

XR-Aluma-Pro™

Gooseneck-Style Push-Pull Gun

MIG Gun for Aluminum Welding



Quick Specs

Heavy Industrial Applications

Emergency vehicles
Recreational vehicles
Trucks and trailers
Heat exchangers
Sign manufacturers

Shipbuilding
Tool boxes
Railcars
Fabrication

Processes

MIG (GMAW)
Pulsed MIG (GMAW-P) with pulsing power source

Wire Types

Aluminum
Stainless steel
Cored (gas-shielded)

Rated Output at 100% Duty Cycle

Air-cooled: 300 A
Water-cooled: 400 A

Net Weight (Gun Only)

Air-cooled: 2.5 lb. (1.1 kg)
Water-cooled: 2.9 lb. (1.3 kg)

The industry's most reliable line of push-pull welding guns.

Fights fatigue. XR-Aluma-Pro guns reduce fatigue, improve output and are rugged to withstand industrial environments.

Balanced design. XR-Aluma-Pro guns are balanced and have a natural feel, so welders have improved joint access and can maintain proper gun angles, stick out and travel speeds.

Industrial-quality cable. Gun cable failure is expensive, not only in creating downtime, but also in the cost of repairing the gun. XR-Aluma-Pro guns have a durable cable covering and strain relief to withstand industrial environments and resist damage, reducing downtime and costs.

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

At 900 inches per minute, this gun will feed wire faster than any of its predecessors (dependent on feeder used.)

3-3/4 turn potentiometer provides better resolution when selecting the right wire speed for the job. The recessed WFS (wire feed speed) control offers durability yet is easy to use while wearing welding gloves.



Replaceable feed cable liner is designed to provide consistent arc performance. It also reduces parts cost and service time by allowing a simple means of removing and replacing liner and not the complete feed cable.

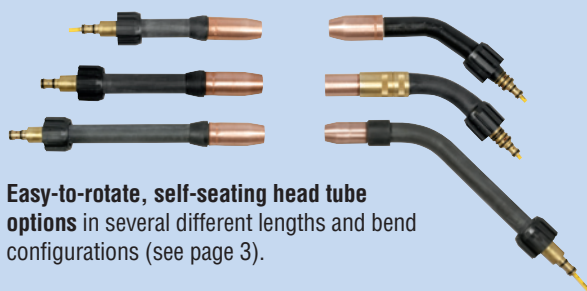
Serviceability. This gun features a cable cover with full-length hook-and-loop closure and integrated strain reliefs for easy cable maintenance and protection.

The gun also features quick connectors between the control cable and electrical components (trigger, motor, and potentiometer).

Isolated, common, knurled drive roll helps reduce wear, reducing downtime and cost. Gun feeds .030–3/64 inch right out of the box without need for separate drive rolls. Kit **230708** is required to run 1/16-inch (1.6 mm) wire.

Easy access to drive assembly and removable head tube reduces service time. Pressure release lever allows drive rolls to be held open for wire changeover.

The XR-Aluma-Pro gun is available in air- or water-cooled versions with 15-, 25- or 35-foot (4.6, 7.6 or 10.6 m) cable lengths.



Easy-to-rotate, self-seating head tube options in several different lengths and bend configurations (see page 3).



Guns are warrantied 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
FAX: 800-637-2315
International Phone: 920-735-4554
International FAX: 920-735-4125

MillerWelds.com



Specifications (Subject to change without notice.)



Model	Welding Current Rating	Wire Feed Speed	Wire 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	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		Wire kit 230708 required to run 1/16 in. (1.6 mm) wire		2.9 lb. (1.3 kg)

Standard Replacement Consumables

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	

Standard Consumables – FasTip™ Series

Gas Diffusers



229670 1/8 in. tip recess (standard)
For heavy-duty FasTip contact tips.

230678 1/4 in. tip recess
For heavy-duty FasTip contact tips.

230679 Flush tip
For heavy-duty FasTip contact tips.

FasTip Contact Tips (25 per package)



Heavy-Duty (Aluminum Wire)

206186 .030 in. (0.8 mm)

206187 .035 in. (0.9 mm)

206188 .040 in. (1.0 mm)

206189 3/64 in. (1.2 mm)

206191 1/16 in. (1.6 mm)

Tapered (Aluminum Wire)

209026 .035 in. (0.9 mm)

209027 .045 in. (1.2 mm)

209029 .052 in. (1.3 mm)

206030 1/16 in. (1.6 mm)

Nozzles

Screw-On Brass

199610 1/2 in. orifice, tapered

199611 3/4 in. orifice, straight

199612 3/4 in. orifice, straight HD

199613 5/8 in. orifice, tapered

199614 5/8 in. orifice, tapered HD

Screw-On Copper

199615 1/2 in. orifice, tapered

199616 3/4 in. orifice, straight

199617 3/4 in. orifice, straight HD

198855 5/8 in. orifice, tapered

199618 5/8 in. orifice, tapered HD

207313 5/8 in. orifice, tapered 15/16 O.D.

209035 3/8 in. orifice, tapered

209036 1/2 in. orifice, tapered

Optional Consumables – Centerfire™ Series

Insulator **10012**
4323R

Diffuser **D-1AP** (large)
DS-1AP (small)

XR-Aluma-Pro™ Diffuser Conversion Kits

for .035–1/16 inch aluminum

230669 For D-1AP diffuser

230670 For DS-1AP diffuser

Diffuser kits must be used to convert to Centerfire™ Series consumables. Kit includes diffuser and head tube liners.

Aluminum-Specific T Series Contact Tips

T-035AL .035 in. (0.9 mm)

T-047AL .047 in. (1.2 mm)

T-062AL 1/16 in. (1.6 mm)

Large Nozzles

N-3414C Copper, 3/4 in. I.D., 1/4 in. tip recess

N-3418B Brass, 3/4 in. I.D., 1/8 in. tip recess

N-3414B Brass, 3/4 in. I.D., 1/4 in. tip recess

N-5814C Copper, 5/8 in. I.D., 1/4 in. tip recess

N-5818B Brass, 5/8 in. I.D., 1/8 in. tip recess

N-5814B Brass, 5/8 in. I.D., 1/4 in. tip recess

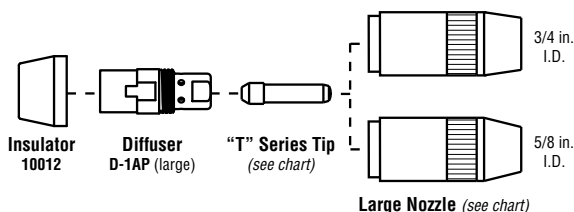
Small Nozzles

NS-5818B Brass, 5/8 in. I.D., 1/8 in. tip recess

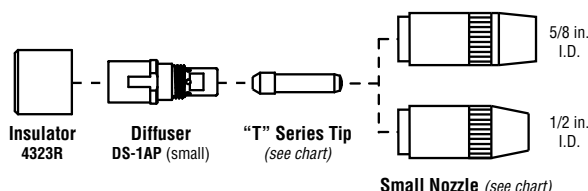
NS-1218B Brass, 1/2 in. I.D., 1/8 in. tip recess

NS-1200B Brass, 1/2 in. I.D., flush tip

NST-3818B Brass, 3/8 in. I.D., 1/8 in. tip recess



Large Nozzle (see chart)



Small Nozzle (see chart)

Optional Head Tube Assemblies



45 Degree/4 Inch
255037 Air-cooled
255338 Water-cooled



45 Degree/6 Inch
255040 Air-cooled
231517 Water-cooled
 (standard on XR-Aluma-Pro™)



60 Degree/4 Inch
231519 Air-cooled
 (standard on XR-Aluma-Pro™)
255038 Water-cooled



60 Degree/6 Inch
231518 Air-cooled
255 041 Water-cooled



180 Degree/4 Inch
 (standard on XR™-Pistol Pro)
255716 Air-cooled
255717 Water-cooled



180 Degree/6 Inch
258476 Air-cooled
258477 Water-cooled



180 Degree/8 Inch
255042 Air-cooled
255043 Water-cooled



**45 Degree/10 Inch
 Tight Access**
258295 Air-cooled
 For hard-to-reach welds
 where a smaller nozzle
 and longer reach is needed.



Flex Neck/10 Inch
267517 Air-cooled
 Ideal for hard-to-reach welds.



**45 Degree/6 Inch
 with Centerfire™**
246205 Water-cooled
 (standard on XR-Aluma-Pro™ Plus)

60 Degree/6 Inch with Centerfire™
246301 Air-cooled



180 Degree/4 Inch with Centerfire™
 (standard on XR™-Pistol Plus)
258474 Air-cooled
258475 Water-cooled

Heavy-Duty Head Tube Assemblies

For high-duty-cycle applications.



**45 Degree/6 Inch
 Heavy-Duty**
262206 Air-cooled
258293 Water-cooled

60 Degree/6 Inch Heavy-Duty
262207 Air-cooled
258294 Water-cooled



180 Degree/6 Inch Heavy-Duty
262208 Air-cooled
259535 Water-cooled

Liners for Optional Head Tube Assemblies

Fastip™ Liners (4-inch assemblies)

227161 .030–.040 in. (0.8–1.0 mm)

230239 3/64 and 1/16 in. (1.2 and 1.6 mm)

Fastip Liners (6-inch assemblies)

229674 .030–.040 in. (0.8–1.0 mm)

229431 3/64 and 1/16 in. (1.2 and 1.6 mm)

Fastip Liners (8-inch assemblies)

M1434 .030–.040 in. (0.8–1.0 mm)

M1435 3/64 and 1/16 in. (1.2 and 1.6 mm)

Bernard® Quik Tip™ Tight-Access Liners

(10-inch assemblies)

M1428 .030–.040 in. (0.8–1.0 mm)

M1429 3/64 and 1/16 in. (1.2 and 1.6 mm)

Fastip Liners

(6-inch heavy-duty water-cooled assemblies)

M1425 .030–.040 in. (0.8–1.0 mm)

M1426 3/64 and 1/16 in. (1.2 and 1.6 mm)

Phosphorous Bronze Liners

(6-inch heavy-duty water-cooled assemblies)

M1436 .030–1/16 in. (0.8–1.6 mm)



Universal Teflon® Liner Kit

262707 .030–.040 in. (0.8–1.0 mm)

black liners

262705 3/64 and 1/16 in. (1.2 and 1.6 mm)

yellow liners

Includes five 14-inch liners and cutter. Liners can be cut to correct length for any pistol or gooseneck-style gun. Cutter provides a straight, clean cut to reduce shaving and feeding problems.

Teflon® Liner Cutter 258863

Genuine Miller® Accessories

Cable Cover

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.



50-Degree Curved Nozzle Kit-A 264064

Directly attaches to XR-Aluma-Pro™ or XR™-Pistol-Pro for access to confined weld joint areas. Used with .030–1/16 inch (0.8–1.6 mm) wire. Kit includes two of each size contact tip to accommodate all wire sizes, nozzle adapter kit and curved nozzle. Uses standard straight head tube liner.

Replacement Contact Tips for 50-Degree Curved Nozzle

148155 .030 and .035 in. (0.8 and 0.9 mm) wire

148154 .047 in. (1.2 mm) wire

148156 1/16 in. (1.6 mm) wire

50-Degree Curved Nozzle Insulator Kit 264066

Sleeve goes over center of curved nozzle to protect operator from heat. For use with 50-Degree Curved Nozzle Kit-A above.

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 gun.

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** above when used in XR-Aluma-Pro gun.

Wire Feeder and System Packages



XR-AlumaFeed® Suitcase® Wire Feeder 301567

Push-pull wire feeder designed for high-volume, high-production aluminum MIG welding where quality and consistency is a high priority. Features impact-resistant flame-retardant suitcase-style case. See literature DC/34.0.



AlumaFeed® Welding System 951834

Includes XR-AlumaFeed® Suitcase® push-pull wire feeder with drive rolls, AlumaPower™ 350 MPa synergic power source, and 25-foot (7.6 m) air-cooled XR-Aluma-Pro™ push-pull gun with contact tips, drive rolls and liners. Other system packages available. See literature DC/34.0.



AlumaFeed® MIGRunner™ Package 951833

Includes the same as 951834, plus MIGRunner cart and industrial MIG 4/0 kit with Dinse-style connector. Other system packages available. See literature DC/34.0.



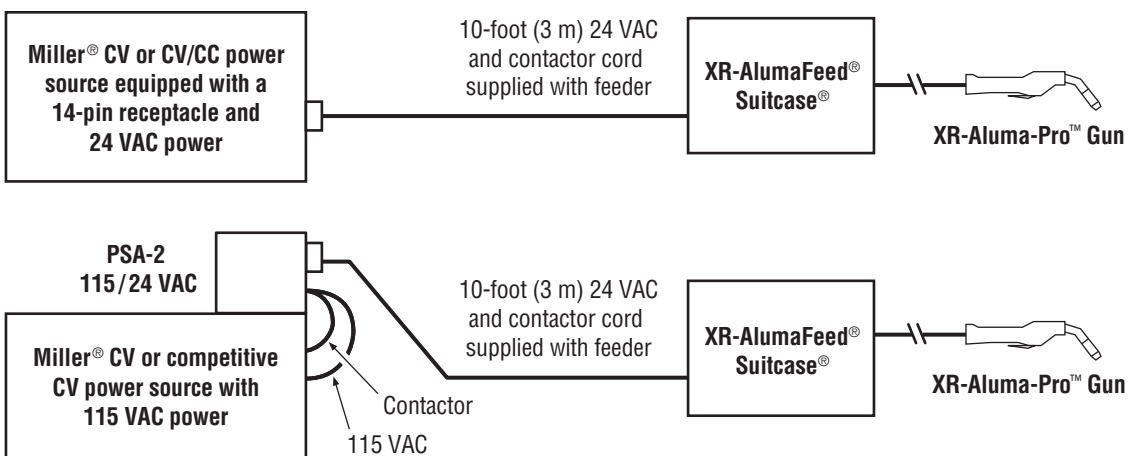
Millermatic® 355 with XR-Aluma-Pro™ 951927

Includes Millermatic 355 with 9-foot (2.7 m) industrial power cord and factory-installed gas solenoid, 25-foot (7.6 m) XR-Aluma-Pro air-cooled push-pull gun with FasTip™ consumables and reversible U-grooved drive rolls for 035/.047-inch aluminum wire, EZ-Latch™ single cylinder running gear with chain to secure gas cylinder, work cable with clamp, flow gauge regulator with gas hose, and material thickness gauge. See literature DC/12.95.

Note: Standard MIG gun not included with package shown.

Typical Installations

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



XR-Aluma-Pro™ Gun Hook-Up Recommendations

CV Power Supply	Control
Millermatic® 252, 255, 355 Multimatic® 255	Direct Hook-Up
AlumaPower™ 350 MPa, 450 MPa Invision™ Series XMT® Series (except VS model) Trailblazer® 325, 302 Air Pak™ Big Blue® Series (with 14-pin receptacle)	XR-AlumaFeed® Suitcase®

Note: XR-Aluma-Pro guns are not compatible with Continuum™, Intellix™ Elite or MPa Plus feeders.

Ordering Information

XR-Aluma-Pro guns require the following:

- XR-AlumaFeed Suitcase
(See at right.)
- Recommended Miller® 14-pin power source (See list below.)
OR
- Millermatic 252, 255, 355 or Multimatic 255
(See literature DC/12.49, DC/12.8, DC/12.95 or DC/12.9.)

Important notes:
 XR-Aluma-Pro guns are not compatible with Continuum™, Intellix™ Elite or 74MPa Plus feeders.
 XR-Control must be serial number KK309906 or higher to be used with products and descriptions mentioned in this literature. To confirm a product's compatibility with older equipment, please contact the factory at 1-920-735-4505.

Recommended Power Sources

- AlumaPower™ MPa
See literature DC/34.0
(For synergic use with AlumaFeed®)
 - XMT® 350 Series
See literature DC/18.93
 - XMT® 450 Series
See literature DC/18.94
 - Invision™ MPa
See literature DC/23.6
 - Trailblazer® Series
See literature ED/4.75 and ED/4.8
 - Big Blue® 800 Series
See literature ED/14.0
- Note: Other power sources may be used.

Equipment	Stock No.	Description	Qty.	Price
XR-Aluma-Pro™ Gun (Air-Cooled)	301568	15 ft. (4.6 m) cable		
	301569	25 ft. (7.6 m) cable		
	301570	35 ft. (10.6 m) cable		
XR-Aluma-Pro™ Gun (Water-Cooled)	301571	15 ft. (4.6 m) cable		
	301572	25 ft. (7.6 m) cable		
	301573	35 ft. (10.6 m) cable		
XR-AlumaFeed® Suitcase® (See literature DC/34.0)	301567	Includes .035 and 3/64 in. drive rolls, and adds Profile Pulse™, synergic control, trigger schedule select, lock capabilities and flowmeter		
XR-AlumaFeed® Welding System (Air-Cooled) (See literature DC/34.0)	951834	Includes XR-AlumaFeed Suitcase feeder 301567, AlumaPower™ 350 MPa power source, and 25 ft. air-cooled XR-Aluma-Pro gun		
XR-AlumaFeed® MIGRunner™ Package (Air-Cooled) (See literature DC/34.0)	951833	Includes the same as 951834, plus MIGRunner™ cart and industrial MIG 4/0 kit with Dinse-style connector		
Millermatic® 355 with XR-Aluma-Pro (Air-Cooled) (See literature DC/12.95)	951927	Includes 25 ft. air-cooled XR-Aluma-Pro gun, EZ-Latch™ single cylinder running gear, work cable, and flow gauge regulator with gas hose		
Consumables and Accessories				
Consumables		See page 2		
Optional Head Tube Assemblies		See page 3		
Liners for Optional Head Tube Assemblies		See page 4		
Cable Cover	M1681	15 ft. (4.6 m)		
	M1682	25 ft. (7.6 m)		
	M1683	35 ft. (10.6 m)		
50-Degree Curved Nozzle Kit-A	264064			
Replacement Contact Tips for Curved Nozzle		See page 4		
50-Degree Curved Nozzle Insulator Kit	264066	For use with 50-Degree Curved Nozzle Kit-A		
1/16-Inch (1.6 mm) Wire Kit	230708	Required when running 1/16-inch wire		
Hardwire Liner Kit for Steel and Stainless	198377			
Phosphorous Bronze Liners		See page 4		
Coolant Systems		See literature AY/7.2		

Date:

Total Quoted Price:

Distributed by:

