Gasoline	Bobcat	(907505) Kohler with GFCI	CC/AC	Stick/TIG	50-200 A	200 A at 25 V, 100% duty cycle	Single-phase/three-phase	D: 40.5 in. (1,029 mm)	495 lb.
ය	3 Phase		CC/DC	Stick/TIG	50-210 A	210 A at 25 V, 100% duty cycle	Peak: 11,000 watts Continuous:		(225 kg)
			CV/DC	MIG/FCAW	19-28 V	200 A at 20 V, 100% duty cycle	9,500 watts/10,000 watts		
٩	Bobcat 250	(907500001) Kohler (907500) Kohler with GFCI	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	Peak: 11,000 watts H: 3	H: 28 in. (711 mm) H: 32.75 in. (832 mm)	501 lb. (227 kg)
Gas or l		(907500002) Kohler with electric fuel pump* (907502) EFI Kohler (907504) LP Kohler with GFCI	CC/DC	Stick/TIG	40-250 A 40-275 A w/EFI	250 A at 25 V, 100% duty cycle	Continuous: 9,500 watts  EFI model Peak: 12,000 watts	to top of exhaust W: 20 in. (508 mm) D: 40.5 in. (1,029 mm)	
Ö		Order hose and LP tank mounting assembly (300917) separately	CV/DC	MIG/FCAW	17-28 V	275 A at 25 V, 60% duty cycle 250 A at 25 V, 100% duty cycle	Continuous: 10,500 watts		
<del>le</del>	Bobcat 250	(907565) Kubota with GFCI	CC/AC CC/DC	Stick/TIG	40-275 A	250 A at 25 V, 100% duty cycle	Single-phase Peak: 11,000 watts	H: 28 in. (711 mm) H: 34.5 in. (876 mm)	638 lb. (289 kg)
Diesel	Diesel		CV/DC	MIG/FCAW	17-28 V	275 A at 25 V, 60% duty cycle 250 A at 28 V, 100% duty cycle	Continuous: 9,500 watts	to top of exhaust W: 20 in. (508 mm) D: 45.5 in. (1,156 mm)	

<sup>\*</sup>Recommended for operation at altitudes above 5,000 feet.

## Trailblazer<sup>®</sup> Series

Gas, LP and Diesel See lit. ED/4.75 (Gas/LP) and ED/4.8 (Diesel)



Trailblazer 325 EFI shown.

Trailblazer welder/generators deliver unbeatable arc performance providing the smoothest, most stable arc in the industry. The Trailblazer exclusive Auto-Speed™ technology delivers superior runtimes, increased fuel efficiency, and improved welder/generator performance.

#### **Unbeatable arc performance**

Wide amperage output with better welding deposition rates means you can get jobs done faster, saving time and money. The Trailblazer also has precise arc control, which allows you to fine-tune the arc to match your personal preferences and quickly dial in the perfect parameters to optimize weld quality and maximize productivity across a variety of applications and welding processes.

#### **Cleaner and stronger generator power**

**Combines a 25 hp engine and 12,000 watts of clean, truly usable generator power** that is Accu-Rated<sup>™</sup>, not inflated — tested to deliver uninterrupted peak output for a minimum of 30 seconds for big loads, so you can get more jobs done.

#### **Maximum cost savings**

**Less money spent on fuel** means more profit for you. Every Trailblazer welder/generator has fuel-saving Auto-Speed technology — add optional Excel<sup>™</sup> power and EFI to save even more on fuel costs and enjoy a combination of advanced, profit-enhancing features that are only available on a Trailblazer welder/generator.

#### Safer, more productive jobsites

**Quieter jobsites** are safer and more productive because work crews can communicate easier, and work can start earlier and end later — even in noise-sensitive areas.



#### **Auto-Speed technology**

**Get the welding power you need — plus reduced fuel consumption and lower noise levels** for a more-profitable, safer jobsite. Unlike competitive machines that operate at 3,600 rpm (max) under any load, Miller-exclusive Auto-Speed technology responds to weld requirements by automatically adjusting engine speed to one of four rpm levels so the engine never works harder than necessary. Refueling time and operating costs are reduced, which means more productivity and profitability. Auto-Speed technology — available only from Miller.

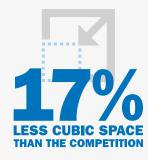


#### **Fewer refueling trips**

**Spend more time working and less time refueling.** Only Trailblazer welder/generators provide Auto-Speed technology, plus Excel power and electronic fuel injection (EFI) options, to deliver maximum runtime.

#### More portable, uses less truck space

**Smaller and lighter** – 17 percent less cubic space and 10 percent less machine weight than the competition – means moving Trailblazer welder/generators is faster and easier, for maximum productivity.



### **Options to Maximize Your Trailblazer 325 Performance**

#### **Excel**<sup>™</sup> power

Unlike competitive machines that provide auxiliary power only at 3,600 rpm (max), Excel power delivers a full 2,400 watts (20 A) of 120-volt inverter-based, pure sine wave power at all speeds, including idle. With Excel power you can operate jobsite tools like grinders at quiet, fuel-saving speeds.

Refueling time and operating costs are reduced with Excel power, which means more productivity and profitability. Plus everyone on the jobsite gets a better working environment because noise levels and exhaust emissions are lowered. Excel power — available only from Miller.



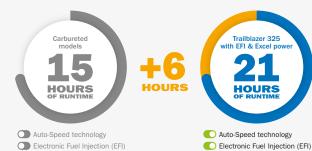
Based on generator-only use for total runtime.

Excel power

#### **EFI** (gas models)

Adding EFI to your Trailblazer welder/generator adds multiple benefits. With EFI, you'll get faster, more-reliable starts in any weather — no choke adjustments needed. EFI-equipped Trailblazer machines are also up to 42 percent more fuel efficient than standard carbureted models, improving profitability. Plus, refueling less frequently means you'll spend more of your time welding, improving productivity.

Add Excel power to your Trailblazer with EFI, and you'll have the most fuel-efficient compact welder/generator available.



Based on typical usage — 150 amps welding 40% of the time; 20 amps generator power 30% of the time; and idling without load 30% of the time.

#### Battery charge/jump start (gas models)

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.

Excel power

Note: Battery charge/jump cables (300422) must be ordered separately.

\*Recommended for operation at altitudes above 5,000 feet.

#### **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>1</sup>With wire feeder.
- <sup>2</sup>Two-piece TIG torch recommended.

#### **Engines**

Gas: Kohler CH730

23.5 hp at 3,600 rpm

EFI gas: Kohler ECH730

23 hp at 3,600 rpm

LP: Kohler CH730

Liquid withdrawal LP system 21.5 hp at 3,600 rpm

V-twin-cylinder, four-cycle, overhead valve, industrial, air-cooled

#### **EPA Tier 4 Final Diesel: Kubota D902**

24.8 hp at 3,600 rpm

Three-cylinder, industrial, liquid-cooled Note: Engines are warranted separately

by engine manufacturer.

#### Most popular accessories

- SuitCase® X-TREME™ 12VS (pg 22)
- Spoolmatic® 30A / WC-24 Control 130831 / 137549 (pg 31)
- Dynasty<sup>®</sup> Series (pg 52/54)
- Spectrum<sup>®</sup> 625 X-TREME<sup>™</sup> (pg 90)
- Multi-Terrain Running Gear (pg 116)
- Off-Road Running Gear (pg 116)
- Protective Cage with Cable Holders (pg 116)
- Hose and LP Tank Mounting Assembly (pg 116)
- All-Purpose Running Gear (pg 116)
- Full KVA Adapter Cord 300517 (pg 116)
- Protective Cover (pg 116)
- HWY-Mid Frame Trailer 301438 (pg 117)
- Electric Fuel Pump Kit (gas models only) 300976
   Recommended for operation at altitudes above 5,000 feet.
- 25 ft. Battery Charge/Jump Cables with plug (for Trailblazer 325 EFI 907512002 only) 300422

Visit 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)	Sin Pov	
or LP	Trailblazer (907506) Kohler with GFCI 275 (907691) LP Kohler with Excel power and GFCI		CC/DC	Stick/TIG	10-275 A	275 A at 28 V, 100% duty cycle	Pea 12,	
Gas o		Order hose and LP tank mounting assembly (300917) separately	CV/DC	MIG/FCAW	10-35 V	275 A at 28 V, 100% duty cycle	11, Cor 10,	
line	Trailblazer 325	(907510 001) Kohler (907510) Kohler with GFCI (907510002) Kohler w/electric fuel pump* (907512) EFI Kohler	CC/DC	Stick/TIG	10-325 A	325 A at 28 V, 100% duty cycle	9,5 <b>Exc</b> <b>2,4</b> 20	
Gasoline	(907512001) EFI Kohler with Excel powe (907512002) EFI Kohler with Excel powe battlery charge/jump start	(907512001) EFI Kohler with Excel power (907512002) EFI Kohler with Excel power and	CV/DC	MIG/FCAW	10-35 V	325 A at 28 V, 100% duty cycle	pur at i whi	
sel	Trailblazer 325 Diesel	(907566001) Kubota (907566) Kubota with GFCI	CC/DC	Stick/TIG	10-325 A	325 A at 33 V, 100% duty cycle		
Diesel		(907566002) Kubota with Excel power	CV/DC	MIG/FCAW	10-35 V	325 A at 33 V, 100% duty cycle		

Power at 104°F (40°C)	Dimensions	Weight
Peak: 12,000 watts 11,000 watts (LP) 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. (1,029 mm)	459 lb. (208 kg)
9,500 watts (LP)	H: 28 in. (711 mm)	460 lb.
Excel power (optional) 2,400 watts 20 A at 120 V, 60 Hz pure generator power at idle speed and while welding.	H: 32.75 in. (832 mm) to top of exhaust W: 20 in. (508 mm) D: 40.5 in. (1,029 mm)	(209 kg)

620 lh

(281 kg)

## Trailblazer® 302 Air Pak™ See literature 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.



See page 121

**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 1/2-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 (300422) must be ordered separately.

### **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® 210 Series or HF-251 (non-critical).
- <sup>3</sup> Two-piece TIG torch recommended.

#### Gasoline engine

Kohler CH750: 27 hp at 3,600 rpm V-twin-cylinder, four-cycle, overhead valve, industrial, air-cooled Note: Engine is warranted separately by engine manufacturer.

#### Most popular accessories

- SuitCase® X-TREME™ 12VS (pg 22)
- Spoolmatic® 30A Aluminum Spool Gun / WC-24 Control 130831 / 137549 (pg 31)
- HWY-Mid Frame Trailer 301438 (pg 117)
- 25 ft. Battery Charge/Jump Cables with Plug 300422

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

\*Recommended for operation at altitudes above 5,000 feet.

Stock Number
(907549001) Kohler
(907549) Kohler with GFCI and electric fuel pump*
(907549003) Kohler with GFCI, cooler/separator and
electric fuel pump*

Welding Mode	Process	Amp/Volt Ranges	Rated Weld Output at 104°F (40°C)	Single-Phase Generator Power at 104°F (40°C)
CC/DC	Stick/TIG	10-300 A	280 A at 32 V, 100% duty cycle	Peak: 13,000 watts
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	Continuous: 11,000 watts
CC/AC	TIG/stick	10-225 Δ	200 A at 25 V 60% duty cycle	

tor C)	Dimensions	Net Weight
atts	H: 28 in. (711 mm) H: 34.5 in. (876 mm) to top of exhaust W: 20 in. (508 mm) D: 59.625 in. (1,514 mm)	771 lb. (350 kg)

	1.7		,	,			
Air Compressor	Features	Free Air Delivery at 3,600 RPM	Free Air Delivery at 3,000 RPM	Free Air Delivery at 2,400 RPM (idle)	Working Pressure Constant	Duty Cycle	Oil Capacity
Air Compressor	Rotary screw with electric clutch for on/off, oil change intervals of 500 hours	31 cfm (0.88 m³/min.)	28 cfm (0.79 m³/min.)	22 cfm (0.62 m³/min.)	80-160 psig	100%	1.75 qt. (1.7 L)

Bobcat™ Diesel • Trailblazer® Diesel • Big Blue® 350 PipePro® Series Big Blue® 400 Pro • Big Blue® 450 Duo CST™ • Big Blue® 500 Pro Big Blue® 600 Series • Big Blue® 800 Series

## **EPA Tier 4 Final** cleaner equipment, cleaner air

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 hp, which are not subject to the same T4F regulations.



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 is committed to being the leader in innovative, yet cost-effective solutions that meet the ever-changing emissions regulations.

Learn more at MillerWelds.com/tier4

## Big Blue® 350 PipePro® Series See literature ED/5.4

Next-generation, rugged, low speed diesel welder/generator specifically designed for the transmission pipeline contractor.



See page 121. Wireless antenna kit (300749) recommended.

Smart Feeder compatible (SF model only). Advanced RMD® and pulsed MIG processes are now available in an engine-driven welder/ generator. Discover increased productivity, quality, and improved efficiency in field welding with the new Big Blue 350 PipePro SF and



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 (95.5 Lwa) under full load. Improves jobsite communication

EPA, CSA, IEC and NEMA compliant.

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

#### **Heavy industrial**

#### **Processes**

- Stick (SMAW) MIG (GMAW)
- Flux-cored (FCAW) TIG (GTAW)
- RMD\* Pulsed MIG (GMAW-P)\*
- Air carbon arc cutting and gouging (CAC-A) (rated 1/4 in. carbons) \*Big Blue 350 PipePro SF model only.

#### **Diesel engines EPA Tier 4 Final**

Mitsubishi S4L2: 24.7 hp at 1,800 rpm Four-cylinder, industrial, liquid-cooled Note: Engines are warranted separately by engine manufacturer.

#### Most popular accessories

- SuitCase® X-TREME™ Feeder with Bernard™ PipePro Dura-Flux™ gun 951593 8VS 951592 12VS
- Bernard™ PipePro Dura-Flux™ gun with 10 ft. (3 m) cable 301011 (included with feeders above)
- FieldPro™ Smart Feeder (SF model only) 300935 (pg 43)
- Wireless Remote Hand Control / Wireless Antenna Kit 300430/300749 (pg 121)
- Hobart® Fabshield® wire S228519-P32 FS 71T8 1/16 in. S228525-P32 FS 71T8 5/64 in. S228825-P32 FS X80 5/64 in.

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

WIRFI FSS

Stock Number Big Blue 350 PipePro (907428) Big Blue 350 PipePro SF (907428002) Mitsubishi w/stainle

and Smart Feeder compatibility

FieldPro™ Smart Feeder.

Mitsubishi	
ess steel	

Welding

Mode	Process	Ranges
CC/DC	TIG/stick	20-400 A
CV/DC	MIG/FCAW	14-40 V

Rated Output at 104°F (40°C)
300 A at 32 V, 100% duty cycle
350 A at 27 V, 100% duty cycle
400 A at 24 V, 100% duty cycle

Power at 104°F (40°C) Peak: 12 000 watts Continuous: 10,000 watts

Single-Phase Generator

Dimensions H: 32 in. (813 mm) W: 26.25 in. (667 mm) D: 56 in. (1,422 mm)

**Net Weight** Mitsuhishi 1,018 lb. (462 kg)

## Big Blue® 400 Pro See literature ED/5.7

Amn/Volt

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



See page 121. Wireless antenna kit (300749) 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.

#### EPA, CSA, IEC and NEMA compliant.

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

#### **Heavy industrial**



#### **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 V1505:** 20.2 hp at 1,800 rpm Four-cylinder, industrial, liquid-cooled Mitsubishi **S4L2**: 24.7 hp at 1,800 rpm Four-cylinder, industrial, liquid-cooled Note: Engines are warranted separately by engine manufacturer.

#### Most popular accessories

- SuitCase® Feeders (pg 22)
- Dynasty® 210 Series (pg 52)
- Spectrum® 875 (pg 90)
- Protective Cover 195301 (pg 116)
- Wireless Remote Hand Control/ Wireless Antenna Kit 300430/300749 (pg 121)

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

s	tock Number
•	907606) Kubota 907605) Mitsubishi

**COMPATIBLE** 

Welding Mode	Process	Amp/Volt Ranges	
CC/DC	TIG/stick	20-400 A	
CV/DC	MIG/FCAW	14-40 V	

Rated Output at 104°F (40°C)
300 A at 32 V, 100% duty cycle 350 A at 27 V, 100% duty cycle 400 A at 24 V, 100% duty cycle

Single-Phase Generator Power at 104°F (40°C)
Peak: 12,000 watts Continuous: 10,000 watts

Dimensions
H: 32 in. (813 mm)
W: 26.25 in. (667 mm
D: 56 in. (1,422 mm)

Net Weight
Kubota 950 lb. (431 kg)
Mitsubishi 993 lb. (450 k

## Big Blue® 500 and 600 Series See literature ED/11.0 (500) and ED/11.5 (600)

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





See page 121. Wireless antenna kit (300749) recommended.

Big Blue 500 and 600 Pro

#### 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 CA (Tier 4i) models which use meter maintenance displays as seen in smaller inset photo.

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

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

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

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

#### EPA, CSA, IEC and NEMA compliant.

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

**Deluxe models** add a polarity reversing switch and a vandalism lockout (protects control panel and receptacles, see photo at right).

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. See page 82 for compressor specifications.



### **Heavy industrial**

#### **Processes**

- Stick (SMAW) MIG (GMAW)
- Flux-cored (FCAW) DC TIG (GTAW)
- Air carbon arc cutting and gouging (CAC-A) (500: rated 5/16 in. carbons, capable 3/8 in. carbons; 600: rated 3/8 in. carbons)

#### **Diesel engines EPA Tier 4 Final choices** 500 and 600 Pro - Kubota V2403

48.9 hp at 1,800 rpm

Turbo-charged, four-cylinder, industrial, liquid-cooled

#### 600 Air Pak - Deutz TD2.9 L4

65.7 hp at 1,800 rpm Turbo-charged, four-cylinder, industrial, liquid-cooled

#### EPA Tier 4i CA model 500 Pro - Deutz D2011L03

32 hp at 1,800 rpm

Three-cylinder, industrial, air/oil-cooled Note: Engines are warranted separately by engine manufacturer.

#### Most popular accessories

- SuitCase® X-TREME™ 8VS/12VS (pg 22)
- Full KVA Adapter Cord 300517 (pg 116)
- Full KVA Plug Kit (pg 116) 119172 Single-phase 254140 Three-phase
- Protective Covers (pg 116) 301113 Deutz/Kubota T4F models 194683 Deutz CA models
- HWY-225 Trailer 301338 (pg 117)
- Wireless Remote Hand Control/ Wireless Antenna Kit 300430/300749 (pg 121)
- Spark Arrestor Kit 195012

Visit 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
Tier 4 Final Big Blue 500 Pro (907707) Kubota Big Blue 500 Pro (907707001) Kubota Deluxe model Tier 4i Big Blue 500 Pro CA model (NOT available for sale in the USA) (907635) Deutz	CC/DC (Stick/TIG) CV/DC (MIG/FCAW)	20-500 A 14-50 V	Kubota T4F models 400 A at 36 V, 100% duty cycle 450 A at 38 V, 100% duty cycle 500 A at 40 V, 100% duty cycle Deutz CA models 400 A at 36 V, 100% duty cycle 450 A at 33 V, 60% duty cycle 500 A at 30 V, 40% duty cycle	Kubota T4F models: Three-phase Peak: 27,000 watts Continuous: 20,000 watts Deutz CA models: Three-phase Peak: 21,000 watts Continuous: 15,000 watts All models: Single-phase Peak: 15,000 watts	Kubota T4F models H: 46 in. (1,168 mm) W: 28.5 in. (724 mm) D: 69.5 in. (1,765 mm)  Deutz CA models H: 42 in. (1,067 mm) W: 28.5 in. (724 mm) D: 65.125 in. (1,654 mm)	Kubota T4F models 1,750 lb. (794 kg) Deutz CA models 1,550 lb. (703 kg)
Tier 4 Final Big Blue 600 Pro (907695) Kubota (907695001) Kubota Deluxe model Big Blue 600 Air Pak (907712) Deutz	CC/DC (Stick/TIG) CV/DC (MIG/FCAW)	20-600 A 14-50 V	600 Pro 500 A at 40 V, 100% duty cycle 550 A at 42 V, 60% duty cycle 600 A at 42 V, 40% duty cycle 600 Air Pak 500 A at 40 V, 100% duty cycle 575 A at 43 V, 100% duty cycle 600 A at 44 V, 60% duty cycle	Continuous: 12,000 watts  Three-phase Peak: 27,000 watts Continuous: 20,000 watts Single-phase Peak: 15,000 watts Continuous: 12,000 watts	H: 46 in. (1,168 mm) W: 28.5 in. (724 mm) D: 69.5 in. (1,765 mm)	<b>600 Pro</b> 1,750 lb. (794 kg) <b>600 Air Pak</b> 2,040 lb. (925 kg)

## Big Blue® 450 Duo CST™ See literature 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 up to 280 amps of output per operator.



Two superior arcs in one compact package. See CST 280 (page 48) for additional details.

Save fuel, reduce maintenance costs and increase productivity.

Quiet operation. At 72.2 decibels (97 Lwa) 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**

#### **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 1,800 rpm Four-cylinder, industrial, liquid-cooled Note: Engine is warranted separately by engine manufacturer.

#### Most popular accessories

- Spectrum® 875 (pg 90)
- Full KVA Adapter Cord 300517 (pg 116)
- Single-Phase Full KVA Plug Kit 119172 (pg 116)
- Protective Cover 195301 (pg 116)
- HWY-Mid Frame Trailer 301438 (pg 117)
- Wireless Remote Hand Control / Wireless Antenna Kit 300430/300749 (pg 121)
- Spark Arrestor Kit 195012

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

Stock Number (907477) Mitsubish

Process	Output Mode	Amperage Range
DC stick/TIG	Separate (dual outputs)	5-225 A (each side) 5-280 A (one side only)
	Paralleled (combined)	10-450 A

Rated Output at 122°F (50°C)	Single-Phase Generator Power at 122°F (50°C)
175 A at 27 V, 100% duty cycle	Continuous: 10,000 watts
350 A at 27 V, 100% duty cycle	

Dimensions
H: 32 in. (813 mm) W: 26.25 in. (667 mm
D: 56 in. (1,422 mm)

Net Weight 1.064 lb. (483 kg)

## Big Blue® 700 Duo Pro See literature 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.



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 (99.5 Lwa) 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 (except Smart Feeder) (see page 79).

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**



#### **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 1.800 rpm Four-cylinder, industrial, air/oil-cooled Note: Engine is warranted separately by engine manufacturer.

#### Most popular accessories

- SuitCase® X-TREME™ 8VS/12VS (pg 22)
- Full KVA Adapter Cord 300517
- Full KVA Plug Kit (pg 116) 119172 Single-phase 254140 Three-phase
- Protective Cover 194683 (pg 116)
- HWY-225 Trailer 301338 (pg 117) Wireless Remote Hand Control/
- Wireless Antenna Kit 300430/300749 (pg 121)
- Spark Arrestor Kit 195012

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

Stock Number	Process	Output Mode	Amp/Volt Rang
(NOT available for sale in the USA)	DC stick/TIG/ MIG/FCAW	Separate (dual outputs)	20-400 A 14-40 V
(907461) Deutz		Paralleled	40-800 A

(combined)

14-40 V

Rated Output at 104°F (40°C)	Generator Power at 104°F (40°C)
300 A at 28 V, 100% duty cycle 400 A at 36 V, 40% duty cycle	Single-phase: 4,000 watts continuou  Additional generator power
500 A at 34 V, 100% duty cycle 700 A at 24 V, 60% duty cycle	Three-phase: 20,000 watts continuou Single-phase: 12,000 watts continuo

#### Tier 4 Final (T4F) questions? Call 920.831.4851 or email PSDService@MillerWelds.com

## Big Blue® 800 Series See literature ED/14.0

The most powerful lineup of diesel welder/generators in the industry. All offer robust output for welding and power generation, and are ideal for dual-operator applications on labor intensive jobsites, or jobsites with limited space.



**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 XMT machines 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.

#### **Smart Feeder compatible**

(SF model only). Advanced RMD® and pulsed MIG processes are now available in an engine-driven welder/generator. Discover increased productivity, quality, and improved efficiency in field welding with the Big Blue 800 Duo Pro SF with FieldPro™ Smart Feeder.



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.

\*Big Blue 800 Duo Air Pak has welder truck specific models

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 flux-cored welding.

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**



#### **Processes**

- Stick (SMAW) MIG (GMAW)
- Flux-cored (FCAW) DC TIG (GTAW)
- RMD\* Pulsed MIG (GMAW-P)\*
- · Air carbon arc cutting and gouging (CAC-A) (rated 1/2 in. carbons)
- Stud (1/2 in.)
- \*Big Blue 800 Duo Pro SF model only.

#### **Diesel engines EPA Tier 4 Final models** Deutz TD2.9 L4

65.7 hp at 1,800 rpm Turbo-charged, four-cylinder, industrial, liquid-cooled

#### FPA Tier 4i CA model Deutz TD2011L04i

63.4 hp at 1,800 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 22)
- FieldPro<sup>™</sup> Smart Feeder (Duo Pro SF model only) 300935 (pg 43)
- Full KVA Adapter Cord 300517 (pg 116)
- Full KVA Plug Kit (pg 116) 119172 Single-phase 254140 Three-phase
- Protective Cover 301113 (pg 116)
- HWY-225 Trailer 301338 (pg 117)
- Wireless Remote Hand Control / Wireless Antenna Kit 300430/300749 (pg 121)





#### Desiccant Air Dry System (Air Pak only)

195117 Side mount 195117001 Rear mount Eliminates moisture in the air stream and prevents air line freeze-ups in cold climates.

 Spark Arrestor Kit 195012 Visit MillerWelds.com or your distributor for other Miller® options and accessories.

avalla	available — visit Millerweids.com or your distributor.					
	Model/Stock Number*					
	Tier 4 Final					
	Big Blue 800 Duo Pro (907587) Deutz					
	Big Blue 800 Duo Pro SF (907587002) Deutz					
	Big Blue 800 Duo Air Pak (907535) Deutz					

Tier 4i
Big Blue 800 Duo Air Pak CA model
(NOT available for sale in the USA) (907634) Deutz

Welding Mode/Process	Output Mode	Amp/Volt Ranges	Rated Output at 100% Duty Cycle at 104°F (40°C)	(
CC/DC (Stick/TIG)	Separate (dual outputs)	20-400 A	400 A at 36 V (each side)	1
(Sticky Hu)	Paralleled (combined)	40-800 A	700 A at 44 V, 800 A at 38 V	
CV/DC (MIG/FCAW)	Separate (dual outputs)	14-40 V	400 A at 34 V (each side)	F
(MIIG/TOAW)	Paralleled (combined)	14-40 V	750 A at 40 V, 800 A at 38 V	(

Generator Power at 104°F (40°C)	Dimensions
Three-phase Peak: 27,000 watts Continuous: 20,000 watts Single-phase Peak: 15,000 watts Continuous: 12,000 watts	H: 46 in. (1,168 mm) W: 28.5 in. (724 mm) D: 69.5 in. (1,765 mm)

Net Weight
Duo Pro
1,869 lb. (848 kg)
Duo Pro SF
1,930 lb. (875 kg)
Duo Air Pak
2,095 lb. (968 kg)

Ingersoll Rand CE55 G1	Features	Free Air Delivery	Working Pressure Constant	Duty Cycle	Oil Capacity	Automatic Compressor Shutdowns
Air Compressor (Air Pak only)	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 m³/min.) Weld: 60 cfm (1.70 m³/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 SW/1.0 for full range of tongs and tips.



## Air-Cooled Spot Welders See literature SW/1.0

\*Tongs and tips must be ordered separately — see literature SW/1.0 for full range of tongs and tips.

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.



#### **Process**

 Resistance Spot Welding Note: Not recommended for welding aluminum, copper or copper alloys.

#### Most popular accessories

Gyro Bail 041979

Supports weight of welder. Operates with boom and



counterweight or from spring-loaded cable (sold separately). Spot welds in any position.

Spot Welder Pedestal 040872

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 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		librated with Stand 12 in. (305 mm)	ard-Type Tongs 18 in. (457 mm)	Max Open- Circuit Voltage	Dimensions	Net Weight
MSW-41 (900371) MSW-41T (901345) with timer	110 V, 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	5,550 A	4,500 A	3,600 A	1.6 VAC	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
LMSW-52 (900377) LMSW-52T (901357) with timer	220 V, 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	6,750 A	5,800 A	4,850 A	2.5 VAC	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

## MillerWeldsStore.com



Buy Miller® Gear Online. Shirts, hats, mugs, banners and more!



# **Submerged Arc**



Miller offers an array of versatile submerged arc components, including power sources, controls, wire drives, torches, tractors and a variety of other accessories.

## SubArc Digital Series See literature AD/7.3

The SubArc Digital Series of power sources, interface controls and accessories include digital control and communication electronics designed to improve weld performance and simplify the integration of the equipment in more advanced applications.



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.

Low-voltage accessory operation and improved environmental **protection.** The Digital Series accessories are powered with 24 VAC control voltage from the power source. All power sources, interface controls and wire drives are IP-23 rated providing a high level of protection for harsh environments.

Easy to integrate. Our SubArc power sources are easy to integrate by using a standard Modbus® connection.

All power sources also feature thermal overload protection, line voltage compensation and Fan-On-Demand.™

Heavy industrial SubArc DC Series is DC only.

#### **Processes**

- Submerged arc (SAW)
- Electroslag (ESW)
- · Air carbon arc cutting and gouging (CAC-A)

#### Most popular accessories

- 14-pin Insight Core<sup>™</sup> Module 301072 (pg 65) Requires Insight Core to SubArc Digital Series Adapter Kit (301295).
- ArcAgent™ Auto 301346 (pg 67)
- 15 ft. (4.6 m) SubArc Parallel Cable 260775015 (pg 119)
- 15 ft. (4.6 m) SubArc Tandem Cable 260878015 (pg 119)

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

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Model/Stock Number	Amperage Range (CC Mode)	Voltage Range (Sub Arc Mode)	Rated Output		Input at 460 V		Output, KVA	60 Hz KW	Max Open- Circuit Voltage	<b>Dimensions</b> (Includes lift eye, but not strain relief)	Net Weight
<b>SubArc DC 650 Digital (907622)</b> 230/460/575 V	50-815 A	20-44 V	650 A at 44 V, 100% duty cycle	126 3.8*	63 1.9*	50.4 1.4*	50 1.52*	34.8 0.76*	75 Vpk	H: 30 in. (762 mm) W: 23 in. (584 mm)	593 lb. (269 kg)
<b>SubArc DC 1000 Digital (907624)</b> 230/460/575 V	100-1,250 A	20-44 V	1,000 A at 44 V, 100% duty cycle	180 5.8*	90 2.9*	72 2.4*		53 0.5*	68 Vpk		682 lb. (309 kg)
<b>SubArc AC/DC Digital</b> ( <b>907620</b> ) 460 V	300-1,250 A	20-44 V	1,000 A at 44 V, 100% duty cycle	-	122 3.0*	_ _	98 2.37*	53 0.95*	93 Vpk	H: 43 in. (1,092 mm) W: 28 in. (711 mm) D: 48 in. (1,219 mm)	1,187 lb. (538 kg)



### Miller recommends



Customers count on Hobart® to provide an exceptional level of expertise and commitment in developing unique filler metal and flux solutions with them to meet current and future challenges.

Rely on Hobart for submerged arc applications and all your welding needs.

Visit **HobartBrothers.com** or your local distributor to learn more.

**Dimensions** 

**Dimensions** 

U. 11 E in (202 mm)



## SubArc Interface Controls See literature no. AD/7.3





Input Power from Welding Power Source

24 VAC 1 phase 25 A 50/60 Hz

SubArc Interface Digital SubArc Interface Analog

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 119) 260622030 30 ft. (9 m) 260622050 50 ft. (15 m) 260622060 60 ft. (18.3 m) 260622080 80 ft. (24.4 m) 260622100 100 ft. (30.5 m) 260622120 120 ft. (36.6 m) 260622200 200 ft. (61.0 m)

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

**Net Weight** 

Subarc Interface Digital (300936)	24 VAC, 1-phase, 25 A, 50/ 60 Hz	and output control capabilities	W: 12 in. (305 mm)	15.8 ID. (7.2 Kg)
SubArc Interface Analog (300937)	24 VAC, 1-phase, 25 A, 50/60 Hz	Constant current (CC), constant voltage (CV), DC, with remote contactor and output control capabilities	D: 7 in. (178 mm)	

**Welding Power Source Type** 

## **SubArc Remote Operator Interface**

See literature AD/7.3

Model/Stock Number

Model/Stock Number

CubAra Interfesa Digital (20002C)



Available 1st quarter!





Input Power from Welding Power Source

Motor Control Digital Remote Pendant Digital

Point-of-use installation. Remote Pendant can be handheld or secured at point of use to improve operation.

Remote installation. Motor Control can be remotely installed, resulting in reduced cables at the operator workstation.

**Side handles** on Remote Pendant provides option for handheld operation with full functionality of a traditional SubArc Interface.

#### Most popular accessories

- Continuum Control/Motor Cables (see pg 119 for complete list) 263368015 15 ft. (4.6 m) 263368025 25 ft. (7.6 m) 263368050 50 ft. (15 m)
- SubArc Control Cables (see pg 119 for complete list) 260622030 30 ft. (9 m) 260622050 50 ft. (15 m) 260622080 80 ft. (24.4 m)

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

**Net Weight** 

SubArc Motor Control Digital (301425) (requires SubArc Remote Pendant Digital below and Continuum control/motor cable)	24 VAC, 1-phase, 25 A, 50/60 Hz	Constant voltage (CV), AC or DC, with remote contactor and output control capabilities	H: 11.5 in. (292 mm) W: 12 in. (305 mm) D: 7 in. (178 mm)	13 lb. (5.9 kg)
SubArc Remote Pendant Digital (301424) (requires SubArc Motor Control Digital above and Continuum control/motor cable)			H: 11 in. (279 mm) W: 10.63 in. (270 mm) D: 3.125 in. (80 mm)	3 lb. (1.4 kg)

**Welding Power Source Type** 

## SubArc Wire Drive Assemblies See literature AD/7.3







SubArc Strip Drive 100 Digital Low Voltage is a heavy-duty, right-angle drive assembly designed for automated strip clad applications.

SubArc Wire Drive 400 and 780 Digital Low Voltage are right-angle wire drive assemblies. The 400 model is standard speed and the 780 is high speed.

#### Most popular accessories

- Motor Extension Cables (pg 119) 254232005 5 ft. (1.5 m) 254232010 10 ft. (3 m) 254232025 25 ft. (7.6 m) 254232065 65 ft. (19.8 m)
- Single-Wire Straightener 199733 (pg 119)
- Twin-Wire Straighteners (for twin-wire torches only) (pg 119) 301160 Single adjustment 301162 Double/separate adjustment
- Drive Rolls (pg 119)
- Manual Slide (pg 119)

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

Mo	odel	Stock Number	Input Power	Input Power Cord	Rating	Wire Feed Speed	Wire Diameter Capacity	Net Weight
	ıbArc Strip Drive 100 gital Low Voltage	(300940) With mounting bracket	38 VDC	4 ft. (1.2 m)	1/5 hp, 21 rpm	10-69 ipm (0.3-1.6 m/min.)	N/A (strip cladding applications)	29 lb. (13 kg)
	ıbArc Wire Drive 400 gital Low Voltage	(300938) Standard speed (300938001) Standard speed, for use with tractor	38 VDC	4 ft. (1.2 m)	1/5 hp, 85 rpm	30-400 ipm (0.8-10.2 m/min.)	3/32-3/16 in. (2.4-4.8 mm)	26 lb. (11.8 kg)
	ıbArc Wire Drive 780 gital Low Voltage	( <b>300941</b> ) High speed	38 VDC	4 ft. (1.2 m)	1/4 hp, 143 rpm	50-780 ipm (1.3-19.8 m/min.)	1/16-1/8 in. (1.6-3.2 mm)	26 lb. (11.8 kg)

## SubArc Torches See literature AD/7.3



OBT 600 is a 600-amp, 100 percent duty cycle torch with concentric flux flow nozzle. Can be used with 1/16-5/32 inch (1.6-4.0 mm) wire.

**OBT 1200** is a 1,200-amp, 100 percent duty cycle torch with concentric flux flow nozzle. Can be used with 1/16-3/16 inch (1.6–4.8 mm) wire. OBT 1200 features a replaceable breakaway adapter end to prevent costly damage should torch run into an obstruction.

1200-Amp Single-Wire Torch (short) and 1200-Amp Twin-Wire **Torch (short or long).** 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.

#### Most popular accessories

- OBT 600 Torch Body Extensions (pg 119) 043967 1 inch (25.4 mm) 043969 2 inch (50.8 mm) 043973 4 inch (101.6 mm) 043975 6 inch (152.4 mm)
- OBT 1200 Torch Body Extension 043981 (pg 119)
- Contact Tips (pg 119) Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Model/Stock Number	Rated Output Wire Diameter Capacity S		Single/Twin	Torch Body Length
OBT 600 (043923)	600 A at 100% duty cycle	1/16-5/32 in. (1.6-4.0 mm)	Single	10.25 in. (260.4 mm)
OBT 1200 (043900)	1,200 A at 100% duty cycle	1/16-3/16 in. (1.6-4.8 mm)	Single	17.25 in. (438.2 mm)
1200-Amp Single-Wire Torch (301141) Short	1,200 A at 100% duty cycle	1/16-5/32 in. (1.6-4.0 mm)	Single	11.46 in. (291 mm)
1200-Amp Twin-Wire Torch (301143) Short	1,200 A at 100% duty cycle	3/64-3/32 in. (1.2-2.4 mm)	Twin	11.46 in. (291 mm)
1200-Amp Twin-Wire Torch (301144) Long	1,200 A at 100% duty cycle	3/64-3/32 in. (1.2-2.4 mm)	Twin	16.97 in. (431 mm)

## **External Cladding Head** See literature AY/52.0



Cost-efficient means of depositing stainless steel and Ni-alloy materials to create corrosion- or wear-resistant overlays on large non- or low-alloyed steel components.

Designed for both submerged arc and electroslag strip cladding applications.

Flexible external cladding head accommodates strip widths from 30 to 90 mm.

Individually adjustable spring-loaded contact jaws provide optimal current transfer, reducing risk of cladding failures.

#### Most popular accessories

- SubArc Strip Drive 100 Digital Low Voltage (pg 85) 300940
- Coolant Flow Switch Kit 195461 (pg 114)
- Coolmate<sup>™</sup> 3 (pg 115) 043007 115 V 043008 230 V
- Water Hose Extensions 40V76R6 6 ft. (1.8 m) 40V76R 12.5 ft. (3.8 m) 40V76LR 25 ft. (7.6 m)
- Water Coupler 11N18
- Quick-Release Water Kit QRW Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Stock Number	
External Cladding Head 30-90 mm	(301167)

Rated Output	Strip Width Range	Cooling Method	Dimensions	Net Weight
3,000 A at 100% duty cycle	30-90 mm	Coolant	H: 14.92 in. (379 mm) W: 8.76 in. (223 mm) D: 8.9 in. (226 mm)	38.5 lb. (17.5 kg)

## SubArc Flux Hopper See literature AD/7.3



Improved flux delivery system. Our SubArc Flux Hopper Digital Low Voltage utilizes a flux valve mechanism that assures continuous delivery of flux to the arc.

Sight glass allows the weld operator to visually monitor the remaining flux in the hopper.

Versatile opening is sized to allow hook-up of any flux-hopper-mounted recovery system.

**Includes slag screen** to capture fused slag particles from entering the flux hopper.

#### Most popular accessories

 Flux Hopper Extension Cables (pg 119) 260623010 10 ft. (3 m) 260623025 25 ft. (7.6 m) 260623065 65 ft. (19.8 m)

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

Stock Number
SubArc Flux Hopper Digital Low Voltage (300942)

Input Power	Input Power Cord	Flux Capacity	Net Weight
12 VDC (PWM signal from SubArc Interface)	11 ft. (3.3 m)	25 lb. (11 kg)	11 lb. (5 kg)



**Net Weight** 

without flux

162 lb.

(73 kg)

or wire

## SubArc Tractor See literature AD/7.5



#### Designed and built to provide maximum reliability

in the toughest conditions. This simple-to-use self-propelled submerged arc welding tractor can easily connect to SubArc DC or AC/DC Digital power supplies.

Vertical, horizontal and rotary torch adjustment allows for greater access to hard-to-reach spots.

Heavy-duty, four-wheel, chain-driven trackless operation with rubber wheels provides superior and reliable mobility.

Manual clutch enables freewheeling movement of the tractor.

Travel speed is precisely controlled by a closedloop microprocessor control with tach feedback.

#### **Packages include**

- SubArc Tractor with remote start/stop control and guide rolls
- SubArc Interface control (analog or digital)
- SubArc Wire Drive 400 for Tractor
- 25 lb. (11.3 kg) capacity flux hopper with valve
- 60 lb. (27 kg) wire reel
- OBT 600 torch
- Wire straightener

#### Most popular accessories

- SubArc Control Cables (pg 119)
- Contact Tips (pg 119)
- Drive Rolls (pg 119)

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

Stock Number
(951614) with
SubArc Interface Digital
(951615) with
SubArc Interface Analog

Input Power from Welding Power Source	Wire Feed Speed	Wire Diameter Capacity	Gun Positioning Slides	Drive Motor
24 VAC, 1-phase, 50/60 Hz, 200 watts	30-400 ipm	1/16-5/32 in.	4 in. (101.6 mm)	24 VDC
	(0.8-10.2 m/min.)	(1.6-4.0 mm)	vertical and horizontal	permanent
				magnet gear

## **SubArc Portable Welding System**



**Self-contained system** for pressure vessel, pipe and general welding applications. Houses a power source, column and boom on a mobile platform.

Built-in fork pockets and caster wheels allows welding system to be brought to the joint.

Ease of positioning the weld head through use of integrated motorized column, manual telescoping boom, slide and 360-degree column rotation.

Motorized column with pendant control and manual telescoping boom provide 44 inches (1,117 mm) of vertical travel and 31 inches (787 mm) of horizontal travel respectively.

Manual slide provides 7.87 inches (200 mm) of fine vertical and horizontal torch adjustment.

#### **Systems include**

**Dimensions** 

H: 43.375 in. (1,102 mm)

W: Varies depending on

system configuration

D: 35.5 in. (903 mm)

**Travel Speed** 

(10-168 cm/min.)

4-66 ipm

- Portable column and boom
- SubArc Digital power source
- SubArc Interface Digital and control cable
- SubArc Wire Drive 400 Digital Low Voltage
- 25 lb. (11.3 kg) capacity flux hopper with valve
- 60 lb. (27 kg) wire reel and support assembly
- OBT 600 torch (650 system) or OBT 1200 torch (both 1000 systems)
- Wire straightener
- Manual slide

#### Most popular accessories

- 14-pin Insight Core™ Module 301072 (pg 65) Requires Insight Core to SubArc Digital Series Adapter Kit (301295).
- ArcAgent<sup>™</sup> Auto 301346 (pg 67)
- Contact Tips (pg 119)
- Drive Rolls (pg 119)

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

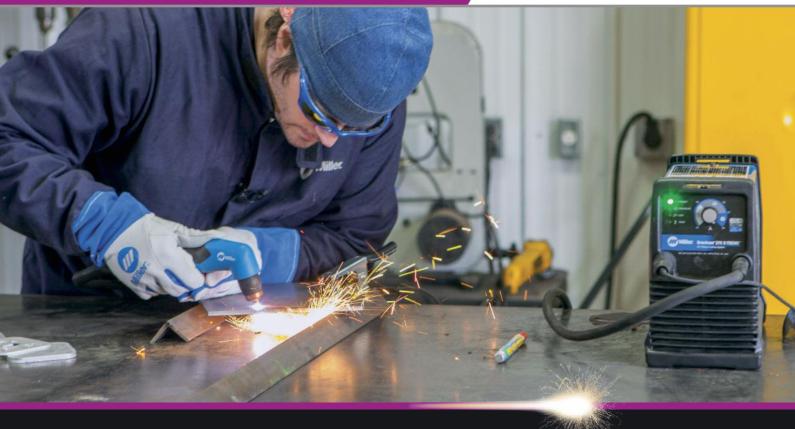
Stock Nulliber
(951675) w/SubArc DC 650 Digital
(951676) w/SubArc DC 1000 Digital
(951677) w/SubArc AC/DC Digital
(see page 84 for power source specs)

Chaol Numbou

Supply Voltage	Column Stroke	Column Travel	Boom Stroke	Boom Travel	Base Rotation	Minimum Working Height	Maximum Working Height	Overall Height
120 V, 1-phase, 60 Hz (see page 84 for power source requirement)	44 in. (1,117 mm)	Constant speed	31 in. (787 mm)	Manual	360°	DC 650: 33.5 in. (851 mm) DC 1000: 26.25 in. (667 mm) AC/DC: 26.25 in. (667 mm)	DC 650: 77.5 in. (1,969 mm) DC 1000: 70.25 in. (1,784 mm) AC/DC: 70.25 in. (1,784 mm)	102 in. (2,590 mm)



# Plasma Cutters



Plasma Product Guide					Gouging	70			Rated Cutting Thickness*			Max. Sever	Mar. 6		
		Page	Class	Piercing		Rated Output/ Duty Cycle	Mild Steel	Stainless Steel	Aluminum	Thickness Mild Steel	Special Features	Typical Applications			
	Spectrum® 375 X-TREME™	90	•		•	30 A at 35%	3/8 in.	3/8 in.	1/4 in.	5/8 in.	Auto-Line™: 120–240 V, MVP™ plugs, Auto-Refire,™ automatic air regulation, only 19 lb., XT30 torch	HVAC, maintenance, light construction, hobbyist, auto restoration, fabrication			
T-Filase	Spectrum® 625 X-TREME™	90	•		•	40 A at 50%	5/8 in.	1/2 in.	3/8 in.	7/8 in.	Auto-Line™: 120-240 V, MVP™ adapters, Auto-Refire,™ automatic air regulation, only 21 lb., XT40 or XT40M torch	Maintenance, light construction, body shops, prototyping			
	Spectrum® 875	90		•	•	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			
L& 5-FII	Spectrum® 875 Auto-Line™	90	•	•	•	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			

	Engine-Driven Welder/Generator	Continuous Generator Power	Spectrum 375 X-TREME Steel Cut / Output Amp Setting**	Spectrum 625 X-TREME Steel Cut / Output Amp Setting**	Spectrum 875 / 875 Auto-Line Steel Cut / Output Amp Setting**
	Blue Star® 185	6,200 watts	3/8 in. / 30 A	Not recommended	Not recommended
	Bobcat™ Series and Trailblazer® Series	9,500 watts/10,500 watts	3/8 in. / 30 A	5/8 in. / 40 A	1/2 in. / 45 A
,	Big Blue® 350 PipePro® Series, 400 Pro and 450 Duo CST™	10,000 watts	3/8 in. / 30 A	5/8 in. / 40 A	1/2 in. / 45 A
)	Big Blue® 500 Pro	1-phase: 12,000 watts 3-phase: 15,000 watts	3/8 in. / 30 A	5/8 in. / 40 A	5/8 in. / 50 A
	Big Blue® 600 Series and 800 Series	1-phase: 12,000 watts 3-phase: 20,000 watts	3/8 in. / 30 A	5/8 in. / 40 A	7/8 in. / 50 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 PC/9.6 (625 X-TREME) or PC/9.8 (875 models)





**Machine torch capable.** 625 X-TREME and both 875 models can be ordered with a machine torch (see page 90) or can be converted to use a machine torch with optional automation kits (at right).

**Long and short body machine torches.** XT40M (for 625 X-TREME) and XT60M (for 875 models) machine torches can be ordered separately (see page 118) and 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 118).



Spectrum 625 X-TREME

Automation Kit 301158 (pg 118)

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 301156 (pg 118)



Spectrum 875 Auto-Line
 Automation Kit 301157 (pg 118)
 Includes remote pendant control for manual on/off.

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## Plasma Cutters

## **Spectrum**<sup>®</sup> **Series**

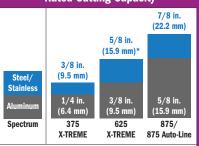
### **Plasma Cutters**

**Our Spectrum line of plasma** cutters provides big cutting power in portable packages and with features like flexible cables and Auto-Refire technology they are better than ever. Step up to Spectrum 625 X-TREME™ or 875/875 Auto-Line™ models to add Ultra-Ouick Connect hand-held torches and machine torch capabilities.

#### **Spectrum Features**

	375	625		875
Feature	X-TR	EME	875	Auto-Line
Auto-Line (120-240 V)	•	•		
Auto-Line (208-575 V)				
MVP™ plugs/adapters		•		
Ultra-Quick Connect		•		•
torch with flexible cable				
Quick connect flexible		•		•
work cable with 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**



\*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.

# Spectrum 375 X-TREME Spectrum 625 X-TREME Spectrum 875 Spectrum 875 Auto-Line

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**<sup>™</sup> 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 X-TREME 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 118).

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.



Spectrum 375 X-TREME hand-held torch package (907529) shown.



	Hai	nd-Held Torch Pacl	kages	Machine Torch Packages					
			25 ft. (7.6 m)		25 ft. (7.6 m)		15.2 m)		
Model	12 ft. (3.7 m)	20 ft. (6.1 m)	50 ft. (15.2 m)	Long Body	Short Body	Long Body	Short Body		
Spectrum 375 X-TREME	(907529)	_	_	_	_	_	_		
Spectrum 625 X-TREME	(907579)	(907579001)	_	(907579002)	(907579003)	_	_		
Spectrum 875	_	(907583)	(907583001)	(907583002)	(907583003)	-	_		
Spectrum 875 Auto-Line	-	(907584)	(907584001)	(907584002)	(907584003)	(907584004)	(907584005)		

## Plasma Cutters 🏅



## **Spectrum® 375 X-TREME™/625 X-TREME™** See literature PC/9.2 (375 X-TREME) and PC/9.6 (625 X-TREME)



Allows for any input voltage hook-up (120-240 V, single-

phase, 50/60 Hz for 375 X-TREME and 60 Hz for 625 X-TREME) 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 X-TREME or MVP™ adapter on 625 X-TREME 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 X-TREME only).** Detects gouging consumable and adjusts gas pressure to optimize performance, eliminating the need for a manual regulator.



375 X-TREME model includes XT30 hand-held torch with ergonomic design and flexible cable.

625 X-TREME 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 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.



Includes Ultra-Quick Connect™ XT60 hand-held torch with ergonomic design and flexible cable; or XT60M long body or short body machine torch.

		Input		Amps Input at			Compressor		Net Weight
	Model	Power	Rated Output at 104°F (40°C)	Rated Output	KVA	KW	Requirement	Dimensions	with Torch
	Spectrum 375	Single-	120 V (15 A): 20 A at 88 VDC, 35% duty cycle	18.1	2.2	2.1	5.0 cfm	H: 9 in. (229 mm)	19 lb.
	<b>X-TREME</b> 120-240 V,	phase	120 V (20 A): 27 A at 91 VDC, 20% duty cycle	25.6	3.1	3.0	(142 L/min.) at 90 psi	W: 5.5 in. (140 mm) D: 13.25 in. (337 mm)	(8.6 kg)
	50/60 Hz		240 V: 30 A at 92 VDC, 35% duty cycle	13.6	3.3	3.1	(621 kPa)		
Spectrum 625 X-TREME		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.)	H: 9 in. (229 mm) W: 5.5 in. (140 mm)	<b>12 ft.</b> 21 lb. (9.5 kg)
120-240 V, 60 Hz	ļ	120 V (20 A): 27 A at 91 VDC, 20% duty cycle	25.6	3.0	2.9	at 90 psi (621 kPa)	D: 13.25 in.(337 mm)	<b>20 ft.</b> 23 lb. (10.5 kg)	
			240 V: 40 A at 140 VDC, 50% duty cycle	13.6	6.4	6.3			<b>25 ft.</b> 24 lb. (10.7 kg)
	<b>Spectrum 875</b> 208/230 V, 50/60 Hz	Single- phase	208 V: 60 A at 140 VDC, 40% duty cycle 230 V: 60 A at 140 VDC, 50% duty cycle	208 V: 47 230 V: 42	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)	<b>20 ft.</b> 49 lb. (22.2 kg) <b>50 ft.</b> 58 lb. (26.3 kg)
	<b>Spectrum 875 Auto-Line</b> 208-575 V, 50/60 Hz	Three- phase	208 V: 60 A at 140 VDC, 40% duty cycle 230-380 V: 60 A at 140 VDC, 50% duty cycle 380-575 V: 60 A at 140 VDC, 60% duty cycle 380-575 V: 50 A at 140 VDC, 100% duty cycle	208 V: 27.5 230 V: 25 380 V: 15 460 V: 12.4 575 V: 9.8	9.9	9.4			20 ft. 54 lb. (24.5 kg) 25 ft. 56 lb. (25.4 kg) 50 ft. 63 lb.
		Single- phase	208 V: 60 A at 140 VDC, 40% duty cycle 230 V: 60 A at 140 VDC, 40% duty cycle 230 V: 50 A at 140 VDC, 100% duty cycle	208 V: 47.4 230 V: 42.2	9.9	9.7			(28.6 kg)

#### **Light industrial** 375/625 models Industrial | 875 models



Only 875 Auto-Line has 3-phase capabilities.

#### **Processes**

- · Air plasma cutting
- Air plasma gouging (625/875 models)

#### 375 X-TREME package 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 V, 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 packages come 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 V, 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 packages 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 118)
- Cables and Cable Covers (pg 118)
- Cutting Guides (pg 118)
- Filters (pg 118)
- Plugs and Cords (pg 118)
- Protective Covers/Cases (pg 118)
- Torches (pg 118)
- Torch Consumables (pg 118) Visit MillerWelds.com or vour distributor for other Miller® options and accessories.

#### MillerWelds.com/gasequipment

## Regulators



#### Heavy-duty and medium-duty single-stage pressure regulators

Our Series 40<sup>™</sup> and Series 30<sup>™</sup> 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 94 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 of 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
			10 ()	1

#### **Heavy-duty single-stage station regulators**

Our Series 46™ 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 Rego. No. 7160. Fuel gases "C" size inlet connection CGA 025 (7/8"-14 LH) fits station valve 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.



Sure Seat filtered high-pressure seat assembly.

#### **Features**

- 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 has neoprene composite diaphragm.
- 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 has 2-inch painted steel gauges.
- Sure Seat<sup>™</sup> dual-filtered seat assembly Protects high-pressure seat from debris for reliable operation and long service life.

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Model	Stock Number	Gas	Max. Delivery Pressure	Max. Inlet Pressure	Outlet Connection	Inlet Connection
Heavy-Duty Series 40	<b>40-175-540</b> Single-stage	Oxygen	175 psig (12 bar)	3,000 psig (207 bar)	9/16"-18 RH	CGA 540
Single-Stage	40-275-540 Single-stage	Oxygen	275 psig (19 bar)	3,000 psig (207 bar)	9/16"-18 RH	CGA 540
Pressure Regulators	<b>40-15-510</b> Single-stage	Acetylene	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH	CGA 510
	<b>40-15-300</b> Single-stage	Acetylene	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH	CGA 300
	<b>40-50-510</b> Single-stage	LP gas	50 psig (3 bar)	400 psig (28 bar)	9/16"-18 LH	CGA 510
	40-275-580 Single-stage	Inert gas	275 psig (19 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
Medium-Duty Series 30	<b>30-100-540</b> Single-stage	Oxygen	100 psig (7 bar)	3,000 psig (207 bar)	9/16"-18 RH	CGA 540
Single-Stage	<b>30-20-540</b> Single-stage	Oxygen	20 psig (1.4 bar)	3,000 psig (207 bar)	9/16"-18 RH	CGA 540
Pressure Regulators	<b>30-15-510</b> Single-stage	Acetylene	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH	CGA 510
	<b>30-15-300</b> Single-stage	Acetylene	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH	CGA 300
	<b>30-15-520</b> Single-stage	Acetylene	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH	CGA 520
	<b>30-15-200</b> Single-stage	Acetylene	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH	CGA 200
	<b>30-50-510</b> Single-stage	LP gas	50 psig (3 bar)	400 psig (28 bar)	9/16"-18 LH	CGA 510
	<b>30-150-580</b> Single-stage	Argon/nitrogen	150 psig (10 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
	<b>30-150-320</b> Single-stage	CO <sub>2</sub>	150 psig (10 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 320
	<b>30-100-350</b> Single-stage	Hydrogen/methane	100 psig (7 bar)	3,000 psig (207 bar)	9/16"-18 LH	CGA 350
Heavy-Duty Series 46	46-175 Single-stage	Oxygen	175 psig (12 bar)	200 psig (14 bar)	9/16"-18 RH "B"	CGA 024*
Station Regulators	46-15 Single-stage	Acetylene	15 psig (1 bar)	200 psig (14 bar)	9/16"-18 LH "B"	CGA 025*
	46-50 Single-stage	LP gas	50 psig (3 bar)	200 psig (14 bar)	9/16"-18 LH "B"	CGA 025*
Series 30	<b>35-125-540</b> Two-stage	Oxygen	125 psig (9 bar)	3,000 psig (207 bar)	9/16"-18 RH "B"	CGA 540
Two-Stage Regulators	<b>35-15-510</b> Two-stage	Acetylene	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 510
	35-50-580 Two-stage	Inert gas	50 psig (3 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580

## Gas Equipment 😘

## Regulators









### **Heavy-duty flowmeter regulators and flowmeters**

Our heavy-duty 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.



### flowmeter regulator

flowmeter

#### **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<sup>™</sup> 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.



#### **Heavy-duty model features**

- Rugged aluminum protective housing Protects flow tubes from damage while offering unobstructed view of flow reading.
- Extra-long flow tube Expanded scales are easy to read and accurate within 5 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 easy-to-read scales for CO<sub>2</sub>, argon, argon/CO<sub>2</sub> mix and helium.
- 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.
- Matter-resistant triple-scale flow tube Made of shatter-resistant polycarbonate resin and can be rotated to position desired scale for easy reading. Scaled for CO2, argon and argon/CO2 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
Heavy-Duty	<b>22-80-580</b> Single-stage	Argon/CO <sub>2</sub>	10-80 scfh (5-38 lpm)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
Flowmeter Regulators	<b>22-80-320</b> Single-stage	CO <sub>2</sub>	10-80 scfh (5-38 lpm)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 320
	<b>22-30-580</b> Single-stage	Argon/CO <sub>2</sub>	10-55 scfh (5-26 lpm)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
	<b>22-30-580-6</b> Single-stage w/gas hose	Helium	10-160 scfh (5-76 lpm)	3,000 psig (207 bar)		
	35-30-320 Two-stage high-flow CO <sub>2</sub>	CO <sub>2</sub>	10-55 scfh (5-26 lpm)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 320
Heavy-Duty Flowmeters	<b>16530</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 female
	<b>16531</b> Argon, CO <sub>2</sub> , helium	Argon, CO <sub>2</sub> , helium	Depends on gas	30 psig (2 bar) recommended		
Economy	<b>H2051B-580</b> Single-stage	Argon	0-60 scfh (0-28 lpm)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
Flowmeter Regulators	H2051B-580H Single-stage w/gas hose	CO <sub>2</sub>	0-50 scfh (0-24 lpm)	3,000 psig (207 bar)		
	23-50-580 Single-stage dual flowmeter regulator	Helium	0-160 scfh (0-78 lpm)	3,000 psig (207 bar)		
Economy Flowmeters	H2230A 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
	H2231A Multi-scale					5/8"-18 RH external
Heavy-Duty Series 30 Flow Gauge Regulators	<b>31-50-580</b> Single-stage <b>31-50-580-6</b> Single-stage w/gas hose	Argon	0-50 scfh (0-24 lpm)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
	<b>31-50-320</b> Single-stage	CO <sub>2</sub>	0-50 scfh (0-24 lpm)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 320

## Flow Data can be obtained at Millerwelds.com/flowdata

## 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)	3,000 psig (207 bar)	7/16"-20 external flair fitting	CGA 580	
						1



#### **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	Option 1 • Outlet pressure	Model Configuration	<ul> <li>Option 3 Inlet connection (add connections available)/Max. inl</li> </ul>	
823	500 psig	6,000 psig	<b>823</b> 0-500 psig	— Ţ —	00 1/4" FNPT	
824	1,000 psig		<b>824</b> 0-1,000 psig	Option 2 Outlet connection	<b>08</b> CGA 540 (oxygen)	3,000 psig
825	2,000 psig	-	<b>825</b> 0-2,000 psig	00 1/4" FNPT	<b>09</b> CGA 580 (inert)	3,000 psig
	, , ,	-		66 Stainless steel needle valve	26 CGA 347 stainless steel	5,500 psig
826	4,000 psig		<b>826</b> 0-4,000 psig		27 CGA 677 stainless steel	7,500 psig
827	6,000 psig		<b>827</b> 0-6,000 psig	with 1/4" NPT	28 CGA 680 stainless steel	5,500 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	Option 1 • Outlet pressure	Model Configuration 252 - 20   08	Option 3 Inlet connection
252	100 psig	3,500 psig	<b>252</b> 0-100 psig	Option 2 Outlet connection	<b>00</b> 1/4" FNPT
254	200 psig		<b>254</b> 0-200 psig	00 1/4" FNPT	<b>02</b> CGA 320
255	350 psig		<b>255</b> 0-350 psig	20 Chrome needle valve with 1/4" NPT	<b>08</b> CGA 540
256	500 psig		<b>256</b> 0-500 psig	<b>82</b> 9/16"-18 RH "B"	<b>09</b> 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.

	Preset Outlet P	ressure		Bypass Rapid	Max. Inlet	Outlet	Inlet
Stock Number	1st Stage	2nd Stage	3rd Stage (delivery pressure)	Fill/Purge	Pressure	Connection	Connection
16391 without pressure switch 16347-3 with pressure switch	150 psig (10 bar) into 2nd stage	8 psig (0.6 bar) into 3rd stage	0.4-0.6 psig (0.03-0.04 bar) into outlet	6 psig (0.4 bar)	3,000 psig (207 bar)	1/2" FNPT	CGA 580

#### 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<sup>®</sup>

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





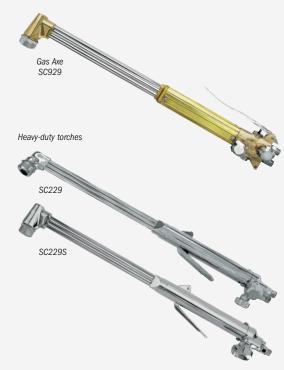


#### Fixed-Flow Adaptors and Surge Protectors

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 or your distributor for other Miller® options and accessories.

### **Torches**



#### 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
- · 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)



#### **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

Torches							
Stock Number	Head Angle in Degrees	Length Inches (mm)					
Gas Axe Extra Heavy-Duty Cutting Torches							
SC925 SC929	75 90	21 (533) 21 (533)					
		20 (04.4)					

00020	10	21 (333)			
SC929	90	21 (533)			
SC935	75	36 (914)			
SC939	90	36 (914)			
SC930	180	36 (914)			
SC945	75	48 (1,219)			
SC949	90	48 (1,219)			
SC940	180	48 (1,219)			
SC965	75	72 (1,829)			
SC969	90	72 (1,829)			
SC960	180	72 (1,829)			
Heavy-Duty Cutting Torches					

Heavy-Du	ty Cutting Tord	ches
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)

Heavy-Duty Combination Torches						
SC205	75	12.5 (318)				
SC209	90	12.5 (318)				
WH200A	Handle	7.5 (191)				

	,	
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)			

ı	Wacillie	TOTOTICS	
	SC781A	_	15.5 (394)
	SC772A	_	13.75 (349)
	SC770	_	8 (203)

#### Most popular accessories



Circle Cutter Guide 16229



Flashback Arrestor Set (oxy and fuel)

H743 Torch mount H753 Regulator mount



Safety Glasses

(see page 102 for more styles) 235661 Blue frame/shade 3 235657 Blue frame/shade 5

Safety Gloves (pg 104)

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

# 📆 Gas Equipment

## **Heavy-Duty Outfits**



#### **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<sup>™</sup> OR medium-duty Series 30<sup>™</sup> 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





16280

#### **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<sup>™</sup> 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

Heavy-duty torch tips						
Stock Number	Max. Metal Thickness Inches (mm)	Cutting Jet Drill Size				
Acetylene	Cutting					
SC12-00 SC12-0 SC12-1 SC12-2 SC12-3 SC12-4 SC12-5 SC12-6	3/16 (5) 3/8 (10) 5/8 (16) 1-1/4 (32) 2 (51) 4 (102) 8 (203) 12 (305)	68 62 56 54 51 45 41 32				
Propane/I	Natural Gas Cut	ting				
SC50-00 SC50-0 SC50-1 SC50-2 SC50-3 SC50-4 SC50-5 SC50-6 SC50-7 SC50-8 SC50-9	3/16 (5) 3/8 (10) 5/8 (16) 1-1/4 (32) 2 (51) 4 (102) 8 (203) 12 (305) 14 (354) 18 (457) 20 (508)	68 62 56 54 51 45 41 32 28 17				
Propylene	Cutting					
SC60-0 SC60-1 SC60-2 SC60-3 SC60-4 SC60-5 SC60-6	3/8 (10) 5/8 (16) 1-1/4 (32) 2 (51) 4 (102) 8 (203) 12 (305)	62 56 54 51 45 41 32				
Acetylene	Gouging					
SC13-3	3/8 (10) wide,					
	Natural Gas Gou					
SC23-3	3/8 (10) wide,	1/4 (6) deep				
Propylene		1 /				
SC23-3M Acetylene	3/8 (10) wide, 1	1/4 (b) deep				
ST602 ST603 ST605 ST610	40,000 Btu 72,000 Btu 125,000 Btu 195,000 Btu					

See Gas Equipment catalog (264059), or visit MillerWelds.com or your distributor for additional tips, options and accessories.

*Acetylene regulator i	ids CGA 300 illiet litt	ing.					
Outfit	Stock Number	Fuel	Cut Tip	Weld Tip	Heat Tip	Description	Typical Applicati
Combination Torch Complete Outfits	HBA-40510 HBA-40300*	Acetylene	SC12-1 SC12-2	SW205	ST602	Heavy-duty combination torch, heavy-duty regulators, 25 ft. (7.6 m lighter, safety glasses, tip cleaner and flashback arrestors	construction, pipe
	HBA-30510 HBA-30300*  Acetylene SC12-1 SW205 ST602 Heavy-duty combination torch, medium-duty regulators, 25 lighter, safety glasses, tip cleaner and flashback arrestors		Heavy-duty combination torch, medium-duty regulators, 25 ft. (7.6 lighter, safety glasses, tip cleaner and flashback arrestors	m) hose, maintenance/rep rail and truck rep			
	HBA-30510LP	Propane	SC40-1	_	ST615	Heavy-duty combination torch, medium-duty regulators, 20 ft. (6.1	
	HBA-30510MP	Propylene	SC60-1	-	ST815	"T"-grade hose, lighter, safety glasses, tip cleaner and check valves	
Combination Torch	16206	Acetylene	SC12-1	SW203	ST602	Heavy-duty combination torch and flashback arrestors	Heavy fabrication
and Tip Kits	16280	Acetylene	SC12-0, SC12-1	-	-		construction, pip maintenance/re
	16280LP	Propane	SC40-0, SC40-1	_	-		rail and truck rep
Cutting Torch Outfits	HBS-H510S HBS-H300S*	Acetylene	SC12-2	_	-	Heavy-duty SC229 hand cutting torch and heavy-duty regulators with Hard Hat™ gauge guards	Heavy fabrication construction,
	HBAS-30510 HBAS-30300*	Acetylene	SC12-1	-	-	Heavy-duty SC229 hand cutting torch, medium-duty regulators, 20 hose, lighter, safety glasses, tip cleaner and flashback arrestors	ft. (6.1 m) shipyard, rail car, rail and truck rep

## **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<sup>™</sup> 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







16281

#### **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<sup>™</sup> combination torch outfits (acetylene or LP)

Economy outfits include many features found on more expensive outfits.

- Medium-duty Series 30<sup>™</sup> 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**<sup>™</sup> and Versa-Torch<sup>™</sup> 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<sup>™</sup> regulators with three-year warranty and standard-duty torch with lifetime warranty

Medium-duty torch tips

Stock Number	Max. Metal Thickness Inches (mm)	Cutting Jet Drill Size
Acetylene	Cutting	
MC12-00	3/16 (5)	68
MC12-0	3/8 (10)	62
MC12-1	5/8 (16)	55
MC12-2	1 (25)	54
MC12-3	2 (51)	51
MC12-4	4 (102)	45
MC12-5	6 (152)	41
Propane/I	Natural Gas Cut	ting

MC40-00	3/16 (5)	68
MC40-0	3/8 (10)	62
MC40-1	5/8 (16)	55
MC40-2	1-1/4 (32)	54
MC40-3	2 (51)	51
MC40-4	4 (102)	51

#### **Propylene Cutting**

MC60-1	5/8 (16)	55
MC60-2	1-1/4 (32)	54
MC60-3	2 (51)	51
MC60-4	4 (102)	45

#### **Acetylene Gouging**

MC13-3 3/8 (10) wide, 1/4 (6) deep

Note: Tips above fit medium- and standardduty torches.

#### **Acetylene Heating**

MT603	40,000 Btu
MT605	73,000 Btu
MT610	129,000 Btu

See Gas Equipment catalog (264059), or visit MillerWelds.com or your distributor for additional tips, options and accessories.

### \*Acetylene regulator has CGA 300 inlet fitting.

	Outfit	Stock Number	Fuel	Cut Tip	Weld Tip	Heat Tip	Description	Typical Applications
	Combination Torch	MBA-30510 MBA-30300*	Acetylene	MC12-0 MC12-1	MW205	MT603	Medium-duty combination torch, medium-duty regulators, 20 ft. (6.1 m) hose, lighter, safety glasses, tip cleaner and flashback arrestors	Fabrication, farm and ranch, pipe, truck and
	Complete Outfits	MBA-30510LP	Propane	MC40-1	_	MT805	Medium-duty combination torch, medium-duty regulators, 20 ft. (6.1 m) "T"-grade hose,	auto, refrigeration, maintenance/repair
Vutito	Outilits	MBA-30510MP	Propylene	MC60-1			lighter, safety glasses, tip cleaner and check valves	maintenance/ repair
	Combination Torch	16205	Acetylene	MC12-1	MW203	MT603	Medium-duty combination torch and flashback arrestors	Fabrication, farm and
	and Tip Kits	16281	Acetylene	MC12-0, MC12-1	-	-		ranch, pipe, truck and auto, refrigeration,
·		16281LP	Propane	MC40-0, MC40-1	_	_		maintenance/repair
	Toughcut M Economy M		Acetylene	MC12-1	MW205	MT603	Medium-duty combination torch, medium-duty regulators, 20 ft. (6.1 m) hose, lighter, safety glasses and check valves	Fabrication, farm and ranch, pipe, hobby,
Combination	MB54A-510 MB54A-300*	Acetylene	MC12-1	MW205	_		auto, refrigeration, maintenance/repair	
		MB54-510L MB54-300L*	Acetylene	MC12-1	MW205	_	Medium-duty combination torch, medium-duty regulators, safety glasses and check valves	
		MB54A-510LP	Propane	MC40-1	_	_	Medium-duty combination torch, medium-duty regulators, 20 ft. (6.1 m) "T"-grade hose, lighter, safety glasses and check valves	
	Combination Torch Portable	TL-500 (no tanks) TL-550	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,	Farm and ranch, hobby, DIY, auto, refrigeration,
-	Outfits	VT-4T	Acetylene	MC12-00	LT103, LT104, LT106	13716	check valves and cylinders (cylinders NOT included with TL-500)	maintenance/repair

## **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.



**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	105-115 psig (7.3-7.9 bar)	5/8"-18 RH internal	5/8"-18 RH internal	Argon/helium
	CO <sub>2</sub>	100-0%		(3.5 bar)	(7.5-7.9 Dai)		5/8"-18 RH internal	Argon/oxygen CO <sub>2</sub> /oxygen
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>
	Helium	100-0%		(5.5 bai)	(1.3-1.9 Dai)		5/8"-18 RH internal	Argon/oxygen CO <sub>2</sub> /oxygen
299-011-1C	Argon	50-100%	10-180 scfh 50 psig (3.5 bar)			5/8"-18 RH internal	5/8"-18 RH internal	Argon/helium Nitrogen/hydrogen
	Hydrogen	50-0%		(*****)	,		9/16"-18 LH external	Argon/CO <sub>2</sub>
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
	Oxygen	20-0%		(e.e ca.,	(1.2 1.2 22.)		5/8"-18 RH internal	Argon/helium Nitrogen/hydrogen

Registering your new welder is quick and easy

### Complete registration as soon as possible.

Registering your new Miller equipment may help with any future insurance claims or in the event we need to contact you regarding changes or upgrades. Whether you're a DIY welder or have purchased Miller equipment on behalf of the company for which you work... all Miller equipment should be registered so we can provide you with the highest level of service.



Register now at MillerWelds.com



# **Workstations**



Count on Miller to design the perfect workbench to make welding projects faster and easier. The 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.

## S-Series ArcStation



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).

## **F-Series ArcStation**



# 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 (300850) to make this the *ultimate* portable workbench.

#### **S-Series accessories**

Miller ArcStation accessories allow you to get the most out of your ArcStation.

1 X-clamps

300613 6-inch 300850 5-inch

- 2 Side Shelf 300680
- **Tool Chest** with ball-bearing slides 300610
- 4 Interior Shelf 300679
- 5 Quick-remove Vise

300611 5-inch vise and mount 300612 Mount only

6 Weld Curtain 300685 30S Series 300686 60S Series

7 Casters 300849



**Convenience Kit** 300614 Includes the following:

- 8 Gun holder
- 9 Tool holder
- 10 Clamp bar
- -

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

#### **F-Series accessories**

**5-inch X-clamps** 300850

Model/Stock Number	30FX (300837)	308 (951167)	30SX (951168)	608 (951169)	60SX (951170) 60SX Fully Loaded (951413)
Steel Top	(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
Load Capacity	500 lb. (227 kg)	1,000 lb. (454 kg)	1,000 lb. (454 kg)	1,000 lb. (454 kg)	1,000 lb. (454 kg)
Dimensions	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 1,473 x 737 mm)	35 x 58 x 29 in. (889 x 1,473 x 737 mm)
Weight	74 lb. (34 kg)	123 lb. (56 kg)	177 lb. (80 kg)	230 lb. (104 kg)	318 lb. (144 kg)



# Welding Safety & Health

All of our products are designed and built to protect the welder behind the hood and their environment – because that's what we know. By listening to welders and working with them side-by-side, we understand their pain points and have developed products that offer protection from the unique physical dangers and health risks prevalent within welding applications. Miller's complete line of Head and Face, Hand and Body, and Weld Fume protection is designed to protect and perform in demanding welding, cutting and grinding applications.



## Welding Helmets See page 102 for helmet accessories and packages.



Serious dependability backed with a three-year warranty (unless noted).

	T94i™	T94™	Digital Infinity™	Digital Elite™	Digital Performance™	Classic Series VSi™	Classic Series VS	Classic Series FS#10 Flip-Up
Viewing Area	9.2 sq. in.	9.2 sq. in.	13.4 sq. in.	9.2 sq. in.	7.2 sq. in.	5.9 sq. in.	5.2 sq. in.	5.1 sq. in.
Auto-Darkening	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Shades	Cut: 5-8 Weld: 8-13	Cut: 5-8 Weld: 8-13	Cut: 5-8 Weld: 8-13	Cut: 5-8 Weld: 8-13	Cut: 5-8 Weld: 8-13	8-13	8-12	10
Modes	Weld/Cut/X-Mode/ Flip grind	Weld/Cut/X-Mode/ External grind	Weld/Cut/ Grind/X-Mode	Weld/Cut/ Grind/X-Mode	Weld/Cut/ Grind	Weld/X-Mode/ Flip grind	Weld	Weld/ Flip grind
Integrated Grind Shield	Yes	-	-	-	-	Yes	-	Yes
Auto-on	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sensors	4	4	4	4	3	3	2	2
TIG Rating	5 amps/below	5 amps/below	5 amps/below	5 amps/below	5 amps	5 amps/below	20 amps	20 amps
Switching Speed	1/20,000	1/20,000	1/20,000	1/20,000	1/20,000	1/20,000	1/10,000	1/3,600
Digital Controls	Yes	Yes	Yes	Yes	Yes	-	-	-
Premium Headgear	Yes	Yes	Yes	Yes	Yes	-	-	-
InfoTrack™	Yes	Yes	Yes	-	-	-	-	-
Weight	25.5 oz. (723 g)	21 oz. (599 g)	23 oz. (652 g)	18 oz. (510 g)	17 oz. (482 g)	24 oz. (673 g)	16 oz. (454 g)	14 oz. (396 g)
Warranty	3 years	3 years	3 years	3 years	3 years	2 years	2 years	2 years

See chart above for feature availability. **X-Mode.** Electromagnetically senses the weld to eliminate sunlight interference and continuously detects the arc even if sensors are blocked.

**InfoTrack**<sup>™</sup> **arc tracking technology** features arc time, time, timer,\* and a multi-language help menu.\*

\*Feature on Digital Infinity models only.

**Industry's largest viewing area.** Digital Infinity™ Series helmets feature a 13.4 square inch viewing area allowing for a wide range of view.

**Premium headgear.** Features ample adjustability settings and enhanced support for the perfect fit, maximizing comfort.

**T94<sup>™</sup> Series** Engineered to exceed the demands of professional welders. See literature AY/41.1



NEW! High-definition auto-darkening lens optimizes clarity and color in welding and light states.

Silver finish reflects ambient heat, keeping the user cooler.

InfoTrack™ 2.0 monitors arc time and arc count.

Four operating modes for ultimate versatility: weld, cut, grind and X-Mode.™

#### Best-in-class comfort for all-day wearability



4% LIGHTER for reduced fatigue



14% BETTER BALANCE for elevated comfort



17% LESS TORQUE for reduced neck strain

Statistics above compare T94i to previous model.

## Welding Safety & Health 🗘



Digital Infinity™ Series Largest-view helmets for demanding applications. See literature AY/42.0





271333



Departed<sup>11</sup> 271332



Stars and Stripes 271330



Camouflage 271331

- · Largest viewing area in the industry at 13.4 square inches
- Four arc sensors and four modes: weld, cut, grind and X-Mode™

271329

Digital Elite™ Series Versatile helmets for demanding applications. See literature no. AY/43.0

- 9.2 square inch viewing area
- Four arc sensors and four modes: weld, cut, grind and X-Mode™

CAT



**Black** 257213

257214

Lucky's Speed Shop™ Stars and Stripes™ III 264852

257217

Vintage Roadster™ 259485

Camouflage 256173

■ 7.2 square inch

■ Three arc sensors

and three modes:

weld, cut and grind

viewing area

**Pink Camo** 273953

Cat® Edition 1 268618

### **Digital Performance™ Series**

Mid-range helmets for most welding applications. See literature AY/44.0



- 256159 256164
- Blue Rage™
- '64 Custom™ 256160
- Camouflage 256163

## **MP-10<sup>™</sup> Helmet**

Passive, non-auto-darkening helmet.



- Black 238497
- Passive shade 10 lens
- Upgradable to auto-darkening lens with kit (236052)

### Classic Series Helmets for the value-minded welder. See literature AY/45.0



VSi™ 260938



FS#10 Flip-Up 263038



Black (VS) 251292



Metalworks™ (VS) 271346



Camouflage (VS) 271348

VSi model features X-Mode

- VSi and FS#10 Flip-Up models feature integrated grinding shield
- VS models available with graphics



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## Welding Safety & Health

## **Helmet Accessories**



#### Gen II Headgear 256174

 Extensive adjustability settings and a pivoting top for better fit and comfort



#### Gen III Headgear 271325

 Oversized comfort cushion provides extensive adjustability, settings, and enhanced support



#### **Slotted Hard Hat** Adapter 259637

 Compatible with most slotted hard hats. Helmet and hat not included



#### **Hard Hat Adapter**

213110 XL and XLi 222003 All other Miller Series

 Compatible with most Fibre Metal and MSA hats. Other brands may fit depending on size and shape. Helmet and hat not included



### 2x4 Auto-Darkening

770660 Shade 8 770659 Shade 9 770226 Shade 10 770961 Shade 11

- Fits all 2x4-inch windows
- · Solar powered, two arc sensors
- Light state shade 3
- Two-year warranty



#### Helmet Bib 253882

· Attaches to bottom of the helmet with hook-and-loop fasteners for added neck coverage



#### **Helmet Hook 251018**

- Holds welding helmets, grinding shields or other helmets with a headgear
- Silicone strap secures the helmet in place



#### **Jobsite Tool Bag** 228028

- Over twenty separate pockets
- Opening of 12 x 18.5 inches (305 x 470 mm)



#### CoolBelt™ Belt-Mounted Cooling System 245230

- 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

Note: Not compatible with XL Series™ helmets.

## Goggles

See literature AY/40.0

Weld-Mask™ **Auto-Darkening** Goggles 267370



- Compact design allows users to weld in spaces where access with traditional welding helmets is limited
- Ideal for maintenance, repair, and installation or as an alternative for plasma cutting glasses
- · Lightweight design virtually eliminates neck strain and eye covering fits tightly to face to block out light for precision welding in bright areas
- 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 See literature AY/46.0



- Anti-fog coating and high-quality
- Form-fitting orbital eye coverage
- Shatterproof polycarbonate lenses
- Wrap-around designs meet ANSI side shield requirements
- I/O (indoor/outdoor) lenses feature light shading with a mirrored finish
- Smoke lenses provide shade protection in outdoor applications
- Shade 3 and 5 green IR lenses are for cutting, brazing or soldering
- ANSI Z87.1+ compliant

#### Safety and Cutting Glasses Chart

Frame Style/Color	Clear	1/0	Smoke	Shade 3	Shade 5
Classic	272187	-	-	_	_
Classic with Strap	272188	-	-	_	_
Spark™	272190	_	-	_	_
Spatter™ - Black	272191	_	272195	_	_
Spatter™ - White	272198	_	272199	_	_
Slag™ - Black	272201	272202	272203	272204	272205
Slag™ - White	272206	272207	272208	272196	272209
Gen I - Black	238979	_	235656	235662	235658

## **Head Threads**



- Bandannas have a sewn-in sweatband
- Caps are reversible with a low, soft bill

#### **Head Thread Size Chart**

Pattern/Color	Bandanna (One size only)	Cap (Size 7)	Cap (Size 7-1/8)	Cap (Size 7-1/4)	Cap (Size 7-3/8)	Cap (Size 7-1/2)	Cap (Size 7-3/4)
Black	250904	_	_	_	_	_	_
Blue Flame	_	230535	230536	230537	230538	230539	230540
Ghost Skulls	_	230541	230542	230543	230544	230545	230546

# Welding Safety & Health 🗘



## Welding Apparel See literature AY/47.5



#### **Grain Leather Jacket** (See size chart)

- Top-grain pigskin leather
- Expandable leather strategically placed for optimal mobility
- Flame-resistant inside cuff
- Satin lining
- Tapered, athletic cut
- Sewn entirely with Kevlar® thread, adding structural durability at each seam

#### **Split Leather Jacket** (See size chart)

- Premium pig split leather
- Extended rear tail for additional protection
- Expandable leather strategically placed for optimal mobility
- Mesh lining
- Sewn entirely with Kevlar<sup>®</sup> thread, adding structural durability at each seam

#### WeldX™ Jacket (See size chart)

- 7-ounce WeldX front and flame-resistant navy cotton back
- Lightweight exclusive material with extreme flame-resistant properties
- Vented back/extended rear tail
- Zipper closure with hook-andloop fastened flap
- · Chromium free



#### **Combo Jacket** (See size chart)

- 9-ounce Indura® flame-resistant cotton (flame resistance guaranteed for life of jacket)
- Top grain leather
- Pre-shrunk fabric
- Allows for patented bib/apron attachment

#### Indura® Cloth Jacket Men's and Women's (See size chart)

- 9-ounce Indura® flame-resistant cotton (flame resistance guaranteed for life of jacket)
- Pre-shrunk fabric
- 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 flameresistant navv cotton back
- Fold-in sleeve snaps
- Allows for bib attachment (sold separately)



#### WeldX™ Bib 247133

- 19-inch length
- Attaches to cape sleeves



#### Leather Bib/Apron 231125

 Attaches to combo iacket with snaps across the chest as a bib or along the bottom as an apron



#### **Combo Sleeves** 231096

- Indura® flame-resistant cotton/top grain leather
- 21-inch length



#### **Classic Cloth Sleeves** 247148

- 18-inch length
- Fold-in sleeve snaps
- One-handed cinch closure



#### **Classic Cloth Apron** 247149

- 35-inch length with accessible front pocket
- Adjustable drawstring ensures a good fit

### **Welding Apparel Size Chart**

Apparel	Small	Medium	Large	X-Large	2X-Large	3X-Large	4X-Large	5X-Large
Grain Leather Jacket	-	-	231090	231091	231092	-	-	-
Split Leather Jacket	273212	273213	273214	273215	273216	273217	273218	273219
WeldX Jacket	247114	247115	247116	247117	247118	247119	247120	247121
Combo Jacket	231080	231081	231082	231083	231084	231085	231086	231087
Indura Cloth Jacket (Men's)	258095	258097	258098	258099	258100	258101	258102	258104
Indura Cloth Jacket (Women's)	-	264380	264381	264382	264383	-	_	-
Classic Cloth Jacket	244749	244750	244751	244752	244754	244755	244756	244758
WeldX Cape Sleeves	247122	247123	247124	247126	247127	247128	247130	247131

## Welding Gloves See literature AY/47.0

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

- 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** (21-inch Long Cuff)

- 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**

- 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

- Dual-padded palm for added
- Wool back provides ultimate
- Cow split leather provides extreme durability and protection



#### MIG (Lined)

- 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)

- 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



- · Completely unlined for heightened feel and dexterity
- Triple-padded palm for added
- Goat grain leather offers superior flexibility and dexterity



#### **TIG/Multitask**

- Dual-padded palm for added comfort
- Wool back provides ultimate
- Goat grain leather offers superior flexibility and dexterity



#### Work

- Dual-padded palm for added durability
- Fleece back provides ultimate
- Cow grain leather offers superior durability and abrasion resistance



#### Metalworker

- 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 — traditional design for the value-minded welder.



#### **Heavy-Duty** MIG/Stick

- Reflective insulation on back reduces heat impact
- Moisture-wicking fleece and foam insulation
- Pig grain palm, pig split back and cuff



#### MIG (Pigskin)

- Reinforcement patches enhance durability
- Moisture-wicking fleece and foam insulation
- Pig split leather palm, back and cuff



#### MIG (Cowhide)

- Reinforcement patches enhance durability
- Moisture-wicking fleece and foam insulation
- Cow split palm, pig split back and cuff



#### TIG

- Thin internal padding for added comfort
- Unlined palm for precise dexterity
- Sheep grain palm, cow split back, pig split cuff

Welding Glove Size Chart \*All asterisked stock numbers are sold as one pair. All others are sold as six packs (six pairs).

Performance Gloves	X-Small	Small	Medium	Large	X-Large	2X-Large	
Extra Heavy-Duty MIG/Stick	-	_	-	263350	263351	_	
Heavy-Duty MIG/Stick (21-inch Long Cuff)	-	_	-	-	263342	_	
Heavy-Duty MIG/Stick	-	-	-	263339	263340	269615*	
MIG/Stick	-	-	-	263343	263344	269616*	
MIG (Lined)	-	-	263332	263333	263334	269618*	
MIG (Unlined)	-	_	263335	263336	263337	_	
TIG	263345	263346	263347	263348	263349	_	
TIG/Multitask	-	263352	263353	263354	263355	-	
Work	-	-	266041*	266042*	266043*	-	
Metalworker	-	-	251066	251067	251068	-	

Classic Gloves	Medium	Large	X-Large
Heavy-Duty MIG/Stick	-	271877*	271887*
MIG (Pigskin)	-	271888*	271889*
MIG (Cowhide)	-	271890*	271891*
TIG	271892*	271893*	271894*

# Welding Safety & Health 🗘

## Respiratory



#### N95 Disposable Mask Respirator See literature AY/4.8

**267334** Respirator (10 pack) **267334-2** Respirator (2 pack)

**267335** Respirator with nuisance level OV relief (10 pack) **267335-2** Respirator with nuisance level OV relief (2 pack)

- Flame-retardant outer layer designed for welding applications
- Exhaust valve reduces heat build-up and user fatigue
- Ergonomic design and adjustable nose clip for customized fit
- Full inside foam seal enhances fit and overall protection
- Fit testing is required for mandatory use
- 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



#### **LPR-100**™ **Half Mask Respirator** See literature AY/4.5

ML00894 Respirator with P100 filters (small/medium) ML00895 Respirator with P100 filters (medium/large)

ML00994 Respirator with P100 nuisance level OV relief filters (small/medium) ML00995 Respirator with P100 nuisance level OV relief filters (medium/large)

#### Filters and accessories

SA00818 P100 filters (one pair)

**\$A00819** P100 nuisance level OV relief filters (one pair)

261086 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 AY/4.0

#### Available packages:

With hard hat

**261659** With Titanium 9400i™ helmet

**259385** With Titanium 9400™ helmet

With Titanium 9400i™ helmet

264877 With auto-darkening lens assembly

With Titanium 9400™ helmet (external grind button)

264879 With 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

## **Choose the Right Fume Extractor**

Our complete line of FILTAIR $^{\circ}$  fume extractors are designed specifically for welding — drawing weld fumes away from the user's breathing zone and keeping your facility clean. We offer many types of fume extraction equipment to best fit your environment and fume control needs.



FILTAIR	130	SWX	MWX	Capture 5	2000-12000
Weld Fume Extractor Type	Portable, high-vacuum	Stationary, low-vacuum suited for wall or column mounting	Mobile, low-vacuum	Mobile, low-vacuum with the industry's largest capture zone	Centralized, low-vacuum customizable systems
Ideal For	Contractors, maintenance and repair operations, light fabrication work and light manufacturing	Fabrication shops, manufacturing, and training centers where weld areas are near filtration system	Fabrication shops, manufacturing, and training centers	Manufacturing and fabrication  – the best solution for weldments over 18 inches long	Manufacturing, hand-held and automation, fabrication shops, and training facilities
Welding Arcs	1	Up to 2 per unit	1	1	Up to 16 per unit
Filter Type	Manual cleaning	SWX-D: Disposable SWX-S: Self-cleaning	MWX-D: Disposable MWX-S: Self-cleaning	Self-cleaning (automatic)	Self-cleaning (automatic/programmable)

## FILTAIR® 130

See literature AY/3.1

Portable, high-vacuum weld fume extractor designed for use with accessories like nozzles and fume guns to collect weld fume particles at the source.



**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.

**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.

#### **Processes**

- Stick (SMAW) Flux-cored (FCAW)
- MIG (GMAW) TIG (GTAW)

#### **Comes with**

- FilTek® XL filter
- 8 ft. collection hose
- 20 ft. power cord

#### Most popular consumables

 Replacement FilTek® XL Filter 301267

#### Most popular accessories

Collection Hose 300896 17 ft. (5.2 m) 300897 34 ft. (10.4 m)



Magnetic Nozzles300895 11.8 in. (300 mm) width



- Flexible Funnel Magnetic Nozzle 300668
- Bernard™ Clean Air™ Fume Extraction
  MIG Gun (pg 29)
  Suited for use with solid and flux-cored wires. Available in 400, 500 and 600 A models. For more detailed information, visit BernardWelds.com.



Stock Number	Accu-Rated™ Airflow	Sound Level	Motor	Input Power	Dimensions	Net Weight
(300595)	132 cfm (62 L/sec.)	68.5 dBA at 5 ft. (1.5 m)	1.1 kW	115 V, 1-phase, 60 Hz at 11.25 A	H: 23 in. (584 mm) W: 12 in. (305 mm) D: 12 in. (305 mm)	46 lb. (21 kg)

## **Welding Safety & Health**

## FILTAIR® SWX and MWX Series See literature AY/3.2 (SWX) and AY/3.0 (MWX)

Powerful systems mounted next to the weld area or easily positioned near the weld area. Disposable or cleanable filter models for multiple applications.



SWX models are available with telescoping arm which can extend from 3 to 4.5 feet, making them ideal for smaller spaces.



#### 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 of 875 cfm 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.

Quick and efficient 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 consumables



 Replacement FilTek XL Filters 300540 Self-cleaning models 300539 Disposable filter models Filters efficiently capture the smallest weld fume particles and offer superior filter life.

#### Most popular accessories



 Hood Light with Arc Sensor 300763 For SWX Series 300689 For MWX Series Illuminates the welding zone and enables the fume extractor to start automatically when welding begins.



SWX Dual-Arm Add-On Packages

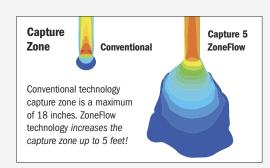
951621 With telescoping arm 951519 With 7 ft. standard arm 951520 With 10 ft. standard arm 951521 With 12 ft. standard arm Includes 8-inch diameter arm, blower, control box, mounting bracket, duct and back draft dampers to turn single-arm weld fume extractor into dual-arm extractor.

Mode	el/Stock Number		Filter Media	Accu-Rated™ Airflow	Extraction Arm Diameter	Sound Level	Motor	Input Power	Dimensions	Net Weight without Arm
(9516 (9515 (9515	S (Self-Cleaning Model) Pkg 620) Telescoping arm 516) 7 ft. standard arm 517) 10 ft. standard arm 518) 12 ft. standard arm	<b>SWX-D (Disposable Filter) Pkg (951619)</b> Telescoping arm <b>(951513)</b> 7 ft. standard arm <b>(951514)</b> 10 ft. standard arm <b>(951515)</b> 12 ft. standard arm	490 sq. ft. (45.52 sq. m)	875 cfm (413 L/sec.)	8 in. (203 mm)	Approximately 74 dBA at 5 ft. (1.5 m)	1 hp, 3,450 rpm	115 V, 1-phase, 60 Hz at approximately 11.9 A	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)
(9515 (9515	S (Self-Cleaning Model) Pkg 510) 7 ft. standard arm 511) 10 ft. standard arm 512) 12 ft. standard arm	MWX-D (Disposable Filter) Pkg (951507) 7 ft. standard arm (951508) 10 ft. standard arm (951509) 12 ft. standard arm	490 sq. ft. (45.52 sq. m)	875 cfm (413 L/sec.)	8 in. (203 mm)	Approximately 70 dBA at 5 ft. (1.5 m)	1 hp, 3,450 rpm	115 V, 1-phase, 60 Hz at approximately 11.9 A	H: 34.75 in. (883 mm) W: 31.75 in. (806 mm) D: 48 in. (1,219 mm)	MWX-S 300 lb. (136 kg) MWX-D 238 lb. (108 kg)

## FILTAIR® Capture 5 See literature 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 to 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 consumable



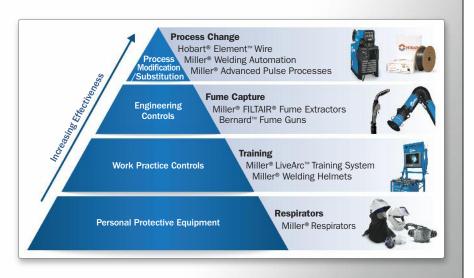
 Replacement FilTek XL Filter 301106

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
(951639) 208/230 V	With 12 ft. Extraction Arm (951640) 208/230 V (951575) 460 V	452 sq. ft. (42 sq. m)	900 cfm (425 L/sec.)	10 in. (254 mm)	Approximately 77 dBA at 5 ft. (1.5 m)	3 hp, 3,450 rpm	208/230 V, 1-phase, 60 Hz at 13.5 A 460 V, 3-phase, 60 Hz at 3.7 A	H: 43 in. (1,092 mm) W: 36 in. (915 mm) D: 48 in. (1,219 mm)	620 lb. (282 kg) with 12 ft. arm

# **Weld fume** management

We are committed to providing exclusive technologies designed specifically around your weld fume challenges. Find out how our portfolio of solutions fulfills each tier of OSHA's Hierarchy of Controls at MillerWelds.com/fumesolutions.



## Welding Safety & Health

## FILTAIR® 2000-12000 See literature 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 866-931-9730 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 and helps meet 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)

### Most popular consumable



 Replacement High-Efficiency Filter 300927

### Most popular accessories

- Extraction Arms (pg 110)
- Arm Mounting Bracket Kit (pg 110)
- Low Profile Hoods (pg 110)
- Call us toll-free at 866-931-9730 for information on factory options such as HEPA filter kit, weather hood, Spark Cooler® and integration 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	960-3,200 cfm (453-1,510 L/sec.)	2	72-75 dBA at	230, 460 or	66.6 in. (1,692 mm)	31.2 in. (792 mm)	83.2 in. (2,113 mm)	1,300 lb. (590 kg)
FILTAIR 4000	1,920-5,500 cfm (906-2,596 L/sec.)	4   ` '		575 V, 3-phase, 60 Hz	86.1 in. (2,187 mm)	31.2 in. (792 mm)	83.2 in. (2,113 mm)	1,600 lb. (726 kg)
FILTAIR 6000	2,880-8,640 cfm (1,359-4,078 L/sec.)	6	Peak pulse cleaning is	3-priase, 60 fiz	117.2 in. (2,977 mm)	31.2 in. (792 mm)	83.2 in. (2,113 mm)	2,250 lb. (1,021 kg)
FILTAIR 8000	3,840-11,520 cfm (1,812-5,437 L/sec.)	8	92.7 dBA at		135 in. (3,429 mm)	37.2 in. (945 mm)	83.2 in. (2,113 mm)	2,900 lb. (1,315 kg)
FILTAIR 12000	5,760-13,440 cfm (2,718-6,343 L/sec.)	12	5 ft. (1.5 m)		120.3 in. (3,056 mm)	59.7 in. (1,516 mm)	83.2 in. (2,113 mm)	3,900 lb. (1,769 kg)

## **FILTAIR®** 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	(301242) 3-4.5 ft. arm	(301237) 3-4.5 ft. arm
Standard Arm	(300953) 7 ft. arm (300954) 10 ft. arm (300955) 12 ft. arm	(300980) 7 ft. arm (300981) 10 ft. arm (300982) 12 ft. arm
Arm Mounting Bracket and Ducting Kit	(300952)	(300771)

### **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 sizes from 4 x 4 feet up to 16 x 16 feet in one-foot increments
- 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 extraction rail, 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 post assemblies

## Cleaner Air with FilTek® XL Filters

The FilTek XL filter's higher MERV rating means unrivaled filtering performance.

### **MERV Comparison**

Applicable Weld Fume	Particle Size Range Efficiency % <sup>2</sup>						
MERV Rating Categories¹	0.3 to 1 μm	1 to 3 μm	3 to 10 µm				
10	Not Rated	50-65%	85%				
11	Not Rated	65-80%	85%				
12	Not Rated	80-90%	85%				
13	<75%	90%	90%				
14	75-85%	90%	90%				
15 Miller® FilTek XL	85-95%	90%	90%				
16	≥95%	≥95%	≥95%				
HEPA <sup>3</sup>	≥99.97%	≥99.97%	≥99.97%				
Weld Fume Composition <sup>4</sup>	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.

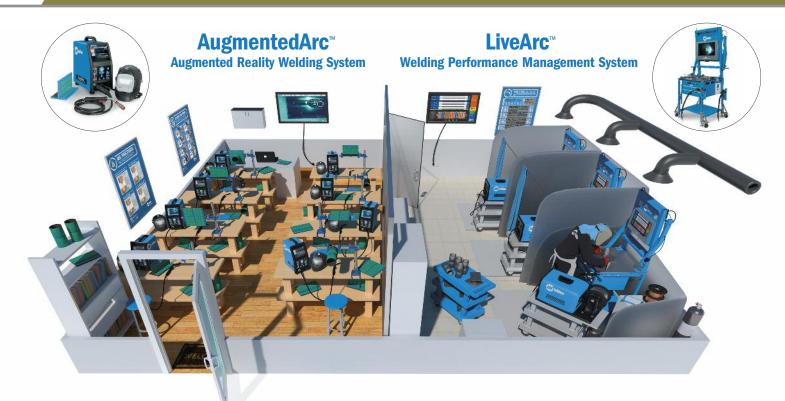
<sup>4</sup>Jenkins, Pierce, Edgar, Particle Size Distribution of GMAW and FCAW

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 to capture up to 95 percent of weld fume particulates including those found in hexavalent chromium.

## **Training Solutions**





# Weld Training Solutions

The AugmentedArc™ augmented reality welding system allows beginner and intermediate-level students to experience the most realistic multiprocess welding simulation available — and then seamlessly transition to the industry's most complete live-arc experience in the LiveArc™ welding performance management system.

**Delivering unbeatable advantages** 

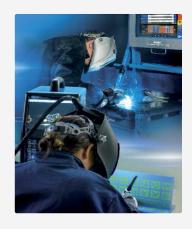
- Optimize instructor efficiency
- Deliver real-time feedback
- Reduce overall training time
- Assess weld operator skills and performance
- Minimize material cost
- Enhance job candidate recruiting and screening
- Build a larger, more-skilled welding workforce



MillerWelds.com/trainingsolutions

When AugmentedArc and LiveArc systems are used together, students follow an efficient, natural progression from classroom welding simulation to laboratory live arc welding — gaining both the knowledge and the experience they need to become skilled and productive weld operators.

The **AugmentedArc** system uses a specially designed helmet that shows images of the real world, augmented with computer-generated images of metal workpieces, weld arcs and weld beads. The result is a simulation that closely resembles live-arc welding — without using an actual arc or consuming wire, shielding gas or coupons. Instructors use the system's software to develop a curriculum of exercises, monitor student performance and create progress reports. When an welding exercise is complete, an analysis screen provides feedback on the user's performance in the form of scores and graphs. Video of the welding exercise is also recorded and made available for later playback, allowing instructors to evaluate students' performance.



Ideal for lab training, the **LiveArc** welding performance management system provides both a simulation/pre-weld setup mode as well as a live-arc training mode, allowing the user to gain experience and build techniques in pre-weld exercises before seamlessly transitioning into real welding with GMAW, FCAW and SMAW processes. 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. The system also gives welding instructors the ability to configure assignments and technique parameters and it stores the detailed performance history of each operator.

Check out **MillerWelds.com/trainingsolutions** for videos, product information and more!

## Training Solutions



## AugmentedArc system comes complete with

- AugmentedArc simulator
- Teacher software
- Black Infinity<sup>™</sup> AR helmet (277265) with premium headgear
- AugmentedArc router (277397)
- Work stand (277266) for out-of-position applications
- SMAW stinger (277268)
- SMAW electrode (277267)
- TIG torch (301400) with AR tip (277272)
- TIG filler rod (277271)
- MIG gun (301401) with AR tip (277269)
- Butt joint coupon (277274)
- T-joint coupon (277270)
- Butt pipe coupon (277275)
- Pipe-to-plate coupon (277276)
- Lap joint coupon (277273)

### **Optional components**

- AugmentedArc controller (301395) for multiple system connectivity
- Heavy-duty transportation case (301396)

**Innovative augmented reality technology.** Blending real-world and computer-generated images into a unique, augmented reality environment.

**Optimize instructor efficiency.** Instructors can use the Teacher software with an AugmentedArc controller to create a virtual classroom with customized curriculum, quizzes and weld exercises. Students can work at their own pace, and instructors have more time to assist students one-on-one.

**Deliver real-time feedback.** By providing immediate feedback on users' techniques, AugmentedArc quickly helps correct errors, reinforce proper welding practices and accelerate skill advancement prior to actual live-arc welding in a lab.

**Reduce overall training time.** Compared to traditional methods, AugmentedArc significantly reduces the amount of time needed to teach students.

**Minimize material cost.** By helping students refine their welding skills in a simulation environment before beginning live-arc welding, AugmentedArc system delivers a green training solution. There's less waste of wire, gas and coupons.

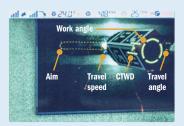
**Build a larger, more-skilled welding workforce.** AugmentedArc is attractive to computer-savvy young people, drawing them to welding education programs and increasing their success — key to building a larger, more-skilled welding workforce.

### **Augmented reality displays**



### AugmentedArc display

- Helmet's external optical sensor captures and sends images of coded devices and coupons to AugmentedArc simulator
- Simulator generates three-dimensional images of metal workpieces, augmenting them into a real-world environment
- Display inside helmet and on simulator show user's proximity to and interaction with the workpieces and welding gun/torch



### Welding simulation screen

- Visual graphical aids guide the user to achieve target parameters
- Adherence to pre-determined or custom welding parameters is monitored, with confirmation when maintained or alerts when exceeded
- Realistic arc sounds from inside helmet speakers accompany the visuals for a truly immersive experience



### Post-weld feedback screen

- User's performance is scored, graphed and recorded for playback
- Performance feedback on various parameters is provided

Stock Number	Input Power	Processes	Welding Positions	Joints	Workpiece Positions	Voltage/ Amperage Selection	Polarity Selection	Shielding Gas Selection	Wire Speed Selection	Base Material Selection	Workpiece Selection	Stick Electrode Selection	Diameter Selection	Dimensions	Net Weight	
(951689) Only available at authorized training distributors	115 V, 15 A, 60 Hz	GMAW, FCAW, SMAW, GTAW	1F-4F, 1G-6G	Bead on plate, t-joint, butt joint, lap joint, pipe-plate, pipe-pipe	Horizontal, vertical, flat, overhead	GMAW 10-36 V 25-270 A FCAW 12-36 V 25-270 A SMAW 50-240 A GTAW 25-270 A	DCEP, DCEN, AC	cO2, argon O2, argon CO2, and mixtures	GMAW/ FCAW 47-787 ipm (1.2-20 m/min.)	Carbon steel, stainless steel, aluminum	1/8 in. (3.2 mm), 1/4 in. (6.4 mm), 3/8 in. (9.5 mm)	E7018, E6010, E6013	Solid wire .030, .035, .045 in. (0.8, 1.0, 1.2 mm) Stick electrode 1/8, 3/32, 5/32 in. (2.50, 3.25, 4.0 mm) Filler rod 5/64, 3/32 in. (2.0, 2.4 mm)	Simulator H: 21 in. (533 mm) W: 9.38 in. (238 mm) D: 17.25 in. (438 mm)	Simulator 26.3 in. (12 mm) Welding helmet 2.5 in. (1.1 mm)	

## Training Solutions 🕍



## **LiveArc**<sup>™</sup> **System Welding Performance Management System**

The reality-based recruiting, screening, training, and re-qualification solution for industrial, manufacturing and educational markets.



### LiveArc GMAW/FCAW system comes complete with

- SmartGun with 15 ft. (4.6 m) cable (277826)
- Calibration tool (278115)
- Two table clamps (257285)
- C-clamp assembly (270725)
- Removable arm extension for right- and left-hand applications (270728)
- Extra Tregaskiss consumables

### LiveArc GMAW/FCAW/SMAW system includes above plus

- SmartStinger with 15 ft. (4.6 m) cable (277824)
- Router box (275484)
- Software update for SMAW applications

Better training. While utilizing a live arc, the intuitive system promotes user independence and provides objective, quantitative feedback on key performance parameters. The flexible system is ideal for recruiting, screening, training and performance management.

Faster results. Independent usage accelerates personal development. Accelerated training times put trainees in production lines faster while shorter educational periods allow trainees to focus on additional learning opportunities.

More cost effective. Trainers and educators have more time for one-on-one training while pre-weld simulation saves money on coupons, wire and gas (GMAW/FCAW only). Also reduces the frequency of poor-quality welding and defects, rework and downtime.

**Welding positioning** arm allows training in out-of-position welding applications.



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 touch screen for navigation.

### **NEW!** SmartStinger extends training capabilities to the

SMAW process. LiveArc guides pre-weld positioning for travel and work angles via the display panel in the system's computer case.







# travel angle

### Intuitive user interface



### Assignment selection screen

- · Guides the user through a range of targeted exercises
- Includes a library of assignments designed by Miller and the flexibility to configure customized assignments
- Offers assignment completion status, history summary and easy access to detailed performance history data



### Welding procedure specification (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
- Assignment parameters can be configured to suit the skill level (and scoring potential)
- Displays instructor-determined target score and assignment completion criteria



### Post-weld feedback screen

- Data is provided following tests in both simulation and live-arc modes
- Performance feedback on various parameters is provided
- · All test data is stored and allows for monitoring and evaluation

Stock Number	Input Power	Processes	Positions	Multi-Pass	Rated Output	Electrode Diameter	Computer	Monitor	Dimensions	Net Weight
(907714) LiveArc	120 V, 60 Hz	GMAW,	2F-4F,	Groove and	SmartGun 400 A	SmartGun Up to	Intel core i7,	21.5 HD	H: 77.5 in.	GMAW/FCAW system
GMAW/FCAW system	Compatible	GMAW-S,	1G-4G	fillet up to 1 in.	at 60% duty cycle	5/64 in. (2.0 mm)	128 GB SSD, fanless	LCD touch	(1,969 mm)	480 lb. (218 kg)
(907714001) LiveArc	with Miller	GMAW-P,		(25 mm) plate	(mixed gases)		cooling, HDMI port	screen	W: 46 in.	GMAW/FCAW/SMAW
GMAW/FCAW/SMAW system	wire feed	FCAW-G					supports most	display	(1,168 mm)	system
Only available at authorized	power sources	SMAW	2F-4F,	Limited groove	SmartStinger 250 A	SmartStinger Up to	secondary monitors		D: 31 in.	527 lb. (239 kg)
training distributors			1G-4G	applications	at 60% duty cycle	1/8 in. (3.2 mm)	(not included)		(787 mm)	

## Accessories



### MillerWelds.com/accessories

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### Automated MIG

For adapters and drive motors, visit MillerWelds.com.



### **Coolant Flow Switch** 195461

For Auto-Axcess and External Cladding Head. 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-Axcess or as desired elsewhere. Quarter-turn quick connection.

### MCS-2 Motorized Cross Slide

098380 Control

045623 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.

### Tweco®-Style Connector 191981

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 042465 Dinse/Cam-Lok Adapter 042466

One-piece adapter with Dinse-style male plug (to power source) on one end and

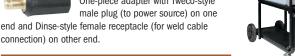
Tweco or Cam-Lok female receptacle (for weld cable connection) on other end.



### Tweco®/Dinse Adapter 210061

One-piece adapter with Tweco-style

connection) on other end.



## **Carts, Cylinder Racks and Running Gear**

Also see Engine Drive Accessories on page 116.



### Feeder Cart 142382

A low-profile, creeper cart which allows the operator to easily move the feeder around the work area.



### Carrying Cart 056301

For wire feeders, XMT. CST 280 and smaller Maxstar/Dynasty. Cart is 34 inches high x 30 inches wide x 17 inches deep (864 x 762 x 432 mm).



### Cylinder Cart 042537

For Invision, XMT 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 cylinders with feeder mounted to tray above power source. Accommodates Coolmate 3 or 4 coolant system.



### **Universal Cart and** Cylinder Rack 042934

For Invision 352 MPa. XMT 304/350, CST 280, Diversion, Maxstar 210/280 and Dynasty 210/280. Also accommodates a single gas cylinder up to 56 inches

(1,422 mm) high measuring 6 to 9 inches (152 to 229 mm) in diameter. Provides storage for auxiliary items such as electrodes, helmets and gloves.



### Running Gear/Cylinder Rack 301239

For Millermatic 125 Hobby/141/ 190/211, Multimatic 200/215 and Diversion. 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 300337

For Millermatic 212 Auto-Set/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 300335

For Millermatic 212 Auto-Set/252 and Syncrowave 210. For use with single-cylinder rack. (Included with Dual EZ-Change Low Cylinder Rack.)



### Dual Cylinder Rack 195299

For Millermatic 350P/ 350P Aluminum. Replaces single-cylinder rack.



### Shopmate 300 Running Gear/ Dual Cylinder Rack 300145

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.

### **Cable Connectors and Adapters**

Also see Torch and Weld Cable Connectors in TIG Accessories on page 121.

For Invision 352 MPa, AlumaFeed System, XMT 304/350, CST 280, Maxstar, Dynasty and Syncrowave. 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**

042418 Accepts #4 to #1/0 AWG cable **042533** 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 Kit for Dinse-Style Cable Connectors**

**042419** 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**

134460 Male Dinse-style plug

136600 Female Dinse-style receptacle Used to adapt or extend weld and/or work cables.

Accepts #1/0 to #2/0 AWG cable.

## Accessories •••



### MIGRunner™ Cart 195445

For Invision, AlumaFeed system, and XMT with single feeders. Small footprint and easily maneuverable, with a dual-cylinder rack low enough that you do not have to lift bottles. Durable, heavy-duty ergonomic handles are designed for comfort.



### **Running Gear Cylinder Rack** 300408

For Invision, Axcess 300/450, Dimension 650, and XMT 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.



Continuum Running Gear/ Cylinder Rack 301264 For Continuum 350/500. Small footprint and easily maneuverable, with cylinder rack low enough that you do not have to lift bottles.



Shown with optional cylinder rack (042887).

### **Standard Running Gear** and Cylinder Rack

042886 Running gear 042887 Cylinder rack For CP-302, Deltaweld, Dimension 302/452 and Gold Star. 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.



### **Dimension 650** Running Gear 301307

For Dimension 650. Large 10-inch (254 mm) rear wheels and 5-inch (127 mm) front casters provide excellent mobility. Easy to install. Compatible with single and dual

70 Series feeders. Handles double as a cable holder. Note: Does not accommodate gas cylinders. Use Running Gear Cylinder Rack (300408) when gas cylinders are required.



### Thunderbolt XL Running Gear 043927

For Thunderbolt XL. Mounts easily to unit and provides convenient portability. Includes two wheels, two feet and a handle.



### 2-Wheel Trolley Cart 300971

For Maxstar 210/280 and Dynasty 210/280 with or without Coolmate 1.3. Easy-to-maneuver two-wheel cart features single-cylinder rack, chain for cylinder, straps (quick and easy to detach and carry machine), cable holders, torch holder, storage area, and filler rod storage area.



### Small Runner™ Cart 301318

For Maxstar 210/280 and Dynasty 210/280 with or without Coolmate 1.3. Cart features single-cylinder rack, foot pedal holder, two cable/torch holders and two TIG filler holders.



### Runner™ Cart 300244

For Maxstar 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.



No. 37 Running Gear 195282 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.

## Coolant Systems See literature AY/7.2





Coolmate 4

### **Coolmate™ 1.3 300972** 120 V

Coolmate 3

For Maxstar 210/280 and Dynasty 210/280. Light industrial, 1.3-gallon cooler designed for water-cooled torches on power sources rated up to 280 amps\*.

Coolmate™ 3 043007 120 V 043008 240 V Economical, 3-gallon cooler designed for water-cooled torches rated up to 500 amps\*.

### Coolmate™ 3.5 300245 120 V

For Maxstar 350/700 and Dynasty 350/700. Industrial, 3.5-gallon cooler designed for water-cooled torches rated up to 600 amps\*.

\*May vary with torch design and

cable length. Miller coolant systems

are backed by the best warranty in

the industry - one full year.

### Coolmate<sup>™</sup> 4 042288 120 V

Best performer in its class - industrial, 4-gallon cooler designed for water-cooled torches rated up to 600 amps\*.

### 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) 043810

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) 043809

Primarily used in push-pull systems where aluminum is in coolant path/circuit and high frequency is NOT used

						mgn nequency is 1401 use	u.
Model	Motor Input Voltage	Maximum Current Draw	Maximum Cooling Capacity	IEC Cooling Capacity	Tank Capacity	Dimensions	Net Weight
Coolmate 1.3	115 V, 60 Hz	4.7 A (60 Hz)	3,400 W (11,600 Btu/hr.) 3.8 qt./min. (3.6 L/min.)	1,330 W (4,540 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 V, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	3,820 W (13,000 Btu/hr.) 4.2 gt./min. (4.0 L/min.)	1,420 W (4,840 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)	40 lb. (18 kg)
	230 V, 50/60 Hz	2.5 A (50 Hz), 3.0 A (60 Hz)	50 Hz), 3.0 A (60 Hz)			D: 23.25 in. (584 mm)	
Coolmate 3.5	115 V, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	4,140 W (14,000 Btu/hr.) 5.0 qt./min. (4.7 L/min.)	1,660 W (5,660 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 V, 50/60 Hz	5.9 A (50 Hz), 4.7 A (60 Hz)	5,500 W (18,000 Btu/hr.) 5.9 qt./min. (5.6 L/min.)	1,780 W (6,070 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)

## · Accessories

### **Engine Drive Accessories**

Also see Trailers on page 117 and HF Arc Starters on page 120.

### **Big Blue Accessories**



## **Cable Holder 043946**For Big Blue 500 Pro/600 Series/700 Duo Pro/800 Series.



### Vandalism Lockout Kit 399802 Field

For Big Blue 500 Pro/600 Series/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 195353**For current model Blue Star 185.



### Running Gear 301246

For **current model** Blue Star 185. Compact and balanced, lightweight wheelbarrow-style running gear provides easy onsite mobility.

### **Bobcat and Trailblazer Accessories (Gas/LP)**



Multi-Terrain Running Gear 300913 Inner tubes 300914 Never Flat™ tires For gas/LP Bobcat and Trailblazer. 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 300909 Inner tubes 300910 Never Flat™ tires For gas/LP Bobcat and Trailblazer. 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<sup>™</sup> Tires 300912

For gas/LP Bobcat and Trailblazer. Running gear and rugged cage with cable holders protects your investment and is easy to move around the jobsite.



## Protective Cage with Cable Holders

**300921** For gas/LP Bobcat and Trailblazer.

**300473** 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 300918

For gas Bobcat and Trailblazer. 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 300917

For LP Bobcat and Trailblazer. 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 300923 Field

For gas Bobcat and Trailblazer. 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 300477

For diesel Bobcat and Trailblazer. 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 195331

For diesel Bobcat and Trailblazer. 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 195330

For diesel Bobcat and Trailblazer. 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 300517

For Bobcat, Trailblazer and Big Blue models. 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 119172

For Bobcat, Trailblazer and Big Blue models. Can be wired for 120- or 240-volt loads.

### Three-Phase Full KVA Plug Kit

165963 For Bobcat 3 Phase.

**254140** For Big Blue 500 Pro/600 Series/700 Duo Pro/800 Series.

### **Protective Covers**



Protective covers (300919) and (195301) shown.

### **Protective Covers**

Heavy-duty, water- and mildew-resistant covers protect and maintain the finish of the welder.

301245 For current model Blue Star 185.

**300919** For current model gas Bobcat and Trailblazer (except Air Pak) without Protective Cage or Running Gear.

**300920** For current model gas Bobcat and Trailblazer (except Air Pak) with Protective Cage or Running Gear.

**301099** For current model diesel Bobcat and Trailblazer without Protective Cage or Running Gear.

300379 For Trailblazer 302 Air Pak.

**195301** For Big Blue 350 PipePro/400 Pro/450 Duo CST.

**194683** For Big Blue 500 Pro (CA model)/700 Duo Pro.

**301113** For Big Blue 500 Pro (T4F model)/600 Series/

## Trailers See literature AY/20.0



### HWY-Mid Frame Trailer 301438

For Bobcat, Trailblazer, and Big Blue 350/400/450 Pro models. A 1,424-pound (646 kg) capacity highway trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. Includes jack stand, fenders, lights, and dual hitch with 2-inch (50 mm) ball hitch and 3-inch (76 mm) lunette eye.

### 4 West Four-Wheel Steerable **Off-Road Trailer**

For Big Blue 500 Pro/600 Series/ 700 Duo Pro/800 Series. Heavy-duty 2,570-pound (1,166 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-225 Trailer 301338

For Big Blue models. A 2,700-pound (1,225 kg) capacity highway trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. Includes jack stand, fenders, lights, and dual hitch with 2-inch (50 mm) ball hitch and 3-inch (76 mm) lunette eye.

### Trailer accessories



### Dual Hitch 301441

For HWY-Mid Frame and HWY-225. Combination 2-inch (50 mm) ball and 3-inch (76 mm) lunette eye in one reversible assembly.

### Cable Tree 043826

For HWY-Mid Frame and HWY-225. Provides an area to conveniently wrap weld cables and extension cords.

### Fender Kit 301439

For HWY-Mid Frame and HWY-225. Replacement fenders.

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-Mid Frame	1,605 lb. (728 kg)	1,424 lb. (646 kg)	1,424 lb. (646 kg)	19.5 in. (495 mm)	8 in. (203 mm)	46 in. (1,168 mm)	ST175/80D-13 Load Range C	L: 101 in. (2,565 mm) W: 55 in. (1,397 mm)*	181 lb. (82 kg)
4 West	2,000 lb./axle (907 kg/axle)	3,000 lb. (1,361 kg)	2,550 lb. (1,157 kg)	21.25 in. (540 mm)	8 in. (203 mm)	55.25 in. (1,403 mm)	B78-13	L: 91 in. (2,311 mm)** W: 61.25 in. (1,556 mm)	420 lb. (191 kg)
HWY-225	3,500 lb. (1,588 kg)	2,999 lb. (1,360 kg)	2,700 lb. (1,225 kg)	19 in. (483 mm)	7.5 in. (191 mm)	50 in. (1,270 mm)	ST175/80R-13 Load Range D	L: 105.5 in. (2,680 mm) W: 56.5 in. (1,435 mm)*	280 lb. (127 kg)

### **Load Banks**



### LBP-350 043329

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** 902804

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.

### **MIG Accessories**

### **Gun and Machine Accessory Kits**

MIGmatic™ M-Series Gun Consumable Kits

For M-100 and M-150 guns

234607 .023 in. (0.6 m) wire 234608 .030 in. (0.8 m) wire

234609 .035 in. (0.9 m) wire

For M-25 gun

234610 .030 in. (0.8 m) wire

234611 .035 in. (0.9 m) wire

234612 .045 in. (1.2 m) wire

M-100/M-150 kits include 10 contact tips, 1 tip adapter 1 standard nozzle and a consumable storage box. M-25 kits add 1 nozzle adapter.

### Aluminum Conversion Kit 172136

For M-25 gun. Allows 10-foot (3 m) guns to feed 3/64-inch (1.2 mm) aluminum wire.



### Industrial MIG 4/0 Kit

300390 For single feeders. 300957 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 Connectors

300405 For single feeders. 300956 For dual feeders.

Same as above except weld and work cables have Dinse-style connector on one end instead of lug.



### Shopmate 300 MIG Kit 300150

Includes flow gauge regulator and 10-foot (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**



### 301333

For Millermatic 125 Hobby.



### 301262

For Millermatic 141/190/211 and Multimatic 215.



### 195142

For Millermatic 212 Auto-Set/ 252/350P/350P Aluminum and Syncrowave 210. Features side pocket.

## · · · Accessories

### **Plasma Cutter Accessories**

### **Automation Kits**



Automation Kit for Spectrum 625 X-TREME 301158 Upgrades new quickconnect 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.



Automation kit (301157) shown.

Automation Kits for Spectrum 875 and 875 Auto-Line 301156 For Spectrum 875.

301157 For Spectrum 875 Auto-Line.

Automation kits upgrade hand-held torch packages to add machine torch capabilities. Automation kit for Spectrum 875 Auto-Line (301157) 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 234838 20 ft. (6.1 m) 234930 50 ft. (15.2 m) Work cable with quick connect and heavy-duty clamp.



**Cable Covers 239642** 20 ft. (6.1 m) **231867** 25 ft. (7.6 m) **231868** 50 ft. (15.2 m)

### **Cutting Guides**



### Plasma Circle-Cutting Guides 253055

For XT30C/XT30/XT40/XT60 torches. Cut straight lines or circles up to 12 inches in diameter.



### Suction/Magnetic Pivot Base 195979

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 253054
Helps maintain
recommended standoff
distance to maximize
cutting performance
and improve tip life.

### **Filters**



### In-Line Air Filter Kit 228926

For Spectrum 375 X-TREME/625 X-TREME/875/875 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 (228928) filters to .85 microns for removal of 99.9 percent of water, dirt and oil.



### RTI Filter and Bracket 300491

For Spectrum 875/875 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 (212771).

### **Plugs and Cords**

### MVP™ Plugs



### 219258

For 6-50P power cable (230/240 V, 50 A).



### 219261

For 5-15P power cable (115/120 V, 15 A).



219259

For 5-20P power cable (115/120 V, 20 A).

For Spectrum 375 X-TREME, Millermatic 211, Multimatic 200/215 and Diversion 180. 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





Female Receptacle



### 254328

For connection to 6-50P receptacle (240 V, 50 A).



### 254330

For connection to 5-15P receptacle (120 V, 15 A).



### 254331

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.





Female Receptacle

### Full KVA Adapter Cord 300517

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 770644

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**



Protective Cover 300388 For Spectrum 875.



### X-CASE 300184

For Spectrum 375 X-TREME/ 625 X-TREME.

### 301429

For Maxstar 161 models.

### **Torches**

See your Miller® distributor for complete information on the following XT plasma torches and their consumables:



**Spectrum Plasma Cutter Hand-Held Torches** 

**For Spectrum 375 X-TREME 249949** 12 ft. (3.7 m) XT30 **For Spectrum 625 X-TREME** 

**260633** 12 ft. (3.7 m) XT40 **260635** 20 ft. (6.1 m) XT40

For Spectrum 875 and 875 Auto-Line

**249953** 20 ft. (6.1 m) XT60 **249954** 50 ft. (15.2 m) XT60



### **Spectrum Plasma Cutter Machine Torches**

For Spectrum 625 X-TREME

**259305** 25 ft. (7.6 m) long body XT40M **257462** 25 ft. (7.6 m) short body XT40M

For Spectrum 875 and 875 Auto-Line

**249955** 25 ft. (7.6 m) long body XT60M **249956** 50 ft. (15.2 m) long body XT60M **257464** 25 ft. (7.6 m) short body XT60M

**263952** 50 ft. (15.2 m) short body XT60M



Each consumable kit includes a storage box.

### **Plasma Torch Consumable Kits**

**253520** For XT30 torch. Includes 5 electrodes, 5 tips, 1 swirl ring, 1 retaining cup, 1 o-ring and silicone grease. **253521** For XT40 torch. Includes 5 electrodes, 5 tips (40 A), 3 tips (30 A), 1 drag shield (40 A), 2 drag shields (30 A), 1 deflector, 1 o-ring, 1 swirl ring, 1 retaining cup, 1 gouge tip (40 A), 1 gouge shield and silicone grease.

**256033** For XT60 torch. Includes 3 standard electrodes, 3 standard tips, 1 drag shield, 1 deflector, 1 o-ring, 1 swirl ring, 1 retaining cup, 1 gouge tip, 1 gouge shield and silicone grease.

127493 Empty consumable storage box.

### **Polarity Switches/Controls**

### Polarity Control 042871

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 042872

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 120 and 121



### PRHC-14 Hand Control 195511

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 242197025

For Deltaweld, Dimension 302/452, and Gold Star. 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.

### **Stick Accessory Kits**



**No. 2 Stick Cable Sets 195196** 15 ft. (4.6 m) **300836** 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

**173851** 50 ft. (15 m), 350 A

**043952** 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

195457 2/0 cable with electrode holder, 400 A
195458 2/0 cable with work clamp, 400 A
301387 1/0 cable with electrode holder, 250 A
Consists of a stud/Tweco® adapter and 10-foot (3 m) weld cable with a Tweco male connector and either an electrode holder or work clamp.



**2/0 Weld Cable Extensions 195456** 50 ft. (15 m) **195455** 100 ft. (30 m) Extends weld cables **(195457, 195458** and **301387)**.

### **Submerged Arc Accessories**

### Cables



### Continuum Motor/Control Cables

263368015 15 ft. (4.6 m) 263368020 20 ft. (6.1 m) 263368025 25 ft. (7.6 m) 263368050 50 ft. (15 m) 263368080 80 ft. (24.4 m) 263368100 100 ft. (30.5 m)

Cable between SubArc Motor Control and SubArc Remote Pendant.



**Flux Hopper Extension Cables** 

**260623010** 10 ft. (3 m) **260623025** 25 ft. (7.6 m) **260623065** 65 ft. (19.8 m)

Cable between SubArc Interface or Motor Control and flux hopper.



### **Motor Extension Cables**

 5 ft. (1.5 m) 10 ft. (3 m) 25 ft. (7.6 m) 65 ft. (19.8 m)

Cable between SubArc Interface or Motor Control and



### **SubArc Control Cables**

260622030 30 ft. (9.1 m) 260622050 50 ft. (15 m) 260622060 60 ft. (18.3 m) 260622080 80 ft. (24.4 m) 260622100 100 ft. (30.5 m) 260622120 120 ft. (36.6 m)

**260622120** 120 ft. (36.6 m) **260622200** 200 ft. (61.0 m)

Cable between SubArc Interface or Motor Control and power source.



**SubArc Parallel Cable 260775015** 15 ft. (4.6 m)



**SubArc Tandem Cable 260878015** 15 ft. (4.6 m)

### **Torch Accessories**

### **OBT 600 Torch Body Extensions**

**043967** 1 inch (25.4 mm) **043969** 2 inch (50.8 mm) **043973** 4 inch (101.6 mm) **043975** 6 inch (152.4 mm)

### OBT 1200 Torch Body Extension 043981

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									
<b>OBT 600</b>	<b>OBT 1200</b>	Wire Size							
192700	192141	1/16 in. (1.6 mm)							
192701	199026	5/64 in. (2.0 mm)							
192702	192142	3/32 in. (2.4 mm)							
192703	200771	7/64 in. (2.8 mm)							
192704	192143	1/8 in. (3.2 mm)							
192705	192144	5/32 in. (4.0 mm)							
_	192136	3/16 in. (4.8 mm)							

### 1200-Amp Torch Contact Tips

Single-Wire	Twin-Wire	Wire Size
_	264595	3/64 in. (1.2 mm)
264590	264596	1/16 in. (1.6 mm)
264591	264597	5/64 in. (2.0 mm)
264487	264588	3/32 in. (2.4 mm)
264593	_	1/8 in. (3.2 mm)
264594	_	5/32 in. (4.0 mm)

### **Wire Drive Assembly Accessories**

### Drive Rolls

132955 1/16 in. (1.6 mm) 132960 5/64 in. (2.0 mm) 132961 3/32 in. (2.4 mm) 132962 7/64 in. (2.8 mm) 132963 1/8 in. (3.2 mm) 193700 5/32 in. (4.0 mm)

**193701** 3/16 in. (4.8 mm)

V-knurled drive rolls for use with hard-shelled cored wires.



### Manual Single Slide 301137

Provides smooth and accurate movement of the welding heads. Allows for 7.87 inch (200 mm) travel adjustment with load capacity of 220 pounds (100 kg) at 1.64 feet (500 mm). **Not recommended for tandem.** 



### Single-Wire Straightener 199733

For SubArc Wire Drive 400 Digital Low Voltage and SubArc Wire Drive 780 Digital Low Voltage. For 1/16-3/16 inch (1.6-4.8 mm) wire.



### Twin-Wire Straighteners

**301160** Single adjustment **301162** Double/separate adjustment For Twin-Wire torches only.



Wire Reel 108008 Supports 60-pound (27 kg) coil of wire. Requires Spool Support Assembly (119438).

## · Accessories

### **TIG Accessories**

### High-Frequency Arc Starters and Stabilizers



HF251D-1 **042388** 115 V HF251-2 042387 230 V

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** 041969 Field For HF-251D-1.

041906 Field For HF-251-2.

For power sources without a contactor. Mounts inside HF-251 cabinet.

### **Kits**



### **Contractor Kit**

301311 TIG/stick pkg with RCCS-14 fingertip

301309 TIG/stick pkg with RFCS-14 HD foot pedal For Maxstar 210/280 and Dynasty 210/280. 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.



(301287) shown.

(300990) shown.

TIG Contractor Kit

**301287** For Multimatic 200. **301337** For Multimatic 215.

Kit comes with Weldcraft™ A-150 TIG torch with Dinse-style connector, either a RFCS-6M foot control (Multimatic 200 kit) OR RFCS-RJ45 foot control (Multimatic 215 kit), flow gauge regulator with 12-foot (3.7 m) gas hose, and AK2C torch accessory kit.



Weldcraft™ Water-Cooled Torch Kits 300185 250 A, W-250 (WP-20)

300990 280 A, W-280 (WP-280)

301268 375 A. W-375

300186 400 A, W-400 (WP-18SC)

For Maxstar (except 161 models), Dynasty, 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**



Protective covers (300579) and (195478) shown.

301429 X-CASE for Maxstar 161 models.

300579 For Diversion 165/180.

301381 For Maxstar 210.

301382 For Maxstar 280 and Dynasty 210/280.

**195142** For Syncrowave 210.

195320 For Syncrowave 250 DX/350 LX.

195478 For XMT 304/350.

### **Remote Controls**



### 14-Pin to 6-Pin Adapter Cord 300507

For Maxstar 161 STL/STH and Multimatic 200. 12-inch (305 mm) cord adapts Miller® 14-pin foot control or fingertip control to a 6-pin plug.



RCC-6M (6-pin plug)

**301118** 13.25 ft. (4 m) cord with plug For Maxstar 161 STL/STH and Multimatic 200.

**RCC-14** (14-pin plug)

151086 26.5 ft. (8 m) cord with plug

East/west rotary-motion fingertip current/contactor control attaches to TIG torch using two hook-and-loop fasteners. Great for production or contractors that need quick ramp-up.



RCCS-6M (6-pin plug)

**195184** 13.25 ft. (4 m) cord with plug **195503** 26.5 ft. (8 m) cord with plug For Maxstar 161 STL/STH and Multimatic 200.

301146 13.25 ft. (4 m) cord with plug For Diversion 165/180 and Multimatic 215.

**RCCS-14** (14-pin plug)

043688 26.5 ft. (8 m) cord with plug

North/south rotary-motion fingertip current/contactor control attaches to TIG torch using two hook-and-loop fasteners. Great for applications that require a finer amperage control.



RFCS-6M (6-pin plug)

195183 13.25 ft. (4 m) cord with plug 195504 20 ft. (6 m) cord with plug For Maxstar 161 STL/STH and Multimatic 200.

RFCS-5 (5-pin plug)

043716 20 ft. (6 m) cord with plug

**RFCS-14** (14-pin plug)

043554 20 ft. (6 m) cord with plug

Foot pedal current/contactor control.



RFCS-14 HD (14-pin plug) 194744

Heavy-duty foot pedal current/contactor control provides increased stability and durability from larger base and heavier cord. Reconfigurable cord can exit front, back or either side of the pedal for flexibility. Includes 20-foot (6 m) cord with plug.



RFCS-RJ45 300432

For Diversion 165/180 and Multimatic 215. Foot pedal current/contactor control. Includes 14-foot (4.3 m) cord with plug.



RHC-14\* (14-pin plug)

**242211020** 20 ft. (6 m) cord with plug **242211100** 100 ft. (30.5 m) cord with plug Miniature hand current/contactor control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 82 mm).

\*For additional lengths visit MillerWelds.com/equiptoweld.



RMLS-14 (14-pin plug) 129337

Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and backward for momentary contact. Includes 26.5-foot (8 m) cord with plug.



RMS-6M (6-pin plug) 195269 For Maxstar 161 STL/STH.

RMS-14 (14-pin plug) 187208

Momentary-contact switch for contactor control. Rubbercovered pushbutton dome switch ideal for repetitive on-off applications. Includes 26.5-foot (8 m) cord with plug.



RPBS-14 (14-pin plug) 300666

Attaches to the TIG torch to remotely start and stop the TIG welding process. Includes 25-foot (7.6 m) cord with plug.

## **Wireless Remote** Foot and Hand Controls

See literature AY/6.5 (Foot) and AY/6.6 (Hand)

Increases productivity, saves money, improves safety and easy to use.



Wireless 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 (300429) or hand control (300430) transmitter
- Wireless 14-pin receiver (300722)
- Battery box (249297)
- Three AA batteries
- Four Easy-Glide Wear Pads™ (for foot control only) (sold individually, 248274)
- Belt clip (for hand control only) (249233)

### Suggested power sources



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.

Model/Stock Number	Component	Power Supply	Battery Life	Rated Range*	Temperature	Radio Frequency	RF Power	Antenna	Dimensions	Weight
Wireless Foot Control System (300429)	Foot control (transmitter)	Three AA batteries	250 hours	90 ft. (27.4 m)	-13° to +158°F (-25° to +70°C)	2.4 Ghz (ISM band)	<3 mW	Internal	H: 6 in. (152 mm) W: 5.75 in. (146 mm) D: 11.5 in. (292 mm)	3 lb. (1.4 kg) w/batteries
Wireless Hand Control System (300430)	Hand control (transmitter)	Three AA batteries	250 hours	300 ft. (91 m)					H: 5 in. (127 mm) W: 2.75 in. (70 mm) D: 1.375 in. (35 mm)	0.6 lb. (0.27 kg) w/batteries

### **TIG Accessories (continued)**

### **Torch and Weld Cable Connectors**

### Air-Cooled TIG (GTAW) Torch Connectors



### **273483**<sup>1,2</sup>

For Maxstar 161 and Multimatic 200/215. 25 mm (small) Dinse-style gas thru for one-piece air-cooled torches.



194723 A-200 (WP26) 194722° All others For Syncrowave 210. 50 mm Dinse-style gas thru for one-piece air-cooled torches.



**195379** A-200 (WP26) **195378**<sup>2</sup> All others For CST 280, Maxstar 210/280/350, Dynasty 210/280/350, and Syncrowave 250 DX/350 LX. 50 mm Dinse-style for one-piece air-cooled torches.

### Water-Cooled TIG (GTAW) Torch Connectors



50 mm Dinse-Style Flow Thru 195380

For Syncrowave 210. Used with all Weldcraft™ water-cooled torches.



**50 mm Dinse-Style with Water Return Line 195377** *For Maxstar* 210/280/350,

Dynasty 210/280/350, and Syncrowave 250 DX/350 LX. Used with all Weldcraft<sup>™</sup> water-cooled torches.



## 50 mm Thread-Lock-Style 225028

For Maxstar/Dynasty 700. Used with all Weldcraft™ water-cooled torches.



### Thread-Lock-Style Weld Cable Connectors 225029

For Maxstar/Dynasty 700.
Contains two male connectors that accept #1/0 to #4/0
AWG size cable.

## · · · Accessories

### **Wire Feeder Accessories**

### **Extension Cables (14-Pin)**

8-Conductor Cables\*

**242208025** 25 ft. (7.6 m)

**242208050** 50 ft. (15 m) **242208080** 80 ft. (24.4 m)

For XR-Control, SuitCase 12RC feeder, 20 Series feeders, and 70 Series (except MPa Plus) 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\*

**247831025** 25 ft. (7.6 m) **247831050** 50 ft. (15 m)

**247831080** 80 ft. (24.4 m)

For XR-AlumaFeed, MPa Plus feeders, and 60M feeders. Eleven conductors to support contactor control and remote voltage control on all Miller® electronic CV 14-pin power sources. Additional functions supported when using the Invision MPa or XMT MPa power sources include synergic pulsed MIG, remote process select and side select capabilities.

### 14-Conductor Cables\*

**242205025** 25 ft. (7.6 m)

**242205050** 50 ft. (15 m) **242205080** 80 ft. (24.4 m)

For HDC and WC-115 weld controls, XR Control 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.

### **Power Supply Adapter**



### **PSA-2 Control** 141604

Required when using SuitCase 12RC, 20 Series, and 70 Series feeders with power sources having only 115-volt power 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 047813

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**

### 047141

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 M/1.5, M/1.73 and M/1.76.



### SGA 100 043856

Required to connect Spoolmate 3035 spool gun to any Millermatic 141/190/211. Also allows connection to virtually

any similar MIG welder — Miller or other brands. Includes 10-foot (3 m) 115-volt power cable with plug, 6-foot (1.8 m) interconnecting cable, and 5-foot (1.5 m) gas hose.



### SGA 100C 043857

SGA with contactor required to connect Spoolmate 3035 spool gun to CV engine drives like the Miller Bobcat. Includes 10-foot (3 m) 115-volt power cable with plug, 6-foot (1.8 m)

interconnecting cable, and 5-foot (1.5 m) gas hose.



## WC-115A Weld Control 137 546 Without contactor

**137546011** With contactor Operates on 115-volt power and designed primarily for constant-current DC power sources. Can also be used with constant-voltage

power sources or DC engine drives supplying 115 volts. 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 137549

For Spoolmate 200, Spoolmatic and 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**

132228 25 ft. (7.6 m)

132229 50 ft. (15 m)

For Spoolmatic and Spoolmatic Pro. Extends leads, etc. between spool gun and power source.

### **Turntable Assembly**

### 146236

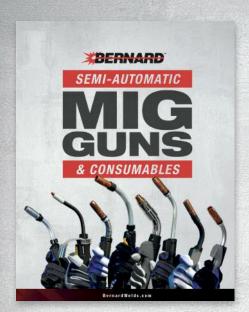
Allows feeder to rotate as operator changes work position. Reduces strain and bending of gun cable.

### Wire Straightener



For 20 Series and 70 Series.

**141580** For .035-.045 inch (0.9-1.1 mm) wire. **141581** For 1/16-1/8 inch (1.6-3.2 mm) wire.



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Improve welding productivity by choosing the neck length and angle, handle shape and trigger style that allows welders to comfortably and efficiently reach all your welds.

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