

# Deltaweld® Series

Issued Dec. 2010 • Index No. DC/16.2

**MIG Welding  
Power Source** 

## Quick Specs



### Heavy Industrial Applications

Heavy Equipment Manufacturing  
Truck and Trailer Manufacturing  
Ship and Boat Building  
Tank/Pressure Vessel Fabrication  
Manufacture of Automotive Equipment  
Railcar/Locomotive Fabrication and Repair  
Furniture Manufacture  
Structural Steel Fabrication  
Sheet Metal Fabrication  
Maintenance

### Processes

MIG (GMAW)  
Flux Cored (FCAW)  
Air Carbon Arc (CAC-A)  
Cutting and Gouging  
Submerged Arc (SAW)

**Input Power** 3-Phase Power on all models

**Rated Output** **302/402:** 300 A at 32 VDC, 100% Duty Cycle  
**452/602:** 450 A at 38 VDC, 100% Duty Cycle  
**652/852:** 650 A at 44 VDC, 100% Duty Cycle

**Weight** **302/402:** 323 lb (147 kg)  
**452/602:** 384 lb (174 kg)  
**652/852:** 472 lb (214 kg)

## The Power of Blue.®

**Superior arc welding performance** with MIG welding.

**Internal digital voltage control (DVC)** enables operator to preset weld voltage before striking an arc.

**Line voltage compensation** ensures consistent weld performance by keeping output power constant even if primary input power varies by  $\pm 10\%$ .

**Power efficient** for exceptional value and return on your investment.

**Two positive output terminals** provide high/low stabilizer selection. Allows operator to optimize arc performance.

**115 VAC duplex receptacle** provides 15 amps of auxiliary power.

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

**Power cord strain relief** provided for your convenience at installation.



**Deltaweld® 452  
MIGRunner™  
Package shown**

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



Build your own system at [MillerWelds.com/equiptoweld](http://MillerWelds.com/equiptoweld) or see the **Stationary and MIGRunner Packages** (pg 5).

**Digital voltmeter and ammeter** are easy to read, even at 30 ft (9.2 m).

**Simple control panel** provides easy, efficient operation.

**14-pin receptacle** provides quick, direct connection to Miller 14-pin wire feeders and accessories.

**Remote on/off capabilities** allow operator to turn power source on/off from a distance.

**Remote voltage control** allows operator to change voltage from feeder.

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

**PC board protection** prevents the wire feeder power or other stray voltages (less than 115 VAC) from harming the power source PC board.



Power source is warranted for 3 years, parts and labor.  
Original main power rectified parts are warranted for 5 years.

MADE IN **USA**  
APPLETON, WI **USA**



**Miller Electric Mfg. Co.**  
An Illinois Tool Works Company  
1635 West Spencer Street  
Appleton, WI 54914 USA

**Equipment Sales US and Canada**  
Phone: 866-931-9730  
FAX: 800-637-2315  
International Phone: 920-735-4554  
International FAX: 920-735-4125

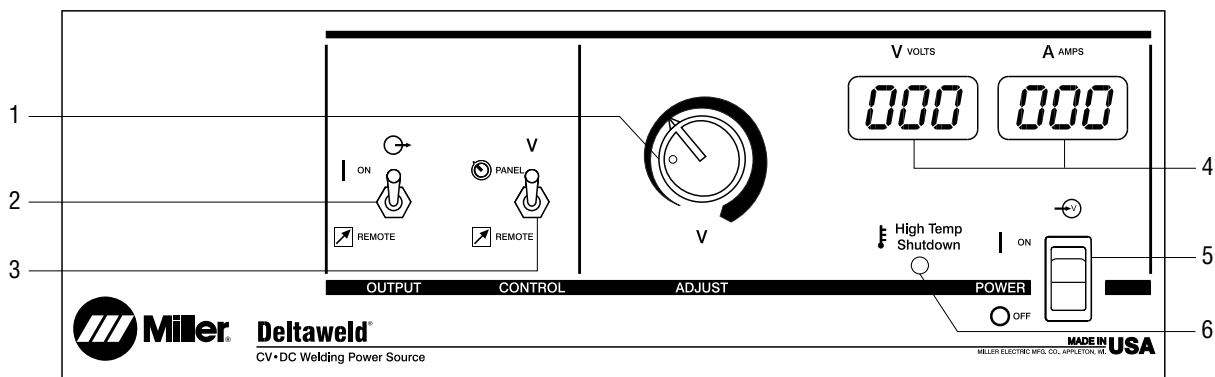
**Web Site**  
[www.MillerWelds.com](http://www.MillerWelds.com)



Rated Output	Voltage Range	Recommended Welding Range	Amps Input at Rated Output, 50/60 Hz									Max. Open-Circuit Voltage	Dimensions	Net Weight
			200 V	230 V	380 V	400 V	440 V	460 V	575 V	KVA	KW			
300 A at 32 VDC, 100% Duty Cycle	10–32 V	15–32 V	48	42	27	25	23	21	17	16.9	12.9	42 VDC	H: 30 in (762 mm) including lift eye W: 23 in (585 mm) D: 30-1/2 in (775 mm) including strain relief	323 lb (147 kg)

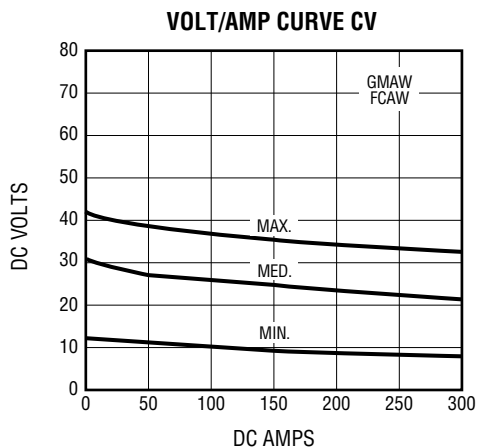
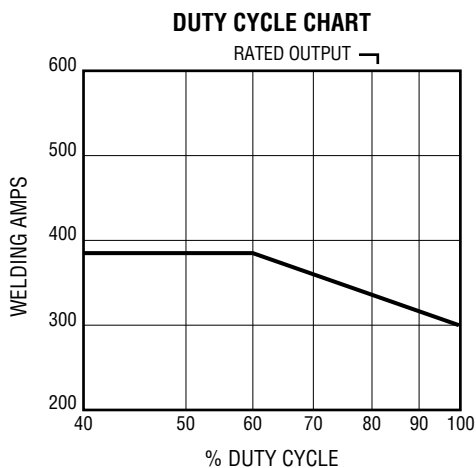
Note: For input conductor and fuse size information consult the Owner's Manual.

## Control Panel



- |                                  |                                      |
|----------------------------------|--------------------------------------|
| 1. Voltage Adjustment Control    | 4. Digital Meters                    |
| 2. Output Switch                 | 5. Power Switch with Indicator Light |
| 3. Remote Voltage Control Switch | 6. High Temperature Shutdown Light   |

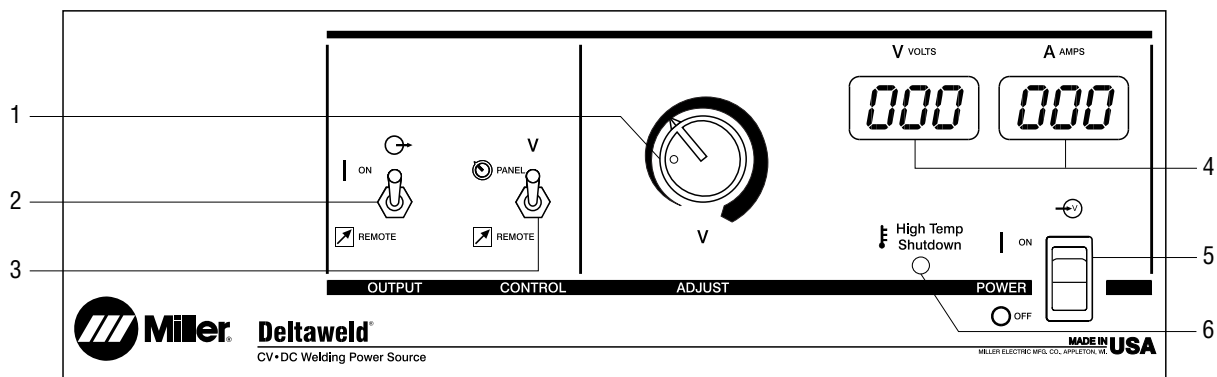
## Performance Data



Rated Output	Voltage Range	Recommended Welding Range	Amps Input at Rated Output, 50/60 Hz									Max. Open-Circuit Voltage	Dimensions	Net Weight
			200 V	230 V	380 V	400 V	440 V	460 V	575 V	KVA	KW			
450 A at 38 VDC, 100% Duty Cycle	10–38 V	15–38 V	72	63	39	37	33	32	25	25.1	21.1	48 VDC	H: 30 in (762 mm) including lift eye W: 23 in (585 mm) D: 38 in (966 mm) including strain relief	384 lb (174 kg)

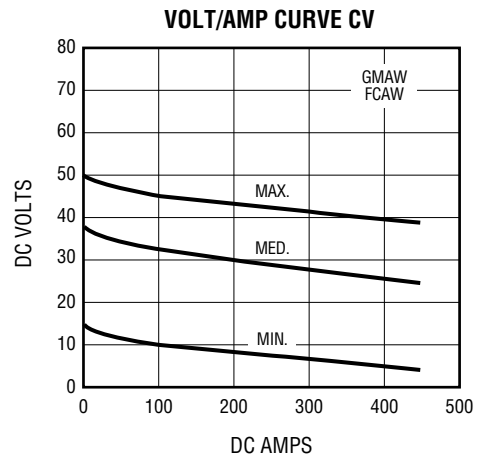
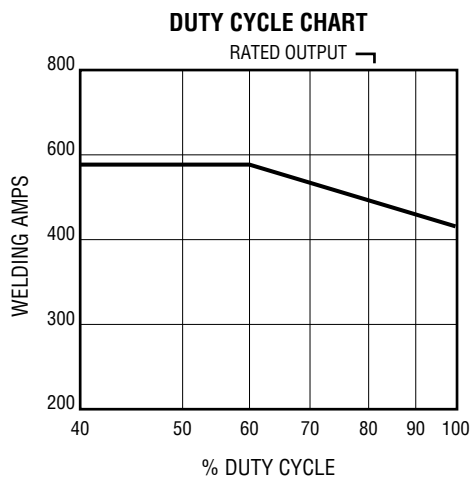
Note: For input conductor and fuse size information consult the Owner's Manual.

## Control Panel



- 1. Voltage Adjustment Control
- 2. Output Switch
- 3. Remote Voltage Control Switch
- 4. Digital Meters
- 5. Power Switch with Indicator Light
- 6. High Temperature Shutdown Light

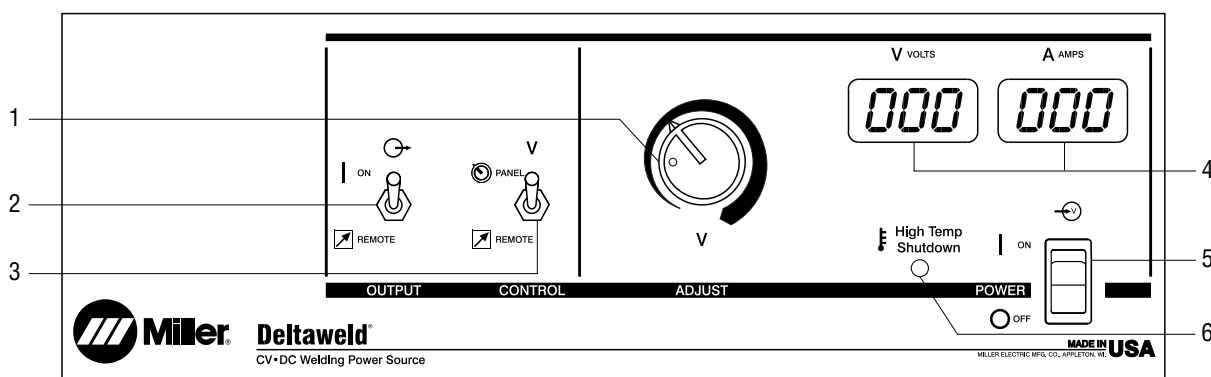
## Performance Data



Rated Output	Voltage Range	Recommended Welding Range	Amps Input at Rated Output, 50/60 Hz								Max. Open-Circuit Voltage	Dimensions	Net Weight
			230 V	380 V	400 V	440 V	460 V	575 V	KVA	KW			
650 A at 44 VDC, 100% Duty Cycle	10-44 V	15-44 V	96	58	54	50	48	38	38.2	34.2	54 VDC	H: 30 in (762 mm) including lift eye W: 23 in (585 mm) D: 38 in (966 mm) including strain relief	472 lb (214 kg)

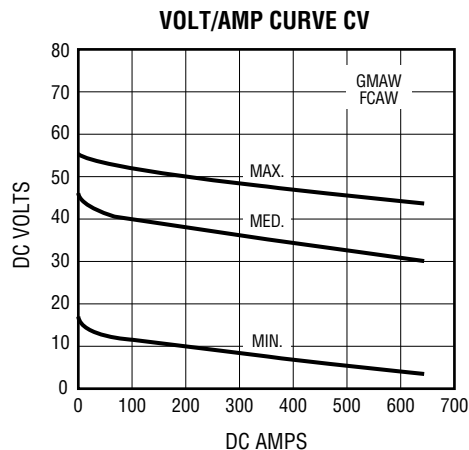
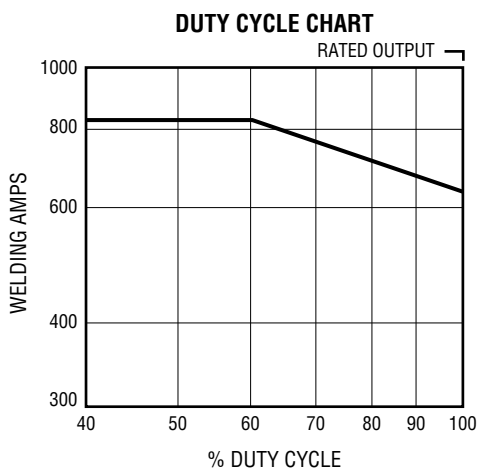
Note: For input conductor and fuse size information consult the Owner's Manual.

## Control Panel



- 1. Voltage Adjustment Control
- 2. Output Switch
- 3. Remote Voltage Control Switch
- 4. Digital Meters
- 5. Power Switch with Indicator Light
- 6. High Temperature Shutdown Light

## Performance Data



## Packages



### Option #1: Deltaweld® Power Sources

Purchase components separately.

#### Deltaweld 302

#903 376 (200-208/230/460 V, 60 Hz)

#903 392 (230/460/575 V, 60 Hz)

#### Deltaweld 452

#903 377 (200-208/230/460 V, 60 Hz)

#903 394 (230/460/575 V, 60 Hz)

#### Deltaweld 652

#903 396 (230/460/575 V, 60 Hz)



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



### Option #2: Deltaweld® Stationary Packages

Stationary display without running gear/  
cylinder rack.

#### Deltaweld 302 Stationary Package

#951 235 (200-208/230/460 V, 60 Hz)

#951 299 (230/460/575 V, 60 Hz)

#### Deltaweld 452 Stationary Package

#951 237 (200-208/230/460 V, 60 Hz)

#951 301 (230/460/575 V, 60 Hz)

#### Deltaweld 652 Stationary Package

#907 239 (230/460/575 V, 60 Hz)

#### Comes complete with:

- Deltaweld power source
- S-74D wire feeder
- Bernard® Q-Gun™
- Industrial MIG 4/0 Kit:  
Smith® regulator/flowmeter 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



### Option #3: Deltaweld® MIGRunner™ Packages

MIGRunner system with factory-installed  
running gear/cylinder rack.

#### Deltaweld 302 MIGRunner Package

#951 234 (200-208/230/460 V, 60 Hz)

#951 300 (230/460/575 V, 60 Hz)

#### Deltaweld 452 MIGRunner Package

#951 236 (200-208/230/460 V, 60 Hz)

#951 302 (230/460/575 V, 60 Hz)

#### Deltaweld 652 MIGRunner Package

#951 238 (230/460/575 V, 60 Hz)

#### Comes complete with:

- Deltaweld power source
- S-74D wire feeder
- Bernard® Q-Gun™
- Industrial MIG 4/0 Kit:  
Smith® regulator/flowmeter 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
- Factory installed running gear/  
cylinder rack

## Genuine Miller Options

**Air Filter Kit #042 939** Field  
Reusable air filter helps protect internal components from dust and dirt, reducing need for maintenance and providing extended service life. Easily attaches and detaches from front of the power source.

**Ground Current Sensor #195 048** Field  
Disables power source if weld current is present on primary ground.

## Genuine Miller Accessories

### Extension Cables for 14-Pin Plugs to 14-Pin Sockets\*

**#242 208 025** 25 ft (7.6 m)

**#242 208 050** 50 ft (15.2 m)

**#242 208 080** 80 ft (24.4 m)

Extension cables make a direct connection between the power source and remote control or 24 VAC wire feeder. No messy splicing or adapting required.

*\*Custom lengths available in 5 ft increments up to 50 ft and 10 ft increments up to 100 ft.*

### Remote On/Off Control #242 197 025

Allows you to turn your power source on or off from a distance of 25 ft (7.6 m). This is especially useful if your power source is located up in a mezzanine.



### Industrial MIG 4/0 Kit #300 390

Consists of Smith® regulator/flowmeter 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.

### Polarity Control #042 871

This dual-function control is designed for use with dual wire feeders or any application where electrical isolation and/or polarity reversing of weld current is required. Both functions can be used at the same time.

### Process Control Selector #042 872

Allows you to easily change weld processes. Also includes features of Polarity Control.



### Standard Running Gear #042 886

The large 10 in (254 mm) rear wheels and 5 in (127 mm) front casters on this running gear provide excellent mobility on the shop floor, making it easier to move the power source around and over cables and cracks. Very easy to install. Handles double as weld cable holder.

### Standard Cylinder Rack #042 887

Holds two cylinders. Only installs on Standard Running Gear.

## Coolant Systems

For more information, see Miller Coolant Systems Lit. Index No. AY/7.2.



### Coolmate™ 3

**#043 007** 115 VAC

**#043 008** 230 VAC

For use with water-cooled torches rated up to 600 amps. Unique paddle-wheel indicator, external filter and easy fill spout.

### Coolmate™ V3 #043 009 115 VAC

For use with water-cooled torches rated up to 500 amps. Vertical design conveniently mounts to Miller cylinder rack in place of one cylinder.

### Coolmate™ 4 #042 288 115 VAC

For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

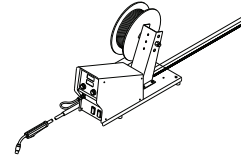
### Coolant #043 810

Sold in cases of four 1-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37°F (-38°C) or boiling to 227°F (108°C). Also contains a compound that resists algae growth.

# Wire Feeder Options

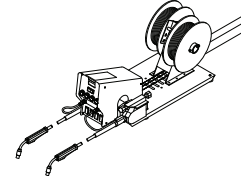
## Bench-Style Feeders

	Lit. Index No.
S-22A	M/11.0
S-24A	M/11.0
S-74S	M/3.0
S-74D	M/3.0
S-74DX	M/3.0



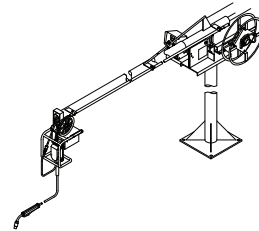
## Bench-Style Dual Feeders

D-74S	M/3.0
D-74D	M/3.0
D-74DX	M/3.0



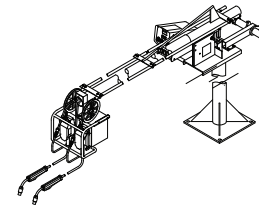
## Boom-Style Feeders

SS-74S12	M/13.11
SS-74S16	M/13.11
SS-74D12	M/13.11
SS-74D16	M/13.11
SS-74DX12	M/13.11
SS-74DX16	M/13.11



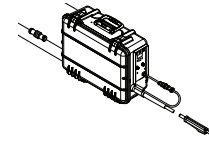
## Boom-Style Dual Feeders

DS-74S12	M/13.11
DS-74S16	M/13.11
DS-74D12	M/13.11
DS-74D16	M/13.11
DS-74DX12	M/13.11
DS-74DX16	M/13.11



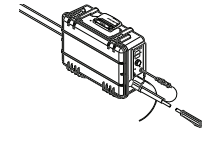
## Portable Feeders

SuitCase® 8RC	M/6.5
SuitCase® 12RC	M/6.5



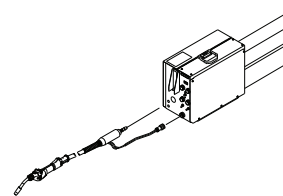
## Portable Voltage Sensing Feeders

SuitCase® X-TREME™ 8VS	M/6.41
SuitCase® X-TREME™ 12VS	M/6.41



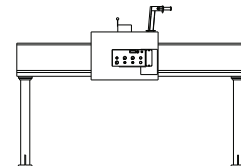
## Aluminum Push-Pull Feeders

XR™-S and XR™-D Controls	M/1.7
Guns available:	
XR-Aluma-Pro™ A	M/1.71
XR-Aluma-Pro™ W	M/1.71
XR-A Pistol Grip	M/1.73



## Hard Automation

Control Detach Kit 70 Series	M/3.0
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# Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
<b>Power Source</b>				
Deltaweld® 302 Power Source Only	#903 376* #903 392*	200-208/230/460 V, 60 Hz 230/460/575 V, 60 Hz		
Deltaweld® 302 Stationary Package	#951 235* #951 299*	200-208/230/460 V, 60 Hz 230/460/575 V, 60 Hz		
Deltaweld® 302 MIGRunner™ Package	#951 234* #951 300*	200-208/230/460 V, 60 Hz 230/460/575 V, 60 Hz		
Deltaweld® 402 Power Source Only	#907 357**	380/400/440 V, 50 Hz w/CE		
Deltaweld® 452 Power Source Only	#903 377* #903 394*	200-208/230/460 V, 60 Hz 230/460/575 V, 60 Hz		
Deltaweld® 452 Stationary Package	#951 237* #951 301*	200-208/230/460 V, 60 Hz 230/460/575 V, 60 Hz		
Deltaweld® 452 MIGRunner™ Package	#951 236* #951 302*	200-208/230/460 V, 60 Hz 230/460/575 V, 60 Hz		
Deltaweld® 602 Power Source Only	#907 358**	380/400/440 V, 50 Hz w/CE		
Deltaweld® 652 Power Source Only	#903 396*	230/460/575 V, 60 Hz		
Deltaweld® 652 Stationary Package	#951 239*	230/460/575 V, 60 Hz		
Deltaweld® 652 MIGRunner™ Package	#951 238*	230/460/575 V, 60 Hz		
Deltaweld® 852 Power Source Only	#907 359**	380/400/440 V, 50 Hz w/CE		
Air Filter Kit	#042 939	Field		
Ground Current Sensor	#195 048	Field		
<b>Wire Feeders</b>				
22A	#951 190	See Lit. Index No. M/11.0		
24A	#951 193	See Lit. Index No. M/11.0		
70 Series		See Lit. Index No. M/3.0		
SuitCase® 8RC	#951 186	See Lit. Index No. M/6.5		
SuitCase® 12RC	#951 188	See Lit. Index No. M/6.5		
SuitCase® X-TREME™ 8VS	#951 181	See Lit. Index No. M/6.41		
SuitCase® X-TREME™ 12VS	#951 184	See Lit. Index No. M/6.41		
XR™ Controls	#300 601 #300 678	XR-S model. See Lit. Index No. M/1.7 XR-D model. See Lit. Index No. M/1.7		
Swingarc™ Boom Feeders		See Lit. Index No. M/13.11		
<b>Miscellaneous</b>				
Extension Cables	#242 208 025	See page 6		
Remote On/Off Control	#242 197 025			
Industrial MIG 4/0 Kit	#300 390	Includes Smith® regulator/flowmeter 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		
Polarity Control	#042 871			
Process Control Selector	#042 872			
Standard Running Gear	#042 886			
Standard Cylinder Rack	#042 887			
Coolant Systems		See page 6		
Coolant	#043 810			
Primary Power Cable				
Secondary Welding Cables				
Work Cable and Clamp				

Date:

Total Quoted Price:

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

\*\*  50 Hz models with CE Specifications are manufactured according to the Standards IEC-974-1 and EN-60974-1. Conforms with NEMA EW 1 "Electric Arc Welding Power Source," Class I (100).

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