WIRE WIZARD
WELDING PRODUCTS
®

WIRE DELIVERY & WELDING PERIPHERAL EQUIPMENT

FAMILY *OWNED*
AMERICAN *MADE*

IF IT TOUCHES THE WIRE, THE WIZARD HAS A SOLUTION!

WIRE WIZARD®
WELDING PRODUCTS

POWERBALL®
TORCH PRODUCTS

HIGH PERFORMANCE MIG WELDING GUNS

Utilizing a patented and proven consumable design with an all-copper current path, PowerBall® MIG Guns are engineered to provide maximum conductivity with increased consumable life. The PowerBall® welding gun sets a new standard for GMAW performance!

▶ Long-life contact tips, torch liners and 2-piece nozzles reduce consumable costs

▶ Fully repairable gun minimizes ownership cost

▶ Built tough to handle heavy duty industrial welding applications with long duty cycles

▶ Optimized tip geometry and reduced heat prevents spatter build-up and burn backs

▶ PowerBall® robotic welding consumables also available

POWERBALL® CONSUMABLES
PowerBall® all-copper tip and diffuser design with elliptical connection for maximum conductivity. Buttress threads provide high axial force. Innovative two-piece nozzle assembly reduces consumable replacement costs.

ALL-COPPER CURRENT PATH
All-copper current path from power source to tip provides maximum conductivity with superior cooling.

ERGONOMIC DESIGN
Durable handle with comfort grip and trigger.

ADJUSTABLE TRIGGER PULL
Allows fine tuning based on user preference or application.

POWERBALL® CABLE
Energy efficient PowerBall® cable features consolidated copper connection points for reduced electrical resistance and consistent performance throughout service life.

▲ POWERBALL® CRIMPED CABLE ▼

PROUDLY MADE

AIR COOLED MIG GUN WITH 100% DUTY CYCLE!
(as tested with 400A gun with 75/25 mixed gas at 400A)

WELDERS CAN FEEL, HEAR & SEE THE DIFFERENCE!

SOLVING WELDING CHALLENGES & MANUFACTURING INNOVATIVE WELDING PRODUCTS SINCE 1985

Wire Wizard® Welding Products is recognized as the industry leader in weld wire delivery products, high performance torch products, weld cell support equipment and weld cell optimization. Since we began in 1985, we've prided ourselves on both quality and innovation. Our product lines include Wire Wizard® Wire Delivery Equipment, Blue Magic® Anti-spatter, PowerBall® Torch Products, Torch Wizard® Nozzle Cleaning Stations and WizardGear® Robot Cable Management Systems. Wire Wizard® has solutions for virtually every arc welding application, including robotic, fixed automation, semi-automatic and submerged arc welding.

ELCo Enterprises headquarters in Jackson, Michigan

TABLE OF CONTENTS

FIBER DRUM DISPENSING EQUIPMENT

DIRECT PULL KIT WWDP

▶ Quick disconnect with polished ceramic inlet prevents wire shaving

▶ Fits all cone and wire sizes

▶ **Lifetime guarantee not to wear out**

See page 19 for fixed mount direct pull kit

WWDP side

WWDP ▶

Ceramic inlet

DRUM HOODS

▶ Hood covers designed for 20", 20.4", 23.4", and 26" drums (508, 518, 594, and 660 mm)

▶ Constructed of tough polyethylene for long shop life

▶ Dual windows provide easy access and viewing

▶ Flange on hood securely anchors hood to package

▶ Orbital Arm or Direct Pull Kit guarantee smooth wire feeding

▶ **Lifetime guarantee against breakage**

Flanged hoods fit both chimed drums and environmental packs

Round Drum Hood

Octagon Drum Hood

◀ WWDI Insulator

Low Profile Octagon Hood

Square Drum Hood

WIRE PRESENCE SENSOR BLOCK & PROXIMITY SWITCH

WWSB-M12-K

▶ Detects and signals when wire drum is empty

▶ Proximity switch may be connected to PLC to stop welding cycle when wire is depleted

▶ Uses 12 mm proximity switch (WWA5-E34), other switches available upon request

▶ Compatible with all Wire Wizard® drum hoods

ORBITAL ARM KITS

▶ Helps prevent wire from tangling inside the drum

▶ Arms available for all wire sizes and types up to 1/16" (1.6 mm)

▶ Polished ceramic inlet guide will not shave wire

▶ Compatible with all Wire Wizard® Drum Hoods

(1) A-4
Quick Disconnect

Hood

WWOA-20H
Orbital Arm

Arm

Orbital Arm Assembly

Ceramic Inlet Assembly

(2) WWRL-H3
WWRL-H4

(3) C-1H

WIRE WIZARD WELDING PRODUCTS
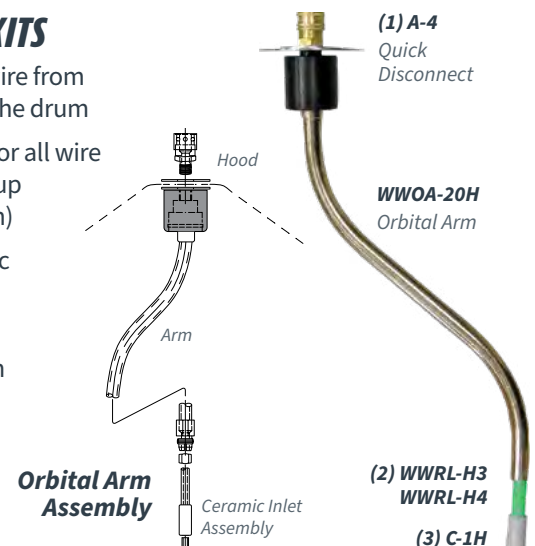
ROUND DRUM HOODS *20" – 23" (508 – 584 mm) hoods fit both chimed drums and environmental packs*

Part No.	Description
WW10204F	20.4" (518 mm) Round Hood only
WW10204F-DP	20.4" (518 mm) Round Hood with Direct Pull Kit
WW10231F	23" (584 mm) Round Hood only
WW10231F-DP	23" (584 mm) Round Hood with Direct Pull Kit
WW10260F	26" (660 mm) Round Hood only
WW10260F-DP	26" (660 mm) Round Hood with Direct Pull Kit

OCTAGON DRUM HOODS

Part No.	Description
WWOC-20.5	20.5" (521 mm) Octagon Hood (500 lb / 227 kg)
WWOC20.5-DP	20.5" (521 mm) Octagon Hood with Direct Pull Kit
WWOC-23.5	23.5" (597 mm) Octagon Hood (900 lb / 408 kg)
WWOC23.5-DP	23.5" (597 mm) Octagon Hood with Direct Pull Kit
WWOC	23.5" (597 mm) Low Profile Hood (900 lb / 408 kg)
WWOC-DP	23.5" (597 mm) Low Profile Hood with Direct Pull Kit

SQUARE DRUM HOODS

Part No.	Description
WWSC-21	21" (533 mm) Square Hood (500 lb / 227 kg)
WWSC21-DP	21" (533 mm) Square Hood with Direct Pull Kit
WWSC-24	24" (610 mm) Square Hood (1,000 lb / 453 kg)
WWSC24-DP	24" (610 mm) Square Hood with Direct Pull Kit
WWSC-29	29" (737 mm) Square Hood (990 lb / 449 kg)

ORBITAL ARM KITS *with Quick Disconnect*

Part No.	Description
WWOA-20	Compatible with 20" (508 mm) – 23.4" (594 mm) hood for up to 0.062 (1.6 mm) Steel or Cored Wire
WWOA-20A	Compatible with 20" (508 mm) – 23.4" (594 mm) hood for up to 3/64" (1.2 mm) Aluminum/Non-ferrous Wire
WWOA-20H	Compatible with 20" (508 mm) – 23.4" (594 mm) hood for up to 0.062 (1.6 mm) Steel or Aluminum/Non-ferrous Wire

ORBITAL ARM REPLACEMENT PARTS

Part No.	Description
A-4	(1) Quick Disconnect (QD)
WWRL-H3	(2) Replacement Liner for WWOA-20
WWRL-H4	(2) Replacement Liner with Inlet Guide for WWOA-20H
C-1H	(3) Inlet Guide with Ceramic Insert

ADDITIONAL EQUIPMENT

Part No.	Description
WWDP	Direct Pull Kit
WWSB-M12-K	Sensor Block and Proximity Switch Kit
WWSB-M12	Sensor Block (12 mm)
WWA5-E34	Proximity Switch (PNP)
WWA5-E35	Proximity Switch (NPN)
WWDI	Conduit Connection Insulator

DRUM MANUFACTURER CROSS-REFERENCE CHART FOR HOODS*

Wire Manufacturer	Packaging	Drum Diameter
Air Liquide®	500 lb (227 kg)	20.4" (518 mm)
	900 lb (408 kg)	23.4" (594 mm)
Alco Tec Wire®	311 lb (141 kg)	WWOC
Arcos Alloys®	250 lb (113 kg)	20.4" (518 mm)
	500 lb (227 kg)	20.4" (518 mm)
Avesta®	250 lb (113 kg)	20.4" (518 mm)
	550 lb (250 kg)	20.4" (518 mm)
	600 lb (272 kg)	20.4" (518 mm)
	750 lb (340 kg)	26.0" (660 mm)
Böhler®	550 lb (250 kg)	20.4" (518 mm)
Eagle®	500 lb (227 kg)	20.4" (518 mm)
ESAB®	500 lb (227 kg)	20.4" (518 mm)
	550 lb (250 kg)	20.4" (518 mm)
	900 lb (408 kg)	23.4" (594 mm)
	500 lb (227 kg) – Octagon	20.5" (521 mm)
	600 lb (272 kg) – Octagon	20.5" (521 mm)
	900 lb (408 kg) – Octagon	23.5" (597 mm)
Gedik® (GeKa®)	110 lb (50 kg)	20.4" (518 mm)
	485 lb (220 kg)	20.4" (518 mm)
	550 lb (250 kg)	23.4" (594 mm)
Grytgols Bruk®	500 lb (227 kg)	20.4" (518 mm)
	1,000 lb (453 kg)	26.0" (660 mm)
Harris Welco®	500 lb (227 kg)	20.4" (518 mm)
Hyundai®	< 600 lb (272 kg)	20.4" (518 mm)
	> 600 lb (272 kg)	26.0" (660 mm)
Hobart®	250 lb (113 kg)	23.4" (594 mm)
	400 lb (181 kg)	20.4" (518 mm)
	500 lb (227 kg) – Tubular	23.4" (594 mm)
	600 lb (272 kg) – Solid	20.4" (518 mm)
	600 lb (272 kg) – Tubular	23.4" (594 mm)
	700 lb (318 kg) – Tubular	23.4" (594 mm)
	950 lb (431 kg) – Solid	23.4" (594 mm)
INE®	440 lb (200 kg)	20.4" (518 mm)
	550 lb (250 kg)	20.4" (518 mm)
	1,325 lb (600 kg)	26.0" (660 mm)
Pittarc®	661 lb (300 kg)	20.4" (518 mm)
Kaynak®	550 lb (250 kg)	20.4" (518 mm)
Kobelco®	440 lb (200 kg)	20.4" (518 mm)
	550 lb (250 kg)	20.4" (518 mm)

Wire Manufacturer	Packaging	Drum Diameter
Lincoln Electric®	500 lb (227 kg)	20.4" (518 mm)
	600 lb (272 kg)	23.4" (594 mm)
	900 lb (408 kg)	23.4" (594 mm)
	1,000 lb (453 kg)	23.4" (594 mm)
	1,000 lb (453 kg) – Large Round	26.0" (660 mm)
	275 lb (125 kg) – Square	24.0" (610 mm)
	500 lb (227 kg) – Square	21.0" (553 mm)
	900 lb (408 kg) – Square	24.0" (610 mm)
	1,000 lb (453 kg) – Square	24.0" (610 mm)
	2,000 lb (907 kg) – Large Square	29.0" (737 mm)
National Standard®	400 lb (181 kg)	20.4" (518 mm)
	500 lb (227 kg)	20.4" (518 mm)
	900 lb (408 kg)	23.4" (594 mm)
Novafil®	550 lb (250 kg)	20.4" (518 mm)
Paramount®	500 lb (227 kg)	20.4" (518 mm)
	1,000 lb (453 kg)	26.0" (660 mm)
Pittarc® (Pittini)	550 lb (250 kg)	20.4" (518 mm)
	772 – 992 lb (350 – 450 kg)	23.4" (594 mm)
	1,323 – 1,543 lb (600 – 700 kg)	26.0" (660 mm)
PolyMet®	Round drums	23.4" (594 mm)
Praxair® (ProStar®)	275 lb (125 kg) – Square	21.0" (533 mm)
	550 lb (250 kg) – Square	21.0" (533 mm)
Sandvik®	600 lb (272 kg)	20.4" (518 mm)
Select-Arc® *for 5/64"/2 mm or larger diameter wire use 23.4" (594 mm) drum hoods*	250 lb (113 kg)	20.4" (518 mm)
	400 lb (181 kg)	20.4" (518 mm)
	500 lb (227 kg)	20.4" (518 mm)
	600 lb (272 kg)	23.4" (594 mm)
Stoody®	110 – 200 (50-91 kg)	23.4" (594 mm)
	500 lb (227 kg)	23.4" (594 mm)
	750 lb (340 kg)	23.4" (594 mm)
	No Twist Pak (NTP) – Various sizes	20.4" (518 mm)
Tri-Mark®	400 lb (181 kg)	20.4" (518 mm)
	500 lb (227 kg)	20.4" (518 mm)
	600 lb (272 kg)	23.4" (594 mm)
Washington Alloys®	500 lb (227 kg)	20.4" (518 mm)
Weldmark®	500 lb (227 kg)	20.4" (518 mm)
	1,000 lb (453 kg)	26.0" (660 mm)
Wisconsin Wire Works®	250 lb (113 kg)	20.4" (518 mm)
	500 lb (227 kg)	20.4" (518 mm)

* Drum sizes have been supplied by the manufacturer or their distributors who, at their discretion, reserve the right to change product standards without notice. To the best of ELCo's knowledge, information presented is accurate and current. **All packaging is round unless otherwise noted.**

DRUM DOLLIES *1,200 lb/544 kg capacity. See all dollies and carts on pages 46 – 48.*
For drums/boxes up to 25" (635 mm) - use FDD-MD-LD for 29" packages

Universal Drum Dolly
FDD-MD
*For drums/ boxes
25" (635 mm) and under*

Large Universal Drum Dolly
FDD-MD-LD
*For drums/boxes between
25 – 30" (635 – 762 mm)*

FDSC
Heavy Duty Drum Staging Cart

WWSD
*Skid Dolly
(27.5" (698.5 mm) square)*

WIRE WIZARD
WELDING PRODUCTS

FIRE RESISTANT FIBER DRUM & BOX COVERS

For 20.4" to 26" round, square or octagon bulk packages

Wire Wizard® durable fire resistant covers provide effective protection for fiber or cardboard packaging located near the weld cell. Available for round, square or octagon bulk wire packages.

- ▶ Constructed of tough fire resistant material
- ▶ Simple slip-on/slip-off design
- ▶ OSHA and NFPA (USA) codes require fire protection for any combustible wire packaging within 35 feet (10.7 m) of the arc
- ▶ Covers meet NFPA Code 51b: "Standard for Fire Prevention During Welding, Cutting and Other Hot Work"

FROM OSHA.GOV WEBSITE
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9853

Standard Number: 1910.252(a)(2)(vii)

Relocation of combustibles. Where practicable, all combustibles shall be relocated at least 35 feet (10.7 m) from the work site. Where relocation is impracticable, **combustibles shall be protected with flameproofed covers** or otherwise shielded with metal or asbestos guards or curtains.

For details on NFPA Standards, see NFPA Code 51b documentation, available through www.nfpa.org.

Part No.	Description
WWDC-20.4-R	Fire Resistant Drum Cover — Round 20.4" (518.2 mm)
WWDC-23.4-R	Fire Resistant Drum Cover — Round 23.4" (594.4 mm)
WWDC-26-R	Fire Resistant Drum Cover — Round 26" (660 mm)
WWDC-21-S	Fire Resistant Drum Cover — Square 21" (533.4 mm)
WWDC-24-S	Fire Resistant Drum Cover — Square 24" (609.6 mm)
WWDC-20.5-OC	Fire Resistant Drum Cover — Octagon 20.5" (520.1 mm)
WWDC-23.5-OC	Fire Resistant Drum Cover — Octagon 23.5" (597 mm)

WIRE LEVEL GAUGE FOR DRUMS & BOXES

The Wire Level Gauge makes it easy to detect the amount of wire left in wire drums or boxes. The gauge features magnetic wire detection that slides down the drum as wire is depleted, offering a convenient way to monitor wire usage.

- ▶ Detects wire level in the drum with colors and percentages
- ▶ Compatible with 500 – 1,000 lb (227 – 453 kg) drums/boxes (reversible design)
- ▶ Compatible with solid steel wires in fiber drum or boxed packaging (incompatible cored/non-ferrous wire)
- ▶ Spacer option recommended for drums with steel float rings

Close-up view

| Part No.	Description
DLG	Wire Level Gauge for 500 – 1,000 lb (227 – 453 kg) drums/boxes
DLG-5	Spacer (reduces magnetism) for Drums with Steel Float Rings

Wire Level Gauge mounted on drum

NON-STOP® WIRE DISPENSING SYSTEM

A unique process joins the end wire from a used drum with the start wire of a new full drum. Both butt-welding* and flash removal operations take only seconds and the two wire ends may be joined during the welding cycle.
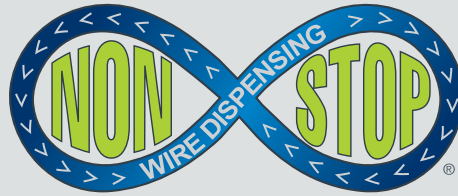
- ▶ **Eliminates downtime for wire changeover**

- ▶ No operator action needed – robots can continue to weld while the next full drum is being installed

- ▶ Designed for use with optional **Wire Pilot® Feed Assist and Wire Guide Modules**

- ▶ Works with one or two-station robotic cells (2 or 4 drums)

- ▶ Accepts any fiber drum or cardboard wire packaging design

- ▶ Easy-to-use resistance Butt Welder (welds up to 0.078"/ 2 mm wire)

- ▶ Mountable to floor or wall (mounting holes included)

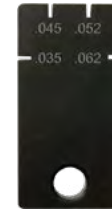- ▶ Appropriate drum-handling carts available

SPECIFICATIONS
Dimensions will vary based on drum size

- ▶ **2 Drum Unit:** 47" W x 29" D x 7' H (1.2 m W x 0.74 m D x 2.13 m H)

- ▶ **4 Drum Unit:** 47" W x 55" D x 7' H (1.2 m W x 1.4 m D x 2.13 m H)

* Wire manufacturer must present wire end at top of dispensing drum to butt weld beginning and ending of wires. Call customer service for information.

ACCESSORIES

Wire Gauge Block
WGB
For 0.035", 0.045", 0.052", and 0.062" wire (included with docking station)

Wire Parters
BW-WP
Leaves flat wire ends for easy butt-welding

Wire Sizer
Order by wire size
Removes burr in wire joint for smooth feeding

Non-Stop® Wire Dispensing System with two stations
NSW-20.4F-18-B2
Shown with optional Butt Welder Docking Station. Docking Station includes Butt Welder, Wire Parters and Wire Gauge Block. Wire Sizer sold separately.

NON-STOP® WIRE DISPENSING SYSTEMS & ACCESSORIES

Part No.	Description
NSW-20.4F-18B-2	System with 2 stations for 20.4" (518 mm) Ø Drums (1-Torch)
NSW-20.4F-18B-4	System with 4 stations for 20.4" (518 mm) Ø Drums (2-Torch)
NSW-23.1F-18B-2	System with 2 stations for 23.4" (594 mm) Ø Drums (1-Torch)
NSW-23.1F-18B-4	System with 4 stations for 23.4" (594 mm) Ø Drums (2-Torch)
NSW-26F-18B-2	System with 2 stations for 26" (660 mm) Ø Drums (1-Torch)
NSW-26F-18B-4	System with 4 stations for 26" (660 mm) Ø Drums (2-Torch)
NSW-SC24-18B-2	System with 2 stations: 1,000 lb (453 kg) Accu-Pak Drums (1-Torch)
NSW-SC24-18B-4	System with 4 stations: 1,000 lb (453 kg) Accu-Pak Drums (2-Torch)
NSW-OC23.5-18B-2	System with 2 stations: 23.5" (597 mm) Octagon Drums (1-Torch)
NSW-OC23.5-18B-4	System with 4 stations: 23.5" (597 mm) Octagon Drums (2-Torch)
WGM-NSW-SW-18	Wire Guide Module® Swivel Kit Adapter (allows 360° rotation)
NSW-BW-DS-R13	Butt Welder Docking Station (110 V)

Part No.	Description
NSW-BW-DS-220EU-R13	Butt Welder Docking Station (220 V European)
NSW-BW-WS-035	Wire Sizer for 0.035" (0.9 mm) wire*
NSW-BW-WS-040	Wire Sizer for 0.040" (1.0 mm) wire*
NSW-BW-WS-045	Wire Sizer for 0.045" (1.2 mm) wire*
NSW-BW-WS-052	Wire Sizer for 0.052" (1.3 mm) wire*
NSW-BW-WS-062	Wire Sizer for 0.062" (1.6 mm) wire*
NSW-BW-WS-078	Wire Sizer for 0.078" (2 mm) wire*
NSW-BW-WS-1	Wire Sizer without dies* (must specify wire size when ordering)
BW-WP	Wire Parters (included on butt welder docking station)
WGB	Wire Gauge Block (included on butt welder docking station)
NSW-PFA-AK-15	Wire Pilot® Feed Assist Mounting Adapter (includes liner)

* Wire Sizer replacement dies available. Contact customer service for more information.

WIRE WIZARD WELDING PRODUCTS

NON STOP WIRE DISPENSING®
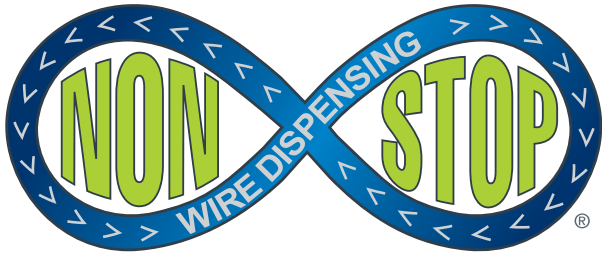
ELIMINATES DOWNTIME FOR WIRE CHANGEOVER!

ADDITIONAL WIRE EXIT POINT OPTIONS

Wire Pilot® Feed Assist Mounting Adapter

NSW-PFA-AK-15 ▶
(includes liner)

Guide Module®(s)

May be mounted in a fixed position or with the Guide Module® Swivel Kit to allow 360° rotation

NSW Drum Hoods

Wire Whip

Wire Transfer Arm

Butt Welder Docking Station

DRUM SETUP

Single Torch Unit
(with round drums)
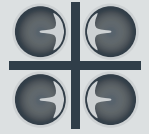
2-Torch Unit
(with round drums)

DRUM 1

DRUM 2

Start Wire

Start Wire

End Wire
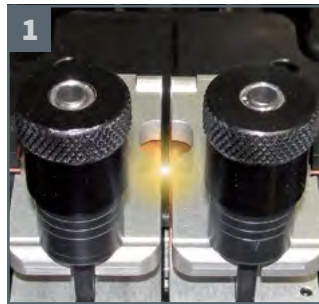
1

Join the end wire from drum 1 with the start wire from drum 2 using the Butt Welder.
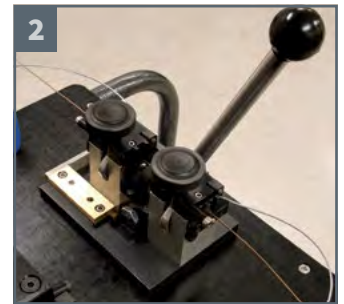
2

Remove the flash in the wire joint using the Wire Sizer (sold separately) or rotary tool with stone bit.

3

Position the wire on the pathway between the two drums.
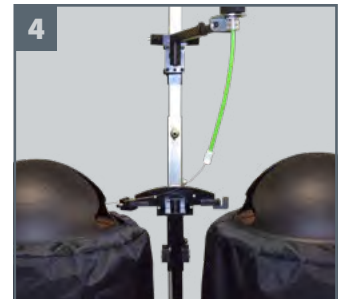
4

When wire from drum 1 runs out, the transfer arm will switch over to drum 2. Simply replace empty drum and repeat steps 1 – 3.

MECHANICAL TURN TABLE WWTT-2012

▶ 1,000 lb (453 kg) capacity accepts 20" – 26" (508 – 660 mm) drums

▶ Designed to dispense all sizes and varieties of wire

▶ Includes built-in fork slots and optional wheels for easy mobility

▶ 4-axis adjustable arm with ceramic inlet guide prevents wire shaving

▶ Quick disconnect allows for easy conduit connections

▶ Excellent for submerged arc applications

▶ Optional cover will not compromise accessibility

SPECIFICATIONS

▶ Height: 42" (1.067 m)

▶ Length: 26" (660.4 mm)

▶ Width: 30" (762 mm)

▶ Weight: 142 lbs (64.5 kg)

BRAKE KITS FOR MECHANICAL TURN TABLE
WWTT-BRAKE-1-12 / WWTT-DB-13

Slows and stops drum for welding applications where a higher wire feed speed is required and prevents over-rotating.

Pneumatic Brake Kit
WWTT-BRAKE-1-12

Top view of turn table showing wire guide and wire retainer ring

WWTT-WHEEL-12
Optional wheels

WWTT-COVER-17
Optional cover for 26" (660 mm) drums (open and closed)

WIRE PILOT® TURN TABLE ADAPTER KITS
PFA-WWTT-B, PFA-WWTT-B1 and PFA-WWTT-B2

▶ Firmly mounts the Wire Pilot® Feed Assist(s) (see page 32) and filter/regulator/lubricator to the top of the turn table

▶ Allows for longer conduit runs to the wire feeder

▶ Optional stabilizer recommended for PFA/Guide Module® mounts

Guide Module® Support Bracket
WWTT-WGM-BK
Mounting bracket for use with PFA-DD or PFA-LM-20

Support Arm Kit
WWTT-WGM-SA
For 90° Guide Module® installations on Turn Tables

Part No.	Description
WWTT-2012	Mechanical Turn Table for wire up to 5/32" (4 mm)
WWTT-BRK-12	Mechanical Turn Table (WWTT-2012) with assembled pneumatic brake
WWTT-WHEEL-12	Turn Table Optional Wheels (set of 4)
WWTT-BRAKE-1-12	Pneumatic Brake Kit for Mechanical Turn Table
WWTT-DB-13	Drag Brake Kit for Mechanical Turn Table
WGM-4-BRKT	Wire Wizard Large Guide Module® Turn Table Adapter Bracket
WWTT-RL	Turn Table Replacement Liner — includes ceramic inlet
WWTT-23.4-DH-19	Turn Table Replacement Wire Retainer
WWTT-COVER-17	Turn Table Protective Cover for up to 26" (660 mm) drums
PFA-WWTT-B	Feed Assist Adapter Kit without Wire Pilot® Feed Assist
PFA-WWTT-B1	Feed Assist Adapter Kit with 1 Wire Pilot® Feed Assist
PFA-WWTT-B2	Feed Assist Adapter Kit with 2 Wire Pilot® Feed Assists
WWTT-WGM-SA	Large Guide Module® Support Arm Kit

Wire Pilot® Turn Table Adapter Kit with Dual Feed Assists and Large Wire Wizard® Guide Modules
PFA-WWTT-B2
Ideal setup for many large diameter wire SAW applications

WIRE WIZARD
WELDING PRODUCTS

WOOD REEL &
LARGE WIRE DISPENSING

TRADITIONAL DEREELING ARMS FOR WOOD & PLASTIC REELS

▶ Universal base plate designs fit all wood or plastic reels with 1-5/16" (33 mm) or 5" (127 mm) center arbors

▶ Ceramic inlet guide provides long wear and prevents wire shaving

▶ Twin locking cams secure base plate to reel for stability

▶ Easy installation, typically requires little adjustment

▶ Outer tube radius and lead will not change wire cast

▶ Spring-loaded drag brake provides smooth acceleration and deceleration of feed arm and prevents wire from shingling off reel

▶ Large coupler bearing resists both thrust and "G" loads

▶ Kits (RW#) include arm, liner, brake, base plate and quick disconnect

Drag Brake

Dereeling Arm
Available for 30" (762 mm) or 24" (610 mm) reels, or adjustable models

Liner
Note: Always use polymer liners for aluminum wire

Base Plate

Base Plate for 5" (127 mm) Arbor Holes
C-44
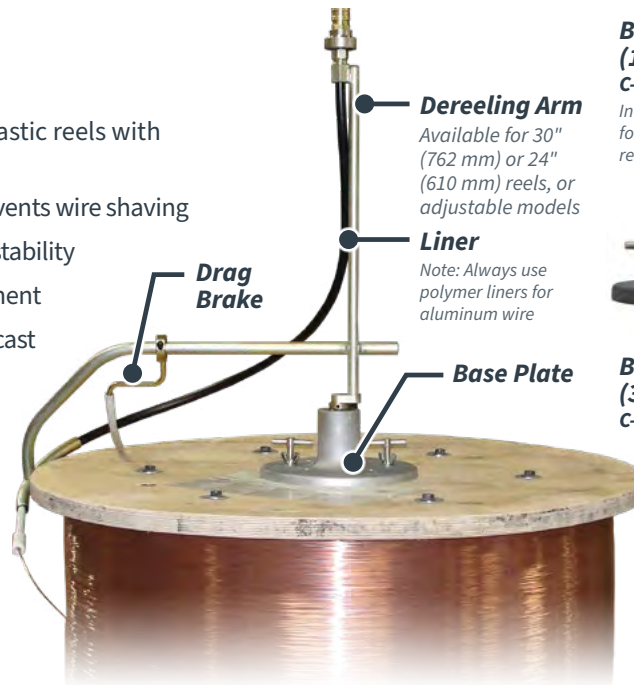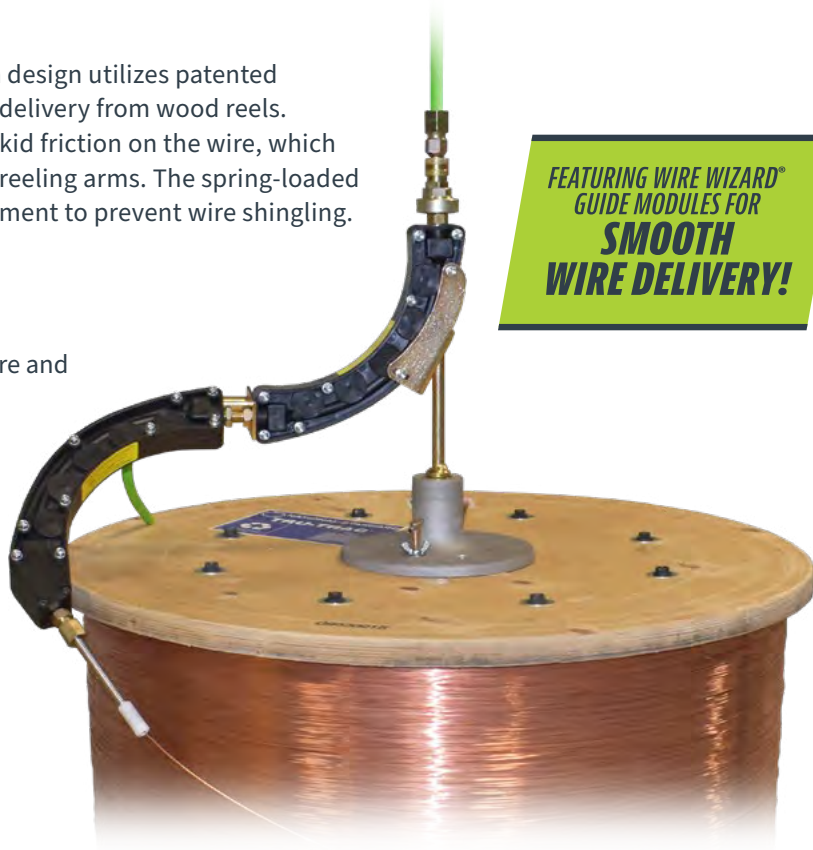*Includes removable insert for National Standard® reels with 3/4" wood*

Base Plate for 1-5/16" (33 mm) Arbor Holes
C-37

DEREELING ARMS AND COMPONENTS

Part No.	Description	Reel Diameter	Arbor Hole Size	Liner Type
RW1034-C44	Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	30" (762 mm)	5" (127 mm)	Steel
RW1034P-C44	Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	30" (762 mm)	5" (127 mm)	Polymer
RW1034-C37	Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	30" (762 mm)	1-5/16" (33 mm)	Steel
RW1034P-C37	Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	30" (762 mm)	1-5/16" (33 mm)	Polymer
RW1035-C44	Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	24" (610 mm)	5" (127 mm)	Steel
RW1035P-C44	Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	24" (610 mm)	5" (127 mm)	Polymer
RW1035-C37	Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	24" (610 mm)	1-5/16" (33 mm)	Steel
RW1035P-C37	Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	24" (610 mm)	1-5/16" (33 mm)	Polymer
RW1028-C44	Dereeling Arm Kit for 1/16" – 5/32" (1.6 – 4 mm) wire	30" (762 mm)	5" (127 mm)	Steel (Large)
RW1028-C37	Dereeling Arm Kit for 1/16" – 5/32" (1.6 – 4 mm) wire	30" (762 mm)	1-5/16" (33 mm)	Steel (Large)
RW1042-C44	Adjustable Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	Adjustable	5" (127 mm)	Polymer
RW1043-C44	Adjustable Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	Adjustable	5" (127 mm)	Steel
RW1042-C37	Adjustable Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	Adjustable	1-5/16" (33 mm)	Polymer
RW1043-C37	Adjustable Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	Adjustable	1-5/16" (33 mm)	Steel
C-44	Base Plate for 5" (127 mm) Arbor Holes	—	5" (127 mm)	—
C-37	Base Plate for 1-5/16" (33 mm) Arbor Holes	—	1-5/16" (33 mm)	—
C-34	Replacement Arm for 30" (762 mm) Reels (steel liner)	30" (76 mm)	—	Steel
C-34P	Replacement Arm for 30" (762 mm) Reels (polymer liner)	30" (762 mm)	—	Polymer
C-35	Replacement Arm for 24" (610 mm) Reels (steel liner)	24" (610 mm)	—	Steel
C-35P	Replacement Arm for 24" (610 mm) Reels (polymer liner)	24" (610 mm)	—	Polymer
C-28	Large Replacement Arm for 30" (762 mm) Reels	30" (762 mm)	—	—
C-12-12	Replacement drag brake	—	—	—

Replacement Liners: C-34-LINER (steel) and C-34P-LINER (polymer) for all RW1034 arms; C-35-LINER (steel) and C-35P-LINER (polymer) for all RW1035 arms; C-28-LINER (steel) for the RW1028 arm.

WIRE WIZARD® HIGH PERFORMANCE GUIDE MODULE® DEREELING ARMS

The **Wire Wizard® Guide Module® Dereeling Arm** design utilizes patented Wire Guide Modules for low friction, flawless wire delivery from wood reels. The Guide Module® Arm is designed to eliminate skid friction on the wire, which provides a smoother wire feed than traditional dereeling arms. The spring-loaded drag brake is adjustable and allows precise adjustment to prevent wire shingling.

- ► Arm design utilizes Wire Wizard® Guide Modules **eliminates skid friction**, providing a smoother wire feed than traditional dereeling arms
- ► Compatible with 0.035 – 1/16" (0.9 – 1.6 mm) wire and recommended solution for lighter/non-ferrous wires where smooth wire delivery is critical
- ► Base plate designs to fit 30" wood reels with 1-5/16" (33 mm) or 5" (127 mm) center arbors
- ► Spring-loaded drag brake provides smooth acceleration and deceleration of feed arm and prevents wire from shingling off reel
- ► Ceramic inlet guide provides long wear and prevents wire shaving
- ► Kits (RW#) include arm, liner, brake, base plate and quick disconnect

FEATURING WIRE WIZARD® GUIDE MODULES FOR
SMOOTH WIRE DELIVERY!

GUIDE MODULE® DEREELING ARMS AND COMPONENTS

Part No.	Description	Reel Diameter	Arbor Hole Size
RW1046-C44	WGM Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	30" (762 mm)	5" (127 mm)
RW1046-C37	WGM Dereeling Arm Kit for 0.035 – 1/16" (0.9 – 1.6 mm) wire	30" (762 mm)	1-5/16" (33 mm)
C-44	Base Plate for 5" (127 mm) Arbor Holes	—	5" (127 mm)
C-37	Base Plate for 1-5/16" (33 mm) Arbor Holes	—	1-5/16" (33 mm)
WGM-C-1	Replacement Guide Module® for Dereeling Arm (upper)	—	—
WGM-C-1A	Replacement Guide Module® for Dereeling Arm (lower)	—	—

WOOD REEL COVER

- ► Designed specifically for 30" (762 mm) spools
- ► Protects wire from dust and other contaminants
- ► Prevents access to dispensing unit during operation
- ► Manufactured from **unbreakable polyethylene**
- ► Clear side and top panels provide easy access
- ► Ships fully assembled (commercially shipped)

Part No.	Description	Reel Diameter
RWC1111-30	Polyethylene Wood Reel Cover	Up to 30" (762 mm)

Wire Delivery setup with Wood Reel Cover
RWC1111-30
Shown on a staging cart with Dereeling Arm

WIRE WIZARD WELDING PRODUCTS
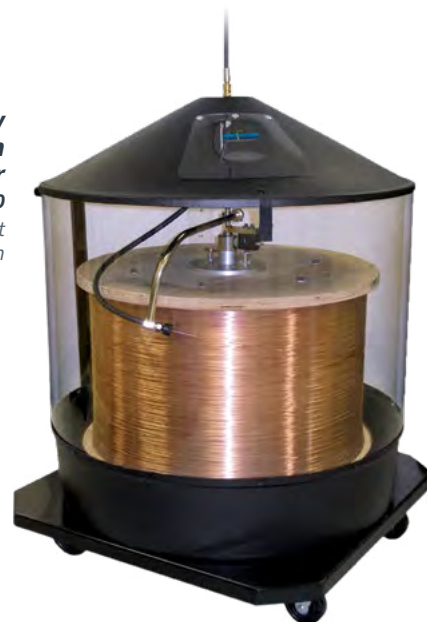
SINGLE & TANDEM VERTICAL DEREELERS FOR WOOD REELS
WWA-12-1 (single) and WWA-12-2 (tandem)

Wire Wizard® Single and Tandem Vertical Dereelers are built to deliver large diameter wire from 1/16" (1.6 mm) to 3/16" (4.8 mm) on up to 30" (762 mm) wood reels. Wire may be dispensed from either the top or the bottom of the dereeler. The tandem model (shown at right) offers dispensing of two wood reels with a small footprint, saving valuable floor space.

▶ Wire Wizard® Guide Modules (included) eliminate points of high friction when dispensing wire from the base

▶ Optional **Wire Pilot® Feed Assist**(s) recommended for reduced pull on the feed motor and long distance runs

▶ Adjustable brake allows fine tuning to prevent wire flip

▶ Polished ceramic inlet guides prevent wire shaving

▶ Capacity: 1,000 lbs (453 kg) per side

Part No.	Description
WWA-12-1	Single Vertical Dereeler for Wood Reels
WWA-12-2	Tandem Vertical Dereeler for Wood Reels

WWA-12-2
Tandem Vertical Dereeler shown with optional Feed Assists and Large Guide Modules at top. Wire may also be dispensed from the base of the unit.

37" (940 mm)   32" (813 mm)

SAW WIRE DELIVERY SYSTEMS FOR DRUMS

Wire Wizard® SAW Wire Delivery Systems for Drums are the ideal way to handle large diameter wire from 1/16" (1.6 mm) to 3/16" (4.8 mm) in bulk drum packaging. These setups allow for accurate welding with large wire by eliminating wire flip as well as preventing flux-core splitting, excessive tip wear, pulsating, burn backs and blown holes.

▶ **All systems designed to eliminate wire flip and excess friction**

▶ Compatible with up to 1,000 lb (453 kg) bulk drums and up to 3/16" (4.8 mm) wire

▶ Does not change the cast of the wire

▶ Prevent tip wear, pulsating, burn back and blown holes

▶ Dispense large diameter wire at speeds up to 250 IPM

▶ **Wire Pilot® Feed Assist**(s) reduce pull on the feed motor and allow long distance wire feeding

▶ **Large Wire Guide Modules** (see page 24) may be installed at the wire source or near the feeder to eliminate excess friction

▶ A variety of SAW wire delivery system setup options are available; contact customer service for details

Single, Tandem or Dual Drive Wire Pilot® Feed Assists may be adapted to the unit (see page 32)
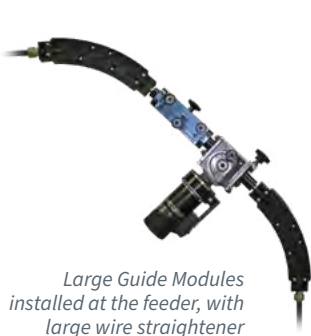
Large Guide Modules installed at the feeder, with large wire straightener

Application with Turn Table and vertical wire feed

Application with Turn Table and horizontal wire feed

Mezzanine Installation

CONDUIT, CONNECTORS & INLET GUIDES

QUALITY TESTED FOR MAXIMUM DURABILITY!

We tested the flexural strength of our EC-4-R advanced polymer conduit against a leading competitor by continuously flexing it back and forth until it the point of failure.
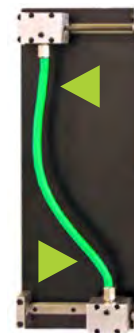
Flexural Strength Testing Device

Wire Wizard® polymer conduit survived this rigorous test over <u>70 TIMES</u> longer than the competitor. The results speak for themselves!

ADVANCED POLYMER CONDUIT *(see page 17 for size reference table)*

Known throughout the industry for its longevity and low friction coefficient, this durable conduit has proven to outlast metal lined products while still providing much less pull on the feed motor. It's your first choice for stationary or moving feed units and is also the recommended conduit for aluminum wire applications. EC-4-R conduit features an advanced polymer formula for extended wear and durability.

ADVANCED POLYMER FORMULA FOR EXTENDED WEAR AND DURABILITY!

Advanced Polymer Conduit
with connector options

- ▶ **Available in two sizes**: EC-4-R for standard wire sizes; EC-5 for large wire (see Conduit Size Reference table on page 17)
- ▶ Available in pre-cut lengths with attached self-threading bayonets or in bulk 50', 100', 250' or 500' rolls (15.2 m, 30.5 m, 76.2 m or 152.4 m)
- ▶ Ideal for both ferrous and non-ferrous wire, **required for aluminum wire applications**
- ▶ Recommended for feeding from the source to the weld cell exterior
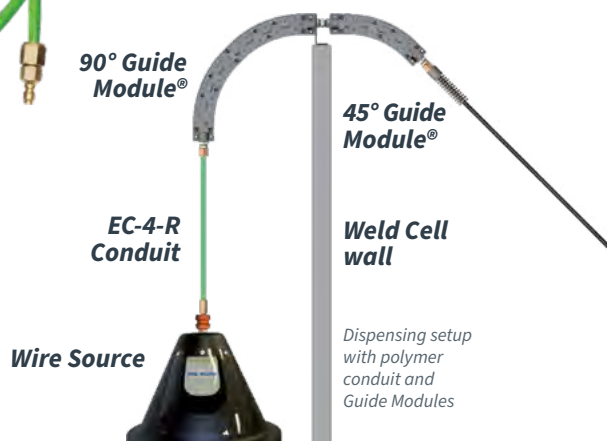- ▶ Self threading or compression style connectors available (see page 16)

90° Guide Module®

45° Guide Module®

EC-4-R Conduit

Weld Cell wall

Wire Source

Dispensing setup with polymer conduit and Guide Modules

CONNECTOR OPTIONS & INSTALLATION TOOLS

Self-threading "screw-on" style fitting

Compression style fitting with ferrule

EC-CUTTER *(see page 49)*
Polymer Conduit Cutter

EC-DB *(see page 49)*
Polymer Conduit Countersink Tool

Part No.	Conduit Dimensions	Connector Type Self Thread Compression	Replace Ferrule
EC-4-R*	0.300 ID (7.6 mm) x 0.460 OD	A-16F-4 or A-10C-H	A-10CFE
EC-5	0.380 ID (9.6 mm) x 0.600 OD	A-16F-5 or A-10R	A-10RFE

*EC-4-R is cross-linked polymer conduit, ideal for robotic applications.

EC-4-R PRE-CUT CONDUIT*
A-16F-4 Bayonet Attached

Part No.	Description
EC4-120	120" – 10' (3 m)
EC4-180	180" – 15' (4.6 m)
EC4-240	240" – 20' (6.1 m)
EC4-300	300" – 25' (7.6 m)

EC-5 PRE-CUT CONDUIT*
A-16F-5 Bayonet Attached

Part No.	Description
EC5-120	120" – 10' (3 m)
EC5-180	180" – 15' (4.6 m)
EC5-240	240" – 20' (6.1 m)
EC5-300	300" – 25' (7.6 m)

BULK CONDUIT
In 50', 100', 250' or 500' rolls

Part No.	Description
EC-4R-	50-B, 100-B, 250-B or 500-B
EC-5-	50-B, 100-B, 250-B or 500-B

*Custom pre-cut lengths of conduit are available, contact customer service for ordering information

WIRE WIZARD WELDING PRODUCTS

EXTRA FLEXIBLE CONDUIT (see page 17 for size reference table)

Our most durable conduit displays exceptional wear characteristics and very low friction coefficient. Perfect for robotics, gantry, linear, or any application where a tighter radius is required. Available in pre-cut lengths, 100 ft (30.5 m) bulk coils, or by the foot. All Extra Flexible Conduit now features a spatter-resistant outer jacket, low friction smooth-feed wire coating and patented elliptical wire spring liners.

► **Available in four sizes:**
FC-X — standard; FC-XH — heavy duty;
FC-XH-LW — for large diameter wire

► FC-X and FC-XH are available in cut lengths with attached bayonets on each end (swaged style)

► Available in 1 – 100 ft (305 mm – 30.5 m) continuous length coil

► Compression or swaged style connectors available (see page 16)

Conduit
FC-X
Cutaway
view

PATENTED ELLIPTICAL WIRE SMOOTH COATED SPRING LINERS!

Compression   Swaged

Extra Flexible Conduit
Shown as cut length with connector options

Part No.	Conduit Dimensions	Connector / Ferrule
FC-X	0.241 ID (6.1 mm) x 0.500 OD (12.7 mm)	A-10C-X / A-10XFE
FC-XH	0.291 ID (7.4 mm) x 0.610 OD (15.5 mm)	A-10R / A-10RFE
FC-XH-LW	0.390 ID (10 mm) x 0.750 OD (19 mm)	A-9/A-6HD / A-9-FE

CONDUIT COLOR CODING
Pre-cut lengths are color-coded as follows:

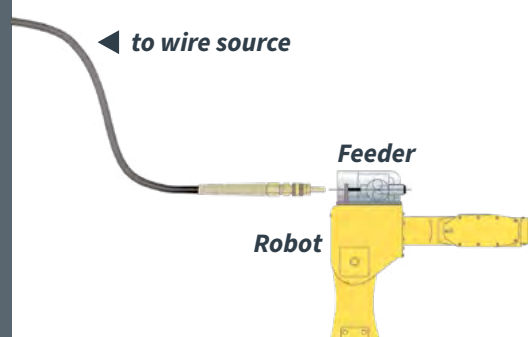| 10' (3 m)	15' (4.6 m)	20' (6 m)	25' (7.6 m)

STRAIN RELIEF OPTIONS

Steel Strain Relief option (-SR)
Recommended for high mobility applications

Polymer Strain Relief option (-ST)
Recommended for light mobility applications

SAMPLE CONDUIT RUN

◄ **to wire source**

Feeder

Robot

FC-X PRE-CUT CONDUIT*
with A-11X Swaged Bayonet

Part No.	Description
FCXS-120	120" – 10' (3 m)
FCXS-180	180" – 15' (4.6 m)
FCXS-240	240" – 20' (6.1 m)
FCXS-300	300" – 25' (7.6 m)

FC-XH PRE-CUT CONDUIT*
with A-11XH Swaged Bayonet

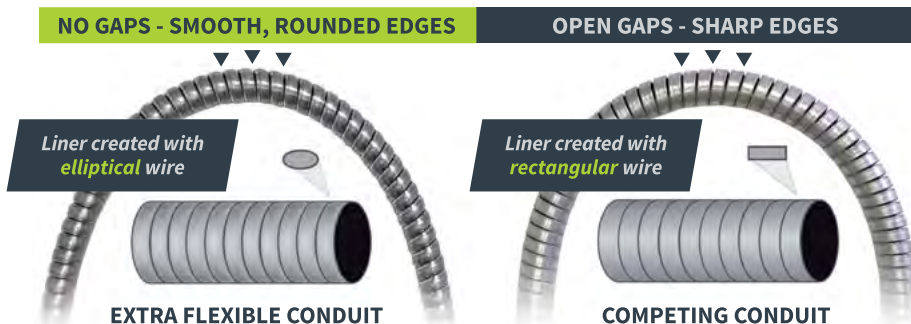| Part No.	Description
FCXHS-120	120" – 10' (3 m)
FCXHS-180	180" – 15' (4.6 m)
FCXHS-240	240" – 20' (6.1 m)
FCXHS-300	300" – 25' (7.6 m)

BULK CONDUIT*
sold in 100' (30.5 m) sections

Part No.	Description
FC-X-B	100' (30.5 m)
FC-XH-B	100' (30.5 m)
FC-XH-LW-B	100' (30.5 m)

Add "ST" to end of part # for polymer strain relief, **"SR"** for steel strain relief. **Delete "S"** from part number for compression connections.
*Custom pre-cut lengths of conduit are available, contact customer service for ordering information.

ELLIPTICAL WIRE LINERS Patented

All Wire Wizard® steel liners featured in our Extra Flexible Conduit and Torch Liners are built with a unique elliptical wire to help eliminate wire shaving and to reduce drag coefficient. To the right are images displaying the difference between Wire Wizard® and a liner manufactured with rectangular wire.

NO GAPS - SMOOTH, ROUNDED EDGES

Liner created with elliptical wire

EXTRA FLEXIBLE CONDUIT

OPEN GAPS - SHARP EDGES

Liner created with rectangular wire

COMPETING CONDUIT

EXTREME FLEX CONDUIT *(see page 17 for size reference table)*

Extreme Flex Conduit is designed for robotic welding applications requiring a high degree of mobility and flexibility. It features the same low friction elliptical wire spring liner as the Extra Flexible conduit, only with a single spatter-resistant outer jacket to provide more flexibility. Extreme Flex conduit is the ideal choice for robotic weld cells with a tight space between the wire source and the robot.

► Sold by the foot or in pre-cut lengths with attached connectors, fittings are available for both Wire Wizard® or Panasonic® style quick disconnects

► Suitable for steel wire sizes up to 0.052 (1.3 mm)

► Polymer strain reliefs included on all standard pre-cut lengths for enhanced strength at connection points
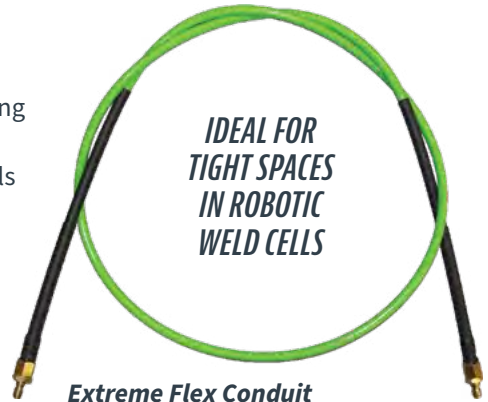
IDEAL FOR TIGHT SPACES IN ROBOTIC WELD CELLS

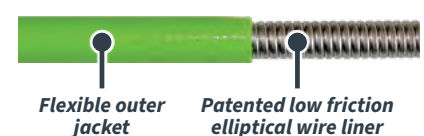**Extreme Flex Conduit**
Cut length with connector options

Compression Connector Assembly

Conduit FC-E

Reinforcement Tube A-11E-2-3

Compression Fitting A-10C-H

Pre-Cut Length Assembly

Polymer Strain Relief
Included on all pre-cut lengths

Conduit (cutaway view)
FC-E

Flexible outer jacket

Patented low friction elliptical wire liner

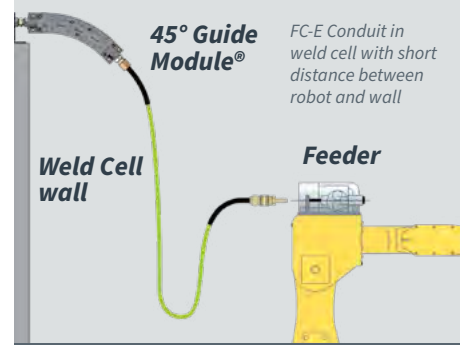| Part No.	Description	Connectors
FC-E	0.241 ID (6.1 mm) x 0.440 OD (11.2 mm)	See below

Order by length (in feet) for cut lengths without connectors

FC-E CONDUIT CONNECTOR OPTIONS
Connectors not included on lengths ordered by the foot

Part No.	Description
A-10C-H	Compression Fitting with Ferrule
A-10C-H-SR	10.5" Strain Relief and Compression Fitting with Ferrule
A-11E-2-3	Reinforcement Tube — required for compression fittings (one per connector)

SAMPLE CONDUIT RUN

45° Guide Module®

FC-E Conduit in weld cell with short distance between robot and wall

Weld Cell wall

Feeder

FC-E CONDUIT CONNECTOR OPTIONS FOR PRE-CUT LENGTHS
Connectors are included on all pre-cut lengths

FC-E PRE-CUT CONDUIT FOR STANDARD WIRE WIZARD® DISCONNECTS*
with A-11E swaged bayonet

Part No.	Description
FCES-96	96" – 8' (2.4 m)
FCES-120	120" – 10' (3 m)
FCES-180	180" – 15' (4.6 m)
FCES-240	240" – 20' (6.1 m)
FCES-300	300" – 25' (7.6 m)

FC-E PRE-CUT CONDUIT FOR PANASONIC® DISCONNECTS*
with Swaged Fittings and Polymer Strain Reliefs (both ends)

Part No.	Description
FCE-3.0-P	118" – 9.8' (3 m)
FCE-5.0-P	197" – 16.4' (5 m)
FCE-7.5-P	295" – 24.6' (7.5 m)
FCE-10.0-P	394" – 32.8' (10 m)

Polymer Strain Relief option
Standard on all pre-cut lengths

Steel Strain Relief option (-SR or -SR2)
Optional Steel Strain Relief

A-16M-P2
Panasonic® style fitting included with -P pre-cut FC-E conduit

Add "-SR" for steel spring strain relief on one end, "-SR2" for steel strain relief on both ends.
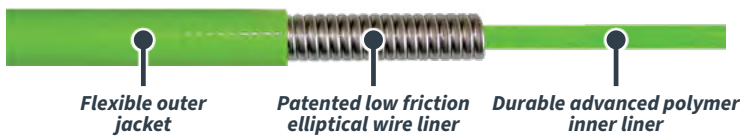**Custom pre-cut lengths of conduit are available, contact customer service for ordering information.*

WIRE WIZARD® WELDING PRODUCTS

EXTREME FLEX CONDUIT FOR ALUMINUM WIRE (see page 17 for size reference table)

Extreme Flex Conduit for Aluminum Wire features a durable advanced polymer liner for smooth wire delivery. Designed for robotic welding applications requiring a high degree of mobility, it features the same low friction elliptical wire spring liner and spatter-resistant outer jacket as the Extreme Flex Conduit for ferrous wires.

▶ Provides enhanced strength and durability for robotic applications using aluminum wire

▶ Sold in pre-cut lengths with swaged connectors at each end (A-11E)

▶ Suitable for aluminum wire sizes up to 1/16" (1.6 mm)

▶ Polymer strain reliefs included on all pre-cut lengths for enhanced strength at connection points

ADVANCED POLYMER LINER FOR ALUMINUM WIRE

Extreme Flex Conduit for Aluminum Wire
Cut length with connector options

Conduit (cutaway view)
FCES-A

Flexible outer jacket

Patented low friction elliptical wire liner

Durable advanced polymer inner liner

Pre-Cut Length Assembly

Polymer Strain Relief
Included on all pre-cut lengths

Part No.	Description	Connectors
FCES-A	0.09 ID (2.3 mm) x 0.440 OD (11.2 mm)	See below

FCES-A CONDUIT AVAILABLE PRE-CUT LENGTHS
Connectors are included on all pre-cut lengths

Part No.	Description
FCES-96-ST-A	96" – 8' (2.4 m)
FCES-120-ST-A	120" – 10' (3 m)
FCES-180-ST-A	180" – 15' (4.6 m)
FCES-240-ST-A	240" – 20' (6.1 m)
FCES-300-ST-A	300" – 25' (7.6 m)

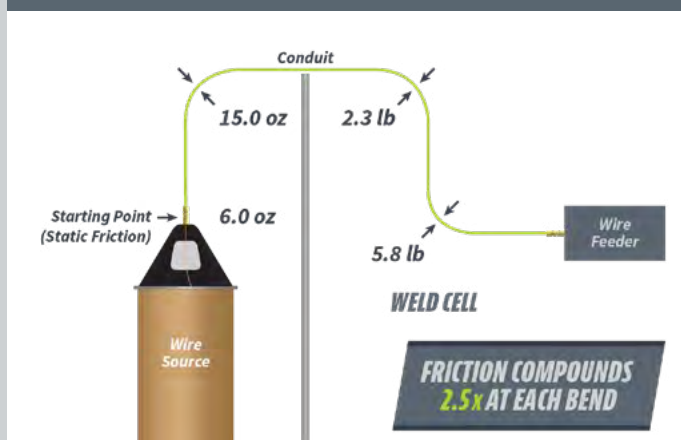*FCES-A Conduit installed at the wire feeder with a 90° Guide Module and swivel connection*
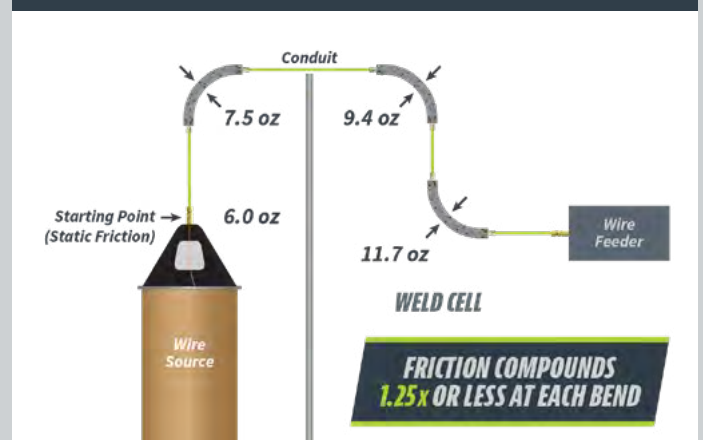
90° Mini Guide Module

FIGHT WIRE FRICTION WITH WIRE WIZARD® CONDUIT & GUIDE MODULES!
Wire friction compounds around each bend and turn in the wire delivery system. With low friction EC-4-R or FCES-A conduit and Wire Guide Modules, friction compounds *at less than half* the rate it does in applications without Guide Modules. Additionally, the Wire Pilot® Wire Feed Assist can be used with aluminum and other light wires to prevent "bird nesting" at the feeder.
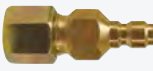
COMPOUND FRICTION WITHOUT GUIDE MODULES

Conduit
15.0 oz   2.3 lb
Starting Point → (Static Friction)   6.0 oz
5.8 lb
Wire Feeder
WELD CELL
Wire Source
FRICTION COMPOUNDS 2.5x AT EACH BEND

COMPOUND FRICTION WITH GUIDE MODULES

Conduit
7.5 oz   9.4 oz
Starting Point → (Static Friction)   6.0 oz
11.7 oz
Wire Feeder
WELD CELL
Wire Source
FRICTION COMPOUNDS 1.25x OR LESS AT EACH BEND

CONDUIT CONNECTORS

POLYMER CONDUIT CONNECTORS

EC-4-R	A-16F-4	A-10C-H	A-10C-H-SR	A-12A
EC-5	A-16F-5	A-10R	A-10RP	A-10R-SR

See page 18 for replacement ferrules for compression style connectors.

EXTRA FLEXIBLE CONDUIT CONNECTORS

FC-X	A-10C-X	A-10XP	A-10C-X-SR	A-11X
FC-XH	A-10R	A-10RP	A-10R-SR	A-11XH
FC-XH-LW	A-6HD (or A-6*) and A-9	A-11XH-LW		
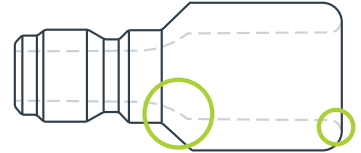
All Wire Wizard® connectors feature rounded shoulders for smooth wire feeding

Polymer Strain Relief

Steel Spring Strain Relief, 10.5"

Use A-6HD if connecting to an HD style disconnect, use A-6 for all other disconnects

POLYMER CONDUIT CONNECTORS

EC-4-R CONNECTORS

Part No.	Description
A-16F-4	Self Threading (1/4" NPT-F) – Steel
A-16F-4B	Self Threading (1/4" NPT-F) – Brass
A-10C-H	Compression (Ferrule)
A-12A	Aluminum Compression Fitting (not a disconnect)
A-10C-H-SR	Strain Relief Connector – 10.5" (267 mm)

EC-5 CONNECTORS

Part No.	Description
A-16F-5	Self Threading (3/8" NPT-F)
A-10R	Compression (Ferrule)
A-10RP*	Compression (1/4" NPT-F)
A-10R-SR	Strain Relief Connector
A-10R-QD	Connector with Disconnect
A-10R-QD-SR	Strain Relief with Disconnect

EXTRA FLEXIBLE CONDUIT CONNECTORS

FC-X CONNECTORS

Part No.	Description
A-10C-X	Compression (Ferrule)
A-10XP*	Compression (1/4" NPT-F)
A-10C-X-SR	Strain Relief Connector – 10.5" (267 mm)
A-11X	Swaged Connector

FC-XH CONNECTORS

Part No.	Description
A-10R	Compression (Ferrule)
A-10RP*	Compression (1/4" NPT-F)
A-10R-SR	Strain Relief Connector
A-11XH	Swaged Connector
A-10R-QD	Connector with Disconnect
A-10R-QD-SR	Strain Relief with Disconnect

FC-XH-LW CONNECTORS

Part No.	Description
A-6HD (or A-6)/A-9	Combination Compression
A-11XH-LW	Swaged Connector

NPT – National Pipe Threads | **M** – Male | **F** – Female

* For A-10RP and A-10XP use A-4 quick disconnect

WIRE WIZARD
WELDING PRODUCTS

CONDUIT SIZE REFERENCE TABLE

The table below shows the recommended conduit based on the wire type, size, length of run and application. When choosing the proper conduit, please keep in mind these seven variables of wire dispensing:

▶ **Type of Wire:** Such as steel, aluminum, cored steel, or silicone bronze

▶ **Wire Diameter**

▶ **Length of Run**

▶ **Wire Cast:** The curvature of one strand of welding wire, measured as the diameter of the circle formed by a strand laying on a flat surface

▶ **Wire Helix:** The distance one end of a single wire strand lying on a flat surface rises off that surface (also known as the wire "pitch")

▶ **Application:** Robotic or semi-automatic, number of turns

▶ Drawing Compounds

| Wire Type | Size (inches/mm) | Distance and Recommended Conduit | | | | | |
| | | 1 – 10 ft (1 – 3 m) | | 11 – 20 ft (3 – 6 m) | | Over 20 ft (6 m) | |
		Stationary	Robotic	Stationary	Robotic	Stationary	Robotic
Steel	0.025"/0.6 mm	EC-4-R	FC-X/EC-4-R	EC-4-R	FC-X/EC-4-R	EC-4-R	FC-X/EC-4-R
Steel	0.030"/0.8 mm	EC-4-R	FC-X/EC-4-R	EC-4-R	FC-X/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Steel	0.035"/0.9 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Steel	0.040"/1 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Steel	0.045"/1.1 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Steel	0.052"/1.3 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-5	FC-XH
Steel	1/16"/1.6 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH
Steel	5/64"/2 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH
Steel	3/32"/2.4 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH
Steel	7/64"/2.5 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH-LW
Steel	1/8"/3.2 mm	EC-5	FC-XH-LW	EC-5	FC-XH-LW	EC-5	FC-XH-LW
Steel	5/32"/4 mm	EC-5	FC-XH-LW	EC-5	FC-XH-LW	EC-5	FC-XH-LW
Aluminum	0.025"/0.6 mm	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A
Aluminum	0.030"/0.8 mm	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A
Aluminum	0.035"/0.9 mm	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A
Aluminum	3/64"/1.2 mm	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A
Aluminum	1/16"/1.6 mm	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A	EC-4-R	EC-4-R or FCES-A
Aluminum	3/32"/2.4 mm	EC-4-R	EC-4-R	EC-4-R	EC-4-R	EC-4-R	EC-4-R
Cored - Steel	0.035"/0.9 mm	EC-4-R/FC-X	FC-X or E/EC-4-R	EC-4-R/FC-X	FC-X or E/EC-4-R	EC-4-R/FC-X	FC-X or E/EC-4-R
Cored - Steel	0.045"/1.1 mm	EC-4-R/FC-X	FC-X or E/EC-4-R	EC-4-R/FC-X	FC-X or E/EC-4-R	EC-4-R/FC-X	FC-X or E/EC-4-R
Cored - Steel	0.052"/1.3 mm	EC-4-R/FC-X	FC-X or E/EC-4-R	EC-4-R/FC-X	FC-X or E/EC-4-R	EC-4-R/FC-X	FC-X or E/EC-4-R
Cored - Steel	1/16"/1.6 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH
Cored - Steel	5/64"/2 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH
Cored - Steel	3/32"/2.4 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH
Cored - Steel	1/8"/3.2 mm	EC-5	FC-XH-LW	EC-5	FC-XH-LW	EC-5	FC-XH-LW
Stainless	0.035"/0.9 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Stainless	0.045"/1.1 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Stainless	0.052"/1.3 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Stainless	1/16"/1.6 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH
Silicon Bronze	0.030"/0.8 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Silicon Bronze	0.035"/0.9 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Silicon Bronze	0.045"/1.1 mm	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R	EC-4-R	FC-X or E/EC-4-R
Silicon Bronze	1/16"/1.6 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH

Note: *FC-E Extreme Flex conduit is recommended over FC-X for robotic applications with tight spaces.*

TELESCOPING CONDUIT QUICK DISCONNECT KIT *EC-TCD*

Changing out wire drums is quick and easy with the Telescoping Conduit Quick Disconnect Kit. Simply disconnect from the drum hood and slide the conduit up, then slide it back down to reconnect to the next drum of wire.

▶ Kit includes two linked pieces of our Advanced Polymer Conduit with connector ends that can extend up to 5' (1.5 m)

▶ May be trimmed if shorter length is needed (see tools below)

▶ Compatible with ferrous and non-ferrous wires up to 3/32" (2.4 mm)

▶ Adapts to drums or wood reels

Telescoping Conduit Disconnect Kit EC-TCD
Shown in use with the Wire Pilot® Feed Assist

EC-CUTTER
(see page 49)

EC-TCD
Shown with included connector ends (trimmed down from original length)

A-16F-6   *A-16F-4*

EC-DB *(see page 49)*

REPLACEMENT FERRULES *Choice of sizes for the right compression fit for the application*

A-9-FE
Fits EC-6 or FC-XH-LW
0.760" (19.3 mm) I.D.

A-10RFE
Fits FC-XH
0.645" (16.4 mm) I.D.

A-10CFE
Fits EC-4-R or FC-E
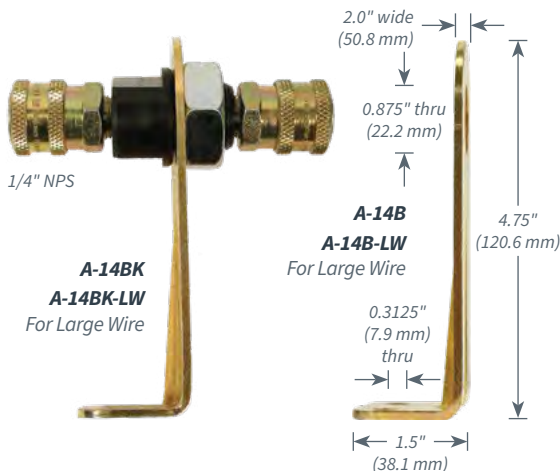0.475" (12 mm) I.D.

A-10XFE
Fits FC-X
0.521" (13.2 mm) I.D.

Part No.	Connectors	
A-9-FE	A-9	
A-10RFE	A-10R	A-10RP
A-10CFE	A-10C-H	
A-10XFE	A-10C-X	A-10XP

BULKHEAD CONNECTORS

A-14BK KITS

Includes **A-14** bulkhead, **A-14B** bracket and **A-4-ST** quick disconnects.
Use models **A-14B-LW**, **A-14BK-LW** and **A-14HD** for large wire/FC-XH-LW conduit.

1/4" NPS

A-14BK
A-14BK-LW
For Large Wire

2.0" wide
(50.8 mm)

0.875" thru
(22.2 mm)

A-14B
A-14B-LW
For Large Wire

4.75"
(120.6 mm)

0.3125"
(7.9 mm)
thru

1.5"
(38.1 mm)

7/8"–14
1/4" NPS-M   1/4" NPS-F

Bulkhead
A-14

Bulkhead for Large Wire
A-14HD

A-14 KIT

Kit includes **A-14** bulkhead, and **A-4-ST** quick disconnects.

A-14KIT

Bulkhead Cage Mount Kit
A-14CM

ADAPTER FITTINGS

▶ NPT male (M) and female (F) pipe threads for optimum sealing

▶ Countersunk for restriction-free wire piloting

A-6
1/2" NPT-F

A-6HD
1/2" NPT-F
(FC-XH-LW)

A-15
1/2" – 20 (SAE)

A-15-1
7/16" – 20 (SAE)

A-15-2
9/16" – 18 (SAE)

A-16M-ST
1/4" NPT-M

A-16M-ST-HD
3/8" NPT-M

A-17
1/4" NPT-F x
3/8" NPT-M

A-18
1/4" NPT-F x
1/2" NPT-M

HEX BUSHINGS

A-19
1/4" NPT-M x
1/4" NPT-M

A-21
1/4" NPT-M x
1/2" NPT-M

HEX NIPPLES

A-23
3/8" NPT-M
BSPP-M

QUICK DISCONNECTS

Miller®
inlet guide

Quick Disconnect Insulator
U-005

Fits all disconnects
except A-4HD and A-5HD

A-4-ST or A-4-ST-I (inc. U-005)
1/4" NPT-M
Use with Standard Inlet Guide
(for brass, request **A-4** or **A-4-I**)

A-5
1/2" NPS-M

A-5HD
1/2" NPS-M
(for -LW or
-HD connectors)

A-5FRO
Includes M20
threads (for some
Fronius® feeders)

A-1A-B
3/8" clearance for
Miller® inlet guides

A-3
1/4" NPT-F*
* See page 22 for
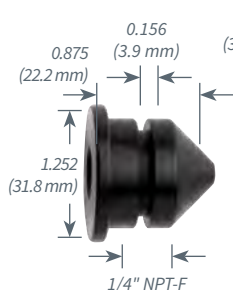thread options

A-4S
1/2" – 20
(Nut/Washer included)
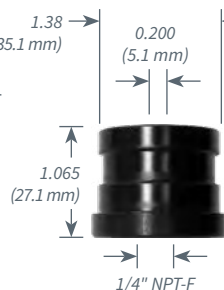
A-4HD
3/8" NPT-M
(for FC-XH-LW)

STANDARD INLET GUIDES

0.875
(22.2 mm)

0.156
(3.9 mm)

1.252
(31.8 mm)

1/4" NPT-F

A-2E
ESAB® 4-48

1.38
(35.1 mm)

0.200
(5.1 mm)

1.065
(27.1 mm)

1/4" NPT-F

A-1LN (Delrin)
A-1LN-A (Aluminum)
A-1LN-LW (Large Wire)
Lincoln Electric®

0.773
(19.6 mm)

0.250
(6.35 mm)

2.00
(50.8 mm)

1/4" NPT-F

A-1PA
Panasonic®

0.200
(5.1 mm)

0.470
(11.9 mm)

1.50
(38.1 mm)

1/4" NPT-F

A-10TC
OTC®/Daihen®

0.081
(2.0 mm)

0.373
(9.5 mm)
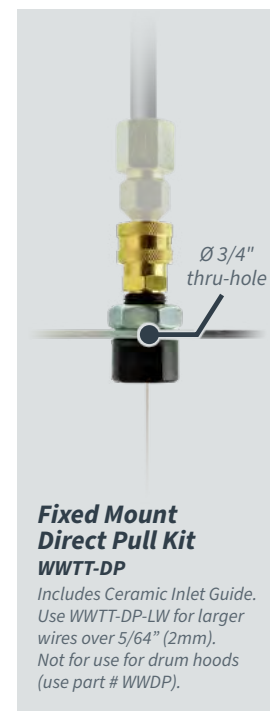
0.75
(19.0 mm)
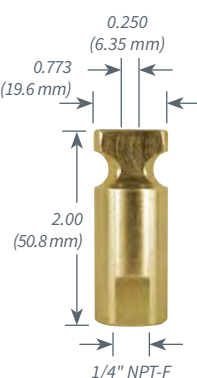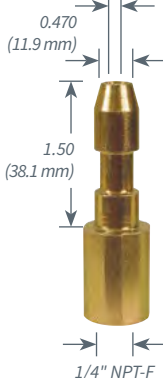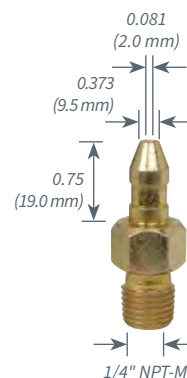
1/4" NPT-M

PAWFS-12
Miller® (75)

Use **A-4-ST** (1/4" NPT-M) with fittings
above for quick disconnect capability or
(brass **A-4** quick disconnect also available)

A-3
1/4" NPT-F

Ø 3/4"
thru-hole

Fixed Mount Direct Pull Kit
WWTT-DP
Includes Ceramic Inlet Guide.
Use WWTT-DP-LW for larger
wires over 5/64" (2mm).
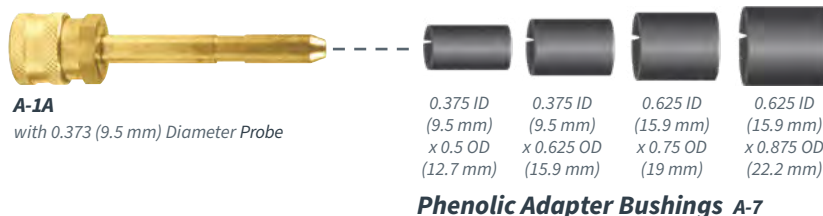Not for use for drum hoods
(use part # WWDP).

ADAPTERS FOR FEEDER INLET GUIDES

Configurations shown are just for demonstration purposes only. Please refer to the **Cross-Reference Chart** on page 22 for a complete parts listing for your particular wire feeder.
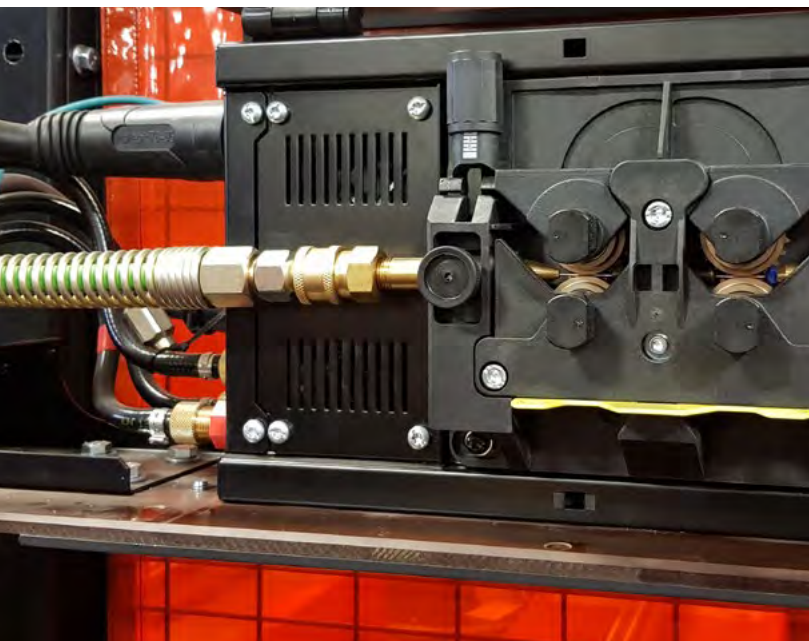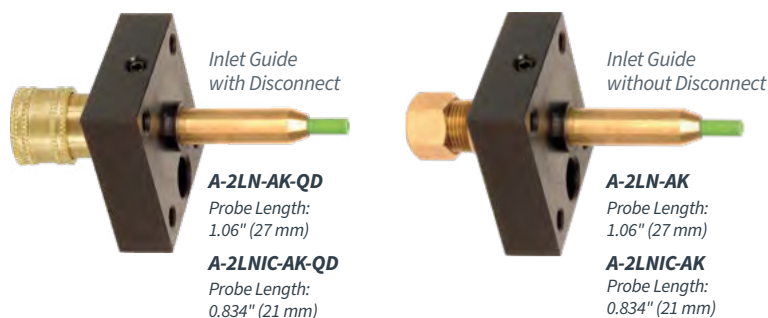
0.373 ± 0.001 (3/8")
(9.5 mm)

0.125
(3.2 mm)

Probe with Quick Disconnect
A-1A-4.5

0.373 ± 0.001 (3/8")
(9.5 mm)

0.870
(22.1 mm) OD

SKS Feeder
A-1SKS

UNIVERSAL INLET KIT A-1AK

▶ Five piece kit includes A-1A probe and four A-7 phenolic adapter bushings for stable and durable performance

▶ Will support the use of a variety of wire feeders

A-1A
with 0.373 (9.5 mm) Diameter *Probe*

| 0.375 ID (9.5 mm) x 0.5 OD (12.7 mm) | 0.375 ID (9.5 mm) x 0.625 OD (15.9 mm) | 0.625 ID (15.9 mm) x 0.75 OD (19 mm) | 0.625 ID (15.9 mm) x 0.875 OD (22.2 mm) |

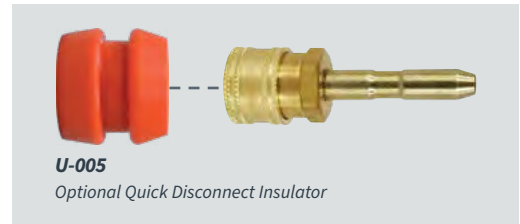**Phenolic Adapter Bushings** A-7

LINCOLN SERVO INLET GUIDES

▶ Designed for use with Lincoln Servo Torch

▶ Ideal for all **aluminum and steel** applications

▶ Inlet guide connects to **Polymer** or **Extra Flexible** conduit

Inlet Guide with Disconnect

A-2LN-AK-QD
Probe Length: 1.06" (27 mm)

A-2LNIC-AK-QD
Probe Length: 0.834" (21 mm)

Inlet Guide without Disconnect

A-2LN-AK
Probe Length: 1.06" (27 mm)

A-2LNIC-AK
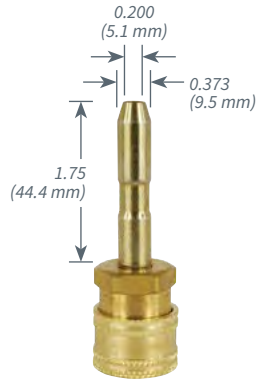*Probe Length: 0.834" (21 mm)*

Wire Wizard® inlet guides, conduit and Wire Guide Modules were installed in this optimized wire delivery setup with wire feeders mounted in a fixed position outside the weld cell.

WIRE WIZARD
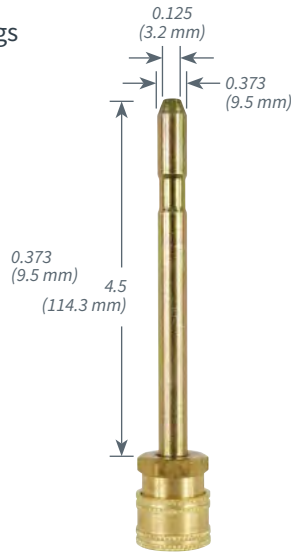WELDING PRODUCTS

INLET GUIDES WITH QUICK DISCONNECTS

▶ For steel weld wire feeder and straightener applications

▶ Provides trouble-free interface of connections

▶ Quick disconnects feature eight retainer bearings

U-005
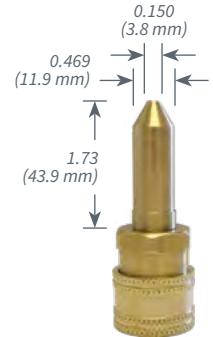*Optional Quick Disconnect Insulator*

A-1A
0.125 (3.2 mm)
0.373 (9.5 mm)
2.75 (69.9 mm)
0.373 (9.5 mm)
Probe

A-1A-C
0.200 (5.1 mm)
0.373 (9.5 mm)
1.75 (44.4 mm)
0.373 (9.5 mm) Probe
Miller Wire Feeder

A-1A-4.5
0.125 (3.2 mm)
0.373 (9.5 mm)
0.373 (9.5 mm)
4.5 (114.3 mm)
0.373 (9.5 mm) Probe
Miller Series 74
Wire Feeder

A-1LN-23A
0.250 (6.35 mm)
0.470 (11.9 mm)
1.375 (34.9 mm)
Lincoln Wire
Feeder

A-1LN-23B
0.150 (3.8 mm)
0.469 (11.9 mm)
1.73 (43.9 mm)
Lincoln Wire
Feeder

A-2SKS
0.094 (2.4 mm)
0.472 (12 mm)
2.475 (62.9 mm)
SKS

A-1FRO
0.089 (2.3 mm)
0.510 (13.0 mm)
1.853 (47.0 mm)
Fronius Feeder

A-2FRO
0.080 (2.0 mm)
0.510 (13 mm)
2.725 (69.2 mm)
Fronius Feeder
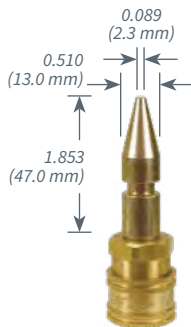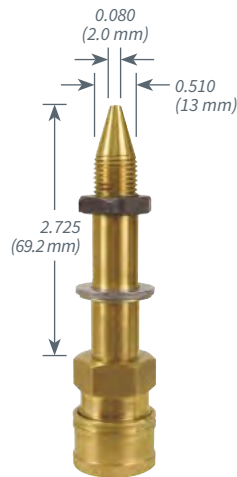
A-2PA-QD
0.098 (2.5 mm)
0.590 (14.98 mm)
1.457 (37.0 mm)
Panasonic
Wire Feeder

A-1CL
0.125 (3.2 mm)
0.472 (12 mm)
1.358 (34.5 mm)
Cloos

A-1OTC-FX
0.120 (3.0 mm)
0.550 (14 mm)
1.5 (38.1 mm)
OTC
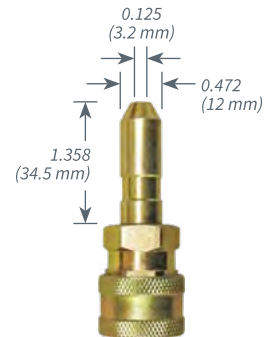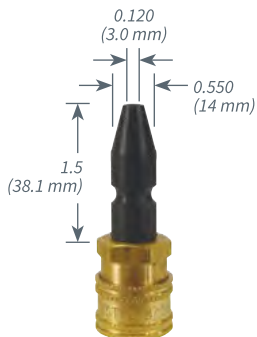
A-1E-A
0.109 (2.78 mm)
0.551 (14 mm)
1.69 (43.0 mm)
ESAB RoboFeed
3004 Series

CONNECTOR LINERS

▶ Designed to line steel connectors when using aluminum and other non-ferrous metal wires

▶ Non-metallic to prevent abrasion and contamination

A-4L-H 0.09 (2.3 mm) ID EC-1

FEEDER INLET CROSS-REFERENCE CHART
Please verify inlet guide measurements prior to ordering

Feeder Manufacturer	Feeder Type	Wire Wizard® Inlet Guide P/N
CEA S.p.A.	ALL	A-1AK
Cebora S.p.A.	ALL	A-4S
CK Systematics	MP175 and S4165	A-4S
Cloos	Most Models	A-1CL
Cybo Robotics	Most Models	A-4S
ESAB	ALL (except 4-48)	A-1AK
	4-48	A-2E and A-4-ST
	Aristo 30 Series	A-4S
	RoboFeed 3004 Series	A-1E-A
Fronius	Feeder with Set Screw	A-1FRO
	Feeder with Stripped Set Screw	A-2FRO
Hobart	Series 27	A-4-ST
		A-1A, A-1A-4.5
	Models with 3/4"-16 Thread	A-1A and A-22
Kobelco	Male Threaded Inlet 1/2"-20	A-3QDF-3
Lincoln Electric	4R100 and 4R220	A-1LN and A-4-ST
	PF Series, inc. PowerFeed® 84	A-1LN and A-4-ST
	LN-7, LN-9, and LN-25	A-1A
	LN-8	A-4-ST
	LF-72	A-1LN and A-4-ST
	LF-74	A-1LN-EK
	Series 10 (10M, DH-10, LN-10)	A-1LN and A-4-ST
	Servo Torch	A-2LN-AK

Feeder Manufacturer	Feeder Type	Wire Wizard® Inlet Guide P/N
Miller	22A and 24A	A-1AK
	Auto Axcess	A-1A-C
	Series 74 and R115*	A-1A-4.5 or A-1A-C
	Measure required probe length prior to ordering	
	Series 75	PAWFS-12 and A-3
	RAD 400	A-1LN-S-12
MK Products	Cobramatic	A-1AK
Motoman	Female Inlets	A-1A or A-1A-C
	Male Threaded Inlets	A-3QDF-3
OTC/Daihen	Male Threaded Inlet 7/16"-20	A-3QDF-2
	Male Threaded Inlet 9/16"-18	A-3QDF-4
	FX Style	A-1OTC-FX
	D Series	A-3QDF-4
	AF4-001	A-3QDF-2
	OTC	A-1OTC and A-4-ST
Panasonic	Female Inlet: .77 OD (19.6 mm)	A-1PA and A-4-ST
	Female Inlet: .57 OD (14.5 mm)	A-2PA-QD
	Male Threaded Inlet	A-3QDF-4
Pow Con	Most Models	A-1AK
SKS	Most Models	A-2SKS
	Older Models	A-1SKS and A-1A-4.5

This table is intended for the use of Wire Wizard® customers and is provided from relevant information supplied by feeder manufacturers or their distributors who, at their discretion, reserve the right to alter product specifications or features without notice. Every effort has been made to ensure the information presented is accurate and current. If you should require further assistance please contact ELCo Enterprises, Inc.
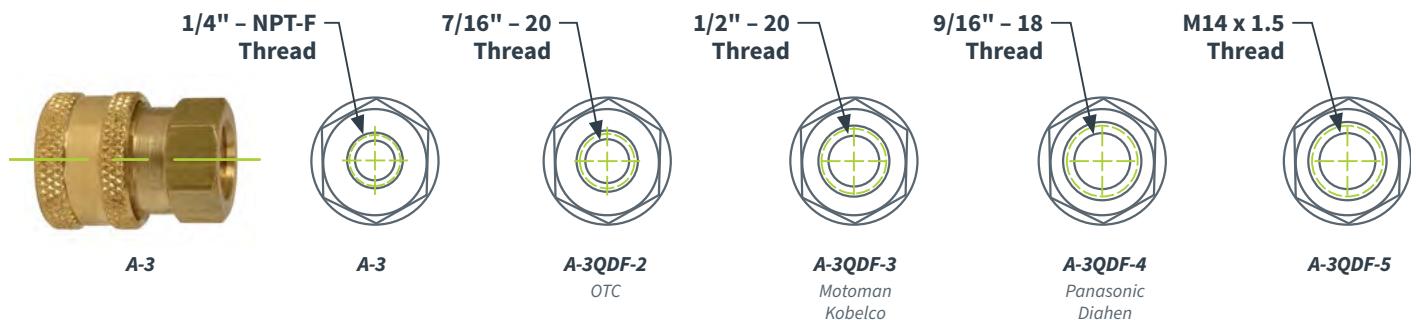
LINCOLN ELECTRIC® LF-74 FEEDER INLET GUIDE EXTENSION KIT

A-1LN-EK

► Extends connection to the disconnect at the feeder

► Kit includes A-1LN inlet guide, extension adapter and quick disconnect with insulator
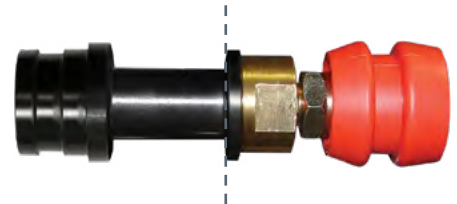
FEMALE THREADED QUICK DISCONNECT REFERENCE FOR INLET GUIDES

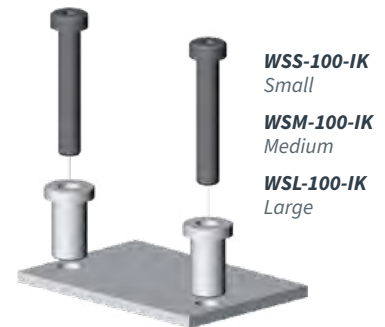| 1/4" – NPT-F Thread	7/16" – 20 Thread	1/2" – 20 Thread	9/16" – 18 Thread	M14 x 1.5 Thread

A-3   **A-3**   **A-3QDF-2** *OTC*   **A-3QDF-3** *Motoman Kobelco*   **A-3QDF-4** *Panasonic Diahen*   **A-3QDF-5**

WIRE STRAIGHTENERS

INSULATED MOUNTING KITS
Available for all models

WSS-100-IK
Small

WSM-100-IK
Medium

WSL-100-IK
Large

Wire Wizard® manufactures four models of wire straighteners that can be used to straighten or recast all types of wire. The main body is constructed of aluminum, making our straighteners some of the lightest in the market. All models are equipped with a locating calibration on the face of the unit and a fine adjustment scale on the tension knob. This results in an extremely fast and accurate setting of wire cast. Our full range of fittings and inlet guides guarantee a trouble-free fit for any application.

SMALL WIRE STRAIGHTENERS
WSS-100 and WSS-100-A
For wire sizes 0.035 – 0.062
(Order WSS-100-A for aluminum wire)

▸ Dimensions: 3.74" W x 3" H x 1.63" D (95 mm W x 78 mm H x 41.3 mm D)

▸ Weight: 1 lb (0.45 kg)

WSS-100
U-Groove Drive Rolls for steel wire

WSS-100-A
V-Groove Drive Rolls for aluminum wire
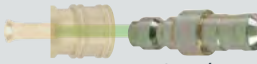
NON-THREADED FITTINGS*

STEEL WIRE
Connection to disconnect, on feeder or in-line
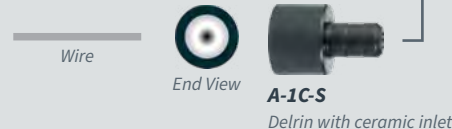
A-1QD-12 or **A-1QD-5/32** (for large wire)

* Fittings may be used as inlets or outlets depending on setup

ALUMINUM WIRE
Connection to disconnect, on feeder or in-line

A-1QD-5/32 and **A-4L-H** liner

STEEL OR ALUMINUM WIRE

Wire

End View

A-1C-S
Delrin with ceramic inlet

THREADED FITTINGS*

STEEL WIRE

A-1LN-S-12 or **A-1LN-S-5/32** (for large wire)

A-3
Quick Disconnect

ALUMINUM WIRE

A-1LN-S-5/32 and **A-4L-H** liner

A-3
Quick Disconnect

A-1H-B
Adapter for dual wire straighteners

Steel Wire Straightener
WSS-100
- or -
Aluminum Wire Straightener
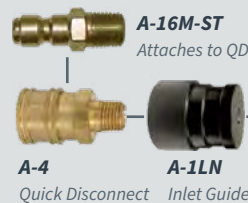WSS-100-A

MEDIUM WIRE STRAIGHTENER
WSM-100
For wire sizes 0.062 – 3/32" (1.6 – 2.4 mm)

▸ Dimensions: 5.71" W x 3.34" H x 1.875" D (145 mm W x 84.7 mm H x 47.63 mm D)

▸ Weight: 1.75 lbs (0.8 kg)

FITTINGS FOR WSM-100

Order **A-1LN-K** for Inlet/Outlet Kit (includes two A-1LNs)

A-16M-ST
Attaches to QD

A-4
Quick Disconnect

A-1LN
Inlet Guide

LWS-1
Adapter for direct connection to Lincoln Feeder

LARGE WIRE STRAIGHTENER
WSL-100
For wire sizes 3/32 – 5/32" (2.4 – 4 mm); ideal for heavy duty SAW applications

▸ Dimensions: 8.66" W x 4.09" H x 2.25" D (220 mm W x 103.8 mm H x 57.2 mm D)

▸ Weight: 4 lbs (1.8 kg)

FITTINGS FOR WSL-100

Order **A-1LN-K-LW** for Inlet/Outlet Kit (includes two A-1LN-LWs)

WS-10S
Outlet Adapter for Lincoln 10S Feeder (Inlet Adapter WS-LW), including ceramic inlet

A-16M-ST-HD
Attaches to QD

A-4HD
Quick Disconnect

A-1LN-LW
Inlet Guide

LWS-1
Adapter for direct connection to Lincoln Feeder

WIRE WIZARD®
GUIDE MODULE® SYSTEM

Installation with 90° Guide Modules and Non-Stop™ Wire Systems

THE NEW PATH OF LEAST RESISTANCE!

The innovative **Wire Wizard Guide Module® System** utilizes a series of rollers with bearings to allow the weld wire to "coast" around bends and corners in the conduit, eliminating the points of high friction that occur in these areas. By eliminating the friction on the wire, it eliminates arc failures, improves consistency and enables considerably longer conduit runs of 100 feet or more, allowing wire packages to be centrally located. Each 45° Guide Module® may be connected to additional modules to form turns of 90°, 135° or 180° within the wire dispensing system. Compatible with ferrous and non-ferrous wires. Patented design.
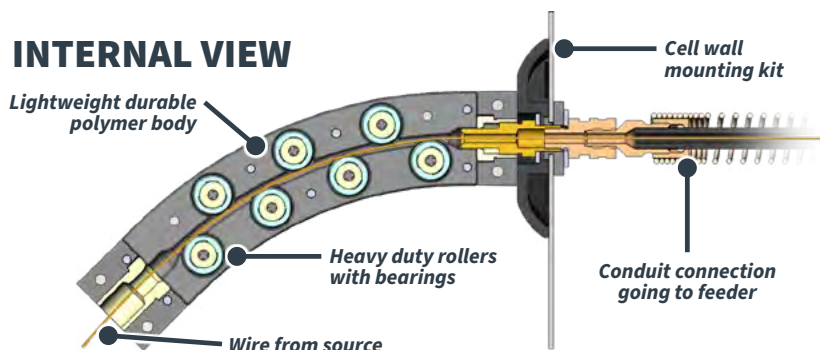
▶ **Eliminates skid friction** on the wire in areas where bends/corners are necessary throughout the wire dispensing system

▶ Smooth, low friction wire feeding **improves consistency of welds, eliminates arc failures and reduces downtime**

▶ **Turns POUNDS of pull force at the feeder into OUNCES!**

▶ Considerably less expensive than alternative methods of eliminating friction on wire over long distances

▶ Allows long distance conduit runs of 100 feet + (30.5 m +)

▶ Increases life of the conduit and consumables by reducing friction

▶ Saves floor space by allowing wire packages to be located closer to the cell wall

▶ 45° modules may be connected together to form a 90° turn, 135° turn, 180° turn

▶ Tool & Diagnostic Kit available; includes assembly and testing tools

▶ **Four Models Available to Cover Virtually all Welding Applications:**

▷ **Standard Guide Module®:** For solid wires 0.035 – 5/64" (0.9 – 2 mm)

▷ **90° Mini Guide Module®:** For solid wires up to 0.052 (1.3 mm), compact size for tight 90° turns

▷ **Heavy Duty Guide Module® HD*:** For cored and stainless steel wires 0.035 – 5/64" (0.9 – 2 mm)

▷ **Large Guide Module® XL*:** Compatible with large wire 3/32" – 5/32" (2.4 – 4 mm). Ideal for SAW welding applications!

▶ **3 YEAR GUARANTEE!** (excludes damage caused by industrial contaminants)
The Guide Module® HD and XL models contain heavy duty steel rollers

Wire Wizard®
90° Mini
Guide Module®
WGM-M-1
With 5" (127 mm) radius

INTERNAL VIEW

Lightweight durable polymer body

Cell wall mounting kit

Heavy duty rollers with bearings

Conduit connection going to feeder

Wire from source

PROUDLY MADE

45° Guide Module®
mounted on
drum cover

SEE PAGES 26 & 27 FOR GUIDE MODULE® COMPONENTS & ACCESSORIES

WIRE WIZARD®
WELDING PRODUCTS

STANDARD GUIDE MODULE® PARTS & ACCESSORIES

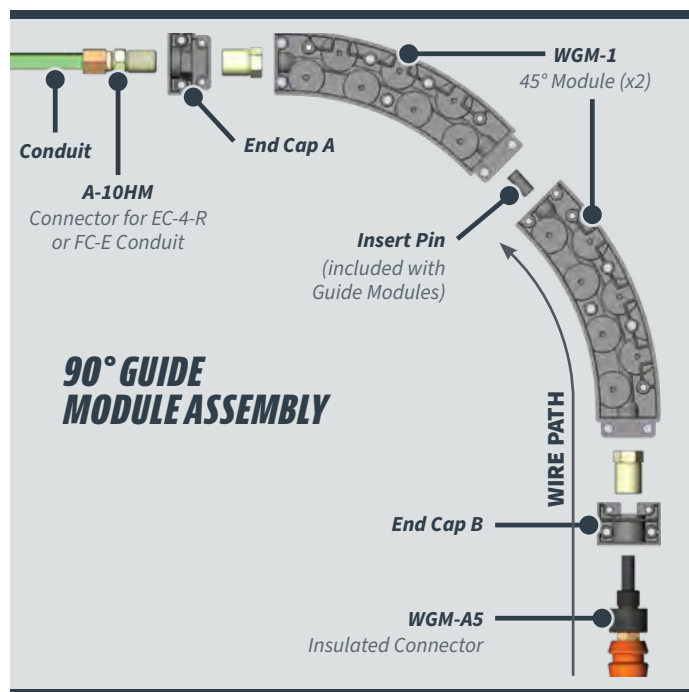| Part No.	Description
WGM-1	Guide Module®, Single 45° (for wire up to 5/64"/ 2 mm)
WGM-1-S	Guide Module® HD, Single 45° (for stainless/cored wire up to 5/64"/ 2 mm)
WGM-M-1	Guide Module® Mini 90°, Single 90° (for wire up to 0.052/1.3 mm)
WGM-ECK-50	Guide Module® End Cap Kit 1/2" NPS-F (for A-10HM or WGM-A5)
A-10HM	Guide Module® Conduit Connector for EC-4-R Conduit
WGM-A5	Guide Module® Insulated Connector with Quick Disconnect
WGM-DP-LW	Guide Module® Direct Pull Inlet (includes ceramic inlet guide)
WGM-021	Guide Module® Support Bracket
WGM-024	Guide Module® Support Bracket with Slotted Holes
WGM-025	Guide Module® 45° Angle Support Bracket
WGM-044	Guide Module® Weld-on or Bolt-on Support Bracket
WGM-049	Guide Module® Quick Disconnect Adapter (male end)
WGM-SMB-3	Guide Module® Bracket for Stacking/Mounting up to 3 Guide Modules
WGM-1-90-BRKT	Guide Module® 90° Hanging Bracket Kit
WGM-1-BRKT	Guide Module® 45° Hanging Bracket Kit
WGM-A-10BK	Guide Module® Face Mount Bracket with nut for A-10HM
WGM-2-BRKT	Guide Module® Insulated Face Mount Bracket with nut and insulators for A-10HM
WGM-3-BRKT	Guide Module® Side Mounting Bracket for Attachment to the WGM-PFA-STAND
WGM-DK	Guide Module® Drum Mounting Kit for use with Wire Wizard® Hoods
WGM-CM-1	Guide Module® 2 – 13" (51 – 330 mm) Adjustable Extension Arm with Adjustable Length and Height
WGM-EA-10	Guide Module® 10" (254 mm) Adjustable Extension Arm with Hinge Point
WGM-EA-20	Guide Module® 20" (508 mm) Adjustable Extension Arm with Hinge Point
WGM-FSK-L	Guide Module® Swivel Kit for Direct Connection to Lincoln Electric® Series 10 Feeder
WGM-FSK-P	Guide Module® Swivel Kit for Direct Connection to Panasonic®/OTC® Feeders (9/16-18 F thread)
WGM-MSK-14	Guide Module® Swivel Kit for Connecting Stationary to Swiveling Guide Modules
WGM-SW-BM	Guide Module® Bracket Mounted Swivel Kit (swivel with WGM-A-10BK style bracket)
WGM-FLM	Guide Module® Floor Mounting Bracket
WGM-IK	Guide Module® Feeder Inlet Mounting Kit
WGM-LBM-BRKT	Guide Module® L-bracket Mounting Kit
WGM-UAK	Guide Module® Union Adapter Kit (washer and bracket mounts)
WGM-WK-1-1	Guide Module® Wall Mount Kit, Single Sided
WGM-WK-1-3	Guide Module® Adjustable Wall Mount Kit for up to 3" (76 mm) thick walls, Single Sided
WGM-WK-2-1	Guide Module® Wall Mount Kit, Double Sided
WGM-RSK-16	Guide Module® Roof Mount or Wall Mount Swivel Kit — includes 90° Compact Module
WGM-PFA-STAND	Adjustable Drum/Reel Stand for Guide Modules, 50" – 90" H (1270 – 2286 mm); includes one Arm Assembly
WGM-STAND-SW-14	Guide Module® Swivel Kit for WGM-PFA-STAND
GC-1	Wire Guide Caps for up to 0.052 wire (required for cored wire) - 100/pack
GC-2	Wire Guide Caps for up to 0.062-3/32 wire (required for cored wire) - 100/pack
GC-CRIMPER	Crimping tool for installation of wire guide caps
WGM-ATK	Guide Module® Tool & Diagnostic Kit — includes required tools for assembly and testing

WIRE GUIDE CAPS *Required for cored wire applications*

▶ *GC-CRIMPER* Crimper for Wire Guide Caps

▶ *GC-1* Guide cap for up to 0.052 wire

▶ *GC-2* Guide cap for 0.062 – 3/32" wire

▶ Guide Caps sold 100 per pack

Crimped Wire Guide Cap

LARGE GUIDE MODULE® XL PARTS & ACCESSORIES

Part No.	Description
WGM-LW-1	Large Guide Module® XL, Single 45° (for wire 3/32" – 5/32" / 2.4 – 4 mm)
WGM-LW-ECK-50	Large Guide Module® End Cap Kit, 1/2" NPS-F (for A-9 connector)
A-9	Large Guide Module® Conduit Connector for FC-XH-LW Conduit
WGM-LW-049	Large Guide Module® Quick Disconnect Adapter (male end)
WGM-LW-BRKT	Hanging Bracket for Large Wire Guide Modules (45° or 90°)
PFA-54	Large Guide Module® Fixed Mounting Adapter for the Wire Pilot® Feed Assist

90° GUIDE MODULE ASSEMBLY

WGM-1
45° Module (x2)

Conduit

End Cap A

A-10HM
Connector for EC-4-R or FC-E Conduit

Insert Pin
(included with Guide Modules)

WIRE PATH

End Cap B

WGM-A5
Insulated Connector

GUIDE MODULE® TOOL & DIAGNOSTIC KIT

Contains all the essential tools for installation and testing of the Guide Module® System. The kit includes:

▶ Required wrenches/pliers

▶ Countersink Tool (page 49)

▶ Stone bit for rotary tools

▶ Wire Draw Gauge (page 49)

▶ Extra nuts and bolts

▶ Installation videos (USB drive)

WGM-ATK

ROOF SWIVEL KIT

▶ Allows 360° rotation from weld cell roof or wall

▶ Includes WGM-C-1 Compact 90° Guide Module®

WGM-RSK-16

COMPONENTS & MOUNTING ACCESSORIES

45° WIRE GUIDE MODULES

WGM-1
For solid wire
up to 5/64" (2 mm)

WGM-1-S
For cored and stainless
wire up to 5/64" (2 mm)

WGM-LW-1
For large wire
3/32" – 5/32" (2.4 mm – 4 mm)

90° MINI GUIDE MODULE®

|–––6" (152 mm)–––|

Allows tight 90°
turns for solid wires
up to 0.052 (1.3 mm)

WGM-M-1
Uses same end caps
as WGM-1

END CAP CONNECTORS

Each kit includes
one A and one B
end cap

End Cap A

WGM-ECK-50
Use for WGM-1,
WGM-1-S and WGM-M-1

WGM-LW-ECK-50
For WGM-LW-1

End Cap B

FACE MOUNT BRACKET KIT

**ALLOWS 360°
DIRECTIONAL ADJUSTMENT**

WGM-A-10BK
Add WGM-A5 or order
WGM-2-BRKT for
insulated connections

CONDUITS & FITTINGS

EC-4-R (7.6 mm I.D.)
Fittings: A-16F-4 or A-10C-H

EC-5 (10.2 mm I.D.)
Fittings: A-16F-5 or A-10R

WIRE WIZARD® POLYMER CONDUIT

A-16F-#
Screw-on Fitting

WGM-A5
All modules except WGM-LW-1

**Guide Module®
End Cap**

A-10HM for EC-4-R

A-10##
Compression

**Quick Disconnect
A-5HD** for WGM-LW-1 only

CONDUITS & FITTINGS

FC-X (6.1 mm I.D.)
Fitting: A-10C-X

FC-XH (7.4 mm I.D.)
Fitting: A-10R

FC-XH-LW (10 mm I.D.)
Fitting: A-9

WIRE WIZARD® EXTRA FLEXIBLE CONDUIT

A-10##
Compression

WGM-A5
All modules except WGM-LW-1

**Guide Module®
End Cap**

Swaged Fitting (pre-cut only)

A-9
WGM-
LW-1 only

A-6HD

**Quick Disconnect
A-5HD**
for WGM-LW-1 only

CELL WALL MOUNTING KIT

SINGLE-SIDED

WGM-WK-1-1

CELL WALL MOUNTING KIT

DOUBLE-SIDED

WGM-WK-2-1

ADJUSTABLE WALL MOUNT BRACKET

WGM-WK-1-3
Adjustable for
up to 3" (76 mm)
thick walls

FLOOR MOUNTING BRACKET

WGM-FLM
Modules maybe
attached to one or
both sides

GUIDE MODULE® STAND

FOR DRUM OR WOOD REEL APPLICATION

**Optional
swivel
with 90°
module**

**Guide Module®
Stand
WGM-PFA-STAND**
Includes stand and
one adjustable
extension arm

**Direct
Pull Kit
WWDP**

**WGM-
A-10BK**

**Wire Pilot® Feed
Assist option**

**Wire Spool
option
WGM-PFA-
STAND-SPOOL**

Adjustable height
from 50" – 86"
(1.3 – 2.2 m)

Adjustable arm
length from 4" – 19"
(102 – 483 mm)

Drum or
Wood Reel

Wire Wizard®
Fire Resistant
Drum Covers and
Dollies Available

GUIDE MODULE® STAND FOR MEZZANINE APPLICATION

FOR APPLICATIONS WHERE WIRE SOURCE IS ABOVE WELD CELL

**Side Mount
Bracket
WGM-3-BRKT**

**Direct
Pull Kit
WWDP**

Conduit to wire feeder

**Additional Arm
WGM-PFA-
STAND-ARM**

**Guide Module®
Stand
WGM-PFA-STAND**
Includes stand/
one adjustable arm

Adjustable height
from 50" – 86"
(1.3 – 2.2 m)

Adjustable arm
length from 4" – 19"
(102 – 483 mm)

Drum or
Wood Reel

L-BRACKET MOUNTING KIT

WGM-LBM-BRKT

360° UNION ADAPTER KIT

**ALLOWS DUAL 360°
DIRECTIONAL ADJUSTMENT**

WGM-UAK
Includes Bracket

Union kit
assembly

THE NEW PATH OF LEAST RESISTANCE!

CONDUIT CONNECTOR OPTIONS

THREADED CONNECTORS

A-10HM
For connecting EC-4-R or FC-E to WGM-1, WGM-1-S or WGM-M-1

A-9
For connection FC-XH-LW to WGM-LW-1

DETACHABLE QD CONNECTORS

WGM-A5
Insulated connector with quick disconnect

Use for WGM-1, WGM-1-S and WGM-M-1

A-5HD
Quick disconnect for WGM-LW-1

INSULATED FACE MOUNT BRACKET

ALLOWS 360° DIRECTIONAL ADJUSTMENT

WGM-2-BRKT

DRUM HOOD MOUNTING KIT

WGM-DK

DIRECT PULL INLET

WGM-DP-LW
Includes ceramic inlet — will not shave wire

MALE DISCONNECT FITTINGS

WGM-049
Male fitting for WGM-1, WGM-1-S and WGM-M-1

WGM-LW-049
Fitting for WGM-LW-1

BRACKET MOUNTED SWIVEL KIT

Module Connection

WGM-SW-BM
Includes WGM-A-10BK style bracket

HOOD SWIVEL KIT

Allows 360° rotation on top of drum cover.

WGM-HSK-15

MODULE / FEEDER SWIVEL KITS

Feeder

WGM-FSK-L
Swivel for Lincoln Electric® Series 10 style feeders (includes inlet guide)

WGM-FSK-P
Swivel for most Panasonic/OTC feeders (9/16-18 F thread)

WGM-MSK-14
Creates 360° rotation point between two modules

FEED ASSIST SWIVEL KIT

WGM-PFA-SW-15
For the Wire Pilot® Feed Assist

WGM-PFA-AK-15
for fixed mount (standard modules) or PFA-54 for WGM-LW-1

45° HANGING BRACKET KIT

WGM-1-BRKT

90° HANGING BRACKET KIT

WGM-1-90-BRKT
WGM-LW-BRKT for WGM-LW-1

STACKABLE GUIDE MODULE® BRACKET

ALLOWS MOUNTING OF UP TO THREE STACKED MODULES

WGM-SMB-3

FEEDER INLET MOUNT KIT

MOUNTS TO FEEDER THROUGH BRACKET OR PANEL

WGM-IK
Excludes bracket

Sample installation on bracket

ADJUSTABLE EXTENSION ARM

FOR INSTALLATION AT THE TOP OF THE WELD CELL WALL

WGM-CM-1
Extends 2" (51 mm) – 13" (330 mm), adjustable height up to 6.5" (165 mm)

Conduit and fittings sold separately

PIVOTING ADJUSTABLE EXTENSION ARMS

BOTH ARMS PIVOT UPWARD TO ALLOW EASY WIRE FEEDING FROM DRUMS AND REELS

WGM-EA-10
Extends 10" (254 mm) – 18" (457 mm)

WGM-EA-20
Extends 20" (508 mm) – 36" (914 mm)

Conduit and fittings sold separately

TURN TABLE MODULE ADAPTER

SECURES MODULES TO WIRE WIZARD® TURN TABLE

WGM-4-BRKT
Compatible with WGM-1, WGM-1-S and WGM-LW-1

WELD-ON OR BOLT-ON MOUNTING BRACKET

WGM-044

SUPPORT BRACKET

WGM-021

SLOTTED SUPPORT BRACKET

WGM-024

45° ANGLE SUPPORT BRACKET

WGM-025

GUIDE MODULE® SYSTEM SAMPLE APPLICATIONS
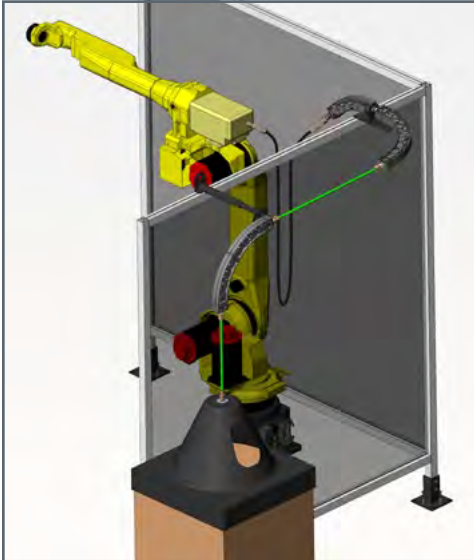
Setup with Modules mounted on top of cell
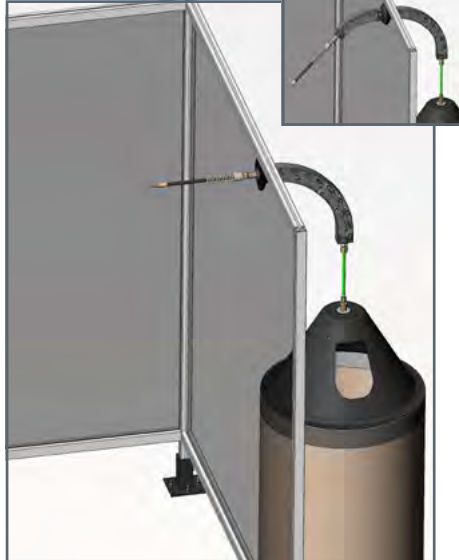
Setup with Modules mounted on cell wall, saving valuable floor space

180° Modules installed on cell with two robots and the Non-Stop™ Wire Dispensing System

PATENT PENDING • MADE IN USA 🇺🇸

GUIDE MODULE® FLEX

🇺🇸 PROUDLY MADE

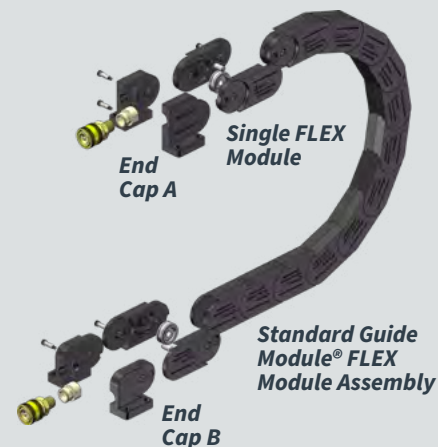## ELIMINATES EXCESS WIRE FRICTION IN HIGH MOBILITY WELDING APPLICATIONS!

Featuring the same innovative concept as the fixed radius Wire Wizard® Guide Modules, the **Guide Module® FLEX System** is designed especially for welding applications using a traversing axis, gantry or boom. The FLEX utilizes a series of rollers with bearings to eliminate skid friction on the wire, providing a smooth, consistent wire feed. Externally or internally mountable to select igus® e-chain® cable carrier systems. **Standard FLEX Modules** compatible with solid wires (ferrous or non-ferrous) 0.035 to 1/16" (0.9 – 1.6 mm). New **Large FLEX Modules** compatible with steel wire 1/16" to 5/32" (1.6 – 4 mm), ideal for SAW applications. Patent pending design.

Guide Module® FLEX system installed on igus® e-chain® cable carriers in a traversing robotic application.

ONLY 6 OZ OF PULL FORCE ON APPLICATION WITH 40 FT (12.2 M) OF CONDUIT & FLEX MODULES!

Pull test measured at the wire feeder with a delivery system consisting of 0.035 steel wire, 20 feet of EC-4-R conduit, and a 20 foot section of FLEX Modules.

WIRE WIZARD WELDING PRODUCTS

Internal view showing path of wire along rollers.

GUIDE MODULE® FLEX SYSTEM
with mounting rails for applications on gantries or booms

End Cap Mounting Kit WGM-F-2-MK

Mounting Channel WGM-F-2-017

Splice Kit WGM-F-2-SK

End Cap A

Single FLEX Module

Standard Guide Module® FLEX Module Assembly

End Cap B

Large Guide Module® Flex
10 ft section with End Caps

Large Guide Module® Flex
Mounted externally on igus® cable carrier

Drilling Fixture for Large Guide Module® FLEX
WGM-F-LW-DF
For externally mounting large Guide Module® FLEX to select igus® cable carriers

STANDARD GUIDE MODULE® FLEX PARTS & ACCESSORIES

Part No.	Description
WGM-F-2-5	Guide Module® FLEX 5 ft (1.5 m) Section — requires end caps
WGM-F-2-10	Guide Module® FLEX 10 ft (3 m) Section — requires end caps
WGM-F-2-M	Guide Module® FLEX Individual Module (for custom lengths, approx. 6 = 1 ft)
WGM-F-2-ECK	Guide Module® FLEX End Cap Kit — includes both End Caps
WGM-F-2-017	Guide Module® FLEX Aluminum Mounting Channel, 4 ft (1.2 m) section
WGM-F-2-SK	Splice Kit for Connecting Mounting Channels
WGM-F-2-MK	End Cap Mounting Kit for Connecting FLEX Modules at the end of the channel
WGM-F-2-ECK-ADP	Adapter for Connecting WGM-F-2 FLEX to Stationary Guide Modules
WGM-SB-1	Mounting Brace for Single FLEX Connection to two WGM-M-1 90° Modules

Additional lengths, sizes and components may be available, contact customer service or see website for details

LARGE GUIDE MODULE® FLEX PARTS & ACCESSORIES

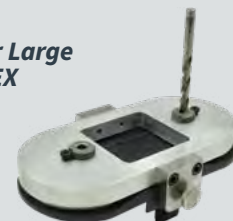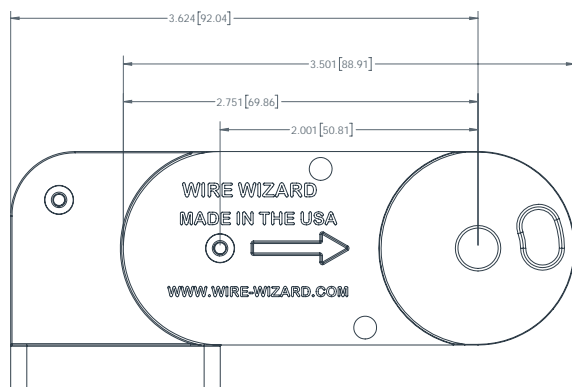| Part No.	Description
WGM-F-LW-5	Large Guide Module® FLEX 5 ft (1.5 m) Section — requires end caps
WGM-F-LW-10	Large Guide Module® FLEX 10 ft (3 m) Section — requires end caps
WGM-F-LW-IL	Large Guide Module® FLEX Individual Module (for custom lengths, approx. 2 = 1 ft)
WGM-F-LW-ECK-F	Large Guide Module® FLEX End Cap Kit — includes both End Caps, with mounting flange
WGM-F-LW-ECK	Large Guide Module® FLEX End Cap Kit — includes both End Caps, no mounting flange
WGM-F-LW-DF	Drilling Fixture for externally mounting Large Guide Module FLEX to select igus® cable carriers

Additional lengths, sizes and components may be available, contact customer service or see website for details
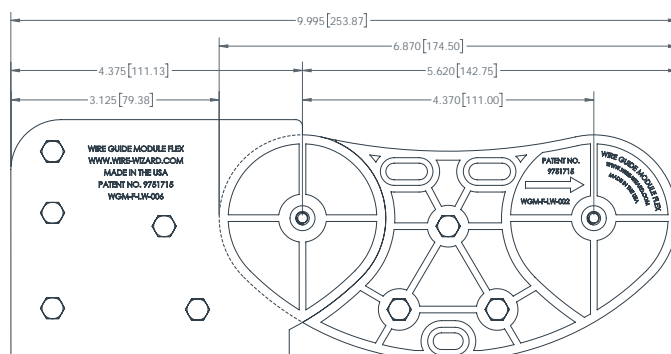
GUIDE MODULE® FLEX DIMENSIONS *Use dimensions noted to determine length required for your application*

STANDARD GUIDE MODULE® FLEX LINK & END CAP DIMENSIONS

3.624[92.04]
3.501[88.91]
2.751[69.86]
2.001[50.81]

WIRE WIZARD MADE IN THE USA
WWW.WIRE-WIZARD.COM

LARGE GUIDE MODULE® FLEX LINK & END CAP DIMENSIONS

9.995[253.87]
6.870[174.50]
4.375[111.13]
5.620[142.75]
3.125[79.38]
4.370[111.00]

WizardGear™
CABLE MANAGEMENT

ROBOT CABLE MANAGEMENT KITS

The **WizardGear®** line of robot cable management kits provide organization, support and protection for all lines and cables attached to robots. Protect cables from damage that can cause unnecessary downtime and costly repairs. Using zip ties or other poor methods of attachment can even void the warranty on your control cables. **Kits with welding cable feature PowerBall® energy efficient cable and consolidated copper lugs.** Kits currently available for Fanuc® robots; additional models coming soon.

▶ **Provides organization, support and protection** for all lines and cables attached to robots

▶ Protects cables from damage that can cause unnecessary downtime and costly repairs

▶ **Approved by Fanuc®** for securing and protecting control cables – other attachment methods may void warranty on cables

▶ **New models available for latest generation of Fanuc® 100iD and 120iD Robots**

▶ Custom cable management systems can be developed for other robot models, contact customer service for details

Base Bracket with Insulated Power Lug Connection

Deluxe Cable Management Kit for Fanuc® 100iD Robots
CM-F-1-ID

Part No.	Description
CM-F-1-ID	Deluxe Fanuc® 100iD Robot Cable Management Kit; incl. protective tubing system and 3/0 welding cable, compatible w/ most wire feeders
CM-F-1-ID-MC	CM-F-1-ID kit without power cable
CM-F-2-ID	Deluxe Fanuc® 120iD Robot Cable Management Kit; incl. protective tubing system and 3/0 welding cable, compatible w/ most wire feeders
CM-F-2-ID-MC	CM-F-2-ID kit without power cable
CM-F-3	Deluxe Fanuc® iC Robot Cable Management Kit; includes protective tubing system and 3/0 welding cable, compatible with Lincoln Electric® wire feeders
CM-F-3-MC	CM-F-3 kit without power cable
CM-F-3-F	Deluxe Fanuc® iC Robot Cable Management Kit; compatible with Fronius® wire feeders (3/0 welding cable)
CM-F-3-F-MC	CM-F-3-F kit without power cable
CM-F-3-MH	Fanuc® iC Robot Cable Management Kit for Robots with Torch/Part Gripper Combination; includes 2 protective tubing systems and 3/0 welding cable, compatible with Lincoln Electric® wire feeders
CM-F-1	Basic Cable Management Kit for 100iC and 120iC; includes base adapter and 3 cable clamp assemblies
CM-F-2	Optional Bracket for Robot Peripheral Cables

**Add -4/0 suffix to the part number for 4/0 welding cable option*

Deluxe Cable Management Kit for Fanuc® 120iD Robots
CM-F-2-ID
Includes protective tubing system and 3/0 welding cable, compatible with most wire feeders.

Deluxe Cable Management Kit for Fanuc® iC Robots with Part Grippers
CM-F-3-MH
Includes CM-F-3 kit components with an additional hose assembly for gripper control cables.
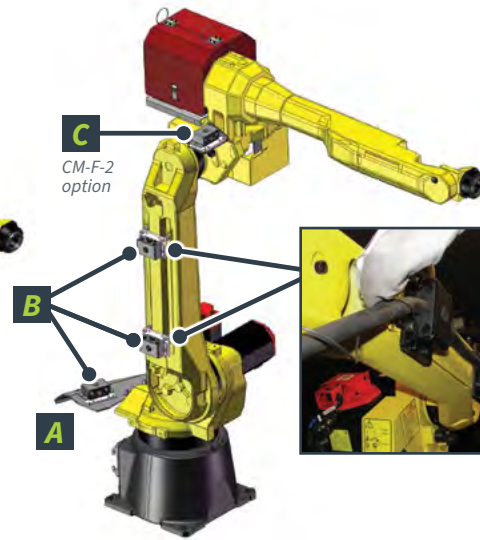
Basic Cable Management Kit
CM-F-1
Basic WizardGear® Cable Management Kit includes robot base adapter (A), 3 cable clamp assemblies (B). Additional bracket (C) available for robot peripherals.

CM-F-2 option

WIRE WIZARD
WELDING PRODUCTS

RETRACTABLE CONDUIT/CABLE BALANCERS & HANGERS

▶ Balancer provides easy method of hanging conduit and cables

▶ Conduit Hanger prevents excess droopage

▶ Prevents cables from hanging in areas prone to damage

▶ Hangers feature velcro straps to secure cables and conduit

Heavy Duty Balancers with Shock Stop
-SH
Prevents cable damage often caused by over-tensioning

Balancers
Several models available, light duty (left) and heavy duty (right)

Conduit Hanger
Two sizes available

Part No.	Description
RCH-H	Conduit Balancer — Load: 2 – 4½ lbs (1 – 2 kg)
RCH-5-13	Conduit Balancer — Load: 5 – 13 lbs (2.3 – 6 kg)
RCH-11-19	Conduit Balancer — Load: 11 – 19 lbs (5 – 8.6 kg)
RCH-3-7-SH	Conduit Balancer with Shock Stop — Load: 3 – 7 lbs (1.4 – 3.2 kg)
RCH-22-27-SH	Conduit Balancer with Shock Stop — Load: 22 – 27 lbs (10 – 12.2 kg)
RCH-SH	Shock Stop Kit (only compatible with -SH models)
CHH-10	10" (254 mm) Conduit Hanger with two Retaining Straps
CHH-22	22" (559 mm) Conduit Hanger with four Retaining Straps

CONDUIT & CABLE SLEEVES

Constructed from Kevlar® with a spatter-resistant silicon coating, Wire Wizard® conduit and cable sleeves provide the maximum degree of protection inside the weld cell.

▶ Protects and secures conduit, control cables, cooling lines, gas lines, hydraulic hoses and other lines connected to robots

▶ Two I.D. sizes available — 2" (51 mm) and 4" (102 mm) in 1, 2, 3 and 4 ft (305, 610, 914 and 1219 mm) lengths

▶ Velcro ends can be chain linked together

▶ Sleeve ends accept nylon tie straps

▶ Zipper + Velcro enclosure

Part No.	Description	Length
CS-2-12-S	2" Sleeve (51 mm) I.D.	1 ft (305 mm)
KCS-2-24-S	2" Sleeve (51 mm) I.D.	2 ft (610 mm)
KCS-2-36-S	2" Sleeve (51 mm) I.D.	3 ft (914 mm)
KCS-2-48-S	2" Sleeve (51 mm) I.D.	4 ft (1.2 m)
KCS-4-12-S	4" Sleeve (102 mm) I.D.	1 ft (305 mm)
KCS-4-24-S	4" Sleeve (102 mm) I.D.	2 ft (610 mm)
KCS-4-36-S	4" Sleeve (102 mm) I.D.	3 ft (914 mm)
KCS-4-48-S	4" Sleeve (102 mm) I.D.	4 ft (1.2 m)

Silicon Coated Sleeve

Open sleeve showing velcro and zipper enclosure

WIRE PILOT®
FEED ASSISTS

Wire Pilot®
Feed Assist
PFA-LM-20

PROUDLY MADE

WIRE PILOT® PNEUMATIC WIRE FEED ASSIST

The **Wire Pilot® Pneumatic Feed Assist** provides an economical way to help the wire feeder move wire through the conduit in applications where there must be minimal friction, travel a long distance or where the workload on the wire feeder must be reduced. When combined with Guide Modules, it allows the ultimate flexibility when it comes to wire delivery and **wire packages can be located 150 ft (46 m) or more away from the arc**. Using only compressed air, the Feed Assist easily relieves several pounds of pulling force from the feed motor. Adjustable torque setting **prevents "bird nesting,"** commonly occurring in aluminum or light wire applications. Compatible with ferrous and non-ferrous wire. Patented design.

▶ **Eliminates drag coefficient inside the conduit**

▶ Provides "Push-Pull" system to get wire from source to the feeder

▶ Extends conduit life and increases arc-on time

▶ Enables longer conduit runs (150 ft/46 m+), enabling centrally located wire packages as well as allowing the use of bulk wire in many applications that would normally require small spools

▶ Prevents burn backs caused by wire feeding problems

▶ Solves many feeding issues with large diameter wire used for SAW

Spool option
WGM-PFA-STAND-SPOOL
For use with WGM-PFA-STAND.

Extension Arm
PFA-WM-EA
Fits any Feed Assist Model.

PFA Drive Rolls
Various size options
*All PFA drive rolls are **hard chromed and polished** for maximum performance and durability. Sold individually.*

DUAL DRIVE FEED ASSIST *PFA-DD*

The new Dual Drive Wire Pilot® Feed Assist is designed to handle large wire up to 3/16" (4.8 mm) and extra-long distance applications using standard size MIG wires. This heavy duty model features four drive rolls (sold separately) and additional torque to provide more power to effortlessly deliver wire to the feeder.

▶ Ideal solution for submerged arc welding applications using 1/16" (1.6 mm) and larger wire

▶ Utilizes same mounting pattern as the PFA-LM-20 Feed Assist and may be mounted to the same adjustable stands and brackets

▶ Compatible with standard Wire Feed Assist drive rolls

Conduit
FC-XH-LW

A-5HD or A-5
(use A-5 for FC-XH or EC-5 conduit)

PFA-65

PFA-64

Feed Assist option

Guide Module® option

Adjustable Stand for up to 4 Drums, Spools or Wood Reels
WGM-PFA-STAND
Adjusts to 86" (2.2 m); includes 1 arm (additional arms sold separately)

RECOMMENDED FEED ASSIST MODELS BY WIRE SIZE & LENGTH OF WIRE DELIVERY RUN

Length	0 – 25 ft	25 – 50 ft	50 – 75 ft	75 ft +
0.030 – 1/16" (0.8 – 1.6 mm) wire	PFA-LM-20	PFA-LM-20	PFA-LM-20	PFA-LM-20 or PFA-DD (with multiple turns for >150 ft)
1/16 – 3/16" (1.6 – 4.8 mm) wire	PFA-DD	PFA-DD	PFA-LM-20 x 2	PFA-LM-20 x 2

WIRE WIZARD
WELDING PRODUCTS

WIRE PILOT® FEED ASSIST & ACCESSORIES

Part No.	Description
PFA-LM-20	Wire Pilot® Feed Assist with open enclosure, includes PFA-FRL Filter/Regulator/Lubricator
PFA-DD	Wire Pilot® Dual Drive Feed Assist for Large Wires, includes PFA-FRL Filter/Regulator/Lubricator
A-5	Inlet/Outlet Quick Disconnect (insulator U-005 sold separately) for PFA-LM-20
A-1B-C	Inlet Guide with Quick Disconnect for PFA-LM-20
PFA-35-15	Inlet Guide with Ceramic Inlet for PFA-LM-20
PFA-64	Large Wire Inlet Guide with Ceramic Inlet for PFA-LM-20 or PFA-DD
PFA-34	Inlet Guide with 3/8"-18 NPS-F threads (connects to A-4HD disconnect) for PFA-LM-20
PFA-35	Inlet Guide with Ceramic Inlet for PFA-LM-20
PFA-65	Inlet/Outlet Guide for PFA-LM-20 or PFA-DD, 1/2" NPS-F; two included with each Feed Assist
PFA-WT-DA	Drum Adapter for PFA-LM-20
PFA-DA	Drum Adapter for PFA-LM-20
PFA-WWTT	Turn Table Adapter Kit for Wire Pilot® Feed Assist
WGM-PFA-STAND	Adjustable Wire Pilot® Feed Assist Stand for Drums or Spools
WGM-PFA-STAND-ARM	Additional Arm for Wire Pilot® Feed Assist Stand
WGM-PFA-STAND-SPOOL	Wire Spool Holder for Wire Pilot® Feed Assist Stand
WGM-PFA-AK-15	Wire Pilot® Guide Module® Mounting Adapter (for PFA-LM-20 only)
WGM-PFA-SW-15	Wire Pilot® Swivel Kit for Wire Guide Modules (see pages 24 – 27)
PFA-SK	24-volt Pneumatic Solenoid with Cable
PFA-RK	Wire Retract Kit for Reversing Wire Feed (24 V)
PFA-DM	Wire Pilot® Dual Mount Bracket
PFA-WM-EA	Wire Pilot® Pivoting Extension Arm Bracket

WIRE PILOT® FEED ASSIST DRIVE ROLLS

Part No.	Description
PFA-DR-035	Feed Assist Drive Roll for 0.035" (0.9 mm) wire
PFA-DR-045	Feed Assist Drive Roll for 0.045" (1.2 mm) wire
PFA-DR-052	Feed Assist Drive Roll for 0.052" (1.3 mm) wire
PFA-DR-1-16	Feed Assist Drive Roll for 1/16" (1.6 mm) wire
PFA-DR-5-64	Feed Assist Drive Roll for 5/64" (2.0 mm) wire
PFA-DR-3-32	Feed Assist Drive Roll for 3/32" (2.4 mm) wire
PFA-DR-1-8	Feed Assist Drive Roll for 1/8" (3.2 mm) wire
PFA-DR-5/32	Feed Assist Drive Roll for 5/32" (4.0 mm) wire
PFA-DR-3/16	Feed Assist Drive Roll for 3/16" (4.8 mm) wire
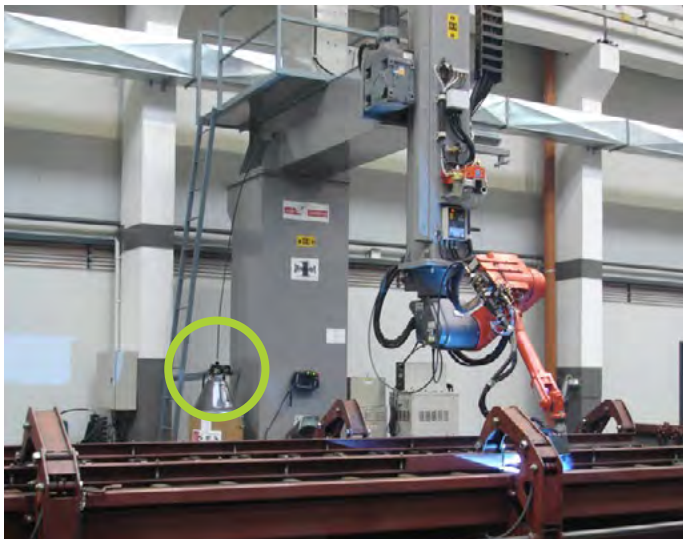
Wire Feed Assist installed in a robotic gantry application.

Tandem Wire Feed Assists Installed on a Mechanical Turn Table.

WIRE PILOT® FEED ASSIST APPLICATION EXAMPLES

Quick Disconnect A-4-ST

MOUNTED ON DRUM HOOD

Polymer Strain Relief
or
Steel Strain Relief

Inlet Guide

Feeder

See Feeder Inlet Guide options on pages 19 – 22

Extra Flexible Conduit
15' (4.6 m); always use Advanced Polymer Conduit for aluminum wire

Strain Relief options on page 16

Silencer/ Reclassifier PFA-SR
Optional

Quick Disconnect A-5
With U-005 insulator

SUBMERGED ARC WELDING

Filter/ Regulator/ Lubricator PFA-FRL
Included

Feed Assist PFA-LM-20
Enclosed model

Large Wire Guide Modules WGM-LW-1
See pages 24 – 27

Support Arm WWTT-WGM-SA
For 90° Guide Module® installations on Turn Tables.

PFA-65
Two included with each unit

Solenoid 24v Kit PFA-SK
Optional

Drum Adapter Kit PFA-WT-DA

Wire Retract Kit PFA-RK
Optional

Dual Feed Assists with Mechanical Turn Table PFA-WWTT-B2
See page 8

Vertical Dereeler with Feed Assists WWA-12-2
See page 11

Drum Hood

MOUNTED ON WGM-PFA-STAND Long distance wire feeding application

Mini 90° Guide Module® WGM-M-1*

WGM-A5

Advanced Polymer Conduit

45° Guide Module® WGM-1*

See Inlet Guides on pages 19 – 22

UP TO 150 FT (46 M) OR MORE!

WGM-A5

Quick Disconnect A-5

Guide Module® PFA Mount WGM-PFA-AK-15

Bracket WGM-A5 and WGM-A-10BK

PFA-LM-20

Telescoping Conduit Disconnect Kit EC-TCD

Drum Hood with Direct Pull Kit
See pages 2 – 3

Weld Cell wall

Optional WizardGear® Robot Cable Management System

WGM-PFA-STAND

Dereeling Arm
See pages 9 – 10

FC-E Extreme Flex Conduit
(for ferrous wires)
or
EC-4-R Polymer Conduit
(for non-ferrous wires)
Conduit style will vary based on wire size and type. See page 17 for reference chart.

or

Drum with Dolly   **Wood Reel with Dereeling Arm**

* Guide Modules in this application also require WGM-50 End Cap Kits

WIRE WIZARD® WELDING PRODUCTS

WIRE DELIVERY KIT CONFIGURATION EXAMPLES

SAMPLE WIRE DELIVERY KIT CONFIGURATIONS

Don't know where to start with your wire delivery system? The following wire delivery kit configuration examples are designed to help you configure your wire delivery equipment setup for some typical weld cell layouts seen in robotic and semi-automatic arc welding. Based on wire type and size, they are designed to minimize wire skid friction for a smooth wire feed. These configurations are customizable and can be modified to fit your welding application. Refer to the *wire-wizard.com* website for additional wire delivery kit details and options. Contact your Wire Wizard® Technical Sales Manager or customer support for assistance with custom wire delivery systems for MIG as well as SAW welding.

Wire Wizard® Guide Modules WGM-M-1

Conduit
Polymer or Extra Flexible

STEEL WIRE UP TO 0.052 (1.3 mm) — SEMI-AUTOMATIC *(Wire Delivery Kit example #WDK-SDM-2)*

Telescoping Conduit Disconnect Kit

Wire Wizard® Guide Modules WGM-1

WizardGear® Robot Cable Management

STEEL WIRE UP TO 0.052 (1.3 mm) — ROBOTIC *(Wire Delivery Kit example #WDK-SDR-1)*

Wire Pilot® Feed Assist

Up to 150' (46m)+

Fire Resistant Drum Covers

NON-FERROUS WIRE UP TO 1/16" (1.6 mm) — SEMI-AUTOMATIC WITH WIRE FEED ASSIST *(Wire Delivery Kit example #WDK-ADM-1P)*

Up to 150' (46m)+

Wire Pilot® Feed Assist and Stand

NON-FERROUS WIRE UP TO 1/16" (1.6 mm) — ROBOTIC WITH WIRE FEED ASSIST *(Wire Delivery Kit example #WDK-ADR-1P)*

Drum Hood

CORED OR STAINLESS STEEL WIRE UP TO 0.052 (1.3 mm) — SEMI-AUTOMATIC *(Wire Delivery Kit example #WDK-CDM-1)*

Dereeling Arm

STEEL WIRE ON WOOD REEL UP TO 1/16" (1.6 mm) — ROBOTIC *(Wire Delivery Kit example #WDK-SRR-1)*

Wire delivery system may also be installed through the weld cell wall, underneath the wall or on a mezzanine above the cell.
See pages 24 – 28 for additional Wire Wizard® Guide Module® installation options.

ANTI-SPATTER & ACCESSORIES

BLUE MAGIC® ANTI-SPATTER & NOZZLE CLEANER

A cost effective, environmentally safe product, this new generation of anti-spatter provides superb performance even in high temperature applications. Biodegradable formula contains no harmful chemicals and is noncombustible. And, because it contains one of the lowest water contents available, **you get protection, not water**.

- ▶ **Protects against spatter build-up and char residue**
- ▶ **Contains no silicone** — easily painted over
- ▶ Surfactants provide excellent wetting and lubricity in torches

Drum Pump and Drum Wrench for 55 gallon

- ▶ Keeps clean-ups to a minimum
- ▶ Neutral pH level inhibits multi-metal corrosion
- ▶ Will not evaporate, keeping lines and nozzles clog-free
- ▶ Contains biocide, providing longer shelf life in warm climates
- ▶ **Available in concentrated form in 5 gallon buckets or 1 liter bottles**
  - ▷ One 5 gallon bucket makes 55 gallons of anti-spatter, ideal for overseas shipping

Anti-spatter samples available upon request

BLUE MAGIC® ANTI-SPATTER

Part No.	Description
EAS1000-C32	32 oz Spray Bottle
EAS1000-C1	1 gal Bottle
EAS1000-C5	5 gal Container
EAS1000-C	55 gal Drum
EAS1000-CT	275 gal Bulk Tote
EAS1000-C-CON-1L	1 l (33 oz) Concentrate
EAS1000-C-CON-5	5 gal Concentrate
EAS1000-C-CON	55 gal Concentrate
EAS1000-DP	Manual Drum Pump (55 gal)
EAS1000-DW	Drum Wrench (55 gal)

BLUE MAGIC® HD HIGH DUTY CYCLE ANTI-SPATTER

Introducing our toughest anti-spatter yet! **Blue Magic® HD** anti-spatter is specially formulated for extremely high temperature, long duty cycle applications.

- ▶ Special formula provides maximum protection
- ▶ Will not evaporate, even under conditions with extreme heat
- ▶ Reduces downtime for clean-ups in long duty cycle applications that generate extreme heat and excessive spatter

Part No.	Description
EAS1000-HDC32	32 oz Spray Bottle
EAS1000-HDC1	1 gal Bottle
EAS1000-HDC5	5 gal Container
EAS1000-HDC	55 gal Drum

BLUE CHILL® ANTI-SPATTER & NOZZLE COOLANT

Increase weld productivity with this specially blended formula that not only protects surfaces from spatter, slag, and scale but also **quickly cools down hot nozzles!** No mixing required.

- ▶ Extends nozzle and contact tip life
- ▶ Remains stable and will not evaporate
- ▶ Environmentally safe, non-toxic, biodegradable

Part No.	Description
EAS1000-BC32	32 oz Spray Bottle
EAS1000-BC1	1 gal Bottle
EAS1000-BC5	5 gal Container
EAS1000-BC	55 gal Drum
EAS1000-BCT	275 gal Bulk Tote

WIRE WIZARD WELDING PRODUCTS

5-GALLON MANIFOLD KIT 5GMK

This popular industrial size dispenses **Blue Magic®** or **Blue Chill®** anti-spatter to **Torch Wizard®** pneumatic reamers and nozzle mist applicators. Easily integrated into any weld cell stations.

▶ Smaller footprint is ideal where space is an issue

▶ Pneumatic pump supplies 1.92 gallons per minute at 75 psi

▶ Bulk dispensing system easily supplies up to 15 work stations (depending on distance)

SPECIFICATIONS

▶ Height: 27" (685.8 mm)
▶ Width: 11.25" (285.7 mm)
▶ Depth: 14" (355.6 mm)
▶ Weight: 8 lbs (3.6 kg)

DRUM MANIFOLD KIT DMK

Designed to deliver bulk **Blue Magic®** or **Blue Chill®** anti-spatter to multiple **Torch Wizard®** nozzle cleaning and/or spraying stations, eliminating the need to refill small, gravity fed containers on a frequent basis. **Optional gauge** monitors fluid level for easier maintenance. Easy to install.

▶ Lowers operating costs by allowing the use of bulk anti-spatter, reduces downtime for refilling

▶ Supplies anti-spatter to multiple stations with pneumatic pump (pumps up to 1.92 gallons per minute at 75 psi)

▶ Less space required due to one feeding source

DMK

A

ANTI-SPATTER MULTI-STATION DISPENSING SYSTEM SETUP

B **C** **D** **E** **G** **F** **H**

Refilling station for spray bottles or pneumatic sprayer

Reaming Station in cell #1

Reaming Station in cell #2

Reaming Station in cell #3
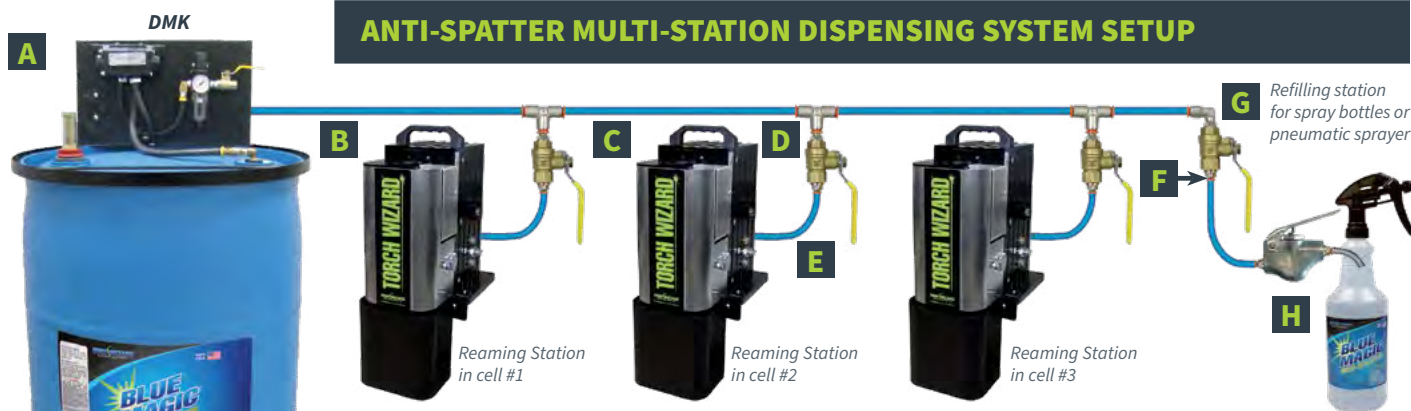
Blue Magic® or Blue Chill® 55 gallon

PLUMBING COMPONENTS FOR MULTI-STATION ANTI-SPATTER DISPENSING

A — DMK (or 5GMK) Manifold Kit
B — 1J-352-007-01 3/8" Spatter-Resistant Tubing
C — 40021-04 1/4" Ball Valve
D — 2U32013 1/4" NPT x 3/8" Branch Tee
E — 1J-351-01 1/4" Spatter-Resistant Tubing

F — 2U01008 1/4" x 1/4" NPT Push-in
G — 2U31013 1/4" NPT x 3/8" Elbow
H — EAS1000-FS Sprayer/Bottle Refill Spigot
I — 5454K87 (not shown) 1/4" NPT Bulkhead Connector for through-wall installations

TORCH NOZZLE CLEANING STATIONS

TORCH WIZARD® ROBOTIC NOZZLE CLEANING STATIONS

Torch Wizard® Automatic Robotic Nozzle Cleaning Stations assist in maintaining quality and productivity in MIG welding cells by quickly and efficiently removing spatter build-up in the gas nozzle. The SC models feature a **self-cleaning air blast to clean spatter and other debris** from the blade and air motor. Anti-spatter is applied evenly to the nozzle and tip through an isolated compartment, eliminating wet debris build-up on the reamer blade and motor. **Two year warranty with exclusive use of Blue Magic®/Blue Chill® anti-spatter.**

- ► **Extends torch consumable life by removing spatter build-up**
- ► **Integrated air blast for automated cleaning of spatter and debris** from the reamer motor, reducing downtime for maintenance (on SC models)
- ► **Multi-station bulk anti-spatter dispensing** ability standard on all models
- ► No circuit boards and fewer moving parts means **more reliable operation and lower maintenance costs**
- ► **High torque motor** prevents stalls, reducing downtime
- ► Adjustable v-block with four points of contact on the nozzle
- ► **Enclosed operating environment** keeps weld cell clean
- ► Easy-open covers provide quick access to internal components
- ► **TiN coated reamer blades** offer efficiency and longevity
- ► **Ethernet capable** (with option)
- ► Pneumatic Wire Cutters and Tool Center Point Adapters available

Note: *Each base unit requires a reamer blade (based on I.D. of gas nozzle being used) and power/control cable. Required FRL is available for purchase.*

Torch Wizard®
Robotic Nozzle
Cleaning Station
EL-NCS-AC-18-SC
With optional
TCP mount

PROUDLY MADE

See page 41 for
full parts list
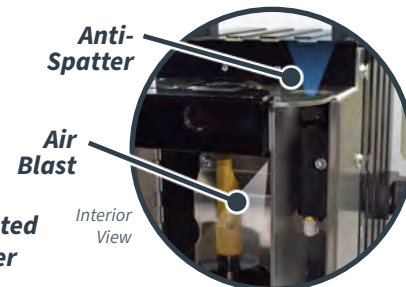
Anti-Spatter

Air Blast

Interior View

Integrated air blast for automated cleaning of spatter and debris!

TOP VIEW

10.81" (274.6 mm)

Carry Handle for easy mobility

11.35" (288.4 mm)

Adjustable v-block for all nozzle diameters

Wire Cutter (optional)

SIDE VIEW

Manual Operation (for easy setup/testing)

Location for optional Tool Center Point

Durable Stainless Steel Cover

20.45" (519.4 mm)

Power/Control Port (Ethernet option available)
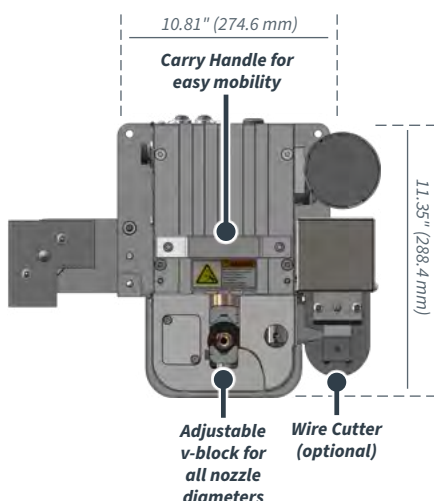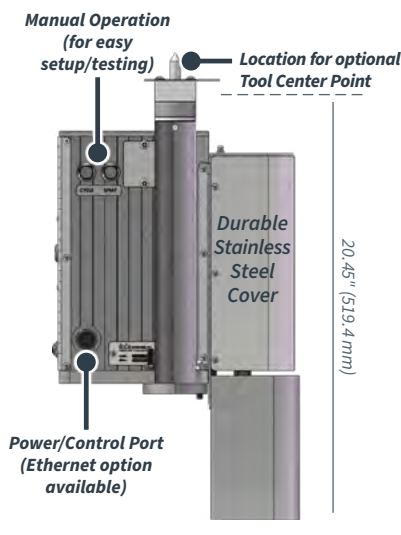
FRONT VIEW *without cover*

Self-cleaning air blast to clean spatter and debris

Anti-spatter Reservoir

EL-NCS-TCP-F-R Optional TCP Mount

Catch Tray

WIRE WIZARD
WELDING PRODUCTS
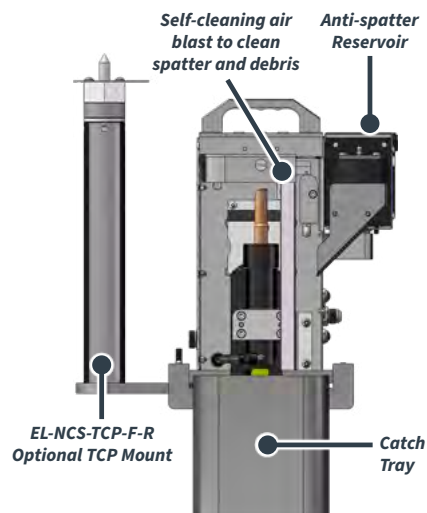
RELIABLE PERFORMANCE FOR MAXIMUM WELDING PRODUCTIVITY

Manufacturers around the globe trust **Torch Wizard® Nozzle Cleaning Stations** to maximize consumable life and weld cell uptime. Built tough for reliable performance in high volume production applications, they feature no belts that wear out and no complex circuit boards that burn out in industrial environments. Durable titanium nitride coated reamer blades provide extended blade life, reducing maintenance time to replace worn or broken blades. It's the Cleaning Station you need when you want to get the job done, no matter how heavy the workload!

AUTOMATED SELF-CLEANING FOR EASY MAINTENANCE
Integrated air blast for automated cleaning of spatter and debris.

TOOL CENTER POINT (TCP) MOUNT
Optional TCP mounts available for Fanuc® tool center points.

OPTIONAL WIRE CUTTER
Available wire cutter cleanly cuts wire, removing weld bead for smoother arc starts.

BUILT FOR RELIABILITY
No complex circuit boards or belts for reliable, low maintenance operation.

TITANIUM NITRIDE COATED BLADES
Strong alloy tool steel blades are TiN coated to maintain sharpness and resist breakage.

HIGH TORQUE MOTOR
High torque pneumatic motor prevents stalls and cleans effortlessly!

BLUE MAGIC® ANTI-SPATTER
Extended two-year warranty with exclusive use of Blue Magic® or Blue Chill® Anti-spatter.

ETHERNET OPTION
Optional ethernet capability available for connectivity in modern weld cells.

PROUDLY MADE

TORCH WIZARD® REAMER BLADES

Made from alloy tool steel and coated with titanium nitride (TiN) for enhanced durability, our reamer blades maintain their sharp cutting edge and resist breakage. Blades are universal and can also be adapted to other major reaming station manufacturers. Sizes for all nozzle IDs and lengths available (see table on page 41).

► **TiN coating increases blade life**

► Single and double flute blades available in a variety of sizes for compatibility with all torch nozzle styles

► Cost effective replacement blades available for other reaming station manufacturers

Single Flute Reamer Blades

EL-NCS-BRUSH and EL-NCS-BRUSH-M
Nozzle brush and mandrel for aluminum welding applications
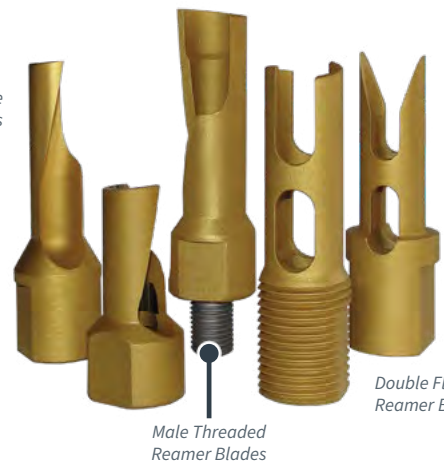
Male Threaded Reamer Blades

Double Flute Reamer Blades

TITANIUM NITRIDE
TiN Coated for Maximum Durability

INTEGRATED WIRE CUTTER EL-NCS-WCS-12
Included on AC and ACE models
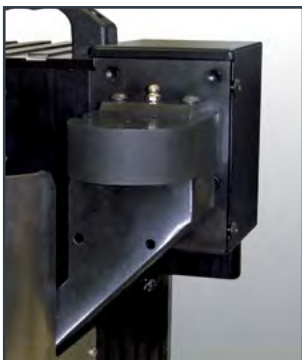
► Provides simple, automated way to cut wire sizes from 0.035 to 0.062

► Consistent wire stick-out provides accurate wire location

► Robust, hardened steel blade offers maximum wear resistance and extended life

► Fully integrated with the AC and ACE model reaming stations, no additional air or power cables required

STAND ALONE WIRE CUTTER
EL-NCWCS-SA-12

► Provides simple, automated way to cut wire sizes from 0.035 to 0.062

► Compact size allows mounting in the ideal location inside weld cell

► Requires 24 V and standard 80 – 100 psi air supply

LARGE DIAMETER & TANDEM WIRE CUTTER
EL-NCS-WCS-LW

► Cleanly cuts wire as thick as 3/16" (4.8 mm) or up to two 5/32" (4 mm) wires simultaneously

► Allows long angle cuts for smoother arc starts

► Robust O – 1 hardened steel blade

► Requires 24 V and standard 80 – 100 psi air supply

WIRE WIZARD
WELDING PRODUCTS

STANDS & TCP ADAPTERS

Stand for Tool Center Point
EL-NCS-TCP-F-S
Excludes touch plate and point

Tool Center Point Adapter Mount
EL-NCS-TCP-F-R
Excludes touch plate and point

29.5" (749 mm) Stand for Torch Wizard®
EL-NCS-STAND
Order **EL-NCSP-STAND** *for AP Model unit and wire cutter*

TESTING & DIAGNOSTIC BOX

The Torch Wizard® Reaming Station Test Box is a recommended maintenance peripheral for periodically testing and fine tuning your reaming station. Functions include: Sink/Source, Motor Slide Up/Down, Nozzle Clamp, Anti-Spatter Spray and Wire Cutter (if applicable). Includes 110 V AC unit and cable. Available for all cleaning station models.

Cleaning Station Testing & Diagnostic Box
EL-NCS-TB-ADR-16

TORCH WIZARD® ROBOTIC NOZZLE CLEANING STATIONS

STANDARD MODELS

Part No.	Description
EL-NCS-A-20	Reaming Station with integrated anti-spatter spray
EL-NCS-AC-20	Reaming Station with integrated anti-spatter spray and wire cutter
EL-NCS-A-20-SC	Reaming Station with self-cleaning air blast and integrated anti-spatter spray
EL-NCS-AC-20-SC	Reaming Station with self-cleaning air blast, integrated anti-spatter spray and wire cutter
EL-NCS-A-TA-20-CL	Reaming Station for tandem arc torches with Cloos® nozzles
EL-NCS-A-TA-20-FR	Reaming Station for tandem arc torches with Fronius® nozzles
EL-NCS-A-TA-20-TR	Reaming Station for tandem arc torches with Tregaskiss® nozzles
EL-NCS-20	Reaming station without anti-spatter for aluminum, no wire cutter
EL-NCS-C-20	Reaming station without anti-spatter for aluminum, with wire cutter
EL-NCS-20-SC	Reaming station with self-cleaning air blast for aluminum, no wire cutter
EL-NCS-C-20-SC	Reaming station with self-cleaning air blast for aluminum, with wire cutter

MODELS WITH INTEGRATED ETHERNET

Part No.	Description
EL-NCS-AE-20	Reaming Station with Ethernet and integrated anti-spatter spray
EL-NCS-ACE-20	Reaming Station with Ethernet, integrated anti-spatter spray and wire cutter
EL-NCS-AE-20-SC	Reaming Station with Ethernet, self-cleaning air blast, integrated anti-spatter spray
EL-NCS-ACE-20-SC	Reaming Station with Ethernet, self-cleaning air blast, integrated anti-spatter spray and wire cutter

TORCH WIZARD® OPTIONAL ACCESSORIES

Part No.	Description
EL-NCS-STAND	29.5" (749 mm) Stand (custom heights available) for EL-NCS models
EL-NCS-FRL-14	Filter/Regulator/Lubricator
EL-NCS-TB-ADR-16	Testing and Diagnostic Box for 20 and 20-SC models (9-pin)
EL-NCS-TCP-F-S	Stand for Tool Center Point — 44.9" H (1,141 mm) from base to point
EL-NCS-TCP-F-R	Tool Center Point Mount (attaches to reaming station stand)
EL-NCS-WCS-12	Integrated Wire Cutter (included on AC models)
EL-NCS-WCS-SA-12	Stand Alone Wire Cutter
EL-NCS-CC9-20-3	9 Pin, 20 ft Power/Control Cable

TORCH WIZARD® REAMER BLADES

Part No.	Description	Diameter	Flutes	Thread	Height
EL-NCS-13MM	Reamer Blade	13 mm	2	Female	2.558"
EL-NCS-TL-13MMF	Reamer Blade	13 mm	1	Female	2.687"
EL-NCS-TS-13MMF	Reamer Blade	13 mm	1	Female	2.433"
EL-NCS-15MM	Reamer Blade	15 mm	2	Female	2.558"
EL-NCS-17MM-L	Reamer Blade (ID: .402")	17 mm	2	Female	3.564"
EL-NCS-17MM-1-L	Reamer Blade (ID: .329")	17 mm	2	Female	3.564"
EL-NCS-17MM-A	Reamer Blade (ID: .467")	17 mm	2	Female	2.634"
EL-NCS-500	Reamer Blade ⚡	1/2"	2	Female	2.558"
EL-NCS-TL-50F	Reamer Blade ⚡	1/2"	1	Female	2.687"
EL-NCS-TS-50F	Reamer Blade ⚡	1/2"	1	Female	2.433"
EL-NCS-625	Reamer Blade ⚡	5/8"	2	Female	2.558"
EL-NCS-TL-62F	Reamer Blade ⚡	5/8"	1	Female	2.687"
EL-NCS-TS-62F	Reamer Blade ⚡	5/8"	1	Female	2.433"
EL-NCS-750	Reamer Blade ⚡	3/4"	2	Female	2.558"
EL-NCS-BRUSH-M	Nozzle brush with mandrel for aluminum welding applications	5/8"	—	Female	—
EL-NCS-BRUSH	Replacement nozzle brush for aluminum welding applications	5/8"	—	Female	—

MALE THREADED REAMER BLADES *for other reaming stations*

Part No.	Description	Diameter	Flutes	Thread	Height
EL-NCS-TS-13MM	Reamer Blade	13 mm	1	Male (3/8" – 24)	2.433"
EL-NCS-50-M	Reamer Blade	1/2"	2	Male (3/8" – 24)	2.558"
EL-NCS-TL-50	Reamer Blade ⚡	1/2"	1	Male (3/8" – 24)	2.687"
EL-NCS-TS-50	Reamer Blade ⚡	1/2"	1	Male (3/8" – 24)	2.433"
EL-NCS-625-M	Reamer Blade ⚡	5/8"	2	Male (3/8" – 24)	2.558"
EL-NCS-TL-62	Reamer Blade ⚡	5/8"	1	Male (3/8" – 24)	2.687"
EL-NCS-TS-62	Reamer Blade ⚡	5/8"	1	Male (3/8" – 24)	2.433"

⚡ *Blades compatible with PowerBall® Torch Consumables*

Please call customer service for correct retrofit reamers for: ABICOR Binzel®, Intertech®, Tregaskiss® and Nasarc®

WELD CENTRAL® PROCESS & OPTIMIZATION SYSTEM

Weld Central®
Controller
WC-1-2 or WC-1-4
Included with
complete kits

WELD★CENTRAL®

OPTIMIZE WELD CELL PERFORMANCE & OEE

The new **Weld Central®** is a Process Optimization System that monitors and tracks key (time-stamped) process variables, including current, voltage, wire feed speed, arc stabilization period (ASP), gas flow and feed motor current. This information can be utilized for both process optimization and determining the weld cell **OEE (Overall Equipment Effectiveness)**. Combined with the Wizard View® software, Weld Central® is the ultimate weld cell performance monitoring system!

HARDWARE FEATURES

▶ Monitor robotic or semi-automatic weld cells through a PC or mobile device using the **Wizard View**® software, where collected data can be viewed, charted and exported in a user friendly web browser interface

▶ **Each controller can monitor up to four torches** with inputs for up to four sets of sensors

▶ **Equipment agnostic** — utilizes sensors compatible with all brands of wire feeders and power sources

▶ Capacitive **touchscreen interface** displays arc status, wire speed, gas flow and wire/gas remaining

▶ **More than just a data acquisition system** — may be connected to a PLC to prevent costly weld quality issues

▶ **Up to Eight Active Outputs** that can activate an alarm or stop the welding process through the PLC if welds fall outside of user defined parameters

▶ Active Inputs for resetting the wire remaining (new wire package) and new gas canister (if applicable)

▶ Internal memory on controller can store up to 180 days of weld summary data (depending on duty cycle)

▶ **Monitor a single torch or multiple weld cells** through a network or mobile router with Wizard View® software

▶ Gas flow sensor is pre-calibrated for a variety of gas mixtures, including: Argon/CO_2 (90/10, 85/15, 80/20, 98/2 or 75/20), Argon/Helium (75/25), Argon/O_2 (97/3), He/Ar/CO_2 (90/7.5/2.5) and 100% Argon, CO_2, Helium or Nitrogen

CONTROLLER & SENSORS

Note: All sensors along with the controller and software are included in the complete kits

WIRE FEED SENSOR

Measures wire activity, including feed speed and total wire usage. Functions in both forward and reverse, making it compatible with pulse-on-pulse mode.

VOLTAGE/AMPERAGE SENSOR

Measures arc voltage and amperage from the power source.

MOTOR CURRENT SENSOR

Measures amperage draw on the feeder motor, which is used for detecting wire feeding issues.

GAS FLOW SENSOR

Measures/monitors volume of gas flow as CFH or LPM, gas surges and total gas used (can function as a totalizer). Pre-calibrated with most shielding gas mixtures. Standalone version available (see page 44).

WIRE WIZARD® WELDING PRODUCTS

WIZARD VIEW®

Wizard View® Dashboard (detailed view shown)

WELD CENTRAL® MONITORING & DATA ACQUISITION SOFTWARE

Wizard View® provides an easy to use interface for the Weld Central® System that graphs and logs data, alerts, wire and gas usage and other key welding performance information. The software collects data from any torch with the Weld Central® hardware installed. Simply browse to the desired torch to see a visual representation of the welding data along with the wire and gas usage information.

SOFTWARE FEATURES

▶ **Monitor, graph and export welding data** to a CSV file

▶ **Intuitive dashboard** displays all welding data in an interactive chart and shows overview of the total number of welds, wire usage, gas usage, power usage and arc on time for a selected time frame

▶ Track and compare welding performance data to **test and verify process improvements**

▶ Data may be displayed for each weld assembly and by weld schedule

▶ **Logs and displays user defined alerts** so problems can quickly be detected and resolved

▶ Provides much of the data necessary to determine weld cell **OEE (overall equipment effectiveness)**

SYSTEM ARCHITECTURE

PLC/Process Controller (robotic applications)

Weld Central® Controller

Local or Remote Server Hosting Database and Wizard View® Software

Wire Feed Sensor

Gas Flow Sensor

Voltage/Amperage Sensor

Feed Motor Current Sensor

WELD CENTRAL STATION #2

WELD CENTRAL STATION #3
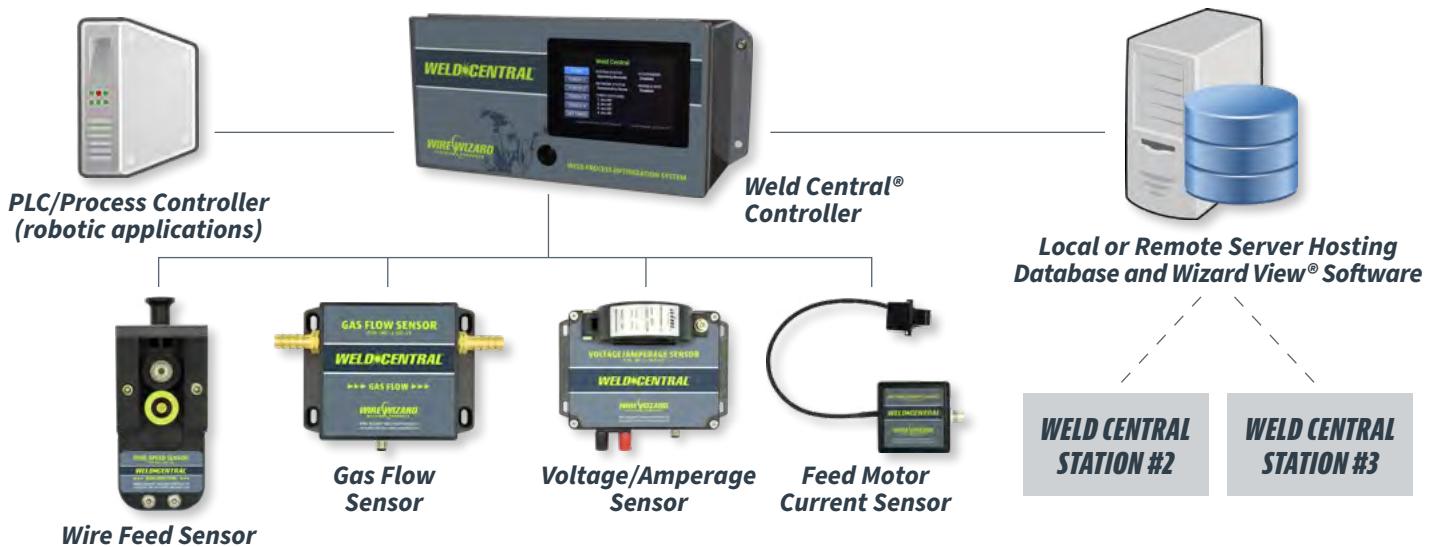
Part No.	Description
WC-1-2-KIT-1	Weld Central™ Complete Kit — WC-1-2 Controller, all sensors and cables for one torch with Wizard View™ Software
WC-1-4-KIT-1	Weld Central™ Complete Kit — WC-1-4 Controller, all sensors and cables for one torch with Wizard View™ Software
WC-1-2	Weld Central™ Controller with Wizard View™ Software Package (required hardware/software) — up to 2 torches
WC-1-4	Weld Central™ Controller with Wizard View™ Software Package (required hardware/software) — up to 4 torches
WC-1-SK-1	Weld Central™ Sensor Kit (includes WC-1-VAS-DC, WC-1-MS, WC-1-GS-19, WC-1-WS-18)
WC-1-WS-18	Wire Feed Sensor
WC-1-VAS-DC	Voltage/Amperage Sensor for DC
WC-1-VAS-AC	Voltage/Amperage Sensor for AC
WC-1-GS-19	Gas Flow Sensor/Monitor
WC-1-MS	Feed Motor Current Sensor

WIRE TRACKER™ DIGITAL WIRE MONITOR

WIRE TRACKER™

ACCURATE WIRE TRACKING & MONITORING IN ONE DEVICE

NEW!

WC-1-WS-S

The **Wire Tracker™ Digital Wire Monitor** provides an easy way to monitor and track wire in robotic or semi-automatic MIG welding applications. The device may be mounted in-line for 24/7 monitoring or used as a portable unit to check wire usage per weld or wire feed speed. It provides a simple and accurate method for monitoring and totalizing wire consumption, or measurement and verification of wire feed speed.

- ▶ **Tracks and totalizes wire consumption** — an easy way to determine wire usage per weld and amount of time a wire package will last

- ▶ Install in-line for constant monitoring or use as a portable device to check and verify wire feed speed and wire usage (rechargeable li-ion battery included)

- ▶ Includes **Wire Speed Sensor** to monitor wire feed speed (WFS) and wire consumption

- ▶ Optional **Motor Current Sensor** monitors the workload on the wire feeder, which can detect and send alerts on wire feeding issues

- ▶ Monitors wire remaining and **sends alert when wire package is low**

- ▶ Exported data may be used to **track total wire feed time** to help determine welding productivity

- ▶ Documents historical data for each weld, including: Timestamp, Duration (time of active wire feed), Average wire feed speed (WFS), and Wire Consumed. Data is downloadable via USB connection to a PC.

- ▶ PLC connectivity allows automated alert functions

WIRE SPEED SENSOR

SOFTWARE FEATURES

- ▶ View and export time-stamped wire usage data (per weld), including duration of wire feed, wire feed speed (in IPM or MM/SEC), wire consumed and wire remaining

- ▶ Edit or refill wire

- ▶ Quickly view the wire remaining

- ▶ Options for measurement units in Imperial (US) or Metric

- ▶ Ability to connect to multiple Wire Trackers at once

Chart and Wire Refill screen
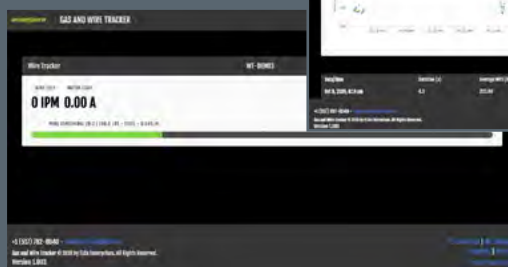
Wire Tracker screen with average wire feed speed chart and motor current (if applicable)

Part No.	Description
WC-1-WS-S	Wire Tracker™ Digital Wire Monitor — Includes Wire Feed Sensor
WC-1-MS	Add-on Feed Motor Current Sensor for monitoring and tracking of wire delivery issues
WC-1-WS-18-RECAL	Wire Sensor Calibration Service (yearly recalibration recommended)
WC-1-MS-RECAL	Motor Current Sensor Calibration Service (yearly recalibration recommended)

WIRE WIZARD WELDING PRODUCTS

GAS FLOW MONITORING & OPTIMIZATION

INLINE APPLICATION

GAS TRACKER™ GAS FLOW MONITOR

NEW!

WC-1-GS-S

The **Gas Tracker™ Digital Gas Flow Monitor** provides an easy way to monitor and track shielding gas flow in robotic or semi-automatic MIG or TIG welding applications. The Gas Tracker™ is **two monitors in one** — for use as a portable unit or mounted in-line. It provides a simple and accurate method for monitoring and totalizing incoming gas flow, or measurement and verification of gas flow at the nozzle.

► **Portable Application**: Check and verify gas flow at the nozzle to avoid porosity and other serious weld quality issues. Each monitor includes a hose and filter assembly that fits all standard nozzle sizes, along with a rechargeable li-ion battery that lasts up to 24 hours.

► **In-line Application**: The monitor can function as a gas totalizer, verify proper gas flow and keep a record of average gas flow per weld (data downloadable via USB connection).

► Touchscreen interface with digitally displayed flow rate of 0 – 106 SCFH (0 – 50 LPM) with 1 SCFH resolution in Imperial or Metric units.

► PLC connectivity allows automated alert functions.

► Pre-calibrated for a variety of gas mixture options to cover most welding applications, including: Argon/CO_2 (90/10, 85/15, 80/20, 98/2 or 75/20), Argon/Helium (75/25), Argon/O_2 (97/3), He/Ar/CO_2 (90/7.5/2.5) and 100% Argon, CO_2, Helium or Nitrogen.

► Dimensions: 7" (178 mm) X 5.25" (134 mm) X 3.25" (83 mm)

PORTABLE APPLICATION

SOFTWARE FEATURES

► View and export time-stamped gas flow data (per weld), including duration of flow, gas flow rate (in CFH or LPM), gas consumed and gas remaining

► Edit or refill gas (if applicable)

► Quickly view the gas remaining

► Ability to connect to multiple Gas Trackers at once

Gas and Wire Tracker screen with gas flow chart

Chart and Gas Refill screen

MANUAL GAS FLOW GAUGES EL-GFM

Measures the actual flow of shielding gas from the MIG/TIG torch, allowing adjustments to be made at the cylinder gauge if necessary. An economical solution for improving overall welding performance.

► Features flexible hose for easy operator readings on robotic torches

► Measures gas flow consumption (CFH or LPM) at nozzle

Part No.	Description
WC-1-GS-S	Gas Tracker™ Digital Gas Flow Monitor — In-line or portable use for checking flow at the nozzle
WC-1-GS-RECAL	Gas Tracker™ Digital Gas Flow Monitor Calibration Service (yearly recalibration recommended)
EL-GFM	Manual Gas Flow Gauge for Robotic Applications

Semi-automatic application

Robotic application

GAS WIZARD™
INERT GAS SAVERS
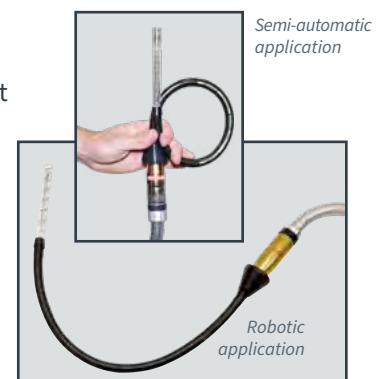
SAVE 35% OR MORE ON INERT GAS

Gas Wizard™ Inert Gas Savers are designed to reduce gas consumption by restricting the gas surge that occurs at arc initiation. The **Adjustable Gas Saver** is ideal for virtually all welding applications and allows fine tuning of the gas flow, which is an added benefit for facilities utilizing long bulk gas delivery systems with pressure drops.

▶ **Reduces gas consumption** in MIG or TIG applications

▶ Restricts gas surge upon arc starts, screen prevents blockages

▶ Gas savers available for the inlet or outlet side of gas solenoid
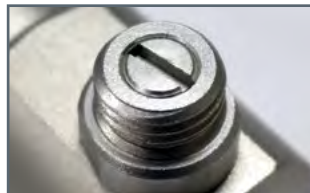
Adjustable Gas Savers
GFJ-ADJ-A, B, C or D
Saves gas and allows fine tuning of gas flow

ADJUSTABLE GAS SAVERS

Installation at gas inlet on the wire feeder

GFJ-ADJ-A
5/8"-18 Male x 5/8"-18 Female

GFJ-ADJ-B
1/4"-18 Male NPT x 5/8"-18 Female NPT

GFJ-ADJ-C
1/4"-18 Male NPT x 1/4"-18 Female NPT

GFJ-ADJ-D
1/4"-19 Male BSPP x 1/4"-19 Female BSPP

ADJUSTABLE GAS SAVER OPTIONS

Part No.	Description
GFJ-ADJ-A	5/8"-18 Male x 5/8"-18 Female
GFJ-ADJ-B	1/4"-18 Male NPT x 5/8"-18 Female NPT
GFJ-ADJ-C	1/4"-18 Male NPT x 1/4"-18 Female NPT
GFJ-ADJ-D	1/4"-19 Male BSPP x 1/4"-19 Female BSPP

GAS SAVINGS AS A RESULT OF ELIMINATING GAS SURGE UPON ARC START

Spikes represent gas surge at arc start **without** gas saver installed

- Flow Meter
- Gas Saver
- Gas Savings

Gas Savings

CFH / TIME (SEC)

WIRE WIZARD WELDING PRODUCTS
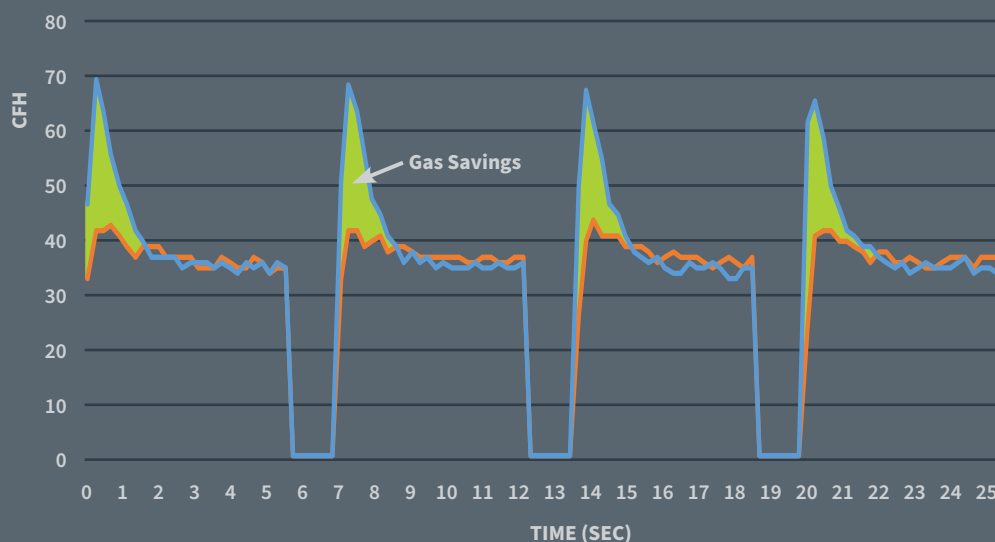
DRUM & REEL HANDLING EQUIPMENT

Universal Drum Dolly
FDD-MD
For drums/ boxes 25" (635 mm) and under

UNIVERSAL DRUM DOLLIES *FDD-MD or FDD-MD-LD*

▶ Reversible design for large and small wire packages

▶ Textite wheels and roller bearings for ease of rollability

▶ Also compatible with 55 gallon drums of anti-spatter

▶ Accommodates round, square and octagon wire drums up to 25" (635 mm) in diameter. Use WWSD for 26" (660.4 mm) packages.

▶ Standard UPS shipping available

Large Universal Drum Dolly
FDD-MD-LD
For drums/boxes between 25 – 30" (635 – 762 mm)

SPECIFICATIONS

▶ Deck Height: 4.25" (108 mm)   ▶ Weight: 24 lbs (10.4 kg)   ▶ Capacity: 1,200 lbs (544 kg)

SKID DOLLY *WWSD*

Capable of handling up to 1,200 pounds, this dolly can be used with all drums/boxes on skids or pallets measuring 27 inches square or smaller. Four solid Textite roller bearing wheels make transporting a drum simple. Can be assembled in a lip up or lip down configuration depending on customer needs.

SPECIFICATIONS

▶ Deck Height: 4.5" (114.3 mm)

▶ Dimensions: 5" (127 mm) H x 27.5" (698.5 mm) L x 27.5" (698.5 mm) W

▶ Capacity: 1,200 lbs (544 kg)

▶ Weight: 38 lbs (17.24 kg)

Skid dolly

DRUM LIFTER *FDL*

▶ Spring loaded clamp design holds drum firmly in place

▶ For fiber or steel drums (chimed only)

▶ Accepts diameters from 18.5" – 26" (470 mm – 660.4 mm)

▶ 1,200 lb (544 kg) capacity

Shown with FDL-FA

Note: Drum rim must be within 1" (25.4 mm) of the top of the drum. Content weight must not exceed the drum manufacturers' packing limit. Drums must be closed with lids properly sealed. Not for lifting over 10" (254 mm) high.

FORK LIFT ADAPTER *FDL-FA*

▶ Adjustable T-handle keeps adapter from sliding off fork

▶ Safety style clasp secures adapter to drum lifter

▶ 1,200 lb (544 kg) capacity

21" DRUM LIFTER (NON-ADJUSTABLE) *FDL-21*

▶ Our most affordable drum lifter

▶ Accepts 20" – 21" (508 – 533 mm) drum diameters

▶ 1,200 lb (544 kg) capacity

24" DRUM LIFTER (NON-ADJUSTABLE) *FDL-24*

▶ Accepts 23" – 24" (584 – 610 mm) drum diameters

▶ 1,200 lb (544 kg) capacity

DRUM LIFTER LOAD TEST CERTIFICATIONS ARE AVAILABLE ON OUR WEBSITE AT *WIRE-WIZARD.COM*

OVERHEAD SAFETY LIFTER *FDL-OSL*

The Overhead Safety Lifter is designed to safely lift drums and environmental packages of wire overhead by attaching to Wire Wizard® drum and skid dollies. Each lifter includes the lifting device, heavy duty chains and adapter kit for drum and skid dollies. Fork lift adapter sold separately.

▶ Safely lifts drums or environmental packs overhead by attaching to Wire Wizard® Drum and Skid Dollies

▶ Ideal for overhead welding applications where drums are above the cell

▶ Compatible with the following Wire Wizard® drum and skid dollies: FDD-21-12, FDD-24-12, WWSD

▶ 1,500 lb (680 kg) lifting capacity

▶ **Required for lifting drums over 10" (254 mm) off the floor**

Part No.	Description
FDL-OSL-MD-K	Overhead Safety Lifter Kit with FDD-MD Dolly (up to 25"/635 mm drums)
FDL-OSL-LD-K	Overhead Safety Lifter Kit with FDD-MD-LD Dolly (for 25 – 30"/635 – 762 mm drums)
FDL-OSL-SD-K	Overhead Safety Lifter Kit with WWSD Skid Dolly

HEAVY DUTY DRUM STAGING CART *FDSC*

Designed for one person to transport up to 1,200 pound (544 kg) wire drums. The hinged handle stores upright for pushing and outward to give added leverage for easy steering. Non-conductive Textite 6" (152.4 mm) roller bearing wheels and 3" (76.2 mm) front swivel caster provide smooth movement and maximum maneuverability over all surfaces.

▶ Transports drums up to 24" (610 mm) in diameter

▶ Optional positive locking brake system *(add "B" to part number)*

▶ Suitable for UPS shipping

SPECIFICATIONS

▶ Deck Height: 1.5" (38.1 mm)   ▶ Capacity: 1,200 lbs (544 kg)   ▶ Width: 30" (762 mm)

▶ Depth: 26" (660.4 mm)   ▶ Height: 40" (1.02 m)   ▶ Weight: 43 lbs (19.5 kg)

Part No.	Description
FDD-MD	Universal Drum Dolly for wire packages 25" (635 mm) and under
FDD-MD-LD	Large Universal Drum Dolly for wire packages 25 – 30" (635 – 762 mm)
FDSC	Heavy Duty Drum Cart — up to 24" Drum Diameter

HEAVY DUTY WOOD REEL DOLLY *WRD-18*

▶ Specifically designed to transport wood reel and cover

▶ All steel construction built for rugged industrial use

▶ Convenient, reversible and removable handle

▶ Heavy duty 6" (152.4 mm) Textite swivel and rigid roller bearing casters

▶ Locking swivel wheels standard

SPECIFICATIONS

▶ Deck Height: 9.24" (235 mm)

▶ Dimensions: 41.36" (1,051 mm) H x 39.5" (1,003 mm) L x 24.375" (619 mm) W

▶ Capacity: 1,400 lbs (635.6 kg)

▶ Weight: 65 lbs (29.5 kg)

TOOLS & MAINTENANCE EQUIPMENT

WIRE FEED SPEED SENSOR *HHSS-12*

This hand-held, battery operated tachometer incorporates the latest single chip micro-circuit technology for high reliability and low maintenance. Capable of measuring and retaining RPH, RPM, FPH, FPM and MPH. Standard accessories include: 3-1/2" (89 mm) extension shaft, one funnel and two cone adapters, master wheel (6"/152 mm) and carrying case. Designed for accurate wire feed speed measurement at the torch end.

Manual application only. Does not take continuous readings.

- ▶ Plugs into existing wire system and conduit
- ▶ Handles wire diameters from 0.030 – 0.125 (0.8 – 3.2 mm)
- ▶ Rugged aluminum construction with Delrin wire guide head
- ▶ Displays wire speed with automatic floating decimal point
- ▶ Large 13 test memory selectable to 5 minutes or more

HHSS-12 obtaining measurement at the torch end

WIRE DRAW GAUGE *WWPT*

The electronic Wire Wizard® **Wire Draw Gauge** is designed to accurately measure the draw weight of all diameters of weld wire pulling through the conduit. This allows the operator to determine if the conduit needs to be changed by the amount of strain the wire is creating on the feed motor. Hand-held, battery powered (9 V).

- ▶ Capable of averaging 10 pulls of wire, storing the largest draw
- ▶ Measures in English or metric at the touch of a button
- ▶ Easy to read 5-digit LCD display
- ▶ Ergonomic plastic housing with standard storage case
- ▶ Max pull weight: 12 lb (5.4 kg)

MULTIFUNCTION WIRE & WELDING PLIERS *EL-WP*

INCLUDES TOOL BELT POUCH

- ▶ Rounded tips for sharply bending wire for easy feeding through the wire delivery system
- ▶ Ideal for servicing and maintaining consumables and removing spatter build-up
- ▶ Heavy duty chrome vanadium steel
- ▶ Includes convenient belt pouch
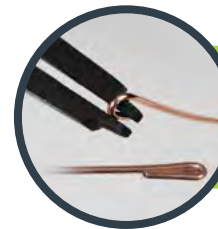
BENDS WIRE FOR EASY FEEDING THROUGH SYSTEM

POLYMER CONDUIT CUTTER & COUNTERSINK TOOL

The heavy duty EC-CUTTER is designed to trim all sizes of polymer conduit with ease. Heat treated steel cutting blade. 8.5" (216 mm) long. Use the EC-DB ratcheting Countersink Tool for countersinking the ends of polymer conduit (required for proper installation).

EC-CUTTER

EC-DB

DRY ICE CLEANING EQUIPMENT

NU-ICE AGE DRY ICE CLEANING EQUIPMENT

Wire Wizard® offers the Nu-Ice Age line of dry ice blasting equipment, excellent for weld cell cleaning and other plant maintenance applications. Dry ice blasting is a process where dry ice (solid CO_2) pellets are accelerated in a pressurized air stream to clean or prepare a surface. Through sublimation, where CO_2 instantly changes from a solid to a gas, the pellets create mini-explosions upon impact to effectively clean nearly any surface. Dry ice blasting is the ideal cleaning method for weld cells and other areas of the plant, including tooling, exhaust and ventilation systems. The key advantages of dry ice blasting are that it leaves behind no secondary waste (CO_2 evaporates) and most equipment and machinery can be cleaned in place without any disassembly or cooling, reducing downtime for maintenance.

- ▶ **Easy to use** with minimal training required
- ▶ **CO_2MMANDO 40 model can function with standard shop air!**
- ▶ Compact size and wheels make this machine **easy to transport and maneuver** while cleaning
- ▶ Adjustable blast pressure and pellet feed rate
- ▶ Static ground cable included to reduce the risk of static electric shock in certain blasting applications
- ▶ Each Dry Ice Blasting Machine includes required hoses, blast gun, extension and a short round and fan nozzle (see below).

DRY ICE BLASTING BENEFITS

- ▶ Environmentally friendly — no chemicals or harmful vapors!
- ▶ Non-flammable/non-conductive
- ▶ Does not generate any secondary waste
- ▶ Removes residue, spatter, slag, grease, oils and more
- ▶ Most equipment can be cleaned in place without any disassembly or cooling, reducing downtime

For more information and cleaning demonstration videos, visit *nuiceage.com*.

All Pneumatic Dry Ice Blaster
CO_2MMANDO 40

PROUDLY MADE

Dry Ice Blaster
CO_2MMANDO 55

Welding Fixture — Before and After

BLASTING GUN & NOZZLES *Additional Nozzles/Extensions available*

Long Aggressive Nozzle

Non-abrasive nozzle adapter for blasting delicate surfaces

Fan Nozzle

Wide Fan Nozzle

Blasting Gun (includes LED light)

WIRE WIZARD WELDING PRODUCTS

ALPHA-NUMERIC PARTS INDEX

SHIPPING & TERMS

ELCO ENTERPRISES, INC. OFFERS UPS SHIPPING FROM OUR REGIONAL DISTRIBUTION CENTERS, INCLUDING:

- ▶ Ground (see maps)
- ▶ Next Day Air
- ▶ 2nd Day Air
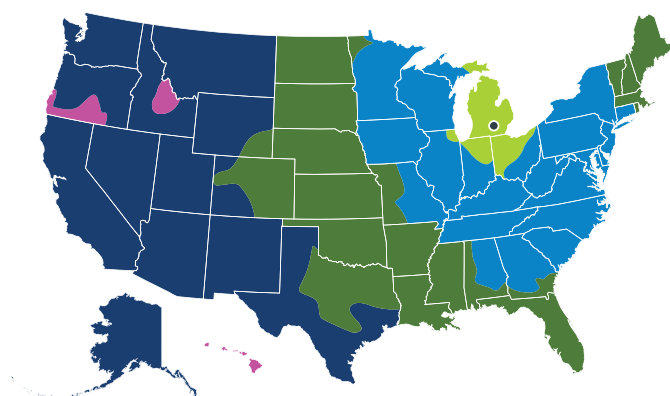- ▶ 3 Day Select
- ▶ International Service

SHIPPING TRANSIT TIMES FOR UPS GROUND

Canada orders ship from our distribution center located in Windsor, Ontario.

Orders may also be available for pick up from our Distribution Center locations.

| 1 day | 2 days | 3 days | 4 days | 5 days |

JACKSON, MI HEADQUARTERS
5750 Marathon Drive
Jackson, MI 49201
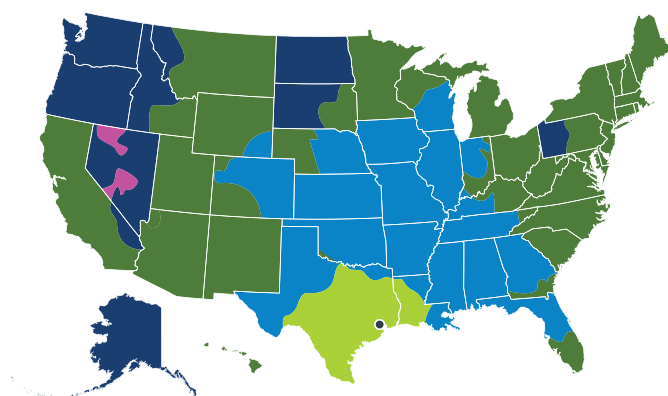
HOUSTON, TX DISTRIBUTION CENTER
8811 C Wallisville Rd.
Houston, TX 77029
Also provides fast shipping to Mexico (transit times will vary)

TERMS AND CONDITIONS

"We," "us," and "our" refer to ELCo Enterprises, Inc.

ORDERING
Our customer support staff is available Monday-Friday, 8:00am-5:00pm (EST) at our main office by calling 517-782-8040. Any orders placed after 3:00pm for same day shipping will be charged a $50.00 expedite fee. We can also be reached by fax 24 hours a day, seven days a week. When ordering, please state your company's "bill to" and "ship to" address, purchase order number, part number, quantity, item description, and any special shipping instructions. All purchases will be shipped UPS ground unless otherwise specified. Items too large for UPS, will be shipped by commercial carrier.
$75 minimum order.

NOTE
Purchases cannot be delivered to post office boxes.

SPECIAL ORDERS
If a specialized part is required, please consult our customer support staff for a quote. There are no returns on special order items.

TERMS
All orders placed on account are net 30 days. Unpaid balances are subject to a 1.5% per month late charge. COD orders are accepted if payment is in the form of a company check, certified check, or money order.

RETURNS
All returns must be in new condition and authorized by ELCo by use of a Returned Merchandise Authorization Number (RMA) within 30 days of the purchase date. Returns are subject to a 20% restocking fee.

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WIRE WIZARD® WIRE DELIVERY EQUIPMENT
POWERBALL® & E-POWER® TORCH PRODUCTS
LOW FRICTION CONDUIT & CONNECTORS
WIRE WIZARD® GUIDE MODULE® SYSTEM
WIZARDGEAR® CABLE MANAGEMENT
BLUE MAGIC® & BLUE CHILL® ANTI-SPATTER
TORCH WIZARD® CLEANING STATIONS
WELD CENTRAL® OPTIMIZATION SYSTEM
DRUM & REEL HANDLING EQUIPMENT

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WEMCO
An Association of Welding Manufacturers

NaVOBA
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GAWDA
GASES AND WELDING DISTRIBUTORS ASSOCIATION

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