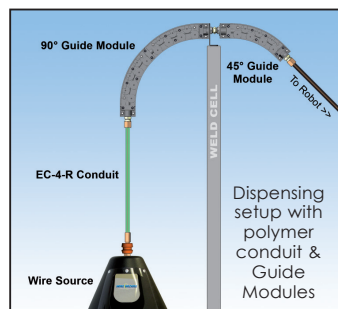




Featuring advanced polymer formula for extended wear and durability!

GREEN POLYMER CONDUIT
With connector options



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, moving feed units and is also the recommended conduit for aluminum wire applications. EC-3-R & EC-4-R conduits feature an advanced polymer formula for extended wear and durability.

- **Available in four sizes:** EC-3-R for light wire; EC-4-R for standard wire sizes; EC-5 & EC-6 for large wire
- Available in pre-cut lengths with attached self-threading bayonets or in bulk 50', 100', 250' or 500' rolls (15.2m, 30.5m, 76.2m or 152.4m)
- Ideal for ferrous & 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

CONNECTOR OPTIONS & INSTALLATION TOOLS



Self-threading
"screw-on" style fitting



Compression style fitting
with ferrule



EC-DB



EC-CUTTER

P/N	CONDUIT DIMENSIONS	CONNECTOR TYPE		REPLACE FERRULE
		SELF THREAD	COMPRESSION	
EC-3-R*	.175 ID (4.4mm) x .340 OD	A-16F-3	or A-10C-S	A-10SFE
EC-4-R*	.300 ID (7.6mm) x .460 OD	A-16F-4	or A-10C-H	A-10CFE
EC-5	.400 ID (10.2mm) x .600 OD	A-16F-5	or A-10R	A-10RFE
EC-6	.550 ID (14mm) x .750 OD	A-16F-6	or A-9/A-6	A-9FE

*EC-3-R & EC-4-R are cross-linked polymer conduits, ideal for robotic applications

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

P/N	LENGTH
EC4-120	120" – 10 ft (3m)
EC4-180	180" – 15 ft (4.6m)
EC4-240	240" – 20 ft (6.1m)
EC4-300	300" – 25 ft (7.6m)

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

P/N	LENGTH
EC5-120	120" – 10 ft (3m)
EC5-180	180" – 15 ft (4.6m)
EC5-240	240" – 20 ft (6.1m)
EC5-300	300" – 25 ft (7.6m)

EC-6 PRE-CUT CONDUIT* A-16F-6 Bayonet Attached

P/N	LENGTH
EC6-120	120" – 10 ft (3m)
EC6-180	180" – 15 ft (4.6m)
EC6-240	240" – 20 ft (6.1m)
EC6-300	300" – 25 ft (7.6m)

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



QUALITY TESTED FOR MAXIMUM DURABILITY!

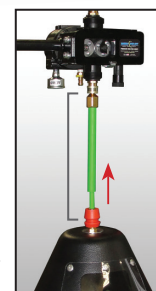
We tested the flexural strength of our EC-3-R & EC-4-R advanced polymer conduit against a leading competitor by continuously flexing it back & forth until it finally cracked. **Our conduit survived this rigorous test over 70 TIMES longer than the leading competitor. The results speak for themselves!**

Flexural Strength
Testing Device

TELESCOPING CONDUIT QUICK DISCONNECT KIT

Model EC-TCD

Slides up to allow easy wire changeover. Includes polymer conduit & connector ends. Extends to 5' (1.5m).



BULK CONDUIT

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

P/N	P/N EXTENSION (LENGTH IN FT)
EC-3R-	50-B, 100-B, 250-B or 500-B
EC-4R-	50-B, 100-B, 250-B or 500-B
EC-5-	50-B, 100-B, 250-B or 500-B
EC-6-	50-B, 100-B, 250-B or 500-B

Our most flexible 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 (30.5m) bulk coils, or by the foot. All Extra Flexible Conduit now features a spatter resistant outer jacket, low friction smooth-feed wire coating and patent pending elliptical wire spring liners.

- ▶ **Available in four sizes:** FC-X - Standard; FC-XH - Heavy Duty; FC-XH-LW - For lg. diameter wire; FC-X-SW - For sm. diameter wire
- ▶ Available in 1 to 100 ft (305mm to 30.5m) continuous length coil
- ▶ Ideal for high mobility applications, such as inside the weld cell
- ▶ FC-X and FC-XH are available in cut lengths with attached bayonets on each end (swaged style)
- ▶ Compression or swaged style connectors available



COMPRESSION SWAGED

EXTRA FLEXIBLE CONDUIT
Shown as cut length with
connector options

P/N	DIMENSIONS	CONNECTOR / FERRULE	
FC-X-SW	.090 ID (2.3mm) x .353 OD (9mm)	A-10C-S	A-10SFE
FC-X	.241 ID (6.1mm) x .500 OD (12.7mm)	A-10C-X	A-10XFE
FC-XH	.291 ID (7.4mm) x .610 OD (15.5mm)	A-10R	A-10RFE
FC-XH-LW	.390 ID (10mm) x .750 OD (19mm)	A-9/A-6HD	A-9-FE



FC-X CONDUIT (EXPLODED VIEW)



STEEL STRAIN RELIEF OPTION
Recommended for high mobility applications



POLYMER STRAIN RELIEF OPTION (-ST)
Recommended for light mobility applications

Conduit Color Coding - Pre-cut lengths are color-coded as follows:

10 FT (3m) RED

15 FT (4.6m) WHITE

20 FT (6m) YELLOW

25 FT (7.6m) BLUE

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

P/N	LENGTH
FCXS-120	120" – 10 ft (3m)
FCXS-180	180" – 15 ft (4.6m)
FCXS-240	240" – 20 ft (6.1m)
FCXS-300	300" – 25 ft (7.6m)

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

P/N	LENGTH
FCXHS-120	120" – 10 ft (3m)
FCXHS-180	180" – 15 ft (4.6m)
FCXHS-240	240" – 20 ft (6.1m)
FCXHS-300	300" – 25 ft (7.6m)

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

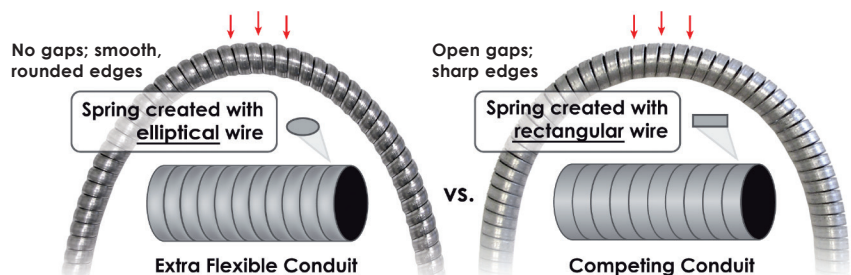
P/N	LENGTH
FC-X-SW-B	100 ft (30.5m)
FC-X-B	100 ft (30.5m)
FC-XH-B	100 ft (30.5m)
FC-XH-LW-B	100 ft (30.5m)

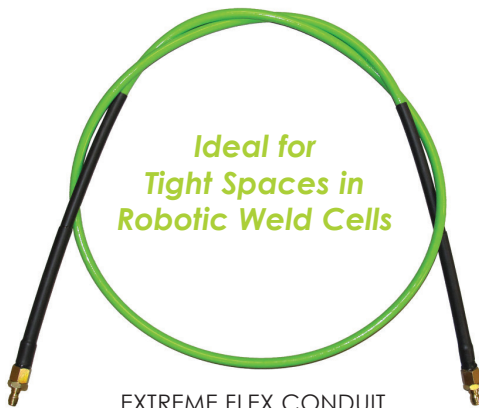
Add "ST" to end of part # for polymer strain relief, "SR" for steel strain relief
Delete "S" from part number for compression connections

* Custom pre-cut lengths available,
contact customer service for details

ELLIPTICAL WIRE LINERS PATENT PENDING

All ELCo spring 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 ELCo & a typical spring liner.





EXTREME FLEX CONDUIT
Shown as cut length with
connectors and strain reliefs



POLYMER STRAIN RELIEF
Included on all pre-cut lengths

EXTREME FLEX CONDUIT

The new **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 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 in pre-cut lengths with attached connectors, fittings are available for both Wire Wizard® or Panasonic® style quick disconnects as well as threaded disconnects
- ▶ Suitable for steel wire sizes up to .052 (1.3mm)
- ▶ Polymer strain reliefs included on all pre-cut lengths for enhanced strength at connection points

Flexible outer
jacket



Patent pending low
friction elliptical wire liner

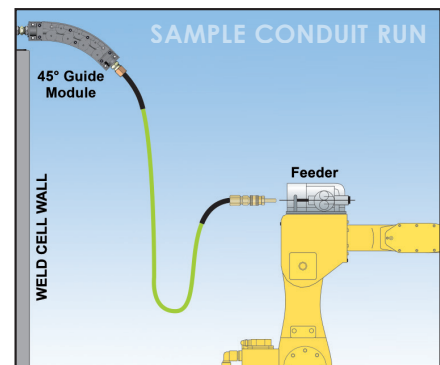
FC-E CONDUIT (EXPLODED VIEW)

P/N	DIMENSIONS	CONNECTORS
FC-E	.241 ID (6.1mm) x .440 OD (11.2mm)	See Below

FC-E CONDUIT CONNECTOR OPTIONS FOR PRE-CUT LENGTHS

Connectors are included on all pre-cut lengths

P/N	DESCRIPTION
A-16M-P1	Male connector for Wire Wizard® quick disconnect
A-16M-P2	Male connector for Panasonic style quick disconnect
A-11E-2	Swaged threaded connector for A-16M-P1 or A-16M-P2
A-11E-1A	Coupler fitting for threaded disconnects
A-11E-1B	Nut for attachment to threaded disconnects (inc. w/A-11E-1A)



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

FC-E PRE-CUT CONDUIT* with Swaged Fittings & Polymer Strain Reliefs (both ends) for Wire Wizard® Disconnects

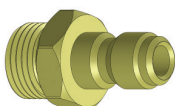
P/N	LENGTH
FCE-3.0-WW	118" – 9.8 ft (3m)
FCE-5.0-WW	197" – 16.4 ft (5m)
FCE-7.5-WW	295" – 24.6 ft (7.5m)
FCE-10.0-WW	394" – 32.8 ft (10m)

FC-E PRE-CUT CONDUIT* with Swaged Fittings & Polymer Strain Reliefs (both ends) for Panasonic® Disconnects

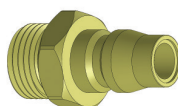
P/N	LENGTH
FCE-3.0-P	118" – 9.8 ft (3m)
FCE-5.0-P	197" – 16.4 ft (5m)
FCE-7.5-P	295" – 24.6 ft (7.5m)
FCE-10.0-P	394" – 32.8 ft (10m)

FC-E PRE-CUT CONDUIT* with Screw-on Fittings & Polymer Strain Reliefs (both ends) for Threaded Disconnects

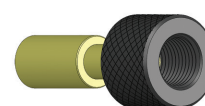
P/N	LENGTH
FCE-3.0-A	118" – 9.8 ft (3m)
FCE-5.0-A	197" – 16.4 ft (5m)
FCE-7.5-A	295" – 24.6 ft (7.5m)
FCE-10.0-A	394" – 32.8 ft (10m)



A-16M-P1
Wire Wizard® style fitting
included with **-WW** pre-
cut FC-E conduit



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



A-11E-1A & A-11E-1B
Threaded disconnect
fitting included with **-A**
pre-cut FC-E conduit

*Custom pre-cut lengths available, contact customer service for details.

RECOMMENDED 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**



		DISTANCE & RECOMMENDED CONDUIT					
WIRE TYPE	SIZE (INCHES/MM)	1-10 FT (1-3 M)		11-20 FT (3-6 M)		OVER 20 FT (6 M)	
		STATIONARY	ROBOTIC	STATIONARY	ROBOTIC	STATIONARY	ROBOTIC
Steel	.025"/0.6 mm	EC-3-R	FC-X-SW/EC-3-R	EC-3-R	FC-X-SW/EC-3-R	EC-3-R	FC-X-SW/EC-3-R
Steel	.030"/0.8 mm	EC-3-R	FC-X-SW/EC-3-R	EC-3-R	FC-X-SW/EC-3-R	EC-4-R	FC-X/EC-4-R
Steel	.035"/0.9 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	.040"/1 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	.045"/1.1 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	.052"/1.3 mm	EC-4-R	FC-X/EC-4-R	EC-4-R	FC-X/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-6	FC-XH-LW
Steel	1/8"/3.2 mm	EC-6	FC-XH-LW	EC-6	FC-XH-LW	EC-6	FC-XH-LW
Steel	5/32"/4 mm	EC-6	FC-XH-LW	EC-6	FC-XH-LW	EC-6	FC-XH-LW
Aluminum	.025"/0.6 mm	EC-3-R*	EC-3-R	EC-3-R	EC-3-R	EC-3-R	EC-3-R
Aluminum	.030"/0.8 mm	EC-3-R*	EC-3-R	EC-3-R	EC-3-R	EC-3-R	EC-3-R
Aluminum	.035"/0.9 mm	EC-3-R*	EC-3-R	EC-4-R	EC-4-R	EC-4-R	EC-4-R
Aluminum	3/64"/1.2 mm	EC-4-R	EC-4-R	EC-4-R	EC-4-R	EC-4-R	EC-4-R
Aluminum	1/16"/1.6 mm	EC-4-R	EC-4-R	EC-4-R	EC-4-R	EC-4-R	EC-4-R
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	.035"/0.9 mm	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X
Cored - Steel	.045"/1.1 mm	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X
Cored - Steel	.052"/1.3 mm	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X	EC-4-R/FC-X
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-6	FC-XH-LW	EC-6	FC-XH-LW	EC-6	FC-XH-LW
Stainless	.035"/0.9 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
Stainless	.045"/1.1 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
Stainless	.052"/1.3 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
Stainless	1/16"/1.6 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH
Silicon Bronze	.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/EC-4-R
Silicon Bronze	.035"/0.9 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
Silicon Bronze	.045"/1.1 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
Silicon Bronze	1/16"/1.6 mm	EC-5	FC-XH	EC-5	FC-XH	EC-5	FC-XH

**Ideal size for pushing or pulling aluminum wire*

Note: The new FC-E Extreme Flex conduit may also be used in many robotic applications where FC-X is listed above.