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

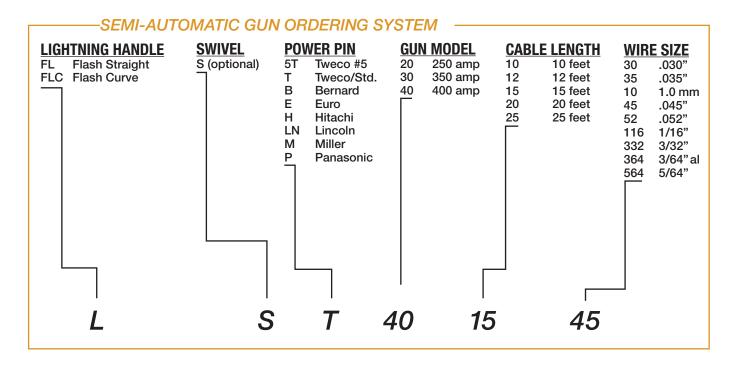
- Tip and diffuser design allows for greater heat dissipation and electrical conductivity.
- Easy start contact tip has quick change double thread.

Power Cable

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







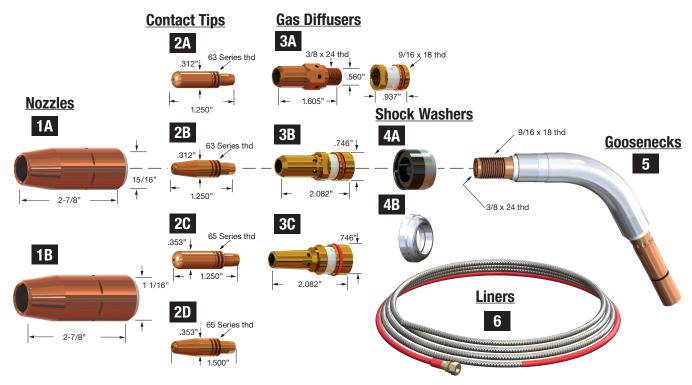
LIGHTNING STRAIGHT HANDLE FLASH AMPERAGE RATINGS—DUTY CYCLE

Model #	100% Duty Cycle		100% Duty Cycle 60% 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% E	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>		· · · · · · · · · · · · · · · · · · ·		<i></i>
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	T TIPS		I.D. 3.	GAS DI	FUSERS	8
Α	63-1130	HD	.030 (0.8mm)	.037 A	63-3201	Diffus	er,
	63-1135	HD	.035 (0.9mm)	.043	63-3104	Retaiı	ner
	63-1138	HD	.038 `	.037 B	63-3103	Stand	lar
	63-1135-40	HD	.035/.040	.040	63-3103-2	Robo	tic,
	63-1140	HD	.040 (1.0mm)	.048	63-3103-2	A Robo	tic,
	63-1145	HD	.045 (1.2mm)	.055	63-3116	Robo	
	63-1147	HD	3/64" (.060	63-3117	Robo	tic,
	63-1152	HD	.052 (1.3mm)	.063	63-3118	Bernh	
	63-1152-059	HD	.052 `	.059	63-3118-T	Bernh	nar
	63-1162	HD	1/16"	.073	63-3119	Linco	ln
	63-1168	HD	.068	.078	63-3119-T	Linco	ln,
	63-1172	HD	.072	.081	63-3119-A	Linco	ln,
	63-1178	HD	5/64 (2.0mm)	.093	63-3122	SKS	
	63-1193	HD	3/32 (2.4mm)	.110 C	65-3103	HD St	tan
	63-1330	HD Long Life CrCu	.030	.037	65-3103-2	HD R	
	63-1335	HD Long Life CrCu	.035	.043	65-3116	HD R	
	63-1340	HD Long Life CrCu	.040	.045	65-3116-M		
	63-1345	HD Long Life CrCu	.045	.050	65-3119	HD Li	nce
	63-1352	HD Long Life CrCu	.052	.059	65-3119-T	HD Li	
	63-1352-SP	HD Long Life CrCu	.056/.059	.059	SHOCK	WASHE	DC
	63-1362	HD Long Life CrCu	1/16"	.070 —			
	63-1378	HD Long Life CrCu	6/64:	.093 A	63-6202-HI	D HD (H	lea
	63-1393	HD Long Life CrCu	3/32"	.110 B	63-6202		
В	63-1230	HD Tapered	.030 (0.8mm)	.037 <u>5.</u>	GOOSE	<u>NECKS</u>	
	63-1235	HD Tapered	.035 (0.9mm)			OF PART NUMBE	
	63-1235-40	HD Tapered			62-5160LF	ND OF PART NUM	<i>IBEF</i> Li
	63-1245	HD Tapered	.045 (1.2mm)	.055	63-5160LF		Li
	63-1245-50	HD Tapered	.035/.040	.040	64-5160LF		Li
	63-1252	HD Tapered HD Tapered	.052 (1.3mm) 1/16"	.063	65-5160LF		Li
	63-1262 63-1130T			.073 .037		or LFLC-10	
	63-1135T	HD Tapered Long I.P. CrCu HD Tapered Long I.P. CrCu		.037		or LFLC-12	
	63-1145T	HD Tapered Long I.P. CrCu		.050		or LFLC-16	
	63-1152T	HD Tapered Long I.P. CrCu			LINERS		
С	65-1130	Extra HD	.030	.037		<i>"</i> . 0:	
•	65-1135	Extra HD	.035	.043		/ire Size	,,
	65-1140	Extra HD	.040	.048		.023"	(.(
	65-1145	Extra HD	.045	.055		.035"	(.9
	65-1145-050		.045/.050	.050		.035"	(.9
	65-1147	Extra HD	.047	.060		.045"	(1
	65-1152	Extra HD	.052	.063		.045" .030"	(1
	65-1162	Extra HD	1/16	.073		.035"	(.8
	65-1178	Extra HD	5/64	.093		.035"	(.9
	65-1193	Extra HD	3/32	.110		.035"	?.) ?.)
	65-1130AL	Extra HD, AL	.040	.048		.035"	(.)
	65-1135AL	Extra HD, AL	.048	.060		.035"	(.)
	65-1335	Extra HD Long Life CrCu	.035	.040		.045"	(1
	65-1345	Extra HD Long Life CrCu	.045	.050		.045"	(1
	65-1352	Extra HD Long Life CrCu	.052	.059		.045"	(1
	65-1362	Extra HD Long Life CrCu	1/16	.070		3/64"	(1
D	65-1230	Extra HD Tapered	.030	.037		3/64"	(1
	65-1235	Extra HD Tapered	.035	.043	64-4525	3/64"	(1
	65-1245	Extra HD Tapered	.045	.055		.52"	(1
	65-1252	Extra HD Tapered	.052	.063		.52"	(1
	65-1262	Extra HD Tapered	.062	.073		.52"	(1
	65-1345T	Extra HD Tapered, CrCu	.045	.050		1/16"	(1
		eries tips are only to be used				1/16"	(1
Ligl	htning Diffuse	rs. Please call for informatio	n.			1/16"	(1
					64-4615	3/64-1/16al	

& RETAINER

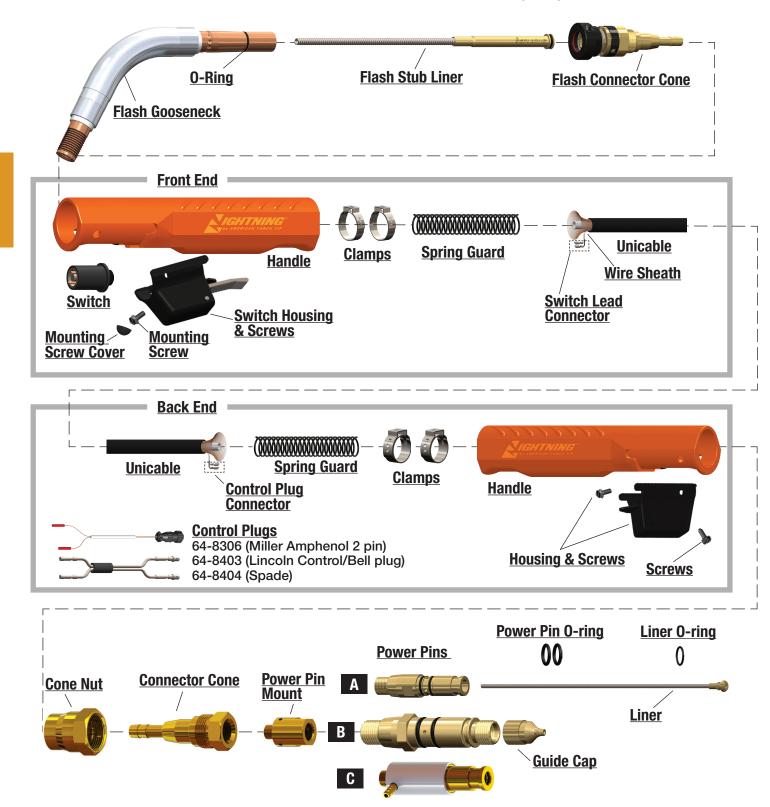
A	63-3201	Diffuser, Copper
	63-3104	Retainer
В	63-3103	Standard
	63-3103-2	Robotic, Tapered
	63-3103-2A	Robotic, Tapered, Angled holes
	63-3116	Robotic/Manual, Thrded
	63-3117	Robotic, External Thrded
	63-3118	Bernhard
	63-3118-T	Bernhard, Thrded
	63-3119	Lincoln
	63-3119-T	Lincoln, Thrded
	63-3119-A	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
A	CHOOK W	ACHEDO

avy Duty)

R FOR FLASH GOOSENECKS
BER FOR FLASH CURVE GOOSENECKS
Lightning Flash GN 250A
Lightning Flash GN 60 deg 4"
Lightning Flash GN 60 deg 5"
Lightning Flash GN 60 deg 6.5"
Lightning Flash GN 60 deg 10"
Lightning Flash GN 60 deg 12"
Lightning Flash GN 60 deg 16"

_					
	Part#	Wire Size	L	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	.035 – .045	(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	Handle
64-6601	Switch
64-5110	Mounting Screw Cover
64-6501	Mounting Screw
64-6602	Switch Housing & Screws
62-7902 (250A)	Clamp
63-7902 (350A)	Clamp
64-7907 (450A)	Clamp
65-7902 (550A)	Clamp
63-6502	Spring Guard
64-7901	Switch Lead Connector
64-7902	Wire Sheath

BACK END

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
	(0=0.1)	

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	
NC	T SHOWN		
	64-8501	Bernard	
	04.04.00	Г	

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

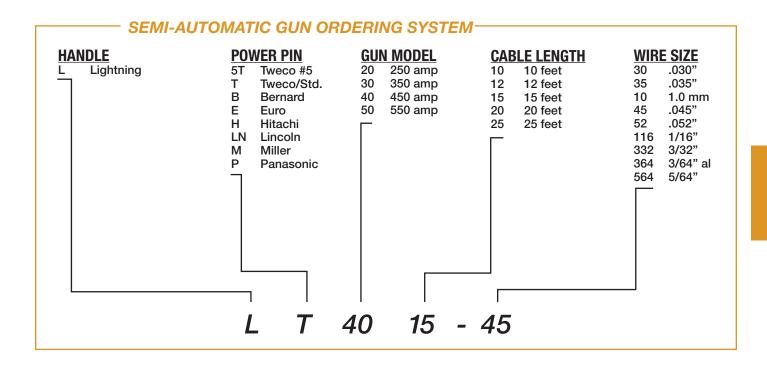
- Supports cable weight and reduces cable kinking.
- · Helps reduce welder fatigue.

Power Cable

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







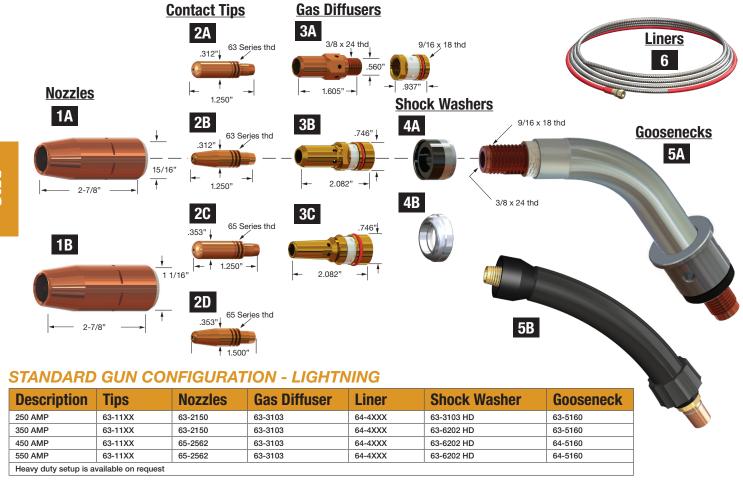
DUTY CYCLE AMPERAGE RATINGS -

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"			



63-3116

63-3103-2

63-3103-2A

Robotic, Tapered

Robotic, Tapered, Angled holes

Robotic/Manual, Thrded

_	CONTAC	T TIDE		10	2	GAS DIE	USERS &	DETAIN	IED (C)	ONITINIIII	=D)
<u>2.</u>	CONTAC		000 (0.0;;;;)	.037	3.	63-3117		otic, Exte			<u>:U)</u>
Α	63-1130 63-1135	HD HD	.030 (0.8mm) .035 (0.9mm)	.037		63-3118		hard	siliai III	iiucu	
	63-1138	HD	.038	.043		63-3118-T		nhard, Th	rded		
	63-1135-40	HD	.035/.040	.040		63-3119	Line				
	63-1140	HD	.040 (1.0mm)	.048		63-3119-T		oln, Thro	led		
	63-1145	HD	.045 (1.2mm)	.055		63-3119-A		oln, Ang		s	
	63-1147	HD	3/64"	.060		63-3122	SKS				
	63-1152	HD	.052 (1.3mm)	.063	С	65-3103	HD :	Standard			
	63-1152-059		.052	.059		65-3103-2		Robotic			
	63-1162	HD	1/16"	.073		65-3116	HD				
	63-1168	HD	.068	.078		65-3119		Lincoln			
	63-1172	HD	.072	.081		65-3119-T	. HD	Lincoln, ⁻	Thrded		
	63-1178	HD	5/64 (2.0mm)	.093	4	SHOCK	WASH				
	63-1193	HD	3/32 (2.4mm)	.110	^						
	63-1330	HD Long Life CrCu	.030	.037		63-6202-H	יטא טו	(Heavy D	uty)		
	63-1335	HD Long Life CrCu	.035	.043		63-6202					
	63-1340	HD Long Life CrCu	.040	.045	5.		NECKS				
	63-1345	HD Long Life CrCu	.045	.050			OF PART # FOR				60S)
	63-1352	HD Long Life CrCu	.052	.059	Α.	62-5160	Fixe		60°	250	
	63-1352-SP		.056/.059	.059		63-5100	Fixe		180°	250-3	
	63-1362	HD Long Life CrCu	1/16"	.070		63-5145	Fixe		45°	250-3	
	63-1378	HD Long Life CrCu	6/64: 3/32"	.093		63-5160	Fixe		60°	250-3	50
_	63-1393	HD Long Life CrCu		.110		64-5100	Fixe		180°	450	
В	63-1230	HD Tapered	.030 (0.8mm)	.037		64-5145	Fixe		45°	450	
	63-1235	HD Tapered	.035 (0.9mm)	.043		64-5160	Fixe		60°	450	
	63-1235-40	HD Tapered	0.45 (4.0)			65-5160	Fixe		60° 180°	550 550	
	63-1245	HD Tapered	.045 (1.2mm)	.055		65-5100 65-5145	Fixe Fixe		45°	550 550	
	63-1245-50		.035/.040	.040		63-5160S			45 60°	250-3	50
	63-1252	HD Tapered	.052 (1.3mm)	.063		64-5160S			60°	450	30
_	63-1262	HD Tapered	1/16"	.073 .037		65-5260S			60°	550	
С	65-1130 65-1135	Extra HD Extra HD	.030 .035	.037	R	65-5100F		Neck	8"	550	
	65-1140	Extra HD	.040	.043	ъ.	63-5100F		Neck	6"		
	65-1145	Extra HD	.045	.055	6			110011	•		
	65-1145-050		.045/.050	.050	<u>6.</u>	LINERS					
	65-1147	Extra HD	.047	.060		Part#	Wire Size	Lengt		OD	
	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	.035"	(.9mm		25'	0.156
	65-1193	Extra HD	3/32	.110		62-4515	.045"	(1.6m		15'	0.156
	65-1130AL	Extra HD, AL	.040	.048		62-4525	.045"	(1.6m		25'	0.156
	65-1135AL	Extra HD, AL	.048	.060		64-4215	.030"	(.8mm		15'	0.182
	65-1335	Extra HD Long Life CrCu		.040		64-4310	.035"	(.9mm	,	10'	0.175
	65-1345	Extra HD Long Life CrCu	.045	.050		64-4315	.035"	(.9mm	,	15'	0.175
	65-1352	Extra HD Long Life CrCu	.052	.059		64-4325	.035"	(.9mm	,	25'	0.175
	65-1362	Extra HD Long Life CrCu	1/16	.070		64-4325	.035"	(.9mm	,	25'	0.175
D	65-1230	Extra HD Tapered	.030	.037		64-4415 64-4510	.035" .045"	(.9mm (1.6m)		15' 10'	0.189 0.189
	65-1235	Extra HD Tapered	.035	.043		64-4515	.045"	(1.6m)		15'	0.189
	65-1245	Extra HD Tapered	.045	.055		64-4525	.045"	(1.6m)	,	25'	0.189
	65-1252	Extra HD Tapered	.052	.063		64-4510	3/64"	(1.6m)	,	10'	0.189
	65-1262	Extra HD Tapered	.062	.073		64-4515	3/64"	(1.6m)	,	15'	0.189
	65-1345T	Extra HD Tapered, CrCu	.045	.050		64-4525	3/64"	(1.6m)	,	25'	0.189
No		eries tips are only to be use				64-4510	.52"	(1.6m)	,	10'	0.189
		ers. Please call for informat		-		64-4515	.52"	(1.6m)	,	15'	0.189
						64-4525	.52"	(1.6m)	,	25'	0.189
<u>3.</u>		FUSERS & RETAINE	<u>n</u>			64-4510	1/16"	(1.6m)	,	10'	0.189
Α	63-3201	Diffuser, Copper				64-4515	1/16"	(1.6m	,	15'	0.189
_	63-3104	Retainer				64-4525	1/16"	(1.6m		25'	0.189
В	63-3103	Standard					3/6/1-1/16		,	15'	0.180

64-4615 3/64-1/16al

5/64-3/32

5/64-3/32

FC 10'

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

64-4715

64-4815

64-4915

15'

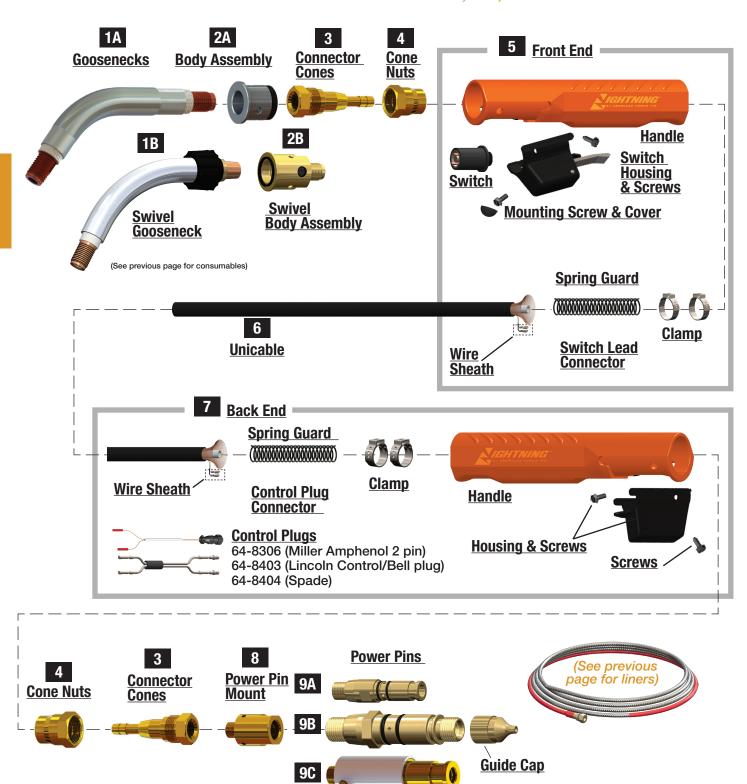
0.189

0.21

0.192

15' Flat 0.189

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





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

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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)

02-7300	200 AIVIP
63-7300	350 AMP
64-7300	450 AMP
65-7300	500 AMP
03-7300	JUU AIVII

_____ 7. BACK END

64-7902	Wire Sheath		
64-8403	Control Plug (Lincoln/Bell plug)		
64-8404	Control Plug (Sta		
64-8306		ler amphenol 2 pin)	
64-7909	Control Plug Cor	,	
63-6502	Spring Guard	meeter	
62-7902	Clamp	250 AMP	
64-7907	Clamp	350-450 AMP	
65-7902	•	550 AMP	
	Clamp	550 AIVIP	
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

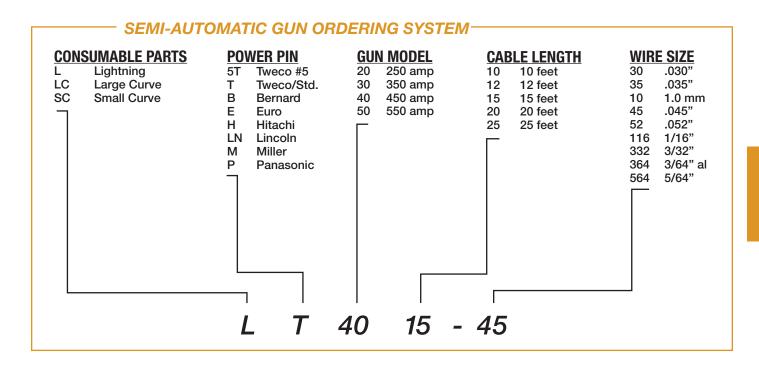
- Hard drawn copper or brass in variety of shapes and sizes.
- High polished finish offers superior spatter protection.
- Brass inserts designed to protect against wear and offers superior nozzle protection.

Tip

- Dual Thread
- Tapered Seat
- Acme Coarse Thread







- DUTY CYCLE AMPERAGE RATINGS -

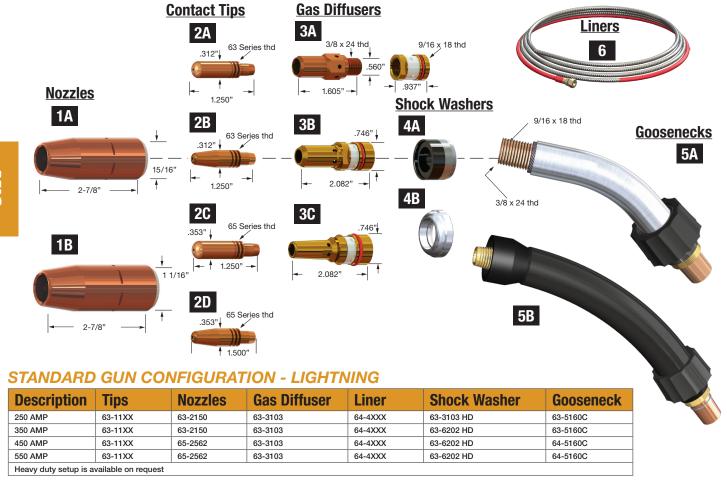
Gun Model	60% Duty Cycle - Mixed Gases 100% Duty Cycle - CO ₂
250 amp	250 amps
350 amp	350 amps
450 amp	450 amps
550* amp	550 amps

^{*} 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

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 BOD	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"	.110 A.	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	HD Tpr	.052 (1.3mm) 1/16"	.063	64-5160C 65-5160C	Fixed Fixed	60°	450 550	
	63-1262 63-1130T	HD Tpr HD Tpr Long I.P. CrCu	.030	.073	65-5100C	Fixed	180°	550 550	
	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			330	
	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	0.450
	65-1145	Extra HD	.045	.055	64-4115	.023" .035"	(.6mm)	15' 15'	0.150 0.156
	65-1145-050		.045/.050	.050	62-4315 62-4325	.035"	(.9mm) (.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	Extra HD	1/16	.073	64-4215	.030"	(.8mm)	15'	0.182
	65-1178 65-1193	Extra HD Extra HD	5/64 3/32	.093 .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"	(1.6mm)	15'	0.189
	65-1252	Extra HD Tpr	.052	.063	64-4525	3/64"	(1.6mm)	25'	0.189
	65-1262	Extra HD Tpr	.062	.073	64-4510 64-4515	.52" .52"	(1.6mm) (1.6mm)	10' 15'	0.189 0.189
	65-1345T	Extra HD Tpr, Long Life CrCu	.045	.050	64-4515	.52"	(1.6mm)	25'	0.189
No	te: 65-11xx s	series tips are only to be used	with 65 series		64-4510	1/16"	(1.6mm)	10'	0.189
		ers. Please call for information			64-4515	1/16"	(1.6mm)	15'	0.189
3.		FUSERS & RETAINER			64-4525	1/16"	(1.6mm)	25'	0.189
	63-3201				64-4615	3/64-1/16al	, ,	15'	0.189
Α	63-3104	Diffuser, Copper 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	
					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
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		



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

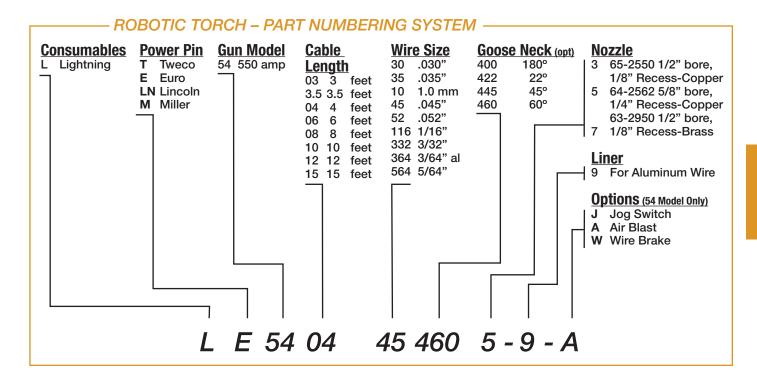
· Supports cable weight and reduces cable kinking.

Adapters

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







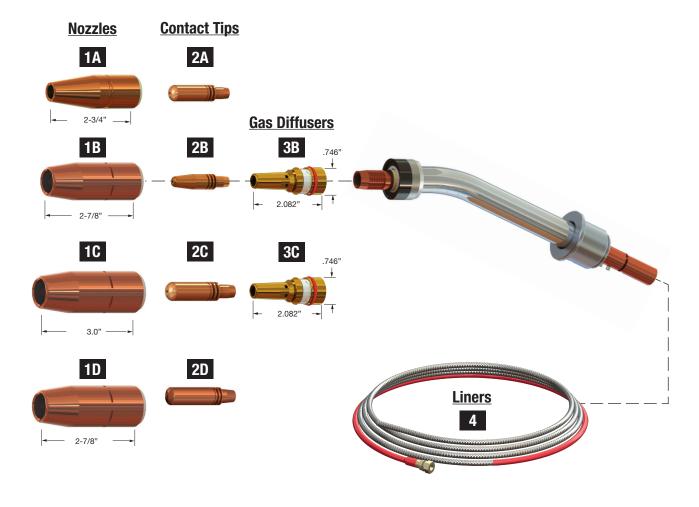
DUTY CYCLE AMPERAGE RATINGS -

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



CONSUMABLES AND REPAIR PARTS ON FOLLOWING PAGES

LIGHTNING® ROBOTIC TORCH CONSUMABLES - ROBOTIC TORCH 550 AMP





LIGHTNING® ROBOTIC TORCH CONSUMABLES - ROBOTIC TORCH 550 AMP

<u>1.</u>	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
۸Ie	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
		1102210 171 Guok Gut	0/0		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.				Extra HD	7/64	.120
	Exan	nple: 64-2562t				Extra HD	1/8	.136
					65-1235	Extra HD Tapered	.035	.043
					65-1245	Extra HD Tapered	.045	.055
					65-1252	Extra HD Tapered	.052	.063
					65-1335	Extra HD CuCr **	.035	.040
					65-1345	Extra HD CuCr	.045	.050
					65-1352	Extra HD CuCr	.052	.060
					65-1362	Extra HD CuCr	1/16	.060
				* H		** Copper Zirconiur		
				<u>3.</u>	GAS D	IFFUSERS (USE	W/ H.D. NOZZLES)	
				R	63-3103-9) HD		

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

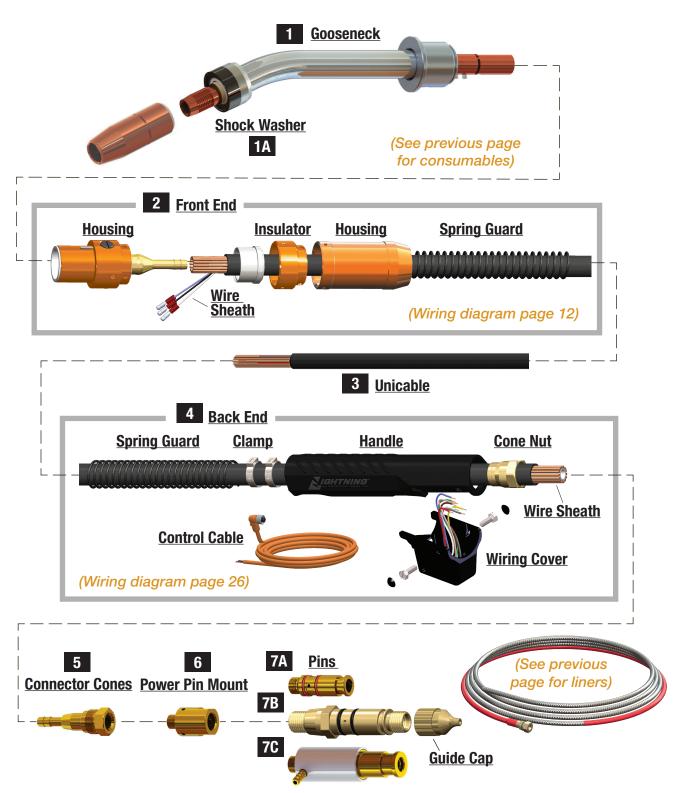
4. LINERS

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	ailable 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

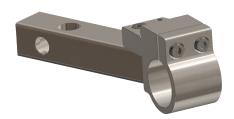
64-8501 Bernard 64-8100 Euro 64-8212-L Tweco #5

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.



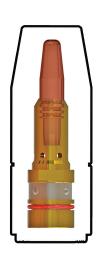
65-2375 3/4" Bore .125 Recess Brass 1.120" O.D. Straight Bore



65-2575 3/4" Bore 1/8" Recess Copper 1.062" O.D.



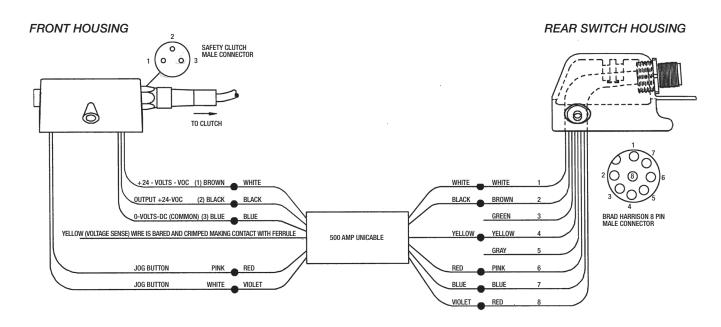
65-2662 5/8" Bore 1/8" Stickout Copper 1.062" O.D.

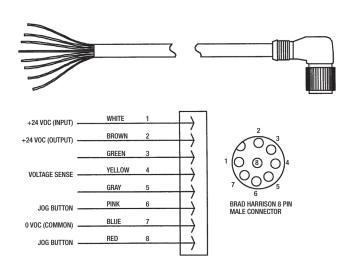


65-2550 1/2" Bore 1/8" Recess Copper 1.062" O.D.

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

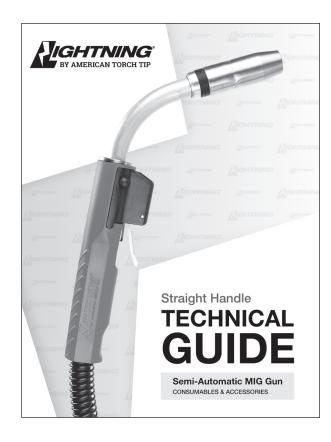






READ MORE ABOUT IT...

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





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

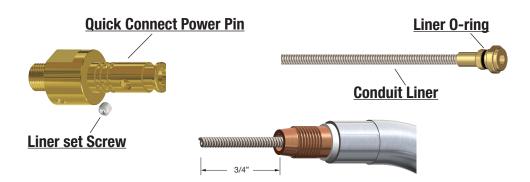
- 1. Replace.
- 2. Replace retaining head.
- 3. Use Xheavy duty consumables.
- 4. Check gas regulator/flowmeter/cylinder.
- 5. Clean or replace gas diffuser//nozzle.
- 6. Tighten or repair hose lines.

LIGHTNING® 1.1 LINER REPLACEMENT

TOOLS REQUIRED

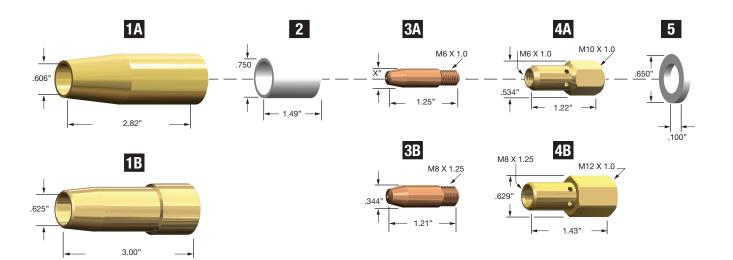
- Vise
- 5/64 Allen wrench
- Lineman pliers
- 1. Remove nozzle, contact tip and tip holder from gooseneck. (Not shown)
- 2. With gun straightened, loosen liner set screw on quick connect power pin at back end of gun using a 5/64" Allen wrench. (See Figure 1)
- 3. Using pliers, grip liner and remove from 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.

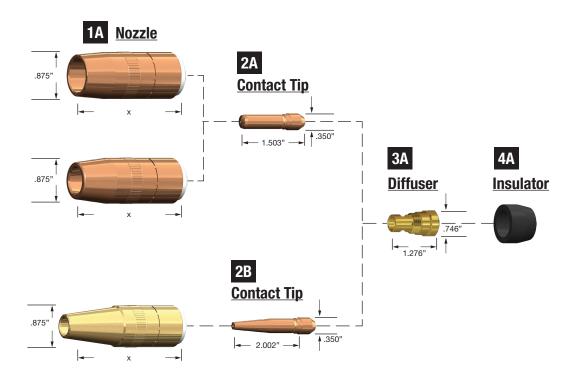




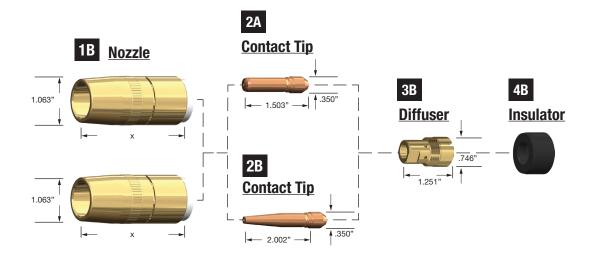
<u>1.</u>	NOZZLE			I.D.
Α	750-04-013	Nozzle		.625
В	750-04-015S	Nozzle Self Ins.		.606
2.	INSULATOR	?S		
Α	750-01-738	Nozzle Insulator 30	0/400A	.650
3.	CONTACT	TIPS		
Α	750-35-511	Contact Tip	.281 OD	.035
	750-45-511	Contact Tip	.281 OD	.045
	750-45-522F	Contact Tip	.312 OD	
В	750-35-014	Contact Tip		.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		
5.	INSULATIN	G WASHER		
	750-01-005	Insulating Washer 3	300A	

38 BERNARD® STYLE

COMPATIBLE WITH CENTERFIRE™†



COMPATIBLE WITH LARGE CENTERFIRE™†





COMPATIBLE WITH CENTERFIRE™[†]

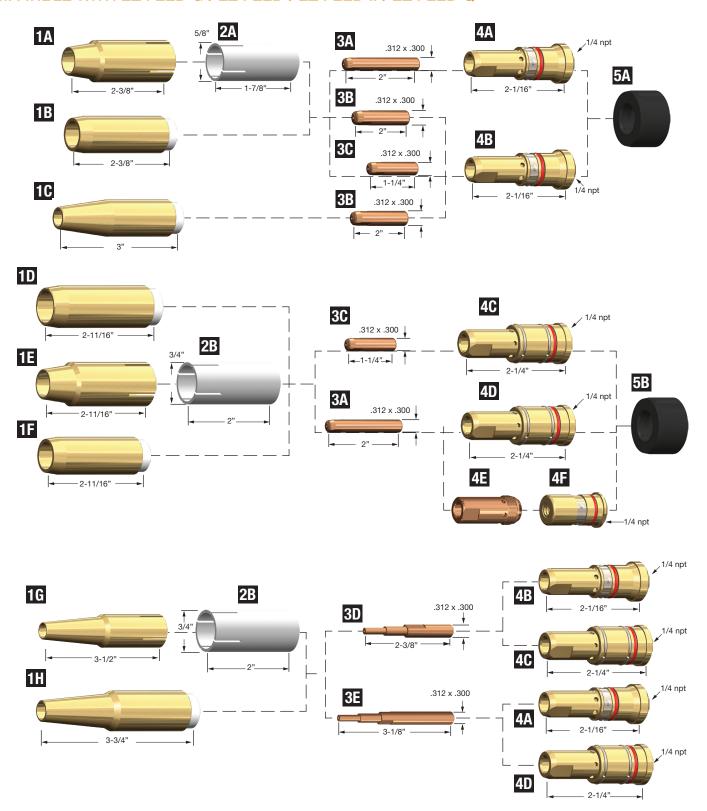
<u>1.</u>	NOZZLES		I.D.	LENGTH
Α	NS-5800C	Flush Copper	5/8"	2.015
	NS-5818C	1/8" Recess Copper	5/8"	2.141
	NS-5800B	Flush Brass	5/8"	2.015
	NS-5818B	1/8" Recess Brass	5/8"	2.141
	NS-1218C	1/8" Recess Copper	1/2"	2.141
	NS-1200B	Flush Brass	1/2"	2.015
	NS-1218B	1/8" Recess Brass	1/2"	2.141
	NST-3800B	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		0.4	00" (0 G)
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)

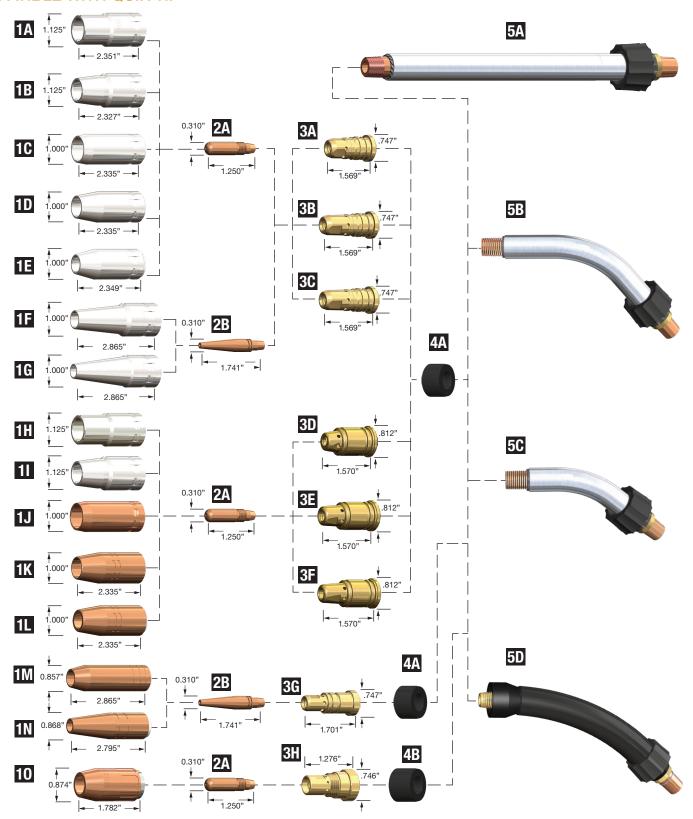
COMPATIBLE WITH EZ FEED G / EZ FEED / EZ FEED II / EZ FEED Q[†]

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

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COMPATIBLE WITH QUIK TIPTM†





COMPATIBLE WITH QUIK TIPTM†

1.	NOZZLE	S		I.D. LE	NGTH	3.	DIFFUSE	ERS		
A	N1C34HQ	Nozzle Plated	Copper HD	3/4"	2.351"	A	D114Q	1/4" Reces	s	Threaded
В	N1C58HQ				2.327"	В	D118Q	1/8" Reces	s	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	S	Slip-On
D	N1C58Q	Nozzle Plated	Copper	5/8"	2.335"	Ε	D118	1/8" Reces	s	Slip-On
	N1B58Q	Nozzle Brass	_	5/8"	2.335"	F	D1F	Flush		Slip-On
E	N1C12Q	Nozzle Plated		1/2"	2.349"	G	D218	1/8" Reces	s	Slip-On
F	N2C12HQ			1/2"	2.865"	Н	DS-QT	Flush		Threaded
G		Nozzle Plated		3/8"	2.865"	4.	INSULAT	TORS		
Н	N1C34HD	Nozzle Plated				A	4423R	Insulator	Rubber	
Ι.	N1C58HD	Nozzle Plated				В	4523R	Insulator	Rubber	
J	N1C34	Nozzle Copper		3/4"	0.005"				Tubboi	
K L	N1C58 N1C12	Nozzle Copper Nozzle Copper		3/4" 1/2"	2.335" 2.335"	<u>5.</u>	GOOSEI			
M	N1C12 N2C12	Nozzle Copper		1/2"	2.865"	Α	QT-180-12	Gooseneck		12"
N	N2C38	Nozzle Copper		3/4"	2.795"		QT-180-24	Gooseneck		24"
Ö		Nozzle Copper		1/2"	2.733	_	QT-180-7	Gooseneck		7"
0		Nozzle Copper				В	QT2-60	Gooseneck		
_				00 172	0.5	_	QT3-60	Gooseneck		
<u>2.</u>	CONTAC		I.D.		<u>O.D.</u>	С	QT2-45	Gooseneck		40"
	ies 1 Contac						QT2-45-12	Gooseneck		12" 24"
		Contact Tip	0.023" (0.6		0.312"		QT2-45-24 QT3-45	Gooseneck		24
		Contact Tip	0.030" (0.8	8 mm)	0.312"	D	QT-F-8	Gooseneck Flexneck	8"	Flex Neck
		Contact Tip	0.035" (0.8	8 mm)	0.312"	U	QT-F-6	Flexneck	6"	Flex Neck
		Contact Tip	0.039" (1.0		0.312"					
		Contact Tip	0.045" (1.2		0.312"	6.	LINERS	WIRE SI	<u>ZE I</u>	LENGTH
		Contact Tip	3/64" (1.2	2 mm)	0.312"		L1A-15	0.023"-0.0	30"	15'
		Contact Tip	0.052" (1.4		0.312"		L1A-25	0.023"-0.0	30"	25'
		Contact Tip	1/16" (1.6	6 mm)	0.312"		L2A-15	0.030"-0.0		15'
		Contact Tip	0.068" (1.7 0.072" (1.8	/ mm)	0.312"		L2A-25	0.030"-0.0		25'
		Contact Tip Contact Tip	,	,	0.312"		L3A-15	0.035"-0.0		15'
		Contact Tip		0 mm) 4 mm)	0.312" 0.312"		L3A-25	0.035"-0.0		25'
		Contact Tip		+ 11111) 8 mm)	0.312"		L4A-15	0.045"-1/1		15'
		Contact Tip		2 mm)	0.312"		L4A-25	0.045"-1/1	6"	25'
	11110	ontact rip	170 (0.2	<u> </u>	0.012		L6A-15	5/64"		15'
Ser	ies 2 Contac	ct Tips Taper					L6A-25	5/64"		25'
		Contact Tip 0.02	3" Tapered	d (0.6 mm)	0.312"		L7A-15	3/32"		15'
		Contact Tip 0.03		d (0.8 mm)	0.312"		L7A-25	3/32"		25'
		Contact Tip 0.03		d (0.9 mm)	0.312"					
		Contact Tip 0.04		d (1.2 mm)	0.312"					
		Contact Tip 3/64		d (1.2 mm)	0.312"					
		Contact Tip 0.05		d (1.4 mm)	0.312"					
		Contact Tip 1/16		d (1.6 mm)	0.312"					
		o of OF contect time	4.	, ,						



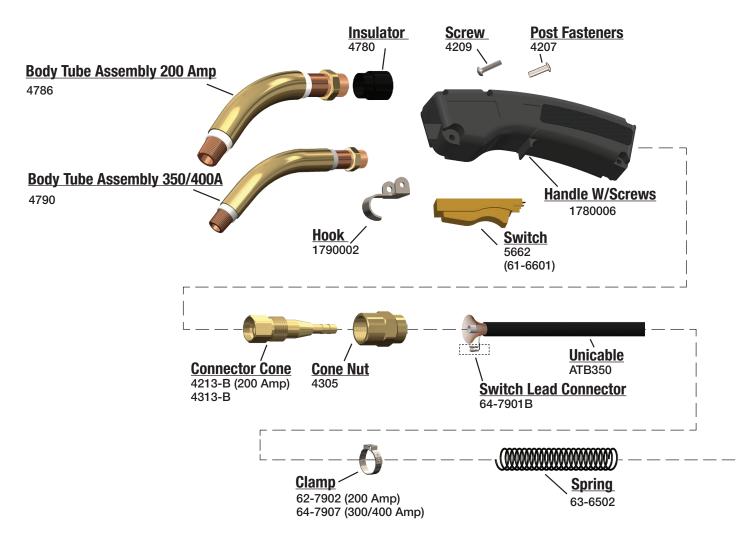
Available in packages of 25 contact tips

AVAILABLE - NOT SHOWN

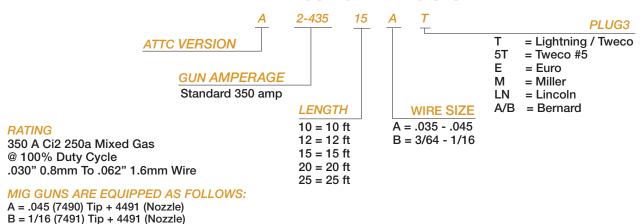
QT5-30 Gooseneck 30°

44 BERNARD® STYLE

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

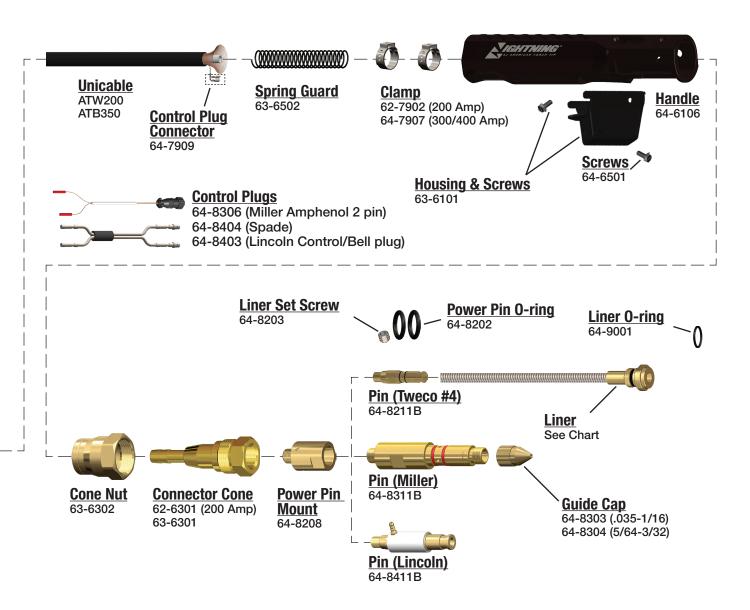


BERNARD GUN ORDERING SYSTEM





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.

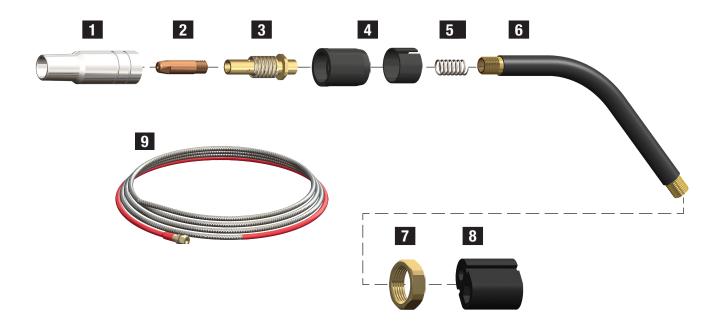
Use 63-3118 Retaining Head on goosenecks with external 9/16"-18 thread, such as Q-gun and EZ Feed guns with 1/4" NPT thread.

- † 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	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	0.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

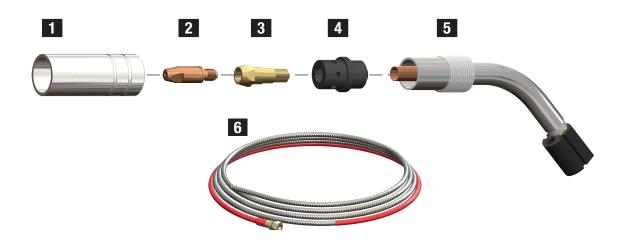


<u>1.</u>	NOZZLES	8		I.D.	
Α .	145-0075	Nozzle, Conical		1/2"	(12.7mm)
	145-0123	Nozzle, Conical, Sma	ll	3/8"	(09.5mm)
В	145-0041	Nozzle, Cylindrical		5/8"	(15.9mm)
C .	145-0143	Nozzle, Tapered		33/64"	(13.1mm)
2.	CONTAC	T TIPS			I.D.
	140-0008	Contact Tip M6 Cu	.023	(0.6mm)	.028
	140-0059	Contact Tip M6 Cu	.030	(0.8mm)	.037
	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	.043
•	141-0005	Contact Tip M6 Cu	.035	(.9mm)A	.048
	141-0007	Contact Tip M6 Cu	.040	(1mm)Al	.055
3.	NOZZLE	HOLDER			
(002-0078	Nozzle Holder			
4.	HEAD IN	SULATOR			
(002-0050				

5. NOZZLE	SPRING			
002-0058				
6. GOOSEN	IECKS			
002-0009	Swanneck	50 Degree		
7. TORCH	BODY B	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.
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



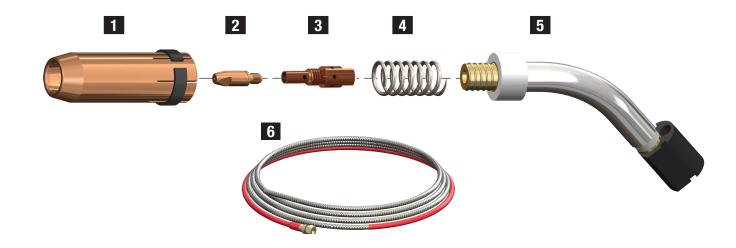
COMPATIBLE WITH 24 KD 250AMP CO₂ 60% DUTY[†] FOR REPLACEMENT PARTS SEE PAGE 53



<u>1.</u>	GAS NOZ	ZLES			1.	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	1				I.D.
	140-0051	M6 E-C	u	.030	(8.0)	nm)	.037
	140-0242	M6 E-C	u	.040	(1.0)	nm)	.048
	140-0379	M6 E-C	u	.045	(1.2)	nm)	.055
	140-0054	M6 CuC	CrZr	.030	18.0)	nm)	.037
	140-0245	M6 Cu0	CrZr	.040	(1.0)	nm)	.048
	140-0382	M6 CuC	CrZr	.045			.055
	141-0001	M6 E-C	u	.030	18.0)		.043 AL
	141-0006	M6 E-C	u	.040			.055 AL
	141-0010	M6 E-C	u	3/64'	'(1.2ı	nm)	.059 AL
<u>3.</u>	CONTAC	T TIP F	HOLDER	?			
4.	GAS DIFI	FUSER)				
	012-0017	Gas Diff	user Black	(
	012-0183	Gas Diff	user White	9			
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

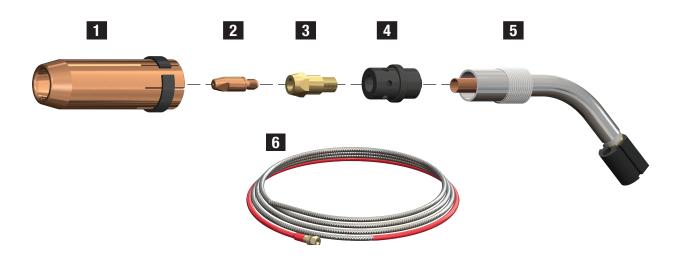
COMPATIBLE WITH 25[†] FOR REPLACEMENT PARTS SEE PAGE 53



<u>1.</u>	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 FS			I.D.	
**	145-0051 145-0085	Nozzle Cylindrio Nozzle Conical		25/32" (20mm) 41/64" (16mm)		
_	145-0132	Nozzle Tapered			35/64" (1	
<u>2.</u>	CONTA				<i>'</i>	I.D.
	140-0051		E-Cu	.030	(0.8mm)	.037
	140-0242		E-Cu	.040	(1.0mm)	.048
	140-0379 140-0054		E-Cu CuCrZr	.045 .030	(1.2mm) (0.8mm)	.055 .037
	140-0054		CuCrZr.	.040	(1.0mm)	.037
	140-0243	•	CuCrZr	.045	(1.0mm)	.055
	141-0001		E-Cu	.030	(0.8mm)	.043 AL
	141-0006	•	E-Cu	.040	(1.0mm)	.055 AL
	141-0010	•	E-Cu	3/64"	' (1.2mm)	.059 AL
3.	CONTA	CT TIP HOLDE	ERS			
	142-0007 142-0012	Tip Holder M6 Sho Tip Holder M6 Lor				
4.	GAS DIF	FUSER				
	018-0004 018-0116	Gas Diffuser Black Gas Diffuser White	-			
5.	GOOSEI	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	O	.095 .059	.156 .156
	120-0005	Liner, Teflon™ 10'	3/04		.059	.130

52 BINZEL® STYLE

REPLACEMENT PARTS FOR & COMPATIBLE WITH ALL BINZEL®†



1. SWAN NECK MB-15 002-0009 MB-24 012-0001 MB-25 004-0012 MB-26 018-0116 014-0006 MB-36 2. LINERS I.D. O.D. 124-0015 15' .023-.035 .053 .156 124-9003 15' .025-.045 .156 .071

.052-1/16"

.045-1/16"

.095

.095

.156

.156

17'

10'

124-9004

124-0041



REPLACEMENT PARTS FOR & COMPATIBLE WITH ALL BINZEL®†

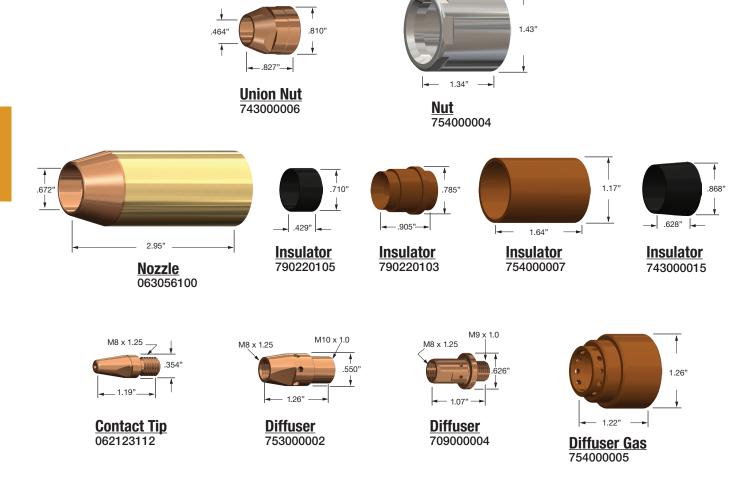




Pin (Lincoln) 64-8411Z

54 CLOOS® STYLE

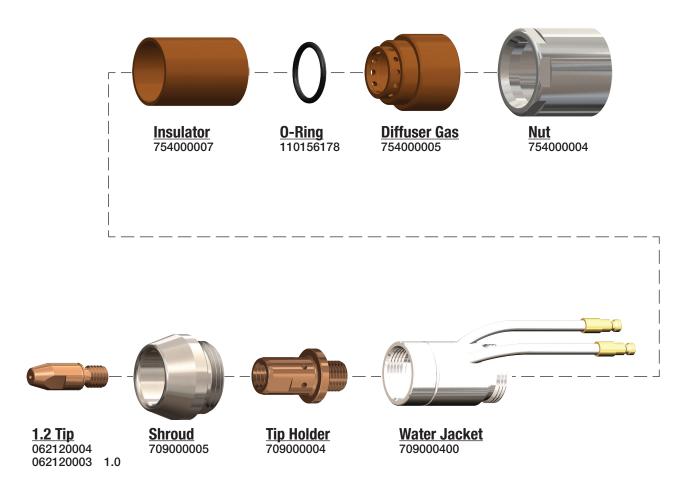
COMPATIBLE WITH MISCELLANEOUS CLOOS® STYLE PARTS†





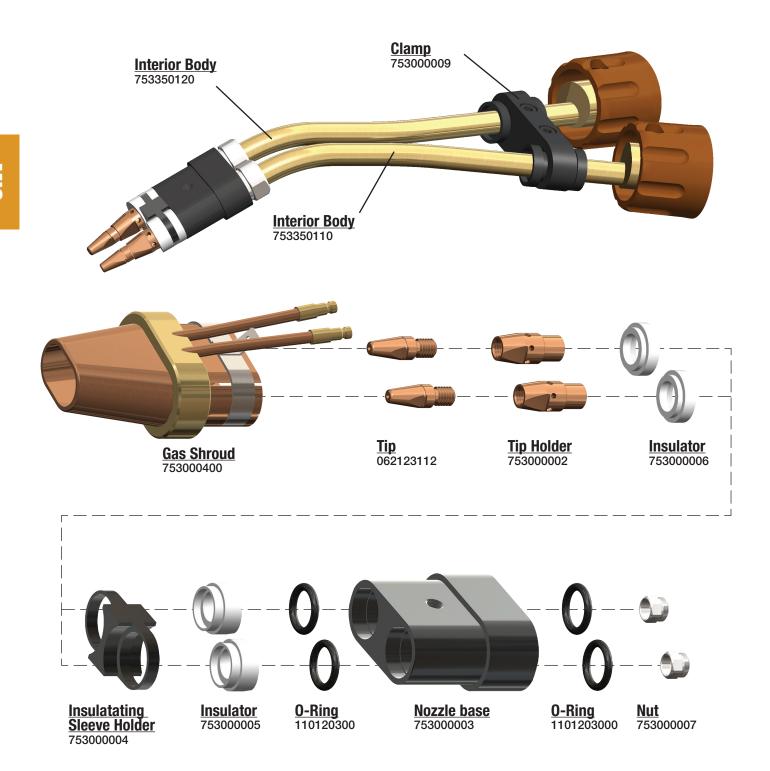


COMPATIBLE WITH MR W 500-31 ROBOT WELDING TORCH[†]

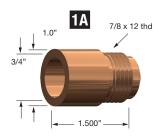


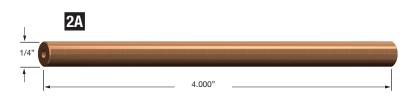
56 CLOOS® STYLE

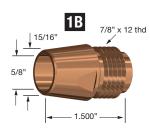
COMPATIBLE WITH ZMW 600 / 610[†]

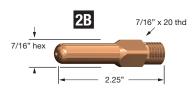








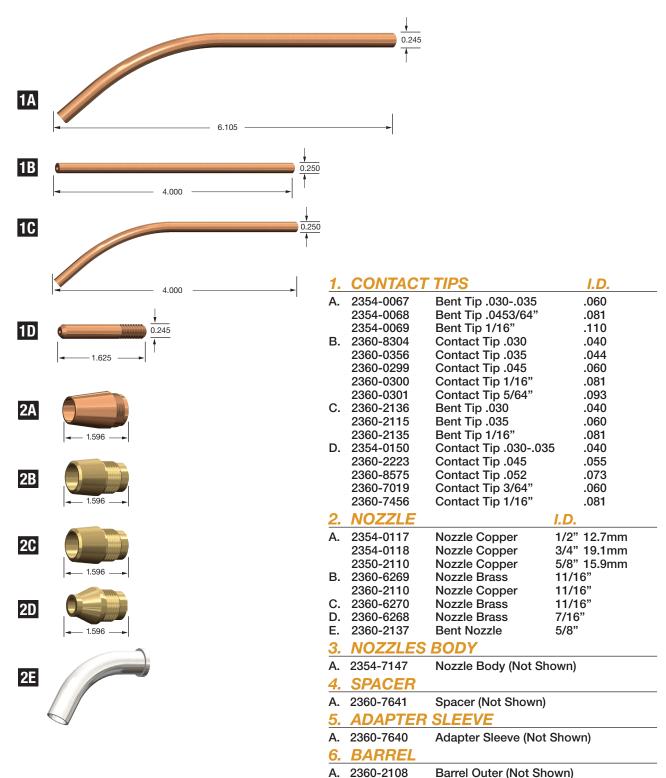




1.	NOZZ	LE		I.D.	
Α	10340	Nozzle Straight			9.0mm)
В	10359	Nozzle Tapered		5/8" (1	5.9mm)
2.	CONT	ACT TIPS			I.D.
Α	10782	Contact Tip	1/16" Al	(1.6mm)	.081
В	15121	Contact Tip	.052 H	(1.4mm)	.063
	15120	Contact Tip	3/32" H	(2.4mm)	.110
	15111	Contact Tip	1/8"		

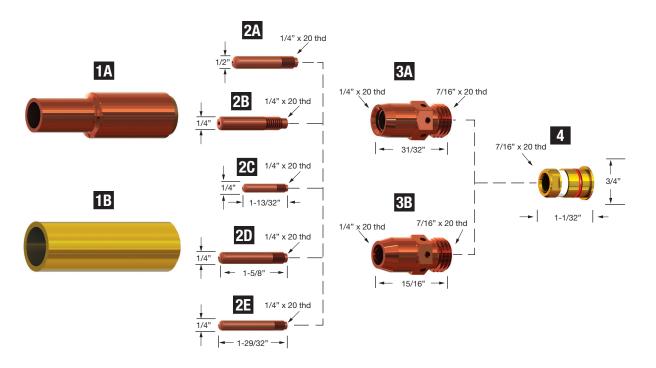
58 ESAB® STYLE

COMPATIBLE WITH AIRCO®†





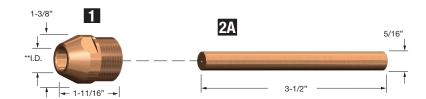
COMPATIBLE WITH MT-200 / MT-200CC / MT-400 / MT-400CC / MT-500[†]



1.	NOZZLE	S		I.D.		3.	TIP AD	APTERS			
Α	998895	Nozzle #6 Insula	ted Slip-On	3/8"	(09.5mm)	A	17984	Adapter for	H.D. Tips		
	998893	Nozzle #8 Insula			(12.7mm)	В	17983	Adapter for			
	998894	Nozzle #10 Insul	ated Slip-Or	n 5/8"	(15.8mm)	4.	NOZZL	E ADAP1	FRS		
В	999471	Nozzle H.D. #8 S	Slip-On	1/2"	(12.7mm)	7.					
	999472	Nozzle H.D. #10		5/8"	(15.8mm)		999452	•	Slip-On Nozz		
	999473	Nozzle H.D. #12			(19.1mm)	LI	NERS (N	OT SHOWN)	I.D.	O.D	
	17350	Nozzle E.H.D. Bı	rass #12	3/4"	(19.1mm)	Α	999743	Liner 10'	.023	.039	.120
2.	CONTAC	CT TIPS			I.D.	В	948850	Liner 10'	.030	.060	.185
Α	948332	Tip H.D. Short	5/64"	(2.0mm)	.093		2075237	Liner 10'	.035045	.070	.185
В	17765	Tip H.D. Med.	.045-3/64	(1.2mm)			2075239	Liner 10'	.052-1/16"	.094	.185
	17778-067	Tip H.D. Med.	1/16"	(1.5mm)			2075245	Liner 10'	5/64"	.140	.200
	948835	Tip H.D. Med.	1/16"	(1.6mm)			17717	Liner 12'	.030	.060	.185
С	999578	Tip Short	.045-3/64"	(1.2mm)	.059		17718	Liner 12'	.035045	.070	.185
	948340	Tip Short	.052	(1.3mm)	.063		17719	Liner 12'	.052-1/16"	.094	.185
	948341	Tip Short	1/16"	(1.6mm)	.073		2075238	Liner 15'	.035045	.070	.185
	2075230	Tip Short	5/64"	(2.0mm)	.093		2075240	Liner 15'	.052-1/16"	.094	.185
D	20543	Tip Med.	.023	(0.6mm)	.028						
	20544	Tip Med.	.030	(0.8mm)	.037						
	996995	Tip Med.	.035	(0.9mm)							
	996999	Tip Med.	.045-3/64"	(1.2mm)							
	2075349	Tip Med.	.052	(1.3mm)							
	996997	Tip Med.	1/16"	(1.6mm)							
Е	999742	Tip Long	.023	(0.6mm)							
	996994	Tip Long	.023	(0.6mm)							
	996996	Tip Long	.035	(0.9mm)							
	996998	Tip Long	.045-3/64"	(1.2mm)	.055						

60 ESAB® STYLE

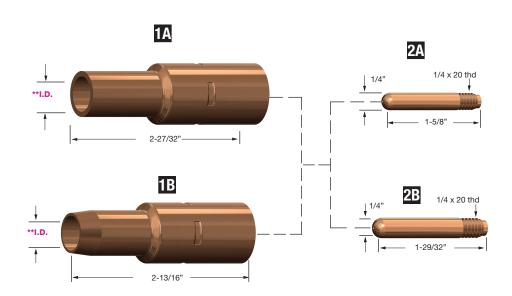
COMPATIBLE WITH ST-12[†]



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.	CONTA	CT TIPS				I.D.
Α	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



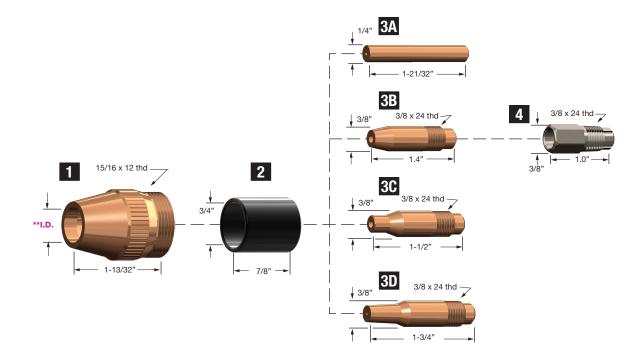
COMPATIBLE WITH ST-23A / MIG-41A[†]



<u>1.</u>	NOZZI	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	i) .043
	996999	Tip Short .045	-3/64"	(1.2mm	.055
	2075349	Tip Med .052		(1.3mm	n) .063
	996997	Tip Short 1/16	"	(1.6mm	n) .073
В	999742	Tip Long .023		(0.6mm	n) .028
	996994	Tip Long .030		(0.8mm	,
	996996	Tip Long .035		(0.9mm	n) .043
	996998	Tip Long .045-	-3/64"	(1.2mm	ı) .055

62 **ESAB® STYLE**

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



1. NOZZLES (USED ON ST-16 AND ST-21) I.D.

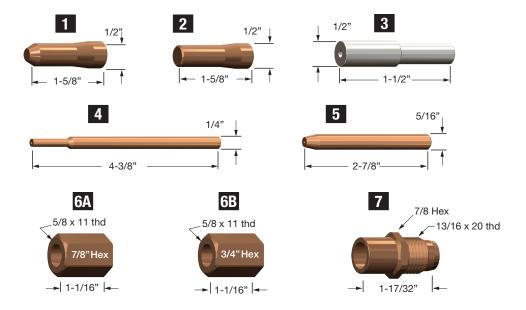
598739	Nozzle #8	1/2" (12.7mm)
598721	Nozzle #10	5/8" (15.9mm)
633985	Nozzle #12	3/4" (19.1mm)

2.	SPATTER	LINERS			
	633603	Nozzle Spa	tter Liner		
3.	CONTACT	T 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

COLLETS

632811	Collet					
CONDUITS	(USED ON S	T-16 AND ST-2	1)			
633455 633456	Conduit 1 Conduit 1			.030035 .045-1/16"		
			10			
LINERS (USI	ED ON MT-450)W)	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 Sn		
7. NOZZLE			
105Z20	Nozzle #10	5/8" (15.9mm)	

64 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

2

3

Part available but not shown

Part available but not shown



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

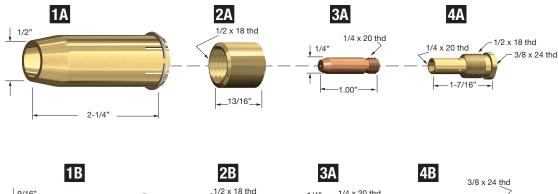
 0808 650 880
 2x2 5 3 0 mm

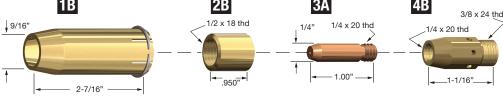
3. LENGTH 120 MM WITH GUIDE TUBE CONNECTION

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

66 HOBART® STYLE

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

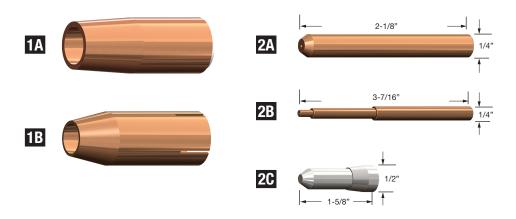




<u>1.</u>	NOZZLE	S I.D.	
Α	379718		mm)
В	379300	Nozzle Slip-On or .030" 9/16" (14.3	Bmm)
2.	INSULAT	ORS	
Α	379708	Nozzle ????	
В	379301	Nozzle Insulator	
<u>3.</u>	CONTAC	T TIPS	I.D.
Α	379587	Contact Tip .023 (0.6mm) H	.028
	379304	Contact Tip .030 (0.8mm) H	.037
	379314	Contact Tip .035 (0.9mm) H/T/AL	.043
	379315	Contact Tip .045 (1.2mm) H/T	.052
В	177151	Tip Tapered .024 (0.6mm) H/T	.028
	177152	Tip Tapered .030 (0.8mm) H/T	.037
	177028	Tip Tapered .035 (0.9mm) H/T	.043
	177029	Tip Tapered .045 (1.2mm) H/T	.055
4.	TIP ADA	PTERS	
Α	177107	Gas Diffuser	
В	379595	Tip Adapter .024	
	379596	Tip Adapter .030	
	379433	Tip Adapter .035045	
LI	NERS (NC	T SHOWN) I.D. O.D.	
	379601-3	Liner Assy. 15' .024 H .042	.130
	379599-3	Liner Assy. 15' .030 H/T .057	.154
	379335-3	Liner Assy. 15' .035045 H/T .070	.163
	379349-3	Liner Assy. 15' .052-1/16" H/T	
	379429-3	Liner Assy. 15' .035045 H/T	
	379347-4	Liner Assy. 12' .035 Al058	.176
	379347-5	Liner Assy. 12' .045052 Al080	.176



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



<u>1.</u>	NOZZLE:	S			
A B	379925 379981	HD nozzle 3/4 Nozzle 598 act	450/wc 500		
2.	CONTAC	T TIPS		I.D.	
Α	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	

Contact Tip

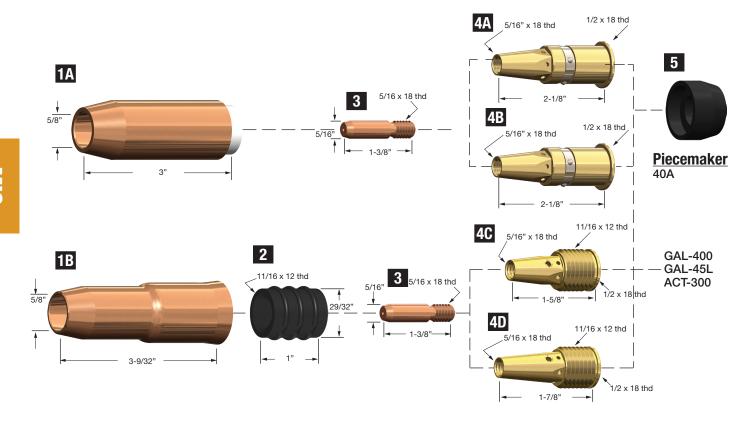
5/32

.166

377500

68 HOBART® STYLE

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

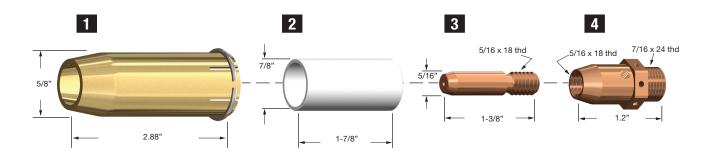


1.	NOZZL	.ES			I.D.		
Α	177134	Nozzle Slip	-On		5/8"	(15	.9mm)
В	177042	Nozzle Thr	eaded		3/8"	(09	.5mm)
С	379645	Nozzle Slip	-On		5/8"	(15	.9mm)
2.	NOZZL	E ADAPTE	RS				
	379353	Nozzle Ada	apter				
3.	CONTA	ACT TIPS					I.D.
	379394	Contact Tip	.035	(0.9mm)	H/T	/AL	.043
	177000	Contact Tip	.045	(1.2mm)	H/T		.055
	379296	Contact Tip	.045	(1.2mm)		/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
<u>4.</u>	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	34" Wi	re	
D	379615	Gas Diffuser		3/32" W	ire		

5. NOZZLE INSULATORS

	177136	No	zzle Insulato	or (40-	-A)		
LI	NERS (NO	OT SH	OWN)			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

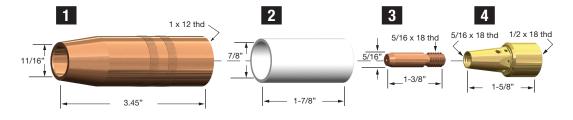
COMPATIBLE WITH PIECEMAKER 50-W†



<u>1.</u>	NOZZL	<u>ES</u>			I.D.	
	177166	Nozzle Slip-On			5/8" (15.	9mm)
<u>2.</u>	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
<u>4.</u>	DIFFUS	SERS				
	379987	Gas Diffuser		.035045		
	379988	Gas Diffuser		.052-5/64	."	

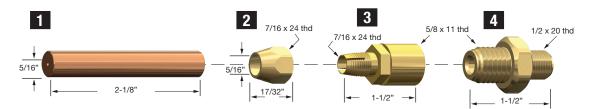
70 HOBART® STYLE

COMPATIBLE WITH GAL-500†



<u>1.</u>	NOZZLE	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	5/64"	(2.0mm)	Т	.093
	379397	Contact Tip	3/32"	, ,		.136
<u>4.</u>	DIFFUSE	RS				
	379490	Gas Diffuser	.035-	1/16"		
	379530	Gas Diffuser	5/64"	-3/32"		

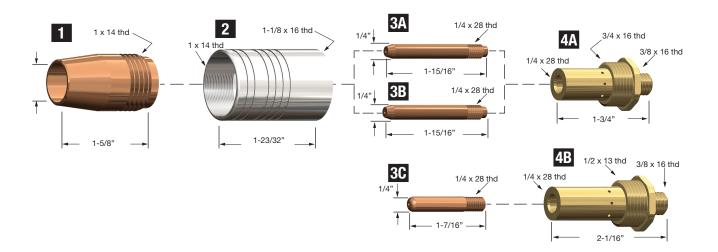
COMPATIBLE WITH SAT-600†



<u>1.</u>	CONTAC	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.	3. GAS DIFFUSERS				
	378653	Gas Diffuser			
4.	TIP ADA	PTERS			
	16DA629	Contact Tip Ad	lapter		



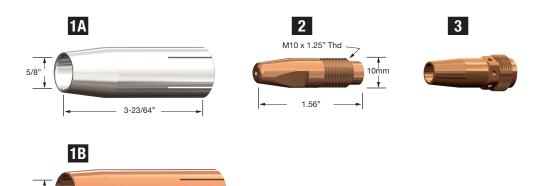
COMPATIBLE WITH AG-2000 \ SP-2000[†]



1.	NOZZLE	S		I.D.		
	407741	Nozzle Threaded		5/8"	(15.9mm)	
	407742	Nozzle Threaded		3/4"	(19.1mm)	
2.	NOZZLE	BODIES				
	407842-1	Nozzle Body				
3.	CONTAC	T 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 DIF	FUSERS				
Α	407733	Gas Diffuser Standard				
В	407846-2	Gas Diffuser for Adjustable Nozzles				

72 IGM®/FRONIUS® STYLE

3-1/8"

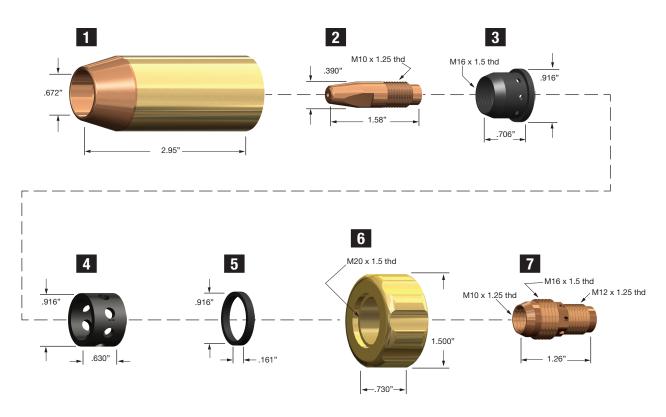


1. NOZZLES		I.D.	
A 42.0001.5129	Nozzle	5/8	
B 42.0001.5155	Nozzle	5/8	
42.0001.5130	Nozzle		
42.0001.5128	Nozzle		
42.0001.5576	Nozzle		
2. CONTACT	TIPS	WIRE	
42.0001.1576	Contact Tip	.035 (.08mm)	
42.0001.3277	Contact Tip	(0.9mm)	
42.0001.1577	Contact Tip	.045 (1.0mm)	
42.0001.1578	Contact Tip	.052 (1.2mm)	
42.0001.1930	Contact Tip	.063 (1.4mm)	
3. GAS DIFFU	SER		
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



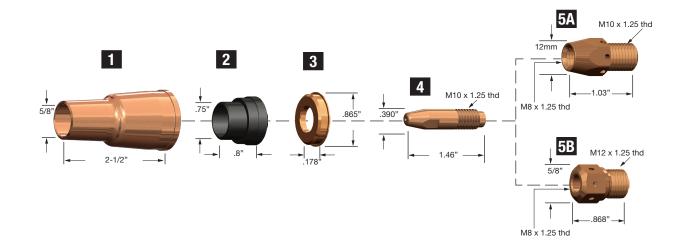
COMPATIBLE WITH IGM SB395†



<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		

74 IGM®/FRONIUS® STYLE

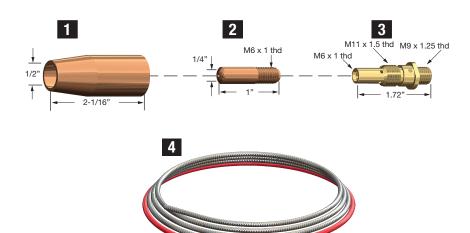
COMPATIBLE WITH IGM SB399 & OTHER AVAILABLE IGM PARTS[†]



1.	NOZZLES		I.D.
	31A266	Nozzle	5/8" (15.9mm)
2.	NOZZLE IN	SULATION	
	31A248	Nozzle Insulation	
3.	GUIDE RING	3 S	
	60A593	Guide Ring	
<u>4.</u>	CONTACT 1	<i>TIPS</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	?S
Α	60A582	Tip Adapter/Diffu	ser
В	60A534	Tip Adapter/Diffu	ser



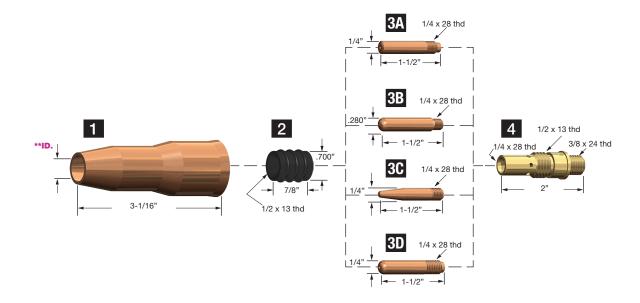
COMPATIBLE WITH MAGNUM 100L[†]



<u>1.</u>	NOZZLE	S			1.	D.	
	M16294	Nozzle, Fixed	k		1/	2" (12	.7mm)
2.	CONTAC	T TIPS					I.D.
	S19726-1	Contact Tip		023 (0	0.6mn	n)	.028
	S19726-2	Contact Tip		030 (0	0.8mn	n)	.037
	S19726-3	Contact Tip		035 (0	0.9mn	n)	.043
	S19726-4	Contact Tip		045 (1	1.2mn	n)	.055
3.	GAS DIF	FUSERS					
	S19728	Gas Diffuser					
<u>4.</u>	LINER AS	SSEMBLIE	S	I.	D.		O.D.
	M16291-1	Liner Assy.	15'	.04	1 5	.063	.148
	M16291-2	Liner Assy.	15'	.02	23	.036	.123

76 LINCOLN® STYLE

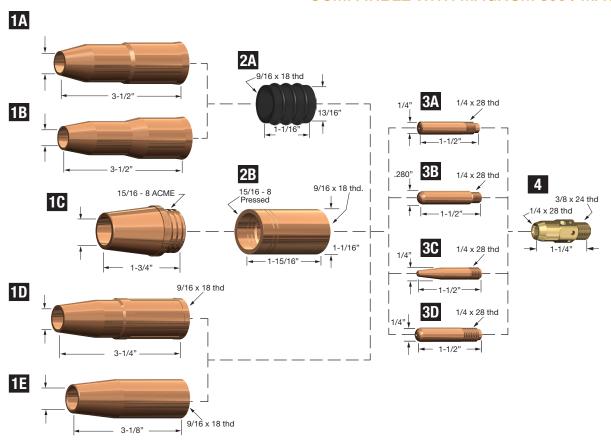
COMPATIBLE WITH MAGNUM 200 / MAGNUM 250SP†



<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[†]

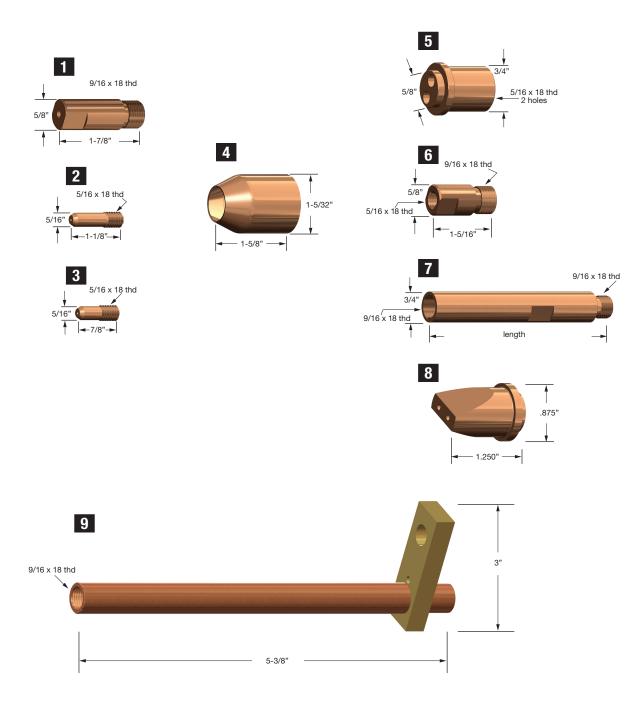


1.	NOZZLE	S		I.D.	
Α	M16082-1	Nozzle Adjustable		5/8"	(15.9mm)
	M16082-2	Nozzle Adjustable		1/2"	(12.7mm)
В	M16082-3	Nozzle Adj. Recessed		5/8"	(15.9mm)
	M16082-4	Nozzle Adj. Recessed		1/2"	(12.7mm)
С	M16830-1	Nozzle Coarse Thread		5/8"	(15.9mm)
	M16830-2	Nozzle Coarse Thread		3/4"	(19.1mm)
D	M16080-1	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	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)	<i>I.D.</i>
	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
<i>4.</i>	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

78 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	TPS 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 Ma		
	S10125-5/32M-S	S Tip Short Ma	te	
2.	CONTACT 1	<i>IPS</i>		I.D.
	(K129, K231, K391		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 1	TPS (USE ON K	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
4.	NOZZLES (U	SE K231, K391)		

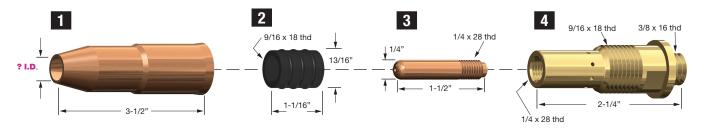
Flux Nozzle

T10575

5. TWIN ARC TIP HOLDERS	USE ON K129)			
S15954 Twin Arc Tip Holder Ben				
S15954-S Twin Arc Tip Holder Stra	igni			
6. TIP ADAPTERS (USE ON K391)				
S16844 Tip Adapter for T14050 Tips				
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)			

80 LINCOLN® STYLE

COMPATIBLE WITH MAGNUM SPOOL-GUN†



1. NOZZLES

I.D.

M16082-1 Nozzle, Slip-On M16082-2 Nozzle, Slip-On

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

INSULATOR

S19394-1 Insulator

3. CONTACT TIPS

.030 (0.8mm).037

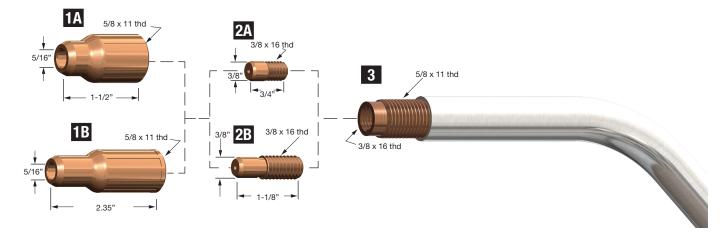
I.D.

S18697-44 Contact Tip Notched 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 S13358 5/16" (8.0mm) Nozzle, Insulator

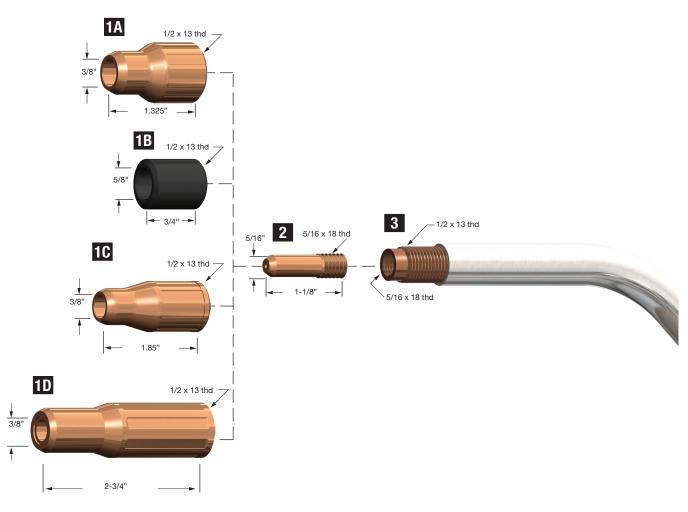
В	S12691-1 Nozzl	e, Insul. 2-3/4" \$	Stick-out	5/16"	(8.0mm)
2.	CONTACT T	IPS (USE ON K	233, K114	!)	I.D.
Α	T12236-1/16	Contact Tip	1/16"	(1.6mm)	.073
	T12236-5/64	Contact Tip	5/64"	(2.0mm)	.093
	T12236-3/32	Contact Tip	3/32"	(2.4mm)	.101
	T12236-1/8	Contact Tip	1/8"	(3.2mm)	.136
	T12236-5/64-LL	Tip 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
	T14157-1/8	Contact Tip	1/8"	(3.2mm)	.136

3. 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°

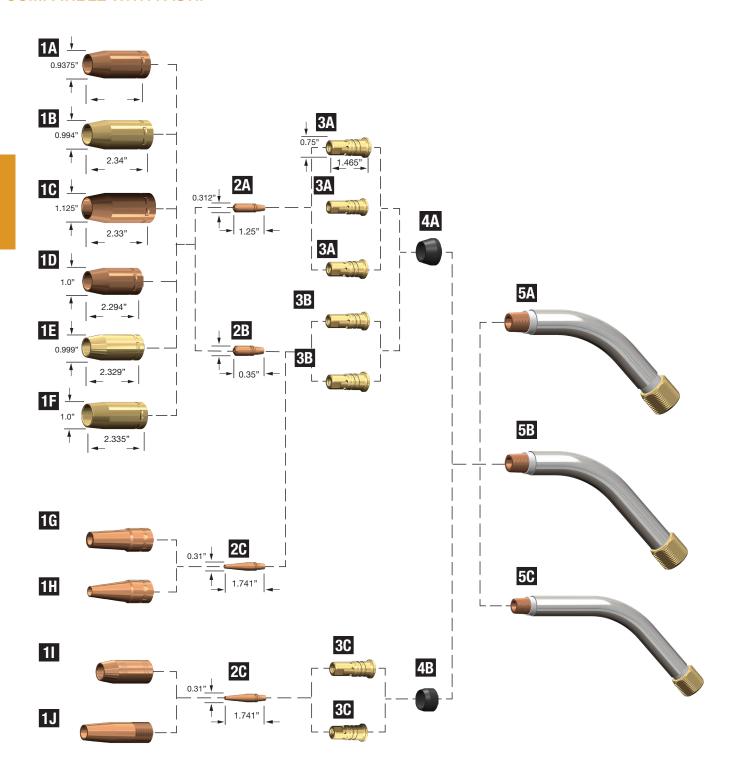


COMPATIBLE WITH FLUX-CORE INNERSHIELD / K136, K264, K345, K355, K361[†]



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" S	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	l.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°	
	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®†

MILLER® STYLE

1. NOZZLES		I.D.
Screw On Nozz	les	
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		
G 209036	Nozzle Copper	1/2"
H 209035	Nozzle Copper	3/8"
		0/0
Slip On Tapere		1 /0"
I 209033	Nozzle Copper	1/2"
J 209034	Nozzle Copper	3/8"
2. CONTAC	T TIPS	
A Heavy Duty		
206184	HD Contact Tip	.023
206185	HD Contact Tip	.030
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
206190	HD Contact Tip	1/16" AL
206191	HD Contact Tip	.068" AL
206192	HD Contact Tip	5/64" AL
206193	HD Contact Tip	3/32"
B Extra Heavy		
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		.,, .
209024	Tapered Contact Tip	.023"
209025	Tapered Contact Tip	.030"
209026	Tapered Contact Tip	.035"
209027	Tapered Contact Tip	.045"
200021	iapoida domadi lip	.0.0

Tapered Contact Tip

Tapered Contact Tip Tapered Contact Tip 3/64" .052"

1/16"

209028

209029

209030

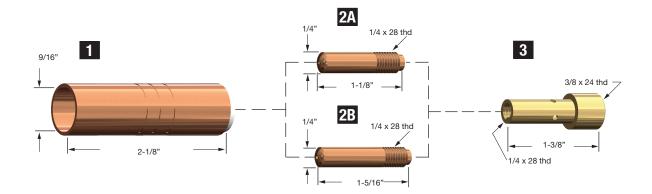
3. DIFFUSERS

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

 $4.5^{\circ}/45^{\circ}$ Bend - 360° swivel A 199625 B 199626 6"/45° Bend - 360° swivel C 199627 8"/45° Bend - 360° swivel

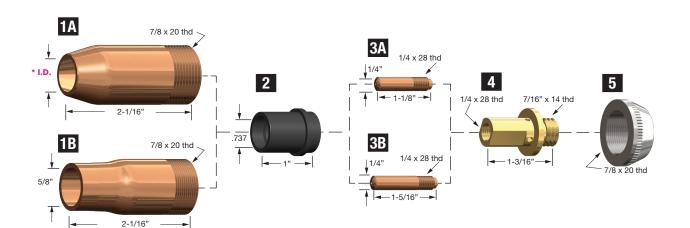
COMPATIBLE WITH GA-17C†



<u>1.</u>	NOZZLE	S	I.D		
	128-535	Nozzle Insulated	1/2"	(12.7mm)	
2.	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	PTERS			
	440 007	T: A -1 f 000	005 145	_	



COMPATIBLE WITH GA-20C†

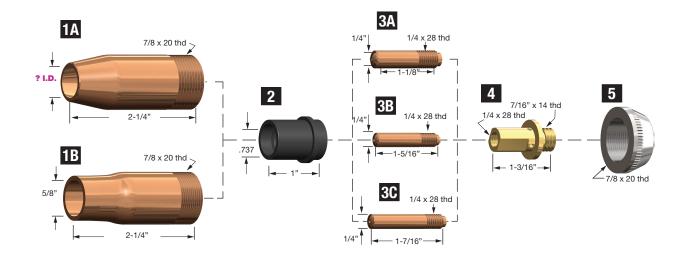


1.	NOZZL	ES		I.D.		
Α	049-098	Nozzle		7/16"	(11.1mi	m)
	049-099	Nozzle		1/2"	(12.7mi	
В	049-929	Nozzle		5/8"	(15.9mi	m)
2.	INSULA	TORS				
	082-241	Nozzle Ins	sulator			
<u>3.</u>	CONTA	CT TIPS				I.D.
Α	087-299	Contact Ti	ip Std.*	.025 (0.6mm)	.028
	000-067	Contact Ti	ip Std.*	.030 (0.8mm)	.037
	000-068	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.	NOZZL	ES	I.L) .	
Α	149-147	Nozzle	7/	16" (11.1n	nm)
	149-148	Nozzle	1/2	2" (12.7 n	nm)
В	149-146	Nozzle	5/8	8" (15.9n	nm)
2.	INSULA	ATORS			
	082-241	Insulator			
3.	CONTA	CT TIPS			I.D.
Α	087-299	Contact Tip Sto	l.* .025	(0.6mm)	.028
	000-067	Contact Tip Sto	l.* .030	(0.8mm)	.037
	000-068	Contact Tip Sto	l.* .035	(0.9mm)	.043
	000-069	Contact Tip Sto		(1.2mm)	.055
В	087-300	Contact Tip Lor	ng** .025	(0.6mm)	.028
	071-825	Contact Tip Lor		(0.8mm)	.037
	054-202	Contact Tip Lor		(0.9mm)	.043
	054-201	Contact Tip Lor	ng** .045	(1.2mm)	.055
С	054-183	Contact Tip Lor	ng** .035	(0.9mm)	.043
	054-157	Contact Tip Lor	ng** .045	(1.2mm)	.055
4.	CONTA	CT TIP ADAP1	TERS		
	146-426	Tip Adapter	.023025	(0.6m	m)
	146-425	Tip Adapter	.030045		.2mm)
5.	NOZZL	E RETAINING	NUTS		
	082-063	Retaining Nut			

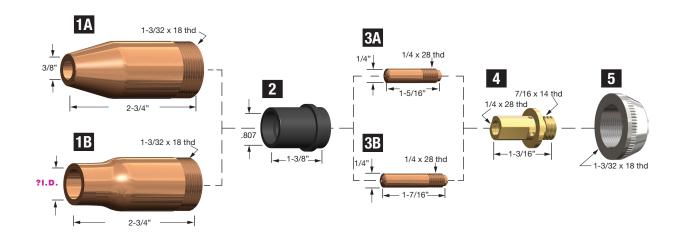
^{*}Short Contact Tips are recessed 1/16" inside Nozzle.

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

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



COMPATIBLE WITH GA-40C/CAL[†]

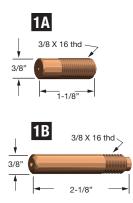


1.	NOZZLES		I.E).	
Α	071-214	Nozzle (GA-40C only) 3/8	3" (09.	5mm)
В	047-959	Nozzle	1/2	2" (12.7	7mm)
	047-957	Nozzle	5/8	3" (15.9	9mm)
	045-638	Nozzle	13,	/16" (20.6	3mm)
2.	INSULATO	DRS			
	094-986	Nozzle Insulator			
3.	CONTACT	TIPS			I.D.
Α	054-202	Contact Tip Short**	.035	(0.9mm)	.043
	054-201	Contact Tip Short**	.045	(1.2mm)	.055
В	054-183	Contact Tip Std.*	.035	(0.9mm)	.043
	054-157	Contact Tip Std.*	.045	(1.2mm)	.055
4.	CONTACT	TIP ADAPTERS	3		
	094-985	Tip Adapter .03504	5 for GA-	-40C	
	094-987	Tip Adapter 1/16"-5/	64" for G	A-40C	
	109-805	Tip Adapter 3/64" Al.	. for Ga-4	10CAL	
5.	NOZZLE F	RETAINING NUT	S		
	047-603	Retaining Nut			
LII	NERS (NOT S	HOWN) I.D	_		O.D.
	083-891	Liner 15' .0350)45 .	064	.173

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

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

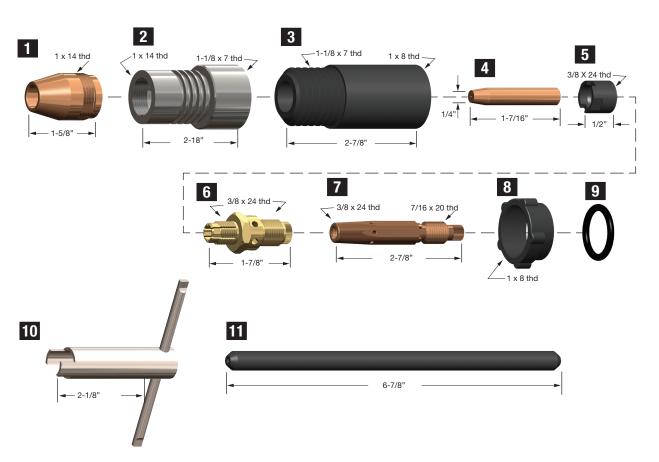
COMPATIBLE WITH GA-50C1 / G-40GL / A-500GL / GA-50P[†]



<u>1.</u>	CONTA	CT TIPS		<i>I.D.</i>
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



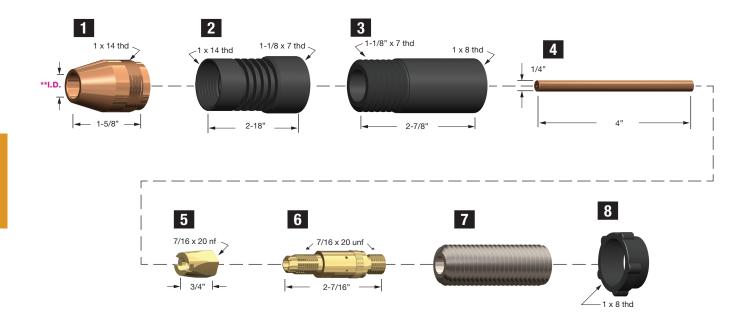
COMPATIBLE WITH SPOOLMATIC XR[†]



1.	NOZZLE	S	I.D.	
	050-115	Nozzle	1/2"	(12.7mm)
	050-622	Nozzle	5/8"	(15.9mm)
	050-116	Nozzle	13/16"	(20.6mm)
<u>2.</u>	NOZZLE	EXTENSION	<u> </u>	
	144-862	Nozzle Extension	on	
<u>3.</u>	BARREL	EXTENSION	<u> </u>	
	156-821	Barrel Extension	า	
<u>4.</u>	CONTAC	T TUBES		I.D.
	135-427	Contact Tube	.030 (0.8m	m) .037
		Contact Tube	.000 (0.0111	111) .037
	135-428	Contact Tube	.030 (0.8m	,
	135-428 147-314		`	m) .040
		Contact Tube	.030 (0.8m .035 (0.9m .035 (0.9m	m) .040 m) .043 m) .052
	147-314	Contact Tube Contact Tube	.030 (0.8m) .035 (0.9m) .035 (0.9m) .047 (1.2m)	m) .040 m) .043 m) .052 m) .055
	147-314 135-430 135-429 135-424	Contact Tube Contact Tube Contact Tube Contact Tube Contact Tube	.030 (0.8m) .035 (0.9m) .035 (0.9m) .047 (1.2m) .047 (1.2m)	m) .040 m) .043 m) .052 m) .055 m) .059
	147-314 135-430 135-429	Contact Tube Contact Tube Contact Tube Contact Tube	.030 (0.8m) .035 (0.9m) .035 (0.9m) .047 (1.2m)	m) .040 m) .043 m) .052 m) .055 m) .059 m) .073

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

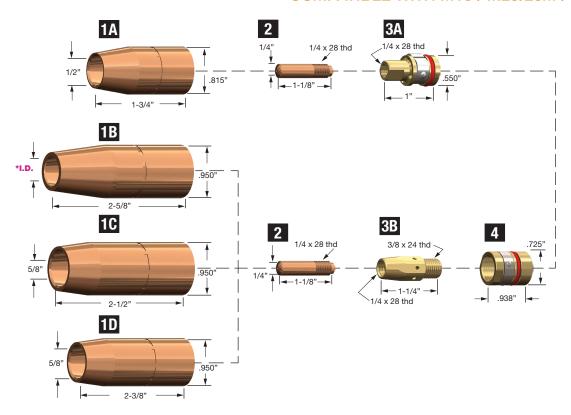
COMPATIBLE WITH SPOOLMATIC 1 / SPOOLMATIC 2 / SPOOLMATIC 3[†]



<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		
3.	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		
7.	ADAPTE	R BARREL			
	009-541	Adapter Barrel	(Not Sh	own)	
8.	NOZZLE	EXTENSIO I	N JAN	1 NUT	
	058-685	Nozzle Extensi	on Jam	Nut	

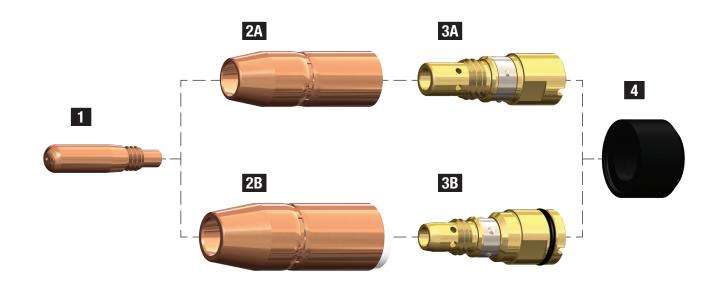


COMPATIBLE WITH M15 / M25/25M / M40/M40AL[†]



1.	NOZZL	.ES			I.D.		
Α	169-715	Nozzle	Flush		1/2"	(12.7	mm)
В	169-724	Nozzle	1/8" Tip Re	cess	1/2"	(12.7	mm)
	169-725		1/8" Tip Re		5/8"	(15.9	mm)
С	169-726	Nozzle	Flush		5/8"	(15.9	mm)
D	169-727	Nozzle	1/8" Tip Sti	ckout	5/8"	(15.9	mm)
2.	CONTA	ACT TIPS	S				
	087-299	Contac	t Tip	.0	25	(0.6n	nm)
	000-067	Contac		.0	30	(0.8n)	nm)
	000-068	Contac	t Tip	.0	35	(0.9n	nm)
	000-069	Contac			45	(1.2n	,
	172-024	Contac			16"	(1.6n	,
	172-025	Contac	•		64"	(2.0n	
	172-034	Contac	t Tip	3/	64"AI	(1.2n	nm)
3.	CONTA	ACT TIP	ADAPTE	RS			
Α	169-716	Adapte	er				
В	169-728	Adapte	er				
4.	NOZZL	E RETA	INERS				
	169-729	Nozzle	Retainer				
LI	NERS (N	OT SHOWN)			I.D.	O.D.
	172-257	Liner 15'	.023025	(0.6mr	n)	.051	.156
	172-258	Liner 15'	.030035	(0.8-0.	9mm)	.061	.166
	172-259	Liner 15'	.035045	(0.9-1.	2mm)	.087	.188
	172-250	Liner 15'	1/16"-5/64	" (1.6-2.	0mm)	.098	.188

COMPATIBLE WITH MDX-100™ MDX-250™



<u>1.</u>	CONTAC	T 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)
2.	NOZZLES	3	I.D.
Α	NS-M1200C	Nozzle Flush	1/2"
	NS-M1200B	Nozzle Flush	1/2"
В	N-M1200C	Nozzle Flush	1/2"
	N-M1218C	Nozzle 1/8" Reces	ss 1/2"
	N-M5800C	Nozzle Flush	5/8"
	N-M5818C	Nozzle 1/8" Reces	s 5/8"
	N-M58XTC	Nozzle 1/8" Stick-	out 5/8"
3.	DIFFUSE	RS	
Α	D-M100	Diffuser	
В	D-M250	Diffuser	

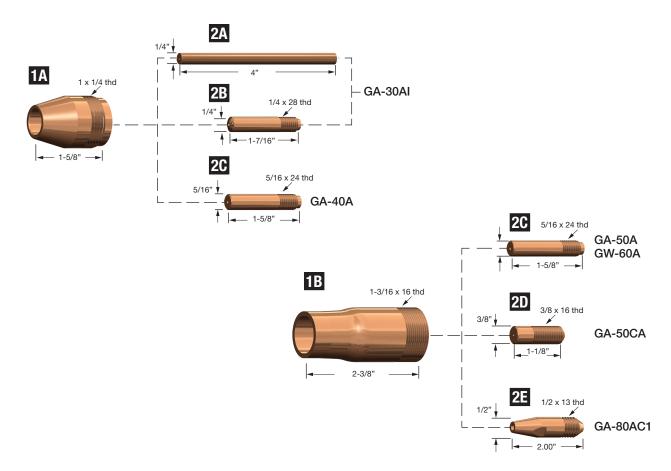


COMPATIBLE WITH M-SERIES M-100 & M-25™



1. CONTACT	T 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)
2. NOZZLES		I.D.
NS-M1200C	Nozzle Flush	1/2"
NS-M1200B	Nozzle Flush	1/2"
NS-MFLX	Nozzle Gasless	
N-M1200C	Nozzle Flush	1/2"
N-M1218C	Nozzle 1/8" Rece	ess 1/2"
N-M5800C	Nozzle Flush	5/8"
N-M5818C	Nozzle 1/8" Rece	ss 5/8"
N-M58XTC	Nozzle 1/8" Stick	-out 5/8"
N-A5800CM	Nozzle Flush	5/8"
N-A5818CM	Nozzle 1/8" Rece	ss 5/8"
N-A5814CM	Nozzle 1/4" Rece	ss 5/8"
3. DIFFUSEI	RS	
1070115	Diffuser M-100 Accu	Lock™ MDX
1070116	Diffuser M-25 AccuL	ock™ MDX
1070117	Diffuser M-25 AccuL	ock™ S

COMPATIBLE WITH AUTOMATIC WELDING GUNS†



<u>1.</u>	NOZZLE	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			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[†]





1. NOZZLI	<u>ES</u>		<i>I.D.</i>
199615	Screw-on copper		1/2"
199616	Screw-on copper		3/4"
199617	Screw-on copper Heav	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		1/2"
2. CONTA	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. DIFFUS	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 Contact Tip HD .030 pk 10 Robotic 63-1138 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 **Tapered Tip** Part # XX = last 2 digits indicate wire size 63-12XX 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.

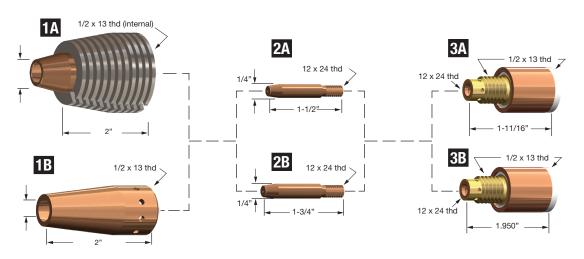
- † T-Series retaining head can only be used on Bernard® T-Series (Tregasskiss®) guns.
- \$ 63-11XX (XX = your wire size)
- ** 6X-XXXX (see Nozzle Selector Chart on next page)

Lightning [®] Nozzle Selector Chart (Air-Cooled Slip On)						
Standard Duty Nozzle Part #	Bore/Material	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			

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



COMPATIBLE WITH COBRA TORCH / PRINCE TORCH[†]





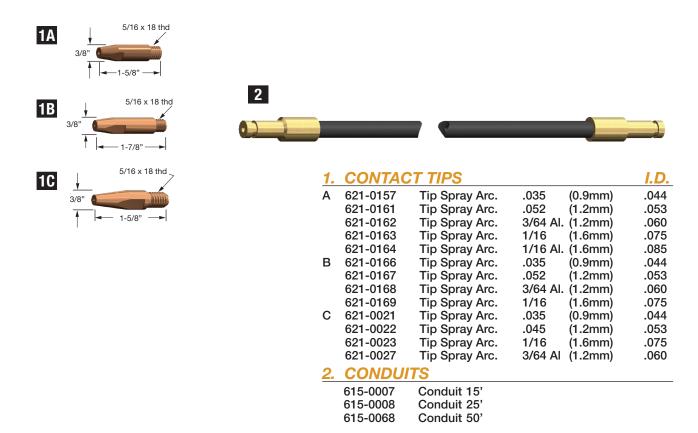
<u>1.</u>	GAS CUP	S		I.D.		4.	TORCH	LINERS (CONTI	NUED	
Α		as Cup H.D. #8 as Cup H.D. #10		1/2" 5/8"	(12.7mm) (15.8mm)		615-0317 615-0318	Green Teflon™ Liner Steel Spiral Liner	7-3/4" 7-1/2"	Aluminum Steel/Cored
В		as Cup Std. #6		3/8"	(09.5mm)		615-0319	Black Teflon™ Liner	3-1/4"	All
		as Cup Std. #8		1/2"	(12.7mm)		615-0325	WhiteTeflon™ H.D.	5-1/2"	All
		as Cup Std. #10		5/8"	(15.8mm)		615-0326	WhiteTeflon™ H.D.	7-3/4"	Aluminum
2.	CONTACT	T TIPS			I.D.	5.	CABLE	AND HOSE ASS	EMBL	IES
Α	621-0325 T	ip Spray Arc.	.030 (0.8mm	.037	Α	001-0610	Electrical Cable Asse	mbly	15'
		ip Spray Arc.		0.8mm			001-0611	Electrical Cable Asse		25'
	621-0001 T	ip Spray Arc.	.035 (0.9mm	n) .044		001-0612	Electrical Cable Asse	mbly	30'
		ip Spray Arc.	.045 (1.2mm			001-0664	Electrical Cable Asse	mbly	50'
			.045 (⁻		,		001-0613	7 Pin Cannon Plug		
			1/16" (⁻			В	001-0537	Gas Hose Assembly		15'
			1/16" (001-0538	Gas Hose Assembly		25'
В		ip Spray Arc.	.030 (,		001-0557	Gas Hose Assembly		30'
		ip Spray Arc.	.035 (001-0565	Gas Hose Assembly		50'
	621-0286 T	ip Spray Arc.	.052 (⁻	1.3mm	n) .060	С	001-0149	Power/Water Assemb		15'
3.	TIP EXTE	NSIONS					001-0150	Power/Water Assemb		25'
A		ip Extension	1_1	11/16"			001-0177	Power/Water Assemb		30'
В		ip Extension	1.9			_	001-0666	Power/Water Assemb		50'
_		•		, ,		D	001-0529	Water-In Hose Assem		15'
<u>4.</u>	TORCH L	INERS					001-0530	Water-In Hose Assem		25'
		eflon™ Liner			Aluminum		001-0565	Water-In Hose Assem		30'
		eflon™ Liner			Aluminum	Е	001-0567 001-0007	Water-In Hose Assem Conduit	ibiy	50' 15'
		piral Liner			Steel/Cored		001-0007	Conduit		25'
		piral Liner			Steel/Cored		001-0008	Conduit		30'
	615-0316 G	areen Teflon™ Lir	ner 7-7	7/8"	All		001-0505	Conduit		50'

001-0659 Conduit

50'

98 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

(0.8mm)

(0.8mm)

(0.9mm)

(1.2mm)

(1.2mm)

(1.6mm)

(1.6mm)

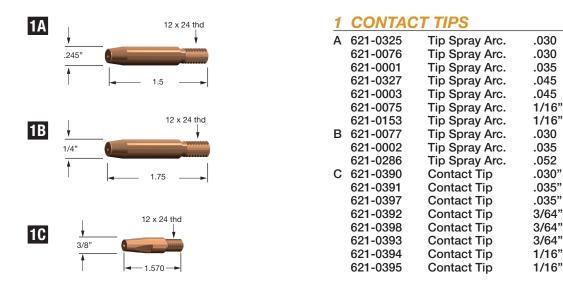
(0.8mm)

(0.9mm)

(1.3mm)

.035"

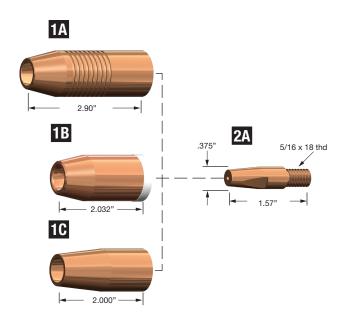
COMPATIBLE WITH SIDEWINDER, PRINCE SG, COBRA SX, COBRA MX†



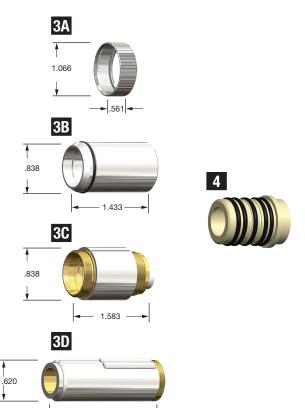
AIR COOLED



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	7/16"	
	621-0442	Quick Cup	1/2"	
	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



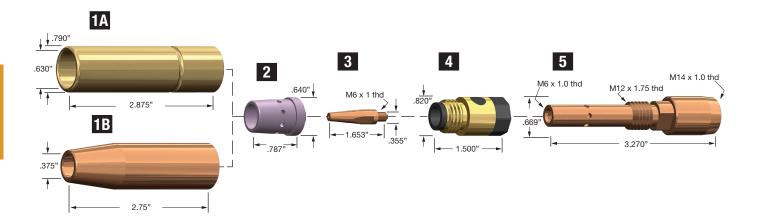
2.968

WATER COOLED

3.	NOZZLES		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.	INSULATO	OR CUP	
	261-0381		

†American Torch Tip Company (ATTC) is a proud US manufacturer of more than 80 years producing products for 6 major cutting and welding technologies. ATTC is in no way affiliated with the above-named original equipment manufacturer(s). References to the above-named manufacturers, tradenames and part numbers are for your convenience only. Most parts advertised for sale are made by or for American Torch Tip and other parts as indicated are original parts manufactured by above-named, original equipment manufacturer (DEM) and are simply being re-sold by American Torch Tip. Footnotes: * = OEM; # = American Torch Tip is licensed to make and sell this part by named manufacturer; ATTC and ATT suffix = This part is an original American Torch Tip design and is not manufactured identical to the OEM design; ® indicates a registered trademark; trade name, or product name of the above-named company. PHDTM, PHDXTM, Lightning®, WaltecTM, IntegraTM, Lasertec® Laser Division of American Torch Tip®, Multi-UseTM and ProMixTM are trademarks owned by American Torch Tip Company. © Copyright 2024, American Torch Tip Company

100 OTC®/DAIHEN® STYLE

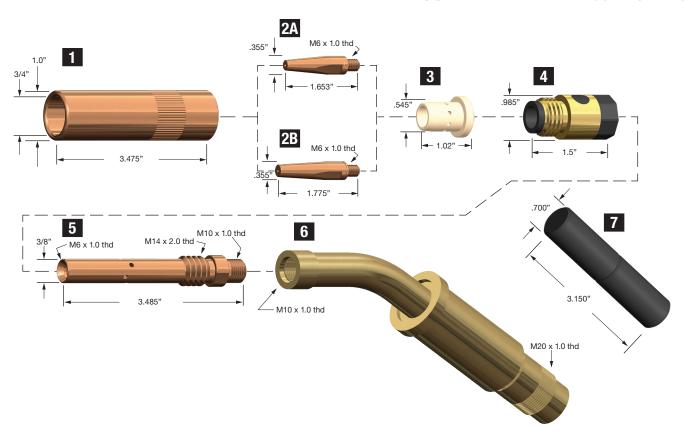


1.	NOZZLES			I.D.	
Α	U608N02	Nozzle		5/8"	(16mm)
В	U2464H10	Nozzle #6		3/8"	(9.5mm)
	U4167H04	Deep Narrow I	Nozzle		
2.	ORIFICE				
	U4167G02	Orifice			
3.	CONTACT	TIPS			I.D.
Α	U475E10	Contact Tip .	045 H	(1.2mm)	.055
4.	NOZZLE IN	ISULATORS	<u>S</u>		
	004 002	Nozzle Insulate	or Smal	l	
5.	TIP BODIE	S			
	U2437H07	Tip Body			
	U2437H07L	Tip Body Long	9		



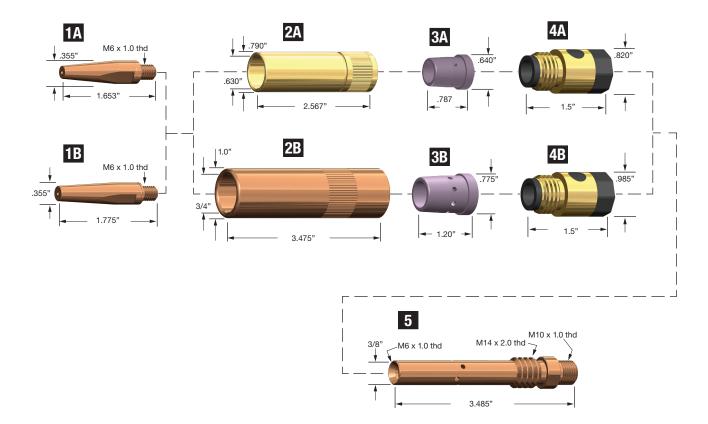
OTC®/DAIHEN® STYLE 101

COMPATIBLE WITH RT502-L / LRT501[†]



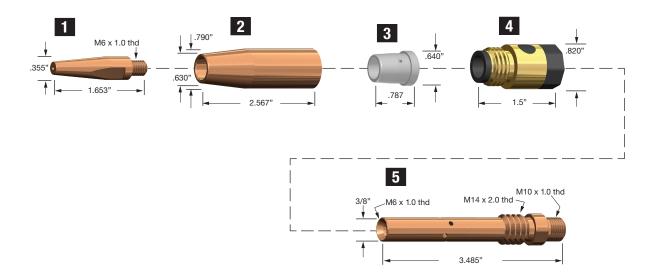
<u>1.</u>	NOZZLES 861PTA1010	Nozzle	I.D. 3/4" (19.1mm)			DIFFUSER		
2.	CONTACT	TIPS		I.D.	4. I	NOZZLE IN	ISULATORS	
В	0.8 x 42 0.9 x 42 1.0 x 42 1.2 x 42 1.6 x 42 0.8 x 45 0.9 x 45 1.0 x 45	Contact Tip	.030 (0.8mm) .035 (0.9mm) .040 (1.0mm) .045 (1.2mm) 1/16" (1.6mm) .030 (0.8mm) .035 (0.9mm) .040 (1.0mm)	.037 .043 .048 .050 .073 .037 .043	5. 7 F 6. 7	361P-TA-1040 TIP BODY PL115-0134 TORCH BA PB351-0997 BREAK AV	Tip Body ARRELS Torch Barrel	
C D	1.2 x 45 1.6 x 45 0.9x42LL 1.2x42LL 0.9x45LL 1.0x45LL 1.2x45LL	Contact Tip Contact Tip CuCr CuCr CuCr CuCr CuCr CuCr	.045 (1.2mm) 1/16" (1.6mm)	.050 .073	N F F F	PL116-0200 N/S Other Avai PB351-1721 PB351-1723 PB351-0718 PB351-0719 PB351-0999	Break Away Bar lable Parts Spring Liner Spring Liner Cable Conduit Cable Conduit Conductive Bracket	64" 139" 63" 138"

102 PANASONIC®/TOKIN® STYLE



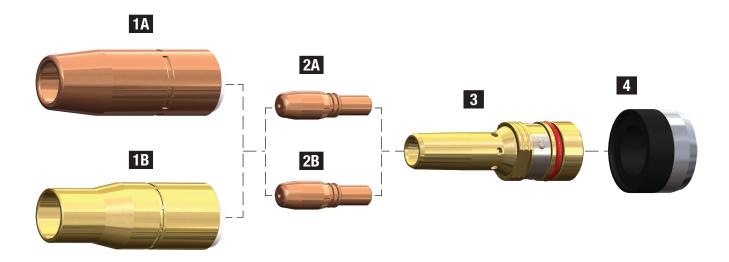
<u>1.</u>	CONTACT TIPS				
Α	002 003	Contact Tips		(1.2mm)	.055
В	002 007	Contact Tips	.035	(0.9mm)	.043
2.	NOZZLE	S	I.D.		
Α	001 002	Nozzle	.630	(16mm)	
В	001 001	Nozzle	.750	(19mm)	
<u>3.</u>	ORIFICE				
Α	003 002	Orifice Ceramic	- Small		
В	003 001	Orifice Ceramic	- Large		
<i>4</i> .	NOZZLE	INSULATOR	RS		
Α	004 001	Nozzle Insulator	- Large		
В	004 002	Nozzle Insulator	- Small		
5.	DIFFUSI	ER/TIP HOLL	DER		
	PL115-013	4 Tip Body			





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

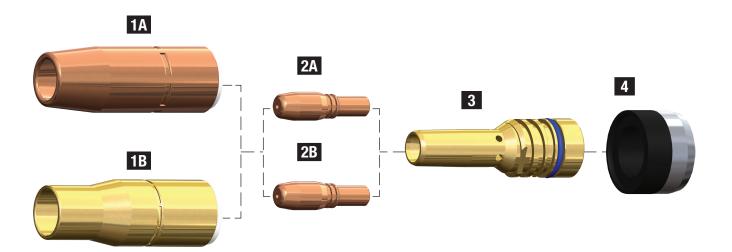
COMPATIBLE WITH ACCULOCK™ R, SLIP-ON[†]



1.	AIR-CO	DLED NOZZLES		E	BORE	O.D.
Α	401-6-62	Nozzle Tapered 1/8	" Recess Slip-On		5/8"	1.062"
	401-8-62	Nozzle Tapered 1/8			5/8"	0.938"
	401-4-62	Nozzle Tapered 1/8	" Recess Slip-On		5/8"	0.938"
	401-5-62	Nozzle Tapered 1/4	" Recess Slip-On		5/8"	1.062"
	401-81-62	Nozzle Tapered 1/8			5/8"	1.062"
	401-7-62	Nozzle Tapered 1/4			5/8"	1.106"
	401-71-62	Nozzle Tapered 1/8			5/8"	1.106"
	401-87-62	Nozzle Tapered 1/8			5/8"	1.062"
В	401-30-62	Nozzle Bottleneck		·On	5/8"	0.938"
	401-48-62	Nozzle Bottleneck I	Flush Slip-On		5/8"	1.062"
2.	CONTAC	T TIPS	WIRE SIZE	I.D.		
Α	T-A030CH	Contact Tips Cu	0.030"	(0.8mi	m)	
	T-A035CH	Contact Tips Cu	0.035"	(0.9mi	m)	
	T-A039CH	Contact Tips Cu	0.039"	(1.0mr	,	
	T-A045CH	Contact Tips Cu	0.045"	(1.2mr		
	T-A052CH	Contact Tips Cu	0.052"	(1.3mr	m)	
	T-A062CH	Contact Tips Cu	1/16"	(1.6mr	,	
	T-A072CH	Contact Tips Cu	0.070"	(1.8mr	,	
	T-A078CH	Contact Tips Cu	5/64"	(2.0mi	,	
_	T-A094CH	Contact Tips Cu	3/32"	(2.4mi	,	
В	T-A030ZH	Contact Tips CuCr2		(0.8mi	,	
	T-A035ZH	Contact Tips CuCr2		(0.9mi	,	
	T-A039ZH	Contact Tips CuCr2		(1.0mr	,	
	T-A045ZH	Contact Tips CuCr2	Zr 0.045"	(1.2mr	m)	
<u>3.</u>	DIFFUSE	R				
	D-ATSH	Gas Diffuser Slip-O	n			
4.	NECK IN	ISULATOR				
	402-11	Insulator				

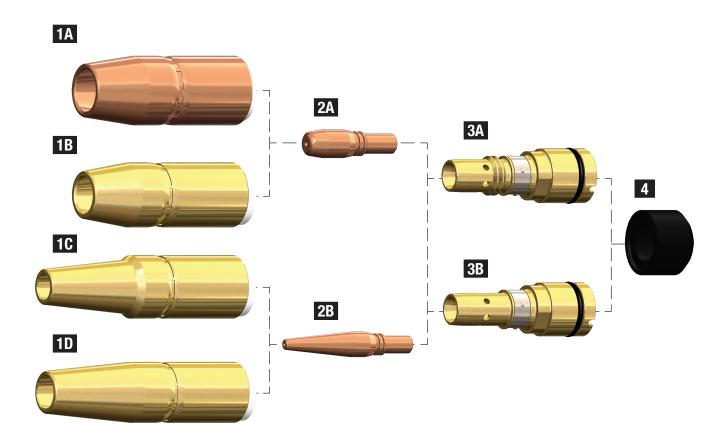


COMPATIBLE WITH ACCULOCK™ R, THREAD-ON[†]



<u>1.</u>	AIR-COC	<u>LED NOZZLES</u>		E	<u> </u>	0.D.
Α	401-14-62	Nozzle Tapered 1/8"	Recess Thread	ed	5/8"	1.062"
	401-43-62	Nozzle Tapered 1/8"	Recess Thread	ed	5/8"	0.938"
	401-18-62	Nozzle Tapered 1/8"			5/8"	0.938"
	401-20-62	Nozzle Tapered 1/8"			5/8"	1.062"
В	401-30-62T	Nozzle Bottleneck 1			5/8"	0.938"
2.	CONTAC	T TIPS	WIRE SIZE	I.D.		
Α	T-A030CH	Contact Tips Cu	0.030"	(0.8mr	n)	
	T-A035CH	Contact Tips Cu	0.035"	(0.9mr	n)	
	T-A039CH	Contact Tips Cu	0.039"	(1.0mr	n)	
	T-A045CH	Contact Tips Cu	0.045"	(1.2mr	n)	
	T-A052CH	Contact Tips Cu	0.052"	(1.3mr	n)	
	T-A062CH	Contact Tips Cu	1/16"	(1.6mr	n)	
	T-A072CH	Contact Tips Cu	0.070"	(1.8mr	n)	
	T-A078CH	Contact Tips Cu	5/64"	(2.0mr	n)	
	T-A094CH	Contact Tips Cu	3/32"	(2.4mr	n)	
В	T-A030ZH	Contact Tips CuCrZ	r 0.030"	(0.8mr	n)	
	T-A035ZH	Contact Tips CuCrZ	r 0.035"	(0.9mr	n)	
	T-A039ZH	Contact Tips CuCrZ	r 0.039"	(1.0mr	n)	
	T-A045ZH	Contact Tips CuCrZ	r 0.045"	(1.2mr	n)	
	T-A052ZH	Contact Tips CuCrZ	r 0.052"	(1.3mr	n)	
	T-A062ZH	Contact Tips CuCrZ	r 1/16"	(1.6mr	n)	
3.	DIFFUSE	'R				
	D-ATTH	Gas Diffuser Thread	ed			
4.	NECK IN	SULATOR				
	402-11	Insulator				

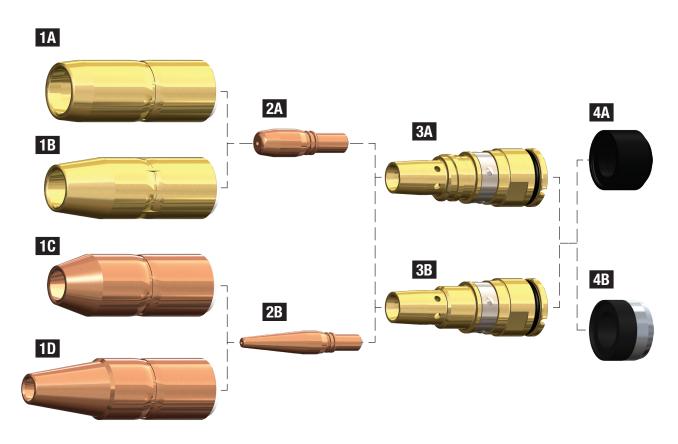
COMPATIBLE WITH ACCULOCK™ S (SMALL)†



1.	NOZZLES		BORE	O.D.	2.	CONTACT	TIPS (CONTINUED)	WIRE SIZE	O.D.				
Α	NS-A5800C	Nozzle Flush	5/8"	0.938"	Α	T-A094CH	Contact Tip Cu	3/32" (2.4mm)	0.350"				
	NS-A5818C	Nozzle 1/8" Rece	ss 5/8"	0.938"		T-A109CH	Contact Tip Cu	7/64" (2.8mm)	0.350"				
	NS-A5800B	Nozzle Flush	5/8"	0.938"		T-A125CH	Contact Tip Cu	1/8" (3.2mm)	0.350"				
	NS-A5818B	Nozzle 1/8" Rece	ss 5/8"	0.938"	В	TT-A023CH	Contact Tip Cu	0.023" (0.6mm)	0.350"				
В	NS-A1200B	Nozzle Flush	1/2"	0.938"		TT-A030CH	Contact Tip Cu	0.030" (0.8mm)	0.350"				
	NS-A1218C	Nozzle 1/8" Rece	ss 1/2"	0.938"		TT-A035CH	Contact Tip Cu	0.035" (0.9mm)	0.350"				
	NS-A1218B	Nozzle 1/8" Rece		0.938"		TT-A039CH	Contact Tip Cu	0.039" (1.0mm)	0.350"				
С	NST-A3800B	Nozzle Flush	3/8"	0.938"		TT-A045CH	Contact Tip Cu	0.045" (1.2mm)					
	NST-A3818B	Nozzle 1/8" Rece	ss 3/8"	0.938"		TT-A052CH	Contact Tip Cu	0.052" (1.3mm)	0.350"				
	NST-A38XTB	Nozzle 1/8" Exten	ision 3/8"	0.938"		TT-A062CH	Contact Tip Cu	1/16" (1.6mm)	0.350"				
D	NST-A1218B	Nozzle 1/8" Rece	ss 1/2"	0.938"	3.	DIFFUSEF	RS SMALL						
<u>2.</u>	CONTACT	TIPS	WIRE SIZE	O.D.	Α	DS-A1	Diffuser Threaded S I	iner					
Α	T-A023CH	Contact Tip Cu	0.023" (0.6mm)	0.350"		DS-A1-C	Diffuser Threaded Co	nventional liner					
	T-A030CH	Contact Tip Cu	0.030" (0.8mm)	0.350"	В	DS-A2	Diffuser Slip-On S line	er					
	T-A035CH	Contact Tip Cu	0.035" (0.9mm)	0.350"		DS-A2-C	Diffuser Slip-On Conv	ventional liner					
	T-A039CH	Contact Tip Cu	0.039" (1.0mm)	0.350"	4.	INSULATO	OR SMALL						
	T-A045CH	Contact Tip Cu	0.045" (1.2mm)	0.350"		4623R	Insulator						
	T-A052CH	Contact Tip Cu	0.052" (1.3mm)	0.350"		4023N	IIISulatoi						
	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"									

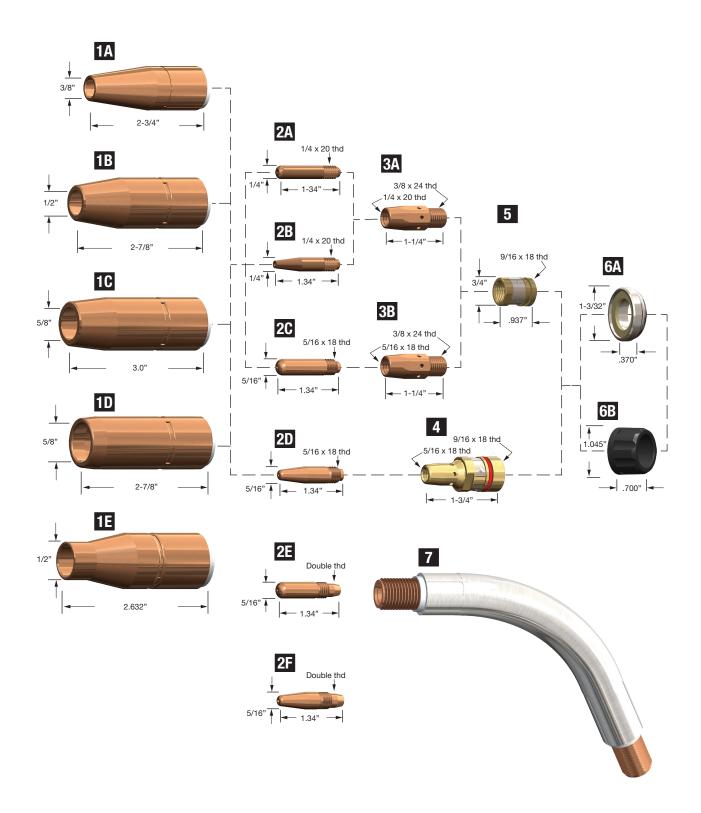


COMPATIBLE WITH ACCULOCK™ S (LARGE)†



1.	NOZZLES		BORE	O.D.	2.	CONTAC	T TIPS (CONTINUI	ED) WI	RE SIZE	O.D.
Α	N-A3400C	Nozzle Flush	3/4"	1.062"	Α	T-A078CH	Contact Tip Cu	5/64"	(2.0mm)	0.350"
	N-A3418C	Nozzle 1/8" Rece	ess 3/4"	1.062"		T-A094CH	Contact Tip Cu	3/32"	(2.4mm)	0.350"
	N-A3414C	Nozzle 1/4" Rece	ess 3/4"	1.062"		T-A109CH	Contact Tip Cu	7/64"	(2.8mm)	0.350"
	N-A3418B	Nozzle 1/8" Rece	ess 3/4"	1.062"		T-A125CH	Contact Tip Cu	1/8"	(3.2mm)	0.350"
	N-A3414B	Nozzle 1/4" Rece	ess 3/4"	1.062"	В	TT-A023CH	Contact Tip Cu	0.023"	(0.6mm)	0.350"
В	N-A5800C	Nozzle Flush	5/8"	1.062"		TT-A030CH	Contact Tip Cu	0.030"	(0.8mm)	0.350"
	N-A5818C	Nozzle 1/8" Rece	ess 5/8"	1.062"		TT-A035CH	Contact Tip Cu	0.035"	(0.9mm)	0.350"
	N-A5814C	Nozzle 1/4" Rece	ess 5/8"	1.062"		TT-A039CH	Contact Tip Cu	0.039"	(1.0mm)	0.350"
	N-A5818B	Nozzle 1/8" Rece	ess 5/8"	1.062"		TT-A045CH	Contact Tip Cu	0.045"	(1.2mm)	0.350"
	N-A5814B	Nozzle 1/4" Rece	ess 5/8"	1.062"		TT-A052CH	Contact Tip Cu	0.052"	(1.3mm)	0.350"
С	N-A1218C	Nozzle 1/8" Rece	ess 1/2"	1.062"		TT-A062CH	Contact Tip Cu	1/16"	(1.6mm)	0.350"
D	NT-A3800C Nozzle Flush		3/8"	1.062"	3.	DIFFUSE	RS LARGE			
2.	CONTACT	TIPS	WIRE SIZE	O.D.	A	D-A1	Diffuser Threaded	S liner		
Α	T-A023CH	Contact Tip Cu	0.023" (0.6mm)	0.350"		D-A1-C	Diffuser Threaded	Conventio	onal liner	
	T-A030CH	Contact Tip Cu	0.030" (0.8mm)	0.350"	В	D-A2	Diffuser Slip-On S I	iner		
	T-A035CH	Contact Tip Cu	0.035" (0.9mm)	0.350"		D-A2-C	Diffuser Slip-On Co	nvention	al liner	
	T-A039CH	Contact Tip Cu	0.039" (1.0mm)	0.350"	4.	INSLII AT	OR LARGE			
	T-A045CH	Contact Tip Cu	0.045" (1.2mm)	0.350"						
	T-A052CH	Contact Tip Cu	0.052" (1.3mm)		Α		Insulator			
	T-A062CH	Contact Tip Cu	1/16" (1.6mm)	0.350"	В	402-11	Insulator			
	T-A072CH	Contact Tip Cu	0.070" (1.8mm)	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[†]

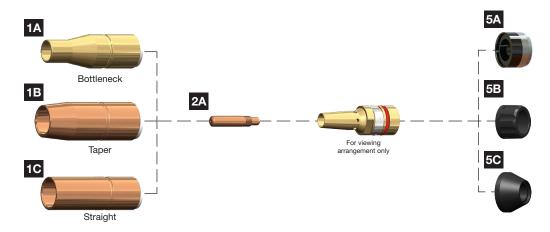
1.	NOZZLE	S - INSULATED		I.D.		2.	CONTAC	T TIPS (C	ONTINUED)			I.D.		
Α	401-4-38	Nozzle Std. Flush	:	3/8" ((09.5mm)			Cont Tip Db		1/16" (1 6mm			
,,	401-4-62	Nozzle 1/8" Stick-Out			15.9mm)		403-20-564			5/64" (
В	401-4-50	Nozzle Std. 1/8" Tip Re			12.7mm)			Cont Tip Db		fe .035 (1) .043		
_	401-4-62	Nozzle Std. 1/8" Tip Re			15.9mm)			Cont Tip Db				0.055		
	401-4-75	Nozzle Std. 1/8"Tip Red			19.1mm)			Cont Tip Db				,		
С	401-5-62	Nozzle H.D. Cu 1/4" Tip	Rec.	5/8" (1	15.9mm)	F		Cont Tip Db				í) .043		
	401-5-75	Nozzle H.D. Cu 1/4" Tip			19.1mm)		403-21-45	Cont Tip Db	I thd Tprd	.045 (1.2mm	í) .055		
	401-7-62	Nozzle H.D. Brass 1/4"	Tip Rec. 5	5/8" (1	15.9mm)	3.	GAS DIF	FUSERS	-					
D						Α			0	<u> </u>				
	401-6-75						404 404-1		r Standard		ıps			
Е	401-48-50	Nozzle Bottleneck 1/8 S		1/2"		В		Diffuser for H.D. Contact Tips ING HEADS (USE WITH H.D. NOZZLES)						
	401-48-62	Nozzle Bottleneck Flush		5/8"		4.	RETAINII	<u>NG HEAD</u>	S (USE WIT	TH H.D. NO	DZZLE	S)		
	401-81-62	Nozzle HD 1/8 STKT		5/8"			404-3	Retaining	Head H.D.					
	401-87-62	Nozzle HD Brass 1/8 ST	KT !	5/8"			404-3A		Head H.D. A	Angled Ho	oles			
2.	CONTAC	CT TIPS			I.D.		404-13 Retaining Head H.D. Straight Holes							
A	403-23	Cont Tip Std.	.023 (0.0	6mm)	.028		404-20	Diffuser M	anual					
	403-30	Cont Tip Std.		8mm)	.037		404-26		ual Tapered	Manual				
	403-35	Cont Tip Std.		9mm)	.043		404-30	Diffuser Re						
	403-1.0	Cont Tip Std.	,	0mm)	.048		404-32		ual Tapered					
	403-45	Cont Tip Std.		2mm)	.055		404-52		ual Tapered	Thread				
	403-52	Cont Tip Std.	.052 (1.3	3mm)	.063		404-55	Retaining	Head					
	403-116	Cont Tip Std.	1/16" (1.		.073	5.	NOZZLE	RETAINE	ERS					
В	403-2-23	Cont Tip Tapered		6mm)	.028		402-3	Nozzle Re	tainer					
	403-2-30	Cont Tip Tapered		8mm)	.037	6	SHOCK I							
	403-2-35	Cont Tip Tapered	•	9mm)	.043	<u>6.</u>								
	403-2-45	Cont Tip Tapered		2mm)	.055	Α	402-5	Shock Was						
_	403-2-52	Cont Tip Tapered		3mm)	.063	В	402-7	Shock Was	her Plastic					
С	403-1-30	Cont Tip H.D.		8mm)	.037	7.	GOOSEN	IECKS						
	403-1-35 403-1-45	Cont Tip H.D. Cont Tip H.D.		9mm) 2mm)	.043 .055		205-60	Gooseneck	60°	200Amp				
	403-1-45	Cont Tip H.D.	3/64" (1		.059		305-60	Gooseneck		300Amp				
	403-1-504	Cont Tip H.D.	.052 (1.3		.063		405-45	Gooseneck		400Amp				
	403-1-116	Cont Tip H.D.	1/16" (1.0		.073		405-60	Gooseneck	60°	400Amp				
	403-1-564	Cont Tip H.D.	5/64" (2.0		.093		505-60	Gooseneck	60°	500Amp				
	403-1-332	Cont Tip H.D.	3/32" (2.4		.110	11	NERS (NOT	SHOWN)	I.D.		O.D.			
	403-7-35	Cont Tip Long Life	•	9mm)	.040		415-35-10	Liner 10'	.035	White		.175		
	403-7-45	Cont Tip Long Life	•	2mm)	.050		415-35-10	Liner 15'	.035	White		.175		
	403-7-52	Cont Tip Long Life		3mm)	.059		415-35-15	Liner 25'	.035	White		.175		
	403-7-116	Cont Tip Long Life	1/16" (1.		.070		415-116-6	Liner 6"	.045-1/16"	Red		.189		
	403-7-1.0	Cont Tip Long Life		0mm)	.045		415-116-10	Liner 10'	.045-1/16"	Red		.189		
D	403-3-30	Cont Tip H.D. Tap		8mm)	.037		415-116-15	Liner 15'	.045-1/16"			.189		
	403-3-35	Cont Tip H.D. Tap		9mm)	.043		415-116-25	Liner 25'	.045-1/16"			.189		
	403-3-40	Cont Tip H.D. Tap		0mm)	.048		415-332-15		3/32"	Black				
	403-3-45	Cont Tip H.D. Tap		2mm)	.055		415-332-25	Liner 25'	3/32"	Black	.118	.189		
	403-3-52	Cont Tip H.D. Tap		3mm)	.063									
	403-3-116	Cont Tip H.D. Tap	1/16" (1.0		.070									
	403-7-35T	Tip Tapered Long Life Tip Tapered Long Life		9mm)	.043 .055									
	403-7-45T 403-7-52T	Tip Tapered Long Life Tip Tapered Long Life	,	2mm) 3mm)	.063									
Е	403-7-521	Cont Tip Dbl thd	,	8mm)	.037									
_	403-20-35	Cont Tip Dbl thd	•	9mm)	.043									
	403-20-1.0			0mm)	.048									
	403-20-45	Cont Tip Dbl thd		2mm)	.055									
		Cont Tip Dbl thd	3/64" (1.		.059									
		Cont Tip Dbl thd	052 (1		063									

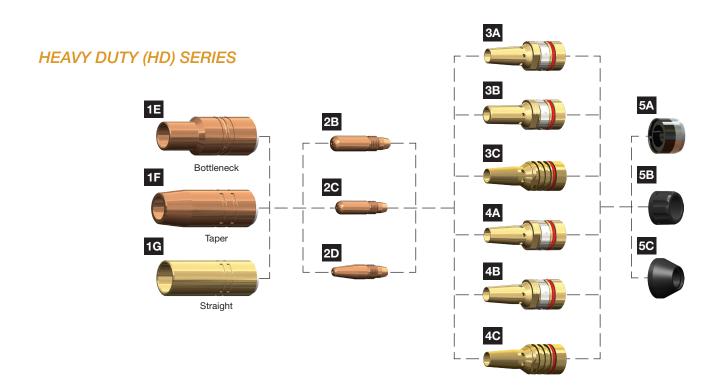
.063

.052 (1.3mm)

COMPATIBLE WITH TOUGH LOCK®†

STANDARD DUTY (SD) SERIES







CONTACT TIPS CONTINUED ON RIGHT

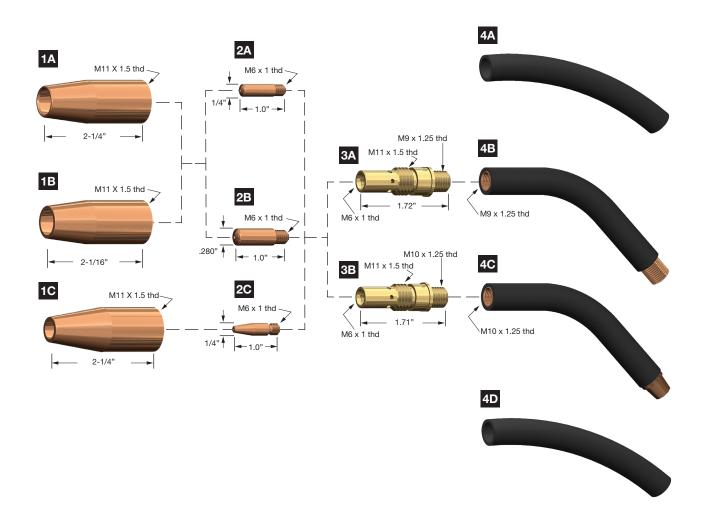
TREGASKISS® STYLE 111

COMPATIBLE WITH TOUGH LOCK®†

1. NOZZLES	I.D. O.D.	2. CONTACT TIPS (CONTINUED)
STANDARD DUTY AIR-COOLED (SLIP-ON) A 401-42-50 use 63-2950-B Brass 1/8" Recess 401-48-50 use 64-2950 Brass 1/8" Stick-or B 401-4-38 use 63-2138 Copper Flush 3/8" 401-44-62 use 63-2762 Copper 1/4" Stick-or 401-4-50 use 63-2150 Copper 1/8" Recess 401-4-62 use 63-2162 Copper 1/8" Recess 401-8-62 use 63-2662 Copper 1/8" Stick-or	1/2" 0.938" ut 1/2" 0.938" 0.938" ut 5/8" 0.938" 1/2" 0.938" 1/2" 0.938" 5/8" 0.938" ut 5/8" 0.938"	HD TAPERED TIPS D 403-21-30 .030", Tapered (0.8 mm) .037" 403-21-35 .035", Tapered (0.9 mm) .043" 403-21-45 .045", Tapered (1.2 mm) .055" 403-21-52 .052", Tapered (1.3 mm) .063" All contact tips come in packages of 10. 3. RETAINING HEADS/DIFFUSERS
401-8-62 use 63-2662 Copper 1/8" Stick-or C 401-4-75 use 63-2175 Copper 1/8" Recess STANDARD DUTY AIR-COOLED (THREAD-ON) D 401-18-62 use 63-2662-T Copper 1/8" Stick-or HEAVY DUTY (HD) AIR-COOLED (SLIP-ON) E 401-48-62 use 64-2962 Copper Flush	3/4" 0.938"	SEMI-AUTOMATIC A 404-20 Heavy Duty Single Taper B 404-26 Heavy Duty Dual Taper C 404-52 Heavy Duty Threaded 4. RETAINING HEADS/DIFFUSERS
401-49-62 use 64-2962-S Copper 1/8" Stick-or F 401-5-62 use 64-2562 Copper 1/4" Recess 401-5-75 use 64-2575 Copper 1/4" Recess 401-6-50 use 65-2550 Copper 1/8" Recess 401-6-62 use 65-2562 Copper 1/8" Recess 401-6-75 use 65-2575 Copper 1/8" Recess	ut 5/8" 1.062" 5/8" 1.062" 3/4" 1.062" 1/2" 1.062" 5/8" 1.062" 3/4" 1.062"	ROBOTIC A 404-30 Heavy Duty Single Taper B 404-32 Heavy Duty Dual Taper C 404-52 Heavy Duty Threaded All heads/diffusers come in packages of 5. 5. NECK INSULATORS
401-71-62 use 63-2362 Brass 1/8" Recess 401-7-62 Brass 1/4" Recess 401-7-75 use 65-2375 Brass 1/8" Recess 401-81-62 use 65-2662 Copper 1/8" Stick-or 401-87-62 use 65-2362 Brass 1/8" Stick-or 401-88-62 use 65-2862 Brass Flush G 401-7-87 use 64-2387 Brass 1/4" Recess HEAVY DUTY AIR-COOLED (THREAD-ON) H 401-18-62 use 65-2562-T Copper 1/8" Recess HEAVY DUTY WATER-COOLED I 601-5-62 Nickel-Plated Bronze 1/4" Recess All nozzles come in packages of 2.	3/4" 1.106" 5/8" 1.106" ut 5/8" 1.062" ut 5/8" 1.062" 5/8" 1.106" 7/8" 1.106" 5/8" 1.062"	A 402-11 use 63-6202-HD Neck Insulator B 402-7 use 63-6103 Neck Insulator C 10012 Neck Insulator
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 .050"		
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" 403-20-332 3/32" (2.4 mm) .110"		

112 TWECO® STYLE

COMPATIBLE WITH # 1[†]





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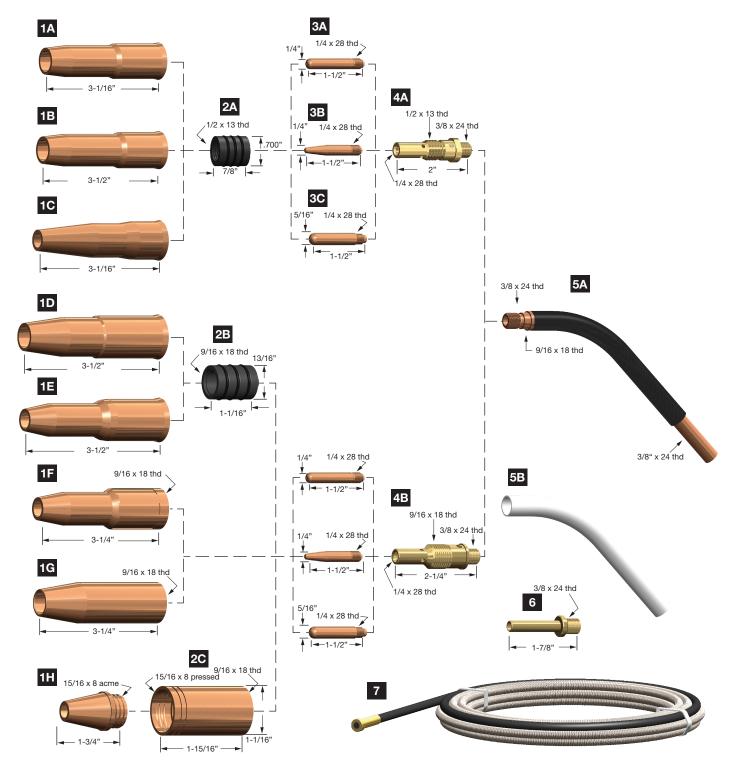


COMPATIBLE WITH # 1[†]

<u>1.</u>	NOZZLES)			I.D.		
Α	21-37	Nozzle Insul. 1/8" R	eces	SS	3/8"	(09.	5mm)
	21-50	Nozzle Insul. 1/8" R	eces	ss	1/2"	(12.7	7mm)
	21-62	Nozzle Insul. 1/8" R	eces	SS	5/8"		9mm)
В	21-37-F	Nozzle Insulated Flu			3/8"	•	5mm)
	21-50-F	Nozzle Insulated Flu			1/2"		7mm)
_	21-62-F	Nozzle Insulated Flu			5/8"		9mm)
С	21T-37	Nozzle Tapered 1/8'	' Re	cess	3/8"	(09.	5mm)
<u>2.</u>	CONTACT						I.D.
Α	11-23	Contact Tip		023	•	mm)	.028
	11-30	Contact Tip		030		mm)	
	11-35	Contact Tip		035		mm)	.043
	11-40	Contact Tip		040	•	mm)	.048
D	11-45	Contact Tip		045		mm)	
В	11H-30 11H-35	Contact Tip H.D. Contact Tip H.D.		030		mm)	.037
	11H-40			035 040	•	mm)	
	11H-45	Contact Tip H.D. Contact Tip H.D.)40)45		mm) mm)	.055
	11AH-364	Contact Tip H.D.		/64"Al			
С	11T-23	Contact Tip Tapered)23	•	mm)	
O	11T-30	Contact Tip Tapered		030		mm)	.037
	11T-35	Contact Tip Tapered). i	035		mm)	.043
	11T-40	Contact Tip Tapered		040	•	mm)	
	11T-45	Contact Tip Tapered		045		mm)	.055
3.	GAS DIFF				`	,	
Α	35-50	Gas Diffuser (Mini-N	/lig)				
В	51	Gas Diffuser (#1)	0,				
	51-23	Gas Diffuser (#1) .02	23				
<u>4.</u>	GOOSENE	ECKS & INSULA	4 <i>TI</i> (ON			
Α	35-70	Conductor Tube Ins				ig)	
В	35-60-45	Conductor Tube 45°					
_	35-60-60	Conductor Tube 60°			1)		
С	61-45	Conductor Tube 45					
	61-60	Conductor Tube 60°					
D	61-180 71	Conductor Tube 186			1.		
D		Conductor Tube Ins	uiai)		0.0
	NERS (NOT S	SHOWN)		I.D.			<u>O.D.</u>
	NI-MIG	Lines Aces	45,	000		000	100
Α	23-40-15	Liner Assy.	15'	.023 .030-			.123
	35-40-15 35-40-20	Liner Assy.	20'				
	35TF-40-10	Liner Assy. Liner Assy. Teflon™					
	35TF-40-15	Liner Assy. Teflon™		.035 .035			.148 .148
	45-40-15	Liner Assy. Tellon	15'	.035			.138
	45TF-40-10	Liner Assy. Teflon™					.156
	45TF-40-15	Liner Assy. Teflon™		.045			.156
#1		-					
В	42-23-15	Liner Assy.	15'	.023			.123
	42-3035-15	Liner Assy.	15'	.030-			
	42-3035-25	Liner Assy.	25'	.030-			
	42-4045-15	Liner Assy.	15'				
	42-4045-25	Liner Assy.	25°				
	42IN-0040-15	Liner Assy. Nylon	15'	.035-	.045	.000	.148

114 TWECO® T-200® STYLE

2 COMPATIBLE WITH TWECO 200AMP CONSUMABLES[†]





14H-40

14H-45

14AH-364

14AH-116

Contact Tip H.D.

Contact Tip H.D.

Contact Tip H.D.

Contact Tip H.D.

.040

.045

(1.0mm)

(1.2mm)

3/64 Al. (1.2mm)

1/16 Al. (1.6mm)

.048

.05

.059

.081

TWECO® T-200® STYLE 115

2 COMPATIBLE WITH TWECO 200AMP CONSUMABLES[†]

1.	NOZZLE	S		I.D.		4	GAS DIFF	FUSERS			
A	22-50	Nozzle Adjustable		1/2"	(12.7mm)	A	52	Gas Diffuser (#2)			
A	22-62	Nozzle Adjustable		5/8"	(12.711111) (15.9mm)	^	52-23	Gas Diffuser (#2)	.023	,	
В	22-37-SS	Nozzle Adjustable Nozzle Adj. Short St	ton	3/8"	(09.5mm)	В	52FN	Gas Diffuser (#2)	.020	'	
Ъ	22-50-SS	Nozzle Adj. Short St		1/2"	(12.7mm)			` '			
	22-62-SS			5/8"		<u>5.</u>	GOOSEN				
_	24T-37-SS	Nozzle Adj. Short St		3/8"	(15.9mm)			IMBER FOR JACKETED GOOS			
C		Nozzle Adj. Tapered	1 3.3.		(09.5mm)	ST		SENECK ON MIG GUN		METAL JACI	KETED
D	24A-50	Nozzle Adjustable		1/2" 5/8"	(12.7mm)	Α	62A-45	Conductor Tube 45			
	24A-62	Nozzle Adjustable			(15.9mm)		62A-60	Conductor Tube 60°)		
_	24A-75	Nozzle Adjustable		3/4"	(19.1mm)		62A-80	Conductor Tube 80°)		
Е	24A-37-SS	Nozzle Adj. Short St		3/8"	(09.5mm)		62A-180	Conductor Tube 18	0°		
	24A-50-SS	Nozzle Adj. Short St		1/2"	(12.7mm)	В	72A	Conductor Tube Ins	ulati	on	
	24A-62-SS	Nozzle Adj. Short St		5/8"	(15.9mm)	6.	GAS HOS	SE NIPPLE			
	24A-75-SS	Nozzle Adj. Short St		3/4"	(19.1mm)	0.					
_		Nozzle Adj. Tapered	1 5.5.	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)	7.	LINERS			I.D.	O.D.
	23-62	Nozzle Insulated		5/8"	(15.9mm)		44-116-15	Liner Assy.	15'	1/16"	.076 .188
	23-75	Nozzle Insulated	_	3/4"	(19.1mm)		44-116-25	Liner Assy.		1/16"	.076 .188
	23H-50	Nozzle Insulated H.		1/2"	(12.7mm)		44-3545-15	Liner Assy.	15'	.035045	.066 .188
	23H-62	Nozzle Insulated H.I		5/8"	(15.9mm)		44-3545-25	Liner Assy.	25'	.035045	
	23H-75	Nozzle Insulated H.		3/4"	(19.1mm)		44-564-15	Liner Assy.	15'	5/64"	.098 .188
_	23T-37	Nozzle Insulated Ta	•	3/8"	(09.5mm)		44-564-25	Liner Assy.	25'		.098 .188
G	23-37-F	Nozzle Insulated Flu		3/8"	(09.5mm)		44N-116-15			1/16"	.100 .185
	23-50-F	Nozzle Insulated Flu		1/2"	(12.7mm)			Liner Assy. Nylon	15'	.035045	.066 .188
	23-75-F	Nozzle Insulated Flu		3/4"	(19.1mm)			Liner Assy. Teflon™		1/16"	.106 .185
	23T-37-F	Nozzle Insul. Tapere			(09.5mm)		4411 110 10	Ellici Assy. Ichon	10	1710	.100 .100
Н	24CT-37-S	Nozzle Coarse Thre		3/8"	(09.5mm)						
	24CT-50-S	Nozzle Coarse Thre		1/2"	(12.7mm)						
	24CT-62-S	Nozzle Coarse Thre		5/8"	(15.9mm)						
2	24CT-75-S	Nozzle Coarse Thre	ad	3/4"	(19.1mm)						
<u>2.</u>	INSULAT			. NI	-1						
A	32	Insulator (#2) for Ad									
В	34A	Insulator (#2,3,4) for									
С	34CT	Insulator (#2,3,4) for									
D	34FN	Insulator (#2,3,4) for	r Fine II	ומ ועס							
<u>3.</u>	CONTAC				<u>I.D.</u>						
Α	14-23		.023	(0.6n							
	14-30		.030	(0.8n	,						
	14-35		.035	(0.9n							
	14-40		.040	(1.0n							
	14-45	Contact Tip	.045	(1.2n							
	14-52		.052	(1.3n							
_	14A-364		3/64 AI.								
В	14T-23		.023	(0.6n	,						
	14T-30		.030	(0.8n	,						
	14T-35		.035	(0.9n							
	14T-40		.040	(1.0n							
	14T-45		.045	(1.2n							
С	14H-30		.030	(0.8n							
	14H-35		.035	(0.9n)							
	144 40	Contact Tip H D	040	/1 0m	m) 049						

116 TWECO® T-200/300 MIG GUN® STYLE

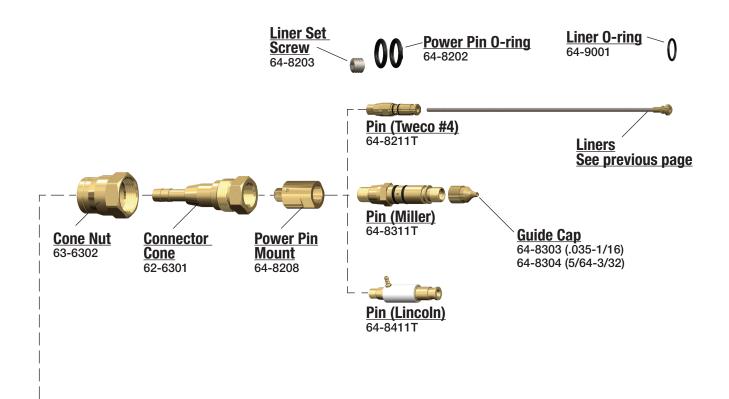
COMPATIBLE WITH TWECO 200/300 AMP REPLACEMENT PARTS†





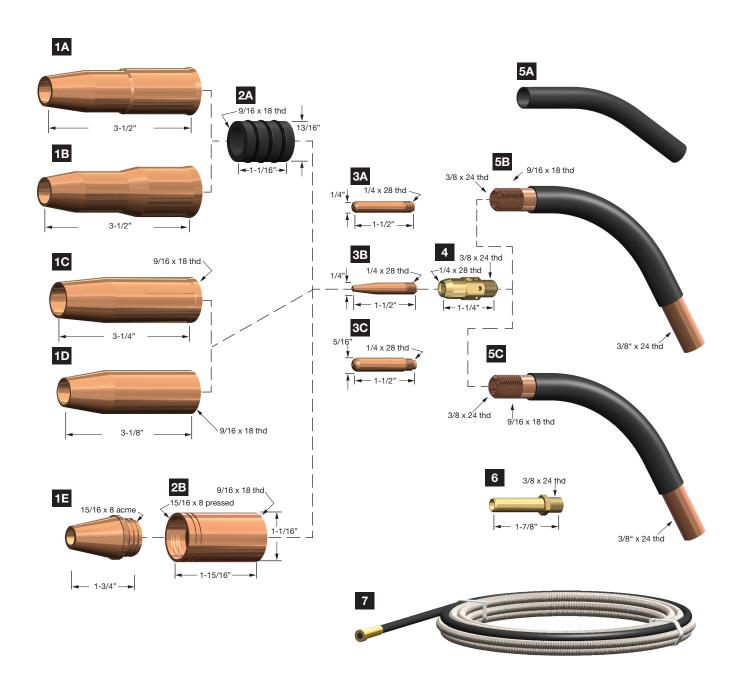
TWECO® T-200/300 MIG GUN® STYLE 117

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



118 TWECO® T-400 MIG GUN® STYLE

COMPATIBLE WITH TWECO 400AMP[†]



I.D.

.037

.043

.048

.055

.063

.073

.093

.110

.059

.078

I.D. O.D.



14-23

14-30

14-35

14-40

14-45

14-52

14-116

14-564

14A-364

14A-116

14T-30

14T-35

14T-40

14T-45

14T-52

14T-116

B 14T-23

+ Available with spatter resis

Contact Tip

Contact Tip

Contact Tip

Contact Tip

Contact Tip

Contact Tip

Contact Tip

Contact Tip

Contact Tip

Contact Tip

Contact Tip Tprd

.023

.030

.035

.040

.045

.052

1/16"

5/64"

.023

.030

.035

.040

.045

.052

1/16"

1/16"AI

(0.6mm)

(0.8mm)

(0.9mm)

(1.0mm)

(1.2mm)

(1.3mm)

(1.6mm)

(2.0mm)

(1.6mm)

(0.6mm)

(0.8mm)

(0.9mm)

(1.0mm)

(1.2mm)

(1.3mm)

(1.6mm)

3/64"Al. (1.2mm)

.028

.037

.043

.048

.055

.063

.073

.093

.059

.081

.028

.037

.043

.048

.055

.063

.073

TWECO® T-400 MIG GUN® STYLE 119

COMPATIBLE WITH TWECO 400AMP[†]

<u>1.</u>	NOZZLES		I.D.	<u>3.</u>	CONTA	CT TIPS (CONTIL	NUED)		
Α	24A-50	Nozzle Adjustable	1/2" (12.7mm)	С	14H-30	Contact Tip H.D.	.030	(0.8mn	n)
	24A-62	Nozzle Adjustable	5/8" (15.9mm)		14H-35*	Contact Tip H.D.	.035	(0.9mn	n)
	24A-75	Nozzle Adjustable	3/4" (19.1mm)		14H-40*	Contact Tip H.D.	.040	(1.0mn	n)
	24AH-50	Nozzle Adj. Heavy-Duty	1/2" (12.7mm)		14H-45*	Contact Tip H.D.	.045	(1.2mn	n)
	24AH-62	Nozzle Adj. Heavy-Duty	58" (15.9mm)		14H-52*	Contact Tip H.D.	.052	(1.3mn	n)
	24AH-75	Nozzle Adj. Heavy-Duty	3/4" (19.1mm)		14H-116*	Contact Tip H.D.	1/16"	(1.6mn	n)
	24A-37-SS	Nozzle Adj. Short Stop	3/8" (09.5mm)		14H-564*	Contact Tip H.D.	5/64"	(2.0mn	n)
	24A-50-SS	Nozzle Adj. Short Stop	1/2" (12.7mm)		14H-332*	Contact Tip H.D.	3/32"	(2.4mn	n)
	24A-62-SS	Nozzle Adj. Short Stop	5/8" (15.9mm)			Contact Tip H.D.	364"AI.	(1.2mn	
	24A-75-SS	Nozzle Adj. Short Stop	3/4" (19.1mm)		14AH-116	Contact Tip H.D.	1/16"Al.	(1.6mn	n)
В	24AH-50-SS		1/2" (12.7mm)	4.	GAS DI	FFUSERS			
	24AH-62-SS 24AH-75-SS	Nozzle Adj. H.D. Short Stop Nozzle Adj. H.D. Short Stop	5/8" (15.9mm) 3/4" (19.1mm)		54A	Gas Diffuser			
	24AT-37-SS	Nozzle Adj. Tapered S.S.	3/8" (09.5mm)	5.	GOOSE	NECKS			
С	23-37	Nozzle Insulated	3/8' (09.5mm)	_		NUMBER FOR JACKETED	GOOSENECK	S (I.E. 64J-6	30)
	23-50	Nozzle Insulated	1/2" (12.7mm)			IECK ON MIG GUNS IS MET		•	,
	23-62	Nozzle Insulated	5/8" (15.9mm)	Α	74A	Conductor Tube	Insulation	n	
	23-75	Nozzle Insulated	3/4" (19.1mm)	В	63-45	Conductor Tube	45° For	#3	
	23H-50	Nozzle Insul. Heavy-Duty	1/2" (12.7mm)		63-60	Conductor Tube	60° For	#3	
	23H-62	Nozzle Insul. Heavy-Duty	5/8" (15.9mm)		63-80	Conductor Tube	80° For	#3	
	23H-75	Nozzle Insul. Heavy-Duty	3/4" (19.1mm)		63-180	Conductor Tube	180° Fo	r #3	
	23T-37	Nozzle Insulated Tapered	3/8" (09.5mm)	С	64A-45	Conductor Tube			
D	23-37-F	Nozzle Insulated Flush	3/8" (09.5mm)		64A-60	Conductor Tube			
	23-50-F	Nozzle Insulated Flush	1/2" (12.7mm)		64A-80	Conductor Tube	80° For	#4	
	23-62-F	Nozzle Insulated Flush	5/8" (15.9mm)		64A-180	Conductor Tube	180° Fo	r #4	
	23-75-F	Nozzle Insulated Flush	3/4" (19.1mm)	D	64N	Nipple			
	23T-37-F	Nozzle Insul. Tapered Flush	3/8" (09.5mm)		63J-45	Jacketed Goose	: Neck		
Е	24CT-37-S	Nozzle Coarse Thread	3/8" (09.5mm)	6	GAS HO	SE NIPPLE			
	24CT-50-S 24CT-62-S+	Nozzle Coarse Thread Nozzle Coarse Thread	1/2" (12.7mm) 5/8" (15.9mm)		64N nipple				
	24CT-75-S+	Nozzle Coarse Thread	3/4" (19.1mm)	7	LINERS			,	ח
			3/4 (19.111111)	/.					D.
<u>2.</u>	INSULATO	ORS			44-116-15	Liner Assy.	15' 1/1		.07
Α	34A	Insulator for Adjustable Noz	zles		44-116-25	Liner Assy.	25' 1/1		.07
В	34CT	Insulator for Coarse Thread	ed Nozzles		44-3545-15	,		35045	
3.	CONTACT	T TIPS	I.D.		44-3545-25 44-564-15	5 Liner Assy. Liner Assy.	25' .03 15' 5/6	35045 84"	.06
	= = = = = = = = = = = = = = = = = = = =				44-304-13	Litter Assy.	10 0/0	J 4	.บฮ

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.	25'	5/64"	.098 .188
44N-116-15	Liner Assy. Nylor	า 15'	1/16"	.100 .185
44N-3545-15	Liner Assy. Nylor	า 15'	.035045	.066 .188
44TF-116-15	Liner Assy, Teflor	า™15'	1/16"	.106 .185

120 TWECO® T-400 MIG GUN® STYLE

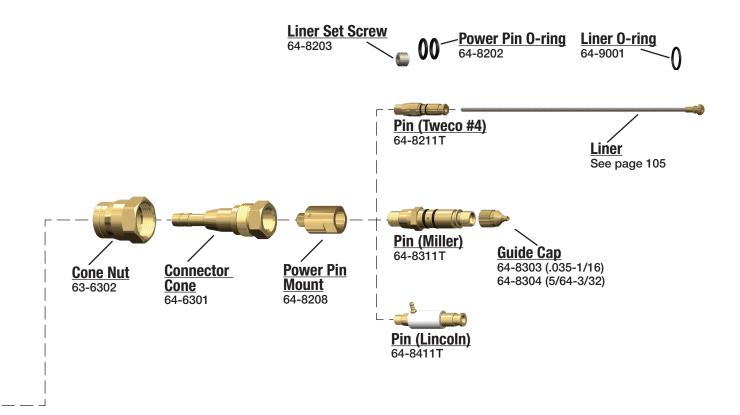
COMPATIBLE WITH TWECO 400 AMP REPLACEMENT PARTS[†]





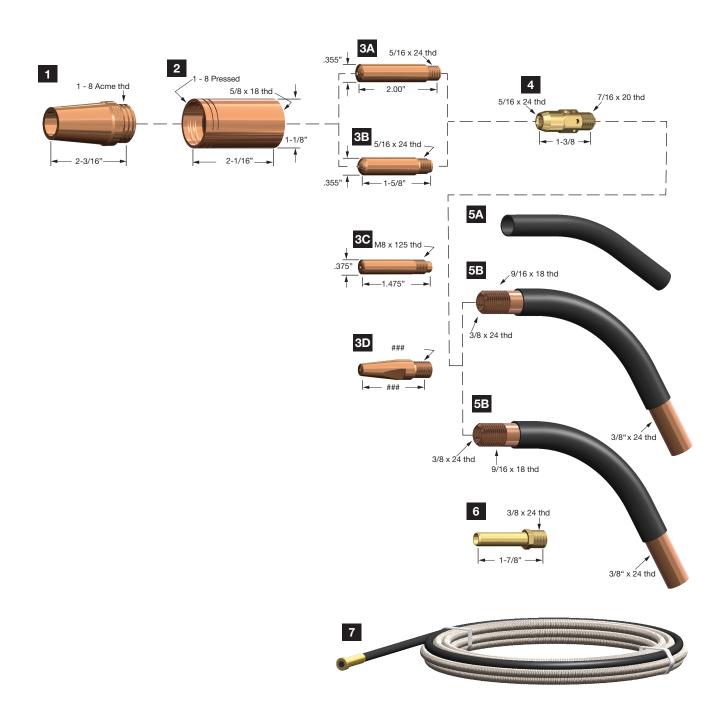
TWECO® T-400 MIG GUN® STYLE 121

COMPATIBLE WITH TWECO 400 AMP REPLACEMENT PARTS[†]



122 TWECO®STYLE

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



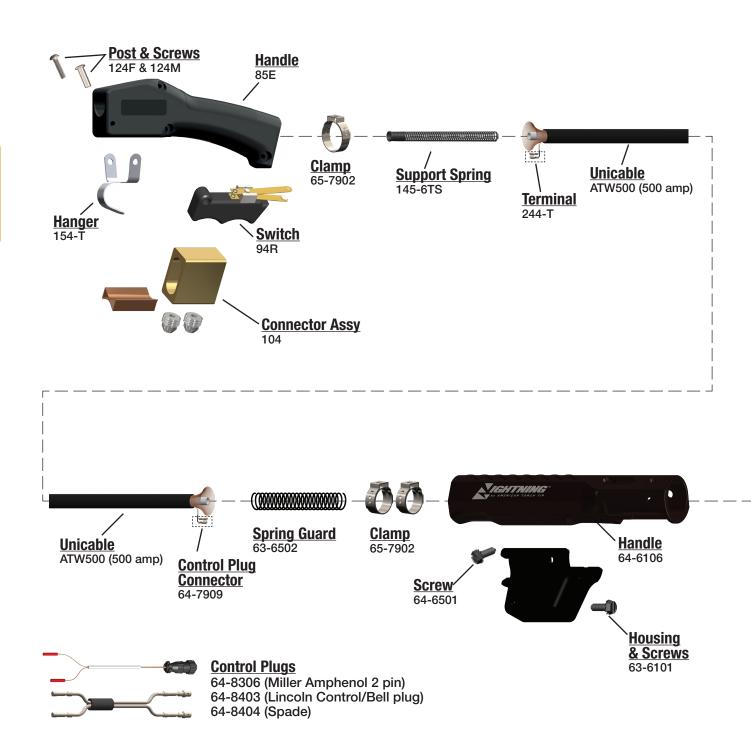


5-6 COMPATIBLE WITH TWECO 500 AMP CONSUMABLES†

1. NOZZLI	S	I.D.	4.	GAS D	<i>IFFUSERS</i>		
25CT-50 25CT-62 25CT-75	Nozzle Coarse Thread Nozzle Coarse Thread Nozzle Coarse Thread	1/2" (12.7 5/8" (15.9	7mm) 9mm) 1mm)	55 Ga 55H Ga	as Diffuser - Use with a	45H-332, 45H-76	4 Liners
2. INSULA	TORS		5.	GOOSI	ENECKS		
35CT	Nozzle Insulator Coarse	Thread			RT NUMBER FOR JACKETED G	•))
3. CONTA	CT TIPS		I.D. STA	NDARD GOOSE 65-45	ENECK ON MIG GUNS IS META Conductor Tube 45		
A 15AH-364 15H-35 15H-45 15H-52 15H-116 15H-564 15H-764 15H-764 15H-18 B 15HFC-35 15HFC-45 15HFC-52 15HFC-116 15HFC-564		4" Al. (1.2mm) 5 (0.9mm) 6 (1.2mm) 2 (1.3mm) 6" (1.6mm) 4" (2.0mm) 2" (2.4mm) 4" (2.8mm) 5 (0.9mm) 5 (0.9mm) 6 (1.2mm) 2 (1.3mm) 6 (1.6mm) 4" (2.0mm) 2" (2.4mm)	.059 .043 .055 .063 .073 .093 .110 .120 .144 .043 .055 B .063 .073 .093	65-60 65-80 65-180 65-45-3R 65-60-3R 65-80-3R 65EX-45 65EX-60 74A GAS HO 64N5 nipp	Conductor Tube 60 Conductor Tube 80 Conductor Tube 18 Conductor Tube 45 Conductor Tube 60 Conductor Tube 80 Conductor Tube Ex Conductor Tube Ex Conductor Tube Ex Conductor Tube 45 Conductor Tube 60 Insulation CSE NIPPLE ple S	0° 5" radius bend 0° 5" radius bend 0° 5" radius bend 0° 3" radius bend 0° 3" radius bend 0° 3" radius bend dension 45° dension 60° 0° Jacketed 0° Jacketed	O.D.
15HFC-18 C 16-116 16-564 16-332 16-764 16S-35 16S-45 16S-52 16S-116 16S-332 16S-564 16S-764 16AS-364 16AS-316 16RZ-35 16RZ-45 16RZ-116 D 16ST-35 16ST-45 16ST-52 16ST-116 16RZT-35 16RZT-45 16RZT-35	Con. Tip H.D. F-C Contact Tip Long Life Contact Tip Tapered	" (3.2mm) 6" 4" 2" 4" 5" 6" 2" 4" 4" 4" 6"	.144	45-116-18 45-116-28 45-3545-1 45-3545-2 45-564-18 45-564-28 45H-764-45N-116-45N-3545 65-4725 65-4715	5 Liner Assy. 25' 15 Liner Assy. 15' 25 Liner Assy. 25' 5 Liner Assy. 15' 5 Liner Assy. 25' 115 Liner Assy. 15' 115 Liner Assy. 15' 115 Liner Assy. 15'	1/16" .076 .035045 .066 .035045 .066 5/64" .098 5/64" .098 3/32" .124 7/64" .130	.188 .188 .148 .238 .238 .268 .268 .185 .188

124 TWECO® T-500 MIG GUN® STYLE

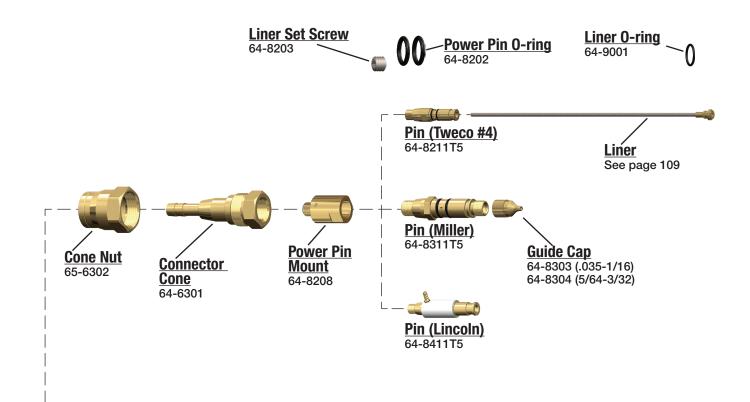
T-500 COMPATIBLE WITH TWECO 500AMP REPLACEMENT PARTS[†]





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

AMERICAN AT

*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)

OX XXXX (GCC NGZZIC V	Selector Chart on flext pa	90)					
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	O.D. /I ongth	Tin Location				
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				

128 TWECO®STYLE

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



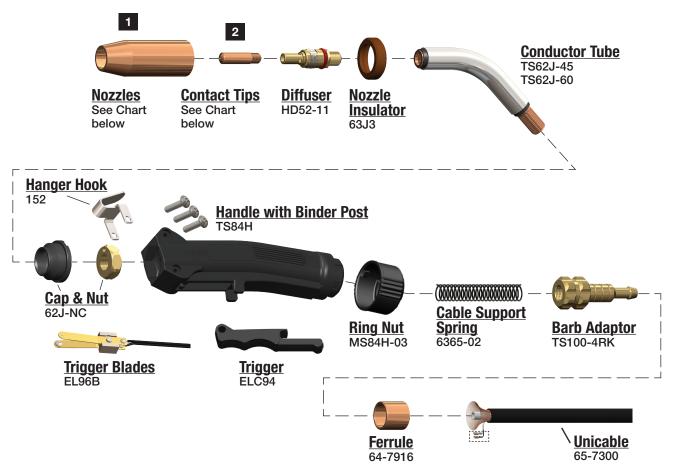
SPITFIRE & SPRAY MASTER GUN PART NUMBERING SYSTEM

TS	4	15	<u>M</u>	116
GUNS TS - SpitFire MS - SprayMaster	AMPERAGE 1 - 180 2 - 250 3 - 350 4 - 450	LENGTH 10 15 20 25	ADAPTER L - Lincoli M - Miller E - Euro X - Tweco	52052 116 - 1/16 564 - 5/64

1.	NOZZ	LES		I.D.		_					
	21-37	Nozzle Insul. 1/8	3" Recess	3/8"	(09.5mm))					
	21-50	Nozzle Insul. 1/8	3" Recess	1/2"	(12.7mm))					
	21-62	Nozzle Insul. 1/8	3" Recess	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" Rece	ess 3/8"	(09.5mm))					
2.	CONT	ACT TIPS			I.D.	<u>. </u>					
	11-23	Contact Tip	.023 ((0.6mm)	.028	LIMEDO					
	11-30	Contact Tip	.030 ((0.8mm)	.037	LINERS					<i>I.D.</i>
	11-35	Contact Tip	.035 ((0.9mm)	.043	42-3035-15	Liner Assy.	15'	.023035	.053	.15
	11-40	Contact Tip	.040 ((1.0mm)	.048	42-4045-15	Liner Assy.	15'	.040045	.059	.156
	11-45	Contact Tip	.045 ((1.2mm)	.055	42-4045-25	Liner Assy.	25'	.040045	.059	.156



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

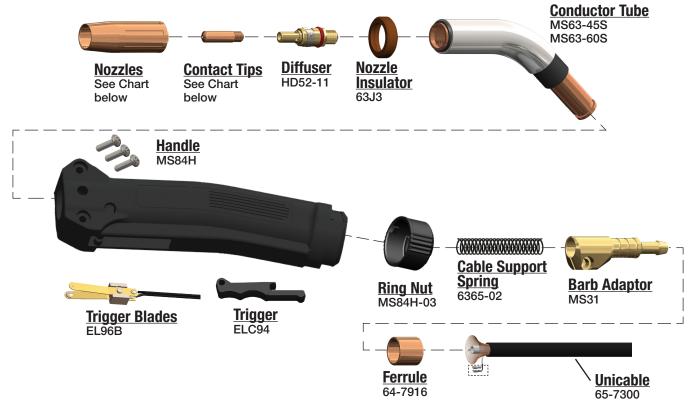


STACK-UP CONTINUED ON PAGE 128

1. NOZZL	ES			I.D.	
HD22-37	Nozzle S	td. 1/8'	' Recess	3/8" (09	9.5mm)
HD22-50	Nozzle S	td. 1/8'	'Recess	1/2" (12	2.7mm)
HD22-62	Nozzle S	td. 1/8'	'Recess	5/8" (15	5.9mm)
HD22-37F	Nozzle Fl	lush		3/8" (09	9.5mm)
HD22-50F	Nozzle Fl	lush		1/2" (12	2.7mm)
HD22-62F	Nozzle Fl	lush		5/8" (15	5.9mm)
2. CONTA	CT TIPS				I.D.
11H-35	Contact 7	Tip H.D	035	(0.9mm)	.043
11H-40	Contact 7	Tip H.D	040	(1.0mm)	.048
11H-45	Contact 7	Tip 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 Assv.	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. NOZZLI	ES			I.D	_	
A HD22-37	Nozzle Std	. 1/8"	Recess	3/8'	' (09.5	5mm)
HD22-50	Nozzle Std	. 1/8"	Recess		' (12.7	
HD22-62	Nozzle Std	. 1/8"	Recess	5/8'	' (15.9	9mm)
B HD22-37F	Nozzle Flus	sh		3/8'	' (09.5	5mm)
HD22-50F	Nozzle Flus	sh		1/2'	' (12.7	7mm)
HD22-62F	Nozzle Flus	sh		5/8'	' (15.9	9mm)
2. CONTA	CT TIP					I.D.
11-23	Contact Tip)	.023 (0.6mm)	.028
11H-30	Contact Tip)	.030 (0.8mm)	.038
11H-35	Contact Tip)	.035 (0.9mm)	.048
11H-40	Contact Tip)	.040 (1.0mm)	.038
11H-45	Contact Tip)		1.2mm		.055
11H-364	Contact Tip)	3/64" (1.2mm)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'	.035-	.045	.066	.188
42-3545-25	Liner Assy.	25'	.035-	.045	.066	.188



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



15

25'

15'

25'

1/16"

1/16"

.035-.045

.035-.045

Liner Assy.

Liner Assy.

Liner Assy.

Liner Assy.

I.D.

.076

.076

.066

.066

<u>O.D.</u> .188

.188

.188

.188

LINERS

44-116-15

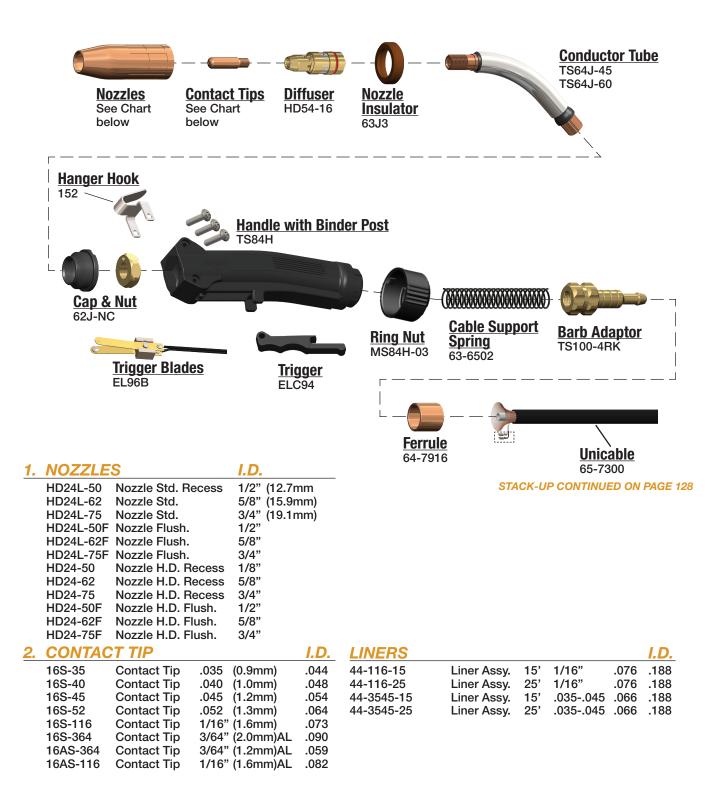
44-116-25

44-3545-15

44-3545-25

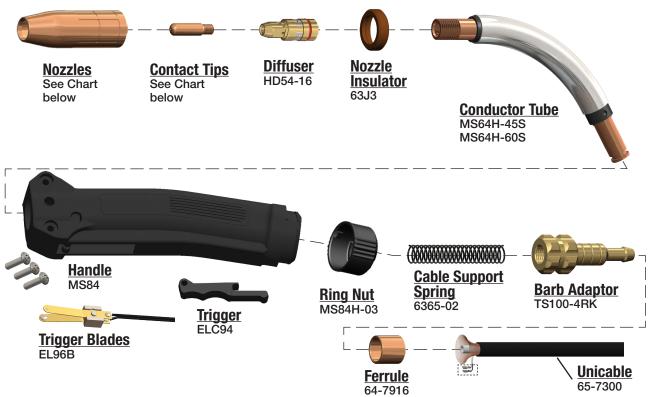
132 TWECO® STYLE

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

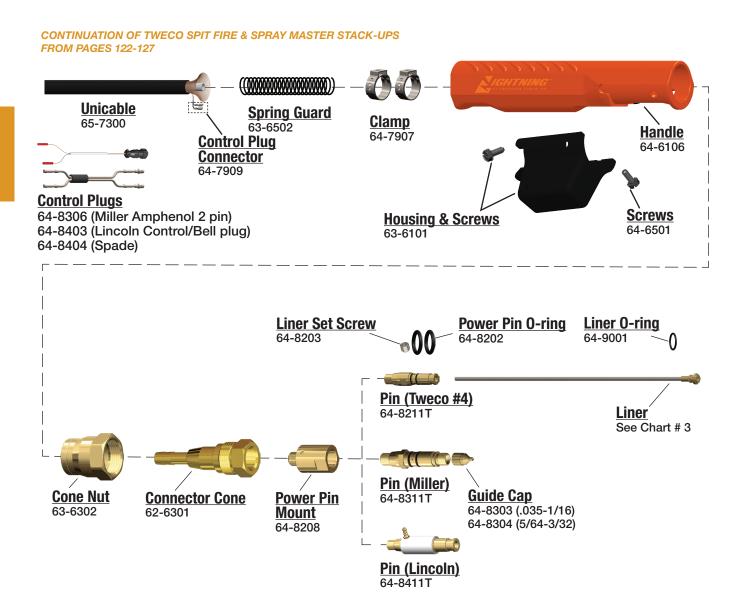


STACK-UP CONTINUED ON PAGE 128

1. NOZZLES	6		I.D.		
HD24L-50	Nozzle Std. F	Recess	1/2" (12.7mm)	
HD24L-62	Nozzle Std.		5/8" (⁻	15.9mm)	
HD24L-75	Nozzle Std.			19.1mm)	
HD24L-62F	Nozzle Flush		5/8"	_	
HD24-50	Nozzle H.D. I	Recess	1/8"		
HD24-62	Nozzle H.D. I	Recess	5/8"		
HD24-62F	Nozzle H.D. I	Flush	5/8"		
HD24-75F	Nozzle H.D. I	Flush	3/4"		
2. CONTAC	T TIP			I.D.	
16S-35	Contact Tip	.035	(0.9mm)	.044	
16S-40	Contact Tip	.040	(1.0mm)	.048	
16S-45	Contact Tip	.045	(1.2mm)	.054	
16S-52	Contact Tip	.052	(1.3mm)	.064	
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	
LINERS					
	I iner Assv	15' 1	/16"	076	188
	,				
44-3545-25			35045	.066	.188
16S-35 16S-40 16S-45 16S-52 16S-116 16S-564 16AS-364 16AS-116 LINERS 44-116-15 44-116-25 44-3545-15	Contact Tip Contact Tip Contact Tip Contact Tip Contact Tip Contact Tip Contact Tip Contact Tip Contact Tip Cintact Tip	.040 .045 .052 1/16" 5/64" 3/64" 1/16" 15' 1, 25' 1,	(1.0mm) (1.2mm) (1.3mm) (1.6mm) (2.0mm) (1.2mm)AL (1.6mm)AL	.044 .048 .054 .064 .073 .093 .059 .082	.188 .188 .188

134 TWECO® STYLE

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



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inaex

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