

AlumaFeed®

Synergic Aluminum Welding System

MIG Welding System
for Aluminum Welding



QUICK SPECS

Heavy Industrial Applications

Boat, ship and yacht building
Recreational vehicles
Trucks and trailer
Sign manufacturers
Emergency vehicles

Processes

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

XR-AlumaFeed SuitCase

Input Power

24 VAC, 5 A, 50/60 Hz

Wire Feed Speed

50–900 ipm (1.3–22.9 m/min.)

Net Weight 31 lb. (14.1 kg)

AlumaPower 450 MPa

Input Power

Requires 3-phase power,
230/460 V or 575 V, 60 Hz

Rated Output 10–38 V, 15–600 A

Net Weight 122 lb. (55.3 kg)

The XR-AlumaFeed® system consistently delivers premium feeding performance, portability when needed, and a balanced and ergonomic gun design to allow you to weld aluminum all day.

Ultra portable and versatile.

The slim ergonomic design of the XR-Aluma-Pro torch allows access into the tightest of quarters. Coupled with an XR-AlumaFeed SuitCase feeder and AlumaPower 450 MPa synergic power supply, it has the features for all of your aluminum fabrication needs.

Synergic pulsed welding mode offers the simplicity of single-knob control. The machine will select the correct pulse power based on the wire feed speed (WFS) set by the operator.

Parameter and system locks provide three levels of protection to prevent accidental modification of welding parameters or manipulation of setup menu items.

Synchronized, true push-pull wire feed system. Slave/torque motor ensures smooth, consistent feeding and improved arc performance, while reducing the problems normally associated with feeding aluminum.



XR™-Pistol-Pro gun is also compatible with the AlumaFeed synergic aluminum welding system.



Comes complete with:

MIGRunner™ package

- XR-AlumaFeed® SuitCase® push-pull wire feeder
- AlumaPower™ 450 MPa power source
- 25 ft. (7.6 m) air-cooled XR-Aluma-Pro™ gooseneck-style push-pull gun
- .035- and 3/64-inch (0.9 and 1.2 mm) contact tips, drive roll and liners for guns
- .035- and 3/64-inch (0.9 and 1.2 mm) drive rolls for wire feeder
- MIGRunner cart
- Industrial MIG 4/0 MIG kit with lug connectors

Note: All AlumaFeed systems come set up out of the box to run 3/64-inch (1.2 mm) 5356 wire.

Order weld cables and other accessories separately.

AlumaFeed system
MIGRunner™ package shown.

TRUE BLUE®
3YR. WARRANTY

Power source/wire feeder are warranted for three years, parts and labor.
Original main power rectifier parts are warranted for five years.
Gun warranted for one year, parts and labor.



Miller Electric Mfg. LLC
An ITW Welding Company
1635 West Spencer Street
P.O. Box 1079
Appleton, WI 54912-1079 USA

Equipment Sales US and Canada
Phone: 866-931-9730
International Phone: 920-735-4554

MillerWelds.com



XR-AlumaFeed® SuitCase® Wire Feeder

Profile Pulse™. Achieve “stacked dime” weld bead appearance without back-stepping.

Advanced trigger provides “trigger interlock” capability and the ability to control the amount of time spent in the arc start and arc crater steps.

Bright digital displays are easy to read, and display voltage or arc length and wire feed speed or amperage. They also have indicators for start and crater, setup, schedule select and advanced trigger operations. Two-knob, three-button panel layout makes it simple to change parameters and reduces training time.

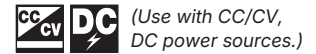


Trigger schedule select (SCHD) allows the operator to select the alternative schedule by quickly tapping the gun trigger when not welding. Useful when switching between two welding parameters is needed.

Setup guide on inner panel of feeder has quick tips to get your system up and running quickly. Also provides a good reference that won't get misplaced like an owner's manual.

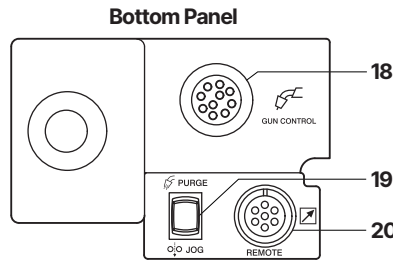
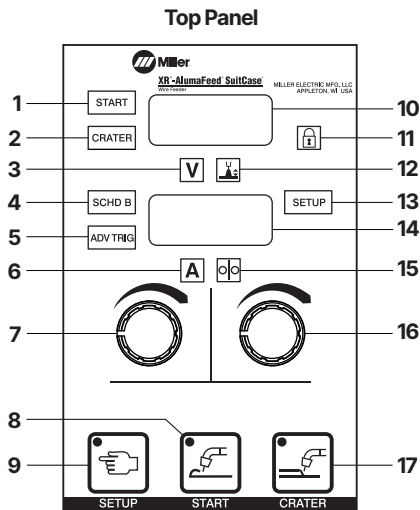
Impact-resistant, flame-retardant case provides strength and durability, while protecting components and welding wire from moisture, dust and other contaminants.

XR-AlumaFeed SuitCase Specs (Subject to change without notice.)



INPUT POWER	INPUT WELDING CIRCUIT RATING	WIRE FEED SPEED	WIRE TYPE AND DIAMETER CAPACITY	MAXIMUM SPOOL SIZE CAPACITY	DIMENSIONS	NET WEIGHT
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.)	Aluminum: .035–1/16 in. (0.9–1.6 mm) Solid Wire: .035–.045 in. (0.9–1.2 mm) Drive roll kit 268850 required to run 1/16 in. (1.6 mm) wire	12 in. (305 mm)	H: 15.5 in. (394 mm) W: 9 in. (229 mm) D: 21 in. (533 mm)	31 lb. (14.1 kg)

XR-AlumaFeed SuitCase Control Panel



1. Start Menu Indicator
2. Crater Menu Indicator
3. Volts Indicator
4. Schedule B Indicator
5. Advanced Trigger Indicator
6. Amps Indicator
7. Left Adjust Knob
8. Start Button and On Indicator
9. Setup Button and On Indicator
10. Voltage/Arc Length Display
11. Lock Indicator
12. Arc Length Indicator
13. Setup Menu Indicator
14. Amperage/Wire Feed Speed Display
15. Wire Feed Speed Indicator
16. Right Adjust Knob
17. Crater Button and On Indicator

Power Source Compatibility for XR-AlumaFeed SuitCase Wire Feeder

POWER SOURCE	PULSE CAPABLE	SYNERGIC PULSED MIG	PROFILE PULSE CAPABILITY	ELECTRONIC INDUCTANCE/SHARPARC®	COMPATIBILITY
AlumaPower™ 450 MPa	Yes (Aluminum only)	Yes (Aluminum only)	Yes	Yes	Optimized
XMT® 450 MPa	Yes	Yes	Yes	Yes	Best
XMT® 450 CC/CV	No	No	No	Yes	Better
XMT® 400	No	No	No	Yes	Better
XMT® 650	No	No	No	Yes	Better
Deltaweld® (after KF790532)	No	No	No	No	Good

Note: Chart above only contains current power sources. For specific information, please contact your local Miller distributor.

XR™ Push-Pull Gun Options



XR-Aluma-Pro™
gooseneck-style gun



XR™-Pistol-Pro
pistol grip gun

Available in 15-, 25- or 35-foot cable lengths providing extended reach with trouble-free, reliable feeding. Guns are available in either air- or water-cooled versions.

Replaceable feed cable liner reduces parts cost and service time by allowing a simple means of removing and replacing liner and not the complete feed cable.

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.

Serviceability. These guns feature a cable cover with full-length hook-and-loop closure and integrated strain reliefs for easy cable maintenance and protection. Additionally, guns feature easy access to drive assembly and removable toolless head tube to reduce service time by allowing a means of changing drive rolls and head tube, or performing routine maintenance, without disassembly of gun.

Aluminum-series-specific tension setting ensures smooth wire feeding performance with 4000 or 5000 series aluminum wires.

Gun Specifications (Subject to change without notice.)



MODEL	WELDING CURRENT RATING	WIRE FEED SPEED	WIRE TYPE AND DIAMETER CAPACITY	DIMENSIONS	NET WEIGHT (GUN ONLY)
XR-Aluma-Pro (Air-cooled)	300 A at 100% duty cycle	70–900 ipm (1.8–23 m/min.) dependent on control box or Millermatic® used	.030–1/16 in. (0.8–1.6 mm) aluminum wire Requires gun wire kit 230708 to run 1/16 in. (1.6 mm) wire	H: 5 in. (127 mm) W: 2.5 in. (64 mm) D: 17 in. (432 mm)	2.5 lb. (1.1 kg)
XR-Aluma-Pro (Water-cooled)	400 A at 100% duty cycle				2.9 lb. (1.3 kg)
XR-Pistol-Pro (Air-cooled)	200 A at 100% duty cycle 250 A at 60% duty cycle	70–900 ipm (1.8–23 m/min.) dependent on control box or Millermatic® used	.030–1/16 in. (0.8–1.6 mm) aluminum wire Requires gun wire kit 230708 to run 1/16 in. (1.6 mm) wire	H: 7.375 in. (187 mm) W: 1.875 in. (48 mm) D: 10.625 in. (270 mm)	2.2 lb. (1 kg)
XR-Pistol-Pro (Water-cooled)	400 A at 100% duty cycle				2.4 lb. (1.1 kg)

Standard Gun Consumables

XR-Aluma-Pro™ Gun

ALUMINUM WIRE SIZE	FASTIP CONTACT TIP (QTY. 25)	DRIVE ROLLS	IDLER ROLLS	INLET GUIDES	LINER FOR SHORT AIR-COOLED HEAD TUBE 4 IN. (102 MM)	LINER FOR LONG AIR- OR WATER-COOLED HEAD TUBE 6 IN. (152 MM)	CABLE LINERS
.030 in. (0.8 mm)	206186 .041 in. ID	227434	227439	227408	227161	229674	229887 15 ft. (4.6 m)
.035 in. (0.9 mm)	206187 .047 in. ID	227434	227439	227408	227161	229674	229891 25 ft. (7.6 m)
.040 in. (1.0 mm)	206188 .053 in. ID	227434	227439	227408	227161	229674	232321 35 ft. (10.6 m)
3/64 in. (1.2 mm)	206189 .061 in. ID	227434	227439	227408	230239	229431	
1/16 in. (1.6 mm)	206191 .071 in. ID	227434	230710	230711	230239	229431	

XR™-Pistol-Pro Gun

ALUMINUM WIRE SIZE	FASTIP CONTACT TIP (QTY. 25)	DRIVE ROLLS	IDLER ROLLS	HEAD TUBE LINER 4 IN. (102 MM)	CABLE LINERS
.030 in. (0.8 mm)	206186 .041 in. ID	227434	227439	M1272	M1115 15 ft. (4.6 m)
.035 in. (0.9 mm)	206187 .047 in. ID	227434	227439	M1272	248359 25 ft. (7.6 m)
.040 in. (1.0 mm)	206188 .053 in. ID	227434	227439	M1272	
3/64 in. (1.2 mm)	206189 .061 in. ID	227434	227439	M1273	248375 35 ft. (10.6 m)
1/16 in. (1.6 mm)	206191 .071 in. ID	227434	230710	M1273	

AlumaPower™ 450 MPa Power Source

MPa: M (MIG), P (Pulse), a (Advanced Arc Control). Advanced arc control enables an improved pulse welding arc. The operator has more control over puddle and bead characteristics using SharpArc. In addition, the unit provides a more robust and stable arc at very low arc length, reducing heat input, and providing the ability to weld on a wider range of material thickness. Benefits include easier setup and no more changing wire speed, and then having to go back to the power source to reset the welding output.

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

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

Inverter arc control technology provides greater puddle control for outstanding MIG and pulsed MIG weld performance.

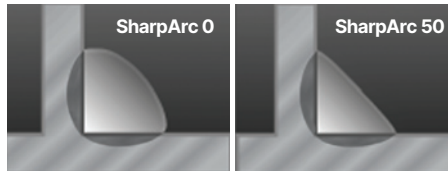
Easy setup for MIG and pulsed MIG applications.

115-volt auxiliary power to run Coolmate™.



SharpArc® controls the arc in pulsed MIG mode and gives control over the arc cone shape, puddle fluidity, and bead profile. If a gas is used other than Ar 100% (argon), SharpArc can be adjusted to help customize your arc to the gas being used.

Weld Cross Section



Lightweight, aerospace-grade aluminum case offers protection and the benefit of reduced weight.

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

Power factor of .95 enables smaller fuses/breakers and primary wiring. Primary amperage draw at rated output is 25 percent less than the competition.

Line voltage compensation keeps welding output constant even if input power varies by +/-10 percent.

Built-in synergic or standard pulsed MIG capabilities. See the list below of built-in pulsed MIG (GMAW-P) aluminum programs.

Wire Type

.035 AL 4043
.040 AL 4043
3/64 AL 4043
1/16 AL 4043
.035 AL 5356
.040 AL 5356
3/64 AL 5356
1/16 AL 5356
.035 AL49
.040 AL49
1/16 AL49

Gas Type

Ar 100% (argon)
Ar 100% (argon)
Ar 100% (argon)
Ar 100% (argon)
Ar 100% (argon)
Ar 100% (argon)
Ar 100% (argon)
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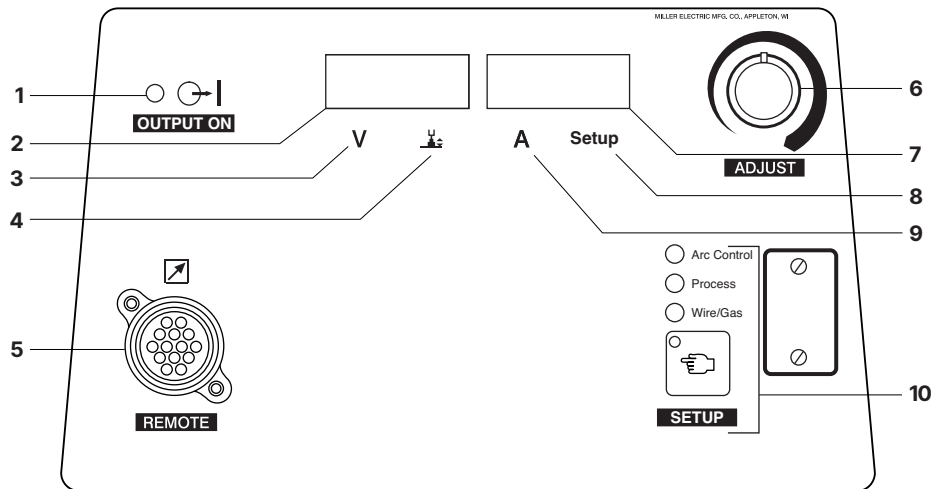
AlumaPower 450 Specifications (Subject to change without notice.)



AMP/VOLT RANGES	RATED OUTPUT	AMPS INPUT AT RATED LOAD OUTPUT, 60 HZ 230 V 460 V 575 V KVA KW	MAX. OPEN-CIRCUIT VOLTAGE	DIMENSIONS	NET WEIGHT
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)

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

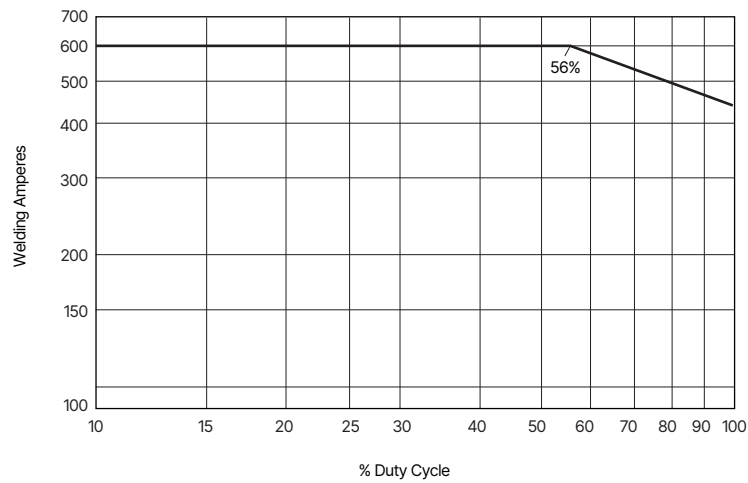
AlumaPower™ 450 MPa Control Panel



1. Output ON Indicator Light
2. Left Display
3. Voltage Indicator
4. Arc Length Indicator
5. Wire Feeder Receptacle
6. Adjustment Control
7. Right Display
8. Setup Indicator
9. Amperage Indicator
10. Setup Indicator Lights
 - Arc Control Indicator
 - Process Indicator
 - Wire/Gas Type Indicator
 - Setup Button

AlumaPower™ 450 MPa Performance Data

DUTY CYCLE CHART



AlumaFeed® System MIGRunner™ Package

951840

Includes

- XR-AlumaFeed® SuitCase® push-pull wire feeder
- 230/460 V AlumaPower™ 450 MPa power source
- 25 ft. (7.6 m) air-cooled XR-Aluma-Pro™ gooseneck-style push-pull gun
- .035- and 3/64-inch (0.9 and 1.2 mm) contact tips, drive roll and liners for guns
- .035- and 3/64-inch (0.9 and 1.2 mm) drive rolls for wire feeder (3/64-inch installed)
- MIGRunner cart
- Industrial MIG 4/0 MIG kit with lug connectors (see page 7 for contents)

Note: Positive weld cable connection to the feeder requires the ring lug be cut off and replaced with the Tweco-style connector supplied with the XR-AlumaFeed SuitCase feeder.



Genuine Miller® Accessories

Guns



XR-Aluma-Pro™ Guns

301568 15 ft. (4.6 m), air-cooled
301569 25 ft. (7.6 m), air-cooled
301570 35 ft. (10.6 m), air-cooled
301571 15 ft. (4.6 m), water-cooled
301572 25 ft. (7.6 m), water-cooled
301573 35 ft. (10.6 m), water-cooled
This easy to use and maintain gooseneck-style MIG gun is designed for push-pull wire feed systems. Available in air- or water-cooled versions. Gun design allows for better access into tight spots. See literature M/1.71.



XR™-Pistol-Pro Guns

300782 15 ft. (4.6 m), air-cooled
300783 25 ft. (7.6 m), air-cooled
300784 35 ft. (10.6 m), air-cooled
300786 15 ft. (4.6 m), water-cooled
300787 25 ft. (7.6 m), water-cooled
300788 35 ft. (10.6 m), water-cooled
This easy to use and maintain pistol-grip MIG gun is designed for push-pull wire feed systems. Available in air- or water-cooled versions. See literature M/1.74.

Cable Covers

M1681 15 ft. (4.6 m)
M1682 25 ft. (7.6 m)
M1683 35 ft. (10.6 m)
Protects gun hose and cable assembly from wear and abrasion. Features full-length hook-and-loop closure for ease of maintenance or replacement.

Short Air-Cooled Head Tube Assembly 231519

60-degree/4-inch (102 mm) standard head tube includes liner.

Long Air-Cooled Head Tube Assembly 231518

60-degree/6-inch (152 mm) optional head tube includes liner.

Hardwire Liner Kit for Steel and Stainless 198377

For 15, 25, or 35 ft. (4.6, 7.6 or 10.6 m) guns
Kit consists of gun head tube liner **233998** listed below and feed cable liner. Recommend using .030-.045 inch mild steel or stainless steel electrode wire.

Note: .052- and 1/16-inch wires not recommended.

Phosphorous Bronze Liner

233999 Long head tube (air or water)
233998 Short head tube (air only)
For use with hardwire liner kit **198377** when used in XR-Aluma-Pro gun.

1/16-inch (1.6 mm) Wire Kit 230708
Specially designed for 1/16-inch wire. Includes idler roll, head tube liner and inlet guide. Required when running 1/16-inch wires. Not included with standard XR-Aluma-Pro or XR-Pistol-Pro gun.

1/16-inch (1.6 mm) Drive Roll Kit 268850
Required when running 1/16-inch wires on XR-AlumaFeed® SuitCase®.



Flowmeter Kit 301306
Includes flowmeter and components required for mounting to the back of the XR-AlumaFeed SuitCase wire feeder.

SuitCase Mounting Bracket 301592
Used for mounting the XR-AlumaFeed SuitCase to the MIGRunner cart or other mounting location determined by customer.



**Industrial MIG 4/0 Kit with Lug Connectors
300390**
Includes flowmeter regulator with 10-foot (3 m) gas hose, 10-foot (3 m) 4/0 feeder weld cable with lug connectors, and 15-foot (4.6 m) work cable with lug connector on one end and 600-amp C-clamp on the other.

Note: Positive weld cable connection to the feeder requires the ring lug be cut off and replaced with the Tweco-style connector supplied with the XR-AlumaFeed SuitCase feeder.

11-Conductor Extension Cables
247831025 25 ft. (7.6 m)
247831050 50 ft. (15 m)
247831080 80 ft. (24.3 m)
For XR-AlumaFeed SuitCase feeder. Eleven conductors to support contactor control and remote voltage control on all Miller® electronic constant-voltage (CV) 14-pin power sources. Additional functions supported when using MPA power sources include synergic pulsed MIG, remote process select and side select capabilities.

Running Gear



**MIGRunner™ Cart
195445**
Small footprint and easily maneuverable, with cylinder rack low enough that you do not have to lift bottles.



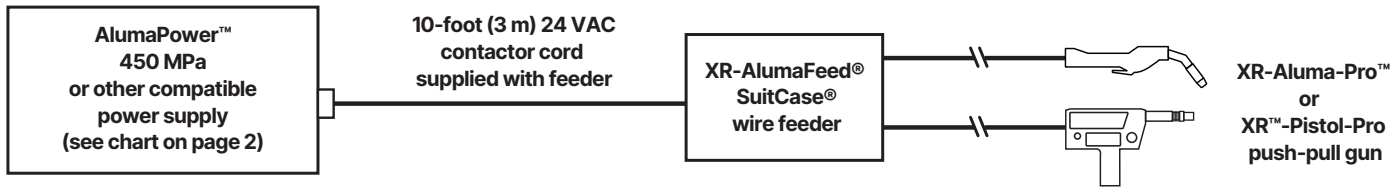
**Universal Carrying
Cart and Cylinder
Rack 042934**
Holds power source, and gas cylinder up to 56 inches (142.2 cm) high measuring 6 to 9 inches (15.2 to 22.8 cm) in diameter.

Coolant Systems

See Coolmate™ Series literature AY/7.2.

Coolant 043809
Sold in cases of four one-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37 degrees Fahrenheit (-38°C) or boiling to 227 degrees Fahrenheit (108°C). Also contains a compound that resists algae growth.

Typical Installation



Note: Cords and cables are supplied unless noted otherwise on drawing above. Refer to Owner's Manual for complete installation instructions.

Ordering Information

EQUIPMENT AND OPTIONS	STOCK NO.	DESCRIPTION	QTY.	PRICE
AlumaFeed® System MIGRunner™ Package	951840	230/460 V. See page 6 for package details		
Individual Wire Feeder and Power Source				
XR-AlumaFeed® SuitCase® Wire Feeder	301567	Feeder only. Full synergic operation when used with MPa power sources only. Other Miller 14-pin power sources may be used, but feature operation may be limited. Call your Miller distributor for more information		
AlumaPower™ 450 MPa Power Source	907483 907484	Power source only. 230/460 V with auxiliary power Power source only. 575 V with auxiliary power		
Guns and Gun Accessories				
XR-Aluma-Pro™ Guns		See page 7		
XR™-Pistol-Pro Guns		See page 7		
Replacement Cable Covers		See page 7		
Head Tube Assemblies		See page 7		
Drive Rolls and Liners		See page 3 and page 7		
1/16-inch (1.6 mm) Wire Kit	230708	Required with 1/16-inch drive roll kit below to run 1/16-inch wire		
Feeder and Power Supply Accessories				
XR-AlumaFeed SuitCase 1/16-inch (1.6 mm) Drive Roll Kit	268850	Required with 1/16-inch wire kit above to run 1/16-inch wire		
Flowmeter Kit	301306	See page 7		
SuitCase Mounting Bracket	301592	See page 7		
Industrial MIG 4/0 Kit with Lug Connectors		See page 7		
11-Conductor Extension Cables		See page 7		
System Accessories				
MIGRunner™ Cart	195445			
Universal Carrying Cart and Cylinder Rack	042934			
Coolant Systems		See literature AY/7.2		

DATE: TOTAL QUOTED PRICE:

Distributed by:

