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QUICK SPECS

DUTY CYCLE RATING

100%: 350 AMP w/ Mixed Gases

100%: 500 AMP w/ CO₂

60%: 500 AMP w/ Mixed Gases

60%: 650 AMP w/ CO₂

PROCESSES

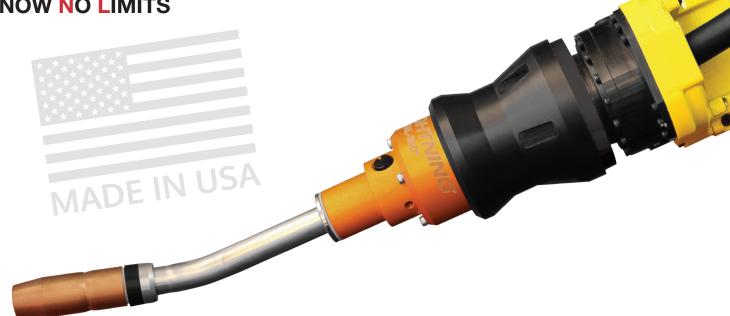
MIG (GMAW) Welding

COMPATIBLE ROBOTS

ABB®, OTC Daihen®, FANUC®, KUKA®, Motoman®, Panasonic®

THRU-ARM ROBOTIC TORCHES







Repeatable TCP

Perform repeated, programmed movements with the highest degree of accuracy and spoton precision, saving time and boosting productivity.



Infinite Rotation

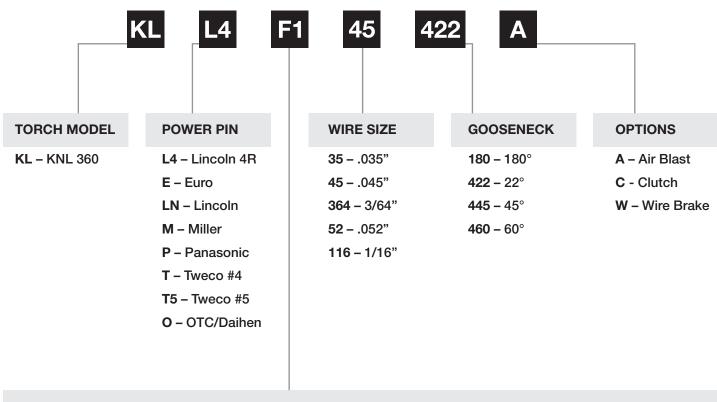
Reduce programming time and wasted air time. For circular welds, KNL-360° reduces per-piece costs compared to old technologies.



Zero Cable Torsion

No matter how much the torch rotates, the cable never twists or tears. This extends the life of the cable and consumables dramatically.

KNL-360° PARTS NUMBERING SYSTEM



ROBOT	. WO	DEL
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A1 – ABB 1520iD	F4 - FANUC 100iC/6L, 100iC/12L	M2 - Motoman EA & MA 1900N
A2 – ABB 1600iD	F5 - FANUC 120iC/10L, 120iC/12L	M3 - Motoman MA1440
A3 – ABB1660iD	F6 - FANUC 100iC/8L	M4 - Motoman MA2010
A 4 – ABB2600iD	F7 - FANUC 100iD, 100iD-12	M5 - Motoman MA3100
D1 - OTC Daihen AX-V 4	F8 - FANUC 100iD-8L	M6 - Motoman MA3120
D2 - OTC Daihen AX-V 4L	F9 - FANUC 100iD-10L	P1 - Panasonic TB1100/1400
D3 - OTC Daihen All-B4, FD-B4	F10 - FANUC 120iD	P2 - Panasonic TB1800
D4 - OTC Daihen All-B4L, FD-B4L	K1 – KUKA KR5 HW	P3 - Panasonic TM1400
F1 - FANUC 710iC/12L	K2 – KUKA KR16HW	P4 - Panasonic TM1800
F2 - FANUC 100iC, 100iC/12L	K3 – KUKA KR16 L8 HW	P5 - Panasonic TM1600
F3 - FANUC 120iC	M1 - Motoman EA & MA1400N, SSA2000	P6 - Panasonic TM2000

KNL-360°

For Through-Arm Robots

ANTI-SEIZE ROTATION CABLE

Features & Benefits

Product Shown Without Insulator

Bigger Rotational Surface Area & Silver-Plated Spring

Silver plated springs, and large conical surfaces, allow for superior electrical flow and conductivity.

More Robust Joint

For better heat dissipation.

Under Constant Pressure

Rotating contact surfaces under constant pressure in order to stay connected and eliminate amperage and voltage jumps.

Got Grease?

With built-in pockets our conical rotating surfaces can be packed with more grease for a longer lasting, smoother rotating joint.

Free Of Cable Strain

Significantly increase your cable life with torsion free cable. You eliminate the concern of accelerating cable wear while rotating on the sixth axis.

Infinite Rotation

Our Infinite rotation cable and joint allows for ease of programing. Reduce your weld cycle times with no need for reorientation of the cable on the sixth axis. There are no wasted air moves; which allows you to create the most efficient weld path possible. All while the cable remains torsion free.



KNL360 ROBOTIC CABLES

		ASR Rob	ootic Cables	5th Axis Cable*		
ROBOT BRAND	ROBOT MODEL	SOLID MOUNT	CLUTCH MOUNT	SOLID MOUNT	CLUTCH MOUNT	
	KR 5 arc HW	64-SK023	64-CK023	64-SK023-CR	64-CK023-CR	
KUKA®	KR 16 arc HW	64-SK030	64-CK030	64-SK030-CR	64-CK030-CR	
	KR 16 L8 HW	64-SK027	64-CK027	64-SK027-CR	64-CK027-CR	
	EA1400 XRC	64-SM016	64-CM016	64-SM016-CR	64-CM016-CR	
	EA1900 XRC	64-SM017	64-CM017	64-SM017-CR	64-CM017-CR	
	EA1400N, SSA2000, MA1400, VA1400	64-SM001	64-CM001	64-SM001-CR	64-CM001-CR	
Motoman [®]	MA1440, AR1440, MH12	64-SM035	64-CM035	64-SM035-CR	64-CM035-CR	
	EA1900N	64-SM002	64-CM002	64-SM002-CR	64-CM002-CR	
	MA2010, AR2010	64-SM038	64-CM038	64-SM038-CR	64-CM038-CR	
	MA3100, MA3120	64-SM031	64-CM031	64-SM031-CR	64-CM031-CR	
	MH24, AR1730	64-SM039	64-CM039	64-SM039-CR	64-CM039-CR	
	IRB1600ID, IRB1520ID	64-SA024		64-SA024-CR		
ABB®	IRB2600ID-15/1.85	64-SA028		64-SA028-CR		
	IRB2600ID-8/2.00	64-SA029		64-SA029-CR		
	IRB1660ID	64-SA030		64-SA030-CR		
	100iC, 100iC-12	64-SF005		64-SF005-CR		
	100iC-6L, 100iC-7L	64-SF007		64-SF007-CR		
	100iC-8L	64-SF010		64-SF010-CR		
FANUC®	120iC	64-SF006		64-SF006-CR		
	120iC-10L, 120iC-12L	64-SF008		64-SF008-CR		
	M10iA-6L, M10iA-7L	64-SF007		64-SF007-CR		
	100ID					

^{*5}th Axis Cable- Designed to improve cable life in applications with a large degree of bend at the 5th axis and 6th axis not exceeding 180° rotation.

CLUTCH

Clutch mount designed to trigger emergency stop in robotic collisions to protect your torch.



INSULATING DISK

Lightning insulating discs offer superior insulation protecting your robot from damage due to weld currents. Available with various bolt patterns for all major brands of robots.



GOOSENECKS

Lightings standard gooseneck sizes including 22°, 45°, and 180° and support repeatability and TCP eliminating touch up. Customized necks are available upon request.



QUICK SPECS

TYPEAMPERAGECABLE LENGTHGOOSENECKRobotic5004' - 10', plus custom lengths22°, 45°, plus custom angles

WIRE SIZE COMPATIBILITY

.030 – .052 Compatible with a complete range of welding machines. 1/16" – 5/64" Adapters are also available for most wire feeders.

OVER-ARM ROBOTIC MIG

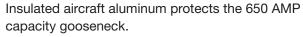


Inner Armor

Protective inner armor – a brass alloy insert – guards against wear and extends nozzle life.

The cool-running Lightning® tapered-seat contact tip is designed to dissipate heat quickly through increased surface area, and maximize electrical conductivity.

Dual start-point threads allow re-seating of the tip when wire wear begins to affect performance. Just rotate the tip counterclockwise 180° to a new wear-point and double the life of the contact tip.

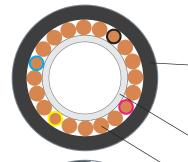




Hard Body

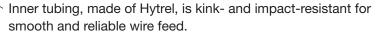
Solid-body design created from aircraft aluminum that stands up to extreme impact.

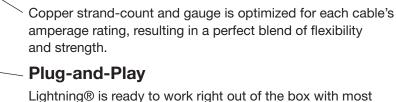




Defensive Shield

The secret behind Lightning®'s super tough cable is electronbeam accelerators that modify and strengthen the outer cover. This protective shield guards against tearing, stretching and abrasion.

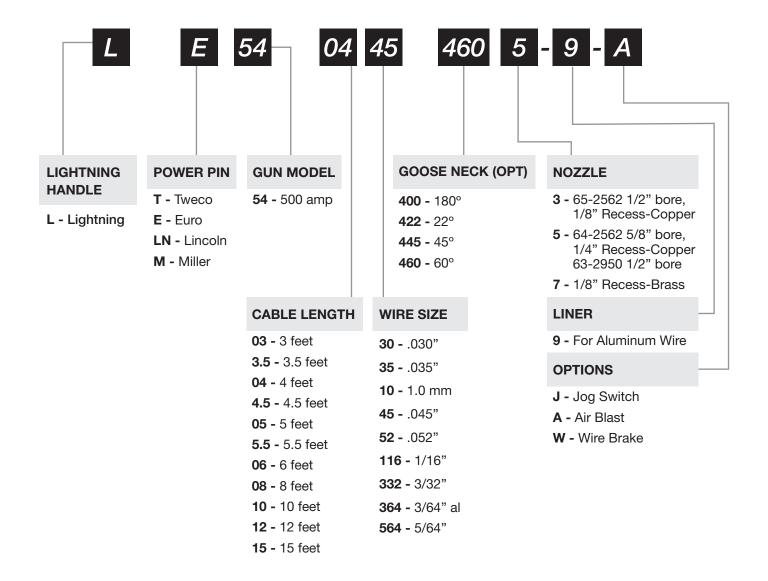




Lightning® is ready to work right out of the box with most popular welding systems. Components are designed for quick, easy switch-outs.



ROBOTIC MIG PART NUMBERING SYSTEM



INSULATING DISK

Lightning insulating discs offer superior insulation protecting your robot from damage due to weld currents. Available with various bolt patterns for all major brands of robots.



SOLID MOUNT

High strength aluminum replacement for the pneumatic clutch.



ROBOTIC MOUNTING ARMS

High Strength aluminum mounting arm offering a key-way connection assuring repeatability in torch location.



CLUTCH

Compatible with legacy Lightning G1 Series MIG Guns, the original Lightning Clutch is designed to e-stop your robot with a deflection of only 1° in the event of a robotic collision.

REAMING BLADES

ATTCs cutter blades are designed using harder and more durable materials reducing breakage, cracking or chipping.

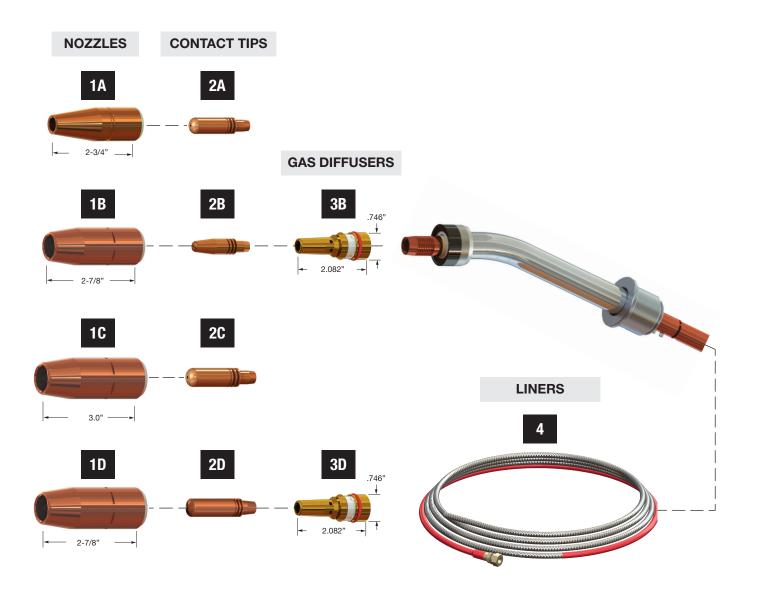


GOOSENECKS

Lightings standard gooseneck sizes including 22°, 45°, and 180° and support repeatability and TCP eliminating touch up. Customized necks are available upon request.



ROBOTIC CONSUMABLES



ROBOTIC CONSUMABLES

1.	1. NOZZLES - SLIP-ON I.D.						
Α	63-2138	Nozzle Std. Flush	3/8"	(09.5mm)			
	63-2662	Nozzle 1/8" Stick-Out	5/8"	(15.9mm)			
В	63-2150	Nozzle Std. 1/8" Tip Recess	1/2"	(12.7mm)			
	63-2162	Nozzle Std. 1/8" Tip Recess	5/8"	(15.9mm)			
	63-2175	Nozzle Std. 1/8"Tip Recess	3/4"	(19.1mm)			
С	64-2562	Nozzle HD* Cu 1/4" Tip Rec.	5/8"	(15.9mm)			
	64-2575	Nozzle HD Cu 1/4" Tip Rec.	3/4"	(19.1mm)			
D	65-2550	Nozzle HD Cu 1/8" Tip Rec.	1/2"	(12.7mm)			
	65-2562	Nozzle HD Cu 1/8" Tip Rec.	5/8"	(15.9mm)			
	65-2575	Nozzle HD Cu 1/8" Tip Rec.	3/4"	(19.1mm)			
	64-2950	Nozzle Bottleneck 1/8 STKT	1/2"	(12.7mm)			
	63-2950	Nozzle Bottleneck 1/8 REC	1/2"	(12.7mm)			
	65-2662	Nozzle HD 1/8 STKT	5/8"	(15.9mm)			
	65-2362	Nozzle HD Brass 1/8 STKT	5/8"	(15.9mm)			
	64-2962	Nozzle Flush	5/8"				
Als	o available						
	65-2862	Nozzle Flush	5/8"				
	63-2362	Nozzle 1/8" Stick Out	5/8"				
	65-2375	Nozzle 1/8" Recess	3/4"				
	64-2387	Nozzle 1/4" Recess	7/8"				
	63-2762	Nozzle 1/4" Stick-out	5/8"				
1.	NOZZLES	- THREAD-ON	I.	.D.			
Α	63-2662-T	Nozzle 1/8" Stick-Out	5/8"	(15.9mm)			
В	63-2150-T	Nozzle Std. 1/8" Tip Recess	1/2"	(12.7mm)			
_	63-2162-T	Nozzle Std. 1/8" Tip Recess	5/8"	(15.9mm)			
	63-2175-T	Nozzle Std. 1/8"Tip Recess	3/4"	(19.1mm)			
С	64-2562-T	Nozzle HD* Cu 1/4" Tip Rec.	5/8"	(15.9mm)			
Ď	63-2950-T	Nozzle Bottleneck 1/8 REC	1/2"	(12.7mm)			
	64-2950-T	Nozzle Bottleneck 1/8 STKT	1/2"	(12.7mm)			
	65-2575-T	Nozzle HD Cu 1/8" Tip Rec.	3/4"	(19.1mm)			
	65-2662-T	Nozzle HD 1/8 STKT	5/8"	(15.9mm)			
Als	o available						
	64-2960-T	Nozzle Bottleneck	5/8"				

2.	2. CONTACT TIPS		WIRE O.D.	I.D.
Α	63-1130	HD *	.030 (0.8mm)	.037
	63-1135	HD	.035 (0.9mm)	.043
	63-1140	HD	.040 (1.0mm)	.048
	63-1145	HD	.045 (1.2mm)	.055
	63-1152	HD	.052 (1.3mm)	.063
	63-1178	HD	5/64 (2.0mm)	.093
	63-1193	HD	3/32 (2.4mm)	.110
	63-1162	HD	1/16" (1.6mm)	.073
В	63-1230	HD Tapered	.030 (0.8mm)	.037
	63-1235	HD Tapered	.035 (0.9mm)	.043
	63-1245	HD Tapered	.045 (1.2mm)	.055
	63-1252	HD Tapered	.052 (1.3mm)	.063
С	63-1335	HD CuCr **	.035 (0.9mm)	.043
	63-1345	HD CuCr	.045 (1.2mm)	.050
	63-1352	HD CuCr	.052 (1.3mm)	.059
	63-1362	HD CuCr	1/16" (1.6mm)	.073
	63-1378	HD CuCr	5/64" (2.0mm)	.093
	63-1394	HD CuCr	3/32" (2.4mm)	.110
D	65-1130	Extra HD	.030	.037
	65-1135	Extra HD	.035	.043
	65-1145	Extra HD	.045	.055
	65-1162	Extra HD	1/16	.067
	65-1178	Extra HD	5/64	.093
	65-1193	Extra HD	3/32	.110
	65-11120	Extra HD	7/64	.120
	65-11125	Extra HD	1/8	.136
	65-1235	Extra HD Tapered	.035	.043
	65-1245	Extra HD Tapered	.045	.055
	65-1252	Extra HD Tapered	.052	.063
	65-1335	Extra HD CuCr **	.035	.040
	65-1345	Extra HD CuCr	.045	.050
	65-1352	Extra HD CuCr	.052	.060
	65-1362	Extra HD CuCr	1/16	.060
* H	leavy Duty,	** Copper Zirconiun	n Chromium	

3. GAS DIFFUSERS

B 63-3103-2 HD 63-3116 HD Thread-on D 65-3103-2 Extra HD 65-3116 Extra HD Thread-on

4. LINERS

PART #	WIRE SIZE	LENGTH	O.D.	
64-4306	.035"(.9mm)	6'	0.175	
64-4310	.035"(.9mm)	10'	0.17	
64-4506	.045"(1.6mm)	6'	0.189	
64-4510	.045"(1.6mm)	10'	0.189	

Call for information about other replacement liners

STANDARD ROBOTIC CONFIGURATION (LIGHTNING®)

	STANDARD SHORT ARC			HEAVY DUTY			TAPERED					
	Nozzle	Contact	Diffuser	Shock Washer	Nozzle	Contact	Diffuser	Shock Washer	Nozzle	Contact	Diffuser	Shock Washer
Lightning 550 AMP	65-2562	63-11XX	63-3103-2	63-6202-HD	65-2562	63-11XX	63-3103-2	63-6202-HD	63-2138	63-12XX	63-3103-2	63-6202-HD
Tregaskiss 550 AMP	65-2562	403-1-XX	404-3	63-6202-HD	65-2562	403-1-XX	404-3	63-6202-HD	63-2138	403-2-XX	404-3	63-6202-HD

IGHTNING® Nozzle Reference Chart



Slip-On Thread-On

63-2138

3/8" Bore Flush Copper 0.938" O.D.



63-2150 63-2150-T

1/2" Bore 1/8" Recess Copper 0.938" O.D.



63-2162 63-2162-T

5/8" Bore 1/8" Recess Copper 0.938" O.D.



63-2175 63-2175-T

3/4" Bore 1/8" Recess Copper 0.938" O.D. Straight Bore



Slip-On Thread-On

64-2387

7/8" Bore 1/4" Recess Brass 1.062" O.D. Straight Bore



64-2950 64-2950-T

1/2" Bore 1/8" Stickout Brass 0.938" O.D. Straight Bore



64-2962

5/8" Bore Flush Copper 1.062" O.D. Bottle Neck



65-2562

5/8" Bore 1/8" Recess Copper 1.062" O.D.



65-2362

5/8" Bore 1/8" Stickout Brass 1.062" O.D.

Nozzle Reference Chart - continued



Slip-On Thread-On

63-2362

5/8" Bore 1/8" Recess Brass 1.120" O.D. Straight Bore



63-2662 63-2662-T

5/8" Bore 1/8" Stickout Copper 0.938" O.D.



63-2950 63-2950-T

1/2" Bore 1/8" Recess Brass 0.938" O.D. Straight Bore



64-2562

5/8" Bore 1/4" Recess Copper 1.062" O.D.



Slip-On Thread-On

64-2575

3/4" Bore 1/4" Recess Copper 1.062" O.D.



65-2375

3/4" Bore .125 Recess Brass 1.120" O.D. Straight Bore



65-2575 65-2575-T

3/4" Bore 1/8" Recess Copper 1.062" O.D.



65-2662 65-2662-T

5/8" Bore 1/8" Stickout Copper 1.062" O.D.



65-2550

1/2" Bore 1/8" Recess Copper 1.062" O.D.

ROBOTIC REPLACEMENT CABLES

				kiss® TA3 c Torches		
			ze Rotation able	5th Axis Cable*		
ROBOT BRAND	ROBOT MODEL	SOLID MOUNT	CLUTCH MOUNT	SOLID MOUNT	CLUTCH MOUNT	
KUKA®	KR 5 arc HW	58SK023-KNL	58CK023-KNL	58SK023-KNL-CR	58CK023-KNL-CR	
	KR 16 arc HW	58SK030-KNL	58CK030-KNL	58SK030-KNL-CR	58CK030-KNL-CR	
	KR 16 L8 HW	58SK027-KNL	58CSK027-KNL	58SK027-KNL-CR	58CSK027-KNL-CR	
Motoman [®]	EA1400 XRC	58SM016-KNL	58CM016-KNL	58SM016-KNL-CR	58CM016-KNL-CR	
	EA1900 XRC	58SM017-KNL	58CM017-KNL	58SM017-KNL-CR	58CM017-KNL-CR	
	EA1400N, SSA2000, MA1400, VA1400	58SM001-KNL	58CM001-KNL	58SM001-KNL-CR	58CM001-KNL-CR	
	MA1440, AR1440, MH12	58SM035-KNL	58CM035-KNL	58SM035-KNL-CR	58CM035-KNL-CR	
	EA1900N	58SM002-KNL	58CM002-KNL	58SM002-KNL-CR	58CM002-KNL-CR	
	MA2010, AR2010	58SM038-KNL	58CM038-KNL	58SM038-KNL-CR	58CM038-KNL-CR	
	MA3100, MA3120	58SM031-KNL	58CM031-KNL	58SM031-KNL-CR	58CM031-KNL-CR	
	MH24, AR1730	58SM039-KNL	58CM039-KNL	58SM039-KNL-CR	58CM039-KNL-CR	
ABB®	IRB1600ID, IRB1520ID	58SA024-KNL		58SA024-KNL-CR		
	IRB2600ID-15/1.85	58SA028-KNL		58SA028-KNL-CR		
	IRB2600ID-8/2.00	58SA029-KNL		58SA029-KNL-CR		
	IRB1660ID	58SA030-KNL		58SA030-KNL-CR		
FANUC®	100iC, 100iC-12	58SF005-KNL		58SF005-KNL-CR		
	100iC-6L, 100iC-7L	58SF007-KNL		58SF007-KNL-CR		
	100iC-8L	58SF010-KNL		58SF010-KNL-CR		
	120iC	58SF006-KNL		58SF006-KNL-CR		
	120iC-10L, 120iC-12L	58SF008-KNL		58SF008-KNL-CR		
	M10iA-6L, M10iA-7L	58SF007-KNL		58SF007-KNL-CR		
	100iD	58SF011M-KNL 58SF011L-KNL				
	120iD	58SF015M-KNL 58SF015L-KNL				

^{*5}th Axis Cable- Designed to improve cable life in applications with a large degree of bend at the 5th axis and 6th axis not exceeding 180° rotation.

ROBOTIC REPLACEMENT CABLES

		Tregaskiss® CA3 Robotic Torch		Lincoln Magnum [®] Pro Robotic Torch	
			Over-Ar Replacement	Thru-Arm Replacement Cable	
ROBOT BRAND	ROBOT MODEL	LENGTH	SOLID MOUNT	CLUTCH MOUNT	
KUKA®	KR 5 arc HW	3'	CA3U03S	CA3U03	
	KR 16 arc HW	3.5'	CA3U03.5S	CA3U03.5	
	KR 16 L8 HW	4	CA3U04S	CA3U04	KP3066-KR16L8HW
Motoman [®]	EA1400 XRC	4.5	CA3U04.5S	CA3U04.5	
	EA1900 XRC	5	CA3U05S	CA3U05	
	EA1400N, SSA2000, MA1400, VA1400	5.5'	CA3U05.5S	CA3U05.5	
	MA1440, AR1440, MH12	6'	CA3U06S	CA3U06	KP3066-MA1440
	EA1900N	6.5'	CA3U06.5S	CA3U06.5	
	MA2010, AR2010	7'	CA3U07S	CA3U07	KP3066-MA2010
	MA3100, MA3120	7.5'	CA3U07.5S	CA3U07.5	
	MH24, AR1730	8'	CA3U08S	CA3U08	KP3066-MH24
ABB®	IRB1600ID, IRB1520ID	8.5'	CA3U08.5S	CA3U08.5	KP3066-1600ID, KP3066-1520ID
	IRB2600ID-15/1.85	9'	CA3U09S	CA3U09	KP3066-2600ID-185
	IRB2600ID-8/2.00	9.5'	CA3U09.5S	CA3U09.5	KP3066-2600ID-20
	IRB1660ID	10'	CA3U10S	CA3U10	
FANUC®	100iC, 100iC-12	12'	CA3U12S	CA3U12	KP3066-100iC
	100iC-6L, 100iC-7L	15'	CA3U15S	CA3U15	KP3066-100iC/6L
	100iC-8L				KP3066-100IC/8L
	120iC				KP3066-120iC
	120iC-10L, 120iC-12L				KP3066-120IC/10L
	M10iA-6L, M10iA-7L				
	100ID				KP3066-100ID
	120ID				

ROBOTIC PERIPHERALS



CleanStrikeTM weld anti-spatter works to prevent spatter and char residue from sticking to the nozzle and surrounding work area of your welds. Spatter will stick to Clean-StrikeTM instead of your work and can be easily brushed away, preventing wasted time on clean up.

Features & Benefits

The neutral pH of CleanStrike[™] hinders multi-metal corrosion. The surfactants in CleanStrike[™] provide superior lubricity and wetting, preventing evaporation, keeping your lines open.

CleanStrike[™] is ready to use and is:

- Non-toxic & Non-Combustible
- Biodegradable & Environmentally Safe
- Contains No Silicone or Petroleum Derivatives
- Is easily painted over
- Works great in high-temperature applications
- Is stable in warm climates
- Works great in reaming stations—won't clog your lines



CleanStrike[™] Anti-Spatter is available in these sizes:

SIZE	PART #
55 Gallon Drum	CS400-55
5 Gallon	CS400-5
1 Gallon	CS400-1
32 oz Spray Bottle	CS400-B

PNEUMATIC REAMING STATION / SC220A



Technical Specifications

• Input Pressure: 87 - 116 PSI (6-8 bar)

• Operating Temperature: 23° - 122° F (-5° - 50° C)

• Air Consumption: 21 CFM (10L/S)

Overall Height: 36.6"

Output Power: 300 WattsControl Voltage: 24V DC

Control Current: 0.15A

• Reservoir Capacity: 16.9 fl oz (500ml)

• Wire Trimming Capacity: .062" (1'6mm)

Solid Wire / 1/8" (3.2mm) Flux-cored Wire

• Wire Trimming Speed: 0.5 seconds

• Nozzle Capacity: 1.1" (28mm) O.D.

Anti-splash agent spray volume: adjustable

Product Features

- The clamping device can accommodate nozzles with a maximum diameter of 32mm, no need to replace the positioning V-block.
- High-precision, HI torque motor built for a long life, and able to remove spatter with ease.
- The nozzle clamping cylinder return delay design, the reamer will return only after being separated from the welding gun nozzle, effectively avoiding the welding gun damage caused by the clamping cylinder returning in advance.
- The anti-splash device is placed in the shell, effectively avoiding accidental damage.
- Dedicated filter elements can effectively filter oil, water and impurities in the gas path, which improved the equipment lifetime.
- Confined oil injection space, waste oil can be collected and recycled, high-precision and highrigidity cylinders are equipped with high-efficiency and environmental protection.

QCC®/QCC-HD®/QCC-R® WIRE CONDUIT

QCC® & QCC-HD® CONDUIT:

The QCC® (Quick Connect Conduit) and QCC-HD® (Heavy-Duty) Conduits are constructed to withstand the continuous flexing associated with today's automatic or semi-automatic applications. These conduits are excellent for many "push" systems where the electrode wire is pushed from the feeder to the welding head. They will not stretch or compress, and are electrically insulated.

QCC®

(with factory bayonet)



QCC® Conduit:

Recommended for delivery of solid welding electrodes up to 3/32" (2.4mm) diameter, or cored wires up to 5/64" (2.0mm). Although the QCC® Conduit will bend into a very tight radius, to maintain quality performance, it is not recommended to bend it less than a 10" (25.4cm) radius.

QCC-HD®

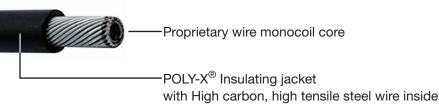
(with factory bayonet)



QCC-HD® Conduit:

Recommended for delivery of solid welding electrodes up to 1/8" (3.2mm) diameter, or cored wires up to 7/64" (2.8mm). Although the QCC-HD[®] Conduit will bend into a very tight radius, to maintain quality performance, it is not recommended to bend it less than a 16" (40.6cm) radius.

Ideal for automatic and semi-automatic systems such as Gantries, Seam Trackers, and Robotics Installations.



QCC®/QCC-HD®/QCC-R® WIRE CONDUIT

QCC-R®



QCC-R® Conduit:

The QCC-R® (Radius Duty) is an extremely flexible conduit which combines the reliability of a steel monocoil core with the flexibility of an unreinforced conduit system. It is ideal for applications where a tight bend is necessary, such as in the interior of an articulating arm and confined booms. They have limited stretch and are electrically insulated. Not recommended for "Push" applications.

This extremely flexible conduit is ideal for applications requiring a tight bend radius, such as in the interior of articularting arms and confined booms.



-Round wire monocoil core

 Co-extruded POLY-X[®] jacket with Polyester reinforcement inside

QCC®/QCC-HD®/QCC-R® WIRE CONDUIT

SPECIFICATIONS

CONDUIT	I.D.	O.D.
QCC [®]	.198" (5.0mm)	.500" (12.7mm)
QCC-HD®	.265" (6.7mm)	.625" (15.9mm)
QCC-R®	.198" (5.0mm)	.510" (13.0mm)

QCC®, QCC-HD® and QCC-R® conduits can be furnished cut to length as a complete assembly with swaged-on male bayonet terminations at each end allowing a quick connection into our extensive line of connectors and adaptor kits. Bulk conduit is available in 90' (27.4m) for QCC®, QCC-HD® and 100' (30.48m) for QCC-R® lengths allowing the bulk conduit to be cut to any desired length and field terminated with a respective QCC® or QCC-HD® Connector, reducing the necessity to stock random lengths.

QCC® & QCC-HD®

The core is reinforced with multiple strands of preformed high carbon, high tensile steel wire, which permits flexibility, prevents kinking, and reduces fatigue failures associated with single wire unreinforced conduit constructions. The flat wire monocoil core is precision wound from long-lasting, high carbon, hardened steel spring wire.

QCC-R®

The high carbon, monocoil, round wire metal coiled core provides greater flexibility while maintaining resistance to wear and corrosion. Reinforced by a tightly extruded polyester coating reduces monocoil stretch while maintaining flexibility.

CONDUIT HOW TO ORDER SPECIFICATIONS

LENGTH	QCC [®] PART #	QCC-HD® PART #	QCC-R [®] PART #
24" (0.61m)	QCC24	NA	QCC-R24
30" (0.76m)	QCC30	NA	QCC-R30
36" (0.91m)	QCC36	NA	QCC-R36
48" (1.22m)	QCC48	NA	QCC-R48
60" (1.52m)	QCC60	NA	QCC-R60
72" (1.83m)	QCC72	QCC-HD72	QCC-R72
84" (2.13m)	QCC84	QCC-HD84	QCC-R84
96" (2.44m)	QCC96	QCC-HD96	QCC-R96
108" (2.74m)	QCC108	QCC-HD108	QCC-R108
120" (3.05m)	QCC120	QCC-HD120	QCC-R120
144" (3.66m)	QCC144	QCC-HD144	QCC-R144
180" (4.57m)	QCC180	QCC-HD180	QCC-R180
240" (6.10m)	QCC240	QCC-HD240	QCC-R240
300" (7.62m)	QCC300	QCC-HD300	QCC-R300
BULK	90' Length - # A-2046	90' Length - # A-2047	100' Length - # A-2052

QCI INSULATOR

A-1811-1



STRAIN RELIEFS

PART #	LENGTH
A-1873-2	12" (30cm)
A-1873-1	48" (121cm)

ORANGE PE & BIG BLUE PE WIRE CONDUIT

ORANGE PE & BIG BLUE PE CONDUIT

Orange PE and Big Blue PE Conduits are designed for soft electrodes and mild steel electrodes used at high deposition rates. These non-conductive conduits are lightweight, making them useful for many wire feeding applications.

Non-Metallic Core:

Made from high density polyethylene with outstanding mechanical properties and inherent lubricity. No metal core is used in the manufacture of these conduits which is ideal for obtaining x-ray quality welds. Especially useful when welding with aluminum or other exotics, as no metal is available to contaminate the weld. The hard polymer interior reduces drag and promotes smooth feeding.

Orange PE Conduit



Big Blue PE Conduit



Orange PE Conduit

Recommended for use with soft solid welding electrodes up to 3/64" (1.2mm) diameter and other midrange mild steel electrodes. It is not recommended to bend it less than a 12" (30.5cm) radius. Tighter bends may result in increased wire drag and conduit wear.

Big BLUE PE Conduit

Recommended for use with soft solid welding electrodes up to 1/16" (1.6mm) diameter and other comparably sized mild steel electrodes. It is not recommended to bend it less than a 16" (40.6cm) radius. Tighter bends may result in increased wire drag and conduit wear.

These conduits are non-conductive and lightweight, making them useful for many wire feeding applications.

SPECIFICATIONS



ORANGE AND BIG BLUE PE Conduit

Are easily cut to length with a sharp knife or razor blade. Fitting termination is easily applied by the distributor or end user by cutting to length with a sharp knife or razor and applying the appropriate bayonet.

HOW TO ORDER

ORANGE PE PART #	ORANGE PE CONDUIT
400-PP-1-L	Orange PE Per Foot

BIG BLUE PE PART #	BIG BLUE PE LENGTH
A-2051-100	100' (30.48m)
A-2051-250	250' (76.20m)
A-2051-500	500' (304.80m)

CONDUIT CONNECTORS

QCC® CONNECTOR

A-1831

Use with QCC® Conduit

POS	PART #	DESC
1	A-1862	Compression Nut
2	A-1646	Ferrule
3	A-1645	Connector Bayonet







QCC-R® CONNECTOR

A-2883

Use with QCC-R® Conduit

POS	PART #	DESC
4	A-1864-3	Compression Nut
5	A-2981	Ferrule
6	A-1656-3	Connector Bayonet







QCC-HD® CONNECTOR

A-1832

Use with QCC-HD® Conduit

POS	PART #	DESC
7	A-1864-1	Compression Nut
8	A-1657	Ferrule
9	A-1656-1	Connector Bayonet







ERC® CONNECTOR & BAYONET

A-2056

Use with ERC Conduit

POS	PART #	DESC
10	A-1866	Compression Nut
11	A-1865	Ferrule
12	A-1829	Connector Body
13	A-1518	ERC® Bayonet









CONDUIT CONNECTORS

ERC-HD® CONNECTOR & BAYONET

A-2083

Use with ERC-HD Conduit

POS	PART #	DESC
1	A-1868	Compression Nut
2	A-1867	Ferrule
3	A-1830	Connector
4	A-1518	Bayonet



BLUE PE THREAD-ON BAYONET

A-1962-1

Use with Orange PE Conduit





A-1975

Use with Orange PE Conduit

POS	PART #	DESC
5	A-1864-2	Compression Nut
6	A-1974	Ferrule
7	A-1656-2	Connector Bayonet





BIG BLUE THREAD-ON BAYONET

A-1962-2

Use with Big Blue PE Conduit

—— OR ——



ERC® CONNECTOR & BAYONET

A-2056

Use with Big Blue PE Conduit

POS	PART #	DESC
8	A-1866	Compression Nut
9	A-1865	Ferrule
10	A-1829	Connector Body
11	A-1518	ERC® Bayonet



WIRE FEEDER CONNECTORS

QCA ADAPTOR KIT

A-1827-1

Universal Adaptor Kit - Fits most US Feeders 2-11/16" L 3/8" OD Shaft

Includes bushing kit and A-1985 adaptor

POS	PART #	BUSHINGS DESC
1	A-1517-4	7/8" (22.0mm)
2	A-1517-2	3/4" (19.0mm)
3	A-1517-6	11/16" (17.5mm)
4	A-1517-3	5/8" (15.8mm)
5	A-1517-1	1/2" (12.7mm)
6	A-1517-5	15/32" (12.0mm)

QCA ADAPTOR

A-1985

Feeders with 3/8" (9.5mm) ID Inlet X 2-11/16" (6.8cm) Long



A-1827-3

Fits Miller R115 feeders or feeders requiring extended guide tube

3/8" (9.5mm) to 7/8" (22mm) Inlet x 4-7/16" (11.2cm) Length

POS	PART #	BUSHINGS DESC
7	A-1517-4	7/8" (22.0mm)
8	A-1517-2	3/4" (19.0mm)
9	A-1517-6	11/16" (17.5mm)
10	A-1517-3	5/8" (15.8mm)
11	A-1517-1	1/2" (12.7mm)
12	A-1517-5	15/32" (12.0mm)







WIRE FEEDER CONNECTORS

QCC LINCOLN® #10 CONNECTOR

A-1791

Lincoln #10 series wire feeders; fits into 1-1/4" (31.7mm) diameter Female QCC fitting for use with wire straighteners



QCM - 1/4 CONNECTOR

A-1686

Feeders with 1/4" NPT female inlet



QCM - 1/2 CONNECTOR

A-1828

Feeders with 1/2" NPT female inlet



QCM HOBART® 2400 CONNECTOR

A-1883

Hobart® or equal with 3/4"-16 female inlet



QCB BULKHEAD CONNECTOR

A-1823

Feeders with 1/2"-20 female inlet; custom adaptations



QCF CONNECTOR

A-1685

Feeders with 1/4" NPT male inlet; custom adaptations



QCF CONNECTOR 3/8-24

A-1858

Feeders with 3/8"-24 male inlet



WIRE FEEDER CONNECTORS

QCF OTC CONNECTOR 7/16-20

A-1748

QCF HOBART CONNECTOR 1/2-20

A-1683

Hobart® or equal with 1/2"-20 male inlet



A-1684

Feeders with M14x1 male inlet



A-1682

Panasonic® or equal with 9/16"-18 male inlet



PAY-OUT CONNECTORS

QCA ADAPTOR KIT

A-1827-1

Some domes with set screws – sizes 3/8" (9.5mm to 7/8"(22mm) diameter

2-11/16" L 3/8" OD Shaft

Includes bushing kit and A-1985 adaptor

POS	PART #	BUSHINGS DESCRIPTION
1	A-1517-4	7/8" (22.0mm)
2	A-1517-2	3/4" (19.0mm)
3	A-1517-6	11/16" (17.5mm)
4	A-1517-3	5/8" (15.8mm)
5	A-1517-1	1/2" (12.7mm)
6	A-1517-5	15/32" (12.0mm)



PAY-OUT CONNECTORS

DOME CONNECTOR KIT

A-1826

All Dura Domes, most wire manufacturer domes – size 9/16" (14.3mm) to 7/8"(22mm) diameter



QCM-1/2 CONNECTOR

A-1828

Most de-reeling arms with 1/2" NPT threads



QCM-1/4 CONNECTOR

A-1686

Older de-reeling arms with 1/4" NPT threads



QCF OTC CONNECTOR 7/16-20

A-1748

Acco® page connections with 7/16"-20 threads



QCF PANASONIC CONNECTOR 9/16-18

A-1682

Panasonic® connections with 9/16"-18 threads



QCB BULKHEAD CONNECTOR

A-1823

Portable reel pay-out – customer equipment 1/2"-20 male threads



MISCELLANEOUS CONNECTORS

QCB BULKHEAD CONNECTOR

A-1823

Reels or custom installations where threads are not provided



BULKHEAD MOUNTING BLOCK

A-1825

Isolates the QCB bulkhead connector For use with A-1823



QCC COUPLER KIT

A-1810

Extending conduit systems

May be mounted using A-1824



COUPLER MOUNTING BLOCK

A-1824

Electrically isolates and remotely mounts QCC coupler For use with A-1810



ACCESSORIES

STRAIGHT N EASY® WIRE STRAIGHTENER

Straightens welding wire elecrode for easy feeding and precise positioning. Can be used to load welding electrode for better wire-to-tip contact.

Modular design easily adapts to wire feeders, pay-out systems, or in-line with conduits. Remote mounting in any location. Join two or more straighteners together for greater effect.

Compact and lightweight.

Electrically isolated ball bearing straightening rolls for all types of welding electrodes from .023" (0.6mm) to 1/8" (3.2mm) diameter. Requires adaptors for quick disconnect set up.

PART #	DESCRIPTION
A-1932	Straight N Easy® Wire Straightener

STRAIGHT N EASY® HD WIRE STRAIGHTENER

Same as above. Four 5/64" to 3/16" wire.

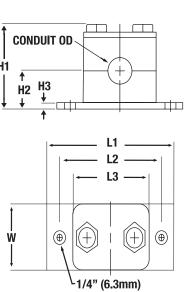
PART #	DESCRIPTION
A-2251	Heavy-Duty Straight N Easy® Wire Straightener

CONDUIT CLAMPS

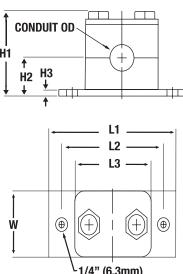
- Secures conduits, limiting movement and abrasion.
- Reduces flexing and fatigue at connections; distributes load.
- Retains conduit position for faster wire changes.
- Electrically isolates conduit from mounting.
- Allows precise conduit mounting.

PART #	DESCRIPTION	COMPARABLE CONDUIT
A-1939-1/2	QCC Conduit Clamp - 1/2	QCC/Orange PE/QCC-R
A-1939-5/8	QCC Conduit Clamp - 5/8	QCC-HD/ERC/Big Blue PE
A-1939-3/4	QCC Conduit Clamp - 3/4	ERC-HD









DOME COVERS

HOW TO ORDER

DESCRIPTION	PART #	FOR USE WITH
Dura-Dome 20" Clear	A-1669	20 3/16" (51.3cm) to 20 1/2" (52.1cm) Fiber Reinforced Drum
Dura-Dome 23" Clear	A-1688	23 3/16" (58.9cm) to 23 1/2" (59.7cm) Fiber Reinforced Drum
Dura-Dome 26" Clear	A-1942	25 3/4" (65.4cm) to 26 3/8" (67.0cm) Fiber Reinforced Drum
Dura-Dome Black PE 20"	A-2000	20 3/16" (51.3cm) to 20 1/2" (52.1cm) Fiber Reinforced Drum
Dura-Dome 500 Square Clear	A-2025	20" (50.8cm) to 20 1/2" (52.1cm) Square Box

A-1669 DURA-DOME 20" CLEAR



A-1942 DURA-DOME 26" CLEAR



A-1688 DURA-DOME 23" CLEAR



A-2000 DURA-DOME BLACK PE 20"



A-2025 DURA-DOME 500 SQUARE CLEAR



DOME COVERS

DURA-DOME® REFERENCE GUIDE

BRAND	CONTAINER	RECOMMENDED
Air Liquide	500# Round 900# Round	Dura-Dome 20"
Arcos	250# Round 500# Round	Dura-Dome 20"
Arctech	250KG (550#) Round	Dura-Dome 23"
Bohler	250KG (550#) Round	Dura-Dome 20"
Eagle	500# Round	Dura-Dome 20"
Esab	500# Round 900# Round Octagon	Dura-Dome 20" Dura-Dome 23" Dome Connector Kit
Gols	500# Round 1000# Round	Dura-Dome 20" Dura-Dome 26"
Harris Welco	150# Round 250# Round 500# Round	Dura-Dome 20"
Hobart	250# (Tubular) Round 400# (Tubular) Round 500# (Solid) Round 600# (Solid) Round 600# (Tubular) Round 750# (Solid) Round	Dura-Dome 23" Dura-Dome 20" Dura-Dome 20" Dura-Dome 20" Dura-Dome 23" Dura-Dome 23"
Hyundai	250KG (550#) Round 300KG (660#) Round	Dura-Dome 20" Dura-Dome 26"

BRAND	CONTAINER	RECOMMENDED	
Kobelco	200KG (400#) Round 250KG (550#) Square	Dura-Dome 20"	
	500# Round	Dura-Dome 20"	
Lincoln	≤600# Round	Dura-Dome 23"	
	500# Square	Dura-Dome 500	
McKay	≤500# Round	Dura-Dome 20"	
ivioray	≥600# Round	Dura-Dome 23"	
	400# Round	Dura-Dome 20"	
National Standard	500# Round	Dura-Dome 20"	
	900# Round	Dura-Dome 23"	
Devene	500# Round	Dura-Dome 20"	
Paramount	1000# Round	Dura-Dome 26"	
Prostar-Praxair	275# Square	Dura-Dome 500	
Prostar-Praxair	550# Square		
Sandvik	600# Round	Dura-Dome 20"	
Thermal Arc	500# Round	Dura-Dome 20"	
Thermal Arc	830# Round	Dura-Dome 23"	
Tri-Mark	400# Round	Dura-Dome 20"	
III-Mark	600# Round	Dura-Dome 23"	
Washington Alloy	(500#) Round	Dura-Dome 20"	
M/alaba aut	500# Round	Dura-Dome 20"	
Weldmark	1000# Round	Dura-Dome 23"	



