

Magnum[®] PRO Robotic Guns

Processes

MIG, MIG Pulsed, Flux-Cored

Product Number

See chart below

Thru-Arm Torch

Current Range: 550A

Duty Cycle: 100%

Wire Diameter: .035 - 5/64 in.
(0.9 - 2.0 mm)

External Dress Torches

Current Range: 550A

Duty Cycle: 100%

Wire Diameter: .035 - 5/64 in.
(0.9 - 2.0 mm)

Designed for long life.

Advanced features for Advanced Welding. Magnum[®] PRO Robotic Guns combine a robust design with industry-leading expendable parts to help produce consistent high quality welds. Choose either Thru-Arm or External Dress models.

FEATURES

Both Torches Feature:

- ▶ **Single Tool Center Point (TCP)** - Changing between 350A and 550A expendables does not alter the robot TCP.
- ▶ **Robust Cable System** - Cables exceed industry standards by a factor of two in durability testing.
- ▶ **Simplified Expendable Parts Selection** 350A and 550A rated consumables are interchangeable across all gun models.
- ▶ **HexConnect™ Gun Bushing** - Ensures better electrical conductivity through full face contact as opposed to rotating connections that have single line contact.
- ▶ **Extended Reach** - Mounting bracket is designed to optimize clearance for tough to reach welding applications.
- ▶ **NEW! Choose a Thru-Arm Ready-Pak[®].**

MAGNUM[®] PRO



APPLICATIONS

- ▶ Industrial Fabrication
- ▶ Heavy Equipment
- ▶ Automotive

WHAT'S INCLUDED

External Dress models include:

- ▶ Contact Tip (KP2745-045R)
- ▶ Gas nozzle (KP2743-1-62R)
- ▶ Diffuser (KP2747-1)
- ▶ Insulator (KP2773-1)
- ▶ Liner (KP45-3545-15)
- ▶ Gun Tube (KP3056-22)

Thru-Arm Ready-Pak[®] (K3359-XX) models include⁽¹⁾:

- ▶ Contact Tip (KP2745-040)
- ▶ Gas nozzle (KP2743-1-62R)
- ▶ Diffuser (KP2747-1)
- ▶ Insulator (KP2773-1)
- ▶ Liner (KP45-3545-6)
- ▶ Gun Tube (KP3355-45)

GUN REQUIRES

External Dress Only

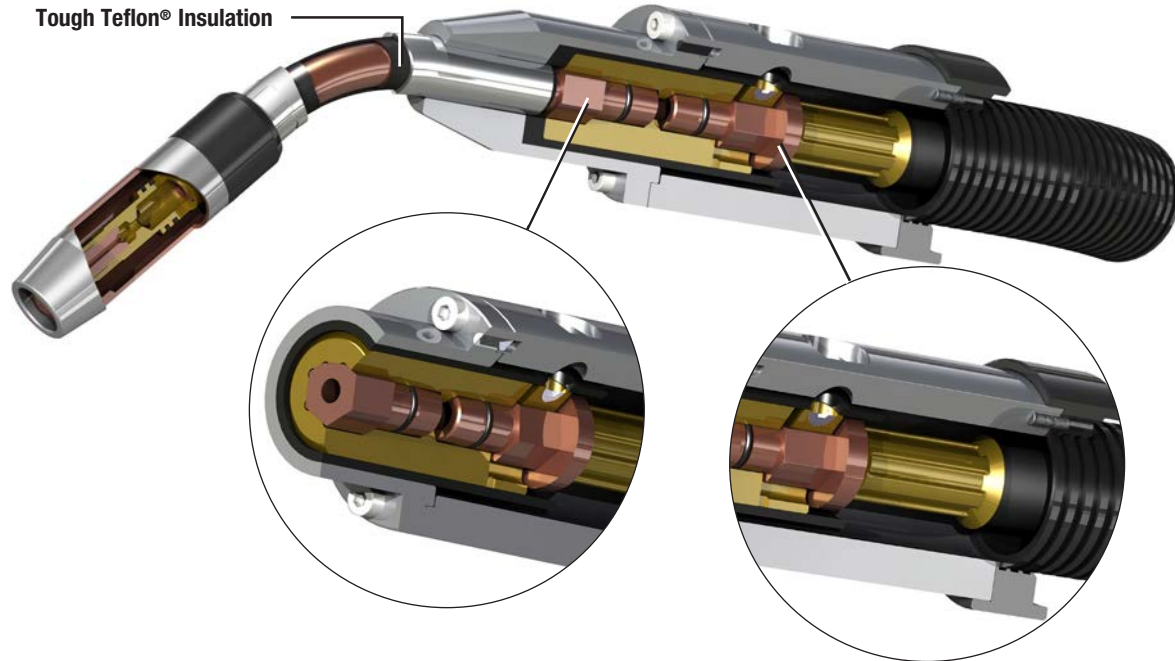
- ▶ Gun Connector Kit
- ▶ Mounting Arm Kit

(1) K3353-XX Thru-Arm models do not include these items.

THE LINCOLN ELECTRIC COMPANY
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LINCOLN[®]
ELECTRIC
THE WELDING EXPERTS[®]

THRU-ARM TORCHES



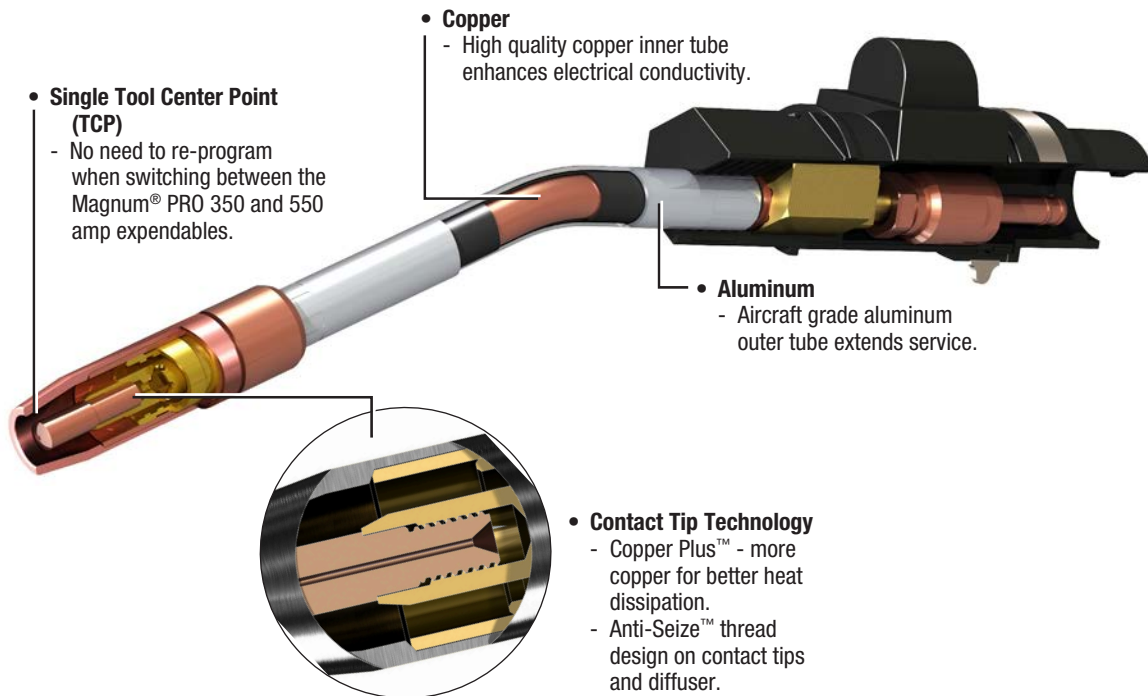
- **Patent-pending HexConnect™ Gun Bushing**

- Delivers superior mechanical and electrical connection resulting in longer expendable life.
- Resists twisting and provides more points of contact for current flow.

- **Fixed Electrical Connection**

- Robust design resists fatigue - Lasted over 1 million tortuous flex cycles in extreme lab testing.
- Competitive rotating designs can cause micro-arcing resulting in arc instability and potential shorter gun life.

EXTERNAL DRESS TORCHES



- **Single Tool Center Point (TCP)**

- No need to re-program when switching between the Magnum® PRO 350 and 550 amp expendables.

- **Copper**

- High quality copper inner tube enhances electrical conductivity.

- **Aluminum**

- Aircraft grade aluminum outer tube extends service.

- **Contact Tip Technology**

- Copper Plus™ - more copper for better heat dissipation.
- Anti-Seize™ thread design on contact tips and diffuser.

EXPENDABLE PARTS

350 A and 550 A Magnum® PRO Expendable Parts are interchangeable. Interchanging will require gun tube insulator and gas diffuser changes. Customers may choose to change expendable parts to standardize stocking parts or to make the gun more compact for tight spaces.

Magnum® PRO 350 A Expendables



Contact Tip for up to 350 A

CONTACT TIPS 350 A				
Wire Diameter in. (mm)	Standard	Standard	Tapered Tip	Tapered Tip
	Pkg. Qty. - 10	Pkg. Qty. - 100	Pkg. Qty. - 10	Pkg. Qty. - 100
0.025 (0.6)	KP2744-025	KP2744-025-B100	KP2744-025T	KP2744-025T-B100
0.030 (0.8)	KP2744-030	KP2744-030-B100	KP2744-030T	KP2744-030T-B100
0.035 (0.9)	KP2744-035	KP2744-035-B100	KP2744-035T	KP2744-035T-B100
0.040 (1.0)	KP2744-040	KP2744-040-B100	KP2744-040T	KP2744-040T-B100
0.045 (1.2)	KP2744-045	KP2744-045-B100	KP2744-045T	KP2744-045T-B100
0.052 (1.3)	KP2744-052	KP2744-052-B100	KP2744-052T	KP2744-052T-B100
1/16 (1.6)	KP2744-116	KP2744-116-B100	KP2744-116T	KP2744-116T-B100
5/64 (2.0)	KP2744-564	KP2744-564-B100	KP2744-564T	KP2744-564T-B100

GAS DIFFUSER 350 A		
Type		
Pkg. Qty.	Thread-on	Slip-on
1	KP2746-1	KP2746-2
25	KP2746-1-B25	KP2746-2-B25



Gas Diffuser for up to 350 A Thread-on



Gas Diffuser for up to 350 A Slip-on

GUN TUBE INSULATOR 350 A	
Pkg. Qty.	Part Number
1	KP2773-2
25	KP2773-2-B25



Gun Tube Insulator 350 A

GAS NOZZLE 350 A						
Gas Nozzle Diameter in. (mm)						
	Nozzle	Pkg. Qty.	Standard 0.375 (9.5)	Standard 0.5 (12.7)	Bottleneck 0.5 (12.7)	Standard 0.625 (15.9)
			Thread-on	1/8 (3.2) Recess	1	KP2742-1-38R
25	KP2742-1-38R-B25	KP2742-1-50R-B25			KP3160-1-50R-B25	KP2742-1-62R-B25
Flush	1	KP2742-1-38F		KP2742-1-50F	KP3160-1-50F	KP2742-1-62F
	25	KP2742-1-38F-B25		KP2742-1-50F-B25	KP3160-1-50F-B25	KP2742-1-62F-B25
1/8 (3.2) Stickout	1	KP2742-1-38S		KP2742-1-50S	KP3160-1-50S	KP2742-1-62S
	25	KP2742-1-38S-B25		KP2742-1-50S-B25	KP3160-1-50S-B25	KP2742-1-62S-B25
Slip-on	1/8 (3.2) Recess	1	–	KP2742-2-50R	–	KP2742-2-62R
		25	–	KP2742-2-50R-B25	–	KP2742-2-62R-B25
	Flush	1	–	KP2742-2-50F	–	KP2742-2-62F
		25	–	KP2742-2-50F-B25	–	KP2742-2-62F-B25
	1/8 (3.2) Stickout	1	–	KP2742-2-50S	–	KP2742-2-62S
		25	–	KP2742-2-50S-B25	–	KP2742-2-62S-B25



Bottleneck Gas Nozzle for up to 350 A Thread-on 1/8" (3.2 mm) Recessed



Gas Nozzle for up to 350 A Thread-on 1/8" (3.2 mm) Recessed

EXPENDABLE PARTS

350 A and 550 A Magnum® PRO Expendable Parts are interchangeable. Interchanging will require gun tube insulator and gas diffuser changes. Customers may choose to change expendable parts to standardize stocking parts or to make the gun more compact for tight spaces.

Magnum® PRO 550 A Expendables



Contact Tip for up to 550 A

CONTACT TIPS 550 A				
Wire Diameter in. (mm)	Standard	Standard	Extended Life	Extended Life
	Pkg. Qty. - 10	Pkg. Qty. - 100	Pkg. Qty. - 10	Pkg. Qty. - 100
0.035 (0.9)	KP2745-035	KP2745-035-B100	KP2745-035R	KP2745-035R-B100
0.040 (1.0)	KP2745-040	KP2745-040-B100	NA	NA
0.045 (1.2)	KP2745-045	KP2745-045-B100	KP2745-045R	KP2745-045R-B100
0.052 (1.3)	KP2745-052	KP2745-052-B100	KP2745-052R	KP2745-052R-B100
1/16 (1.6)	KP2745-116	KP2745-116-B100	KP2745-116R	KP2745-116R-B100
0.068-0.072 (1.7-1.8)	KP2745-072	KP2745-072-B100	KP2745-072R	KP2745-072R-B100
5/64 (2.0)	KP2745-564	KP2745-564-B100	KP2745-564R	KP2745-564R-B100

(1) 550 only

GAS DIFFUSER 550 A			
Type			
Pkg. Qty.	Thread-on 1/8 in. Recess	Thread-on 1/4 in. Recess	Slip-on
1	KP2747-1	KP3155-1	KP2747-2
25	KP2747-1-B25	KP3155-1-B25	KP2747-2-B25



Gas Diffuser for up to 550 A Thread-on



Gas Diffuser for up to 550 A Slip-on

GUN TUBE INSULATOR 550 A	
Pkg. Qty.	Part Number
1	KP2773-1
25	KP2773-1-B25



Gun Tube Insulator 550 A

GAS NOZZLE 550 A					
Gas Nozzle Diameter in. (mm)					
	Nozzle	Pkg. Qty.	Standard 0.625 (15.9)	Bottleneck 0.625 (15.9)	Standard 0.750 (19)
Thread-on	1/8 (3.2) Recess	1	KP2743-1-62R	KP3161-1-62R	KP2743-1-75R
		25	KP2743-1-62R-B25	KP3161-1-62R-B25	KP2743-1-75R-B25
	Flush	1	KP2743-1-62F	KP3161-1-62F	KP2743-1-75F
		25	KP2743-1-62F-B25	KP3161-1-62F-B25	KP2743-1-75F-B25
Slip-on	1/8 (3.2) Stickout	1	KP2743-1-62S	KP3161-1-62S	KP2743-1-75S
		25	KP2743-1-62S-B25	KP3161-1-62S-B25	KP2743-1-75S-B25
	1/8 (3.2) Recess	1	KP2743-2-62R	-	KP2743-2-75R
		25	KP2743-2-62R-B25	-	KP2743-2-75R-B25
Slip-on	Flush	1	KP2743-2-62F	-	KP2743-2-75F
		25	KP2743-2-62F-B25	-	KP2743-2-75F-B25
	1/8 (3.2) Stickout	1	KP2743-2-62S	-	KP2743-2-75S
		25	KP2743-2-62S-B25	-	KP2743-2-75S-B25



Bottleneck Gas Nozzle for 550 Thread-on 1/8 in. (3.2 mm) Recessed



Gas Nozzle for 550 Thread-on 1/8 in. (3.2 mm) Recessed

GUN LINERS 550 A in. (mm)			
ft. (m)	.035-.045 (0.9-1.2)	.052-1/16 (1.3-1.6)	5/64-3/32 (2.0-2.4)
6 (1.8)	KP45-3545-6	-	-
6 (1.8)	KP45-3545-6-B10	-	-
15 (4.5)	KP45-3545-15	KP45-116-15	KP45H-332-15

JUMP LINERS ⁽²⁾ 550 A in. (mm)		
.035-.045 (0.9-1.2)	.052-1/16 (1.3-1.6)	1/16 - 5/64 (1.6 - 2.0)
KP3364-1	KP3364-2	KP3364-3

WIRE GUIDES ⁽²⁾			
Size	.035 - .045	.052 - 1/16	5/64
Part Number	KP3979-1	KP3979-2	KP3979-3

(2) Jump liners and wire guides are only used on Thru-arm torches with wire brake.

EXTERNAL DRESS RECOMMENDED ACCESSORIES

External Dress Torch Mounting Kits

Designed to mount the External Dress torch in the proper orientation for the application and fixturing presented to the robot. Consult Automation Division for correct mounting kit selection assistance.



KP2769-22
22 Degree – Lincoln Electric Tool Center Point (TCP)

KP2769-45
45 Degree – Lincoln Electric Tool Center Point (TCP)



KP2769-180
180 Degree – Lincoln Electric Tool Center Point (TCP)

KP3054-22
22 Degree – Tregaskiss® TCP, FANUC® Solid Mount

KP3055-22
22 Degree – Tregaskiss® TCP, Tregaskiss® Clutch Mount



External Dress Break-Away Disks
Replaceable mounting interface disk designed to protect the robot arm by absorbing the effects of any damage in the event of a robot work envelope collision.

Order

KP3194-1
External Dress Break-Away Disk (Fanuc iB)

KP3194-2
External Dress Break-Away Disk (Fanuc 50 iC)

KP3194-3
External Dress Break-Away Disk (Fanuc iC)

THRU-ARM RECOMMENDED ACCESSORIES



Thru-Arm Break-Away Disks

Replaceable mounting interface disk designed to protect the robot arm by absorbing the effects of any damage in the event of a robot work envelope collision.

Order

KP2920-1
Thru-Arm Break-Away Disk



Thru-Arm Replacement Cable Assemblies

Order

KP3066-100ic
KP3066-100ic/6L
KP3066-120ic
KP3066-120ic/10L



Air Blast Kit

Blows spatter from the nozzle orifice. Includes 20 ft hose and fitting.

Order

K3352-1

EXTERNAL DRESS AND THRU-ARM RECOMMENDED ACCESSORIES



Robotic Gun Tube Straightener

Used in the event of a robot crash to check and correct robotic gun tube alignment. Compatible with all Magnum PRO External Dress and Thru-Arm Robotic Guns.

Order

K3193-1

EXTERNAL DRESS GUN TUBE⁽³⁾

Product Number	Description
KP3056-22	GOOSENECK, 22 DEG. ROBOTIC A/C, LECO TCP
KP3056-45	GOOSENECK, 45 DEG. ROBOTIC A/C, LECO TCP
KP3056-180	GOOSENECK, 180 DEG. ROBOTIC A/C, LECO TCP
KP3057-22	GOOSENECK, 22 DEG. ROBOTIC A/C, TREG TCP

(3) Note that external dress guns include a 22 degree Lincoln Electric TCP gooseneck, liner and consumables. Mounting kit is not included.

THRU-ARM GUN TUBE

Product Number	Description
KP3354-22	22 DEG. THRU-ARM GOOSENECK (TREGASKISS™)
KP3354-45	45 DEG. THRU-ARM GOOSENECK (TREGASKISS™)
KP3355-22	22 DEG. THRU-ARM GOOSENECK (BINZEL™)
KP3355-45	45 DEG. THRU-ARM GOOSENECK (BINZEL™)
KP3355-180	180 DEG. THRU-ARM GOOSENECK (BINZEL™)

GUN CONNECTOR KIT

Manufacturer	Wire Feeder Model	Magnum® PRO 250/350/450	Magnum® PRO 550
Lincoln Electric®	LN-7 Series, LN-8, LN-9, LN-25 [Up to .052 in. (1.4 mm) Wire]	K466-1	K613-1
	LN-8, LN-9 Series, LN-25 [1/16 in. (1.6 mm) and Larger Wire]	K466-8	K613-6
	LF-72, LF-74 Series, LN-25 PRO	K466-10	K613-7 ⁽¹⁾
	Power Feed® 10 and 25 series	K466-10	K613-7 ⁽¹⁾
	POWER MIG® Series and Power Wave® C300	K466-6	NA
Tweco® Adapted	No. 2, No. 3, No. 4 Guns (K466), No. 5 (K613)	K466-2	K613-2
Miller®	Intellimatic, Sidekick, D-51A, Porto-Mig Millermatic 130, 200, MM-35, S-42GL, S-52A, S-54A, Swing Arc-Dual, Swing Arc-Single S-32S, 52D, 54D, 54E, 60 Series ⁽²⁾	K466-3	K613-3
-	Integrated pin/bushing connector kit	K466-12	K613-12



K466-10

(1) K1500-3 Gun Receiver Bushing is required for Power Feed 10 series, LF series and LN-25 PRO wire feeders.

(2) Terms are trademarks of Illinois Tool Works.

SPECIFICATIONS

Product Name	Product Number	Amperage Rating (C ₀₂)	Cable Length ft. (m)
External Dress Air Cooled			
Magnum® PRO Robotic 550	K2647-4	550 @ 100%	4 (1.2)
Magnum® PRO Robotic 550	K2647-4L	550@100%	4 (1.2)
Magnum® PRO Robotic 550	K2647-5L	550 @ 100%	5.5 (1.7)
Magnum® PRO Robotic 550	K2647-8	550 @ 100%	8 (2.4)
Magnum® PRO Robotic 550	K2647-11	550 @ 100%	11 (3.3)
Thru-Arm Air Cooled			
Magnum® Pro Thru-Arm Robotic 550 (100iC)	K3353-100iC	550 @ 100%	Predetermined length per robotic arm selection
Magnum® Pro Thru-Arm Robotic 550 (100iC) w/wire brake	K3353-100iCW	550 @ 100%	
Magnum® Pro Thru-Arm Robotic 550 (120iC)	K3353-120iC	550 @ 100%	
Magnum® Pro Thru-Arm Robotic 550 (120iC) w/wire brake	K3353-120iCW	550 @ 100%	
Magnum® Pro Thru-Arm Robotic 550 (100iC/6L)	K3353-100iC/6L	550 @ 100%	
Magnum® Pro Thru-Arm Robotic 550 (100iC/6L) w/wire brake	K3353-100iC/6LW	550 @ 100%	
Magnum® Pro Thru-Arm Robotic 550 (120iC/10L)	K3353-120iC/10L	550 @ 100%	
Magnum® Pro Thru-Arm Robotic 550 (120iC/10L) w/wire brake	K3353-120iC/10LW	550 @ 100%	
Thru-Arm Air Cooled Ready-Pak®			
Magnum® PRO Thru-Arm Robotic 550 (100iC)	K3359-100iC	550 @ 100%	Predetermined length per robotic arm selection
Magnum® PRO Thru-Arm Robotic 550 (100iC) w/air blast	K3359-100iCA	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (100iC) w/wire brake	K3359-100iCW	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (100iC/6L)	K3359-100iC/6L	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (100iC/6L) w/air blast	K3359-100iC/6LA	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (100iC/6L) w/wire brake	K3359-100iC/6LW	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (120iC)	K3359-120iC	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (120iC) w/air blast	K3359-120iCA	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (120iC) w/wire brake	K3359-120iCW	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (120iC/10L)	K3359-120iC/10L	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (120iC/10L) w/air blast	K3359-120iC/10LA	550 @ 100%	
Magnum® PRO Thru-Arm Robotic 550 (120iC/10L) w/wire brake	K3359-120iC/10LW	550 @ 100%	

Air Blast : Air blast extends consumable life by introducing a pulse of shielding gas to dislodge debris from the system.

Wire Brake: Wire brake allows more uniform welds by controlling stick-out using a pneumatic brake to hold the wire in place while the robot changes position.

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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