Melding Products









3

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SEMI-AUTOMATIC GUN 250, 350, 400 AMPS

Fastest Neck Change - No Tools Needed

 Our patent pending Flash™ connection is the fastest rotatable and replaceable gooseneck on the market.

360° Rotation

 Lighting® Flash™ MIG gun features a rotatable gooseneck with 12 fixed positions

Features & Benefits

 The highly-durable Lightning® series of MIG guns has been engineered and built for high production and comfort.

Contact Tip

 Tapered seating tip allows for better conductivity, with a dual start-point thread that allows the tip to rotate 180° to a new wear point, allowing you to extend the life of the tip.

Handle

 Ergonomic plastic handle is engineered with special impact additives that stand up to extreme contact, making it virtually indestructible. Lifetime Warranty on handle.

Trigger & Switch

• The trigger is easy to pull, causing less welder fatigue. The switch is also guaranteed for life under normal conditions.

Interchangeability

 Lightning® handles, spring guards, connector cones and cone nuts are interchangeable at both ends of the gun, allowing you to effectively double the life of the gun by flip-flopping the ends.

Tapered Contact Tip and Diffuser

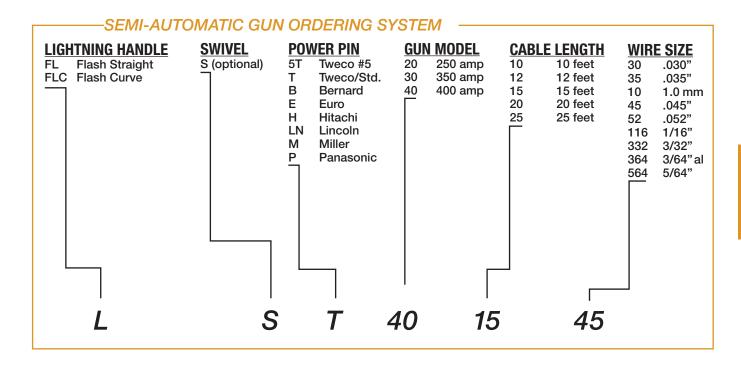
- Tip and diffuser design allows for greater heat dissipation and electrical conductivity.
- Easy start contact tip has quick change double thread.

Power Cable

- · Outer insulation is tear and abrasion resistant.
- Hytrel®† tubing is kink resistant.
- Maximum amount of copper strands offer maximum productivity.







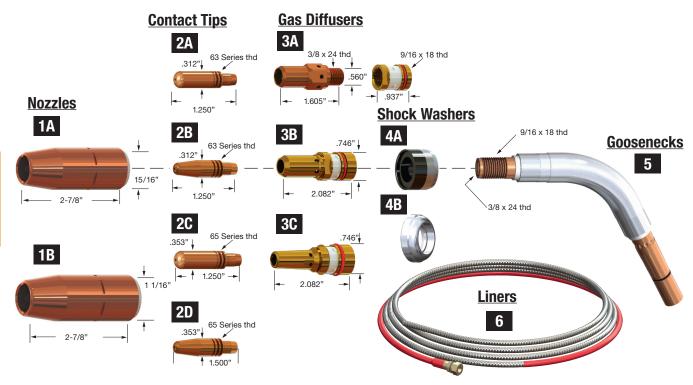
LIGHTNING STRAIGHT HANDLE FLASH AMPERAGE RATINGS—DUTY CYCLE

Model #	100% Duty Cycle		60 % l	Duty Cycle
	CO ₂	Mixed Gas	CO ₂	Mixed Gas
250	250	120	300	250
350	350	200	400	350
400	400	300	450	350

LIGHTNING CURVE HANDLE FLASH AMPERAGE RATINGS—DUTY CYCLE

Model #	100% Duty Cycle		60% D	outy Cycle
	CO ₂	Mixed Gas	CO ₂	Mixed Gas
250	200	120	300	250
350	350	200	400	350

LIGHTNING® FLASH CONSUMABLES - SEMI-AUTOMATIC 250, 350, 450 & 550 AMPS



STANDARD GUN CONFIGURATION - LIGHTNING HEAVY DUTY SETUP IS AVAILABLE ON REQUEST

Description	Tips	Nozzles	Gas Diffuser	Liner	Shock Washer	Gooseneck
250 AMP	63-11XX	63-2150	63-3103	64-4XXX	63-3103 HD	63-5160*
350 AMP	63-11XX	63-2150	63-3103	64-4XXX	63-6202 HD	63-5160*
450 AMP	63-11XX	65-2562	63-3103	64-4XXX	63-6202 HD	64-5160*
550 AMP	63-11XX	65-2562	63-3103	64-4XXX	63-6202 HD	64-5160*
*GOOSENECKS: ADD LE TO THE END OF PART NUMBER FOR FLASH STRAIGHT • ADD LELC TO THE END OF PART NUMBER FOR FLASH CURVE						

1. NOZZLES - INSULATED

1. NOZZLES - INSULATED (CONTINUED)

		<u> </u>		<u></u>		,
Α	63-2138	Flush	3/8"	65-2562-T	1/8" Recess, Thrded	5/8"
	63-2138-T	Flush, Thrded	3/8"	64-2962	Flush	5/8" Strt Bore
	63-2150	1/8" Recess	1/2"	64-2962-T	Flush, Thrded	5/8" Strt Bore
	63-2150-T	1/8" Recess, Thrded	1/2"	64-2962-S	1/8" Stickout	5/8" Strt Bore
	63-2950-B	1/8" Recess, Brass	1/2" Strt Bore	65-2662	1/8" Stickout	5/8"
	63-9250-B-T	1/8" Recess, Thrded, Brass	1/2" Strt Bore	65-2662-T	1/8" Stickout, Thrded	5/8"
	63-2950	1/8" Recess	1/2" Strt Bore	65-2362	1/8" Stickout, Brass	5/8"
	63-2950-T	1/8" Recess, Thrded	1/2" Strt Bore	65-2362-T	1/8" Stickout, Thrded, Brass	5/8"
	64-2950	1/8" Stickout	1/2" Strt Bore	65-2862	Flush, Brass	5/8"
	64-2950-T	1/8" Stickout, Thrded	1/2" Strt Bore	63-2262	1/8" Stickout, Brass	5/8"
	63-2162	1/8" Recess	5/8"	63-2262-C	1/8" Stickout, Copper	5/8"
	63-2162-T	1/8" Recess, Thrded	5/8"	63-2362	1/8" Recess, 1-1/8" Brass	5/8" Strt Bore
	63-2762	1/4" Stickout	5/8"	63-2362-C	1/8" Recess, 1-1/8" Copper	5/8" Strt Bore
	63-2662	1/8" Stickout	5/8" Strt Bore	63-2362-C-T	1/8" Recess, Thrded, 1-1/8" (Copper 5/8" Strt Bore
	63-2662-T	1/8" Stickout, Thrded	5/8" Strt Bore	65-2875	Flush, Brass	3/4"
	63-2662-B	1/8" Stickout, Brass	5/8" Strt Bore	65-2375	1/8" Recess, Brass	3/4"
	63-2662-TB	1/8" Stickout, Thrded, Brass	5/8" Strt Bore	65-2375-T	1/8" Recess, Thrded Brass	3/4"
	63-2175	1/8" Recess	3/4" Strt Bore	64-2575	1/4" Recess	3/4"
В	65-2550	1/8" Recess	1/2"	65-2575	1/8" Recess	3/4"
	64-2562	1/4" Recess	5/8"	65-2575-T	1/8" Recess, Thrded	3/4"
	64-2562-T	1/4" Recess, Thrded	5/8"	64-2387	1/8" Recess, Brass	7/8" Strt Bore
	65-2562	1/8" Recess	5/8"			

2. CONTACT TIPS I.D. 63-1130 .037 HD .030 (0.8mm) 63-1135 HD .035 (0.9mm) .043 63-1138 HD .038 .037 63-1135-40 HD .035/.040 .040 63-1140 HD .040 (1.0mm) .048 63-1145 HD .045 (1.2mm) .055 3/64" 63-1147 HD .060 63-1152 HD .052 (1.3mm) .063 63-1152-059 HD .052 .059 HD 1/16" .073 63-1162 63-1168 HD .068 .078 63-1172 HD .072 .081 5/64 (2.0mm) HD .093 63-1178 63-1193 HD 3/32 (2.4mm) .110 63-1330 HD Long Life CrCu .030 .037 63-1335 HD Long Life CrCu .035 .043 63-1340 HD Long Life CrCu .040 .045 HD Long Life CrCu .045 .050 63-1345 HD Long Life CrCu 63-1352 .052 .059 63-1352-SP HD Long Life CrCu .056/.059 .059 HD Long Life CrCu 63-1362 1/16" .070 63-1378 HD Long Life CrCu 6/64: .093 63-1393 HD Long Life CrCu 3/32" .110 63-1230 **HD Tapered** .030 (0.8mm) .037 B 63-1235 **HD** Tapered .043 .035 (0.9mm) **HD** Tapered 63-1235-40 **HD** Tapered .045 (1.2mm) .055 63-1245 63-1245-50 **HD Tapered** .035/.040 .040 **HD Tapered** .063 63-1252 .052 (1.3mm) 1/16" .073 63-1262 **HD Tapered** HD Tapered Long I.P. CrCu .030 .037 63-1130T .043 63-1135T HD Tapered Long I.P. CrCu .035 HD Tapered Long I.P. CrCu .045 .050 63-1145T 63-1152T HD Tapered Long I.P. CrCu .052 .059 Extra HD .030 .037 65-1130 Extra HD .035 .043 65-1135 Extra HD .040 .048 65-1140 65-1145 Extra HD .045 .055 65-1145-050 Extra HD .045/.050 .050 65-1147 Extra HD .047 .060 Extra HD .052 .063 65-1152 Extra HD 1/16 .073 65-1162 65-1178 Extra HD 5/64 .093 65-1193 Extra HD 3/32 .110 65-1130AL Extra HD, AL .040 .048 65-1135AL Extra HD, AL .048 .060 Extra HD Long Life CrCu .035 .040 65-1335 Extra HD Long Life CrCu .045 .050 65-1345 65-1352 Extra HD Long Life CrCu .052 .059 65-1362 Extra HD Long Life CrCu 1/16 .070 65-1230 Extra HD Tapered .030 .037 Extra HD Tapered 65-1235 .035 .043 .045 Extra HD Tapered .055 65-1245 Extra HD Tapered .052 .063 65-1252 65-1262 Extra HD Tapered .062 .073 65-1345T Extra HD Tapered, CrCu .045 .050

Note: 65-11xx series tips are only to be used with 65 series Lightning Diffusers. Please call for information.

3. GAS DIFFUSERS & RETAINER

Α	63-3201	Diffuser, Copper
	63-3104	Retainer
В	63-3103	Standard
	63-3103-2	Robotic, Tapered
	63-3103-2A	Robotic, Tapered, Angled holes
	63-3116	Robotic/Manual, Thrded
	63-3117	Robotic, External Thrded
	63-3118	Bernhard
	63-3118-T	Bernhard, Thrded
	63-3119	Lincoln
	63-3119-T	Lincoln, Thrded
	63-3119-A	Lincoln, Angled holes
	63-3122	SKS
С	65-3103	HD Standard
	65-3103-2	HD Robotic
	65-3116	HD R/M
	65-3116-MC	HD
	65-3119	HD Lincoln
	65-3119-T	HD Lincoln, Thrded
1	SHOCK W	ACHEDO

SHOCK WASHERS

Α 63-6202-HD **HD** (Heavy Duty)

63-6202 В

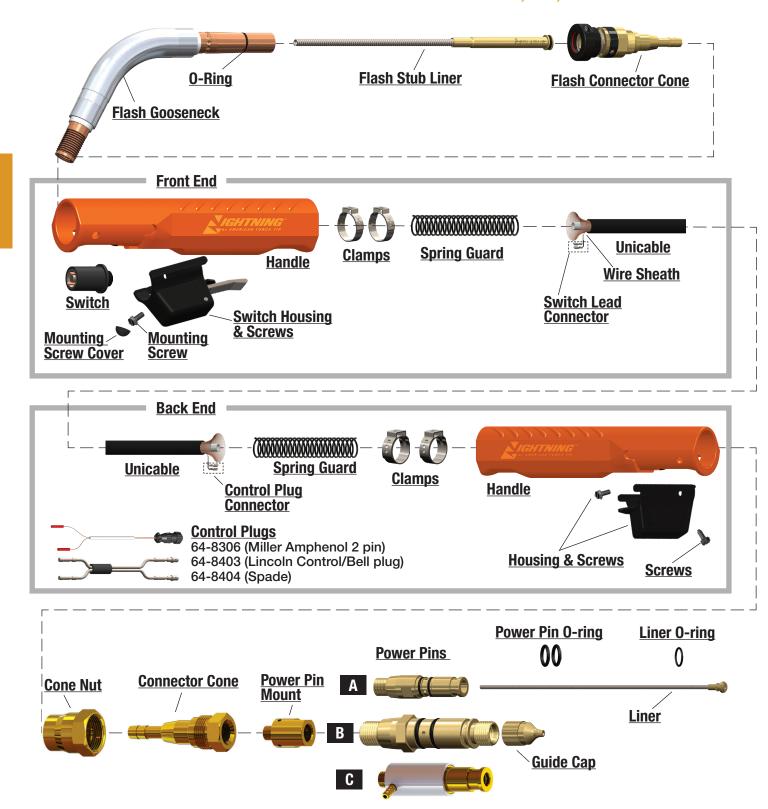
GOOSENECKS ADD LF TO THE END OF PART NUMBER FOR FLASH GOOSENECKS ADD LFLC TO THE END OF PART NUMBER FOR FLASH CURVE GOOSENECKS

62-5160 LF or LFLC Lightning Flash GN 250A 63-5160 LF or LFLC Lightning Flash GN 60 deg 4" Lightning Flash GN 60 deg 5" 64-5160 LF or LFLC 65-5160 LF or LFLC Lightning Flash GN 60 deg 6.5" 65-5160LF or LFLC-10 Lightning Flash GN 60 deg 10" 65-5160LF or LFLC-12 Lightning Flash GN 60 deg 12" 65-5160 LF or LFLC-16 Lightning Flash GN 60 deg 16"

6. LINERS

Part#	Wire Size	I	_ength	O.D.
64-4115	.023"	(.6mm)	15'	0.150
62-4315	.035"	(.9mm)	15'	0.156
62-4325	.035"	(.9mm)	25'	0.156
62-4515	.045"	(1.6mm)	15'	0.156
62-4525	.045"	(1.6mm)	25'	0.156
64-4215	.030"	(.8mm)	15'	0.182
64-4310	.035"	(.9mm)	10'	0.175
64-4315	.035"	(.9mm)	15'	0.175
64-4325	.035"	(.9mm)	25'	0.175
64-4325	.035"	(.9mm)	25'	0.175
64-4415	.035"	(.9mm)al	15'	0.189
64-4510	.045"	(1.6mm)	10'	0.189
64-4515	.045"	(1.6mm)	15'	0.189
64-4525	.045"	(1.6mm)	25'	0.189
64-4510	3/64"	(1.6mm)	10'	0.189
64-4515	3/64"	(1.6mm)	15'	0.189
64-4525	3/64"	(1.6mm)	25'	0.189
64-4510	.52"	(1.6mm)	10'	0.189
64-4515	.52"	(1.6mm)	15'	0.189
64-4525	.52"	(1.6mm)	25'	0.189
64-4510	1/16"	(1.6mm)	10'	0.189
64-4515	1/16"	(1.6mm)	15'	0.189
64-4525	1/16"	(1.6mm)	25'	0.189
64-4615	3/64-1/16al		15'	0.189
64-4715	5/64-3/32		15' Flat	0.189
64-4815	5/64-3/32	FC	10'	0.21
64-4915	.035045	(for S.S. Wire)	15'	0.192

LIGHTNING FLASH™ REPLACEMENT PARTS – SEMI-AUTOMATIC 250, 350, & 400





LIGHTNING FLASH™ GOOSENECKS

62-5160LF	Lightning Flash Gooseneck 250A
63-5160LF	Lightning Flash Gooseneck 60 deg 4"
64-5160LF	Lightning Flash Gooseneck 60 deg 5"
65-5160LF	Lightning Flash Gooseneck 60 deg 6.5"
65-5160LF-10	Lightning Flash Gooseneck 60 deg 10"
65-5160LF-12	Lightning Flash Gooseneck 60 deg 12"
65-5160LF-16	Lightning Flash Gooseneck 60 deg 16"
•	"

Goosenecks are available in a variety of bends. Replace the 60 with the degree you want. Standards are 45°, 60°, and 00 (180°).

LINERS

PART	WIRE SIZE		LENGTH	#O.D.
64-4115	.023"	(.6mm)	15'	0.150
62-4315	.035"	(.9mm)	15'	0.156
62-4325	.035"	(.9mm)	25'	0.156
62-4515	.045"	(1.6mm)	15'	0.156
62-4525	.045"	(1.6mm)	25'	0.156
64-4215	.030"	(.8mm)	15'	0.182
64-4310	.035"	(.9mm)	10'	0.175
64-4315	.035"	(.9mm)	15'	0.175
64-4325	.035"	(.9mm)	25'	0.175
64-4325	.035"	(.9mm)	25'	0.175
64-4415	.035"	(.9mm)al	15'	0.189
64-4510	.045"	(1.6mm)	10'	0.189
64-4515	.045"	(1.6mm)	15'	0.189
64-4525	.045"	(1.6mm)	25'	0.189
64-4510	3/64"	(1.6mm)	10'	0.189
64-4515	3/64"	(1.6mm)	15'	0.189
64-4525	3/64"	(1.6mm)	25'	0.189
64-4510	.52"	(1.6mm)	10'	0.189
64-4515	.52"	(1.6mm)	15'	0.189
64-4525	.52"	(1.6mm)	25'	0.189
64-4510	1/16"	(1.6mm)	10'	0.189
64-4515	1/16"	(1.6mm)	15'	0.189
64-4525	1/16"	(1.6mm)	25'	0.189
64-4615	3/64-1/16al		15'	0.189
64-4715	5/64-3/32		15' Flat	0.189
64-4725	5/64-3/32		25' Flat	0.210
64-4815	5/64 & 1/16"		FC 10'	0.210
64-4915	.035 – .045		15'	0.192
(for S.S. V	Vire)			

FLASH CONNECTOR CONE - FRONT END

62-6301LF 63-6301LF 64-6301LF

CONE NUT - FRONT END

63-6302(2/3/450A) 65-6302 (550A)

GUN HANDLE - FRONT END

64-6106 64-6601 64-5110 64-6501 64-6602 62-7902 (250A 63-7902 (350A 64-7907 (450A) Clamp) Clamp
	3
64-7907 (450A) Clamp
65-7902 (550A) Clamp
63-6502	Spring Guard
64-7901	Switch Lead Connector
64-7902	Wire Sheath

BACK END

<u> </u>		
64-6106	Handle	
64-6501	Screws	
63-6101	Housing & Screv	ws
62-7902	Clamp (250A)	
64-7907	Clamp (3/450A)	
65-7902	Clamp (550A)	
63-6502	Spring Guard	
64-8306	Control Plug	(Miller Amphenol 2 pin)
64-8404	Control Plug	(Standard)
64-8403	Control Plug	(Lincoln Control/Bell plug)
64-7909	Control Plug Co	nnector
CONN	ECTOR CON	IE
00 0004	(0504)	<u></u>

Tweco Std, Tweco #4

62-6301 (250A) 63-6301 (350A) 64-6301 (4/550A)

CONE NUT

63-6302(2/3/450A) 65-6302 (550A)

POWER PIN MOUNT

64-8208

POWER PINS

A 64-8211

В	64-8311	Miller	
С	64-8411	Lincoln	
NO	T SHOWN		
	64-8501	Bernard	

64-8100 Euro 64-8212-L Tweco #5

POWER PIN O-RING

64-8202

LINER O-RING

64-9001

GUIDE CAP

64-8303 (.035-1/16) 64-8304 (5/64-3/32)

UNICABLE CUT LENGTHS

250A	10'	62-7110	350A	15'	63-7115	450A	25'	64-7125	UNICABLE BULK (PER FOOT)
250A	12'	62-7112	350A	20'	63-7120	550A	10'	65-7110	250A Bulk 62-7300
250A	15'	62-7115	350A	25'	63-7125	550A	12'	65-7112	350A Bulk 63-7300
250A	20'	62-7120	450A	10'	64-7110	550A	15'	65-7115	450A Bulk 64-7300-1
250A	25'	62-7125	450A	12'	64-7112	550A	20'	65-7120	550A Bulk 65-7300-1
350A	10'	63-7110	450A	15'	64-7115				550A 25' 65-7125
350A	12'	63-7112	450A	20'	64-7120				



SEMI-AUTOMATIC GUN 250, 350, 450, 550 AMPS

Tapered Contact Tip and Diffuser

- Tip and diffuser design allows for greater heat dissipation and electrical conductivity.
- Easy start contact tip has quick change double thread.

Rugged Gooseneck

- Insulated aircraft aluminum protects the gooseneck.
- 650 AMP capacity.

Million Pull Trigger Switch

• Lifetime Warranty on handle and trigger switch.

Durable Metal Trigger High Strength

 Ergonomic engineered plastic handle is designed with special impact additives that stands up to extreme impact.

Strain Relief

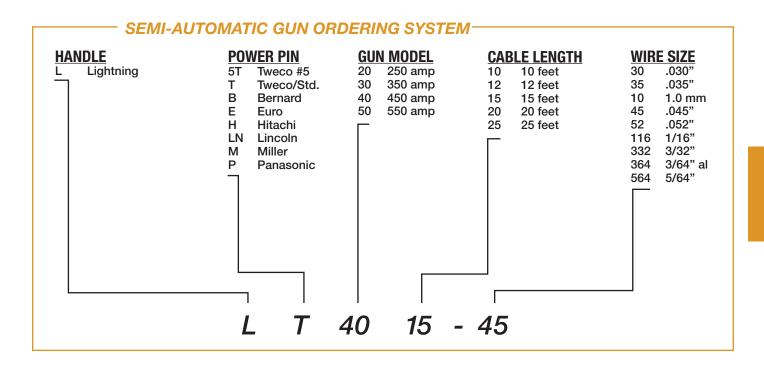
- Supports cable weight and reduces cable kinking.
- · Helps reduce welder fatigue.

Power Cable

- Outer insulation is tear and abrasion resistant.
- Hytrel®† tubing is kink resistant.
- Maximum amount of copper strands offer maximum productivity.







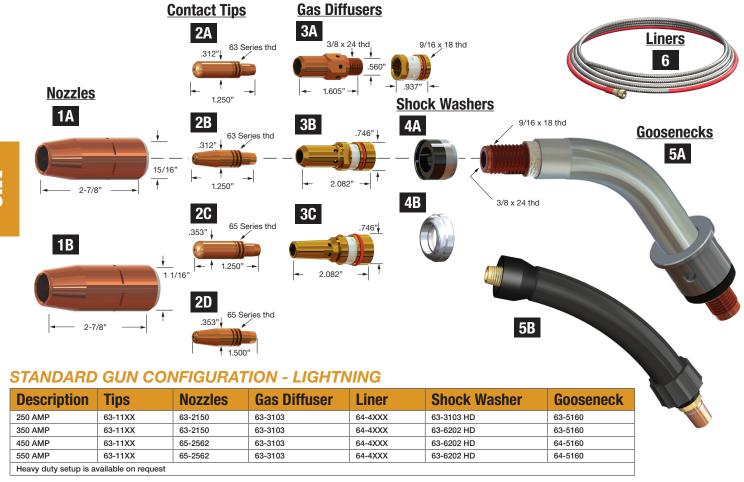
DUTY CYCLE AMPERAGE RATINGS -

Gun Model	60% Duty Cycle - Mixed Gases 100% Duty Cycle - CO ₂
250 amp	250 amps
350 amp	350 amps
450 amp	450 amps
550 amp	550 amps



CONSUMABLES AND REPLACEMENT PARTS ON FOLLOWING PAGES

LIGHTNING® CONSUMABLES - SEMI-AUTOMATIC 250, 350, 450 & 550 AMPS



1. NOZZLES - INSULATED

1. NOZZLES - INSULATED (CONTINUED)

Α	63-2138	Flush	3/8"	65-2562-T	1/8" Recess, Thrded	5/8"
	63-2138-T	Flush, Thrded	3/8"	64-2962	Flush	5/8" Strt Bore
	63-2150	1/8" Recess	1/2"	64-2962-T	Flush, Thrded	5/8" Strt Bore
	63-2150-T	1/8" Recess, Thrded	1/2"	64-2962-S	1/8" Stickout	5/8" Strt Bore
	63-2950-B	1/8" Recess, Brass	1/2" Strt Bore	65-2662	1/8" Stickout	5/8"
	63-9250-B-T	1/8" Recess, Thrded, Brass	1/2" Strt Bore	65-2662-T	1/8" Stickout, Thrded	5/8"
	63-2950	1/8" Recess	1/2" Strt Bore	65-2362	1/8" Stickout, Brass	5/8"
	63-2950-T	1/8" Recess, Thrded	1/2" Strt Bore	65-2362-T	1/8" Stickout, Thrded, Brass	5/8"
	64-2950	1/8" Stickout	1/2" Strt Bore	65-2862	Flush, Brass	5/8"
	64-2950-T	1/8" Stickout, Thrded	1/2" Strt Bore	63-2262	1/8" Stickout, Brass	5/8"
	63-2162	1/8" Recess	5/8"	63-2262-C	1/8" Stickout, Copper	5/8"
	63-2162-T	1/8" Recess, Thrded	5/8"	63-2362	1/8" Recess, 1-1/8" Brass	5/8" Strt Bore
	63-2762	1/4" Stickout	5/8"	63-2362-C	1/8" Recess, 1-1/8" Copper	5/8" Strt Bore
	63-2662	1/8" Stickout	5/8" Strt Bore	63-2362-C-T	1/8" Recess, Thrded, 1-1/8" (Copper 5/8" Strt Bore
	63-2662-T	1/8" Stickout, Thrded	5/8" Strt Bore	65-2875	Flush, Brass	3/4"
	63-2662-B	1/8" Stickout, Brass	5/8" Strt Bore	65-2375	1/8" Recess, Brass	3/4"
	63-2662-TB	1/8" Stickout, Thrded, Brass	5/8" Strt Bore	65-2375-T	1/8" Recess, Thrded Brass	3/4"
	63-2175	1/8" Recess	3/4" Strt Bore	64-2575	1/4" Recess	3/4"
В	65-2550	1/8" Recess	1/2"	65-2575	1/8" Recess	3/4"
	64-2562	1/4" Recess	5/8"	65-2575-T	1/8" Recess, Thrded	3/4"
	64-2562-T	1/4" Recess, Thrded	5/8"	64-2387	1/8" Recess, Brass	7/8" Strt Bore
	65-2562	1/8" Recess	5/8"			



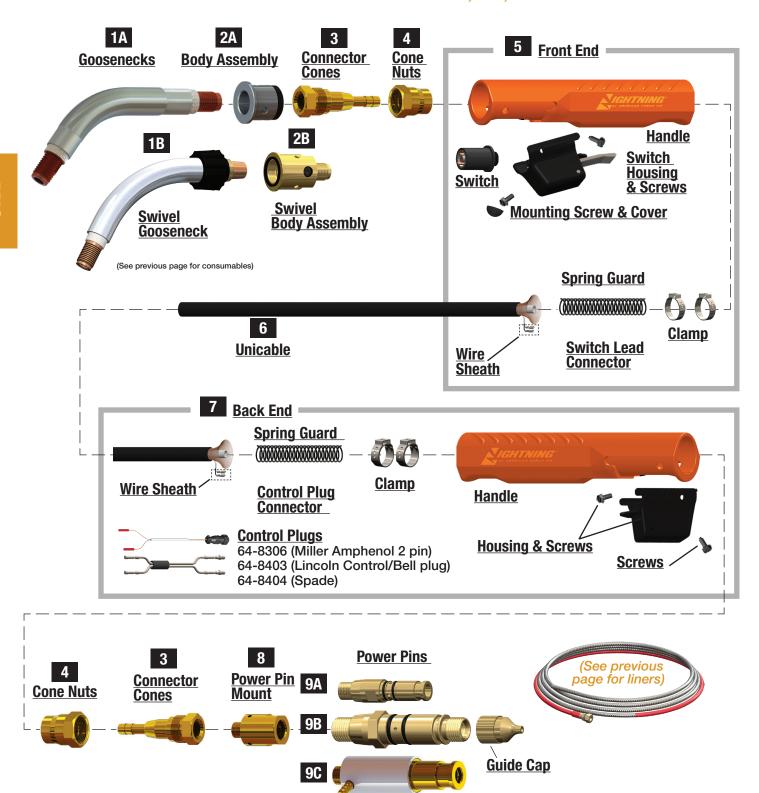
					_	040 DIE			TD 10.0		
<u>2.</u>	CONTAC			I.D.	<u>3.</u>		USERS & F				:D)
Α	63-1130	HD	.030 (0.8mm)	.037		63-3117 63-3118	Robo Bernh	tic, Exter	nal Thr	ded	
	63-1135	HD	.035 (0.9mm)	.043		63-3118-T		iard iard, Thro	4od		
	63-1138	HD	.038	.037		63-3119	Linco		ieu		
	63-1135-40	HD HD	.035/.040	.040		63-3119-T		ırı In, Thrde	d		
	63-1140 63-1145	HD	.040 (1.0mm)	.048 .055		63-3119- <i>A</i>		In, Angle			
	63-1145	HD	.045 (1.2mm) 3/64"	.060		63-3122	SKS	iii, Aiigici	a mores	,	
	63-1152	HD	.052 (1.3mm)	.063	С	65-3103		andard			
	63-1152-059		.052 (1.311111)	.059	C	65-3103-2		obotic			
	63-1162	HD	1/16"	.073		65-3116	HD R				
	63-1168	HD	.068	.078		65-3119	HD Li				
	63-1172	HD	.072	.081		65-3119-T		ncoln, Th	rded		
	63-1178	HD	5/64 (2.0mm)	.093	1		WASHEI		aoa		
	63-1193	HD	3/32 (2.4mm)	.110	4.						
	63-1330	HD Long Life CrCu	.030	.037	A	63-6202-H	ID HD (H	leavy Dut	ty)		
	63-1335	HD Long Life CrCu	.035	.043	В	63-6202					
	63-1340	HD Long Life CrCu	.040	.045	5.	GOOSE	NECKS (NCLUDES	BODY	ASSY.)	
	63-1345	HD Long Life CrCu	.045	.050		S TO THE END	OF PART # FOR SI				
	63-1352	HD Long Life CrCu	.052	.059	A.	62-5160	Fixed		60°	250	
	63-1352-SP	HD Long Life CrCu	.056/.059	.059		63-5100	Fixed		80°	250-3	
	63-1362	HD Long Life CrCu	1/16"	.070		63-5145	Fixed		15°	250-3	
	63-1378	HD Long Life CrCu	6/64:	.093		63-5160	Fixed		60°	250-3	50
	63-1393	HD Long Life CrCu	3/32"	.110		64-5100	Fixed		80°	450	
В	63-1230	HD Tapered	.030 (0.8mm)	.037		64-5145	Fixed		15°	450	
	63-1235	HD Tapered	.035 (0.9mm)	.043		64-5160	Fixed		60°	450	
	63-1235-40	HD Tapered				65-5160	Fixed		60°	550	
	63-1245	HD Tapered	.045 (1.2mm)	.055		65-5100	Fixed		80° 5°	550 550	
	63-1245-50	HD Tapered	.035/.040	.040		65-5145 63-5160S	Fixed Swive		10°	250-3	5 0
	63-1252	HD Tapered	.052 (1.3mm)	.063		64-5160S	Swive		60°	450 450	30
С	63-1262 65-1130	HD Tapered Extra HD	1/16" .030	.073 .037		65-5260S	Swive		60°	550	
C	65-1135	Extra HD	.035	.037	B.	65-5100F			3"	000	
	65-1140	Extra HD	.040	.048	٥.	63-5100F			5"		
	65-1145	Extra HD	.045	.055	6	LINERS					
	65-1145-050		.045/.050	.050	<u>6.</u>						
	65-1147	Extra HD	.047	.060		Part#	Wire Size	Length		OD	0.450
	65-1152	Extra HD	.052	.063		64-4115	.023"	(.6mm)		15'	0.150
	65-1162	Extra HD	1/16	.073		62-4315	.035"	(.9mm)		15'	0.156
	65-1178	Extra HD	5/64	.093		62-4325 62-4515	.035" .045"	(.9mm) (1.6mm)		25' 15'	0.156 0.156
	65-1193	Extra HD	3/32	.110		62-4515	.045"	(1.6mm)		25'	0.156
	65-1130AL	Extra HD, AL	.040	.048		64-4215	.030"	(1.01111) (.8mm)		15'	0.130
	65-1135AL	Extra HD, AL	.048	.060		64-4310	.035"	(.9mm)		10'	0.175
	65-1335	Extra HD Long Life CrCu		.040		64-4315	.035"	(.9mm)		15'	0.175
	65-1345	Extra HD Long Life CrCu		.050		64-4325	.035"	(.9mm)		25'	0.175
	65-1352	Extra HD Long Life CrCu		.059		64-4325	.035"	(.9mm)		25'	0.175
_	65-1362	Extra HD Long Life CrCu		.070		64-4415	.035"	(.9mm)a	al	15'	0.189
D	65-1230	Extra HD Tapered	.030	.037		64-4510	.045"	(1.6mm))	10'	0.189
	65-1235	Extra HD Tapered	.035	.043		64-4515	.045"	(1.6mm))	15'	0.189
	65-1245	Extra HD Tapered	.045	.055		64-4525	.045"	(1.6mm)		25'	0.189
	65-1252	Extra HD Tapered	.052	.063		64-4510	3/64"	(1.6mm)		10'	0.189
	65-1262	Extra HD Tapered	.062	.073		64-4515	3/64"	(1.6mm)		15'	0.189
	65-1345T	Extra HD Tapered, CrCu	.045	.050		64-4525	3/64"	(1.6mm)		25'	0.189
		eries tips are only to be use		S		64-4510	.52"	(1.6mm)	,	10'	0.189
_	_	ers. Please call for informat				64-4515	.52"	(1.6mm)		15'	0.189
<u>3.</u>	GAS DIFF	FUSERS & RETAINE	R			64-4525	.52"	(1.6mm)		25'	0.189
A	63-3201	Diffuser, Copper				64-4510	1/16"	(1.6mm)		10'	0.189
	63-3104	Retainer				64-4515 64-4525	1/16" 1/16"	(1.6mm) (1.6mm)		15' 25'	0.189 0.189
В	63-3103	Standard				64-4615	3/64-1/16al	(1.011111)		25 15'	0.189
	63-3103-2	Robotic, Tapered				64-4715	5/64-3/32				o.169
	63-3103-2A	Robotic, Tapered, Ang				64-4815	5/64-3/32	FC 10'			0.103
	63-3116	Robotic/Manual, Thrd	ed			64 4015	025 045		\A/iwo\	15	0.21

.035 - .045 (for S.S. Wire) 15'

64-4915

0.192

LIGHTNING® REPLACEMENT PARTS - SEMI-AUTOMATIC 250, 350, 450 AND 550





LIGHTNING® REPLACEMENT PARTS - SEMI-AUTOMATIC 250, 350, 450 AND 550

_		 		
4	\boldsymbol{C}		IEC	vc
		-		n - 7

Α	62-5160C	Fixed	60°	250	
	63-5100C	Fixed	180°	250-350	
	63-5145C	Fixed	45°	250-350	
	63-5160C	Fixed	60°	250-350	
	64-5100C	Fixed	180°	450	
	64-5145C	Fixed	45°	450	
	64-5160C	Fixed	60°	450	
	65-5160C	Fixed	60°	550	
	65-5100C	Fixed	180°	550	
	65-5145C	Fixed	45°	550	
В	63-5160S	Swivel	60°	250-350	
	64-5160S	Swivel	60°	450	
	65-5260S	Swivel	60°	550	

2. BODY ASSEMBLY

Α	63-6601	Body Assembly
	63-6501	Body Set Screw

B 63-5104 Body Assembly Swivel Mount

3. CONNECTOR CONE

62-6301	Connector Cone	250 AMP
63-6301	Connector Cone	350 AMP
64-6301	Connector Cone	450-550 AMP

4. CONE NUT

63-6302	Cone Nut	250-450 AMP
65-6302	Cone Nut	550 AMP

5. GUN HANDLE - FRONT END

64-6106	Handle	
64-6602	Switch Housing & Screv	vs
64-6603	Dual Schedule Trigger	
64-6604	Locking Trigger	
64-6501	Mounting Screw	
64-5110	Mounting Screw Cover	
64-6601	Switch	
62-7902	Clamps	250 AMP
64-7907	Clamps	350-450 AMP
65-7902	Clamps	550 AMP
63-6502	Spring Guard	
64-7901	Switch Lead Connector	
64-7902	Wire Sheath	

Also available:

Gooseneck Heat Shield (not shown)

6. UNICABLE

	Length	AMP		Length	AMP
62-7110	10	250	64-7110	10	450
62-7112	12	250	64-7112	12	450
62-7115	15	250	64-7115	15	450
62-7120	20	250	64-7120	20	450
62-7125	25	250	64-7125	25	450
63-7110	10	350	65-7110	10	550
63-7112	12	350	65-7112	12	550
63-7115	15	350	65-7115	15	550
63-7120	20	350	65-7120	20	550
63-7125	25	350	65-7125	25	550

UNICABLE BULK (per foot)

62-7300 250 AMP 63-7300 350 AMP 64-7300 450 AMP 65-7300 500 AMP

7. BACK END

64-7902	Wire Sheath					
64-8403	Control Plug (Lin	coln/Bell plug)				
64-8404	Control Plug (Sta	Control Plug (Standard)				
64-8306	Control Plug (Mil	ler amphenol 2 pin)				
64-7909	Control Plug Cor	nector				
63-6502	Spring Guard					
62-7902	Clamp	250 AMP				
64-7907	Clamp	350-450 AMP				
65-7902	Clamp	550 AMP				
64-6106	Handle					
63-6101	Housing & Screw	/S				
64-6501	Screws					
64-8303	Guide Cap,	.035-1/16, Amphenol (Miller)				
64-8304	Guide Cap,	5/64-3/32, Amphenol (Miller)				
64-8306	Butt Connectors	, Amphenol (Miller)				
MSAK-354	Spade Connecto	rs (female), Amphenol (Miller)				

8. POWER PIN MOUNT

64-8208 Power Pin Mount

9. POWER PINS

A 64-8211 Tweco Std, Tweco #4 B 64-8311 Miller C 64-8411 Lincoln

NOT SHOWN

64-8501 Bernard 64-8100 Euro 64-8212-L Tweco #5



SEMI-AUTOMATIC GUN 250, 350, 450, 550 AMPS

Tapered Contact Tip and Diffuser

- Tip and diffuser design allows for greater heat dissipation and electrical conductivity.
- Easy start contact tip has quick change double thread.

Rugged Gooseneck

- Insulated aircraft aluminum protects the gooseneck.
- 650 AMP capacity.

Easy Pull Trigger Switch

• Lifetime Warranty on handle and trigger switch.

Durable Metal Trigger High Strength

 Ergonomic engineered plastic handle is designed with special impact additives that stands up to extreme impact.

Strain Relief

- Supports cable weight and reduces cable kinking.
- Helps reduce welder fatigue.

Power Cable

- · Outer insulation is tear and abrasion resistant.
- Hytrel®† tubing is kink resistant.
- Maximum amount of copper strands offer maximum productivity.

CONSUMABLES FEATURES

Nozzle

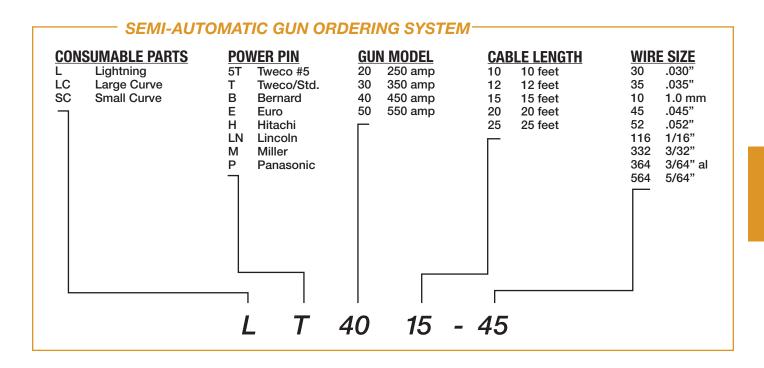
- Hard drawn copper or brass in variety of shapes and sizes.
- High polished finish offers superior spatter protection.
- Brass inserts designed to protect against wear and offers superior nozzle protection.

Tip

- Dual Thread
- Tapered Seat
- Acme Coarse Thread







DUTY CYCLE AMPERAGE RATINGS -

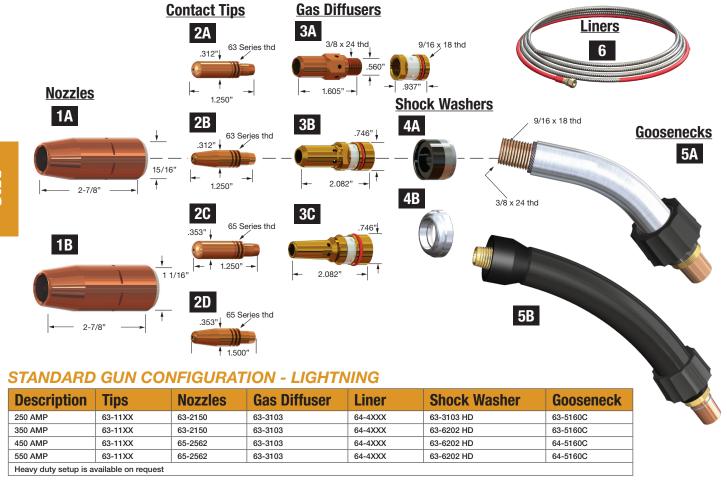
Gun Model	60% Duty Cycle - Mixed Gases 100% Duty Cycle - CO ₂
250 amp	250 amps
350 amp	350 amps
450 amp	450 amps
550* amp	550 amps

^{*} THE 550 AMP RATING DOES NOT APPLY TO THE SMALL CURVE GUN.



CONSUMABLES AND REPLACEMENT PARTS ON FOLLOWING PAGES

LIGHTNING® CURVE CONSUMABLES - SEMI-AUTOMATIC 250, 350, 450 & 550 AMPS



1. NOZZLES - INSULATED (CONTINUED)

Α	63-2138	Flush	3/8"	65-2562-T	1/8" Recess, Thrded	5/8"
	63-2138-T	Flush, Thrded	3/8"	64-2962	Flush	5/8" Strt Bore
	63-2150	1/8" Recess	1/2"	64-2962-T	Flush, Thrded	5/8" Strt Bore
	63-2150-T	1/8" Recess, Thrded	1/2"	64-2962-S	1/8" Stickout	5/8" Strt Bore
	63-2950-B	1/8" Recess, Brass	1/2" Strt Bore	65-2662	1/8" Stickout	5/8"
	63-9250-B-T	1/8" Recess, Thrded, Brass	1/2" Strt Bore	65-2662-T	1/8" Stickout, Thrded	5/8"
	63-2950	1/8" Recess	1/2" Strt Bore	65-2362	1/8" Stickout, Brass	5/8"
	63-2950-T	1/8" Recess, Thrded	1/2" Strt Bore	65-2362-T	1/8" Stickout, Thrded, Brass	5/8"
	64-2950	1/8" Stickout	1/2" Strt Bore	65-2862	Flush, Brass	5/8"
	64-2950-T	1/8" Stickout, Thrded	1/2" Strt Bore	63-2262	1/8" Stickout, Brass	5/8"
	63-2162	1/8" Recess	5/8"	63-2262-C	1/8" Stickout, Copper	5/8"
	63-2162-T	1/8" Recess, Thrded	5/8"	63-2362	1/8" Recess, 1-1/8" Brass	5/8" Strt Bore
	63-2762	1/4" Stickout	5/8"	63-2362-C	1/8" Recess, 1-1/8" Copper	5/8" Strt Bore
	63-2662	1/8" Stickout	5/8" Strt Bore	63-2362-C-T	1/8" Recess, Thrded, 1-1/8" (Copper 5/8" Strt Bore
	63-2662-T	1/8" Stickout, Thrded	5/8" Strt Bore	65-2875	Flush, Brass	3/4"
	63-2662-B	1/8" Stickout, Brass	5/8" Strt Bore	65-2375	1/8" Recess, Brass	3/4"
	63-2662-TB	1/8" Stickout, Thrded, Brass	5/8" Strt Bore	65-2375-T	1/8" Recess, Thrded Brass	3/4"
	63-2175	1/8" Recess	3/4" Strt Bore	64-2575	1/4" Recess	3/4"
В	65-2550	1/8" Recess	1/2"	65-2575	1/8" Recess	3/4"
	64-2562	1/4" Recess	5/8"	65-2575-T	1/8" Recess, Thrded	3/4"
	64-2562-T	1/4" Recess, Thrded	5/8"	64-2387	1/8" Recess, Brass	7/8" Strt Bore
	65-2562	1/8" Recess	5/8"			



2.	CONTAC	T TIPS		I.D. 3.	GAS DIFFU	JSERS & RE	ETAINER (C	ONTINUL	ED)
A	63-1130	HD	.030 (0.8mm)		63-3103-2		c, Tapered		
	63-1135	HD	.035 (0.9mm)		63-3103-2A		c, Tapered, A	Angled he	oles
	63-1138	HD	.038	.037	63-3116	Robotio	c/Manual, Th	rded	
	63-1135-40	HD	.035/.040	.040	63-3117	Robotio	c, External T	hrded	
	63-1140	HD	.040 (1.0mm)		63-3118	Bernha	rd		
	63-1145	HD	.045 (1.2mm)		63-3118-T		rd, Thrded		
	63-1147	HD	3/64"	.060	63-3119	Lincoln			
	63-1152	HD	.052 (1.3mm)		63-3119-T		, Thrded		
	63-1152-059		.052	.059	63-3119-A		, Angled hol	es	
	63-1162	HD	1/16"	.073	63-3122	SKS			
	63-1168	HD	.068	.078 C		HD Sta			
	63-1172 63-1178	HD HD	.072 5/64 (2.0mm)	.081	65-3103-2	HD Rob			
	63-1176	HD	3/32 (2.4mm)		65-3116	HD R/M	1		
	63-1330	HD Long Life CrCu	.030	.037	65-3116-M0	C HD HD Lind	ooln		
	63-1335	HD Long Life CrCu	.035	.043	65-3119 65-3119-T		coln, Thrded		
	63-1340	HD Long Life CrCu	.040	.045					
	63-1345	HD Long Life CrCu	.045	.050 4.		WASHER.			
	63-1352	HD Long Life CrCu	.052	.059 A		HD (He	avy Duty)		
	63-1352-SP	HD Long Life CrCu	.056/.059	.059 B	63-6202				
	63-1362	HD Long Life CrCu	1/16"	.070 5.	GOOSEI	VECKS (IN	CLUDES BOL	OY ASSY.)	
	63-1378	HD Long Life CrCu	6/64:	.093	D S TO THE END O	F PART # FOR SWI	VEL GOOSENECK	(S (I.E. 65-61	60S)
	63-1393	HD Long Life CrCu	3/32"		62-5160C	Fixed	60°	250	
В	63-1230	HD Tpr	.030 (0.8mm)		63-5100C	Fixed	180°		-350
	63-1235	HD Tpr	.035 (0.9mm)	.043	63-5145C	Fixed	45°		-350
	63-1235-40				63-5160C	Fixed	60°		-350
	63-1245	HD Tpr	.045 (1.2mm)		64-5100C	Fixed	180°	450	
	63-1245-50		.035/.040	.040	64-5145C	Fixed	45°	450	
	63-1252 63-1262	HD Tpr HD Tpr	.052 (1.3mm) 1/16"	.063	64-5160C 65-5160C	Fixed Fixed	60°	450 550	
	63-1202 63-1130T	HD Tpr Long I.P. CrCu	.030	.037	65-5100C	Fixed	180°	550	
	63-1135T	HD Tpr Long I.P. CrCu	.035	.043	65-5145C	Fixed	45°	550	
	63-1145T	HD Tpr Long I.P. CrCu	.045		65-5100FLX			000	
	63-1152T	HD Tpr Long I.P. CrCu	.052	.059	63-5100FLX				
С	65-1130	Extra HD	.030	.037 6.					
	65-1135	Extra HD	.035	.043 —		147. 0:		<u> </u>	
	65-1140	Extra HD	.040	.048	Part#	Wire Size		OD 15	0.150
	65-1145	Extra HD	.045	.055	64-4115 62-4315	.023" .035"	(.6mm) (.9mm)	15' 15'	0.150 0.156
	65-1145-050		.045/.050	.050	62-4325	.035"	(.9mm)	25'	0.156
	65-1147	Extra HD	.047	.060	62-4515	.045"	(1.6mm)	15'	0.156
	65-1152	Extra HD	.052	.063	62-4525	.045"	(1.6mm)	25'	0.156
	65-1162 65-1178	Extra HD	1/16 5/64	.073 .093	64-4215	.030"	(.8mm)	15'	0.182
	65-1176	Extra HD Extra HD	3/32	.110	64-4310	.035"	(.9mm)	10'	0.175
	65-1130AL	Extra HD, AL	.040	.048	64-4315	.035"	(.9mm)	15'	0.175
	65-1135AL	Extra HD, AL	.048	.060	64-4325	.035"	(.9mm)	25'	0.175
	65-1335	Extra HD Long Life CuCr	.035	.040	64-4325	.035"	(.9mm)	25'	0.175
	65-1345	Extra HD Long Life CuCr	.045	.050	64-4415	.035"	(.9mm)al	15'	0.189
	65-1352	Extra HD Long Life CuCr	.052	.059	64-4510	.045"	(1.6mm)	10'	0.189
	65-1362	Extra HD Long Life CuCr	1/16	.070	64-4515	.045"	(1.6mm)	15'	0.189
D	65-1230	Extra HD Tpr	.030	.037	64-4525	.045"	(1.6mm)	25'	0.189
	65-1235	Extra HD Tpr	.035	.043	64-4510	3/64"	(1.6mm)	10'	0.189
	65-1245	Extra HD Tpr	.045	.055	64-4515	3/64" 3/64"	(1.6mm)	15' 25'	0.189
	65-1252	Extra HD Tpr	.052	.063	64-4525 64-4510	.52"	(1.6mm) (1.6mm)	25 10'	0.189 0.189
	65-1262	Extra HD Tpr	.062	.073	64-4515	.52"	(1.6mm)	15'	0.189
	65-1345T	Extra HD Tpr, Long Life CrCu	.045	.050	64-4525	.52"	(1.6mm)	25'	0.189
		series tips are only to be used			64-4510	1/16"	(1.6mm)	10'	0.189
		ers. Please call for information			64-4515	1/16"	(1.6mm)	15'	0.189
3.	GAS DIF	FUSERS & RETAINER			64-4525	1/16"	(1.6mm)	25'	0.189
A	63-3201	Diffuser, Copper			64-4615	3/64-1/16al		15'	0.189
^	63-3104	Retainer			64-4715	5/64-3/32		15' Flat	0.189
В	63-3103	Standard			64-4815	5/64-3/32	FC 10'	0.21	0.400
					64-4915	.035 – .045 (tor SS Wire)	15'	0.192

LIGHTNING® COMPLETE POWER PIN (BACK END) ASSEMBLIES SEMI-AUTOMATIC - 250, 350, 450 AND 550 AMP

Tweco #4 64-8201



Bernard 64-8501



Miller

64-8301 (.035 - 1/16) 64-8302 (5/64 - 3/32)



Daiden 64-8501



Panasonic

64-8702



Euro 64-8100



Thermal Arc

64-8901



Hitachi 64-8422



Tweco #5



Lincoln 64-8401







LIGHTNING® SEMI-AUTOMATIC GUN CONVERSION KITS AVAILABLE FOR & COMPATIBLE WITH BERNARD®, LINCOLN® & TWECO® WITH A SIMPLE CHANGE-OUT OF PARTS†

LIGHTNING® RETAINING HEADS

Part #	Description
65-3103*	Retaining Head for Extra Heavy Duty
63-3103	Retaining Head T/L
63-3103-2	Retaining Head T/L
63-3116	Thread-on Retaining Head HD
63-3402	Retaining Ring
63-3301	O-Ring Orange 016
63-3118-T	Diffuser, Bernard® Threaded

*This retaining head must be used with #65-11XX contact tip. See Contact Tips Selector Chart on pg. 2



Gooseneck Insulator

Retaining Head Contact Tip Nozzle

BENEFITS

- Greater surface area contact between tip and head ensures better heat dissipation and conductivity.
- Tapered tip design creates a more secure seat, eliminating loose tips.
- Cooler tip temperature reduces wear and extends tip life.
- Dual-lead thread design allows for 180 degree rotation of tip to new wear point for extended tip life.
- Brass insert prevents wear and extends life.
- Superior surface finish minimizes spatter adhesion.
- Durable hard drawn copper or brass withstands abuse.

Lightning® Contact Tips Selector Chart Part # Description 63-1130 Contact Tip HD .030 pk 10 63-1135 Contact Tip HD .035 pk 10 63-1135-40 Contact Tip HD .035/.040 I.D. pk 10 63-1138 Contact Tip HD .030 pk 10 Robotic 63-1140 Contact Tip HD .040 pk 10 63-1145 Contact Tip HD .045 pk 10 63-1147 Contact Tip HD 3/64" al pk 10 63-1152 Contact Tip HD .052 pk 10 63-1162 Contact Tip HD 1/16" pk 10 63-1168 Contact Tip HD .068/.078 I.D. pk 10 63-1172 Contact Tip HD .072 pk 10 SPECIAL 63-1178 Contact Tip HD 5/64" pk 10 Contact Tip HD 3/32" pk 10 63-1193 **Tapered Tip** Part # 63-12XX XX = last 2 digits indicate wire size CZ Tip (Chromium Zirchonium) 63-13XX XX + last 2 digits indicate wire size Part # **Extra Heavy Duty Tip** 65-11XX* XX = last 2 digits indicate wire size

BERNARD® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle		
Q-Gun Series	63-6105	63-3118	63-11XX [‡]	6X-XXXX**		
EZ Feed Series	63-6105	63-3118	63-11XX‡	6X-XXXX**		
T-Series [†]	63-6202-HD	63-3103	63-11XX‡	6X-XXXX**		
Roughneck C Miller	63-6105	63-3118	63-11XX‡	6X-XXXX**		

LINCOLN® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Magnum 300	63-6105	63-3103	63-11XX [‡]	6X-XXXX**
Magnum 400	63-6105	63-3103	63-11XX‡	6X-XXXX**
Magnum Pro	63-6105	63-3119	63-11XX‡	6X-XXXX**

TWECO® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Tweco #3	63-6105	63-3103	63-11XX [‡]	6X-XXXX**
Tweco #4	63-6105	63-3103	63-11XX‡	6X-XXXX**
SprayMaster 450	63-6105	63-3103	63-11XX‡	6X-XXXX**
WeldSkill 400	63-6105	63-3103	63-11XX‡	6X-XXXX**

Use the Lightning® contact tip system (gooseneck insulator, retaining head, contact tip and nozzle) with Bernard® Lincoln® or Tweco® MIG guns.

Use 63-3118 Retaining Head on goosenecks with external 9/16"-18 thread, such as Q-gun and EZ Feed guns with 1/4" NPT thread.

- † T-Series retaining head can only be used on Bernard® T-Series (Tregasskiss®) guns.
- ‡63-11XX (XX = your wire size)
- ** 6X-XXXX (see Nozzle Selector Chart on next page)

Lightning [®] Nozzle Selector Chart (Air-Cooled Slip On)					
Standard Duty Nozzle Part #	Bore/Material	0.D./Length	Tip Location		
63-2138	3/8" Copper	.938" / 2.75"	Flush		
64-2950	1/2" Brass	.938" / 2.63"	1/8" Stickout		
63-2950B	1/2" Brass	.938" / 2.88"	1/8" Recess		
63-2150	1/2" Copper	.938" / 2.88"	1/8" Stickout		
63-2762	5/8" Copper	.938" / 2.51"	1/4" Stickout		
63-2662	5/8" Copper	.938" / 2.63"	1/8" Stickout		
63-2162	5/8" Copper	.938" / 2.88"	1/8" Recess		
63-2175	3/4" Copper	.938" / 2.88"	1/8" Recess		
Heavy Duty Nozzle Part #	Bore/Material	O.D./Length	Tip Location		
65-2550	1/2" Copper	1.062"/ 2.88"	1/8" Recess		
65-2662	5/8" Copper	1.062"/ 2.63"	1/8" Stickout		
65-2362	5/8" Brass	1.062"/ 2.63"	1/8" Stickout		
64-2962	5/8" Copper	1.062"/ 2.75"	Flush		
65-2862	5/8" Brass	1.062"/ 2.75"	Flush		
63-2362	5/8" Brass	1.062"/ 2.88"	1/8" Recess		
65-2562	5/8" Copper	1.062"/ 2.88"	1/8" Recess		
64-2562	5/8" Copper	1.062"/ 3.00"	1/4" Recess		
65-2575	3/4" Copper	1.062"/ 2.88"	1/8" Recess		
65-2375	3/4" Brass	1.062"/ 2.88"	1/8" Recess		
64-2575	3/4" Copper	1.062"/ 3.00"	1/4" Recess		
64-2387	7/8" Brass	1.062"/ 3.00"	1/4" Recess		
65-2562-T	5/8" Copper	1.062"/ 2.78"	1/8" Recess		

^{*}This contact tip must be used with #65-3103 retaining head. See Lightning Retaining Heads Chart on pg. 1



ROBOTIC TORCH - 550 AMPS

A New Reliability in Robotic Guns

- The Lightning® 550 amp robotic MIG gun has been carefully designed to reduce downtime from part failure, faulty welds and change outs.
- All our components are made to operate in the harsh environment of high volume production. The American Torch Tip Lightning MIG gun stands up to excessive vibration, cable whip, temperature fluctuations and unexpected crashes.
- Precision components allow change outs to be made with confidence that the gooseneck will always be aligned with the gun housing; insuring reliability and repeatability.

Nozzle

- High polished finish offers superior spatter protection.
- · Hard drawn copper or brass in variety of shapes and sizes.
- Brass inserts designed to protect against wear and offers superior nozzle protection.

Tapered Contact Tip and Diffuser

- Tip and diffuser design allows for greater heat dissipation and electrical conductivity.
- Easy start contact tip has quick change double thread.

Easy Change Gooseneck

- · Fast and simple gooseneck change outs.
- · Insulated aluminum protects the gooseneck.
- 650 AMP capacity.

High Strength Front End

 Solid Body design crafted from aircraft aluminum that stands up to extreme impact.

Strain Relief

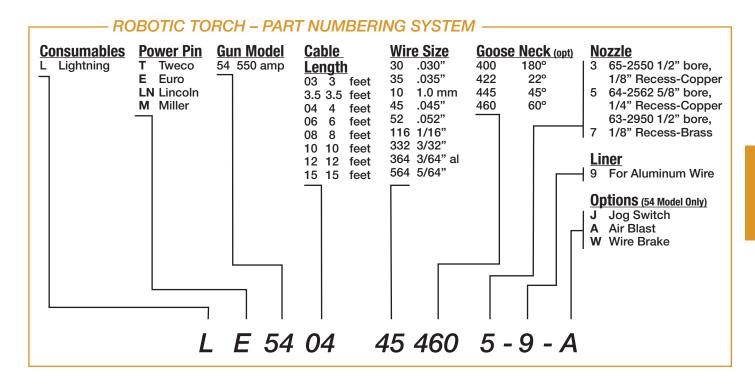
• Supports cable weight and reduces cable kinking.

Adapters

• 22° robotic arms, adapters for most wire feeders, and a complete line of replacement parts are available.







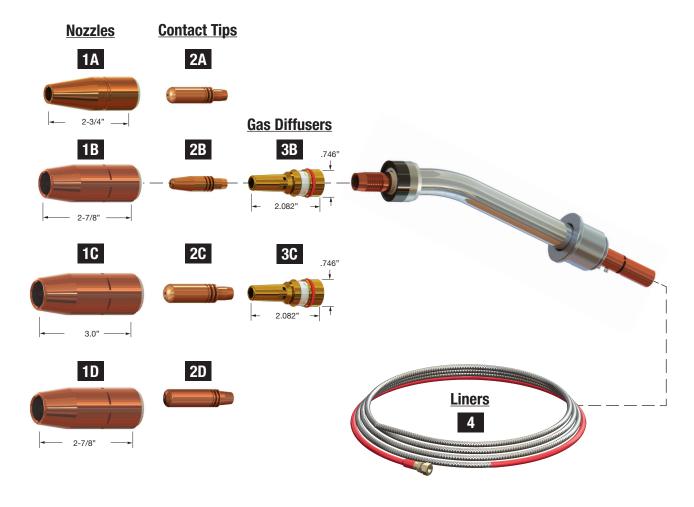
DUTY CYCLE AMPERAGE RATINGS -

Gun Model	60% Duty Cycle - Mixed Gases 100% Duty Cycle - CO2
550 amp	550 amps
550 amp	550 amps



CONSUMABLES AND REPAIR PARTS ON FOLLOWING PAGES

LIGHTNING® ROBOTIC TORCH CONSUMABLES - ROBOTIC TORCH 550 AMP





LIGHTNING® ROBOTIC TORCH CONSUMABLES - ROBOTIC TORCH 550 AMP

1.	NOZZL	ES - INSULATED	I.D.	2.	CONTA	ACT TIPS		I.D.
Α	63-2138	Nozzle Std. Flush	3/8" (09.5mm)	Α	63-1130	HD *	.030 (0.8mm)	.037
	63-2662	Nozzle 1/8" Stick-Out	5/8" (15.9mm)		63-1135	HD	.035 (0.9mm)	.043
В	63-2150	Nozzle Std. 1/8" Tip Recess	1/2" (12.7mm)		63-1140	HD	.040 (1.0mm)	.048
	63-2162	Nozzle Std. 1/8" Tip Recess	5/8" (15.9mm)		63-1145	HD	.045 (1.2mm)	.055
	63-2175	Nozzle Std. 1/8"Tip Recess	3/4" (19.1mm)		63-1152	HD	.052 (1.3mm)	.063
С	64-2562	Nozzle HD* Cu 1/4" Tip Rec.	5/8" (15.9mm)		63-1178	HD	5/64 (2.0mm)	.093
	64-2575	Nozzle HD Cu 1/4" Tip Rec.	3/4" (19.1mm)		63-1193	HD	3/32 (2.4mm)	.110
D	65-2550	Nozzle HD Cu 1/8" Tip Rec.	1/2" (12.7mm)		63-1162	HD	1/16" (1.6mm)	.073
	65-2562	Nozzle HD Cu 1/8" Tip Rec.	5/8" (15.9mm)	В	63-1230	HD Tapered	.030 (0.8mm)	.037
	65-2575	Nozzle HD Cu 1/8" Tip Rec.	3/4" (19.1mm)		63-1235	HD Tapered	.035 (0.9mm)	.043
	64-2950	Nozzle Bottleneck 1/8 STKT	1/2" (12.7mm)		63-1245	HD Tapered	.045 (1.2mm)	.055
	63-2950	Nozzle Bottleneck 1/8 REC	1/2" (12.7mm)		63-1252	HD Tapered	.052 (1.3mm)	.063
	65-2662	Nozzle HD 1/8 STKT	5/8" (15.9mm)	С	63-1335	HD CuCr **	.035 (0.9mm)	.043
	65-2362	Nozzle HD Brass 1/8 STKT	5/8" (15.9mm)		63-1345	HD CuCr	.045 (1.2mm)	.050
	64-2962	Nozzle Flush	5/8"		63-1352	HD CuCr	.052 (1.3mm)	.059
۸le	o available	2			63-1362	HD CuCr	1/16" (1.6mm)	.073
Als		Nozzle Flush	5/8"		63-1378	HD CuCr	5/64" (2.0mm)	.093
	63-2362		5/8"		63-1394	HD CuCr	3/32" (2.4mm)	.110
	65-2375		3/4"	D	65-1130	Extra HD	.030	.037
	64-2387		7/8"		65-1135	Extra HD	.035	.043
	63-2762		5/8"		65-1145	Extra HD	.045	.055
		NOZZIE 1/4 Otlok-out	3/0		65-1162	Extra HD	1/16	.067
NO	TES:				65-1178	Extra HD	5/64	.093
		aded versions available for all			65-1193	Extra HD	3/32	.110
		les. add "t" to part number.			65-11120	Extra HD	7/64	.120
	Exan	nple: 64-2562t			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	
				* Heavy Duty, ** Copper Zirconium Chromium				
				<u>3.</u>	GAS D	IFFUSERS (USE	W/ H.D. NOZZLES)	
				B	63-3103-9) HD		

63-3103-2 HD 65-3103-2 Extra HD

4. LINERS

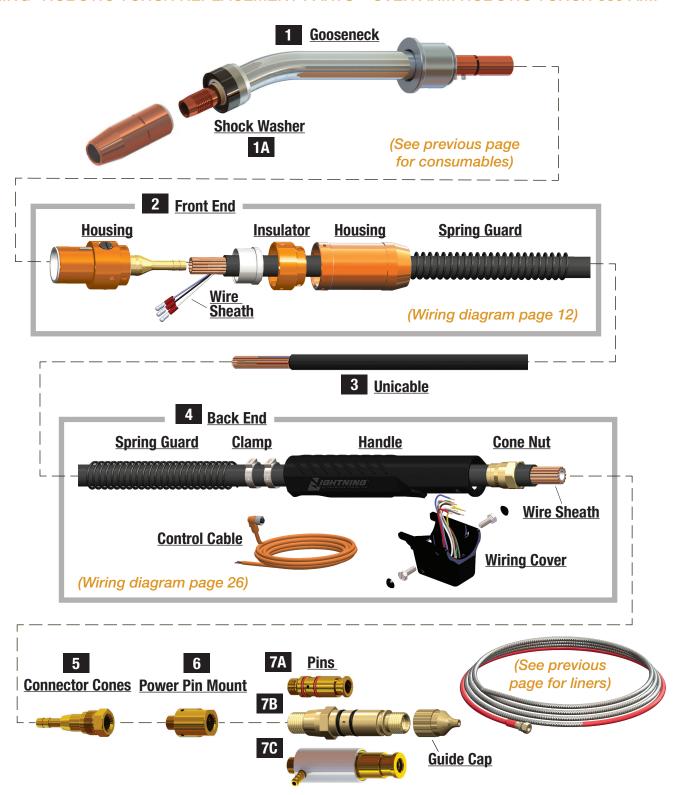
Part #	Wire Size	Length	O.D.
64-4306	.035"(.9mm)	6'	0.175
64-4310	.035"(.9mm)	10'	0.17
64-4506	.045"(1.6mm)	6'	0.189
64-4510	.045"(1.6mm)	10'	0.189

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

LIGHTNING® ROBOTIC TORCH REPLACEMENT PARTS – OVER ARM ROBOTIC TORCH 550 AMP





LIGHTNING® ROBOTIC TORCH REPLACEMENT PARTS - OVER ARM ROBOTIC TORCH 550 AMP

1. GOOSENECK

65-R128-180	Gooseneck	180°	550
65-R128-45	Gooseneck	45°	550
65-R128-60	Gooseneck	60°	550
65-R128-22	Gooseneck	22°	550
Special lengths	& angles are ava	ilable. Call fo	r information

1A. SHOCK WASHER

63-6202-HD

2. TORCH BODY

62-7902	Wire Sheath		
65-6501	Spring Guard		

3. UNICABLE

Call for information about replacement Unicable

4. POWER PIN HANDLE

65-6501	Spring Guard	
65-7902	Clamp (2 required)	550 AMP
64-6106	Handle	
65-6302	Cone Nut	550 AMP
62-7902	Wire Sheat	
63-6101	Wiring Cover	
65-R138	Control Cable	

5. CONNECTOR CONE

64-6301 Connector Cone

6. POWER PIN MOUNT

64-8208 Power Pin Mount

7. POWER PINS

A 64-8211 Tweco Std, Tweco #4

B 64-8311 Miller C 64-8411 Lincoln

NOT SHOWN

64-8501 Bernard 64-8100 Euro 64-8212-L Tweco #5

Call for availability of models not listed above.

ALSO AVAILABLE



65-R148 Air Blast Hose



AS-306-3 Adapter 45 degrees AS-306-1 Adapter 22 degrees AS-306-2 Adapter 180 degrees



IGHTNING[®] Consumables Reference Chart



63-2138 3/8" Bore Flush Copper 0.938" O.D.



63-2150 1/2" Bore 1/8" Recess Copper 0.938" O.D.



63-2162 5/8" Bore 1/8" Recess Copper 0.938" O.D.



63-2175 3/4" Bore 1/8" Recess Copper 0.938" O.D. Straight Bore



64-2387 7/8" Bore 1/4" Recess **Brass** 1.062" O.D. Straight Bore



64-2950 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.

All Lightning® consumables are interchangable for custom configurations. All nozzles are available in threaded versions for use with threaded diffuser.





63-2362 5/8" Bore 1/8" Recess Brass 1.120" O.D. Straight Bore



63-2662 5/8" Bore 1/8" Stickout Copper 0.938" O.D.



63-2950B 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.



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



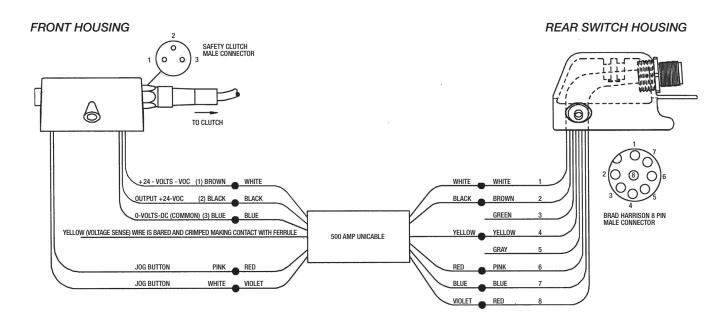
65-2662 5/8" Bore 1/8" Stickout Copper 1.062" O.D.

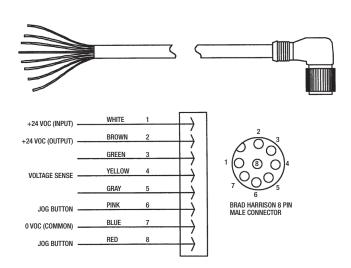


65-2550 1/2" Bore 1/8" Recess Copper 1.062" O.D.

All Lightning® consumables are interchangable for custom configurations. All nozzles are available in threaded versions for use with threaded diffuser.

LIGHTNING® WIRING DIAGRAM - ROBOTIC TORCH 550 AMP

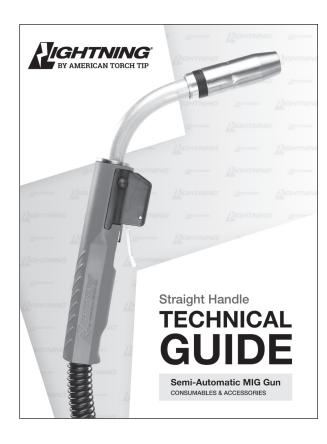


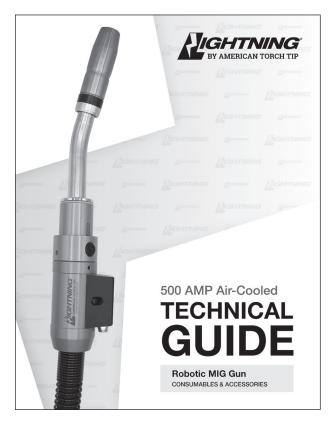




READ MORE ABOUT IT...

Download these Technical Guides and other LIGHTNING® literature at AmericanTorchTip.com/resources/manuals, or click the linked covers below.





MIG

LIGHTNING® TROUBLESHOOTING

GENERAL SAFETY

- 1. Disconnect all power before servicing or changing Lightning welding gun components. Failure to disconnect power can lead to dangerous electrical shock which can kill.
- Smoke, fumes and gases can be dangerous to your health. Keep smoke, fumes and gases from the breathing area. Fumes from welding are of various types and strengths, depending on the kind of base metal being welded.
- 3. Arc welding produces dangerous light radiation. Adequate eye protection must be worn.
- All exposed skin must be covered with flame resistant, protective clothing. Do not wear clothing made from flammable synthetic fibers.
- 5. Protective screens or barriers should be used to protect others from spatter, flash and glare while welding.

TROUBLESHOOTING

CONTACT TIP BURNBACK

Possible Cause

- 1. Improper voltage and / or wire feed speed.
- 2. Erratic wire feeding.
- 3. Improper tip stickout.
- 4. Improper electrode stickout.
- 5. Faulty ground.

Possible Solution

- 1. Set parameters.
- 2. See 'Erratic Arc'.
- 3. Adjust nozzle / tip relationship
- 4. Adjust torch to base metal relationship.
- 5. Repair all cables and connectors.

TIP DISENGAGES FROM RETAINING HEAD

Possible Cause

- 1. Worn retaining head.
- 2. Improper tip installation.

Possible Solution

- 1. Replace tip and/or retaining head.
- 2. Finger-tighten, then finish tightening with the appropriate tool.

ERRATIC ARC

Possible Cause

- 1. Worn contact tip.
- 2. Buildup inside of liner.
- 3. Wrong tip size.
- 4. Incorrect Welding Parameters.

Possible Solution

- 1. Replace.
- 2. Replace liner, check condition of electrode.
- 3. Replace with correct tip size.
- 4. Use wire manufacturer's parameters.

EXCESS SPATTER

Possible Cause

- 1. Improper machine parameters.
- 2. Incorrect tip or installation.
- 3. Incorrect nozzle or shielding.
- 4. Contaminated wire or work piece.

continued >

Possible Solution

- 1. Adjust parameters.
- 2. Adjust nozzle / tip relationship.
- 3. Use correct nozzle and shielding gas coverage.
- 4. Replace wire and clean work piece.



TROUBLESHOOTING continued

DISCOLORED LINER

Possible Cause

- 1. Short circuit to electrode.
- 2. Cuts in outer jacket, copper exposed.

Possible Solution

- 1. Check for wire short circuiting in feeder.
- Replace gun.

WIRE NOT FEEDING OR BUMPY FEEDING

Possible Cause

- 1. Feeder relay / malfunction.
- 2. Broken control lead.
- 3. Poor adaptor connection.
- 4. Incorrect type of drive rolls.
- 5. Improper drive rolls size.
- 6. Drive roll tension misadjusted.
- 7. Burn back to contact tip.
- 8. Wrong size liner.
- 9. Buildup inside of liner.
- 10. Worn drive roll.
- 11. Improper guide tube relationship.
- 12. Improper wire guide diameter.
- 13. Gaps at liner into gas diffuser.

Possible Solution

- 1. Consult feeder manufacturer.
- 2. Connect spare control leads.
- 3. Test and replace leads and/or contact pins.
- 4. Use manufacturers recommended drive rolls.
- 5. Replace with proper size.
- 6. Adjust tension at feeder.
- 7. See 'Contact tip burn back'.
- 8. Replace with correct size.
- 9. Replace liner, check condition of electrode.
- 10. Replace with new drive roll.
- 11. Eliminate all gaps in electrode path.
- 12. Replace with proper guide diameter.
- 13. Reset liner and lock or replace with new liner.

PREMATURE CONTACT TIP FAILURE

Possible Cause

- 1. Improper voltage or wire feed speed.
- 2. Erratic wire feeding.
- 3. Improper tip stickout.
- 4. Improper electrode stickout.

Possible Solution

- 1. Set parameters.
- See'Erratic Arc'.
- 3. Adjust nozzle / tip relationship.
- 4. Change length of wire stickout.

MIG GUN RUNNING HOT

Possible Cause

- 1. Exceeding duty cycle.
- 2. Loose or poor power connection.

Possible Solution

- 1. a. Replace with properly rated duty cycle MIG Gun.
- 1. b. Decrease parameters to within Gun rating.
- 2. a. Clean and retighten all electrical connections.
- 2. b. Check rating and condition of ground clamp.

POROSITY IN WELD

Possible Cause

- 1. Nozzle/Insulator/O-rings worn.
- 2. Retaining head spring/band.
- 3. Extreme heat or duty cycle.
- 4. Gas not getting to the weld.
- 5. Gas ports plugged.
- 6. Loose fittings or cut gas hose.

Possible Solution

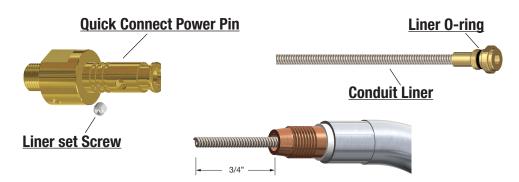
- 1. Replace.
- 2. Replace retaining head.
- 3. Use Xheavy duty consumables.
- 4. Check gas regulator/flowmeter/cylinder.
- 5. Clean or replace gas diffuser//nozzle.
- 6. Tighten or repair hose lines.

LIGHTNING® 1.1 LINER REPLACEMENT

TOOLS REQUIRED

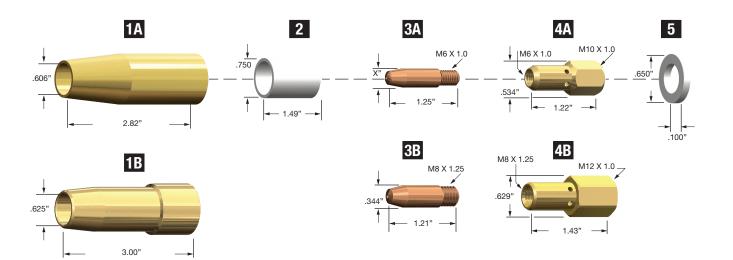
- Vise
- 5/64 Allen wrench
- Lineman pliers
- 1. Remove nozzle, contact tip and tip holder from gooseneck. (Not shown)
- 2. With gun straightened, loosen liner set screw on quick connect power pin at back end of gun using a 5/64" Allen wrench. (See Figure 1)
- 3. Using pliers, grip liner and remove from gun.
- 4. Install new liner by feeding through gun. Use short strokes to avoid kinking. Use clockwise rotation as needed.
- 5. Be sure o-rings on liner head seats into inside bore of power pin.
- 6. Tighten set screw on power pin to secure liner. Do not overtighten.
- 7. Using pliers, trim liner to extend to 3/4" (20mm) from end of gooseneck.
- 8. Remove any burrs on the inside and outside of liner to ensure smooth wire flow and proper seating inside diffuser.
- Reinstall tip holder, contact tip and nozzle onto gooseneck.
 Note: Liner should be visible through gas holes of tip holder.
- 10. Install gun to feeder.

Figure 1



^{*} Trim dimension may change depending on front end consumables being used.

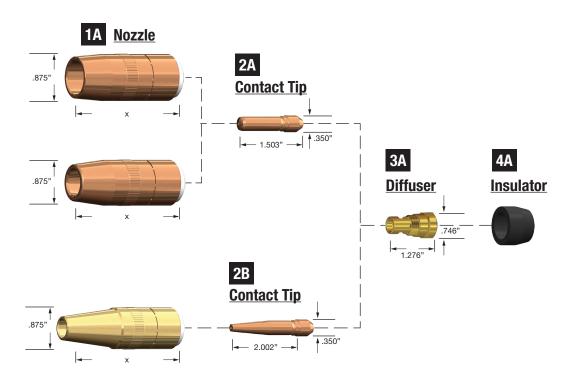




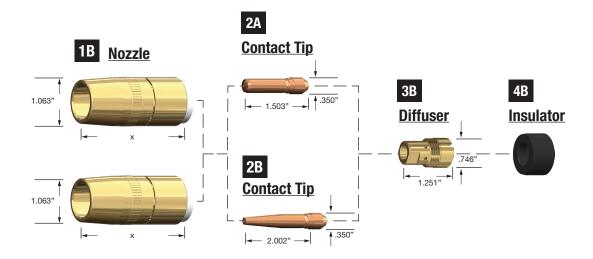
1.	NOZZLE			I.D.
Α	750-04-013	Nozzle		.625
В	750-04-015S	Nozzle Self Ins.		.606
2.	INSULATOR	?S		
Α	750-01-738	Nozzle Insulator 30	0/400A	.650
3.	CONTACT	TIPS		
Α	750-35-511	Contact Tip	.281 OD	.035
	750-45-511	Contact Tip	.281 OD	.045
	750-45-522F	Contact Tip	.312 OD	
В	750-35-014	Contact Tip		.035
	750-45-014	Contact Tip		.045
	750-45-014-LL	Contact Tip CuCr		.050
	750-52-014	Contact Tip		.052
	750-52-014-LL	Contact Tip CuCR		.059
	750-62-014	Contact Tip		
4.	DIFFUSER			
Α	750-02-007	Gas Diffuser		
В	750-04-033	Gas Diffuser		
<u>5.</u>	INSULATIN	G WASHER		
	750-01-005	Insulating Washer 3	300A	

38 BERNARD® STYLE

COMPATIBLE WITH CENTERFIRE™†



COMPATIBLE WITH LARGE CENTERFIRE™†





COMPATIBLE WITH CENTERFIRE™[†]

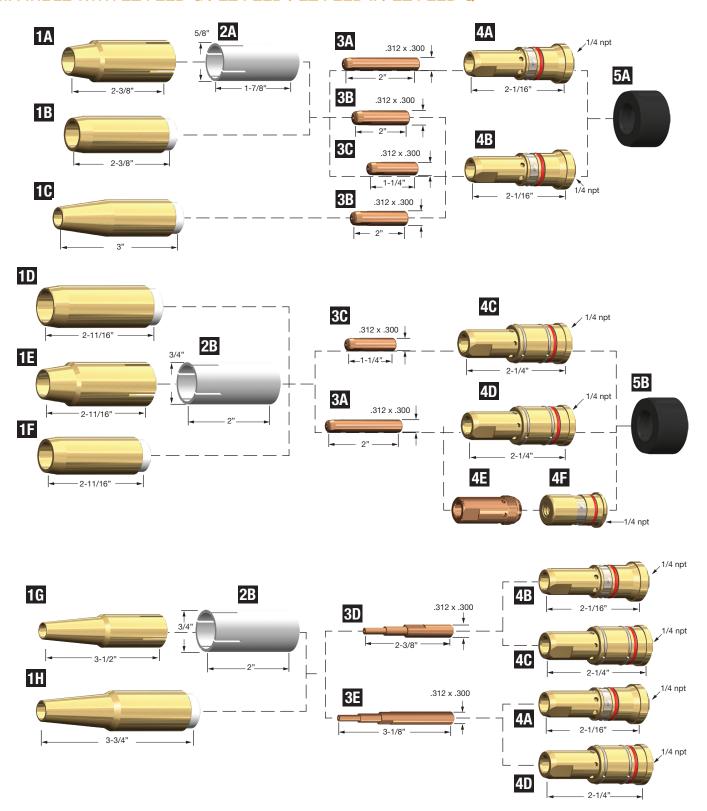
<u>1.</u>	NOZZLES		I.D.	LENGTH
Α	NS-5800C	Flush Copper	5/8"	2.015
	NS-5818C	1/8" Recess Copper	5/8"	2.141
	NS-5800B	Flush Brass	5/8"	2.015
	NS-5818B	1/8" Recess Brass	5/8"	2.141
	NS-1218C	1/8" Recess Copper	1/2"	2.141
	NS-1200B	Flush Brass	1/2"	2.015
	NS-1218B	1/8" Recess Brass	1/2"	2.141
	NST-3800B	Flush Brass	3/8"	2.015
	NST-3818B	1/8" Recess Brass	3/8"	2.141
	NT-3800C	3/8" Flush Copper	3/8"	1.063
В	N-3400C	Flush Copper	3/4"	2.259
D	N-3418C	1/8" Recess Copper	3/4"	2.387
	N-3414C		3/4"	2.510
		1/4" Recess Copper	3/4"	
	N-3418B	1/8" Recess Brass		2.387
	N-3414B	1/4" Recess Brass	3/4"	2.510
	N-5800C	Flush Copper	5/8"	
	N-5818C	1/8" Recess Copper	5/8"	2.385
	N-5814C	1/4" Recess Copper	5/8"	2.506
	N-5818B	1/8" Recess Brass	5/8"	2.385
	N-5814B	1/4" Recess Brass	5/8"	2.506
2.	CONTACT	TIPS	1.	D.
T S	Series Contact 1	Гірѕ		
Α	T-023	Contact Tip	.02	23" (0.6 mm)
	T-030	Contact Tip	.03	30" (0.8 mm)
	T-035	Contact Tip	.03	35" (0.9 mm)
	T-039	Contact Tip		39" (1.0 mm)
	T-045	Contact Tip		45" (1.2 mm)
	T-052	Contact Tip		52" (1.4 mm)
	T-062	Contact Tip		62" (1.6 mm)
	T-072	Contact Tip		16" (1.8 mm)
	T-078	Contact Tip		64" (2.0 mm)
	T-094	Contact Tip		32" (2.4 mm)
	T-109	Contact Tip		64" (2.8 mm)
	T-125	Contact Tip	1/3	` '
	T-035AL			` ,
	T-035AL T-047AL	Contact Tip Aluminum Contact Tip Aluminum		` '
TT	T-062AL	Contact Tip Aluminum	1/	16" (1.6 mm)
	Series Contact		04	00" (0 6 mm)
В	TT-023	Contact Tip Tapered		23" (0.6 mm)
	TT-030	Contact Tip Tapered		30" (0.8 mm)
	TT-035	Contact Tip Tapered		35" (0.9 mm)
	TT-039	Contact Tip Tapered	_	39" (1.0 mm)
	TT-045	Contact Tip Tapered		45" (1.2 mm)
	TT-052	Contact Tip Tapered		52" (1.4 mm)
	TT-062	Contact Tip Tapered	1/	16" (1.6 mm)
<u>3.</u>	DIFFUSER			
Α		Diffuser small		
В	D-1 I	Diffuser large		
4.	INSULATO	RS		
Α	*4523R	nsulator small		

Insulator large

4423R

40 BERNARD® STYLE

COMPATIBLE WITH EZ FEED G / EZ FEED / EZ FEED II / EZ FEED Q[†]





Contact Tip

244

.045 (1.2mm)

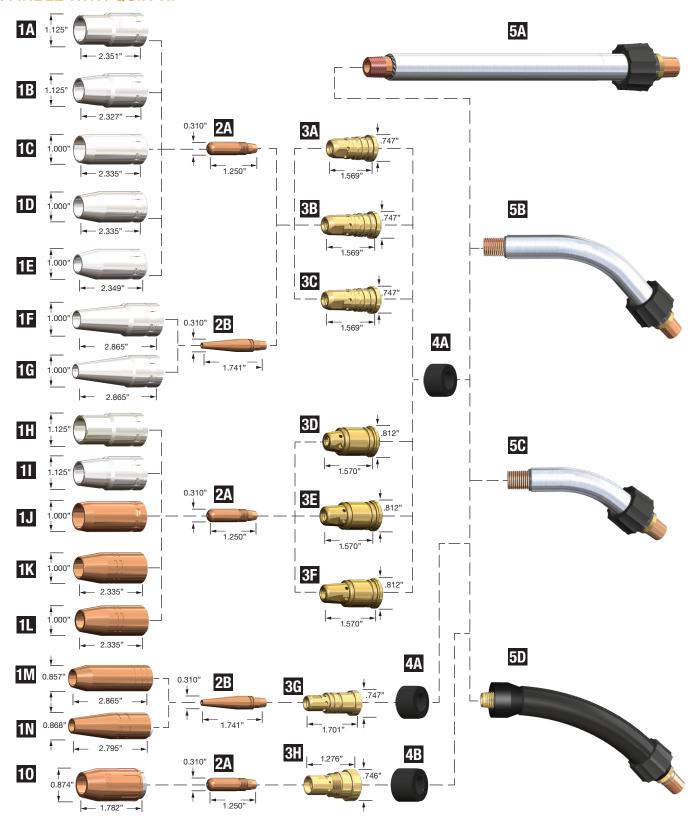
COMPATIBLE WITH EZ FEED G / EZ FEED / EZ FEED II / EZ FEED Q[†]

1.	NOZZLE	.		I.D.		4.	GAS DI	FFUSERS		
A	241	Nozzle Brass		5/8"	(15.9mm)	A	4235	Gas Diffuser 200A		
B	4391	Nozzle Brass		5/8"	(15.9mm)	В	4335	Gas Diffuser 200/300A		
_	4392	Nozzle Tapered E	Brass	1/2"	(12.7mm)	C	4435	Gas Diffuser 400/500A		
	4393	Nozzle Copper	51433	5/8"	(15.9mm)	Ď	4635	Gas Diffuser 600A		
С	4295	Nozzle Tapered E	Brass	3/8"	(09.5mm)	Ē	4635-2	Gas Diffuser, Tip Holde	er 600A	
Ď	4491	Nozzle Brss	51400	3/4"	(19.0mm)	F	4635-1	Gas Diffuser, Tip 600A	31 00071	
_	4492	Nozzle tapered E	Brass	9/16"	(14.3mm)	-		das Emassi, rip stori		
	4591-HD	Nozzle Copper H		3/4"	(19.0mm)	<u>5.</u>	CAPS			
	4592-HD	Nozzle Copper H		17/32"		Α	4323R	Cap 200/250A		
Е	431	Nozzle Brass	_	1/2"	(12.7mm)	В	4423R	Cap 400/500A		
_	401	Nozzle Brass		3/4"	(19.0mm)	LI	NERS (NO	OT SHOWN)	I.D.	O.D.
	602	Nozzle Brass		3/4"	(19.0mm)	Α	43010	Liner 10' .023030	.036	.126
	601	Nozzle Copper		3/4"	(19.0mm)		43015	Liner 15' .023030	.036	.126
	1501	Nozzle Copper H	ID	3/4"	(19.0mm)		43110	Liner 10' .023030	.036	.126
F	4591	Nozzle Copper		3/4"	(19.0mm)		43115	Liner 15'.035045	.069	.163
	4592	Nozzle Copper		17/32"			43115X	Liner Tef. 15' 3/64"Al	.090	.155
G	242	Nozzle Tapered E			(8.7mm)		43125	Liner 25' .035045	.069	.063
Н	4395A	Nozzle Tapered E	3rass	11/32"	(8.7mm)		43215	Liner 15' 1/16"	.075	.175
	4394	Nozzle Tapered (Copper	1/2"	(12.7mm)		44110	Liner 10' .035045	.068	.178
2.	INSULA	TORS					44115	Liner 15' .035045	.068	.178
							44125	Liner 25' .035045	.068	.178
Α	256	Insulator					44210	Liner 10' 1/16"	.077	.189
В	4061	Insulator					44215	Liner 15' 1/16"	.077	.189
3.	CONTAC	CT TIPS			I.D.		44215X	Liner Tef. 15' 1/16" Al.	.100	.185
Α	1597	Contact Tip	.023	(0.6mm)	.031		44225	Liner 25' 1/16"	.077	.189
	1588	Contact Tip		(0.8mm)	.037		44310	Liner 10' 5/64"	.125	.220
	1589	Contact Tip		(0.9mm)	.043		44315	Liner 15' 5/64"	.125	.220
	1596	Contact Tip		(1.0mm)	.048		45410	Liner 10' 3/32"	.125	.220
	1590	Contact Tip		(1.2mm)	.055		45415	Liner 15' 3/32"	.125	.220
	1598	Contact Tip		(1.4mm)	.064		45610	Liner 10' 7/64"	.138	.252
	1591	Contact Tip		(1.6mm)	.076		45615	Liner 15' 7/64"	.138	.252
	1592	Contact Tip		(2.0mm)	.093	В	43115T	Liner 15' .035045	.071	.160
	1593	Contact Tip			.110		44115T	Liner 15' .035045	.068	.178
	1594	Contact Tip		(2.8mm)	.125		44215T	Liner 15' 1/16"	.077	.189
	1595	Contact Tip	1/8"	(3.2mm)	.144		44225T	Liner 25' 1/16"	.077	.189
	4285	Contact Tip	.030	(0.8mm)	.037	A	SO AVA	ILABLE (NOT SHOWN))	
	4281	Contact Tip	.035	(0.9mm)	.043		451	Diffuser	<u> </u>	
	4282	Contact Tip	.045	(1.2mm)	.055		4790	Body Tube Assembly		
	4283	Contact Tip		(1.4mm)	.064		4790 4061ST	Insulator		
	4280	Contact Tip	1/16"	(1.6mm)	.076		400131	Ilisulatoi		
С	7497	Contact Tip	.023	(0.6mm)	.031					
	7488	Contact Tip		(0.8mm)	.037					
	7489	Contact Tip		(0.9mm)	.043					
	7496	Contact Tip		(1.0mm)	.048					
	7490	Contact Tip	.045	(1.2mm)	.055					
	7498	Contact Tip		(1.4mm)	.064					
	7491	Contact Tip		(1.6mm)	.076					
	7492	Contact Tip		(2.0mm)	.093					
	7493	Contact Tip		(2.4mm)	.110					
	7479	Contact Tip		(2.8mm)	.125					
D	4381A	Contact Tip		(0.9mm)	.043					
	4382A	Contact Tip		(1.2mm)	.055					
Е	243	Contact Tip		(0.9mm)	.043					
	244	Contact Tin	045	(1 2mm)	OEE					

.055

42 BERNARD® STYLE

COMPATIBLE WITH QUIK TIPTM†





COMPATIBLE WITH QUIK TIPTM†

1.	NOZZLE	S		I.D. L	.ENGTH	3.	DIFFUSE	RS		
A	N1C34HQ	Nozzle Plated	Copper HD	3/4"	2.351"	A	D114Q	1/4" Reces	ss	Threaded
В	N1C58HQ	Nozzle Plated (5/8"	2.327"	В	D118Q	1/8" Reces	ss	Threaded
С	N1C34Q	Nozzle Plated (Copper	3/4"	2.335"	С	D1FQ	1/8" Reces		Threaded
	N1B34Q	Nozzle Brass		3/4"	2.335"	D	D114	1/4" Reces		Slip-On
D	N1C58Q	Nozzle Plated	Copper	5/8"	2.335"	Ε	D118	1/8" Reces	SS	Slip-On
	N1B58Q	Nozzle Brass		5/8"	2.335"	F	D1F	Flush		Slip-On
Е	N1C12Q	Nozzle Plated (1/2"	2.349"	G	D218	1/8" Reces	SS	Slip-On
F	N2C12HQ	Nozzle Plated		1/2"	2.865"	Н	DS-QT	Flush		Threaded
G	N2C38HQ	Nozzle Plated		3/8"	2.865"	4.	INSULAT	TORS		
Н	N1C34HD	Nozzle Plated		3/4"		A		Insulator	Rubber	
I	N1C58HD	Nozzle Plated		5/8"		В	4423R 4523R	Insulator	Rubber	
J	N1C34	Nozzle Copper		3/4"					Hubber	
K	N1C58	Nozzle Copper		3/4"	2.335"	<u>5.</u>	GOOSEN	<u>VECKS</u>		
L	N1C12	Nozzle Copper		1/2"	2.335"	Α	QT-180-12	Goosenec	k 180°	12"
M	N2C12	Nozzle Copper		1/2"	2.865"		QT-180-24	Goosenec	k 180°	24"
N	N2C38	Nozzle Copper		3/4"	2.795"		QT-180-7	Goosenec	k 180°	7"
0		Nozzle Copper		1/2"		В	QT2-60	Goosenec	k 60°	
	NSQT-1218	Nozzle Copper	1/8" Reces	s 1/2"			QT3-60	Goosenec	k 60°	
2.	CONTAC	CT TIPS	I.D.		O.D.	С	QT2-45	Goosenec	k 45°	
	ries 1 Contac						QT2-45-12	Goosenec	k 45°	12"
		Contact Tip	0.023" (0.6	mm)	0.312"		QT2-45-24	Goosenec	k 45°	24"
		Contact Tip	0.023 (0.0	mm)	0.312"		QT3-45	Goosenec	k 45°	
		Contact Tip	0.035" (0.8	mm)	0.312"	D	QT-F-8	Flexneck	8"	Flex Neck
		Contact Tip	0.039" (1.0	mm)	0.312"		QT-F-6	Flexneck	6"	Flex Neck
		Contact Tip	0.045" (1.2	mm)	0.312"	6.	LINERS	WIRE S	IZE I	LENGTH
		Contact Tip	,	mm)	0.312"	0.				
		Contact Tip	0.052" (1.4		0.312"		L1A-15	0.023"-0.0		15'
		Contact Tip		mm)	0.312"		L1A-25	0.023"-0.0		25'
		Contact Tip	0.068" (1.7		0.312"		L2A-15	0.030"-0.0		15'
		Contact Tip	0.072" (1.8	mm)	0.312"		L2A-25	0.030"-0.0		25'
		Contact Tip		mm)	0.312"		L3A-15	0.035"-0.0		15'
		Contact Tip		mm)	0.312"		L3A-25	0.035"-0.0		25'
		Contact Tip		mm)	0.312"		L4A-15	0.045"-1/		15'
		Contact Tip	`	mm)	0.312"		L4A-25	0.045"-1/	16"	25'
		Jontaot Tip	170 (0.2	,	0.012		L6A-15	5/64"		15'
Sei	ries 2 Contac	ct Tips Taper					L6A-25	5/64"		25'
		Contact Tip 0.02	3" Tanered	(0.6 mm	n) 0.312"		L7A-15	3/32"		15'
		Contact Tip 0.02	•	(0.8 mn	,		L7A-25	3/32"		25'
		Contact Tip 0.03		(0.9 mm						
		Contact Tip 0.04		(1.2 mm						
		Contact Tip 3/64		(1.2 mm						
		Contact Tip 0.05		(1.4 mm						
		Contact Tip 0.05		(1.4 mm						
۸۷۵		es of 25 contact tips	iapeieu	(1.0 1111	1) 0.012					
Ava	паріе її раскаде	es or 25 contact tips								

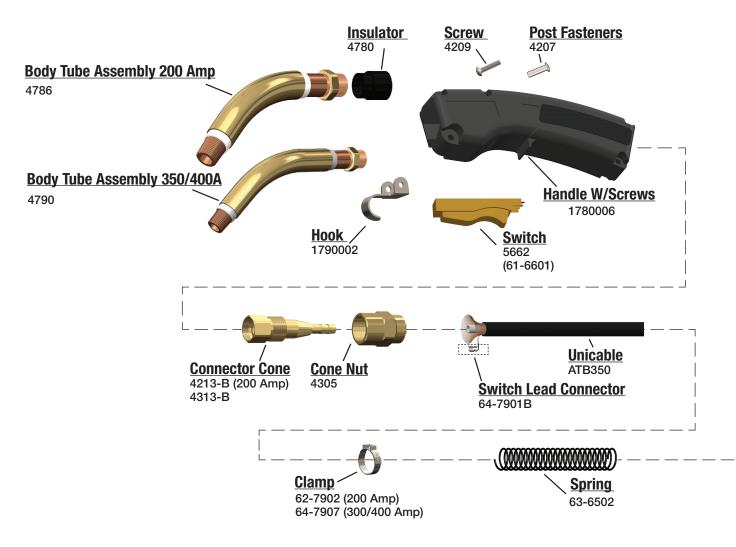


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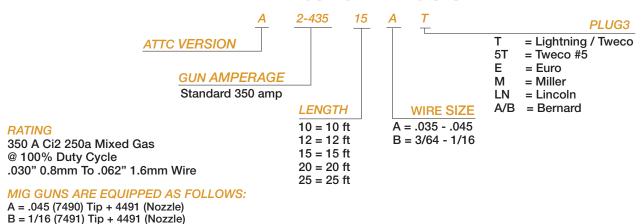
QT5-30 Gooseneck 30°

44 BERNARD® STYLE

REPLACEMENT PARTS COMPATIBLE WITH B-200/350 BERNARD® EZ FEED 11 200/350 AMP†

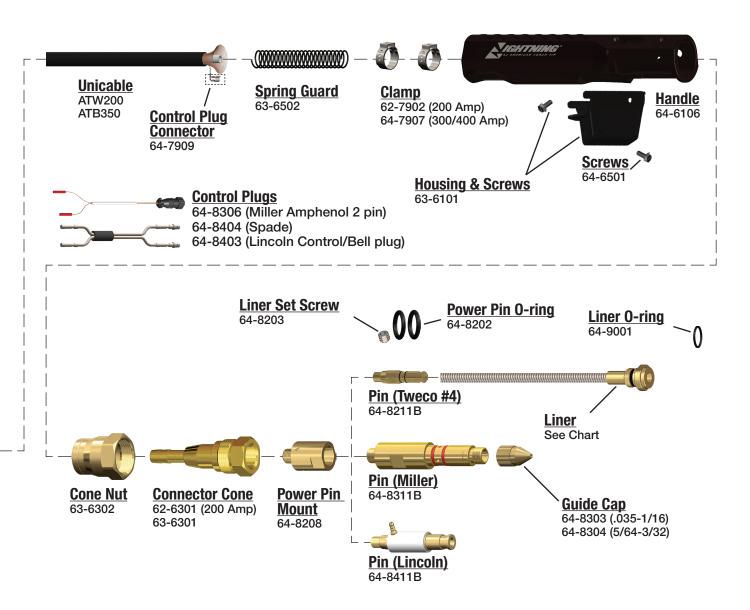


BERNARD GUN ORDERING SYSTEM





REPLACEMENT PARTS COMPATIBLE WITH B-200/350 BERNARD® EZ FEED 11 200/350 AMP†



46 **BERNARD® STYLE**

Daiden

Euro

64-8100

COMPATIBLE WITH B-350 BERNARD EZ FEED 11 350 AMP†







Panasonic

Tweco #5 64-8204























LIGHTNING® SEMI-AUTOMATIC GUN CONVERSION KITS AVAILABLE FOR & COMPATIBLE WITH BERNARD®, LINCOLN® & TWECO® WITH A SIMPLE CHANGE-OUT OF PARTS†

LIGHTNING® RETAINING HEADS

Part #	Description
65-3103*	Retaining Head for Extra Heavy Duty
63-3103	Retaining Head T/L
63-3103-2	Retaining Head T/L
63-3116	Thread-on Retaining Head HD
63-3402	Retaining Ring
63-3301	O-Ring Orange 016
63-3118-T	Diffuser, Bernard® Threaded

*This retaining head must be used with #65-11XX contact tip. See Contact Tips Selector Chart on pg. 2



Gooseneck Insulator Retaining Head Contact Tip

Nozzle

BENEFITS

- Greater surface area contact between tip and head ensures better heat dissipation and conductivity.
- Tapered tip design creates a more secure seat, eliminating loose tips.
- Cooler tip temperature reduces wear and extends tip life.
- Dual-lead thread design allows for 180 degree rotation of tip to new wear point for extended tip life.
- Brass insert prevents wear and extends life.
- Superior surface finish minimizes spatter adhesion.
- Durable hard drawn copper or brass withstands abuse.

Lightning® Contact Tips Selector Chart

Part #	Description
63-1130	Contact Tip HD .030 pk 10
63-1135	Contact Tip HD .035 pk 10
63-1135-40	Contact Tip HD .035/.040 I.D. pk 10
63-1138	Contact Tip HD .030 pk 10 Robotic
63-1140	Contact Tip HD .040 pk 10
63-1145	Contact Tip HD .045 pk 10
63-1147	Contact Tip HD 3/64" al pk 10
63-1152	Contact Tip HD .052 pk 10
63-1162	Contact Tip HD 1/16" pk 10
63-1168	Contact Tip HD .068/.078 I.D. pk 10
63-1172	Contact Tip HD .072 pk 10 SPECIAL
63-1178	Contact Tip HD 5/64" pk 10
63-1193	Contact Tip HD 3/32" pk 10
Part #	Tapered Tip
63-12XX	XX = last 2 digits indicate wire size
Part #	CZ Tip (Chromium Zirchonium)
63-13XX	XX + last 2 digits indicate wire size
Part #	Extra Heavy Duty Tip
65-11XX*	XX = last 2 digits indicate wire size

^{*}This contact tip must be used with #65-3103 retaining head. See Lightning Retaining Heads Chart on pg. 1

BERNARD® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Q-Gun Series	63-6105	63-3118	63-11XX [‡]	6X-XXXX**
EZ Feed Series	63-6105	63-3118	63-11XX‡	6X-XXXX**
T-Series†	63-6202-HD	63-3103	63-11XX‡	6X-XXXX**
Roughneck C Miller	63-6105	63-3118	63-11XX‡	6X-XXXX**

LINCOLN® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Magnum 300	63-6105	63-3103	63-11XX [‡]	6X-XXXX**
Magnum 400	63-6105	63-3103	63-11XX‡	6X-XXXX**
Magnum Pro	63-6105	63-3119	63-11XX‡	6X-XXXX**

TWECO® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Tweco #3	63-6105	63-3103	63-11XX [‡]	6X-XXXX**
Tweco #4	63-6105	63-3103	63-11XX‡	6X-XXXX**
SprayMaster 450	63-6105	63-3103	63-11XX‡	6X-XXXX**
WeldSkill 400	63-6105	63-3103	63-11XX‡	6X-XXXX**

Use the Lightning® contact tip system (gooseneck insulator, retaining head, contact tip and nozzle) with Bernard® Lincoln® or Tweco® MIG guns.

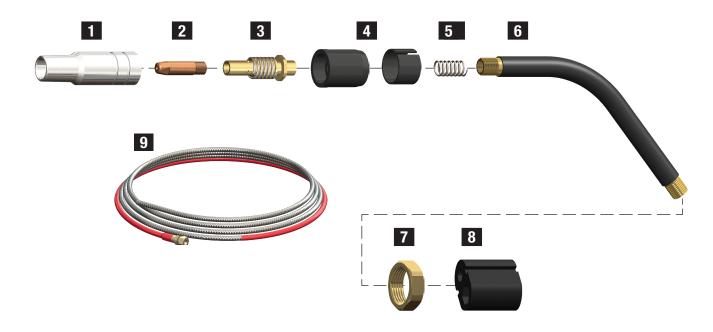
Use 63-3118 Retaining Head on goosenecks with external 9/16"-18 thread, such as Q-gun and EZ Feed guns with 1/4" NPT thread.

- † T-Series retaining head can only be used on Bernard® T-Series (Tregasskiss®) guns.
- ‡63-11XX (XX = your wire size)
- ** 6X-XXXX (see Nozzle Selector Chart on next page)

Lightning® Nozzle Selector Chart (Air-Cooled Slip On)						
Standard Duty Nozzle Part #	Bore/Material	O.D./Length	Tip Location			
63-2138	3/8" Copper	.938" / 2.75"	Flush			
64-2950	1/2" Brass	.938" / 2.63"	1/8" Stickout			
63-2950B	1/2" Brass	.938" / 2.88"	1/8" Recess			
63-2150	1/2" Copper	.938" / 2.88"	1/8" Stickout			
63-2762	5/8" Copper	.938" / 2.51"	1/4" Stickout			
63-2662	5/8" Copper	.938" / 2.63"	1/8" Stickout			
63-2162	5/8" Copper	.938" / 2.88"	1/8" Recess			
63-2175	3/4" Copper	.938" / 2.88"	1/8" Recess			
Heavy Duty Nozzle Part #	Bore/Material	O.D./Length	Tip Location			
65-2550	1/2" Copper	1.062"/ 2.88"	1/8" Recess			
65-2662	5/8" Copper	1.062"/ 2.63"	1/8" Stickout			
65-2362	5/8" Brass	1.062"/ 2.63"	1/8" Stickout			
64-2962	5/8" Copper	1.062"/ 2.75"	Flush			
65-2862	5/8" Brass	1.062"/ 2.75"	Flush			
63-2362	5/8" Brass	1.062"/ 2.88"	1/8" Recess			
65-2562	5/8" Copper	1.062"/ 2.88"	1/8" Recess			
64-2562	5/8" Copper	1.062"/ 3.00"	1/4" Recess			
65-2575	3/4" Copper	1.062"/ 2.88"	1/8" Recess			
65-2375	3/4" Brass	1.062"/ 2.88"	1/8" Recess			
64-2575	3/4" Copper	1.062"/ 3.00"	1/4" Recess			
64-2387	7/8" Brass	1.062"/ 3.00"	1/4" Recess			
65-2562-T	5/8" Copper	1.062"/ 2.78"	1/8" Recess			

48 BINZEL® STYLE

COMPATIBLE WITH 15 AK 180AMP CO₂ 60% DUTY[†] FOR REPLACEMENT PARTS SEE PAGE 53

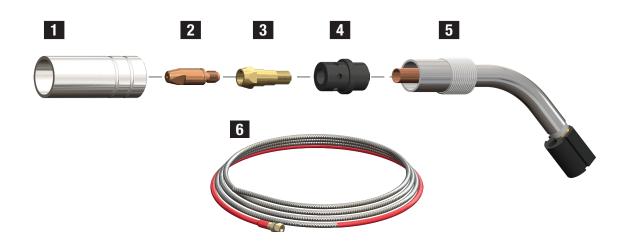


1.	NOZZLE	S		I.D.	
Α	145-0075	Nozzle, Conical		1/2"	(12.7mm)
	145-0123	Nozzle, Conical, Sm	all		(09.5mm)
В	145-0041	Nozzle, Cylindrical			(15.9mm)
С	145-0143	Nozzle, Tapered		33/64"	(13.1mm)
2.	CONTAC	CT TIPS			I.D.
	140-0008	Contact Tip M6 Cu	.023	(0.6mm)	.028
	140-0059	Contact Tip M6 Cu		(0.8mm)	
	140-0177	Contact Tip M6 Cu	.035	(0.9mm)	.043
	140-0253	Contact Tip M6 Cu	.040	(1.0mm)	.048
	140-0387	Contact Tip M6 Cu	.045	(1.2mm)	.055
	141-0002	Contact Tip M6 Cu	.030	(.8mm)A	N .043
	141-0005	Contact Tip M6 Cu	.035	(.9mm)A	N .048
	141-0007	Contact Tip M6 Cu	.040	(1mm)A	l .055
3.	NOZZLE	HOLDER			
	002-0078	Nozzle Holder			
4.	HEAD IN	ISULATOR			
	002-0050				

5. NOZZLE	SPRING			
002-0058				
6. GOOSEN	IECKS			
002-0009	Swanneck	50 Degree		
7. TORCH	BODY BI	RASS		
400-0114				
8. TORCH	BODY PL	ASTIC		
400-0044				
400-0044 9. LINERS			I.D.	O.D.
	Liner 3M	.030035	<i>I.D.</i> .053	O.D. .156
9. LINERS	Liner 3M Liner 4M	.030035 .030035		
9. LINERS 124-0011			.053	.156
9. LINERS 124-0011 124-0012	Liner 4M	.030035	.053 .053	.156 .156
9. LINERS 124-0011 124-0012 124-0015	Liner 4M Liner 5M	.030035 .030035	.053 .053	.156 .156
9. LINERS 124-0011 124-0012 124-0015 124-0026	Liner 4M Liner 5M Liner 3M	.030035 .030035 .035045	.053 .053	.156 .156

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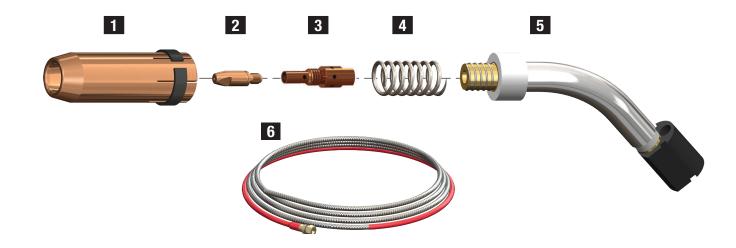
COMPATIBLE WITH 24 KD 250AMP CO₂ 60% DUTY[†] FOR REPLACEMENT PARTS SEE PAGE 53



<u>1.</u>	GAS NOZ	ZZLES			I.D	
Α	145-0047	Nozzle (Cylindrical		21/32"	(17mm)
В	145-0080	Nozzle (Conical		1/2"	(12.5mm)
С	145-0128	Nozzle 7	Tapered		21/32"	(17mm)
2.	CONTAC	T TIPS				I.D.
	140-0051	M6 E-C	u	.030	(0.8mm)	.037
	140-0242	M6 E-C	u	.040	(1.0mm)	.048
	140-0379	M6 E-C	u	.045	(1.2mm)	.055
	140-0054	M6 Cu0		.030	(0.8mm)	.037
	140-0245	M6 CuC	CrZr	.040	(1.0mm)	.048
	140-0382	M6 Cu0	CrZr	.045	(1.2mm)	.055
	141-0001	M6 E-C	u	.030	(0.8mm)	.043 AL
	141-0006	M6 E-C	u	.040	(1.0mm)	.055 AL
	141-0010	M6 E-C	u	3/64'	'(1.2mm)	.059 AL
<u>3.</u>	CONTAC	T TIP F	HOLDER	?		
4.	GAS DIF	FUSER)			
	012-0017	Gas Diff	user Blacl	(
	012-0183	Gas Diff	user White	Э		
5.	GOOSEN	IECKS				
	012-0001	Swan Ne	eck 50 Deg	gree		
6.	LINERS					I.D.
	124-0011	Liner	3M	.0300	35 .053	.156
	124-0015	Liner	5M	.0300	35 .053	.156
	124-0026	Liner	3M	.0400	45 .071	.156
	124-0031	Liner	4M	.0400	45 .071	.156
	126-0011	Liner	5M	3/64"	.059	.156
	126-0028	Liner	5M	5/64"	.078	.156

50 BINZEL® STYLE

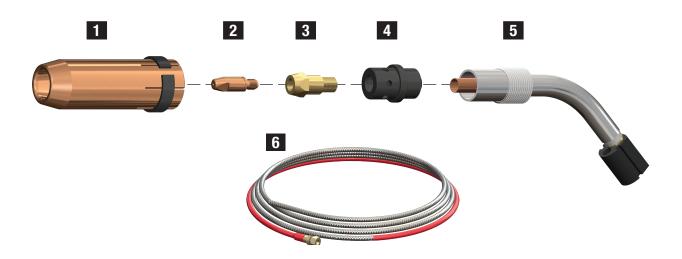
COMPATIBLE WITH 25[†] FOR REPLACEMENT PARTS SEE PAGE 53



1.	NOZZLES	5		I.D.	
Α	145-0042	Nozzle, Cylindrical	23/32" (18.3mm)		
В	145-0076	Nozzle, Conical		19/32" (15	.1mm)
	145-0124	Nozzle, Conical, Sma	ll	29/64" (11	.5mm)
2.	CONTAC	T TIP			I.D.
	140-0051	Contact Tip M6 Cu	.030	(.08mm)	.037
	140-0169	Contact Tip M6 Cu	.035	(0.9mm)	.043
	140-0242	Contact Tip M6 Cu	.040	(1.0mm)	.048
	140-0379	Contact Tip M6 Cu	.045	(1.2mm)	.055
	140-0555	Contact Tip M6 Cu		(1.6mm)	.073
	140-0054	Contact Tip M6 H.D.	.030	(0.8mm)	.037
	140-0172	Contact Tip M6 H.D.	.035	(0.9mm)	.043
	140-0245	Contact Tip M6 H.D.	.040	(1.0mm)	.048
	140-0382	Contact Tip M6 H.D.	.045	(1.2mm)	.055
	141-0004	Contact Tip M6 Cu	.035	(0.9mm)AL	.048
	141-0006	Contact Tip M6 Cu	.040	(1.0mm)AL	.055
	141-0010	Contact Tip M6 Cu		(1.2mm)AL	.059
<u>3.</u>	CONTAC	<u>T TIP HOLDERS</u>			
	142-0001				
<u>4.</u>	NOZZLE S	SPRING			
	003-0013				
5.	GOOSEN	ECKS			
	004-0012	Swanneck 50°			
6.	LINERS			I.D.	O.D.
	124-0011	Liner 3M .030035		.053	.156
	124-0015	Liner 5M .030035		.053	.156
	124-0026	Liner 3M .040045		.071	.156
	124-0031	Liner 4M .040045		.071	.156
	124-9003	Liner 5M .040045		.071	.156
	124-9004	Liner 5M .045-1/16"		.095	.156



COMPATIBLE WITH 26[†] FOR REPLACEMENT PARTS SEE PAGE 53



1	GAS NO	771 EC			I.D.	
	145-0051	Nozzle Cylindri	ool		25/32" (2	0mm)
	145-0085	Nozzle Cylinan			41/64" (1	
	145-0132	Nozzle Tapered			35/64" (1	
2.	CONTA	_			,	I.D.
	140-0051	Contact Tip M6	E-Cu	.030	(0.8mm)	.037
	140-0242	Contact Tip M6	E-Cu	.040	(1.0mm)	.048
	140-0379	Contact Tip M6	E-Cu	.045	(1.2mm)	.055
	140-0054	Contact Tip M6	CuCrZr	.030	(0.8mm)	.037
	140-0245	Contact Tip M6	CuCrZr.	.040	(1.0mm)	.048
	140-0382	Contact Tip M6	CuCrZr	.045	(1.2mm)	.055
	141-0001	Contact Tip M6	E-Cu	.030	(0.8mm)	.043 AL
	141-0006	Contact Tip M6	E-Cu	.040	(1.0mm)	.055 AL
	141-0010	Contact Tip M6	E-Cu	3/64	' (1.2mm)	.059 AL
<u>3.</u>	CONTA	CT TIP HOLDI	ERS			
	142-0007	Tip Holder M6 Sh				
	142-0012	Tip Holder M6 Lo	ng			
<u>4.</u>	GAS DIF	FFUSER				
	018-0004	Gas Diffuser Black	-			
	018-0116	Gas Diffuser White	е			
5.	GOOSE	NECKS				
	018-0001	Swan Neck 50°°				
6.	LINERS				I.D.	O.D.
	124-0011	Liner 10'	.02403	5	.053	.156
	124-0015	Liner 15'	.02403			.156
	124-0026	Liner 10'	.03504	-	.071	.156
	124-9003	Liner 15'	.03504			.156
	124-0041	Liner 10'	.045-1/1		.095	.156
	124-0042	Liner 15'	.045-1/1	-	.095	.156
	124-9004 126-0005	Liner 15'	.052-1/1	0	.095	.156 .156
	126-0005	Liner, Teflon™ 10	3/04		.059	.100

52 BINZEL® STYLE

COMPATIBLE WITH A/AT 255 SERIES M6® †



1. NOZZLE	S	I.D.	2. CONTACT TIPS (CONTINUED)	I.D.
145-D015* 145-D016* 145-D011* 145-D013* 145-D012* 2. CONTA(140-0054 140-0172 140-0245 140-0382 140-0051 140-0169 140-0242	Nozzle, Conical Recess Nozzle, Conical Recess Nozzle, Conical Recess Nozzle, Conical Flush Nozzle, Conical Flush CT TIPS Contact Tip M6 Hard CuCl Contact Tip M6 CuCl Contact Tip M6 Cu	70mm 1/2" 70mm 9/16" 70mm 5/8" 67mm 1/2" 67mm 9/16" I.D. rZr .030" rZr .040" rZr .045" .030" .035" .040"	141-0001 Contact Tip M6 Cu 141-0004 Contact Tip M6 Cu 141-0006 Contact Tip M6 Cu 141-0010 Contact Tip M6 Cu 3. TIP HOLDERS H2T-6-C* Tip Holder M6 4. ADAPTER PIECE 767.D656 ME	.030 .035 .040 3/64"
140-0379	Contact Tip M6 Cu	.045"		

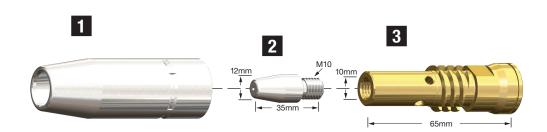
COMPATIBLE WITH A/AT 355 SERIES M8®†



	<u> </u>	30r			
				52mm ———————————————————————————————————	
1. NOZZLE	S	I.D.	2. CONTAC	CT TIPS (CONTINUED)	I.D.
145-D025*	Nozzle, Conical Recess	72mm 1/2"	141-0055	Contact Tip M8 AL	.052"
145-D026	Nozzle, Conical Recess	72mm 5/8"	141-0022	Contact Tip M8 AL	.062"
145-D021*	Nozzle, Conical Recess	72mm 3/4"	140-0117	Contact Tip M8 CuCrZr	.030"
145-D023*	Nozzle, Conical Flush	69mm 9/16"	140-0217	Contact Tip M8 Hard CuCrZr	.035"
145-D022*	Nozzle, Conical Flush	69mm 5/8"	140-0316	Contact Tip M8 Hard CuCrZr	.040"
2. CONTAC	T TIPS	I.D.	140-0445	Contact Tip M8 Hard CuCrZr	.045"
140-0114	Contact Tip M8 Cu	.030"	140-0536	Contact Tip M8 Hard CuCrCz	.052"
140-0214	Contact Tip M8 Cu	.035"	140-0590	Contact Tip M8 Hard	.062"
140-0313	Contact Tip M8 Cu	.040"	3. TIP HOL	.DERS	
140-0442	Contact Tip M8 Cu	.045"	H3T-8-C	M8	52mm
140-0533	Contact Tip M8 Cu	.052"	4. ADAPTE	R PIFCF	
140-0587	Contact Tip M8 Cu	1/16"			
140-0653	Contact Tip M8 Cu	5/64"	767.0107*	"A" M8	
140-0677	Contact Tip M8 Cu	3/32"	767.D668*	"AT" M8	
141-0003	Contact Tip M8 AL	.030"			
141-0043	Contact Tip M8 AL	.035"			
141-0008	Contact Tip M8 AL	.040"			
141-0075	Contact Tip M8 AL	.045"			



COMPATIBLE WITH A/AT 415 SERIES M10®†



1. NOZZLE	S	I.D.
145-D243*	Nozzle, Conical Recess	85mm 1/2"
145-D244	Nozzle, Conical Recess	85mm 5/8"
145-D245*	Nozzle, Conical Recess	85mm 3/4"
2. CONTAC	T TIPS	I.D.
140-1248*	Contact Tip M10 CuCrZr	.035"
140-0348*	Contact Tip M10 CuCrZr	.040"
140-0481	Contact Tip M10 CuCrZr	.045"
140-0547	Contact Tip M10 CuCrZr	.052"
140-0616	Contact Tip M10 CuCrZr	1/16"
140-0665	Contact Tip M10 CuCrZr	5/64"
140-0698	Contact Tip M10 CuCrZr	3/32"
3. TIP HOL	DERS	
H4T-8-C	65mm M10	
4. ADAPTE	R PIECE	
016.D393*	M10	

54 BINZEL® STYLE

REPLACEMENT PARTS FOR & COMPATIBLE WITH ALL BINZEL®†



<u>1.</u>	SWAN N	ECK			
	MB-15	002-0	0009		
	MB-24	012-0	0001		
	MB-25	004-0	012		
	MB-26	018-0	116		
	MB-36	014-0	0006		
2.	LINERS			I.D.	O.D.
	124-0015	15'	.023035	.053	.156
	124-9003	15'	.025045	.071	.156
	124-9004	17'	.052-1/16"	.095	.156

.045-1/16"

124-0041

10'

.095

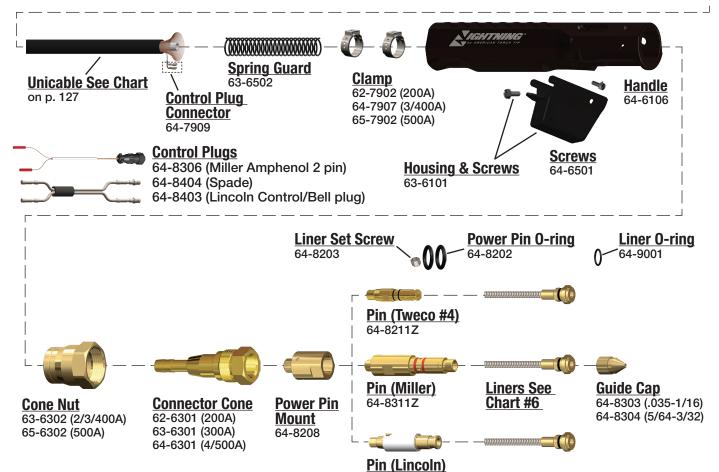
.156



REPLACEMENT PARTS FOR & COMPATIBLE WITH ALL BINZEL®†



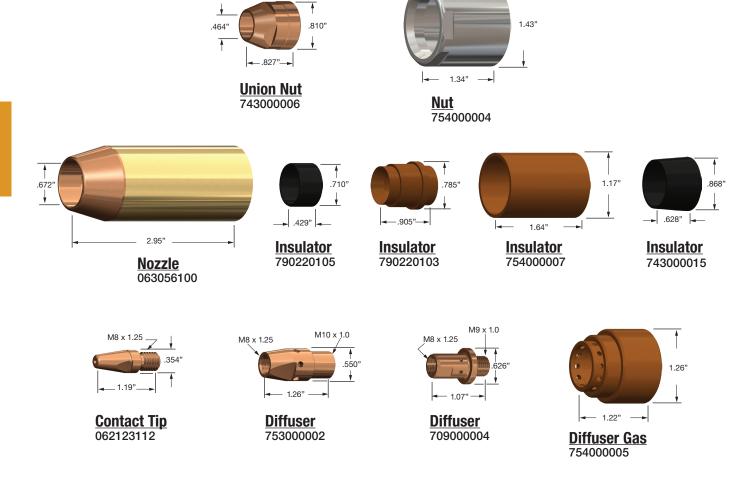




64-8411Z

56 CLOOS® STYLE

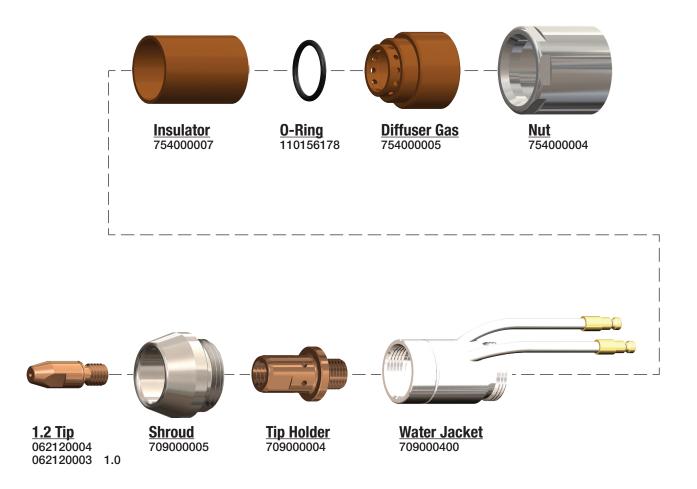
COMPATIBLE WITH MISCELLANEOUS CLOOS® STYLE PARTS†





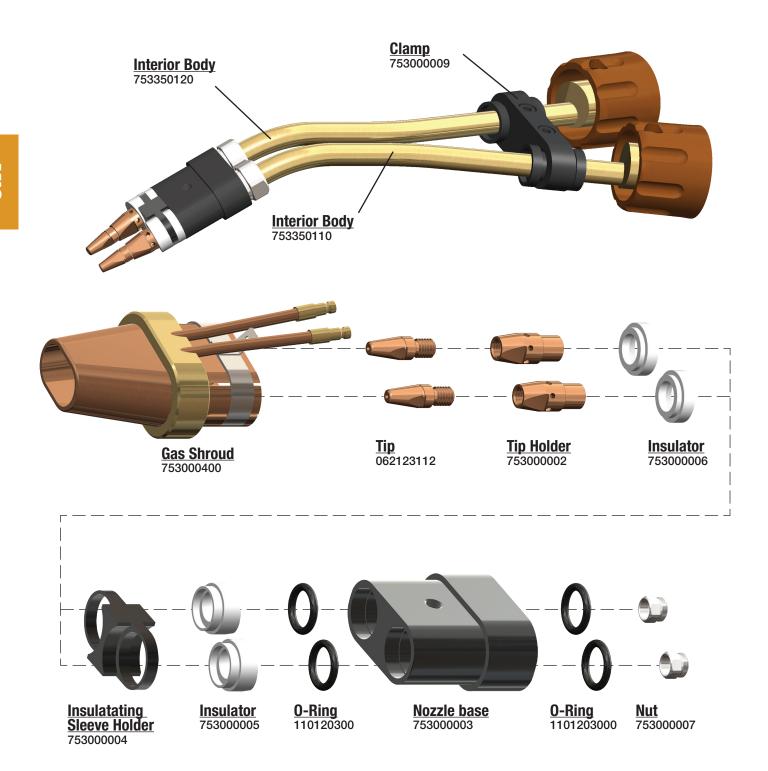


COMPATIBLE WITH MR W 500-31 ROBOT WELDING TORCH[†]

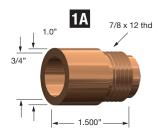


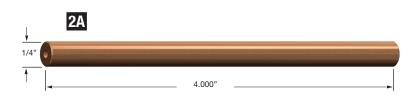
58 CLOOS® STYLE

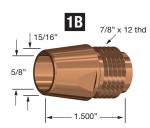
COMPATIBLE WITH ZMW 600 / 610[†]

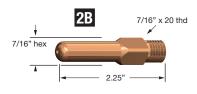








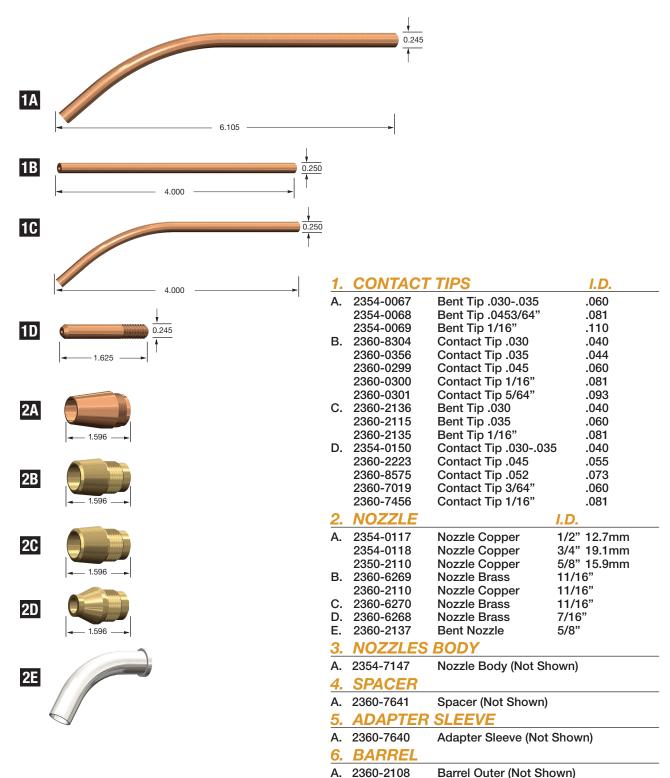




1.	NOZZ	LE	I.D.	
Α	10340	Nozzle Straight	3/4" (19	
В	10359	Nozzle Tapered	5/8" (15	i.9mm)
2.	CONT	ACT TIPS		I.D.
Α	10782	Contact Tip	1/16" Al (1.6mm)	.081
В	15121	Contact Tip	.052 H (1.4mm)	.063
	15120	Contact Tip	3/32" H (2.4mm)	.110
	15111	Contact Tip	1/8"	

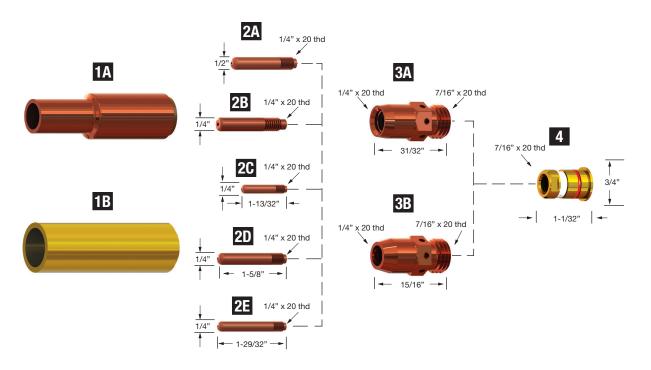
60 ESAB® STYLE

COMPATIBLE WITH AIRCO®†





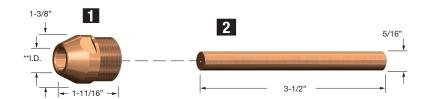
COMPATIBLE WITH MT-200 / MT-200CC / MT-400 / MT-400CC / MT-500[†]



1.	NOZZLE	S		I.D.		3.	TIP AD	APTERS			
A	998895 998893 998894	Nozzle #6 Insula Nozzle #8 Insula Nozzle #10 Insul	ted Slip-On ated Slip-Or	1/2" (n 5/8" ((09.5mm) (12.7mm) (15.8mm)	А В 4.	17984 17983 <i>NOZZI</i>	Adapter for Adapter for E ADAP1	Std. Tips		
В	999471 999472	Nozzle H.D. #8 S Nozzle H.D. #10			(12.7mm) (15.8mm)		999452	Adapter for	Slip-On Nozz	les	
	999473 17350	Nozzle H.D. #10 Nozzle H.D. #12 Nozzle E.H.D. Br	Slip-On	3/4" ((19.1mm) (19.1mm)	<u>LI</u>	NERS (N	IOT SHOWN) Liner 10'	.023	O.D .039	.120
2.	CONTAC	CT TIPS			I.D.	В	948850	Liner 10'	.030	.060	.185
A B C	948332 17765 17778-067 948835 999578 948340 948341 2075230 20543	Tip H.D. Short Tip H.D. Med. Tip H.D. Med. Tip H.D. Med. Tip Short Tip Med.	5/64" .045-3/64 1/16" 1/16" .045-3/64" .052 1/16" 5/64"	(2.0mm) (1.2mm) (1.5mm) (1.6mm) (1.2mm) (1.3mm) (1.6mm) (2.0mm) (0.6mm)	.093 .055 .067 .073 .059 .063 .073 .093		2075237 2075239 2075245 17717 17718 17719 2075238 2075240	Liner 10' Liner 10' Liner 10' Liner 12' Liner 12' Liner 12' Liner 15' Liner 15'	.035045 .052-1/16" 5/64" .030 .035045 .052-1/16" .035045	.070 .094 .140 .060 .070 .094 .070	.185 .200 .185 .185 .185 .185 .185
E	20544 996995 996999 2075349 996997 999742 996994 996996 996998	Tip Med. Tip Med. Tip Med. Tip Med. Tip Med. Tip Long Tip Long Tip Long Tip Long Tip Long	.030 .035 .045-3/64" .052 1/16" .023 .023 .035 .045-3/64"	(0.8mm) (0.9mm) (1.2mm) (1.3mm) (1.6mm) (0.6mm) (0.6mm) (0.9mm) (1.2mm)	.037 .043 .055 .063 .073 .028 .028 .043						

62 ESAB® STYLE

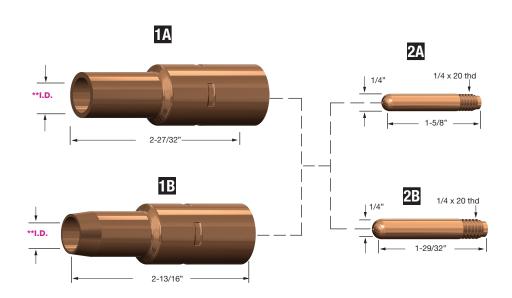
COMPATIBLE WITH ST-12[†]



1.	NOZZLE	S		I.D.		
	61N24	Nozzle #10		5/8"	(15.9n	nm)
	61N25	Nozzle #12		3/4"	(19.1n	nm)
	61N26	Nozzle #14		7/8"	(22.2n	nm)
2.	CONTAC	CT TIPS				I.D.
	61N36	Contact Tip	.035	(0.9mm)	H/C	.043
	61N37	Contact Tip	.045	(1.2mm)	H/C	.055
	999117	Contact Tip	.052	(1.3mm)	H/C	.063
	61N39	Contact Tip	1/16"	(1.6mm)	H/C	.073
	61N40	Contact Tip	1/16"	(1.6mm)	S	.081
	999966	Contact Tip	5/64"	(2.0mm)	H/C	.093
	61N41	Contact Tip	3/32"	(2.4mm)	H/C	.110
	61N42	Contact Tip	3/32"	(2.4mm)	S	.120



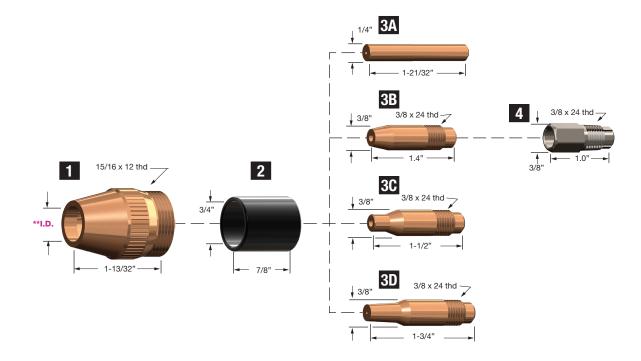
COMPATIBLE WITH ST-23A / MIG-41A[†]



<u>1.</u>	NOZZ	LES		I.D.	
Α	998895	Nozzle #6	Insulated Slip-On	3/8"	(09.5mm)
	998893	Nozzle #8	Insulated Slip-On	1/2"	(12.7mm)
	998894	Nozzle #10	Insulated Slip-On	5/8"	(15.8mm)
В	999471	Nozzle #8	H.D. Slip-On	1/2"	(12.7mm)
	999472	Nozzle #10	H.D. Slip-On	5/8"	(15.8mm)
	999473	Nozzle #12	H.D. Slip-On	3/4"	(19.1mm)
	17350	Nozzle #12	H.D. Brass Slip-On	3/4"	(19.1mm)
2.	CONTA	ACT TIPS		I.D.	
Α	20543	Tip Med .023		(0.6mm	n) .028
	20544	Tip Med .030		(0.8mm	
	996995	Tip Med .035		(0.9mm	n) .043
	996999	Tip Short .045	-3/64"	(1.2mm	n) .055
	2075349	Tip Med .052		(1.3mm	1) .063
	996997	Tip Short 1/16	"	(1.6mm	1) .073
В	999742	Tip Long .023		(0.6mm	1) .028
	996994	Tip Long .030		(0.8mm	1) .037
	996996	Tip Long .035		(0.9mm	1) .043
	996998	Tip Long .045-	-3/64"	(1.2mm	າ) .055

64 ESAB® STYLE

COMPATIBLE WITH MIG-41 / MT-450W ST-16 / ST-21[†]



|--|

598739	Nozzle #8	1/2" (12.7mm)
598721	Nozzle #10	5/8" (15.9mm)
633985	Nozzle #12	3/4" (19.1mm)
0.04.		

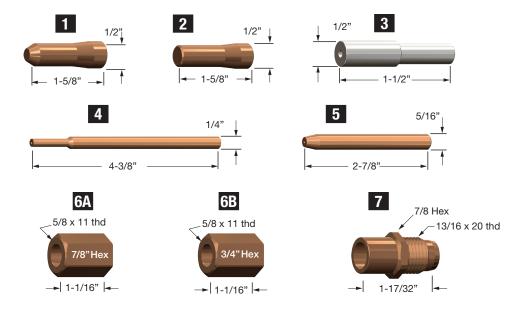
2. SPATTER LINERS

2.	<u>SPAITER</u>	LINERS			
	633603	Nozzle Spa	tter Liner		
<u>3.</u>	CONTACT	TIPS			I.D.
Α	996103	Tube	.030	(0.8mm)	.037
	996104	Tube	.035	(0.9mm)	.043
	996105	Tube	.045-3/64"	(1.2mm)	.059
	196105-1.56	Tube			
	996106	Tube	1/16"	(1.6mm)	.073
	996106-1.44	Tube			
	996106-1.56	Tube			
В	633611-5/64	Tip Short	5/64"	(2.0mm)	.093
С	632793	Tip Short	.035	(0.9mm)	.043
	632795	Tip Short	.045-3/64"	(1.2mm)	.059
	632797	Tip Short	1/16"	(1.6mm)	.073
	632799	Tip Short	5/64"	(2.0mm)	.093
	632800	Tip Short	3/32"	(2.4mm)	.110
D	632792	Tip Long	.030	(0.8mm)	.037
	632794	Tip Long	.035	(0.9mm)	.043
	632796	Tip Long	.045-3/64"	(1.2mm)	.059
	948335	Tip Long	.052	(1.4mm)	.063
	632798	Tip Long	1/16"	(1.6mm)	.073

4. COLLETS

632811	Collet						
CONDUITS	(USED ON S	T-16 AND ST-2	1)				
633455	Conduit 1			.030035			
633456	Conduit 1			.045-1/16"			
LINERS (USI	ED ON MT-450	DW)	I.D.	O.D.			
999743	Liner 10'	.023	.039	.120			
948850	Liner 10'	.030	.060	.185			
2075237	Liner 10'	.035045	.070	.180			
2075239	Liner 10'	.052-1/16"	.094	.185			
2075245	Liner 10'	5/64"	.140	.200			
17717	Liner 12'	.030	.060	.185			
17718	Liner 12'	.035045	.070	.185			
17719	Liner 10'	.052-1/16"	.094	.185			
2075238	Liner 15'	.035045	.070	.185			
2075240	Liner 15'	.052-1/16"	.094	.185			
*Liners and Conduits are not shown.							

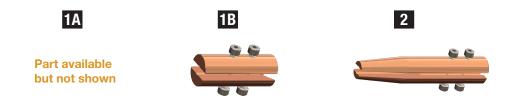




1. CONTAC	CT TIP		I.D.
409649	Contact Tip	.045 (1.2mm)	.055
568612	Contact Tip	1/16" (1.6mm)	.073
2. CONTAC	CT TIP		I.D.
19N45	Contact Tip	1/16" (1.6mm)	.070
19N46	Contact Tip	5/64" (2.0mm)	.093
19N47	Contact Tip	3/32" (2.4mm)	.101
19N764	Contact Tip	7/64" (2.8mm)	.120
19N48	Contact Tip	1/8" (3.2mm)	.136
19N49	Contact Tip	5/32" (4.0mm)	.166
19N50	Contact Tip	3/16" (4.8mm)	.199
19N47-TC	Tip C145	3/32" (2.4mm)	.101
19N48-M	Tip C145	1/8" (3.2mm)	.136
3. CONTAC	CT TIP		I.D.
20N76	Contact Tip	1/8" (3.2mm)	.136
4. CONTAC	CT TUBE	I.D.	
49N10	Contact Tube	.035 (0.9mm)	.043
49N11	Contact Tube	.045 (1.2mm)	.055
49N09	Contact Tube	1/16" (1.6mm)	.081
5. CONTAC	CT TUBE	I.D.	
633504	Contact Tube	.035 (.09mm)	.043
6. TIP NUT	•		
A. 999398	Tip Nut Subarc La	rge	
B 19N43	Tip Nut Subarc Sr		
7. NOZZLE			
105Z20	Nozzle #10	5/8" (15.9mm)	

66 ESAB® STYLE

COMPATIBLE WITH A6 WEAR PARTS - SAW CONTACT JAWS FOR HEAVY DUTY SYSTEM[†]



1. SAW CONTACT JAWS FOR SINGLE WIRE, LENGTH 65/58 MM

	PART NO.	WIRE DIM	
Α	0332 581 880	2.0 mm	
	0332 581 881	2.4-2.5 mm	
В	0265 900 880	3.0 mm	
	0265 900 881	3.2 mm	
	0265 900 882	4.0 mm	
	0265 900 883	5.0 mm	
	0265 900 884	6.0 mm	
<u>2.</u>	LENGTH 120 MM		
	0000 237 320	3.0 mm	
	0000 237 321	4.0 mm	



COMPATIBLE WITH A6 WEAR PARTS - SAW CONTACT JAWS FOR HEAVY DUTY SYSTEM[†]



1. SAW CONTACT JAWS FOR TWIN WIRE, LENGTH 73 MM

PART NO.	WIRE DIM
0265 902 882	2x1.6 mm
0265 902 881	2x2.0 mm
0265 902 884	2x2.4-2.5 mm
0265 902 880	2x2.5-3.0 mm

2. LENGTH 73 MM WITH GUIDE TUBE CONNECTION

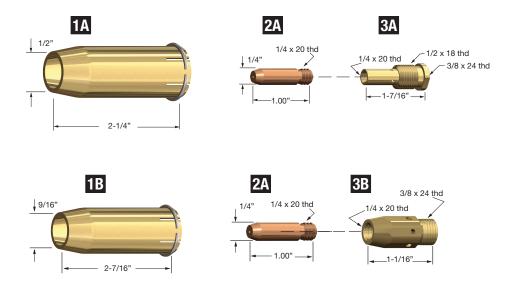
0808 650 882 2x1.6 mm 0808 650 881 2x2.0 mm 0808 650 880 2x2 5 3 0 mm

3. LENGTH 120 MM WITH GUIDE TUBE CONNECTION

0816 019 882 2x1.6 mm 0816 019 881 2x2.0 mm 0816 019 883 2x2.4-2.5 mm 0816 019 880 2x2.5-3.0 mm

68 HOBART® STYLE

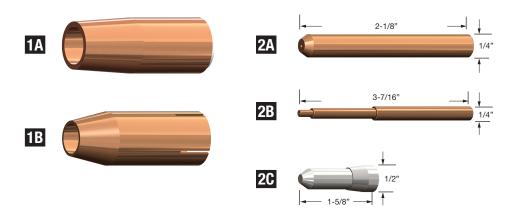
COMPATIBLE WITH PIECEMAKER 25-A GAL-300 PIECEMAKER 14-A†



1. NO	ZZLES				I.D.		
A 3797		zle Slip-0			1/2"	(12.7	
B 3793		zle Slip-0	or .or .	030"	9/16"	(14.3	mm)
2. CO	<u>NTACT TI</u>	PS					<u>I.D.</u>
A 3795	87 Con	tact Tip	.023	(0.6mm)	Н		.028
3793	04 Con	tact Tip	.030	(0.8mm)	Н		.037
3793		tact Tip	.035	(0.9mm)	H/	T/AL	.043
3793	15 Con	tact Tip	.045	(1.2mm)	H/	T	.052
B 1771	51 Tip '	Tapered	.024	(0.6mm)	H/	Т	.028
1771	52 Tip '	Tapered	.030	(0.8mm)	H/	T	.037
1770	28 Tip '	Tapered	.035	(0.9mm)	H/	T	.043
1770	29 Tip '	Tapered	.045	(1.2mm)	H/	T	.055
3. TIP	ADAPTE	RS					
A 17710	07 Gas	Diffuser					
B 37959	95 Tip.	Adapter	.024				
37959	96 Tip.	Adapter	.030				
37943	33 Tip.	Adapter	.035-	.045			
LINER	S (NOT S	HOWN) <i>I</i> .	D. C).D.		
3796	01-3 Line	r Assy. 1	5' .02	24	Н	.042	.130
3795	99-3 Line		5' .03	30	H/T	.057	.154
3793			5' .03	35045	H/T	.070	.163
3793				2-1/16"	H/T		
3794			5' .03	35045	H/T		
3793	47-4 Line	r Assy. 1	2' .03	35	Al.	.058	.176
3793	47-5 Line	r Assy. 1	2' .04	5052	AI.	.080	.176



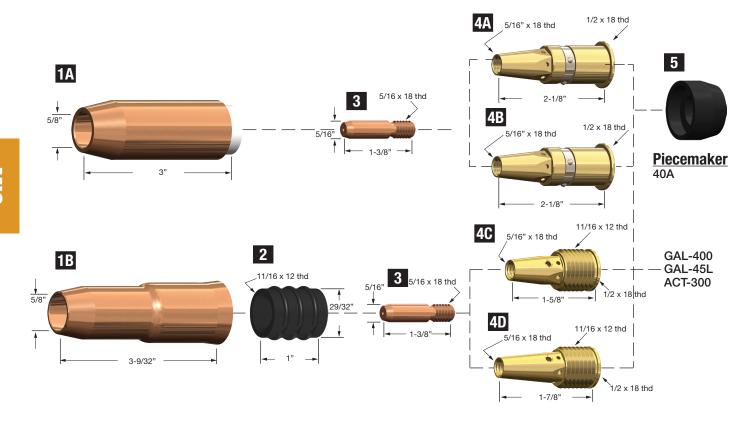
COMPATIBLE WITH PIECEMAKER GA-250, GA-400, GA-600†



1.	NOZZLE	S		
A B	379925 379981	HD nozzle 3/4 Nozzle 598 act	450/wc 500	
2.	CONTAC		430/WC 300	I.D.
A	377460	Contact Tip	.030	.035
	377461	Contact Tip	.035	.040
	377463	Contact Tip	.045	.052
	377465	Contact Tip	.045	.062
В	377467	Contact Tip	.035	.040
	377468	Contact Tip	.035	.044
	377469	Contact Tip	.045	.062
С	377476	Contact Tip	.045	.052
	377478	Contact Tip	1/16	.070
	377480	Contact Tip	1/16	.081
	377482	Contact Tip	3/32	.109
	377500	Contact Tip	5/32	.166

70 HOBART® STYLE

COMPATIBLE WITH PIECEMAKER 40-A / GAL-400 - GAL-45L / ACT-300[†]



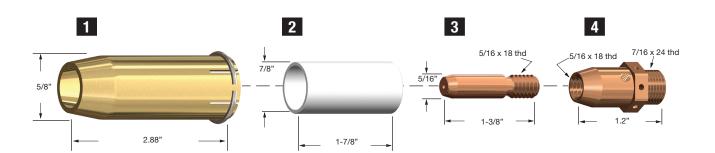
1.	NOZZL	.ES			I.D.		
Α	177134	Nozzle Slip	o-On		5/8"	(15	.9mm)
В	177042	Nozzle Thr	eaded		3/8"	(09	.5mm)
С	379645	Nozzle Slip	o-On		5/8"	(15	.9mm)
2.	NOZZL	E ADAPTE	RS				
	379353	Nozzle Ada	apter				
3.	CONTA	ACT TIPS					I.D.
	379394	Contact Tip	.035	(0.9mm)	H/T	/AL	.043
	177000	Contact Tip	.045	(1.2mm)	H/T		.055
	379296	Contact Tip	.045	(1.2mm)	H/T	/AL	.059
	379395	Contact Tip	.052	(1.3mm)	H/T		.073
	377298	Contact Tip	1/16"	(1.6mm)	H/T		.081
	379396	Contact	5/64"	(2.0mm)	Т		.093
4.	GAS D	IFFUSERS					
Α	177135	Gas Diffuser					
В	177304	Gas Diffuser					
С	379594	Gas Diffuser		.03504	5 Wire	е	
	379438	Gas Diffuser		.052-5/6	64" Wi	re	
D	379615	Gas Diffuser		3/32" W	ire		

5. NOZZLE INSULATORS 177136 Nozzle Insulator (40-A)

	177136	No	zzle Insulato	r (40-	-A)		
LI	NERS (NO		I.D.	O.D.			
Α	379335-3	15'	.035045	H/T	(400)	.070	.163
	379349-3	15'	.052-1/16"	H/T	(400)	.088	.186
	379351-3	15'	5/64"	H/T	(40-A, 400)	.126	.186
	379347-4	12'	.035	AL	(40-A, 400)	.058	.178
	379347-5	12'	3/64"	AL	(40-A, 400)	.080	.178
	379529-7	15'	.035	AL	(45L)	.060	.178
	379529-8	15'	3/64"	AL	(45L)	.080	.178
	379529-9	15'	1/16"	AL	(45L)	.097	.178
	379521-3	15'	3/32"	Т	(45L)	.129	.2



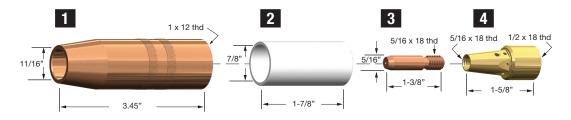
COMPATIBLE WITH PIECEMAKER 50-W†



<u>1.</u>	NOZZL	ES			I.D.	
	177166	Nozzle Slip-On			5/8" (15.	9mm)
2.	INSULA	ATORS				
	377885-1	Nozzle Insulato	r			
<u>3.</u>	CONTA	CT TIPS				I.D.
	379394	Contact Tip	.035	(0.9mm)	H/T/AL	.043
	177000	Contact Tip	.045	(1.2mm)	H/T	.055
	379296	Contact Tip	.045	(1.2mm)	H/T/AL	.059
	379395	Contact Tip	.052	(1.3mm)	H/T	.073
	379298	Contact Tip	1/16"	(1.6mm)	H/T	.081
	379396	Contact Tip	5/64"	(2.0mm)	Т	.093
4.	DIFFUS	SERS				
	379987	Gas Diffuser		.035045		
	379988	Gas Diffuser		.052-5/64	."	

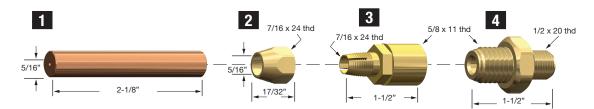
72 HOBART® STYLE

COMPATIBLE WITH GAL-500†



1.	NOZZLES	S			I.D.	
	379450	Nozzle Screw	/-On		11/16" (17	7.5mm)
2.	INSULAT	ORS				
	377775-1	Nozzle Insula	tor			
<u>3.</u>	CONTAC	T TIP				I.D.
	379394	Contact Tip	.035	(0.9mm)	H/T/AL	.043
	177000	Contact Tip	.045	(1.2mm)	H/T	.055
	379296	Contact Tip	.045	(1.2mm)	H/T/AL	.059
	379395	Contact Tip	.052	(1.3mm)	H/T	.073
	379298	Contact Tip	1/16"	(1.6mm)	H/T	.081
	379396	Contact Tip		(2.0mm)	Т	.093
	379397	Contact Tip	3/32"	` ,		.136
4.	DIFFUSE	RS				
	379490	Gas Diffuser	.035-	1/16"		
	379530	Gas Diffuser	5/64"	-3/32"		

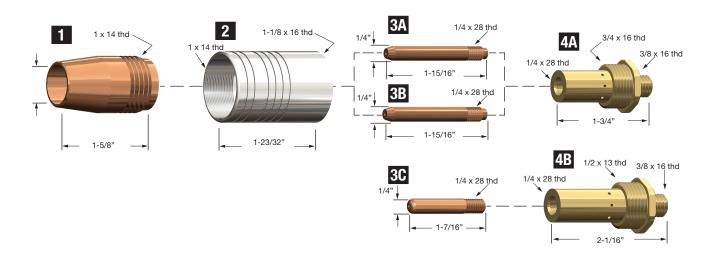
COMPATIBLE WITH SAT-600†



<u>1.</u>	CONTAC	T TIPS			I.D.
	377939	Contact Tube	.045 (1.2mm)	Н	.055
	377940	Contact Tube	.052 (1.3mm)	Н	.073
	377941	Contact Tube	1/16" (1.6mm)	Н	.081
2.	NUTS				
	378320	Locking Tip Nu	ıt		
3.	GAS DIF	FUSERS			
	378653	Gas Diffuser			
<u>4.</u>	TIP ADA	PTERS			
	16DA629	Contact Tip Ac	lapter		



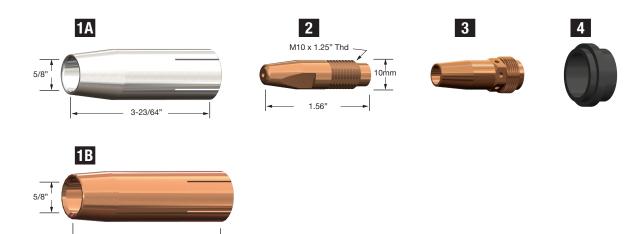
COMPATIBLE WITH AG-2000 \ SP-2000[†]



<u>1.</u>	. NOZZLES			I.D.		
	407741	Nozzle Threaded			(15.9mm)	
	407742	Nozzle Threaded		3/4"	(19.1mm)	
2.	NOZZLE BODIES					
	407842-1	Nozzle Body				
<u>3.</u>	CONTACT TIPS I.D.					
Α	407727	Contact Tip Notched	.030	(0.6mm)	.037	
	407728	Contact Tip Notched	.035	(0.8mm)	.043	
	407729	Contact Tip Notched	.045	(1.2mm)	.055	
В	407731	Contact Tip Long	.035	(0.8mm)	.043	
С	407839-4	Contact Tip	.035	(0.8mm)	.043	
	407839-7	Contact Tip	.045	(1.2mm)	.055	
4.	GAS DIFI	FUSERS				
Α	407733	Gas Diffuser Standard				
В	407846-2	Gas Diffuser for Adjustable Nozzles				

74 IGM®/FRONIUS® STYLE

3-1/8"

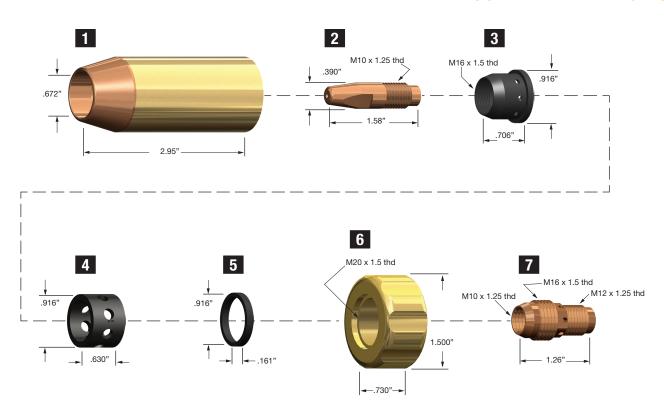


1. NOZZLES		I.D.			
A 42.0001.5129	Nozzle	5/8			
B 42.0001.5155	Nozzle	5/8			
42.0001.5130	Nozzle				
42.0001.5128	Nozzle				
42.0001.5576	Nozzle				
2. CONTACT	TIPS	WIRE			
42.0001.1576	Contact Tip	.035 (.08mm)			
42.0001.3277	Contact Tip	(0.9mm)			
42.0001.1577	Contact Tip	.045 (1.0mm)			
42.0001.1578	Contact Tip	.052 (1.2mm)			
42.0001.1930	Contact Tip	.063 (1.4mm)			
3. GAS DIFFUSER					
42.0001.5122	Gas Diffuser				
42.0001.5382	Gas Diffuser				
42.0001.1007	Gas Diffuser				
4. INSULATOR	R RING				
42.0100.1016					

42.0100.1018



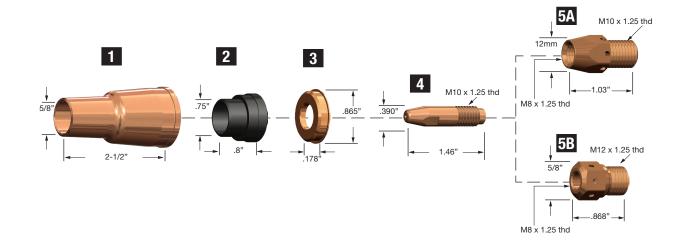
COMPATIBLE WITH IGM SB395†



<u>1.</u>	NOZZLES		I.D.	
	063056100	Nozzle Water Cooled	.672 (17	'.1mm)
2.	CONTACT	TIPS		I.D.
	604156-1.0	Contact Tip	(1.0mm)	
	60A167	Contact Tip	(1.2mm)	.052
	60A156	Contact Tip	(1.4mm)	.063
	60A168-1.6	Contact Tip	(1.6mm)	.070
	60A168-1.2AL	Contact Tip	(1.2mm)	.063
	60A168-1.65	Contact Tip 35mm Long	(1.6mm)	.070
<u>3.</u>	COUNTER	NUTS		
	60A134	Counter Nut/Diffuser M16	3 x 1.5	
4.	WATER DIS	STRIBUTION RINGS	3	
	60A064	Water Distribution Ring		
5.	GUIDE RIN	IGS		
	60A068	Guide Ring		
6.	CLAMPING	NUTS		
	60A066	Clamping Nut		
<u>7.</u>	TIP ADAPT	ERS		
	60A578	Tip Adapter M16 x 1.5		

76 IGM®/FRONIUS® STYLE

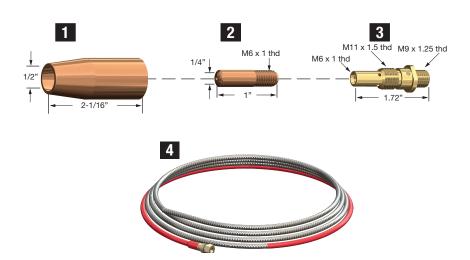
COMPATIBLE WITH IGM SB399 & OTHER AVAILABLE IGM PARTS[†]



1.	NOZZLES		I.D.
	31A266	Nozzle	5/8" (15.9mm)
2.	NOZZLE INS	SULATION	
	31A248	Nozzle Insulation	
3.	GUIDE RING	as	
	60A593	Guide Ring	
4.	CONTACT T	<i>IPS</i>	I.D.
	42.0001.3653	Contact Tip	.9mm
	42.0001.5051	Contact Tip	1.0mm
	42.0001.5052	Contact Tip	1.5mm
	42.0001.5053	Contact Tip	1.4mm
	42.0001.5060	Contact Tip	1.6mm
<u>5.</u>	TIP ADAPTE	RS/DIFFUSEF	rs
Α	60A582	Tip Adapter/Diffu	ser
В	60A534	Tip Adapter/Diffu	



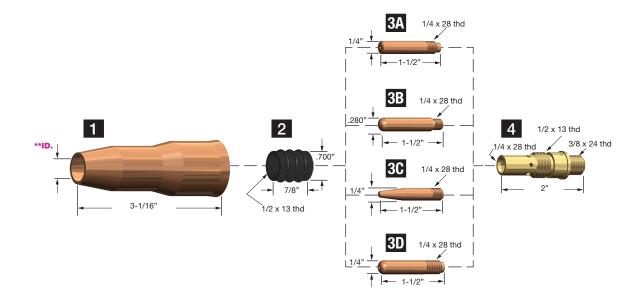
COMPATIBLE WITH MAGNUM 100L[†]



<u>1.</u>	NOZZLE	S				.D.	
	M16294	Nozzle, Fixed	ı		1	/2" (12	.7mm)
2.	CONTAC	T TIPS					I.D.
	S19726-1	Contact Tip		023	(0.6m	m)	.028
	S19726-2	Contact Tip		030	(0.8m)	m)	.037
	S19726-3	Contact Tip		035	(0.9m)	m)	.043
	S19726-4	Contact Tip		045	(1.2m	m)	.055
3.	GAS DIF	FUSERS					
	S19728	Gas Diffuser					
4.	LINER AS	SSEMBLIE	S		I.D.		O.D.
	M16291-1	Liner Assy.	15'	_(045	.063	.148
	M16291-2	Liner Assy.	15'		023	.036	.123

78 LINCOLN® STYLE

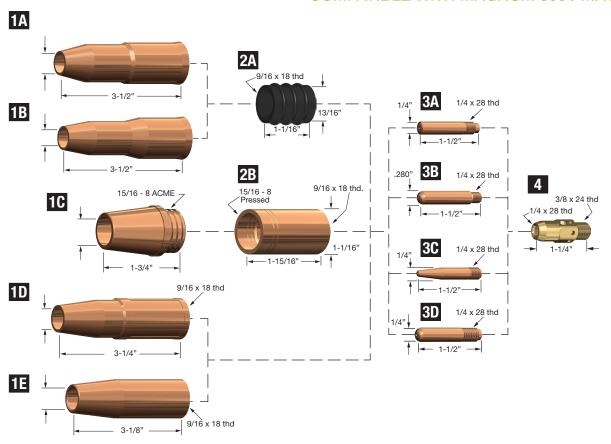
COMPATIBLE WITH MAGNUM 200 / MAGNUM 250SP†



<u>1.</u>	NOZZLES	S		I.D.	
	M16093-2	Nozzle Adjustable		1/2" (12	.7mm)
	M16093-1	Nozzle Adjustable		5/8" (15	
2.	INSULAT	TORS		-	
	S19417-1	Insulator for Adjustal	ole Noz	zzles	
3.	CONTAC	T TIPS			I.D.
Α	S19391-6	Contact Tip.023		(0.6mm)	.028
	S19391-7	Contact Tip.030		(0.8mm)	.037
	S19391-1	Contact Tip.035		(0.9mm)	.043
	S19391-2	Contact Tip.045		(1.2mm)	.055
В	S19392-1	Contact Tip H.D035		(0.9mm)	.043
	S19392-6	Contact Tip H.D040		(1.0mm)	.048
	S19392-2	Contact Tip H.D045		(1.2mm)	.053
С	S19393-5	Contact Tip Tap.	.025	(0.6mm)	.028
	S19393-6	Contact Tip Tap.	.030	(0.8mm)	.037
	S19393-1	Contact Tip Tap.	.035	(0.9mm)	.043
	S19393-7	Contact Tip Tap.	.040	(1.0mm)	.048
	S19393-2	Contact Tip Tap.	.045	(1.2mm)	.055
D	S19397-44	Contact Tip Notch.	.030	(0.8mm)	.037
	S19397-45	Contact Tip Notch.	.035	(0.9mm)	.043
	S19397-46	Contact Tip Notch.	3/64"	(1.2mm)	.059
4.	GAS DIF	FUSERS			
	S19418-2	Gas Diffuser .02503	0		
	S19418-1	Gas Diffuser .03504	-5		
5.	LINERS	(NOT SHOWN)	I.D.		0.D.
	M16087-2	Liner Assy. 15'	.023	.036	.123
	M16087-1	Liner Assy. 15'	.040	045 .059	.156
	M16107-1	Liner Nylon 15'	3/64"	.066	.148



COMPATIBLE WITH MAGNUM 300 / MAGNUM 400[†]

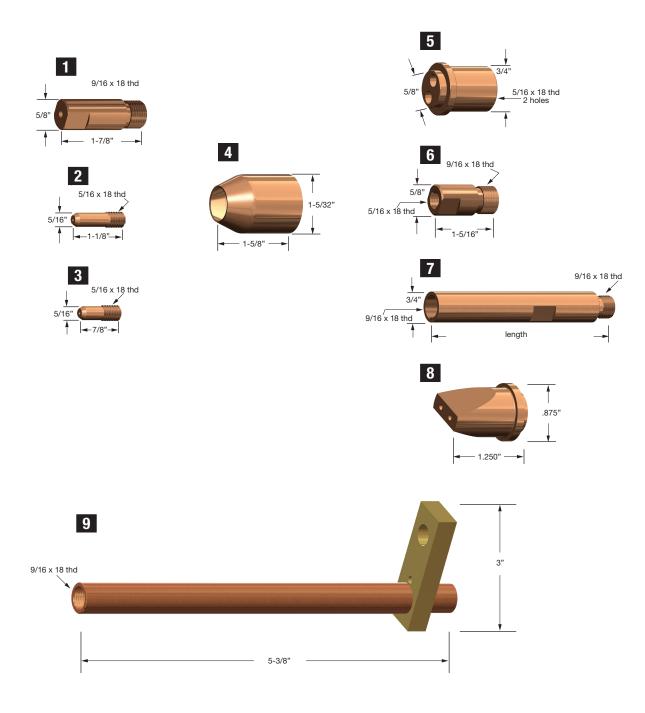


<u>1.</u>	NOZZLE	S		I.D.	
Α	M16082-1	Nozzle Adjustable		5/8"	(15.9mm)
	M16082-2	Nozzle Adjustable		1/2"	(12.7mm)
В	M16082-3	Nozzle Adj. Recessed		5/8"	(15.9mm)
	M16082-4	Nozzle Adj. Recessed		1/2"	(12.7mm)
С	M16830-1	Nozzle Coarse Thread		5/8"	(15.9mm)
	M16830-2	Nozzle Coarse Thread		3/4"	(19.1mm)
D	M16080-1	Nozzle Insulated		3/8"	(09.5mm)
	M16080-2	Nozzle Insulated		1/2"	(12.7mm)
	M16080-3	Nozzle Insulated		5/8"	(15.9mm)
	M16080-4	Nozzle Insulated		3/4"	(19.1mm)
Ε	M16081-1	Nozzle Insulated Flush		3/8"	(09.5mm)
	M16081-2	Nozzle Insulated Flush 1	/2"		(12.7mm)
	M16081-3	Nozzle Insulated Flush		5/8"	(15.9mm)
	M16081-4	Nozzle Insulated Flush		3/4"	(19.1mm)
2.	INSULA	TORS			
Α	S19394-1	Insulator Slip-On Nozzle	S		
В	M16937-1	Insulator Coarse- Thread	d Noz	zles	
3.	CONTA	CT TIPS			I.D.
Α	S19391-6	Contact Tip	.025	(0.6mn	n) .028
	S19391-7	Contact Tip	.030	(0.8mn	n) .037
	S19391-1	Contact Tip	.035	(0.9mn	n) .043
	S19391-8	Contact Tip	.040	(1.0mn	n) .048

<u>3.</u>	CONTAC	<u>CT TIPS (CONTIN</u>	IUED)	<u>I.D.</u>
	S19391-2	Contact Tip	.045 (1.2mm)	.055
	S19391-3	Contact Tip	.052 (1.3mm)	.063
	S19391-4	Contact Tip	1/16" (1.6mm)	.073
В	S19392-1	Contact Tip H.D.	.035 (0.9mm)	.043
	S19392-2*	Contact Tip H.D.	.045 (1.2mm)	.055
	S19392-4*	Contact Tip H.D.	1/16" (1.6mm)	.073
	S19392-5*	Contact Tip H.D.	5/64" (2.0mm)	.093
С	S19393-1	Contact Tip Tapered	.035 (0.9mm)	.043
D		Contact Tip Notched	.030 (0.8mm)	.037
		Contact Tip Notched	.035 (0.9mm)	.043
	S18697-46	Contact Tip Notched	3/64" (1.2mm)	.059
4.	GAS DIF	FUSERS		
	S19395-1	Gas Diffuser		
LII	NERS (NO	OT SHOWN)	I.D.	O.D.
	M16083-1	Liner Assy. 15'	.035045 .066	.188
	M16083-2	Liner Assy. 15'	1/16" .076	.188
	M16083-3	Liner Assy. 15'	5/64" .098	.188
	M16101-7	Liner Assy. 25'	.035045 .066	.188
	M16101-8	Liner Assy. 25'	1/16" .076	.188
	M16101-9	Liner Assy. 25'	5/64" .098	.188

80 LINCOLN® STYLE

COMPATIBLE WITH FULL AUTO SUB-ARC / SEMI AUTO SUB-ARC[†]





COMPATIBLE WITH FULL AUTO SUB-ARC / SEMI AUTO SUB-ARC[†]

1.	CONTACT T	IPS SUBME	RGED ARC	I.D.
	S10125-2.4	Tip Sub-Arc	(2.4mm)	
	S10125-3.0	Tip Sub-Arc	(3.0mm)	
	S10125-4.0	Tip Sub-Arc	(4.0mm)	
	S10125-1/16T	Tip Tapered	1/16 (1.6mm)	.070
	S10125-5/64T	Tip Tapered	5/64 (2.0mm)	.093
	S10125-5/32T	Tip Tapered	3/32 (2.4mm)	.101
	S10125-7/64T	Tip Tapered	7/64 (2.8mm)	.120
	S10125-1/8T	Tip Tapered	1/8 (3.2mm)	.136
	S10125-5/32T	Tip Tapered	5/32 (4.0mm)	.166
	S10125-2.75T	Tip Tapered	(2.75mm)	
	S10125-3.0T	Tip Tapered	(3.0mm)	
	S10125-3.18T	Tip Tapered	(3.18mm)	
	S10125-4.0T	Tip Tapered	(4.0mm)	
	S10125-XL-1/8	Tip All Wire		
	S10125-3/32M	Tip Mate		
	S10125-1/8M	Tip Mate		
	S10125-5/22M	Tip Mate		
	S10125-1/8M-S	Tip Short Mat		
	S10125-5/32M-S		e	
2.	CONTACT T	<i>TPS</i>		I.D.
	(K129, K231, K391	, K239, K112, K11	3-2)	
	T14050045	Contact Tip	.045 (1.2mm)	.055
	T14050-1/16	Contact Tip	1/16" (1.6mm)	.073
	T14050068	Contact Tip	.068 (1.7mm)	.078
	T14050072	Contact Tip	.072 (1.8mm)	.081
	T14050-5/64	Contact Tip	5/64" (2.0mm)	.093
	T14050-3/32	Contact Tip	3/32" (2.4mm)	.110
<u>3.</u>	CONTACT T	IPS (USE ON K1	113)	I.D.
	T12011045	Contact Tip	.045 (1.2mm)	.055
	T12011-5/64	Contact Tip	5/64" (2.0mm)	.093
	T12011-3/32	Contact Tip	3/32" (2.4mm)	.110
	T12011-7/64	Contact Tip	7/64" (2.8mm)	.120

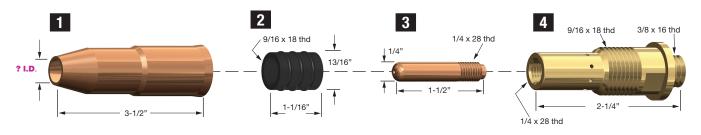
Flux Nozzle

T10575

5. TWIN ARC TIP HOLDERS	5. TWIN ARC TIP HOLDERS (USE ON K129)				
S15954 Twin Arc Tip Holder Ben					
S15954-S Twin Arc Tip Holder Stra	ight				
6. TIP ADAPTERS (USE ON K391)					
S16844 Tip Adapter for T14050	Гірѕ				
7. EXTENSIONS					
S10157-1 Sub-Arc Extension	1" Long				
S10157-1-1/2 Sub-Arc Extension	1-1/2" Long				
S10157-2 Sub-Arc Extension	2" Long				
S10157-2-1/2 Sub-Arc Extension	2-1/2" Long				
S10157-3 Sub-Arc Extension	3" Long				
S10157-4 Sub-Arc Extension	4" Long				
S10157-5 Sub-Arc Extension	5" Long				
S10157-6 Sub-Arc Extension	6" Long				
S10157-7-1/2 Sub-Arc Extension	7-1/2" Long				
S10157-9 Sub-Arc Extension	9" Long				
8. TWIN ARC NOZZLES					
S14033-052					
S14033-1/16					
S14033-5/64					
S14033-3/32					
841603-15					
9. NOZZLE BODY ASSEMBL	<u>IES</u>				
S10157 Nozzle Body Assembly					
ASSEMBLY					
S13164 Nozzle Body Insulator A	ssembly (w nut)				

82 LINCOLN® STYLE

COMPATIBLE WITH MAGNUM SPOOL-GUN†



1. NOZZLES M16082-1

Nozzle, Slip-On

Nozzle, Slip-On

5/8" (15.9mm) 1/2" (12.7mm)

I.D.

M16082-2 **INSULATOR**

> S19394-1 Insulator

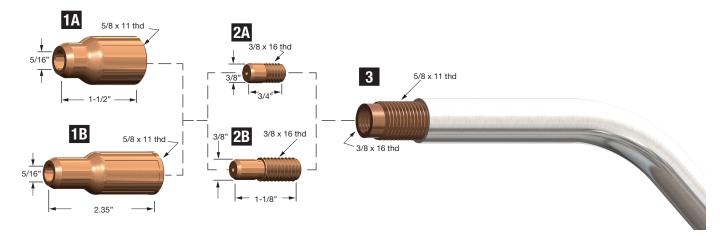
3. CONTACT TIPS

I.D. S18697-44 **Contact Tip Notched** .030 (0.8mm).037 S18697-45 Contact Tip Notched .035 (0.9mm).043 3/64" (1.2mm) Contact Tip Notched S18697-46 .059

GAS DIFFUSER

S18697-47 Gas Diffuser

COMPATIBLE WITH FLUX-CORE INNERSHIELD / K115, K116[†]



NOZZLES 5/16" (8.0mm) S13358 Nozzle, Insulator

В	S12691-1 Nozzl	e, Insul. 2-3/4"	Stick-out	5/16"	(8.0mm)
2.	CONTACT T	IPS (USE ON K	(233, K114	!)	I.D.
Α	T12236-1/16	Contact Tip	1/16"	(1.6mm)	.073
	T12236-5/64	Contact Tip	5/64"	(2.0mm)	.093
	T12236-3/32	Contact Tip	3/32"	(2.4mm)	.101
	T12236-1/8	Contact Tip	1/8"	(3.2mm)	.136
	T12236-5/64-LL	Tip CRCZ	5/64	(2.0mm)	.093
	T12236-3/32-LL	Tip CRCZ	3/32	(2.4mm)	.101
В	T14157035	Contact Tip	.035	(0.9mm)	.043
	T14157045	Contact Tip	.045	(1.2mm)	.055
	T14157-1/16	Contact Tip	1/16"	(1.6mm)	.073
	T14157068	Contact Tip	.068	(1.7mm)	.078
	T14157072	Contact Tip	.072	(1.8mm)	.081
	T14157-5/64	Contact Tip	5/64"	(2.0mm)	.093
	T14157-3/32	Contact Tip	3/32"	(2.4mm)	.110
	T14157-7/64	Contact Tip	7/64"	(2.8mm)	.120

Contact Tip

1/8"

(3.2mm)

T14157-1/8

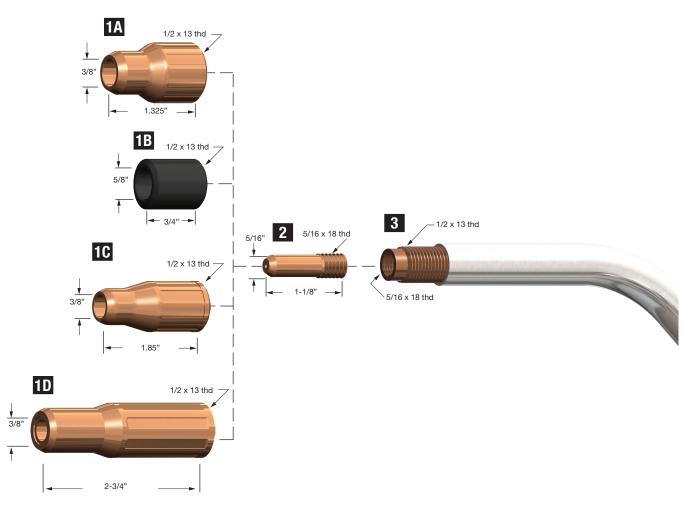
GOOSENECKS

M11510	3/32Gooseneck	3/32"	45
M11510	.120Gooseneck	7/64"-1/8"	45°
M14027-45	5/64Gooseneck	1/16"-5/64"	45°
M11474	3/32Gooseneck	3/32"	82°
M11474	.120Gooseneck	7/64"-1/8"	82°
M14027-82	5/64Gooseneck	1/16"-5/64"	82°

.136

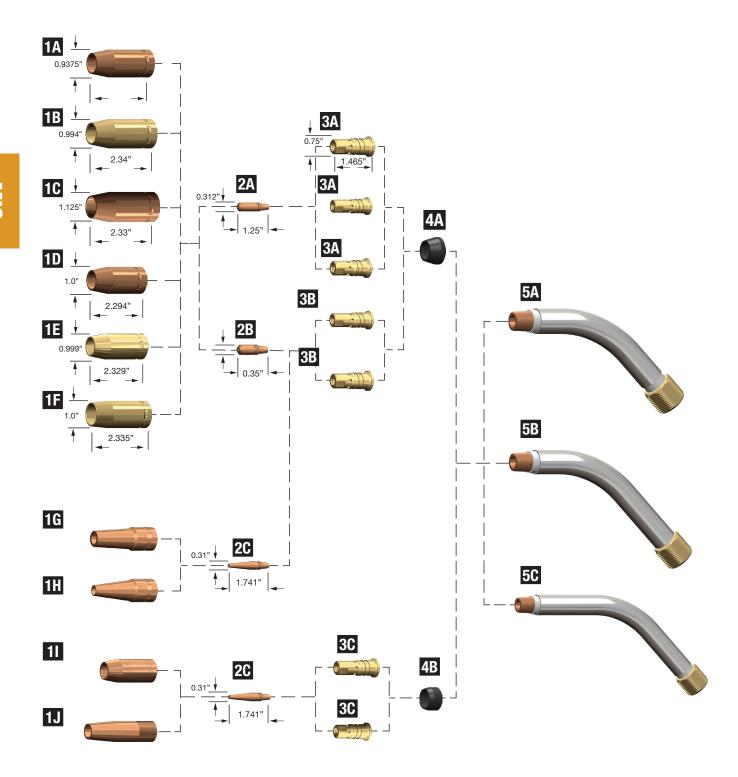


COMPATIBLE WITH FLUX-CORE INNERSHIELD / K136, K264, K345, K355, K361[†]



1.	NOZZLES			I.D.	
Α	S15900	Nozzle, Insulated		3/8"	(9.5mm)
В	T12313	Thread Protector			` ,
С	S17217-1	Nozzle, Insulated 2" S	Stick out	3/8"	(9.5mm)
D	T12315	Nozzle, Insul. 2-3/4" \$	Stick out		(9.5mm)
2.	CONTACT	TIPS			I.D.
	T14050045	Contact Tip	.045 (1	1.2mm)	.055
	T14050-1/16	Contact Tip	1/16" (1	1.6mm)	.073
	T14050068	Contact Tip	.068 (1	1.7mm	.078
	T14050072	Contact Tip	.072 (1	1.8mm)	.081
	T14050-5/64	Contact Tip	5/64" (2	2.0mm)	.093
	T14050-3/32	Contact Tip	3/32" (2		
	T14050-7/64	Contact Tip	7/64" (2	2.8mm)	.120
3.	GOOSENE	CKS			
	M11476	Gooseneck	6"	50°	1
	M13304-6	Gooseneck	6"	30°)
	M13304-12	Gooseneck	12"	30°)
	M13304-12-5	O Gooseneck	12"	50°)
	M14188	Gooseneck	6"	90°	•

COMPATIBLE WITH FASTIP®†





COMPATIBLE WITH FASTIP®†

1. NOZZLE	I.D.	
Screw On Noz	zles	
A 207313	Copper	5/8"
B 199614	Heavy Duty Brass	5/8"
199618	Heavy Duty Copper	5/8"
C 199612	Heavy Duty Brass	3/4"
199617	Heavy Duty Copper	3/4"
D 199610	Standard Brass	1/2"
199615	Standard Copper	1/2"
E 199613	Standard Brass	5/8"
198855	Standard Copper	5/8"
F 199611	Standard Brass	3/4"
199616	Standard Copper	3/4"
Screw On Tape	ered Nozzles	
G 209036	Nozzle Copper	1/2"
H 209035	Nozzle Copper	3/8"
Slip On Tapere		
I 209033	Nozzle Copper	1/2"
J 209034	Nozzle Copper	3/8"
2. CONTAC	• •	0,0
A Heavy Duty 206184	HD Contact Tip	.023
206185	HD Contact Tip	.023
206186	HD Contact Tip	.030035" AL
206187	HD Contact Tip	.035040" AL
206188	HD Contact Tip	.040045" AL
206189	HD Contact Tip	.052-3/64" AL
206199	HD Contact Tip	1/16" AL
206191	HD Contact Tip	.068" AL
206191	HD Contact Tip	5/64" AL
206192	HD Contact Tip	3/32"
B Extra Heavy		0/02
199605	Extra HD Contact Tip	.030035" AL
199606	Extra HD Contact Tip	.035040" AL
198851	Extra HD Contact Tip	.040045" AL
198852	Extra HD Contact Tip	.052-3/64" AL
198853	Extra HD Contact Tip	1/16"
198854	Extra HD Contact Tip	.068"
199607	Extra HD Contact Tip	5/64"
199608	Extra HD Contact Tip	3/32"
199609	Extra HD Contact Tip	7/64-1/8"
C Tapered	Extra HD Contact Hp	1/04-1/0
209024	Tapered Contact Tip	.023"
209025	Tapered Contact Tip	.030"
209026	Tapered Contact Tip	.035"
203020	iapered Contact Hp	.000

Tapered Contact Tip

Tapered Contact Tip

Tapered Contact Tip

Tapered Contact Tip

.045" 3/64"

.052"

1/16"

209027

209028

209029 209030

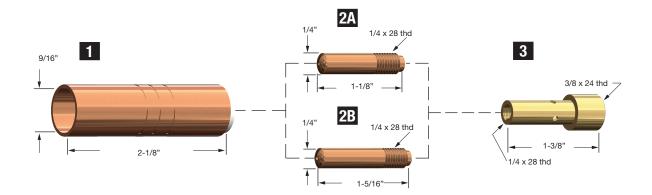
3. DIFFUSERS

Α	Standard	
	206196	Flush Tip
	206195	1/8" Tip Recess
	210664	1/4" Tip Recess
В	Extra Heavy Duty	
	199623	Flush Tip
	198857	1/8" Recess
С	Slip-On	
	209031	Slip-on Recessed
	209032	Slip-on Flush
4.	INSULATORS	
Α	198856	Standard Insulator
В	209047	Tapered Insulator
5.	GOOSENECK	S

Aluminum jacketed w/wrench swivel

, warring acretica w, wronon owitor				
A 199625	4.5"/45° Bend - 360° swivel			
B 199626	6"/45° Bend - 360° swivel			
C 199627	8"/45° Bend - 360° swivel			

COMPATIBLE WITH GA-17C†

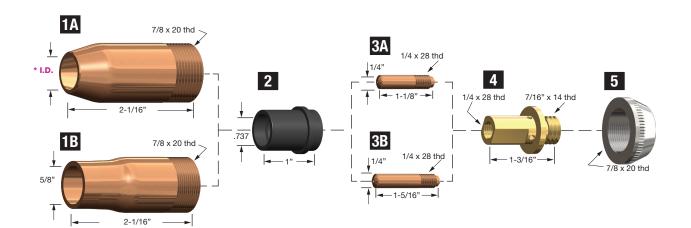


<u>1.</u>	NOZZLI	ES	I.D.	
	128-535	Nozzle Insulated	1/2" (12.7mm)	
<u>2.</u>	CONTA	CT TIPS		I.D.
Α	087-299	Contact Tip Std.	.025 (0.6mm)	.028
	000-067	Contact Tip Std.	.030 (0.8mm)	.037
	000-068	Contact Tip Std.	.035 (0.9mm)	.043
В	087-300	Contact Tip Long	.025 (0.6mm)	.028
	071-825	Contact Tip Long	.030 (0.8mm)	.037
	054-202	Contact Tip Long	.035 (0.9mm)	.043
3.	TIP ADA	APTERS		

118-267 Tip Adapter for .023-.025 Wire



COMPATIBLE WITH GA-20C[†]

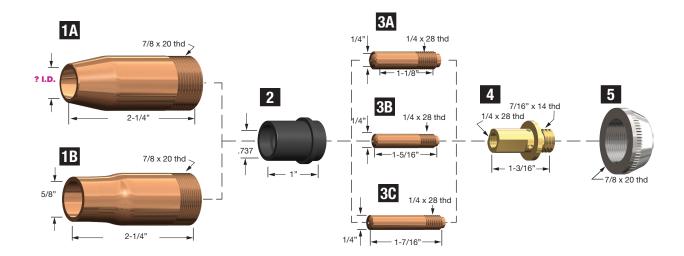


1.	NOZZL	ES		I.D.		
Α	049-098	Nozzle		7/16"	(11.1mi	m)
	049-099	Nozzle		1/2"	(12.7mi	
В	049-929	Nozzle		5/8"	(15.9mi	m)
2.	INSULA	TORS				
	082-241	Nozzle Ins	sulator			
<u>3.</u>	CONTA	CT TIPS				I.D.
Α	087-299	Contact Ti	ip Std.*	.025 (0.6mm)	.028
	000-067	Contact Ti	ip Std.*	.030 (0.8mm)	.037
	000-068	Contact Ti		.035 (0.9mm)	.043
	000-069	Contact Ti	ip Std.*	.045 (1.2mm)	.055
В	087-300	Contact Ti	ip Long**	.025 (0.6mm)	.028
	071-825	Contact Ti	ip Long**	.030 (0.8mm)	.037
	054-202	Contact Ti	ip Long**	.035 (0.9mm)	.043
	054-201	Contact Ti	ip Long**	.045 (1.2mm)	.055
<u>4.</u>	CONTA	CT TIP A	ADAPTER	RS		
	146-426	Tip Adapte	er	.0230	25 (0.6n	nm)
	146-425	Tip Adapte	er		45 (0.8- ⁻	
5.	NOZZL	E RETAI	NING NU	ITS		
	082-063	Retaining	Nut			
LI	NERS (NC	T SHOWN)	I.D.		0	.D.
	083-885	Liner	.030035 (0.8-0.9r	nm) .0	52.163
	083-891	Liner	.035045			64.173
					-	

^{*}Standard Contact Tips are flush with Nozzle.

^{**}Long Contact Tips project 1/16" outside Nozzle.

COMPATIBLE WITH GA-21C/CM[†]



1.	NOZZLE	S	I.D.	
Α	149-147	Nozzle	7/16" (11.1r	nm)
	149-148	Nozzle	1/2" (12.7r	nm)
В	149-146	Nozzle	5/8" (15.9r	nm)
2.	INSULAT	TORS		
	082-241	Insulator		
<u>3.</u>	CONTAC	CT TIPS		I.D.
Α	087-299	Contact Tip Std.*	.025 (0.6mm)	.028
	000-067	Contact Tip Std.*	.030 (0.8mm)	.037
	000-068	Contact Tip Std.*	.035 (0.9mm)	.043
	000-069	Contact Tip Std.*	.045 (1.2mm)	.055
В	087-300	Contact Tip Long*	** .025 (0.6mm)	.028
	071-825	Contact Tip Long*	** .030 (0.8mm)	.037
	054-202	Contact Tip Long*	^{**} .035 (0.9mm)	.043
	054-201	Contact Tip Long*	^{**} .045 (1.2mm)	.055
С	054-183	Contact Tip Long*	** .035 (0.9mm)	.043
	054-157	Contact Tip Long*	"* .045 (1.2mm)	.055
4.	CONTAC	T TIP ADAPTE	RS	
	146-426	Tip Adapter	.023025 (0.6m	m)
	146-425	Tip Adapter		.2mm)
5.	NOZZLE	RETAINING N	UTS	
	082-063	Retaining Nut		

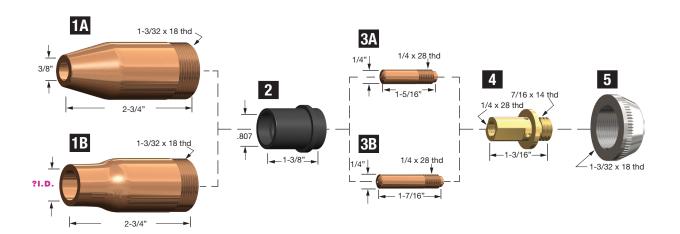
^{*}Short Contact Tips are recessed 1/16" inside Nozzle.

^{*}Standard Contact Tips are flush with Nozzle.

^{**}Long Contact Tips project 1/8" outside Nozzle.



COMPATIBLE WITH GA-40C/CAL[†]

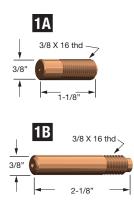


1.	NOZZLES			1.1	D.		
Α	071-214	Nozzle (GA-4	40C only)	3/	8"	(09.	5mm)
В	047-959	Nozzle		1/	2"	(12.7	7mm)
	047-957	Nozzle				`	9mm)
	045-638	Nozzle		13	3/16"	(20.6	3mm)
2.	INSULATO	DRS					
	094-986	Nozzle Insula	ator				
<u>3.</u>	CONTACT	TIPS					I.D.
Α	054-202	Contact Tip	Short**	.035	(0.9n	nm)	.043
	054-201	Contact Tip	Short**	.045	(1.2n	nm)	.055
В	054-183	Contact Tip	Std.*	.035	(0.9n)	nm)	.043
	054-157	Contact Tip	Std.*	.045	(1.2n	nm)	.055
4.	CONTACT	TIP ADAI	PTERS				
	094-985	Tip Adapter	.035045 1	for GA	-40C		
	094-987	Tip Adapter	1/16"-5/64	" for (GA-40	C	
	109-805	Tip Adapter	3/64" Al. fo	or Ga-	40CA	L	
<u>5.</u>	NOZZLE F	RETAINING	G NUTS				
	047-603	Retaining Nu	ıt				
LII	NERS (NOT S	HOWN)	I.D.				O.D.
	083-891	Liner 15'	.03504	5	.064		.173

^{**}Short Contact Tips are recessed 1/8" inside Nozzle

^{*}Standard and Tapered Contact Tips are flush with Nozzle

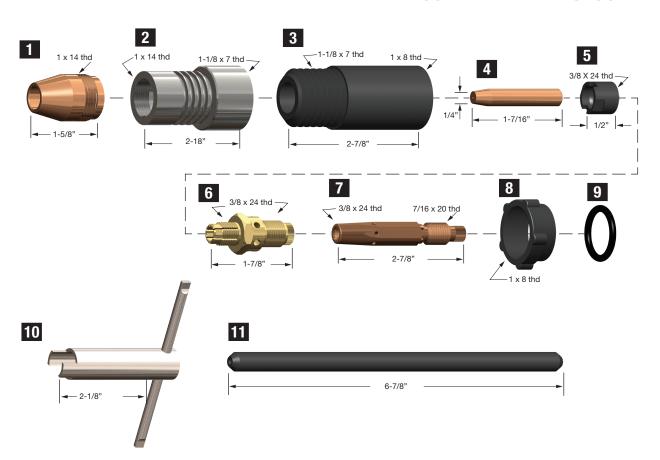
COMPATIBLE WITH GA-50C1 / G-40GL / A-500GL / GA-50P[†]



<u>1.</u>	CONTA	CT TIPS		I.D.
Α	045-356	Contact Tip	.045 (1.2mm)	.055
В	054-353	Contact Tip	5/64" (2.0mm)	.093
	054-354	Contact Tip	3/32" (2.4mm)	.110
	054-355	Contact Tip	7/64" (2.8mm)	.120
	054-356	Contact Tip	1/8" (3.2mm)	.136



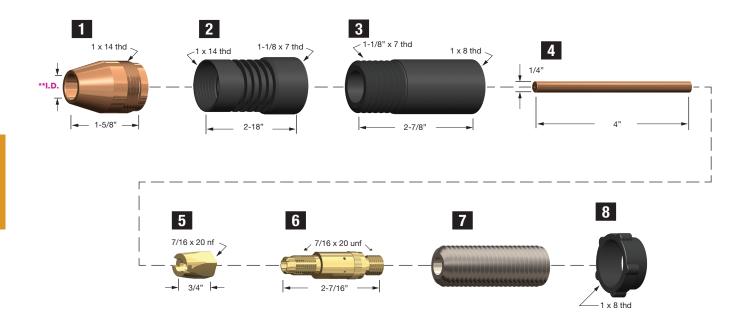
COMPATIBLE WITH SPOOLMATIC XR[†]



1.	NOZZLE	S	I.D.		5. NUT CO	DM
	050-115	Nozzle		(12.7mm)	136-748	N
	050-622	Nozzle		(15.9mm)	6. ADAPT	ER
_	050-116	Nozzle		(20.6mm)	136-680	Α
<u>Z.</u>	NOZZLE	EXTENSION	<u> </u>		7. TUBE F	JE
	144-862	Nozzle Extension	าท		7. TUBE F	1 <i>C</i> /-
					136-681	Т
3.	BARREL	EXTENSION			0 10771	
	156-821	Barrel Extension	n		8. NOZZL	
-			''		058-685	N
<u>4.</u>	CONTAC	T TUBES		I.D.	9. O-RING	<u> </u>
	135-427	Contact Tube	.030 (0.8mn	n) .037	9. O-MING	7
	135-428	Contact Tube	.030 (0.8mn	,	134-800	C
	147-314	Contact Tube	.035 (0.9mn	,	10 WRFN	ICL
					IU. WHEN	
	135-430	Contact Tube	.035 (0.9mn		136-821	٧
	135-429	Contact Tube	.047 (1.2mn	n) .055	44 LINES	
	135-424	Contact Tube	.047 (1.2mn	n) .059	<u> 11. LINER</u>	5
	135-426	Contact Tube	.062 (1.6mn	n) .073	136-682	L
	135-425	Contact Tube	.062 (1.6mn	,	136-683	ī
		Common Tabo	.552 (1.61111	,	.00 000	_

5. NUT CC	MPRESSION			
136-748	Nut Compression	.375-24		
6. ADAPTER CONTACT TUBE				
136-680	136-680 Adapter Contact Tube			
7. TUBE HEAD				
136-681	Tube Head with S	Set Screw 604-612		
8. NOZZLI	E EXTENSION	JAM NUT		
058-685	Nozzle Extension	Jam Nut		
9. O-RING	 			
134-800	O-Ring .614 x .07	'0 CS		
10. WREN	СН			
136-821	Wrench Contact	Tube Nut		
11. LINER	S			
136-682	Liner Teflon™	.023035		
136-683	Liner Teflon	.045-1/16"		

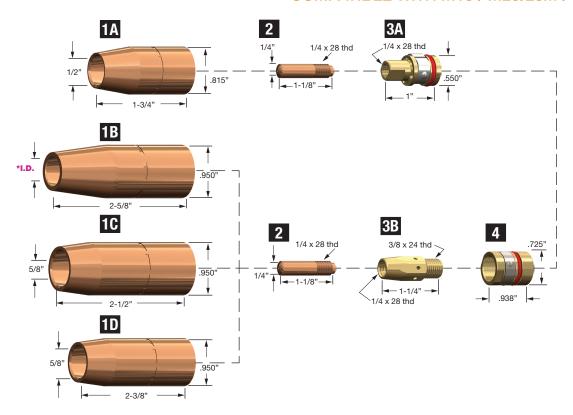
COMPATIBLE WITH SPOOLMATIC 1 / SPOOLMATIC 2 / SPOOLMATIC 3[†]



<u>1.</u>	NOZZLE	S	I.D.		
	050-115	Nozzle	1/2"	(12.7mm)	
	050-622	Nozzle	5/8"	(15.9mm)	
	050-116	Nozzle	13/16"	(20.6mm)	
2.	NOZZLE	EXTENSIO	V		
	053-784	Nozzle Extensi	ion		
<u>3.</u>	BARREL	EXTENSIO	N		
	053-785	Barrel Extension	on		
<u>4.</u>	CONTAC	T TIPS			I.D.
	094-259	Contact Tip	.035	(0.9mm)	.043
	094-260	Contact Tip	.047	(1.2mm)	.059
5.	NUT				
	058-676	Nut Brass Com	pressio	n	
6.	ADAPTE	R CONTACT	TIP		
	058-678	Adapter Conta	ct Tip		
<u>7.</u>	ADAPTE	R BARREL			
	009-541	Adapter Barrel	(Not Sh	own)	
8.	NOZZLE	EXTENSIO	N JAN	1 NUT	
	058-685	Nozzle Extensi	on Jam	Nut	



COMPATIBLE WITH M15 / M25/25M / M40/M40AL[†]



1.	NOZZLE	ES			I.D.		
Α 1	169-715	Nozzle	Flush		1/2"	(12.7	mm)
В 1	169-724	Nozzle	1/8" Tip Re	cess	1/2"	(12.7	mm)
1	169-725		1/8" Tip Re		5/8"	(15.9	mm)
C 1	169-726	Nozzle	Flush		5/8"	(15.9	mm)
D 1	169-727	Nozzle	1/8" Tip Sti	ckout	5/8"	(15.9	mm)
2.	CONTA	CT TIPS					
(087-299	Contac	t Tip		.025	(0.6n	nm)
(000-067	Contac	t Tip		.030	(0.8n	nm)
(000-068	Contac	t Tip		.035	(0.9n	nm)
	000-069	Contac			.045	(1.2n	,
	172-024	Contac			1/16"	(1.6n	,
	172-025	Contac			5/64"	(2.0n	
1	172-034	Contac	t Tip		3/64"AI	(1.2n	nm)
<i>3.</i> (CONTA	CT TIP	<u>ADAPTE</u>	RS			
A 1	169-716	Adapte	r				
В 1	169-728	Adapte	r				
4. I	NOZZLE	RETA	INERS				
1	169-729	Nozzle	Retainer				
LIN	IERS (NO	T SHOWN)				I.D.	O.D.
1	172-257 I	Liner 15'	.023025	(0.6r	nm)	.051	.156
1	172-258 I	Liner 15'	.030035	(0.8-	0.9mm)	.061	.166
7	172-259 I	Liner 15'	.035045	(0.9-	1.2mm)	.087	.188
7	172-250 I	Liner 15'	1/16"-5/64	" (1.6-	2.0mm)	.098	.188

COMPATIBLE WITH MDX-100™ MDX-250™



<u>1.</u>	CONTAC	WIRE SIZE	
	T-M023	Contact Tip Cu	0.023" (0.6mm)
	T-M030	Contact Tip Cu	0.030" (0.8mm)
	T-M035	Contact Tip Cu	0.035" (0.9mm)
	T-M045	Contact Tip Cu	0.045" (1.2mm)
	T-M047	Contact Tip Cu	3/64" (1.2mm)
2.	INSULAT	OR	
	4000D	lanculates:	

4623R Insulator



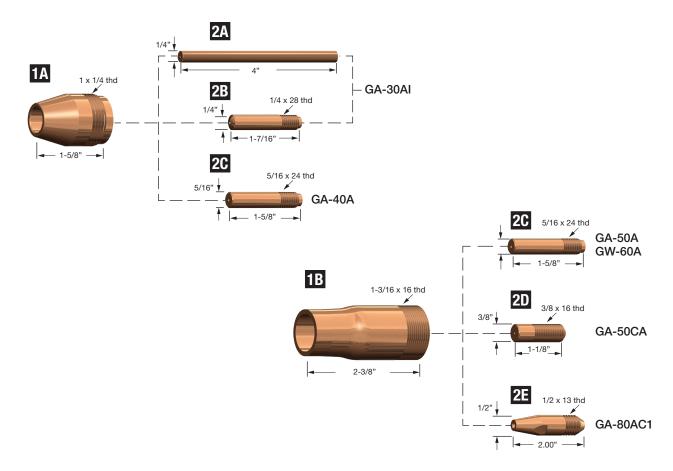


COMPATIBLE WITH M-SERIES M-100 & M-25™



1. CONTACT	TIPS	WIRE SIZE
T-M023	Contact Tip Cu	0.023" (0.6mm)
T-M030	Contact Tip Cu	0.030" (0.8mm)
T-M035	Contact Tip Cu	0.035" (0.9mm)
T-M045	Contact Tip Cu	0.045" (1.2mm)
T-M047	Contact Tip Cu	3/64" (1.2mm)
T-A023CHM	Contact Tip Cu	0.023" (0.6mm)
T-A030CHM	Contact Tip Cu	0.030" (0.8mm)
T-A035CHM	Contact Tip Cu	0.035" (0.9mm)
T-A039CHM	Contact Tip Cu	0.039" (1.0mm)
T-A045CHM	Contact Tip Cu	0.045" (1.2mm)

COMPATIBLE WITH AUTOMATIC WELDING GUNS†



1.	NOZZLI	ES		I.D.	
Α	050-115	Nozzle		1/2" (12.	7mm)
	050-622	Nozzle		5/8" (15.	9mm)
	050-116	Nozzle			6mm)
В	075-659	Nozzle		5/8" (15.	9mm)
	008-620	Nozzle		3/4" (19.	1mm)
2.	CONTA	CT TIPS			I.D.
Α	094-259	Contact Tip	.035	(0.9mm)	.043
	094-260	Contact Tip	.047	(1.2mm)	.059
	050-626	Contact Tip	.035047	(0.9-1.2mm)	.059
В	071-825	Contact Tip	.030	(0.8mm)	.037
	054-202	Contact Tip	.035	(0.9mm)	.043
	054-201	Contact Tip	.045	(1.2mm)	.055
С	056-820	Contact Tip	.030	(0.8mm)	.037
	056-821	Contact Tip	.035	(0.9mm)	.043
	057-737	Contact Tip	.052	(1.3mm)	.063
_	056-823	Contact Tip	1/16"	(1.6mm)	.073
D	045-356	Contact Tip	.045	(1.2mm)	.055
Е	075-694	Contact Tip	3/64"	(1.2mm)	.059
	075-695	Contact Tip	1/16"	(1.6mm)	.073
	075-697	Contact Tip	3/32"	(2.4mm)	.110
	075-699	Contact Tip	1/8"	(3.18mm)	.144



COMPATIBLE WITH XR-PISTOL[†]

AIR-COOLED ASSEMBLY 231 523-L[†]





<u>1. NOZZLE</u>	S		<i>I.D.</i>
199615	Screw-on copper		1/2"
199616	Screw-on copper		3/4"
199617	Screw-on copper Heav	y-duty	3/4"
198855	Screw-on copper		5/8"
199618	Screw-on copper Heav	y-duty	5/8"
209035	Screw-on copper Tape	red	3/8"
209036	Screw-on copper Tape	red	1/2"
2. CONTAC	CT TIPS		I.D.
403-1-30	Contact Tip HD	.030 (0.8mm)	.037
403-1-35	Contact Tip HD	.035 (0.9mm)	.043
403-1-45	Contact Tip HD	.045 (1.2mm)	.055
403-1-364	Contact Tip HD	3/64" (1.2mm)	.059
403-1-52	Contact Tip HD	.052 (1.3mm)	.063
403-1-116	Contact Tip HD	1/16" (1.6mm)	.073
403-1-564	Contact Tip HD	5/64" (2.0mm)	.093
403-1-332	Contact Tip HD	3/32" (2.4mm)	.110
403-7-35	Contact Tip HD	.035 (0.9mm)	.040
403-7-45	Contact Tip Long Life	.045 (1.2mm)	.050
403-7-52	Contact Tip Long Life	.052 (1.3mm)	.059
403-7-116	Contact Tip Long Life	1/16" (1.6mm)	.073
403-7-564	Contact Tip Long Life	5/64" (2.0mm)	.093
403-7-332	Contact Tip Long Life	3/32" (2.4mm)	.110
403-7-1.0	Contact Tip Long Life	.040 (1.0mm)	.048
3. DIFFUSI	ERS		
206195-L	Diffuser 1/8" Rece	ess	
210664-L	Diffuser 1/4" Rece	ess	

Flush

Diffuser

206196-L





LIGHTNING® SEMI-AUTOMATIC GUN CONVERSION KITS AVAILABLE FOR & COMPATIBLE WITH BERNARD®, LINCOLN® & TWECO® WITH A SIMPLE CHANGE-OUT OF PARTS†

LIGHTNING® RETAINING HEADS

Part #	Description
65-3103*	Retaining Head for Extra Heavy Duty
63-3103	Retaining Head T/L
63-3103-2	Retaining Head T/L
63-3116	Thread-on Retaining Head HD
63-3402	Retaining Ring
63-3301	O-Ring Orange 016
63-3118-T	Diffuser, Bernard® Threaded

*This retaining head must be used with #65-11XX contact tip. See Contact Tips Selector Chart on pg. 2



Tip

BENEFITS

Insulator

 Greater surface area contact between tip and head ensures better heat dissipation and conductivity.

Head

- Tapered tip design creates a more secure seat, eliminating loose tips.
- Cooler tip temperature reduces wear and extends tip life.
- Dual-lead thread design allows for 180 degree rotation of tip to new wear point for extended tip life.
- ✔ Brass insert prevents wear and extends life.
- Superior surface finish minimizes spatter adhesion.
- Durable hard drawn copper or brass withstands abuse.

Lightning	Contact Tips Selector Chart
Part #	Description
63-1130	Contact Tip HD .030 pk 10
63-1135	Contact Tip HD .035 pk 10
63-1135-40	Contact Tip HD .035/.040 I.D. pk 10
63-1138	Contact Tip HD .030 pk 10 Robotic
63-1140	Contact Tip HD .040 pk 10
63-1145	Contact Tip HD .045 pk 10
63-1147	Contact Tip HD 3/64" al pk 10
63-1152	Contact Tip HD .052 pk 10
63-1162	Contact Tip HD 1/16" pk 10
63-1168	Contact Tip HD .068/.078 I.D. pk 10
63-1172	Contact Tip HD .072 pk 10 SPECIAL
63-1178	Contact Tip HD 5/64" pk 10
63-1193	Contact Tip HD 3/32" pk 10
Part #	Tapered Tip
63-12XX	XX = last 2 digits indicate wire size
Part #	CZ Tip (Chromium Zirchonium)
63-13XX	XX + last 2 digits indicate wire size
Part #	Extra Heavy Duty Tip
65-11XX*	XX = last 2 digits indicate wire size

^{*}This contact tip must be used with #65-3103 retaining head. See Lightning Retaining Heads Chart on pg. 1

BERNARD® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Q-Gun Series	63-6105	63-3118	63-11XX [‡]	6X-XXXX**
EZ Feed Series	63-6105	63-3118	63-11XX‡	6X-XXXX**
T-Series [†]	63-6202-HD	63-3103	63-11XX‡	6X-XXXX**
Roughneck C Miller	63-6105	63-3118	63-11XX‡	6X-XXXX**

LINCOLN® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Magnum 300	63-6105	63-3103	63-11XX [‡]	6X-XXXX**
Magnum 400	63-6105	63-3103	63-11XX‡	6X-XXXX**
Magnum Pro	63-6105	63-3119	63-11XX‡	6X-XXXX**

TWECO® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Tweco #3	63-6105	63-3103	63-11XX [‡]	6X-XXXX**
Tweco #4	63-6105	63-3103	63-11XX‡	6X-XXXX**
SprayMaster 450	63-6105	63-3103	63-11XX‡	6X-XXXX**
WeldSkill 400	63-6105	63-3103	63-11XX‡	6X-XXXX**

Use the Lightning® contact tip system (gooseneck insulator, retaining head, contact tip and nozzle) with Bernard® Lincoln® or Tweco® MIG guns.

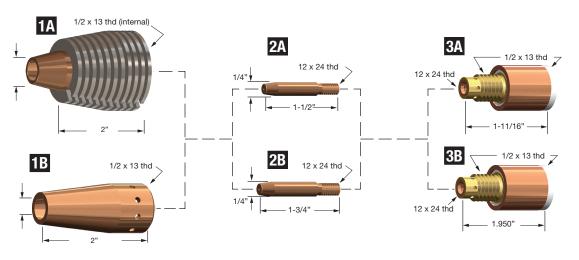
Use 63-3118 Retaining Head on goosenecks with external 9/16"-18 thread, such as Q-gun and EZ Feed guns with 1/4" NPT thread.

- † T-Series retaining head can only be used on Bernard® T-Series (Tregasskiss®) guns.
- \$ 63-11XX (XX = your wire size)
- ** 6X-XXXX (see Nozzle Selector Chart on next page)

Lightning® Nozzle Selector Chart (Air-Cooled Slip On)				
Standard Duty Nozzle Part #	Bore/Material	O.D./Length	Tip Location	
63-2138	3/8" Copper	.938" / 2.75"	Flush	
64-2950	1/2" Brass	.938" / 2.63"	1/8" Stickout	
63-2950B	1/2" Brass	.938" / 2.88"	1/8" Recess	
63-2150	1/2" Copper	.938" / 2.88"	1/8" Stickout	
63-2762	5/8" Copper	.938" / 2.51"	1/4" Stickout	
63-2662	5/8" Copper	.938" / 2.63"	1/8" Stickout	
63-2162	5/8" Copper	.938" / 2.88"	1/8" Recess	
63-2175	3/4" Copper	.938" / 2.88"	1/8" Recess	
Heavy Duty Nozzle Part #	Bore/Material	O.D./Length	Tip Location	
65-2550	1/2" Copper	1.062"/ 2.88"	1/8" Recess	
65-2662	5/8" Copper	1.062"/ 2.63"	1/8" Stickout	
65-2362	5/8" Brass	1.062"/ 2.63"	1/8" Stickout	
64-2962	5/8" Copper	1.062"/ 2.75"	Flush	
65-2862	5/8" Brass	1.062"/ 2.75"	Flush	
63-2362	5/8" Brass	1.062"/ 2.88"	1/8" Recess	
65-2562	5/8" Copper	1.062"/ 2.88"	1/8" Recess	
64-2562	5/8" Copper	1.062"/ 3.00"	1/4" Recess	
65-2575	3/4" Copper	1.062"/ 2.88"	1/8" Recess	
65-2375	3/4" Brass	1.062"/ 2.88"	1/8" Recess	
64-2575	3/4" Copper	1.062"/ 3.00"	1/4" Recess	
64-2387	7/8" Brass	1.062"/ 3.00"	1/4" Recess	
65-2562-T	5/8" Copper	1.062"/ 2.78"	1/8" Recess	



COMPATIBLE WITH COBRA TORCH / PRINCE TORCH[†]

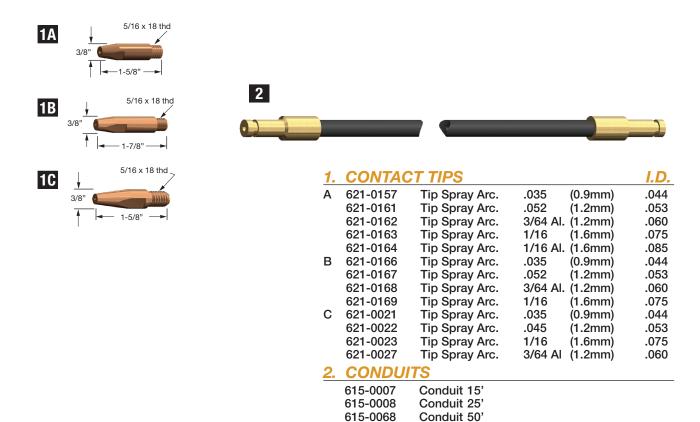




1.	GAS CU	IPS	I.D.		4.	TORCH	LINERS (CONTI	NUED)
Α	621-0366 621-0367	Gas Cup H.D. #8 Gas Cup H.D. #10	1/2" 5/8"			615-0317 615-0318	Green Teflon™ Liner Steel Spiral Liner	7-3/4" 7-1/2"	Aluminum Steel/Cored
В	001-0137	Gas Cup Std. #6	3/8"			615-0319	Black Teflon™ Liner	3-1/4"	All
	001-0138 001-0139	Gas Cup Std. #8 Gas Cup Std. #10	1/2" 5/8"			615-0325 615-0326	WhiteTeflon™ H.D. WhiteTeflon™ H.D.	5-1/2" 7-3/4"	All Aluminum
0		•	3/6	` ,	_				
<u>2.</u>	CONTA	JI IIPS		I.D.	<u>5.</u>	CABLE	<u>AND HOSE ASSI</u>	EIVIBL	
Α	621-0325	Tip Spray Arc0)30 (0.8m	m) .037	Α	001-0610	Electrical Cable Asse	mbly	15'
	621-0076	1 1 1)30 (0.8m	,		001-0611	Electrical Cable Asse		25'
	621-0001	112)35 (0.9m	,		001-0612	Electrical Cable Asse	•	30'
	621-0327)45 (1.2m	,		001-0664	Electrical Cable Asse	mbly	50'
	621-0003	112)45 (1.2m			001-0613	7 Pin Cannon Plug		
	621-0075		/16" (1.6m		В	001-0537	Gas Hose Assembly		15'
	621-0153		/16" (1.6m	,		001-0538	Gas Hose Assembly		25'
В	621-0077)30 (0.8m			001-0557	Gas Hose Assembly		30'
	621-0002)35 (0.9m			001-0565	Gas Hose Assembly		50'
	621-0286	Tip Spray Arc0)52 (1.3m	m) .060	С	001-0149	Power/Water Assemb		15'
3.	TIP EXT	ENSIONS				001-0150	Power/Water Assemb		25'
A	621-0017	Tip Extension	1-11/16	,,,		001-0177	Power/Water Assemb	,	30'
В	003-0566	Tip Extension	1.95"	,	_	001-0666	Power/Water Assemb		50'
_		•	1.95		D	001-0529	Water-In Hose Assem		15'
4.	TORCH	<u>LINERS</u>				001-0530	Water-In Hose Assem	•	25'
	615-0005	Teflon™ Liner	5-3/4"	Aluminum		001-0565	Water-In Hose Assem	,	30'
	615-0058	Teflon™ Liner	6-3/4"	Aluminum	_	001-0567	Water-In Hose Assem	ibly	50'
	615-0284	Spiral Liner	5-3/4"	Steel/Cored	Е	001-0007	Conduit		15'
	615-0057	Spiral Liner	6-3/4"	Steel/Cored		001-0008	Conduit		25'
	615-0316	Green Teflon™ Line		All		001-0563	Conduit		30'
						001-0659	Conduit		50'

100 MK PRODUCTS® STYLE

COMPATIBLE WITH KINGCOBRA†



I.D.

.037

.040

.044

.053

.060

.075

.086

.040

.044

.060

.040

.044

.044

.053

.053

.060

.075

.085

.030

.030

.035

.045

.045

1/16"

.030

.035

.052

.030"

.035"

.035"

3/64"

3/64"

3/64"

1/16"

1/16"

(0.8mm)

(0.8mm)

(0.9mm)

(1.2mm)

(1.2mm)

(1.6mm)

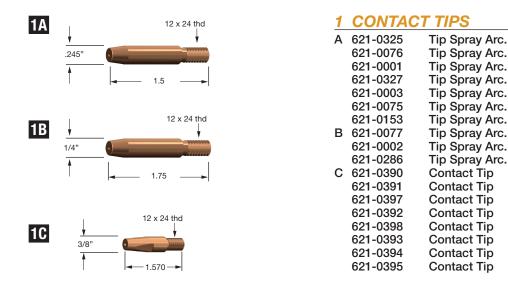
(0.8mm)

(0.9mm)

(1.3mm)

1/16" (1.6mm)

COMPATIBLE WITH SIDEWINDER, PRINCE SG, COBRA SX, COBRA MX[†]

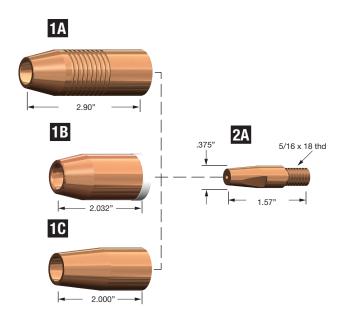




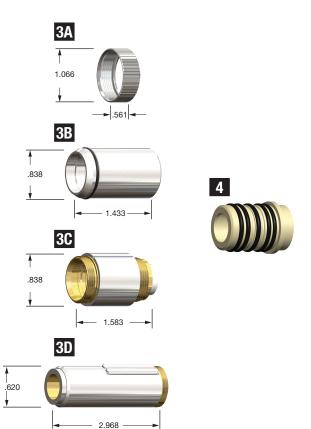
MK PRODUCTS® STYLE 101

AIR COOLED

COMPATIBLE WITH PYTHON, COBRAMAX, PRINCE XL, COBRA MX[†]



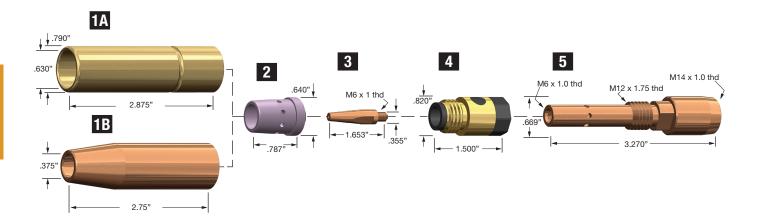
<u>1.</u>	NOZZLES		I.E	<u>).</u>
Α	621-0248	Nozzle	3/8	3"
	621-0249	Nozzle, Finned	1/2	2"
	621-0250	Nozzle, Finned	5/8	3"
	621-0251	Nozzle, Finned HD	5/8	3"
В	621-0420	MAX Cup	3/8	3"
	621-0421	MAX Cup	1/2	2"
	621-0422	MAX Cup	5/8	3"
С	621-0440	Quick Cup	3/8	3"
	621-0441	Quick Cup	7/1	6"
	621-0442	Quick Cup	1/2	2"
	621-0443	Quick Cup	5/8	3
2.	CONTACT	TIPS		I.D.
Α	621-0390	Contact Tip	.030"	.040
	621-0397	Contact Tip	.035"	.044
	621-0392	Contact Tip	.045"	.053
	621-0393	Contact Tip	.052"	.060
	621-0394	Contact Tip	1/16"	.075
	621-0394-Spe	ecial Contact Tip		.068
	621-0395	Contact Tip	1/16"	.085



WATER COOLED

3.	NOZZLES	S	I.D.
Α	449-0193	Chrome Nut	
В	621-0159	Gas Cup #8	1/2"
	621-0160	Gas Cup #10 A/C	5/8"
	621-0170	Gas Cup #6 A/C	3/8"
С	621-0101	Cup Adapter W/C	
D	621-0065	Gas Cup W/C	
4.	INSULAT	OR CUP	
	261-0381		

102 OTC®/DAIHEN® STYLE

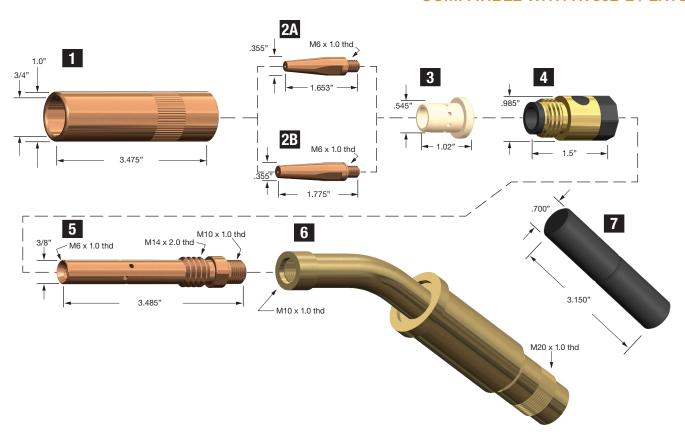


1.	NOZZLES			I.D.	
Α	U608N02	Nozzle		5/8"	(16mm)
В	U2464H10	Nozzle #6		3/8"	(9.5mm)
	U4167H04	Deep Narrow	Nozzle		
2.	ORIFICE				
	U4167G02	Orifice			
3.	CONTACT	TIPS			I.D.
Α	U475E10	Contact Tip	.045 H	(1.2mm)	.055
4.	NOZZLE IN	<u>ISULATOR</u>	S		
	004 002	Nozzle Insula	tor Smal	I	
5.	TIP BODIE	S			
	U2437H07	Tip Body			
	U2437H07L	Tip Body Lon	g		



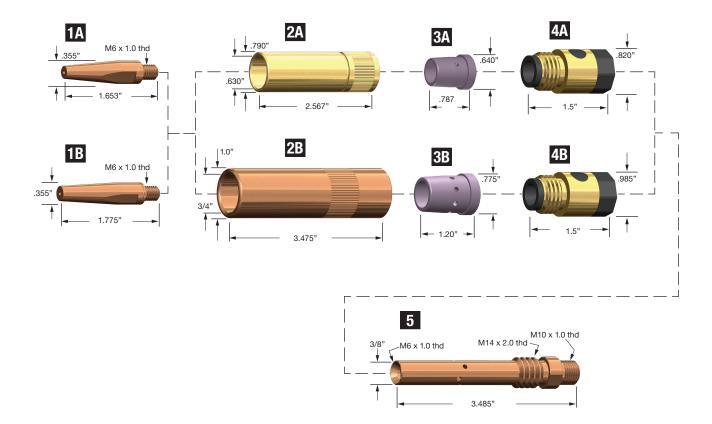
OTC®/DAIHEN® STYLE 103

COMPATIBLE WITH RT502-L / LRT501[†]



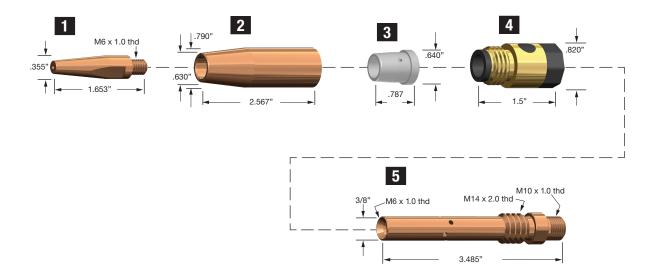
<u>1.</u>	NOZZLES		I.D.		3.	DIFFUSER	S/HEADS	
	861PTA1010	Nozzle	3/4" (19.1mm)			861P-TA-1030	Orifice	
2.	CONTACT	TIPS		I.D.	4.	NOZZLE IN	ISULATORS	
В	0.8 x 42 0.9 x 42 1.0 x 42 1.2 x 42 1.6 x 42 0.8 x 45	Contact Tip Contact Tip Contact Tip Contact Tip Contact Tip	.030 (0.8mm) .035 (0.9mm) .040 (1.0mm) .045 (1.2mm) 1/16" (1.6mm) .030 (0.8mm)	.037 .043 .048 .050 .073 .037	5.6.	861P-TA-1040 <i>TIP BODY</i> PL115-0134 <i>TORCH BA</i> PB351-0997	Insulator Cylinder Tip Body ARRELS Torch Barrel	
C D	0.9 x 45 1.0 x 45 1.2 x 45 1.6 x 45 0.9x42LL 1.2x42LL 0.9x45LL 1.0x45LL 1.2x45LL	Contact Tip		BREAK AV PL116-0200 N/S Other Avai PB351-1721 PB351-1723 PB351-0718 PB351-0719 PB351-0999	Break Away Bar	64" 139" 63" 138"		

104 PANASONIC®/TOKIN® STYLE



<u>1.</u>	CONTAC	I.D.					
Α	002 003	Contact Tips	.045	(1.2mm)	.055		
В	002 007	Contact Tips	.043				
2.	NOZZLE						
Α	001 002	Nozzle	.630	(16mm)			
В	001 001	Nozzle	.750	(19mm)			
<u>3.</u>	ORIFICE						
Α	003 002	Orifice Ceramic	- Small				
В	003 001	Orifice Ceramic	- Large				
<i>4</i> .	NOZZLE	INSULATOR	RS				
Α	004 001	Nozzle Insulator	r - Large				
В	004 002	Nozzle Insulator	r - Small				
5.	DIFFUSI	ER/TIP HOLL	DER				
	PL115-013	4 Tip Body					





<u>1.</u>	CONTAC	CT TIPS		I.D.
	L7250B01	Contact Tip	o (0.8mm)	.037
	L7250B02	Contact Tip	o (0.9mm)	.043
	L7250B03	Contact Tip	o (1.0mm)	.048
	L7250B04	Contact Tip	o (1.2mm)	.050
	L7250B05	Contact Tip	0	.052
	L7250B06	Contact Tip	o (1.6mm)	.073
	L7570B02	Contact Tip		.043
	L7570B04	Contact Tip	o - Short	.050
2.	NOZZLE	S	I.D.	
	L6380F03	Nozzle	1/2"	
	L6380F04	Nozzle		
<u>3.</u>	ORIFICE			
	U4167G02	Orifice		
<u>4.</u>	NOZZLE	INSULA	TORS	
	TFZ-35101	Nozzle Inst	ulator	
5.	DIFFUSI	ER/TIP H	OLDER	
	L6380F02	Tip Body		

COMPATIBLE WITH ACCULOCK™



1.	CONTAC	T TIPS	WIRE SIZE	I.D.
Α	T-A030CH	Contact Tips Cu	0.030"	(0.8mm)
	T-A035CH	Contact Tips Cu	0.035"	(0.9mm)
	T-A039CH	Contact Tips Cu	0.039"	(1.0mm)
	T-A045CH	Contact Tips Cu	0.045"	(1.2mm)
	T-A052CH	Contact Tips Cu	0.052"	(1.3mm)
	T-A062CH	Contact Tips Cu	1/16"	(1.6mm)
	T-A072CH	Contact Tips Cu	0.070"	(1.8mm)
	T-A078CH	Contact Tips Cu	5/64"	(2.0mm)
	T-A094CH	Contact Tips Cu	3/32"	(2.4mm)
В	T-A030ZH	Contact Tips CuCrZ	r 0.030"	(0.8mm)
	T-A035ZH	Contact Tips CuCrZ	r 0.035"	(0.9mm)
	T-A039ZH	Contact Tips CuCrZ	r 0.039"	(1.0mm)
	T-A045ZH	Contact Tips CuCrZ	r 0.045"	(1.2mm)

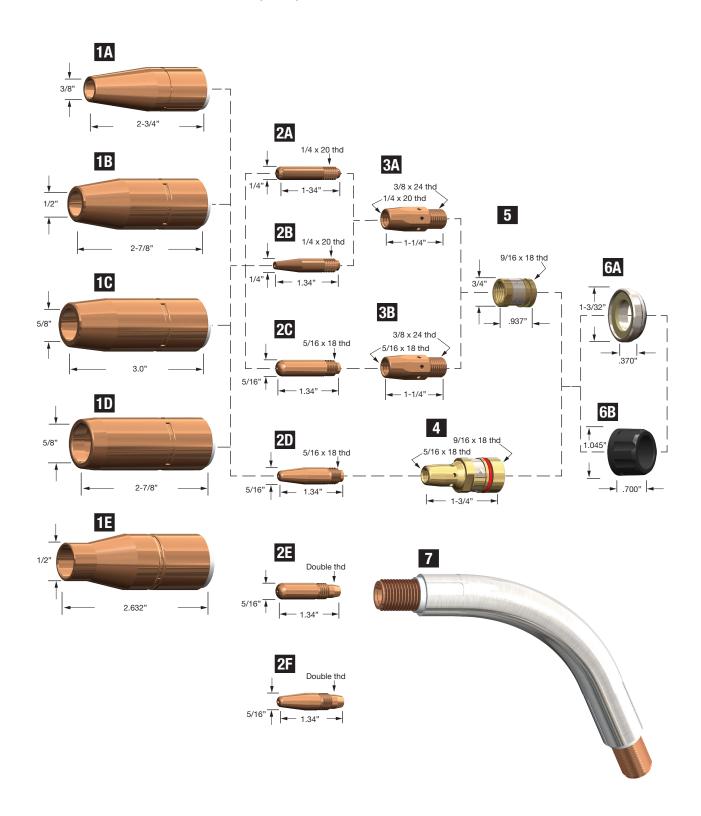


COMPATIBLE WITH ACCULOCK™



<u>1.</u>	CONTAC	TTIPS	WIRE SIZE	O.D.
Α	T-A023CH	Contact Tip Cu	0.023" (0.6mm)	0.350"
	T-A030CH	Contact Tip Cu	0.030" (0.8mm)	0.350"
	T-A035CH	Contact Tip Cu	0.035" (0.9mm)	0.350"
	T-A039CH	Contact Tip Cu	0.039" (1.0mm)	0.350"
	T-A045CH	Contact Tip Cu	0.045" (1.2mm)	0.350"
	T-A052CH	Contact Tip Cu	0.052" (1.3mm)	0.350"
	T-A062CH	Contact Tip Cu	1/16" (1.6mm)	0.350"
	T-A072CH	Contact Tip Cu	0.070" (1.8mm)	0.350"
	T-A078CH	Contact Tip Cu	5/64" (2.0mm)	0.350"
	T-A094CH	Contact Tip Cu	3/32" (2.4mm)	0.350"
	T-A109CH	Contact Tip Cu	7/64" (2.8mm)	0.350"
	T-A125CH	Contact Tip Cu	1/8" (3.2mm)	0.350"
В	TT-A023CH	Contact Tip Cu	0.023" (0.6mm)	0.350"
	TT-A030CH	Contact Tip Cu	0.030" (0.8mm)	0.350"
	TT-A035CH	Contact Tip Cu	0.035" (0.9mm)	0.350"
	TT-A039CH	Contact Tip Cu	0.039" (1.0mm)	0.350"
	TT-A045CH	Contact Tip Cu	0.045" (1.2mm)	0.350"
	TT-A052CH	Contact Tip Cu	0.052" (1.3mm)	0.350"
	TT-A062CH	Contact Tip Cu	1/16" (1.6mm)	0.350"

COMPATIBLE WITH TOUGH GUN 300, 400, 500[†]





403-20-52 Cont Tip Dbl thd

TREGASKISS® STYLE 109

COMPATIBLE WITH TOUGH GUN 300, 400, 500[†]

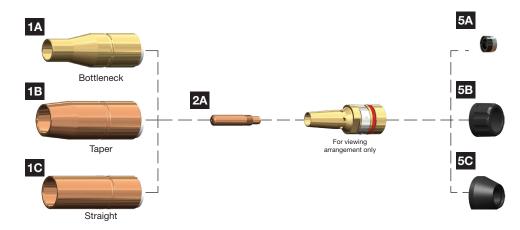
1	NOZZI E	S - INSULATED	1	D.	2.	CONTAC	T TIPS (C)	ONTINUED			I.D.
^-									1/16"/	1 6	
Α	401-4-38 401-4-62	Nozzle Std. Flush	3/ E/	(8" (09.5mm)		403-20-116					1) .073
D	401-4-62	Nozzle 1/8" Stick-Out		8" (15.9mm) 2" (12.7mm)		403-20-564 403-27-35			5/64" (
В	401-4-50	Nozzle Std. 1/8" Tip Red Nozzle Std. 1/8" Tip Red		8" (15.9mm)			Cont Tip Db				
	401-4-02	Nozzle Std. 1/8"Tip Red	Jess 3/	4" (19.1mm)			Cont Tip Db				
С	401-4-73	Nozzle H.D. Cu 1/4" Tip		8" (15.9mm)	F		Cont Tip Db				1) .002
C	401-5-02	Nozzle H.D. Cu 1/4" Tip		4" (19.1mm)	Г		Cont Tip Db		,		1) .045
	401-3-73	Nozzle H.D. Brass 1/4"	Tip Rec 5/	8" (15.9mm)			-	i tila i pia	.045 (1.211111	1) .000
D	401-7-62	Nozzle H.D. Cu 1/8" Tip		8" (15.9mm)	<u>3.</u>	GAS DIF	FUSERS				
D	401-6-75	Nozzle H.D. Cu 1/8" Tip		4" (19.1mm)	Α	404	Diffuser for	Standard (Contact 1	Tips	
Е	401-48-50	Nozzle Bottleneck 1/8 S		2"	В	404-1	Diffuser for	H.D. Conta	act Tips	•	
_	401-48-62	Nozzle Bottleneck Flush		8"	4	RETAINII	VG HEAD	S /I ISE W/IT	א כועם.	7 <i>771 E</i>	C)
	401-81-62			8"	7.				п п.р. N	JZZLE:	3)
		Nozzle HD Brass 1/8 ST		8"		404-3	Retaining	Head H.D.	المماممال	-1	
0	CONTAC					404-3A		Head H.D.			
2.				I.D.		404-13	_	Head H.D. S	straignt F	ioles	
Α	403-23	Cont Tip Std.	.023 (0.6r			404-20 404-26	Diffuser M		Manual		
	403-30	Cont Tip Std.	.030 (0.8			404-20	Diffuser Ro	ual Tapered	iviaiiuai		
	403-35	Cont Tip Std.	.035 (0.9r			404-32		ual Tapered	Dobotio		
	403-1.0	Cont Tip Std.	.040 (1.0r			404-52		ual Tapered			
	403-45	Cont Tip Std.	.045 (1.2r			404-55	Retaining		meau		
	403-52	Cont Tip Std.	.052 (1.3		_		_				
_	403-116	Cont Tip Std.	1/16" (1.6r		5.	NOZZLE	RETAINE	:KS			
В	403-2-23	Cont Tip Tapered	.023 (0.6)			402-3	Nozzle Re	tainer			
	403-2-30	Cont Tip Tapered	.030 (0.8)		6.	SHOCK V	NASHER!	S			
	403-2-35	Cont Tip Tapered	.035 (0.9)								
	403-2-45 403-2-52	Cont Tip Tapered Cont Tip Tapered	.045 (1.2)	,	A B	402-5 402-7	Shock Was Shock Was				
С	403-2-32	Cont Tip Tapered	.052 (1.3r					ner Plastic			
C	403-1-35	Cont Tip H.D.	.030 (0.81		7.	GOOSEN	<u>IECKS</u>				
	403-1-45	Cont Tip H.D.	.045 (1.2)			205-60	Gooseneck	60°	200Amp		
	403-1-364	Cont Tip H.D.	3/64" (1.2)			305-60	Gooseneck	60°	300Amp		
	403-1-52	Cont Tip H.D.	.052 (1.3			405-45	Gooseneck	45°	400Amp		
	403-1-116	Cont Tip H.D.	1/16" (1.6r			405-60	Gooseneck	60°	400Amp		
	403-1-564	Cont Tip H.D.	5/64" (2.0r			505-60	Gooseneck	60°	500Amp		
	403-1-332	Cont Tip H.D.	3/32" (2.4		11	NERS (NOT	SHOWN	I.D.		O.D	
	403-7-35	Cont Tip Long Life	.035 (0.9	•		415-35-10	Liner 10'	.035	White		.175
	403-7-45	Cont Tip Long Life	.045 (1.2)			415-35-10		.035	White		.175
	403-7-52	Cont Tip Long Life	.052 (1.3r			415-35-15	Liner 15' Liner 25'	.035	White		.175
	403-7-116	Cont Tip Long Life	1/16" (1.6r	mm) .070		415-33-23	Liner 6"	.045-1/16"	Red		.175
	403-7-1.0	Cont Tip Long Life	.040 (1.0r	mm) .045		415-116-10	Liner 10'	.045-1/16"			.189
D	403-3-30	Cont Tip H.D. Tap	.030 (0.81	mm) .037		415-116-15	Liner 15'	.045-1/16"	Red		.189
	403-3-35	Cont Tip H.D. Tap	.035 (0.91			415-116-25		.045-1/16"	Red	.089	.189
	403-3-40	Cont Tip H.D. Tap	.040 (1.0			415-332-15		3/32"	Black		
	403-3-45	Cont Tip H.D. Tap	.045 (1.2r			415-332-25		3/32"	Black		
	403-3-52	Cont Tip H.D. Tap	.052 (1.3r			002 20	2	0,02	Biaon		
	403-3-116	Cont Tip H.D. Tap	1/16" (1.6r								
	403-7-35T	Tip Tapered Long Life	.035 (0.9r								
	403-7-45T	Tip Tapered Long Life	.045 (1.2r								
_	403-7-52T	Tip Tapered Long Life	.052 (1.3r								
Е	403-20-30	Cont Tip Dbl thd	.030 (0.8								
	403-20-35	Cont Tip Dbl thd	.035 (0.91								
		Cont Tip Dbl thd	.040 (1.0								
	403-20-45	Cont Tip Dbl thd	.045 (1.2)								
		Cont Tip Dbl thd	3/64" (1.2)								

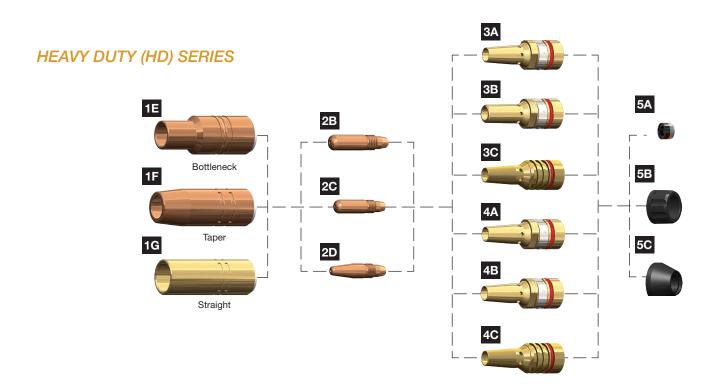
.063

.052 (1.3mm)

COMPATIBLE WITH TOUGH LOCK®†

STANDARD DUTY (SD) SERIES







TREGASKISS® STYLE 111

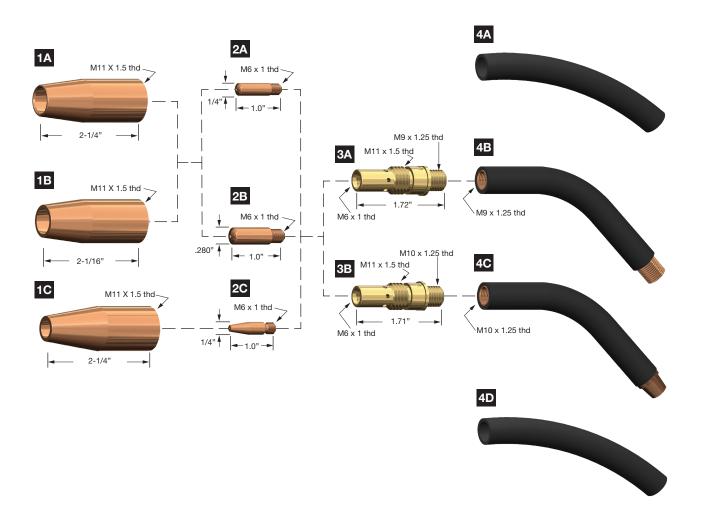
COMPATIBLE WITH TOUGH LOCK®†

1. NOZZLES	I.D. O.D. 2	CONTACT	TIPS (CONTINUE	D)
		D TAPERED	TIDE	•
STANDARD DUTY AIR-COOLED (SLIP-ON)	_			(0.8 mm) .037"
A 401-42-50 use 63-2950-B Brass 1/8" Recess	1/2 0.000			(0.9 mm) .043"
401-48-50 use 64-2950 Brass 1/8" Stick-ou				(1.2 mm) .055"
B 401-4-38 use 63-2138 Copper Flush 3/8"	0.938"			(1.3 mm) .063"
401-44-62 use 63-2762 Copper 1/4" Stick-ou			-	,
401-4-50 use 63-2150 Copper 1/8" Recess 401-4-62 use 63-2162 Copper 1/8" Recess	1/2" 0.938" AI 5/8" 0.938"	I contact tips con	ne in packages of 1	0.
		. RETAINII	NG HEADS/L	DIFFUSERS
401-8-62 use 63-2662 Copper 1/8" Stick-ou 401-8-62 use 63-2662 Copper 1/8" Stick-ou	3/0 0.300			
C 401-4-75 use 63-2175 Copper 1/8" Recess	3/4" 0.938"		TOMATIC	
	A		Heavy Duty	Single Taper
STANDARD DUTY AIR-COOLED (THREAD-ON)	E /811 A 88811		Heavy Duty	Dual Taper
D 401-18-62 use 63-2662-T Copper 1/8" Stick-ou	5/8" 0.938" C	404-52	Heavy Duty	Threaded
HEAVY DUTY (HD) AIR-COOLED (SLIP-ON)	4	RETAINII	NG HEADS/E	DIFFUSERS
E 401-48-62 use 64-2962 Copper Flush	5/8" 1.062"			
401-49-62 use 64-2962-S Copper 1/8" Stick-ou		ROBOTIC		
F 401-5-62 use 64-2562 Copper 1/4" Recess	5/8" 1.062" A	404-30	Heavy Duty	Single Taper
401-5-75 use 64-2575 Copper 1/4" Recess	3/4" 1.062" B	404-32	Heavy Duty	Dual Taper
401-6-50 use 65-2550 Copper 1/8" Recess	1/2" 1.062" C	404-52	Heavy Duty	Threaded
401-6-62 use 65-2562 Copper 1/8" Recess	5/8" 1.062" _{Al}	I heads/diffusers	come in packages	of 5.
401-6-75 use 65-2575 Copper 1/8" Recess	3/4" 1.062"	NIEOK INI	OLU ATORO	
401-71-62 use 63-2362 Brass 1/8" Recess	5/8" 1.106" <u>5</u>	. NECK IN	SULATORS	
401-7-62 Brass 1/4" Recess	3/4" 1.106" A	402-11	use 63-6202-HD	Neck Insulator
401-7-75 use 65-2375 Brass 1/8" Recess	5/8" 1.106" B	402-7	use 63-6103	Neck Insulator
401-81-62 use 65-2662 Copper 1/8" Stick-ou		10012		Neck Insulator
401-87-62 use 65-2362 Brass 1/8" Stick-ou	5/8" 1.062"			
401-88-62 use 65-2862 Brass Flush	5/8" 1.106"			
G 401-7-87 use 64-2387 Brass 1/4" Recess	7/8" 1.106"			
HEAVY DUTY AIR-COOLED (THREAD-ON)				
H 401-18-62 use 65-2562-T Copper 1/8" Recess	5/8" 1.062"			
HEAVY DUTY WATER-COOLED	0,0 1.00=			
I 601-5-62 Nickel-Plated Bronze 1/4" Recess	5/8" 1.225"			
	3/0 1.223			
All nozzles come in packages of 2.				
2. CONTACT TIPS I.D.				
STANDARD DUTY (SD) TIPS				
A 403-14-30 .030" (0.8 mm) .037"				
403-14-35 .035" (0.9 mm) .043"				
EXTENDED LIFE TIPS (CHROME ZIRCONIUM)				
B 403-27-30 .030" (0.8 mm) .037"				
403-27-35 .035" (0.9 mm) .040"				
403-27-45 .045" (1.2 mm) .050"				
403-27-52 .052" (1.3 mm) .059"				
403-27-116 1/16" (1.6 mm) .070"				
HEAVY DUTY (HD) TIPS				
C 403-20-30 .030" (0.8 mm) .037"				
403-20-35 .035" (0.9 mm) .043"				
403-20-1.0 .040" (1.0 mm) .048"				
403-20-45 .045" (1.2 mm) .055"				
403-20-364 3/64" (1.2 mm) .060"				
403-20-52 .052" (1.3 mm) .063"				
403-20-116 1/16" (1.6 mm) .073"				
403-20-564 5/64" (2.0 mm) .093"				
403-20-304 3/04 (2.0 mm) .093 403-20-332 3/32" (2.4 mm) .110"				

CONTACT TIPS CONTINUED ON RIGHT

112 TWECO® STYLE

COMPATIBLE WITH # 1[†]





MIG

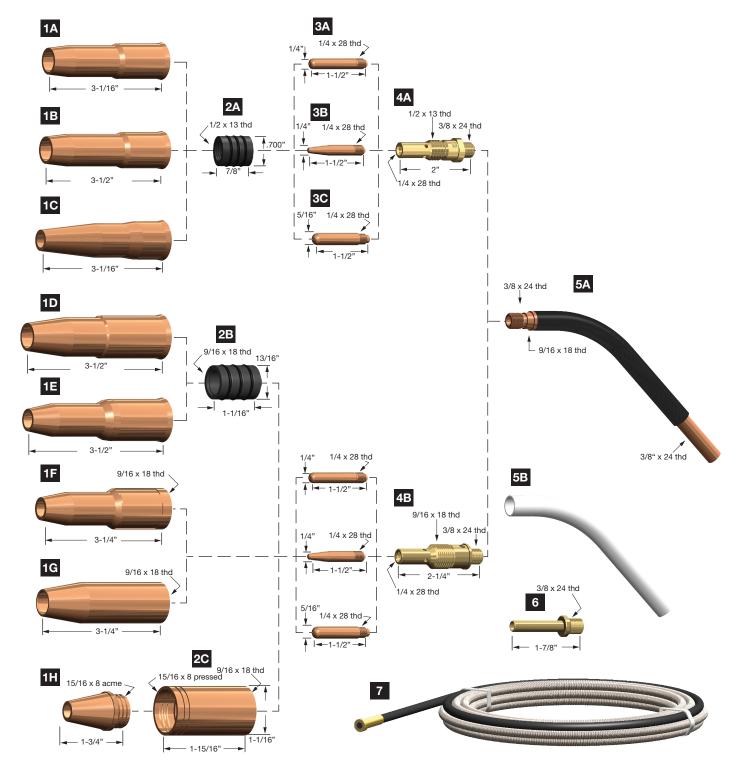


COMPATIBLE WITH # 1[†]

A 21-37 Nozzle Insul. 1/8" Recess 3/8" (09.5mm) 21-50 Nozzle Insul. 1/8" Recess 1/2" (12.7mm) 21-62 Nozzle Insul. 1/8" Recess 5/8" (15.9mm) 21-62-F Nozzle Insulated Flush 3/8" (09.5mm) 21-62-F Nozzle Insulated Flush 1/2" (12.7mm) 21-62-F Nozzle Insulated Flush 5/8" (15.9mm) 22-62-F Nozzle Insulated Flush 5/8" (15.9mm) 22-62-F Nozzle Insulated Flush 5/8" (15.9mm) .052 (0.6mm) .032 (0.6mm) .033 (0.6mm) .033 (0.9mm) .043 (11-35 Contact Tip	1.	NOZZLES				I.D.		
21-62 Nozzle Insul. 1/8" Recess 5/8" (15.9mm) B 21-37-F Nozzle Insulated Flush 3/8" (09.5mm) 21-62-F Nozzle Insulated Flush 1/2" (12.7mm) 21-62-F Nozzle Insulated Flush 5/8" (15.9mm) C 21T-37 Nozzle Tapered 1/8" Recess 3/8" (09.5mm) 2. CONTACT TIPS	Α	21-37	Nozzle Insul. 1/8" R	eces	ss	3/8"	(09.5	5mm)
B 21-37-F Nozzle Insulated Flush 1/2" (12.7mm) 21-62-F Nozzle Insulated Flush 1/2" (12.7mm) 21-62-F Nozzle Insulated Flush 5/8" (15.9mm) 21-62-F Nozzle Insulated Flush 5/8" (15.9mm) 1.2" (12.7mm) Nozzle Tapered 1/8" Recess 3/8" (09.5mm) 2. CONTACT TIPS		21-50				1/2"	(12.7	7mm)
21-50-F Nozzle Insulated Flush 5/8" (15.9mm) 21-62-F Nozzle Insulated Flush 5/8" (15.9mm) 5/8" (15.9mm) 22. C21T-37 Nozzle Tapered 1/8" Recess 3/8" (09.5mm) 22. CONTACT TIPS					SS		•	
21-62-F Nozzle Insulated Flush C 21T-37 Nozzle Tapered 1/8" Recess 3/8" (09.5mm) 2. CONTACT TIPS 1.D. A 11-23 Contact Tip .023 (0.6mm) .028 11-30 Contact Tip .035 (0.9mm) .043 11-40 Contact Tip .040 (1.0mm) .048 11-45 Contact Tip .040 (1.0mm) .045 B 11H-30 Contact Tip H.D035 (0.9mm) .037 11H-35 Contact Tip H.D045 (1.2mm) .055 B 11H-30 Contact Tip H.D035 (0.9mm) .043 11H-40 Contact Tip H.D040 (1.0mm) .048 11H-45 Contact Tip H.D040 (1.0mm) .048 11H-45 Contact Tip H.D045 (1.2mm) .055 11AH-364 Contact Tip H.D045 (1.2mm) .055 11AH-364 Contact Tip Tapered .030 (0.8mm) .037 11T-33 Contact Tip Tapered .030 (0.8mm) .037 11T-35 Contact Tip Tapered .035 (0.9mm) .043 11T-40 Contact Tip Tapered .035 (0.9mm) .043 11T-40 Contact Tip Tapered .040 (1.0mm) .048 11T-45 Contact Tip Tapered .045 (1.2mm) .055 3. GAS DIFFUSERS A 35-50 Gas Diffuser (Mini-Mig) B 51 Gas Diffuser (Mini-Mig) B 51 Gas Diffuser (Mini-Mig) B 51-23 Gas Diffuser (#1) .023 4. GOOSENECKS & INSULATION A 35-70 Conductor Tube 45° (Mini-Mig) B 35-60-45 Conductor Tube 60° (Mini-Mig) C 61-45 Conductor Tube 60° (Mini-Mig) C 61-45 Conductor Tube 60° (Mini-Mig) B 35-60-45 Conductor Tube 60° (Mini-Mig) C 61-45 Conductor Tube 180° (#1) Conductor Tube 180° (#1) Conductor Tube 180° (#1) D 71 Conductor Tube 180° (#1) D 71 Conductor Tube 180° (#1) LINERS (NOT SHOWN) LINERS (NOT SHOWN) LINERS (NOT SHOWN) A 35-T40-15 Liner Assy. 15' .030035 .050 .134 35-40-15 Liner Assy. Teflon™ 10' .035 .066 .148 35TF-40-10 Liner Assy. Teflon™ 10' .035 .066 .148 35TF-40-15 Liner Assy. Teflon™ 10' .045 .079 .156 #11 B 42-23-15 Liner Assy. Teflon™ 10' .045 .079 .156 #12 42-3035-15 Liner Assy. 15' .030035 .053 .156 42-3035-25 Liner Assy. 15' .030035 .053 .156 42-4045-25 Liner Assy. 15' .030035 .053 .156 42-4045-25 Liner Assy. 15' .040045 .059 .156	В							,
C 21T-37 Nozzle Tapered 1/8" Recess 3/8" (09.5mm) 2. CONTACT TIPS A 11-23 Contact Tip .023 (0.6mm) .028 11-30 Contact Tip .030 (0.8mm) .037 11-35 Contact Tip .030 (0.9mm) .043 11-40 Contact Tip .040 (1.0mm) .048 11-45 Contact Tip .045 (1.2mm) .055 B 11H-30 Contact Tip H.D030 (0.8mm) .037 11H-35 Contact Tip H.D030 (0.8mm) .037 11H-40 Contact Tip H.D045 (1.2mm) .048 11H-45 Contact Tip H.D040 (1.0mm) .048 11H-45 Contact Tip H.D045 (1.2mm) .055 C 11T-23 Contact Tip H.D045 (1.2mm) .055 C 11T-23 Contact Tip Tapered .023 (0.6mm) .037 11T-35 Contact Tip Tapered .030 (0.8mm) .037 11T-35 Contact Tip Tapered .030 (0.8mm) .037 11T-35 Contact Tip Tapered .030 (0.9mm) .048 11T-40 Contact Tip Tapered .035 (0.9mm) .043 11T-45 Contact Tip Tapered .040 (1.0mm) .048 11T-45 Contact Tip Tapered .045 (1.2mm) .055 3. GAS DIFFUSERS A 35-50 Gas Diffuser (Mini-Mig) 51 Gas Diffuser (Mini-Mig) 52 Gas Diffuser (#1) .023 4. GOOSENECKS & INSULATION A 35-70 Conductor Tube Insulation (Mini-Mig) 35-60-45 Conductor Tube 45° (#1) 61-60 Conductor Tube 45° (#1) 61-180 Conductor Tube 60° (Mini-Mig) 35-60-45 Liner Assy. 15' .030035 .050 .134 35-40-15 Liner Assy. 15' .030035 .050 .134 35TF-40-10 Liner Assy. Teflon™ 10' .035 .066 .148 35TF-40-15 Liner Assy. Teflon™ 10' .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 10' .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 10' .045 .079 .156 42-3035-15 Liner Assy. 15' .030035 .053 .156 42-3035-25 Liner Assy. 15' .030035 .053 .156 42-4045-25 Liner Assy. 15' .040045 .059 .156								,
2. CONTACT TIPS A 11-23 Contact Tip .023 (0.6mm) .028 11-30 Contact Tip .030 (0.8mm) .037 11-35 Contact Tip .035 (0.9mm) .043 11-40 Contact Tip .045 (1.2mm) .045 11-45 Contact Tip .045 (1.2mm) .055 B 11H-30 Contact Tip H.D030 (0.8mm) .037 11H-35 Contact Tip H.D030 (0.8mm) .037 11H-35 Contact Tip H.D035 (0.9mm) .043 11H-40 Contact Tip H.D045 (1.2mm) .055 11H-40 Contact Tip H.D046 (1.2mm) .055 11AH-364 Contact Tip H.D045 (1.2mm) .055 11AH-364 Contact Tip H.D046 (1.2mm) .059 11T-30 Contact Tip Tapered .023 (0.6mm) .028 11T-30 Contact Tip Tapered .030 (0.8mm) .037 11T-40 Contact Tip Tapered .030 (0.8mm) .037 11T-45 Contact Tip Tapered .035 (0.9mm) .043 11T-45 Contact Tip Tapered .040 (1.0mm) .048 11T-45 Contact Tip Tapered .040 (1.0mm) .048 11T-45 Contact Tip Tapered .045 (1.2mm) .055 3. GAS DIFFUSERS A 35-50 Gas Diffuser (Mini-Mig) Gas Diffuser (#1) .023 4. GOOSENECKS & INSULATION A 35-70 Conductor Tube Insulation (Mini-Mig) B 51 Gas Diffuser (#1) .023 4. GOOSENECKS & INSULATION C 61-45 Conductor Tube 45° (Mini-Mig) 35-60-60 Conductor Tube 60° (Mini-Mig) G1-45 Conductor Tube 60° (Mini-Mig) C 61-45 Conductor Tube 45° (#1) G1-60 Conductor Tube Insulation (#1) LINERS (NOT SHOWN) I.D. O.D. MINII-MIG A 23-40-15 Liner Assy. 15' .023 .036 .123 35-40-20 Liner Assy. 15' .030035 .050 .134 35-F40-10 Liner Assy. Teflon™ 10' .035 .066 .148 45-T40-15 Liner Assy. Teflon™ 10' .035 .066 .148 45-TF-40-15 Liner Assy. Teflon™ 10' .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 10' .045 .079 .156 #11 B 42-23-15 Liner Assy. 15' .030035 .053 .156 42-3035-15 Liner Assy. 15' .030035 .053 .156 42-3035-15 Liner Assy. 15' .030035 .053 .156 42-3035-15 Liner Assy. 15' .030035 .053 .156 42-4045-25 Liner Assy. 25' .030035 .059 .156	_						•	
A 11-23			•	Red	cess	3/8	(09.	^
11-30						/0.0		
11-35	Α							
11-40 Contact Tip								
11-45 Contact Tip							,	
B 11H-30								
11H-35	В							
11H-40 Contact Tip H.D040 (1.0mm) .048 11H-45 Contact Tip H.D045 (1.2mm) .055 11AH-364 Contact Tip H.D3/64"Al.(1.2mm) .059 C 11T-23 Contact Tip Tapered .023 (0.6mm) .028 11T-30 Contact Tip Tapered .030 (0.8mm) .037 11T-35 Contact Tip Tapered .030 (0.8mm) .037 11T-35 Contact Tip Tapered .035 (0.9mm) .043 11T-40 Contact Tip Tapered .040 (1.0mm) .048 11T-45 Contact Tip Tapered .045 (1.2mm) .055 3. GAS DIFFUSERS A 35-50 Gas Diffuser (Mini-Mig) B 51 Gas Diffuser (#1) 51-23 Gas Diffuser (#1) 51-23 Gas Diffuser (#1) 51-23 Gas Diffuser (#1) 63-60-45 Conductor Tube 45° (Mini-Mig) C 61-45 Conductor Tube 60° (Mini-Mig) C 61-45 Conductor Tube 60° (#1) 61-180 Conductor Tube 60° (#1) 61-180 Conductor Tube 180° (#1) D 71 Conductor Tube Insulation (#1) LINERS (NOT SHOWN) LINERS (NOT SHOWN) MINI-MIG A 23-40-15 Liner Assy. 15′ .023 .036 .123 35-40-20 Liner Assy. 15′ .030035 .050 .134 35TF-40-10 Liner Assy. 15′ .035 .066 .148 45-40-15 Liner Assy. Teflon™ 10′ .035 .066 .148 45-40-15 Liner Assy. Teflon™ 15′ .035 .066 .148 45-40-15 Liner Assy. Teflon™ 15′ .035 .066 .148 45TF-40-10 Liner Assy. Teflon™ 15′ .045 .079 .156 #11 B 42-23-15 Liner Assy. 15′ .023 .036 .123 42-3035-15 Liner Assy. 25′ .030035 .053 .156 42-4045-25 Liner Assy. 25′ .030035 .053 .156 42-4045-25 Liner Assy. 25′ .030045 .059 .156	_							
11H-45								
11AH-364 Contact Tip H.D. 3/64"Al.(1.2mm) .059 C 11T-23 Contact Tip Tapered .023 (0.6mm) .028 11T-30 Contact Tip Tapered .030 (0.8mm) .037 11T-35 Contact Tip Tapered .035 (0.9mm) .043 11T-40 Contact Tip Tapered .040 (1.0mm) .048 11T-45 Contact Tip Tapered .045 (1.2mm) .055 3. GAS DIFFUSERS A 35-50 Gas Diffuser (Mini-Mig) B 51 Gas Diffuser (#1) .023 4. GOOSENECKS & INSULATION A 35-70 Conductor Tube Insulation (Mini-Mig) B 35-60-45 Conductor Tube 45° (Mini-Mig) C 61-45 Conductor Tube 45° (Mini-Mig) C 61-45 Conductor Tube 60° (Mini-Mig) C 61-45 Conductor Tube 60° (#1) 61-180 Conductor Tube 180° (#1) D 71 Conductor Tube Insulation (#1) LINERS (NOT SHOWN) MINI-MIG A 23-40-15 Liner Assy. 15' .023 .036 .123 35-40-15 Liner Assy. 15' .030035 .050 .134 35-TF-40-10 Liner Assy. 20' .030035 .050 .134 35TF-40-15 Liner Assy. 15' .035 .066 .148 35TF-40-15 Liner Assy. 15' .035 .066 .148 45-40-15 Liner Assy. 15' .035 .066 .148 45-40-15 Liner Assy. Teflon™ 10' .035 .066 .148 45TF-40-10 Liner Assy. Teflon™ 15' .035 .066 .148 45TF-40-15 Liner Assy. Teflon™ 10' .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 10' .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 10' .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 15' .023 .036 .123 42-3035-15 Liner Assy. 15' .030035 .053 .15 42-3035-25 Liner Assy. 15' .030035 .053 .15 42-3035-25 Liner Assy. 15' .030035 .053 .15 42-4045-15 Liner Assy. 15' .030035 .053 .156 42-4045-25 Liner Assy. 15' .040045 .059 .156								
11T-30		11AH-364		3	/64"A			.059
11T-35	С	11T-23	Contact Tip Tapered). k	023	(0.6	mm)	.028
11T-40 Contact Tip Tapered .040 (1.0mm) .048 11T-45 Contact Tip Tapered .045 (1.2mm) .055 3. GAS DIFFUSERS A 35-50 Gas Diffuser (Mini-Mig) B 51 Gas Diffuser (#1) .023 4. GOOSENECKS & INSULATION A 35-70 Conductor Tube Insulation (Mini-Mig) B 35-60-45 Conductor Tube 45° (Mini-Mig) 35-60-60 Conductor Tube 45° (#1) 61-45 Conductor Tube 45° (#1) 61-180 Conductor Tube 180° (#1) Conductor Tube 180° (#1) D 71 Conductor Tube Insulation (#1) LINERS (NOT SHOWN) I.D. O.D. MINI-MIG A 23-40-15 Liner Assy. 15′ .023 .036 .123 35-40-20 Liner Assy. 15′ .030035 .050 .134 35TF-40-10 Liner Assy. Teflon™ 10′ .035 .066 .148 35TF-40-15 Liner Assy. Teflon™ 10′ .035 .066 .148 45-40-15 Liner Assy. Teflon™ 15′ .035 .066 .148 45-40-15 Liner Assy. Teflon™ 15′ .035 .063 .138 45TF-40-10 Liner Assy. Teflon™ 10′ .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 10′ .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 15′ .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 15′ .045 .079 .156 42-3035-15 Liner Assy. 15′ .030035 .053 .15 42-3035-25 Liner Assy. 15′ .030035 .053 .15 42-3035-25 Liner Assy. 25′ .030035 .053 .156 42-4045-15 Liner Assy. 15′ .040045 .059 .156 42-4045-25 Liner Assy. 25′ .040045 .059 .156					030			
11T-45 Contact Tip Tapered .045 (1.2mm) .055 3. GAS DIFFUSERS A 35-50 Gas Diffuser (Mini-Mig) B 51 Gas Diffuser (#1) .023 4. GOOSENECKS & INSULATION A 35-70 Conductor Tube Insulation (Mini-Mig) B 35-60-45 Conductor Tube 45° (Mini-Mig) 35-60-60 Conductor Tube 60° (Mini-Mig) C 61-45 Conductor Tube 60° (#1) 61-80 Conductor Tube 180° (#1) D 71 Conductor Tube 180° (#1) D 71 Conductor Tube Insulation (#1) LINERS (NOT SHOWN) MINII-MIG A 23-40-15 Liner Assy. 15′ .023 .036 .123 35-40-20 Liner Assy. 15′ .030035 .050 .134 35TF-40-10 Liner Assy. Teflon™ 10′ .035 .066 .148 35TF-40-15 Liner Assy. 15′ .035 .066 .148 35TF-40-15 Liner Assy. 15′ .035 .066 .148 45-40-15 Liner Assy. Teflon™ 10′ .045 .079 .156 45TF-40-15 Liner Assy. Teflon™ 10′ .045 .079 .156 45TF-40-15 Liner Assy. 15′ .023 .036 .123 42-3035-15 Liner Assy. 15′ .023 .036 .123 42-3035-25 Liner Assy. 15′ .023 .036 .123 42-3035-25 Liner Assy. 15′ .030035 .053 .15 42-3035-25 Liner Assy. 15′ .030035 .053 .156 42-4045-15 Liner Assy. 15′ .030035 .053 .156 42-4045-25 Liner Assy. 15′ .040045 .059 .156								
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42-3035-15 Liner Assy. 15' .030035 .053 .15 42-3035-25 Liner Assy. 25' .030035 .053 .156 42-4045-15 Liner Assy. 15' .040045 .059 .156 42-4045-25 Liner Assy. 25' .040045 .059 .156		42-23-15	Liner Assv.	15'	.023		.036	.123
42-3035-25 Liner Assy. 25' .030035 .053 .156 42-4045-15 Liner Assy. 15' .040045 .059 .156 42-4045-25 Liner Assy. 25' .040045 .059 .156	_					.035		
42-4045-15 Liner Assy. 15' .040045 .059 .156 42-4045-25 Liner Assy. 25' .040045 .059 .156			-					
			Liner Assy.					
				25'				
42N-3545-15 Liner Assy. Nylon 15' .035045 .066 .148		42N-3545-15	Liner Assy. Nylon	15'	.035-	.045	.066	.148

114 TWECO® T-200® STYLE

2 COMPATIBLE WITH TWECO 200AMP CONSUMABLES[†]





Contact Tip H.D.

Contact Tip H.D.

Contact Tip H.D.

.045

(1.2mm)

3/64 Al. (1.2mm)

1/16 Al. (1.6mm)

.05

.059

.081

14H-45

14AH-364

14AH-116

TWECO® T-200® STYLE 115

2 COMPATIBLE WITH TWECO 200AMP CONSUMABLES[†]

4	NOZZI E	·C	10	4 CAC DIFFLICEDS
7.	NOZZLE		I.D.	4. GAS DIFFUSERS
Α	22-50	Nozzle Adjustable	1/2" (12.7mm)	A 52 Gas Diffuser (#2)
_	22-62	Nozzle Adjustable	5/8" (15.9mm)	52-23 Gas Diffuser (#2) .023
В	22-37-SS	Nozzle Adj. Short Stop	3/8" (09.5mm)	B 52FN Gas Diffuser (#2)
	22-50-SS	Nozzle Adj. Short Stop	1/2" (12.7mm)	5. GOOSENECKS
^	22-62-SS	Nozzle Adj. Short Stop	5/8" (15.9mm)	ADD J TO THE PART NUMBER FOR JACKETED GOOSENECKS (I.E. 64J-60)
С	24T-37-SS	Nozzle Adj. Tapered S.S.	3/8" (09.5mm)	STANDARD GOOSENECK ON MIG GUNS IS METAL JACKETED
D	24A-50 24A-62	Nozzle Adjustable Nozzle Adjustable	1/2" (12.7mm) 5/8" (15.9mm)	A 62A-45 Conductor Tube 45°
		Nozzle Adjustable	,	62A-60 Conductor Tube 60°
Е	24A-75 24A-37-SS	Nozzle Adjustable Nozzle Adj. Short Stop	3/4" (19.1mm) 3/8" (09.5mm)	62A-80 Conductor Tube 80°
_	24A-50-SS	Nozzle Adj. Short Stop	1/2" (12.7mm)	62A-180 Conductor Tube 180°
	24A-50-55 24A-62-SS	Nozzle Adj. Short Stop	5/8" (15.9mm)	B 72A Conductor Tube Insulation
	24A-02-33 24A-75-SS	Nozzle Adj. Short Stop	3/4" (19.1mm)	6. GAS HOSE NIPPLE
		Nozzle Adj. Tapered S.S.	3/8" (09.5mm)	62N Nipple
F	23-37	Nozzle Insulated	3/8" (09.5mm)	64N Nipple
•	23-50	Nozzle Insulated	1/2" (12.7mm)	
	23-62	Nozzle Insulated	5/8" (15.9mm)	7. LINERS I.D. O.D.
	23-75	Nozzle Insulated	3/4" (19.1mm)	44-116-15 Liner Assy. 15' 1/16" .076 .188
	23H-50	Nozzle Insulated H.D.	1/2" (12.7mm)	44-116-25 Liner Assy. 25' 1/16" .076 .188
	23H-62	Nozzle Insulated H.D.	5/8" (15.9mm)	44-3545-15 Liner Assy. 15' .035045 .066 .188
	23H-75	Nozzle Insulated H.D.	3/4" (19.1mm)	44-3545-25 Liner Assy. 25' .035045 .066 .188
	23T-37	Nozzle Insulated Tapered	3/8" (09.5mm)	44-564-15 Liner Assy. 15' 5/64" .098 .188
G	23-37-F	Nozzle Insulated Flush	3/8" (09.5mm)	44-564-25 Liner Assy. 25' 5/64" .098 .188
	23-50-F	Nozzle Insulated Flush	1/2" (12.7mm)	44N-116-15 Liner Assy. Nylon 15' 1/16" .100 .185
	23-75-F	Nozzle Insulated Flush	3/4" (19.1mm)	44N-3545-15 Liner Assy. Nylon 15' .035045 .066 .188
	23T-37-F	Nozzle Insul. Tapered Flush		44TF-116-15 Liner Assy. Teflon™ 15' 1/16" .106 .185
Н	24CT-37-S	Nozzle Coarse Thread	3/8" (09.5mm)	
	24CT-50-S	Nozzle Coarse Thread	1/2" (12.7mm)	
	24CT-62-S	Nozzle Coarse Thread	5/8" (15.9mm)	
0	24CT-75-S	Nozzle Coarse Thread	3/4" (19.1mm)	
<u>2.</u>	INSULAT			
A	32	Insulator (#2) for Adjustab		
В	34A	Insulator (#2,3,4) for Adjus		
С	34CT	Insulator (#2,3,4) for Coars		
D	34FN	Insulator (#2,3,4) for Fine		
<u>3.</u>	CONTAC		(0.0000) 000	
Α	14-23	Contact Tip .023	(0.6mm) .028	
	14-30	Contact Tip .030	(0.8mm) .037	
	14-35	Contact Tip .035	(0.9mm) .043	
	14-40	Contact Tip .040	(1.0mm) .04	
	14-45	Contact Tip .045	(1.2mm) .055 (1.3mm) .063	
	14-52	Contact Tip .052		
В	14A-364 14T-23	Contact Tip 3/64 A Contact Tip Tprd .023	l. (1.2mm) .059 (0.6mm) .028	
D	141-23 14T-30	Contact Tip Tprd .030	(0.6mm) .028 (0.8mm) .037	
	14T-35	Contact Tip Tprd .035	(0.9mm) .043	
	14T-40	Contact Tip Tprd .035	(1.0mm) .048	
	14T-45	Contact Tip Tprd .045	(1.2mm) .055	
С	14H-30	Contact Tip H.D030	(0.8mm) .037	
•	14H-35	Contact Tip H.D035	(0.9mm) .043	
	14H-40	Contact Tip H.D040	(1.0mm) .048	
	4 411 45	On the state of Time III D	(4.0)	

116 TWECO® T-200/300 MIG GUN® STYLE

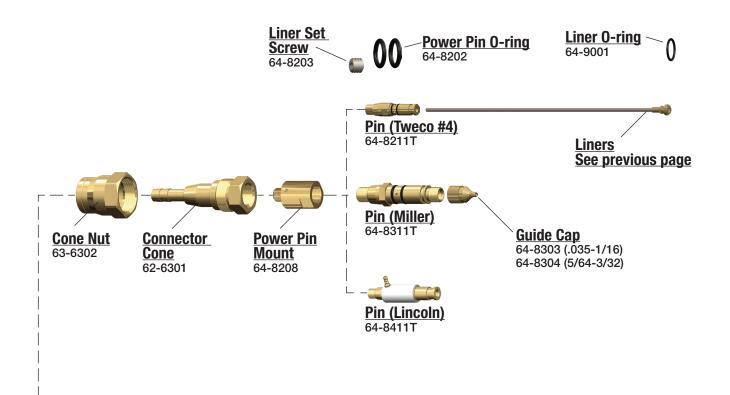
COMPATIBLE WITH TWECO 200/300 AMP REPLACEMENT PARTS[†]





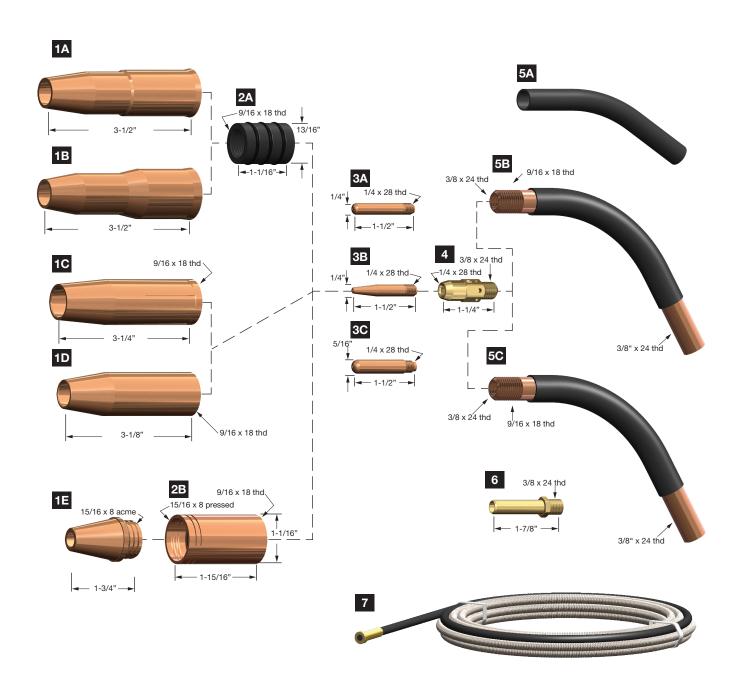
TWECO® T-200/300 MIG GUN® STYLE 117

COMPATIBLE WITH TWECO 200/300 AMP REPLACEMENT PARTS[†]



118 TWECO® T-400 MIG GUN® STYLE

COMPATIBLE WITH TWECO 400AMP[†]



.106 .185



TWECO® T-400 MIG GUN® STYLE 119

COMPATIBLE WITH TWECO 400AMP[†]

1.	NOZZLES		I.D.	<u>3.</u>	CONTAC
Α	24A-50	Nozzle Adjustable	1/2" (12.7mm)	С	14H-30
	24A-62	Nozzle Adjustable	5/8" (15.9mm)		14H-35*
	24A-75	Nozzle Adjustable	3/4" (19.1mm)		14H-40*
	24AH-50	Nozzle Adj. Heavy-Duty	1/2" (12.7mm)		14H-45*
	24AH-62	Nozzle Adj. Heavy-Duty	58" (15.9mm)		14H-52*
	24AH-75	Nozzle Adj. Heavy-Duty	3/4" (19.1mm)		14H-116*
	24A-37-SS	Nozzle Adj. Short Stop	3/8" (09.5mm)		14H-564*
	24A-50-SS	Nozzle Adj. Short Stop	1/2" (12.7mm)		14H-332*
	24A-62-SS	Nozzle Adj. Short Stop	5/8" (15.9mm)		14AH-364
	24A-75-SS	Nozzle Adj. Short Stop	3/4" (19.1mm)		14AH-116
В	24AH-50-SS	Nozzle Adj. H.D. Short Stop	1/2" (12.7mm)	4.	GAS DIF
	24AH-62-SS	Nozzle Adj. H.D. Short Stop	5/8" (15.9mm)	7.	
	24AH-75-SS	Nozzle Adj. H.D. Short Stop	3/4" (19.1mm)		54A
	24AT-37-SS	Nozzle Adj. Tapered S.S.	3/8" (09.5mm)	5.	GOOSEI
С	23-37	Nozzle Insulated	3/8' (09.5mm)	ADD	J TO THE PART N
	23-50	Nozzle Insulated	1/2" (12.7mm)	STA	NDARD GOOSENE
	23-62	Nozzle Insulated	5/8" (15.9mm)	Α	74A
	23-75	Nozzle Insulated	3/4" (19.1mm)	В	63-45
	23H-50	Nozzle Insul. Heavy-Duty	1/2" (12.7mm)		63-60
	23H-62	Nozzle Insul. Heavy-Duty	5/8" (15.9mm)		63-80
	23H-75	Nozzle Insul. Heavy-Duty	3/4" (19.1mm)		63-180
	23T-37	Nozzle Insulated Tapered	3/8" (09.5mm)	С	64A-45
D	23-37-F	Nozzle Insulated Flush	3/8" (09.5mm)		64A-60
	23-50-F	Nozzle Insulated Flush	1/2" (12.7mm)		64A-80
	23-62-F	Nozzle Insulated Flush	5/8" (15.9mm)		64A-180
	23-75-F	Nozzle Insulated Flush	3/4" (19.1mm)	D	64N
	23T-37-F	Nozzle Insul. Tapered Flush	3/8" (09.5mm)		63J-45
Ε	24CT-37-S	Nozzle Coarse Thread	3/8" (09.5mm)	6	GAS HOS
	24CT-50-S	Nozzle Coarse Thread	1/2" (12.7mm)		
	24CT-62-S+	Nozzle Coarse Thread	5/8" (15.9mm)		64N nipple
	24CT-75-S+	Nozzle Coarse Thread	3/4" (19.1mm)	<u>7.</u>	LINERS
2.	INSULATO	ORS			44-116-15
Α	34A	Insulator for Adjustable Noz	zles		44-116-25
В	34CT	Insulator for Coarse Thread			44-3545-15
	0.0.	modicion for obtailed fillicate	33 . 10 <u>22</u> 100		11 2515 25

ט	0-10 1	ilibulator for oc	aise iiiie	aucu MUZZ	2103
3.	CONTA	CT TIPS			I.D.
Α	14-23	Contact Tip	.023	(0.6mm)	.028
	14-30	Contact Tip	.030	(0.8mm)	.037
	14-35	Contact Tip	.035	(0.9mm)	.043
	14-40	Contact Tip	.040	(1.0mm)	.048
	14-45	Contact Tip	.045	(1.2mm)	.055
	14-52	Contact Tip	.052	(1.3mm)	.063
	14-116	Contact Tip	1/16"	(1.6mm)	.073
	14-564	Contact Tip	5/64"	(2.0mm)	.093
	14A-364	Contact Tip	3/64"Al.	(1.2mm)	.059
	14A-116	Contact Tip	1/16"Al	(1.6mm)	.081
+ 4	Available wi	th spatter resis			
В	14T-23	Contact Tip Tprd	.023	(0.6mm)	.028
	14T-30	Contact Tip Tprd	.030	(0.8mm)	.037
	14T-35	Contact Tip Tprd	.035	(0.9mm)	.043
	14T-40	Contact Tip Tprd	.040	(1.0mm)	.048
	14T-45	Contact Tip Tprd	.045	(1.2mm)	.055
	14T-52	Contact Tip Tprd	.052	(1.3mm)	.063

Contact Tip Tprd 1/16"

14T-116

3.	CONTA	CT TIPS (CONTI	NUED)		I.D.
С	14H-30	Contact Tip H.D.	.030	(0.8mm)	.037
	14H-35*	Contact Tip H.D.	.035	(0.9mm)	.043
	14H-40*	Contact Tip H.D.	.040	(1.0mm)	.048
	14H-45*	Contact Tip H.D.	.045	(1.2mm)	.055
	14H-52*	Contact Tip H.D.	.052	(1.3mm)	.063
	14H-116*	Contact Tip H.D.	1/16"	(1.6mm)	.073
	14H-564*	Contact Tip H.D.	5/64"	(2.0mm)	.093
	14H-332*	Contact Tip H.D.	3/32"	(2.4mm)	.110
	14AH-364	Contact Tip H.D.	364"AI.	(1.2mm)	.059
	14AH-116	Contact Tip H.D.	1/16"Al.	(1.6mm)	.078

Gas Diffuser

ENECKS

RT NUMBER FOR JACKETED GOOSENECKS (I.E. 64J-60) ENECK ON MIG GUNS IS METAL JACKETED

Α	74A	Conductor Tube Insulation
В	63-45	Conductor Tube 45° For #3
	63-60	Conductor Tube 60° For #3
	63-80	Conductor Tube 80° For #3
	63-180	Conductor Tube 180° For #3
С	64A-45	Conductor Tube 45° For #4
	64A-60	Conductor Tube 60° For #4
	64A-80	Conductor Tube 80° For #4
	64A-180	Conductor Tube 180° For #4
D	64N	Nipple
	63J-45	Jacketed Goose Neck

OSE NIPPLE

7. LINERS				.D. O.D.
44-116-15	Liner Assy.	15'	1/16"	.076 .188
44-116-25	Liner Assy.	25'	1/16"	.076 .188
44-3545-15	Liner Assy.	15'	.035045	.066 .188
44-3545-25	Liner Assy.	25'	.035045	.066 .188
44-564-15	Liner Assy.	15'	5/64"	.098 .188
44-564-25	Liner Assy.		5/64"	.098 .188
44N-116-15	Liner Assy. Nylon	15'	1/16"	.100 .185
44N-3545-15	Liner Assv. Nylon	15'	.035045	.066 .188

44TF-116-15 Liner Assy. Teflon™15' 1/16"

(1.6mm)

.073

120 TWECO® T-400 MIG GUN® STYLE

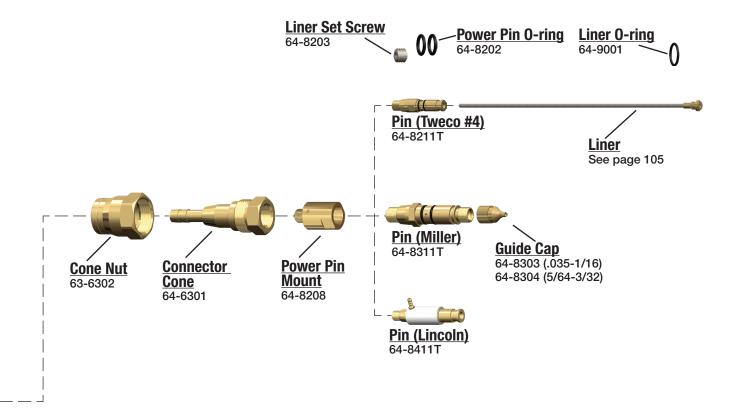
COMPATIBLE WITH TWECO 400 AMP REPLACEMENT PARTS[†]





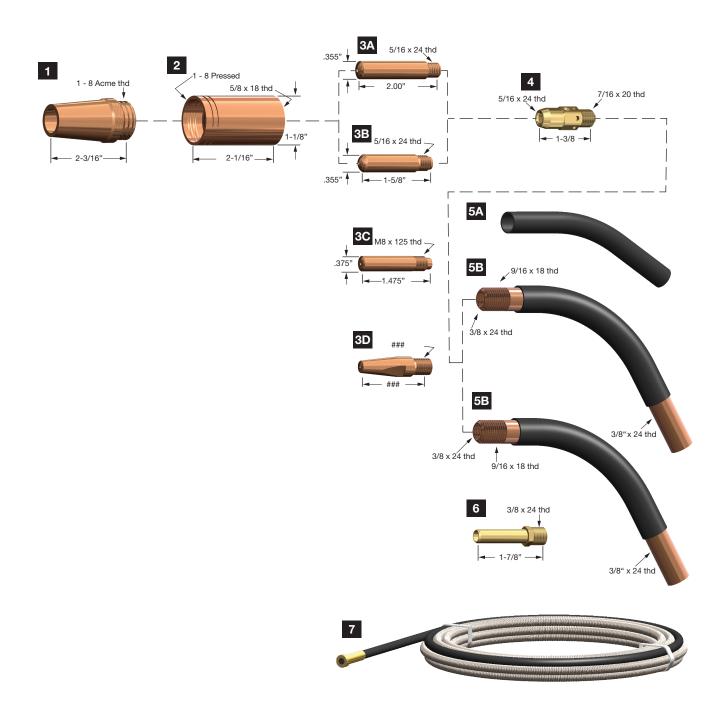
TWECO® T-400 MIG GUN® STYLE 121

COMPATIBLE WITH TWECO 400 AMP REPLACEMENT PARTS[†]



122 TWECO® STYLE

5-6 COMPATIBLE WITH TWECO 500 AMP CONSUMABLES[†]





5-6 COMPATIBLE WITH TWECO 500 AMP CONSUMABLES[†]

1.	NOZZLE	S		I.D.		4.	GAS	DIFF	USERS			
	25CT-50	Nozzle Coarse Threa	ad		7mm)		55		iffuser - Use with	45N-116, 45	5-564	Liners
	25CT-62	Nozzle Coarse Threa			9mm)		55H		iffuser - Use with			
	25CT-75	Nozzle Coarse Threa	ad	3/4" (19.	1mm)		55SW	Gas Di	iffuser - Use with	45-3545, 45	-116 I	_iners
<u>2.</u>	INSULAT	ORS				<u>5.</u>			ECKS			
	35CT	Nozzle Insulator Coa	arse Thre	ead					MBER FOR JACKETED (•	:. 64J-60)
<u>3.</u>	CONTAC	T TIPS			I.D.	A	65-45		к on mig guns is мет. Conductor Tube 4		bend	
Α	15AH-364	Contact Tip H.D.	3/64" A	l. (1.2mm)	.059		65-60	C	Conductor Tube 6	0° 5" radius	bend	
	15H-35	Contact Tip H.D.	.035	(0.9mm)	.043		65-80	C	Conductor Tube 8	0° 5" radius	bend	
	15H-45	Contact Tip H.D.	.045	(1.2mm)	.055		65-180	0 C	Conductor Tube 1	80° 5" radiu	s bend	t
	15H-52	Contact Tip H.D.	.052	(1.3mm)	.063		65-45	-3R C	Conductor Tube 4	5° 3" radius	bend	
	15H-116	Contact Tip H.D.	1/16"	(1.6mm)	.073		65-60-		Conductor Tube 6			
	15H-564	Contact Tip H.D.	5/64"	(2.0mm)	.093		65-80-		Conductor Tube 8			
	15H-332	Contact Tip H.D.	3/32"	(2.4mm)	.110		65EX-		Conductor Tube E			
	15H-764	Contact Tip H.D.	7/64"	(2.8mm)	.120		65EX-		Conductor Tube E			
_	15H-18	Contact Tip H.D.	1/8"	(3.2mm)	.144		65J-4		Conductor Tube 4			
В	15HFC-35	Con. Tip H.D. F-C	.035	(0.9mm)	.043	В	65J-60		Conductor Tube 6	u° Jacketed		
	15HFC-45	Con. Tip H.D. F-C	.045 .052	(1.2mm)	.055	В	74A		nsulation			
	15HFC-52	Con. Tip H.D. F-C Con. Tip H.D. F-C	.116	(1.3mm) (1.6mm)	.063 .073	<u>6</u>	GAS	<u>HOSI</u>	E NIPPLE			
		Con. Tip H.D. F-C	5/64"	(2.0mm)	.093		64N5 r	nipple				
		Con. Tip H.D. F-C	3/32"	(2.4mm)	.110	7	LINE			I.D.		O.D.
		Con. Tip H.D. F-C	7/64"	(2.8mm)	.120	/ .			15		070	.188
	15HFC-18	Con. Tip H.D. F-C	1/8"	(3.2mm)	.144		45-116		Liner Assy. 15'	1/16"		
С	16-116	Contact Tip	1/16"	(- /			45-116 45-354		Liner Assy. 25' Liner Assy. 15'	1/16" .035045		.188
	16-564	Contact Tip	5/64"				45-354		Liner Assy. 25'	.035045		
	16-332	Contact Tip	3/32"				45-564		Liner Assy. 15'			.238
	16-764	Contact Tip	7/64"				45-564		Liner Assy. 25'	5/64"		.238
	16S-35	Contact Tip	.035"				45H-3		Liner Assy. 15'	3/32"		.268
	16S-45	Contact Tip	.045"				45H-7		Liner Assy. 15'			.268
	16S-52	Contact Tip	.052"				45N-1	16-15	Liner Assy. 15'	1/16"		.185
	16S-116	Contact Tip	1/16"				45N-3	545-15	Liner Assy. 15'	.035045	.066	.188
	16S-332	Contact Tip	3/32"				65-472	25	Liner Assy. 25'			
	16S-564 16S-764	Contact Tip Contact Tip	5/64" 7/64"				65-471	15	Liner Assy. 15'	5/64"-3/3	2"	
	16S-764 16AS-364	Contact Tip	7/64 3/64"									
	16AS-116	Contact Tip	1/16"									
	16RZ-35	Contact Tip Long Life										
	16RZ-45	Contact Tip Long Life										
	16RZ-52	Contact Tip Long Life										
	16RZ-116	Contact Tip Long Life										
D	16ST-35	Contact Tip Tapered	ı									
	16ST-45	Contact Tip Tapered										
	16ST-52	Contact Tip Tapered										
	16ST-116	Contact Tip Tapered										
	16RZT-35	Contact Tip Tapered										
	16RZT-45	Contact Tip Tapered										
	16RZT-52	Contact Tip Tapered										
	16RZT-116	Contact Tip Tapered	Long									

124 TWECO® T-500 MIG GUN® STYLE

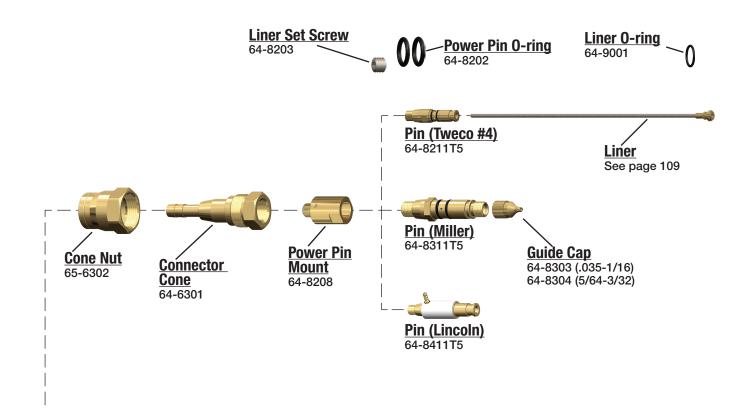
T-500 COMPATIBLE WITH TWECO 500AMP REPLACEMENT PARTS[†]





TWECO® T-500 MIG GUN® STYLE 125

T-500 COMPATIBLE WITH TWECO 500AMP REPLACEMENT PARTS[†]



126 TWECO® MIG GUN STYLE

COMPATIBLE WITH TWECO†





Bernard 64-8501



Miller

64-8301T (.035 - 1/16) 64-8302T (5/64 - 3/32)



Daiden 64-8501



Panasonic

64-8702



Euro 64-8100



Thermal Arc

64-8901



Hitachi 64-8422



Tweco #5 64-8204



Lincoln 64-8401



LIGHTNING® SEMI-AUTOMATIC GUN CONVERSION KITS AVAILABLE FOR & COMPATIBLE WITH BERNARD®, LINCOLN® & TWECO® WITH A SIMPLE CHANGE-OUT OF PARTS†

LIGHTNING® RETAINING HEADS

Part #	Description
65-3103*	Retaining Head for Extra Heavy Duty
63-3103	Retaining Head T/L
63-3103-2	Retaining Head T/L
63-3116	Thread-on Retaining Head HD
63-3402	Retaining Ring
63-3301	O-Ring Orange 016
63-3118-T	Diffuser, Bernard® Threaded

*This retaining head must be used with #65-11XX contact tip. See Contact Tips Selector Chart on pg. 2



BENEFITS

- Greater surface area contact between tip and head ensures better heat dissipation and conductivity.
- Tapered tip design creates a more secure seat, eliminating loose tips.
- Cooler tip temperature reduces wear and extends tip life.
- Dual-lead thread design allows for 180 degree rotation of tip to new wear point for extended tip life.
- Brass insert prevents wear and extends life.
- Superior surface finish minimizes spatter adhesion.
- Durable hard drawn copper or brass withstands abuse.

Lightning	® Contact Tips Selector Chart
Part #	Description
63-1130	Contact Tip HD .030 pk 10
63-1135	Contact Tip HD .035 pk 10
63-1135-40	Contact Tip HD .035/.040 I.D. pk 10
63-1138	Contact Tip HD .030 pk 10 Robotic
63-1140	Contact Tip HD .040 pk 10
63-1145	Contact Tip HD .045 pk 10
63-1147	Contact Tip HD 3/64" al pk 10
63-1152	Contact Tip HD .052 pk 10
63-1162	Contact Tip HD 1/16" pk 10
63-1168	Contact Tip HD .068/.078 I.D. pk 10
63-1172	Contact Tip HD .072 pk 10 SPECIAL
63-1178	Contact Tip HD 5/64" pk 10
63-1193	Contact Tip HD 3/32" pk 10
Part #	Tapered Tip
63-12XX	XX = last 2 digits indicate wire size
Part #	CZ Tip (Chromium Zirchonium)
63-13XX	XX + last 2 digits indicate wire size
Part #	Extra Heavy Duty Tip
65-11XX*	XX = last 2 digits indicate wire size

^{*}This contact tip must be used with #65-3103 retaining head. See Lightning Retaining Heads Chart on pg. 1

BERNARD® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Q-Gun Series	63-6105	63-3118	63-11XX‡	6X-XXXX**
EZ Feed Series	63-6105	63-3118	63-11XX‡	6X-XXXX**
T-Series†	63-6202-HD	63-3103	63-11XX‡	6X-XXXX**
Roughneck C Miller	63-6105	63-3118	63-11XX‡	6X-XXXX**

LINCOLN® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Magnum 300	63-6105	63-3103	63-11XX‡	6X-XXXX**
Magnum 400	63-6105	63-3103	63-11XX‡	6X-XXXX**
Magnum Pro	63-6105	63-3119	63-11XX‡	6X-XXXX**

TWECO® MIG TORCHES

Model	Gooseneck Insulator	Retaining Head	Contact Tip	Nozzle
Tweco #3	63-6105	63-3103	63-11XX‡	6X-XXXX**
Tweco #4	63-6105	63-3103	63-11XX [‡]	6X-XXXX**
SprayMaster 450	63-6105	63-3103	63-11XX‡	6X-XXXX**
WeldSkill 400	63-6105	63-3103	63-11XX‡	6X-XXXX**

Use the Lightning® contact tip system (gooseneck insulator, retaining head, contact tip and nozzle) with Bernard® Lincoln® or Tweco® MIG guns.

Use 63-3118 Retaining Head on goosenecks with external 9/16"-18 thread, such as Q-gun and EZ Feed guns with 1/4" NPT thread.

- † T-Series retaining head can only be used on Bernard® T-Series (Tregasskiss®) guns.
- # 63-11XX (XX = your wire size)
- ** 6X-XXXX (see Nozzle Selector Chart on next page)

. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		J - 7					
Lightning [®] Nozzle Selector Chart (Air-Cooled Slip On)							
Standard Duty Nozzle Part #	Bore/Material	O.D./Length	Tip Location				
63-2138	3/8" Copper	.938" / 2.75"	Flush				
64-2950	1/2" Brass	.938" / 2.63"	1/8" Stickout				
63-2950B	1/2" Brass	.938" / 2.88"	1/8" Recess				
63-2150	1/2" Copper	.938" / 2.88"	1/8" Stickout				
63-2762	5/8" Copper	.938" / 2.51"	1/4" Stickout				
63-2662	5/8" Copper	.938" / 2.63"	1/8" Stickout				
63-2162	5/8" Copper	.938" / 2.88"	1/8" Recess				
63-2175	3/4" Copper	.938" / 2.88"	1/8" Recess				
Heavy Duty	Bore/Material	0.D./Length	Tip Location				
Nozzle Part #	20.0/	0.2., 20g	p zooddon				
65-2550	1/2" Copper	1.062"/ 2.88"	1/8" Recess				
65-2662	5/8" Copper	1.062"/ 2.63"	1/8" Stickout				
65-2362	5/8" Brass	1.062"/ 2.63"	1/8" Stickout				
64-2962	5/8" Copper	1.062"/ 2.75"	Flush				
65-2862	5/8" Brass	1.062"/ 2.75"	Flush				
63-2362	5/8" Brass	1.062"/ 2.88"	1/8" Recess				
65-2562	5/8" Copper	1.062"/ 2.88"	1/8" Recess				
64-2562	5/8" Copper	1.062"/ 3.00"	1/4" Recess				
65-2575	3/4" Copper	1.062"/ 2.88"	1/8" Recess				
65-2375	3/4" Brass	1.062"/ 2.88"	1/8" Recess				
64-2575	3/4" Copper	1.062"/ 3.00"	1/4" Recess				
64-2387	7/8" Brass	1.062"/ 3.00"	1/4" Recess				
65-2562-T	5/8" Copper	1.062"/ 2.78"	1/8" Recess				

128 TWECO® STYLE

COMPATIBLE WITH SPITFIRE 180 AMP MIG GUN[†]- FOR BACK END SEE PAGE 128



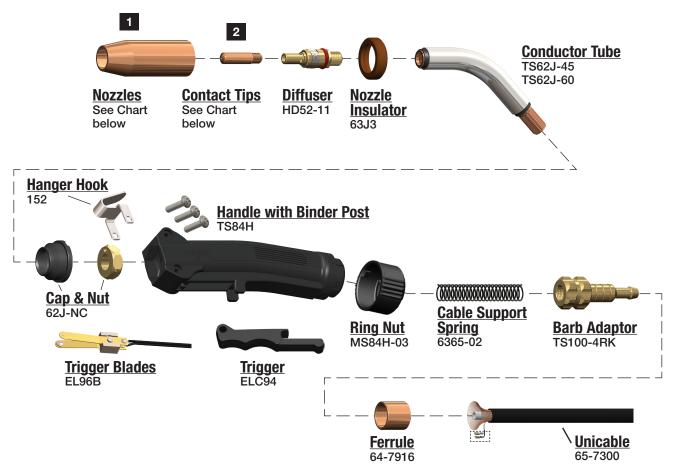
SPITFIRE & SPRAY MASTER GUN PART NUMBERING SYSTEM

TS	4	15	M	116	
GUNS TS - SpitFire MS - SprayMaster	AMPERAGE 1 - 180 2 - 250 3 - 350 4 - 450	LENGTH 10 15 20 25	L N E	MIRE SIZE 35035 45045 364 - 3/64 52052 116 - 1/16 564 - 5/64 332 - 3/32	

1.	NOZZ	LES		I.D		_					
	21-37	Nozzle Insul. 1/8	3" Reces	s 3/8"	(09.5mm))					
	21-50	Nozzle Insul. 1/8	3" Reces	s 1/2"	(12.7mm)						
	21-62	Nozzle Insul. 1/8	3" Reces	s 5/8"	(15.9mm)						
	21-37-F	Nozzle Insulated	d Flush	3/8"	(09.5mm))					
	21-50-F	Nozzle Insulated	d Flush	1/2"	(12.7mm))					
	21-62-F	Nozzle Insulated	d Flush	5/8"	(15.9mm))					
	21T-37	Nozzle Tapered	1/8" Rec	ess 3/8"	(09.5mm)	1					
2.	CONT	ACT TIPS			I.D.	_					
	11-23	Contact Tip	.023	(0.6mm)	.028	LINEDO					
	11-30	Contact Tip	.030	(0.8mm)	.037	LINERS					I.D.
	11-35	Contact Tip	.035	(0.9mm)	.043	42-3035-1	5 Liner Assy.	15'	.023035	.053	.15
	11-40	Contact Tip	.040	(1.0mm)	.048	42-4045-1	5 Liner Assy.	15'	.040045	.059	.156
	11-45	Contact Tip	.045	(1.2mm)	.055	42-4045-2	25 Liner Assy.	25'	.040045	.059	.156



COMPATIBLE WITH SPITFIRE 250 AMP MIG GUN[†]- FOR BACK END SEE PAGE 128

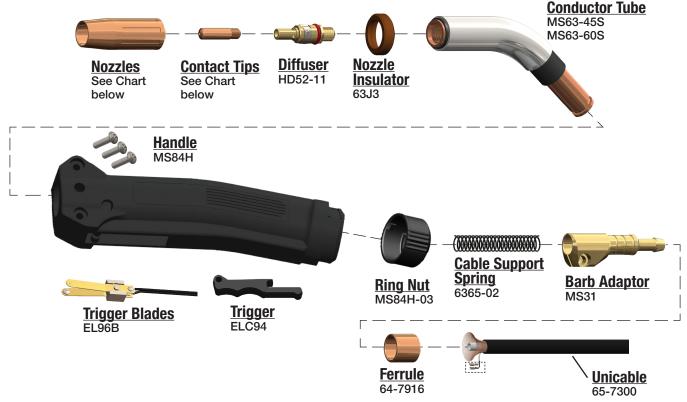


STACK-UP CONTINUED ON PAGE 128

1. NOZZLE	S			I.D.	
HD22-37	Nozzle St	td. 1/8'	'Recess	3/8" (09	9.5mm)
HD22-50	Nozzle St	td. 1/8'	'Recess	1/2" (12	2.7mm)
HD22-62	Nozzle St	td. 1/8'	'Recess	5/8" (1	5.9mm)
HD22-37F	Nozzle Fl	ush		3/8" (09	9.5mm)
HD22-50F	Nozzle Fl	ush		1/2" (12	2.7mm)
HD22-62F	Nozzle Fl	ush		5/8" (1	5.9mm)
2. CONTA	CT TIPS				I.D.
11H-35	Contact 7	Γip H.D	035	(0.9mm)	.043
11H-40	Contact 7			(1.0mm)	.048
11H-45	Contact 7	Γip H.D	045	(1.2mm)	.055
LINERS					I.D.
42-3035-15	Liner Assy.	15'	.02303	5 .053	.15
42-3035-25	Liner Assy.	25'	.03003	5 .053	.156
42-4045-15	Liner Assy.	15'	.04004	5 .059	.156
42-4045-25	Liner Assy.	25'	.04004	5 .059	.156

130 TWECO®STYLE

COMPATIBLE WITH SPRAY MASTER 250 AMP MIG GUN†- FOR BACK END SEE PAGE 128



STACK-UP CONTINUED ON PAGE 128

1. NOZZL	ES			I.D.	
A HD22-37	Nozzle Std	. 1/8"	Recess	3/8" (09.5	mm)
HD22-50	Nozzle Std	. 1/8"	Recess	1/2" (12.7	mm)
HD22-62	Nozzle Std	. 1/8"	Recess	5/8" (15.9	mm)
B HD22-37F	Nozzle Flus	sh		3/8" (09.5	mm)
HD22-50F	Nozzle Flus	sh		1/2" (12.7	mm)
HD22-62F	Nozzle Flus	sh		5/8" (15.9	mm)
2. CONTA	CT TIP				I.D.
11-23	Contact Tip)	.023 (0.6	Smm)	.028
11H-30	Contact Tip)	.030 (0.8	Bmm)	.038
11H-35	Contact Tip)	.035 (0.9	mm)	.048
11H-40	Contact Tip)	.040 (1.0)mm)	.038
11H-45	Contact Tip)	.045 (1.2	2mm)	.055
11H-364	Contact Tip)	3/64" (1.2	2mm)AL	.059
LINERS					I.D.
42-116-15	Liner Assy.	15'	1/16"	.076	.188
42-116-25	Liner Assy.	25'	1/16"	.076	.188
42-3545-15	Liner Assy.	15'	.03504	5 .066	.188
42-3545-25	Liner Assy.	25'	.03504	5 .066	.188



COMPATIBLE WITH SPRAY MASTER 350 AMP[†]- FOR BACK END SEE PAGE 128



			<u>I.D.</u>	<u>O.D.</u>
Liner Assy.	15'	1/16"	.076	.188
Liner Assy.	25'	1/16"	.076	.188
Liner Assy.	15'	.035045	.066	.188
Liner Assy.	25'	.035045	.066	.188
	Liner Assy. Liner Assy.	Liner Assy. 25' Liner Assy. 15'	Liner Assy. 25' 1/16" Liner Assy. 15' .035045	Liner Assy. 15' 1/16" .076 Liner Assy. 25' 1/16" .076 Liner Assy. 15' .035045 .066

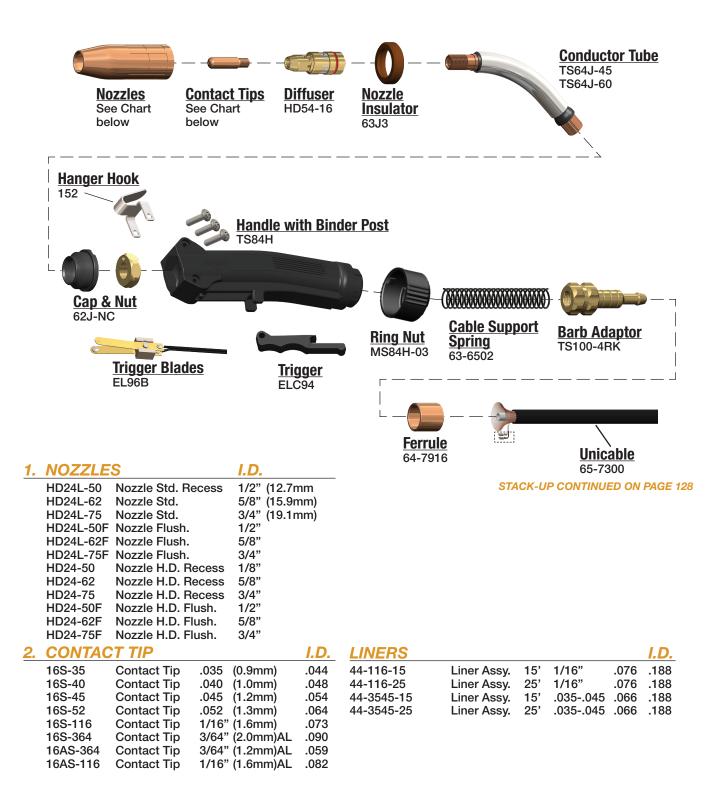
.082

Contact Tip

16AS-116

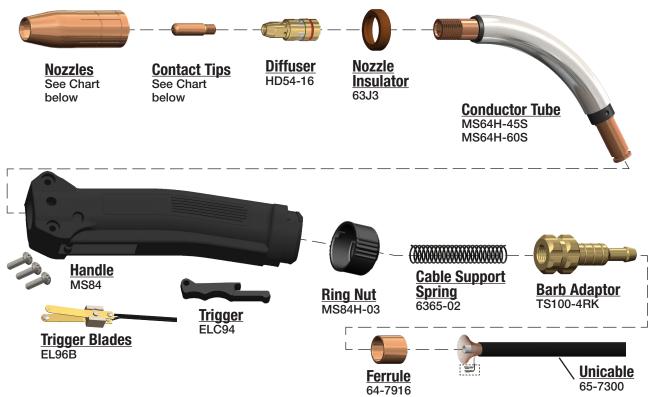
132 TWECO® STYLE

COMPATIBLE WITH SPITFIRE 450 AMP MIG GUN† - FOR BACK END SEE PAGE 128





COMPATIBLE WITH SPRAY MASTER 450 AMP[†]- FOR BACK END SEE PAGE 128

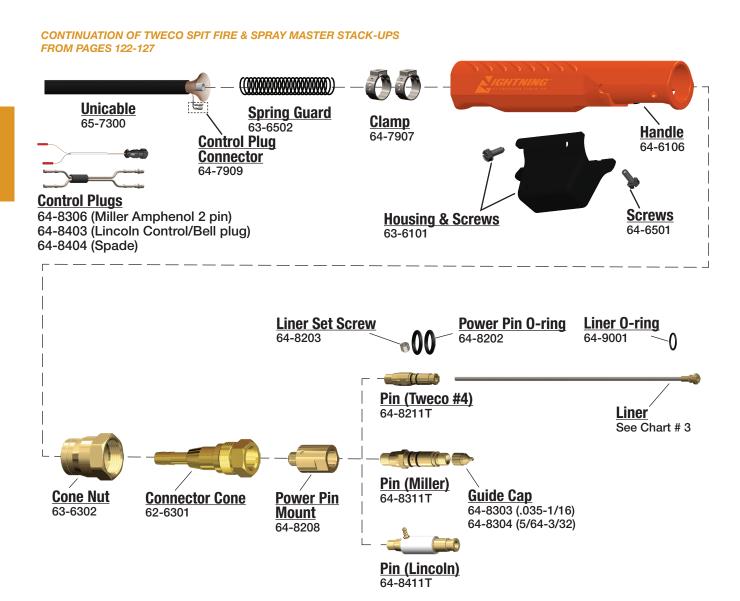


STACK-UP CONTINUED ON PAGE 128

1. NOZZLES	S		I.D.		
HD24L-50	Nozzle Std.	Recess	1/2"	(12.7mm))
HD24L-62	Nozzle Std.			15.9mm	
HD24L-75	Nozzle Std.		3/4"	19.1mm)
HD24L-62F	Nozzle Flush	٦.	5/8"		
HD24-50	Nozzle H.D.	Recess	1/8"		
HD24-62	Nozzle H.D.	Recess	5/8"		
HD24-62F	Nozzle H.D.	Flush	5/8"		
HD24-75F	Nozzle H.D.	Flush	3/4"		
2. CONTAC	T TIP			I.D.	_
16S-35	Contact Tip	.035	(0.9mm)	.044	ļ.
16S-40	Contact Tip	.040	(1.0mm)	.048	3
16S-45	Contact Tip	.045	(1.2mm)	.054	
16S-52	Contact Tip	.052	(1.3mm)	.064	ļ
16S-116	Contact Tip	1/16"	' (1.6mm)	.073	}
16S-564	Contact Tip	5/64"	' (2.0mm)	.093	}
16AS-364	Contact Tip	3/64"	' (1.2mm)Al	059)
16AS-116	Contact Tip	1/16"	' (1.6mm)Al	082	2
<u>LINERS</u>					
44-116-15	Liner Assy.	15' 1	/16"	.076	.188
44-116-25	Liner Assy.	25' 1	/16"	.076	.188
44-3545-15	Liner Assy.	15' .0	035045	.066	.188
44-3545-25	Liner Assy.	25' .0	035045	.066	.188

134 TWECO® STYLE

COMPATIBLE WITH TWECO SPIT FIRE & SPRAY MASTER ASSEMBLIES† BACK END





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