# **Auto-Axcess<sup>™</sup> Systems**

# Automated MIG Welding Systems



# Software-Driven Multi-MIG® Process Platform

# **Quick Specs**

#### Manufacturing Applications

Construction Equipment Automotive Components Recreational Vehicles Farm Machinery Office Furniture Mining Machinery

#### Processes Multi-MIG®

Accu-Pulse® MIG (GMAW-P)

- Accu-Curve™
- Accu-Speed™ Optional
- Accu-Pulse™ tandem *Optional*

Pulsed MIG (GMAW-P)
MIG (GMAW)
Metal-Cored

RMD® Optional

Carbon Arc Gouging (CAC-A) can also be activated

**FREE TRIAL!** of Accu-Speed and RMD. See page 2 for details.

Rated Output 300: 300 A at 29 VDC, 60% Duty Cycle

(225 A at 25.3 VDC, 100% Duty Cycle)

**450**: 450 A at 36.5 VDC, 100% Duty Cycle **675**: 675 A at 38 VDC, 100% Duty Cycle

Voltage Range 10-44 V

Auto-Axcess 675

Auxiliary Power 120 VAC, 10 A Duplex

**Net Weight 300:** 112 lb. (50.8 kg)

**450:** 163 lb. (73.9 kg) **675:** 215 lb. (97.5 kg)

# Flexible, Expandable and Upgradeable

Multi-MIG capable welding systems are precise, digitally controlled and softwaredriven. For additional information see page 2.

# Access the ability to accommodate welding data file exchange through

downloadable upgrades and new hybrid welding processes using e-mail, or the Web and a PC or Palm™ handheld (PDA).

Look for high-speed video clips of Accu-Pulse®, Accu-Curve™, Accu-Speed™ and Front Panel Simulator at MillerWelds.com/advanced.





AA-40GB motor connections

Shown with AA-40GB with OCP wire drive motor assemblies (motor control cables must be ordered separately).

Insight™ Core is a flexible,
Internet-based industrial welding
information management
solution that can help your
operation be more competitive
and profitable by delivering
accurate, decision-ready
information about welding
processes. See page 2 for
more information.



Miller's patented technology allows for **any** input voltage hook-up (208–575 V) with no manual linking. Assures rock-solid, consistent output on fluctuating primary lines.

Fan-On-Demand™ only operates when needed, cooling internal components.

**1/4-turn steel connectors** allow for faster installation of system and eliminates thread stripping.

115 VAC duplex receptacle provides 10 A circuit-breaker-protected auxiliary power regardless of primary power.



Power source is warranted for 3 years, parts and labor.



#### Miller Electric Mfg. Co.

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









# **Insight**<sup>™</sup> Core

Insight Core is a flexible, Internet-based industrial welding information management solution that can help your operation be more competitive and profitable by delivering accurate, decision-ready information about welding processes—so you can take steps to reduce costs, boost output, increase product quality and improve your bottom line. Visit MillerWelds.com/insight to learn more.



Available factory-installed or as a field option. See page 8 for ordering information.

Auto-Axcess 300, 450 and 675 power sources shown with factory-installed Insight Core option.



Axcess Insight Core Module field option.



## **Increase Productivity**

# Evaluate key indicators of operator productivity

- Measure arc-on time and compare to preset goals
- Measure number of arc starts
- Measure wire deposition



## **Improve Weld Quality**

# Measure important indicators of weld quality

- Identify welds outside of preset amperage and voltage thresholds
- Identify operators who may need additional training
- Weld Trace<sup>™</sup> provided for every weld



## **Manage Costs**

## Monitor and analyze welding costs

- Understand weld cell productivity variations
- Understand the impact of continuous improvement efforts
- Understand wire deposition to determine potential over-welding

# **Features and Benefits**

SOFTWARE (Standard)	FREE Hour Trial of Accu-Speed and RMD with Every New Auto-Axcess" Power Supply
Multi-MIG® capability	Includes common carbon steel, aluminum and stainless welding programs, including Accu-Pulse®, Accu-Curve™ and Accu-Speed™ (optional), standard or adaptive pulse, conventional MIG and metal core programs, and RMD® (optional) using the most popular wire diameters and gas combinations.
SureStart™	Provides consistent arc starts by electronically assuring a ball is not left on the wire when welding is stopped. This provides a predictable condition for the next arc start and combines this with precisely tuned arc starting routines.
Arc Control	Control offers a simple way to tailor factory pulse weld programs by adjusting the arc plasma cone to accommodate a variety of welding applications without the need for any reprogramming or changing any hardware.
Arc Adjust	Allows a simple method that controls arc length for pulse processes and wetting action for RMD.
Remote/trigger program select	Allows changing weld programs to take advantage of up to 8 programs of Multi-MIG welding process capabilities.
Optional Auto-Axcess software	Accu-Speed and RMD, Axcess file management system, and WaveWriter™ pulse wave shaping.

## Multi-MIG® Process Capability — Through Software-Based Programs

Access the ideal welding process for any weld joint at hand. Whether you need high travel speed combined with high deposition rates or require gaps to be filled, any combination of the available welding processes can accessed either at the start of a welding sequence or anywhere in the weld while actually welding by using trigger or remote program select.

For a given wire-feed speed, the chart below shows from left (hottest) to right (coolest) all the possible arc mode transfer ranges of accessible MIG and pulse processes. This shows compatible shielding gas combinations such as 90 Ar/10  $\rm CO_2$  (90 percent argon and 10 percent carbon dioxide) on steel using the same wire-feed speed and also gives an indication of puddle control characteristics based on arc type selected.

Process	Standard Spray	Pulsed Spray	Accu-Pulse® Accu-Curve™ Accu-Speed™ (Optional)	Standard Short Circuit	RMD® Regulated Metal Deposition (Optional)
Weld Puddle Control	Flat/Horiz	ontal I	All Position Performand	e Thi	in Materials/Gap Filling

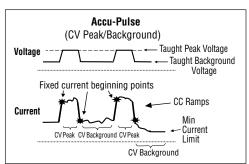
Note: To achieve optimum performance, 4/0 welding power secondary cable is recommended and the supplied work-sense lead must be connected as close to arc as possible.



## **Featured Welding Processes**

### Accu-Pulse® STANDARD on all Auto-Axcess™ models

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.



#### Benefits (Compared to conventional pulse)

- Shorter arc lengths possible
- Better puddle control
- More tolerant of contact tip to work variation
- Less audible noise
- No arc wandering in tight corners
- Narrow arc plasma column
- Allows weld to fill in at toes increasing travel speed and deposition
- More tolerant of poor fit up and gaps (compared to standard pulse)
- Ideal for robot seam tracking applications

#### Accu-Curve™ STANDARD on all Auto-Axcess™ models

Accu-Curve is a variation of the Accu-Pulse process. The transitions from peaks to background voltage are "curved". The curved transitions provide a "softer" feel without sacrificing the tight arc lengths that allow for better puddle control and have become the hallmark of the Accu-Pulse process.

Note: Accu-Curve can be added to existing Auto-Axcess systems for FREE by updating code online at MillerWelds.com/advanced. Requires Palm handheld or PC to transfer code to Auto-Axcess.

#### **Benefits**

- "Softer" arc feel than Accu-Pulse
- Maintains tight arc lengths
- Maintains better puddle control

# **Optional Software-Based Welding Processes**

#### Accu-Speed™

Field #300 719 For Palm (Required Palm handheld with data card slot is NOT included.)
Field #300 720 For PC (PC-based emulator and cable are NOT included.)

Accu-Speed is a variation of the Accu-Pulse process and was developed for the type of arcs needed in automated welding applications. Accu-Speed has a tighter driving arc that can be directed into the joint, yet still remains stable at the higher travel speeds used in automated welding. In general, Accu-Speed has lower average voltage and amperage when compared to Accu-Pulse which makes it ideal when welding out of position in the manual mode.

Note: Serial number must be provided for field installation. Factory-installed software can be ordered as a combonumber option with power supply. See power source stock number listings on page 8. Field kits include cable for connecting to Auto-Axcess, but require PC Palm handheld or PC version of File Manager.

#### **Benefits**

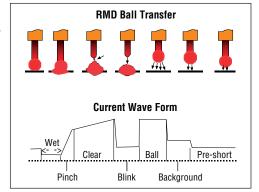
- Up to 20% greater travel speed than Accu-Pulse
- Lower average voltage/amperage than Accu-Pulse
- Tight, driving arc
- Remains stable at higher travel speeds

## RMD® (Regulated Metal Deposition)

Field #195 252 For Palm (Required Palm handheld with data card slot is NOT included.)
Field #300 721 For PC (PC-based emulator and cable are NOT included.)

The RMD process is a precisely controlled short-circuit transfer. It is a method of detecting when the short is going to clear and then rapidly reacting to this data changing the current (amperage) levels. Features proactive dynamic puddle control.

Note: Serial number must be provided for field installation. Factory-installed software can be ordered as a combo-number option with power supply. See power source stock number listings on page 8. Field kits include cable for connecting to Auto-Axcess, but require PC Palm handheld or PC version of File Manager.



#### Benefits

- Well suited to thin materials
- Can replace TIG process in some applications
- Gap filling
- Spatter reduction
- Provides less heat into work piece
- Excellent performance on stainless steel
- Can be combined with other Axcess<sup>®</sup>-related programs
- Minimize distortion
- Use larger diameter wire on thin materials

#### Accu-Pulse® tandem

The Accu-Pulse tandem process comprises two independent welding wires fed through a common torch into a common arc. Each wire has its own power source, wire drive, and contact tip. The power supplies cooperate by alternating pulses on each wire. The Accu-Pulse tandem process works best in automated high speed or high deposition applications.

Note: For tandem applications consult factory at 1-920-954-3809.

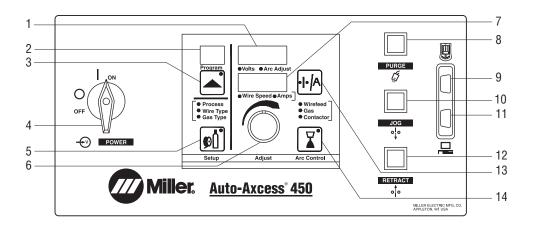
#### Benefits

Better for automated high speed or high deposition applications

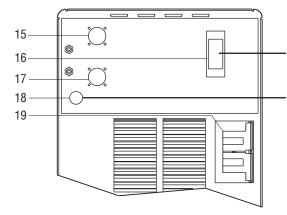


## **Control Panels**

#### **Front Panel**



#### **Rear Panel**



**72-pin Harting connector** for quick, easy connection to common robot controllers (ABB, Fanuc, KUKA and Motoman) with optional adapter cables. Analog robot controls. Available on analog power supplies.

**DeviceNet connector** for quick, easy connection to common robot controllers (ABB, Fanuc, KUKA and Motoman) with standard DeviceNet cables. Available on DeviceNet power supplies.

- 1. Voltage/Arc Adjust Display Meter
- 2. Program Display
- 3. Program # Select
- 4. Power Switch
- 5. Process Setup Button
- 6. Control Knob
- 7. Wire Speed/Amperage Display Meter
- 8. Purge Pushbutton
- 9. Handheld RS-232 Port
- 10. Jog Forward Pushbutton
- 11. PC-Communication RS-232 Port
- 12. Jog Retract Pushbutton
- 13. Wire Feed/Amperage Select
- 14. Arc Control

- 15. Peripheral Connector
- 16. Robot Connection
- 17. Motor Connector
- **18.** DeviceNet Connector (Optional)
- 19. 115 VAC, 10 A Duplex Receptacle

## **Capabilities**

#### Auto-CAL (Automatic Calibration) -

Software-based feature exclusive to Auto-Axcess. Allows simple, quick and accurate wire feed speed and voltage commands from most robots using analog signals. Auto-Axcess calibrates itself to deliver exact responses to commands from robots. This allows Auto-Axcess to be used interchangeably with many brands of robots, and allows quick replacement of competitive power supplies without the need to change wire feed speeds. Available on analog power supplies.

Remote Program Select — Allows changing weld programs from the robot controller to take advantage of up to eight programs or Multi-MIG® welding process capabilities.

**Integrated 80 V Touch Sensor**—To be used with external circuitry or peripheral equipment when touch sensing.

#### **Front Panel Features**

- Weld Process Selection
- Wire Size and Type
- Gas Type
- Wire Jog Forward Button
- Wire Jog Reverse Button
- Purge Button
- Digital Display Meters:
  - Voltage / Arc Adjust (Trim)
  - Wire Feed Speed / Amperage
- Program Number
- Arc Control (SharpArc® and Inductance)

#### **Analog Outputs**

- Voltage
- Current

#### **Analog Inputs**

- Voltage/Arc Adjust (Trim)
- Wire Feed Speed

#### **Digital Outputs**

- Arc On
- Wire Stick
- Welder Ready

#### **Digital Inputs**

- Start
- Jog Forward
- Jog Reverse
- Purge
- Program Select
- E-Stop

#### **Auto Setup**

Robot Specific

#### Sequence

- Preflow: 0-9.9 seconds
- Start Power: 0-2.5 seconds
- Voltage: 10-44
- IPM: 50 1400
- Crater: 0-2.5 seconds
- Retract
- Postflow: 0-9.9 seconds



## Typical Installation (Robotic/Automation Pulsed MIG or conventional MIG)

The Auto-Axcess™ platform is designed to bring the benefits of digital control technology to manufacturers who currently use analog robot control. When combined with a Smart Cable (#300 012) and AA-40GB wire drive motor assembly the Auto-Axcess will automatically reconfigure itself to function as a semi-automatic, thereby providing for single asset management and simplicity. Contact Robot Manufacturers for fully-digital versions of the Auto-Axcess compatible with specific robot controllers.

\*For available lengths visit Visit tregaskiss.com for additional torch information. MillerWelds.com/equiptoweld. AA-40GB Wire Drive Motor Assembly **Motor Control Cable\*** #242 395 020 20 ft. (6.1 m) Torch Positive (+) Weld Cable\* **#242 395 030** 30 ft. (9 m) Note: The Auto-Axcess is a fully Must be ordered #242 395 050 50 ft. (15.2 m) Must be ordered separately digital machine and utilizes separately. Must be ordered separately. DeviceNet protocol for internal using Equip to Weld™. system operation. Select robot 50-ft. (15.2 m) manufacturers have created **Motor Mounting Brackets** Volt-Sense Cable<sup>3</sup> unique software for specific **Drum of Wire** (see page 7) controllers which enable them Supplied with AA-40GB to communicate digitally with Motor mounting brackets from other wire drive motor assembly Auto-Axcess robot brands must be supplied by robot an Auto-Axcess power supply. Should be connected as close **Power Source** Check with your robot supplier manufacturer or system integrator. to arc as possible for of choice to further understand if optimum performance. there are benefits created by ~Oo them that can reduce complexity, add value or reduce your total Negative (-) cost of integration and operation. Weld Cable\* Welding Distributors: you may Must be ordered also inquire with the robot separately using manufacturer about drop-ship Equip to Weld™. programs they may offer for digital or analog versions of the Axcess platform.

# Power Source Specifications (Subject to change without notice.)







Model	Rated Output	Voltage Range	Amperage Range	Max. Open- Circuit Voltage				Output, 460 V				Dimensions	Net Weight
Auto-Axcess 300	300 A at 29 VDC, 60% duty cycle (225 A at 25.3 VDC, 100% duty cycle)	10-44 V	5-400 A	80 VDC	33	29.7	16.9	14.6	11.6	11.7	11.2	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)
Auto-Axcess 450	450 A at 36.5 VDC, 100% duty cycle	10-44 V	5-600 A	80 VDC	_	60	33.7	28.8	22.8	23.8	22.9	D: 22.5 in. (572 mm)	163 lb. (73.9 kg)
Auto-Axcess 675	675 A at 38 VDC, 100% duty cycle	10-44 V	5-900 A	80 VDC	_	89.7	_	43.7	34.8	35.7	34.4		215 lb. (97.5 kg)

**Robot Cell Base** 



Certified to both the Canadian and U.S. Standards for welding equipment.

## **Wire Drive Motor Assembly**



**AA-40GB Wire Drive Motor Assembly** #195 426 Left-Hand Drive #195 515 Right-Hand Drive

The AA-40GB wire drive motor assembly with Over Current Protection (OCP) is an improved version of the AA-40G. The motor control cable now mounts directly to the gas box, reducing strain on the tachometer wires. OCP provides

another layer of protection in the event a cable is damaged or shorted, reducing downtime and motor damage. Motors include a 50-foot (15.2 m) volt-sense cable.

Note: Wire drive motor assemblies do NOT include drive rolls or required Motor Control Cable. These must be ordered separately. Left- and right-hand drives are determined by facing the wire feed gun outlet.

Model	Gas	Type of Input	Connection to	Wire Feed	Wire Diameter	AA-40GB	Net
	Valve	Power	Power Source	Speed Range**	Range	Dimensions	Weight
AA-40GB	Included and enclosed	40 VDC (from Auto-Axcess)	Motor Control Cable* (order separately)	50-1400 IPM (1.3-35.56 MPM)	.035 – 3/32 in. (0.9 – 1.6 mm)	H: 8 in. (203 mm) W: 12 in. (305 mm) D: 10 in. (254 mm)	16.5 lb. (7.5 kg)

<sup>\*</sup>For available lengths visit MillerWelds.com/equiptoweld.

<sup>\*\*</sup>This is the wire feed speed range while using MIG. With Pulsed MIG, the wire feed speed range may be more limited.



## Drive Roll Kits and Guides (Order from Miller Service Parts.)

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" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types)	"U" groove for aluminum wires contains nylon guides
.035 in. (0.9 mm)	#151 026	_	#151 052	_	#243 233
.040 in. (1.0 mm)	#161 190	_	_	_	_
.045 in. (1.1/1.2 mm)	#151 027	#151 037*	#151 053	#151 070	#243 234*
.052 in. (1.3/1.4 mm)	#151 028	_	#151 054	_	_
1/16 in. (1.6 mm)	#151 029	#151 039	#151 055	#151 072	#243 235
.068/.072 in. (1.8 mm)	_	_	#151 056	_	_
5/64 in. (2.0 mm)	_	_	#151 057	_	_
3/32 in. (2.4 mm)	_	#151 041	#151 058	_	_

<sup>\*</sup>Accommodates .045 and .047 (3/64 in.) wire.

## **Nylon Wire Guides for Feeding Aluminum Wire**

Wire Size	Inlet Guide	Intermediate Guide
.035 in. (0.9 mm)	#221 912	#242 417
.047 in. (1.2 mm)	#221 912	#205 936
1/16 in. (1.6 mm)	#221 912	#205 937

Note: "U" groove drive rolls are recommended when feeding aluminum wire.

#### **Wire Guides**

Wire Size	Inlet Guide	Intermediate Guide
.023 – .040 in. (0.6 – 1.0 mm)	#221 030	#149 518
.045 – .052 in. (1.1 – 1.4 mm)	#221 030	#149 519
1/16-5/64 in. (1.6-2 mm)	#221 030	#149 520
3/32-7/64 in. (2.4-2.8 mm)	#229 919	#149 521

# **Genuine Miller® Services and Options**

## **Consulting Services**

#### Field Application Support #195 480

Auto-Axcess systems may require factory-trained technical support depending on the complexity of the application and the local availability and capability of qualified welding engineers or technology experts. Contact the factory with questions. Factory support is available at a flat rate of \$1250.00 per day (plus expenses) when scheduled more than 10 days in advance. With less than 10-day notice, rates may be higher. Rates are based on a 10-hour day, including travel. One day minimum.

### **File Management Software**



#### **Axcess® File Management**

**#300 529** For PC (Includes PC-based emulator, USB cable and USB flash drive with File Management software.)

Simply put, Axcess File Management software turns a standard Palm handheld (PDA) or PC into a remote pendant control for all Axcess Systems.

#### With Axcess File Management installed on your Palm OS handheld or PC you can:

- E-mail Axcess files anywhere worldwide
- Configure any Axcess system as desired
- Configure multiple Axcess systems exactly the same or any way you choose
- Save and store Axcess files
- Transfer Axcess files to computers
- Transfer Axcess files from machine to machine
- Backup Axcess files and programs
- Set-up and modify Axcess welding sequences
- Adjust and store welding program Locks & Limits for restricting or limiting operator access to programs
- Enable Auto-Thread™ feature to program torch length into Axcess memory. When a combination of purge and jog (or jog and retract) are depressed, the Axcess feeding system delivers exact programmed length of wire. Great for troubleshooting wire feed speed and loading wire into the system.



## **Genuine Miller® Accessories**

#### Fanuc Internal Wiring Kit #300 229

Includes 30-foot (9 m) cable that connects to the Fanuc controller, and 22-inch (559 mm) connector for mounting the wire drive assembly on top of the robot arm.

#### Receptacle/Adapter Kits

#194 793 ABB

#194 791 Fanuc

#194 790 Motoman

#300 056 Panasonic

#195 002 Universal

One required per machine. 12-inch (305 mm) length. For analog communication with robot controls via 72-pin Harting connector on Auto-Axcess™.

#### Smart Adapter #300 012

Allows Auto-Axcess to be configured to function as semi-automatic. To be used when there is a desire to have a common power supply and motor in both robotic and semi-automatic application. Easy asset management. 21-foot (6.4 m) trigger control cable is included.

#### Universal Connector for Analog Control #195 002

Includes mating Harting connector with pins to allow custom configuration for robotic and fixed automation applications.

#### Shell Connector #194 847

For use by anyone wishing to interface peripherals, but not wanting to source the appropriate female amphenol connector.

#### Analog Robot Simulator #195 030

Device simulates the analog commands of typical robots. It can be used as a diagnostic tool to determine power source functionality and isolate robot, power source or cable issues.

#### **Wire Drive Motor Mounting Brackets**

#301 276 ABB 1600

#301 277 ABB 2600

#300 483 Fanuc 100/120ic

#300 013 Fanuc/Kuka/Motoman

**#301 282** Kuka KR5 HW

#301 275 Kuka KR16 HW

#300 375 Motoman EA1400

#300 376 Motoman EA1900



# Coolant Flow Switch #195 461

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 the Auto-Axcess or as desired elsewhere. 1/4-turn quick connection.

#### **Welding Guns**

**Manual** — see BernardWelds.com **Automation** — see Tregaskiss.com

#### **Motor Control Cables\***

#242 395 020 20 ft. (6.1 m)

#242 395 030 30 ft. (9 m)

#242 395 050 50 ft. (15.2 m)

Includes overmolded connections on high-flex cables for optimal service life.

\*For additional lengths visit MillerWelds.com/equiptoweld.

#### Volt-Sense Cable\*

#242 212 050 50 ft. (15.2 m)

\*For additional lengths visit MillerWelds.com/equiptoweld.



#### Robotic MIG 4/0 Kit #301 278

Includes AA-40GB left-hand wire drive motor assembly, flowmeter regulator with 30-foot (9 m) gas hose, two 30-foot (9 m) 4/0 weld cables with lugs, 30-foot (9 m) motor control cable, 16.4-foot (5 m) Ethernet network connection 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.



#### Axcess® Feeder Base and Spool Support #195 369

Sheet metal construction. Allows mounting of AA-40GB motor (if desired)

when using ROI option or when using an Auto-Axcess with Smart Cable adapter.



Assembly #072 094

Spindle Support #092 989

**Hub and Spindle** 



Spool Cover #057 607



Wire Reel Assembly #108 008

#### Reel Cover #195 412

For 60-pound (27 kg) coil. Helps to protect the welding wire from dust and other contaminants. Note: Reel and Spool Covers cannot be installed if the wire drive assembly is in a rotated position.

#### Turntable Assembly #146 236

Allows rotation of the feeder as the operator changes work positions. Reduces strain and bending on the gun cable.



#### Wire Straightener

**#141 580** For .035 – .045 in. (0.9 – 1.1 mm) wire. **#141 581** For 1/16 – 1/8 in. (1.6 – 3.2 mm) wire. Helps reduce the cast in wire to improve wire feeding performance and increase the service life of the gun liner and contact tip.

## **Coolant Systems**

For more information, see the Coolmate Series literature sheet, Index No. AY/7.2.



Coolmate™ 3 #043 007 115 VAC #043 008 230 VAC

For use with water-cooled torches rated up to 500 amps. Unique paddle-wheel indicator, external filter and easy-fill spout.



### Coolmate™ 4 #042 288 115 VAC

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



# Low-Conductivity Coolant #043 810

Sold in multiples of four one-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).



Automatic Equipment Options	Stock No.	Description	Qty.	Price
Auto-Axcess® 300	#907 151	Power source only		
(Robotic receptacle kit sold separately)	#907 151 001	Power source with Accu-Speed software upgrade		
	#907 151 011	Power source with RMD software upgrade		
	#907 151 004 #907 151 005	Power source with Insight Core upgrade Power source with DeviceNet and Insight Core upgrade		
Auto-Axcess® 450	#907 153	Power source only		
(Robotic receptacle kit sold separately)	#907 153 001	Power source with Accu-Speed software upgrade		
, , , , , , , , , , , , , , , , , , , ,	#907 153 011	Power source with RMD software upgrade		
	#907 153 004	Power source with Insight Core upgrade		
	#907 153 005	Power source with DeviceNet and Insight Core upgrade		
Auto-Axcess® 675	#907 155 #907 155 003	Power source only Power source with Accu-Speed software upgrade		
	#907 155 006	Power source with Insight Core upgrade		
	#907 155 005	Power source with DeviceNet and Insight Core upgrade		
Axcess® Insight Core™ Module	#301 081	Field. Adds Insight Core capabilities to Axcess power sources		
Auto-Axcess® 300 DI	#907 151 012	Power source only		
(Robotic receptacle kit sold separately)	#907 151 002	Power source with Accu-Speed software upgrade		
Auto-Axcess® 450 DI	#907 153 014	Power source only		
(Robotic receptacle kit sold separately)	#907 153 002	Power source with Accu-Speed software upgrade		-
Auto-Axcess® 675 DI	#907 155 001 #907 155 004	Power source only Power source with Accu-Speed software upgrade		
	#907 155 004 #907 155 002	Power source with Accu-Speed software upgrade  Power source with Accu-Speed software upgrade		
Auto-Axcess® tandem Systems		For tandem applications consult factory at 1-920-954-3809		
Wire Drive Motor Assemblies		, , , , , , , , , , , , , , , , , , , ,		
AA-40GB Wire Drive Motor Assembly		See page 5		
Drive Roll Kits <i>(Required)</i> and Guides		See page 6		
Wire Drive Motor Mounting Brackets		See page 7		
Optional Software-Based				
Welding Processes				
Accu-Speed™	#300 719	For Palm. Field (required Palm™ handheld is NOT included)		
	#300 720	For PC. Field (required PC-based emulator and cable are NOT included)		
RMD® (Regulated Metal Deposition)	#195 252	For Palm. Field (required Palm™ handheld is NOT included)		
	#300 721	For PC. Field (required PC-based emulator and cable are NOT included)		
Services and Options				
Field Application Support	#195 480	Robotic/automation. One day minimum, not subject to discount. See page 6		
Axcess® File Management	#300 529	For PC. File management software (PC-based emulator is included)		
WaveWriter™ Wave Shaping	Consult factory	For PC. File management software with wave shaping (PC-based emulator is included)		
Accessories				
Fanuc Internal Wiring Kit	#300 229			
Receptacle/Adapter Kits		See page 7. One required per machine, consult factory		
Smart Adapter	#300 012	Robotic/automation. Allows automatic to function as semi-automatic		
Universal Connector for Analog Control	#195 002	Robotic/automation. Allows custom configuration		
Shell Connector	#194 847			
Analog Robot Simulator	#195 030	Robotic/automation. See page 7		
Coolant Flow Switch	#195 461			
Motor Control Cable		See page 7. See page 5 for connection diagram		
Volt-Sense Cable (50 ft./15.2 m)	#242 212 050	Included with drive motor. See page 7. See page 5 for connection diagram		
Robotic MIG 4/0 Kit	#301 278			
Axcess® Feeder Base and Spool Support	#195 369	Allows mounting of AA-40GB motor when using ROI option		
Hub and Spindle Assembly	#072 094	·		
Spindle Support	#092 989			
Additional Feeder Accessories		See page 7		
Coolant Systems		See page 7		1

Date: Total Quoted Price

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