

# Deltaweld® Systems

MIG Welding Systems 

## Quick Specs

### Heavy Industrial Manufacturing

General manufacturing  
General fabrication  
Structural steel fabrication  
Transportation  
Sheet metal fabrication  
Light-gauge tube and sheet

### Processes

MIG (GMAW-P)  
Flux-cored (FCAW)  
Accu-Pulse® MIG (GMAW-P)  
(with Intelx™ Pro feeder)  
Air carbon arc (CAC-A)  
Rated: 3/8-inch carbons  
(500 model only)

### Input Power

**350:** 208/230/460 V, 3-phase, 60 Hz  
**500:** 208/230/460 V or 575 V, 3-phase, 60 Hz

### Rated Output

**350:** 350 A at 60% duty cycle  
**500:** 500 A at 100% duty cycle

### Output Range

**350:** 20–400 A, 10–38 V  
**500:** 30–650 A, 10–44 V

## Make Your Move

*The new standard in manufacturing provides the solution for welders of all skill levels, plus pulsed MIG capabilities with Intelx Pro integrated packages.*

### Ready to weld

Reduce the time and hassle of setting up welding systems. Make your move to a weld-ready Deltaweld MIGRunner™.

### Dedicated wire feeder options

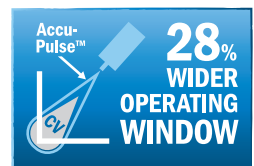
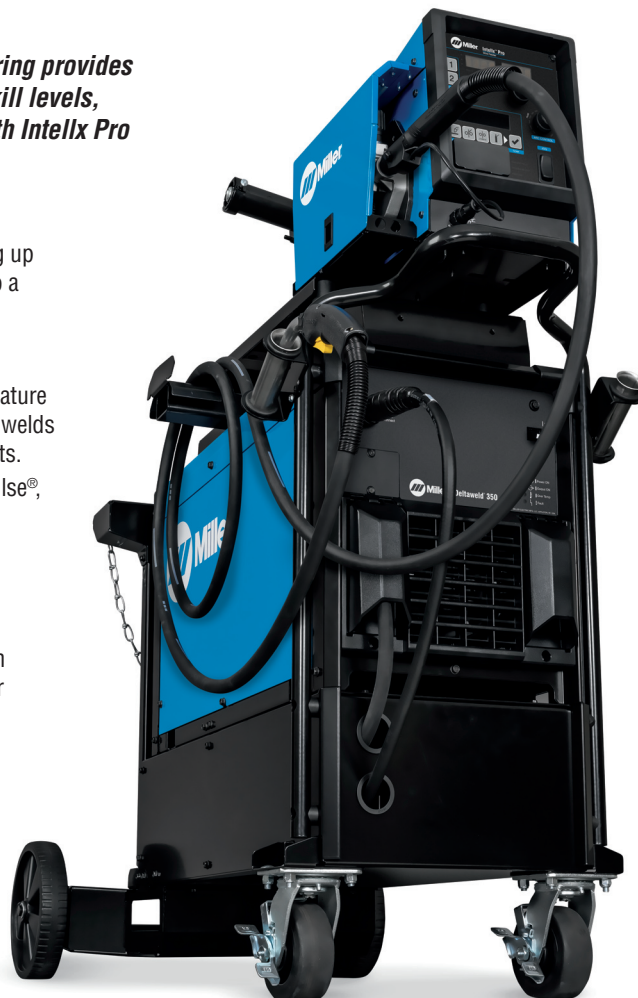
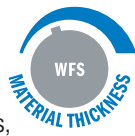
- Intelx feeder — New arc control feature means welders can produce better welds with minimal parameter adjustments.
- Intelx Pro feeder — Adds Accu-Pulse®, EZ-Set, steel weld programs, and memory buttons.

### Legacy meets pulse

Accu-Pulse offers a more forgiving arc and compensates for variations in operator technique, providing a wider operating window.

### Easy to use

EZ-Set simplifies parameter setup based on material thickness, removing complexity.



Deltaweld 350 MIGRunner™ with Intelx™ Pro feeder shown.



Power source is warranted for three years, parts and labor.  
Original main power rectifier parts are warranted for five years.  
Gun warranted for 90 days, parts and labor.



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**MillerWelds.com**  




# Deltaweld® Systems Features



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

**Accu-Mate™ connection** aligns gun perfectly in the drive-roll carrier — preventing the gun from being pulled loose and providing consistent wire feeding.

**Drive rolls and guides are common** with other Miller® industrial feeders (use existing, not new parts).

**Inlet guide and intermediate guide installation is toolless.**

**Rotatable drive assembly** allows operator to rotate the drive, eliminating severe bends in the wire feed path. This extends gun-liner life and aids in feeding difficult wires.



**Quality-engineered cable management** protects your connections to keep you productive.



IntelliX Pro single-wire feeder shown.

**Memory buttons** for quick program recall

**Display and controls** for volts/arc length, wire feed speed, and EZ-Set (if selected)

**Arc control** to fine tune the welding arc

**LCD setup screen** for easy selection of welding processes

**Jog and purge button**

**Trigger hold, trigger select, preflow and postflow buttons**



Deltaweld 500 with optional 14-pin receptacle shown.

**Dedicated constant-current gouge mode (500 model only)**, rated for up to 3/8-inch carbons.

**Wind Tunnel Technology™**

Internal air flow that protects electrical components and PC boards from dirt, dust, debris — greatly improving reliability.

**Fan-On-Demand™** operates only when needed reducing noise, power consumption, and the amount of airborne contaminants pulled through the machine.

**ArcConnect™** is a next generation communication that utilizes high speed signals to improve weld performance and allow point-of-use controls to be located at the feeder.

# Intellex™ Feeder Features



Feature	Intellex™ Feeder	Intellex™ Pro Feeder
Digital meters	■	■
Remote voltage	■	■
Wire feed speed	■	■
Arc control	■	■
Trigger hold	■	■
Wire jog and purge	■	■
Wire feed speed feedback	■	■
Four drive rolls	■	■
Rotatable drive	■	■
Up to 60 lb. spool	■	■
MIG process	■	■
Dual-wire models	■	■
EZ-Set MIG		■
EZ-Set Accu-Pulse®		■
Trigger select		■
Preflow		■
Postflow		■
Memory slots (2)		■
Out-of-box programs (steel only)		■

## Processes available include:

- MIG
- EZ-Set MIG (Intellex Pro only)
- EZ-Set Accu-Pulse (Intellex Pro only)



## Feeder programs (Intellex Pro only) available include:

- Steel
- Stainless steel
- Flux-cored
- Metal-cored
- Different wire sizes
- Different gas types



**Single-wire feeder swivels** for convenience and function, eliminating wear on gun and liner assembly. It moves with the MIG gun, allowing operator to see the front of the feeder and which parameters are selected.



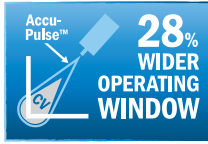
**Dual-wire models** allow two different wire types to be available on one feeder, avoiding downtime from changing spools and drive rolls.

# Deltaweld® Systems Processes


## Take the performance of each process to the highest level

### Accu-Pulse®

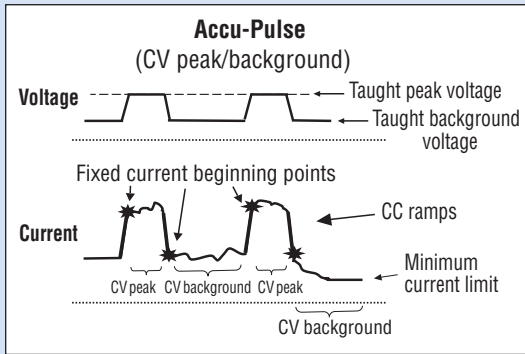
- More forgiving arc compensates for variations in operator technique
- Most adaptive arc on 16 gauge (1.6 mm) and thicker
- Designed for all weld positions



Best For	Standard Spray	Accu-Pulse	Short Circuit
Deposition	A	A	D
Gap filling	D	B	A
Low heat input	D	B	A
Out-of-position welds		A	B
Low spatter	A	A	C
Thick metals	A	A	D
Thin metals		B	A
Increased travel speed	A	A	B

HOT  COLD

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



The Accu-Pulse process allows for precise control of the pulse arc. Accu-Pulse provides optimum molten puddle control and has power to increase wire feed speeds and deposition 20 to 25 percent in many applications. In most cases, slightly different ratios of gas mixtures will perform well using a similar program and adjusting arc length or the appropriate arc control for the selected process. Contact Miller for more information on less common materials and gas combinations.

# Deltaweld® Specifications (Subject to change without notice.)



Model	Mode	Amp/Volt Ranges	Rated Output	Amps Input at Rated Output, 60 Hz, 3-Phase						Dimensions (Includes lift eye)	Net Weight
				208 V	230 V	460 V	575 V	KVA	KW		
Deltaweld 350	MIG (GMAW)	20–400 A 10–38 V	300 A at 29 VDC, 100% duty cycle	29.3	26.5	14.6	—	11.6	10.0	H: 22.36 in. (568 mm) W: 15.35 in. (390 mm) D: 29.15 in. (740 mm)	115 lb. (52.2 kg)
			350 A at 31.5 VDC, 60% duty cycle	36.7	33.4	18.1	—	14.5	12.5		
			425 A at 35.25 VDC, 30% duty cycle	50.0	45.1	23.1	—	18.5	16.9		
Deltaweld 500	MIG (GMAW)	30–650 A 10–44 V	500 A at 39 VDC, 100% duty cycle	64.2	58.1	30.4	24.8	24.2 (24.7*)	21.7 (21.7*)	H: 22.36 in. (568 mm) W: 15.35 in. (390 mm) D: 31.65 in. (804 mm)	145 lb. (65.8 kg)
			575 A at 42.75 VDC, 60% duty cycle	80.2	73.5	38.0	30.4	30.3 (30.2*)	27.2 (27.2*)		
			650 A at 44 VDC, 25% duty cycle	94.2	84.9	43.9	34.9	35.0 (34.8*)	31.6 (31.7*)		
	Gouge (CAC-A)	30–650 A 10–44 V	500 A at 40 VDC, 100% duty cycle	65.4	59.6	31.1	25.3	24.8 (25.2*)	22.2 (22.3*)		
			575 A at 43 VDC, 60% duty cycle	81.0	73.5	38.0	30.3	30.2 (30.1*)	27.3 (27.4*)		
			650 A at 44 VDC, 25% duty cycle	94.2	84.9	43.9	34.9	35.0 (34.8*)	31.6 (31.7*)		

\*KVA and KW for 575-volt model.

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

# Intelx™ Feeder Specifications (Subject to change without notice.)

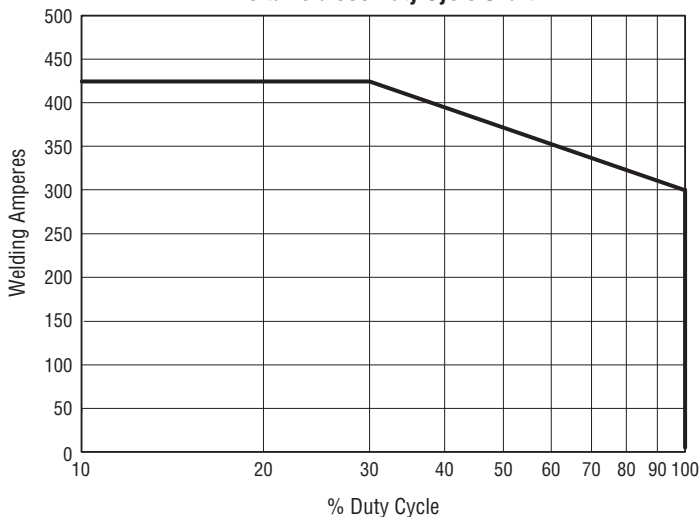


Input Power	Welding Power Source	Input Welding Circuit Rating	Wire Feed Speed	Wire Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
50 VDC	Deltaweld 350 or 500	600 A at 113 VDC, 60% duty cycle	50–780 ipm (1.3–19.8 m/min.)	.023–5/64 in. (0.6–2.0 mm)	18 in. (457 mm) 60 lb. (27 kg)	Single-wire: H: 16.25 in. (413 mm) W: 12.38 in. (314 mm) D: 27.88 in. (708 mm) Dual-wire: H: 14 in. (356 mm) W: 18 in. (457 mm) D: 34.5 in. (876 mm)	Single-wire: 44.8 lb. (20.3 kg) Dual-wire: 77 lb. (34.9 kg)

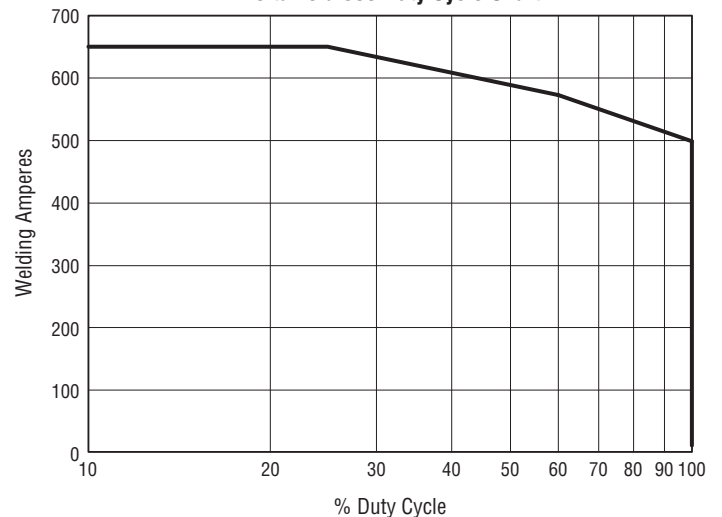
Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

# Deltaweld® Performance Data

Deltaweld 350 Duty Cycle Chart



Deltaweld 500 Duty Cycle Chart





## Genuine Miller® Accessories



**Deltaweld 350/500 Running Gear 301523**

Features small footprint, dual-cylinder rack, chains for gas cylinders, ergonomic handle design and lockable front casters with two torch holders, and storage area below.



### Cart Accessory Kits

**301528** For single-wire feeders

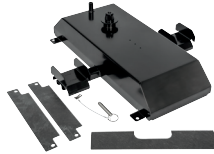
**301579** For dual-wire feeders

For use with running gear 301523. Consists of flowmeter regulator with 5-foot (1.5 m) gas hose, 10-foot (3 m) 4/0 feeder weld cable with lugs, 15-foot (4.6 m) work cable with 600-amp C-clamp, and 9-foot (2.7 m) ArcConnect control/motor cable. Dual kit comes with two flowmeter regulators and gas hoses.



**Stationary Handle Kit 301529**

Allows easy movement and portability of the power source.



**Feeder Swivel Kit 301533**

For single- and dual-wire feeders.

Allows feeder to mount to the top of

Deltaweld. Only single-wire feeder can swivel.



### Industrial MIG 4/0 Kits

**300390** For single-wire feeders

**300957** For dual-wire 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.

*Note: Kit is for stationary packages only, not for use with integrated cart package.*



**Hanging Bail 058435**

Used for suspending feeder over work area.



### ArcConnect Control/Motor Cables

**280471009** 9 ft. (2.7 m)

**280471015** 15 ft. (4.6 m)

**280471025** 25 ft. (7.6 m)

**280471050** 50 ft. (15.2 m)

**280471075** 75 ft. (22.9 m)

**280471100** 100 ft. (30.5 m)

Connects power source directly to feeder.

*Note: Cables cannot be joined together to create longer lengths and extension cables are not available.*



### Work Sense Leads (volt sense)

**300461** 25 ft. (7.6 m)





**300462** 50 ft. (15.2 m)

When connected from the back of the wire feeder to

the workpiece, the work sense lead provides accurate voltage feedback on the wire feeder display, and compensates for any voltage drop from the weld cables.

## Drive Roll Kits and Guides

Select drive roll kits from chart below according to type and wire size being used. Drive roll kits include four drive rolls, necessary guides and feature an anti-wear sleeve for inlet guide.

Wire Size	"V" groove for hard wire 	"U" groove for soft wire or soft-shelled cored wires 	"V" knurled for hard-shelled cored wires 	"U" coggled for extremely soft wire or soft-shelled cored wires (i.e., hard facing types) 
.023/.025 in. (0.6 mm)	<b>087132</b>	—	—	—
.030 in. (0.8 mm)	<b>046780</b>	—	—	—
.035 in. (0.9 mm)	<b>046781</b>	<b>044750</b>	<b>046792</b>	—
.035 and .045 in. (0.9 and 1.2 mm)	<b>227061*</b>	—	—	—
.040 in. (1.0 mm)	<b>191917</b>	—	—	—
.045 in. (1.1/1.2 mm)	<b>046782</b>	<b>046785</b>	<b>046793</b>	<b>083319</b>
.052 in. (1.3/1.4 mm)	<b>046783</b>	<b>046786</b>	<b>046794</b>	—
1/16 in. (1.6 mm)	<b>046784</b>	<b>046787</b>	<b>046795</b>	<b>046800</b>
.068/.072 in. (1.8 mm)	—	—	—	—
5/64 in. (2.0 mm)	—	<b>046788</b>	<b>046796</b>	<b>046801</b>

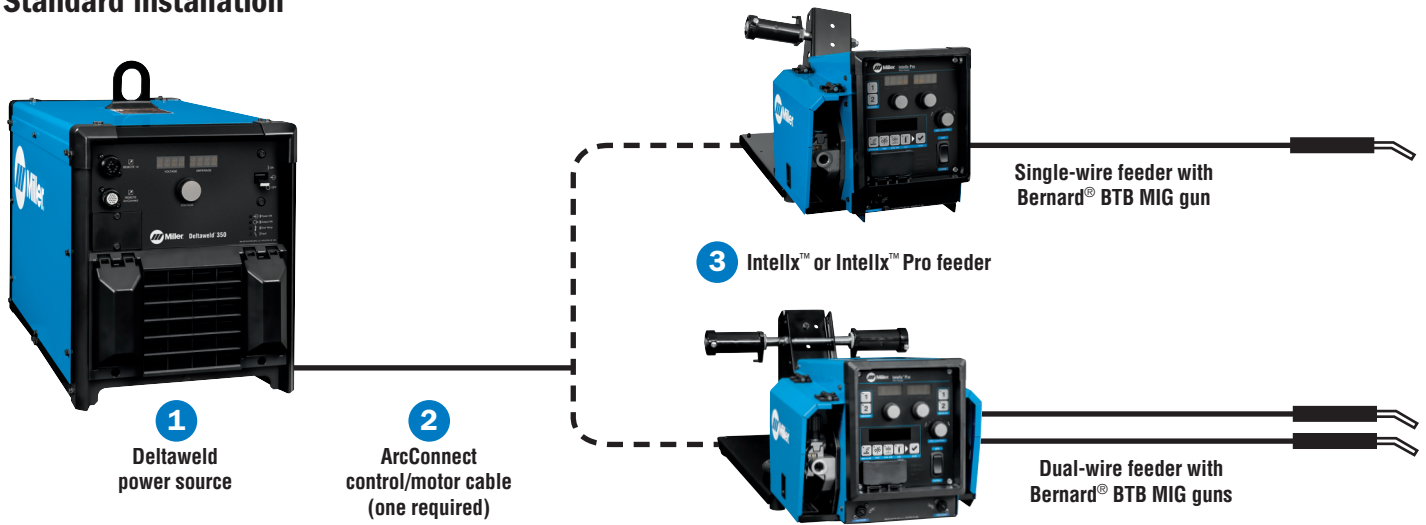
\*Included with Intelx feeders. Drive roll is dual-size reversible with one .035-inch and one .045-inch groove.

### Wire Guides

Wire Size	Inlet Guide	Intermediate Guide
.023-.040 in. (0.6-1.0 mm)	<b>221030</b>	<b>056206</b>
.045-.052 in. (1.2-1.3 mm)	<b>221030</b>	<b>056207</b>
1/16-5/64 in. (1.6-2.0 mm)	<b>221030</b>	<b>056209</b>
5/64-1/8 in. (2.0-3.2 mm)	<b>229919</b>	<b>056211</b>

# Typical Deltaweld® Systems Installation

## Standard installation



# Ordering Information Most popular models ◀

Deltaweld® MIGRunner™ System	Stock No.	Description	Qty.	Price
Deltaweld 350 MIGRunner with Single-Wire Intellix™	951792	Includes Deltaweld 350 power source (907747), single- or dual-wire bench feeder with Bernard® BTB Gun 300 A (two with dual-wire feeders) and 035/.045 in. V-grooved drive rolls, factory-installed running gear with cable holder, gun holders, and chains for gas cylinders, cart accessory kit for single- or dual-wire feeder (see page 6), and quick-setup guide and video		
Deltaweld 350 MIGRunner with Single-Wire Intellix Pro	951777 ◀			
Deltaweld 350 MIGRunner with Dual-Wire Intellix	951817			
Deltaweld 350 MIGRunner with Dual-Wire Intellix Pro	951818			
Deltaweld 500 MIGRunner with Single-Wire Intellix	951814	Includes Deltaweld 500 power source (907785), single- or dual-wire bench feeder with Bernard® BTB Gun 400 A (two with dual-wire feeders) and 035/.045 in. V-grooved drive rolls, factory-installed running gear with cable holder, gun holders, and chains for gas cylinders, and cart accessory kit for single- or dual-wire feeder (see page 6), and quick-setup guide and video		
Deltaweld 500 MIGRunner with Single-Wire Intellix Pro	951808 ◀			
Deltaweld 500 MIGRunner with Dual-Wire Intellix	951819			
Deltaweld 500 MIGRunner with Dual-Wire Intellix Pro	951820			
Deltaweld 500 MIGRunner with Single-Wire Intellix Pro	951824	Same as above, but with Deltaweld 500 (575 V) power source (907786)		
<b>Configure a Custom Deltaweld System (See corresponding item numbers in Typical Deltaweld Systems Installation on page 7.)</b>				
<b>Power Source</b>				
1 Deltaweld® 350	907747 ◀ 907747001	208/230/460 V power source with ArcConnect 208/230/460 V power source with ArcConnect, 14-pin receptacle and meters		
Deltaweld® 500	907785 ◀ 907785001 907786 907786001	208/230/460 V power source with ArcConnect 208/230/460 V power source with ArcConnect, 14-pin receptacle and meters 575 V power source with ArcConnect 575 V power source with ArcConnect, 14-pin receptacle and meters		
<b>Cables and Leads</b>				
2 ArcConnect Control/Motor Cables		See page 6 for available lengths		
Work Sense Leads (volt sense)		See page 6 for available lengths		
<b>Wire Feeders and Guns</b>				
3 Intellix Bench-Style Wire Feeders	951783 951815	Single-wire feeder with Bernard BTB Gun 300 A and .035/.045 in. V-groove drive rolls Dual-wire feeder with two Bernard BTB Gun 300 A and .035/.045 in. V-groove drive rolls		
Intellix Pro Bench-Style Wire Feeders	951784 ◀ 951816	Single-wire feeder with Bernard BTB Gun 300 A and .035/.045 in. V-groove drive rolls Dual-wire feeder with two Bernard BTB Gun 300 A and .035/.045 in. V-groove drive rolls		
Bernard BTB Gun	Q3015AE8XMC Q4015AE8EMC	300 A, 15 ft. (4.6 m) with Centerfire™ consumables 400 A, 15 ft. (4.6 m) with Centerfire™ consumables		
<b>Options and Accessories</b>				
Deltaweld 350/500 Running Gear/Cylinder Rack	301523	See page 6 for details		
Cart Accessory Kits		See page 6 for contents		
Stationary Handle Kit	301529	Allows for easy movement and portability of power source		
Feeder Swivel Kit	301533	Mounts to top of Deltaweld 350 and allows feeder to swivel		
Industrial MIG 4/0 Kits		See page 6 for contents		
Hanging Bail	058435	Used for suspending feeder over work area		

Date:

Total Quoted Price:

Distributed by:

