

ESAB Plasma Torches



Sales Edition

SALES/ENGINEERING TIPS

Editorial Notes:

Through the years we have developed new torches and made improvements to old consumables. Today you will find several options for a single item like an electrode. This can be very confusing for the new salesperson so I hope the following will help you understand how to use this book. I have made a few additions and deletions but have tried to stay with most of the part numbers as shown in the instruction literature.

Oxygen Electrodes:

- The XL electrode is the old second generation electrode that gives half the life of our UL electrode and half the life of our competitor's electrode. If you have a customer using the XL electrode, the competition can offer their electrode that gives twice the life at the same cost. If you are trying to take the electrode business away from the competition, you must use the UL electrode to equal their performance.
- The 360 amp electrode was developed after the 250 amp electrode and offers several advantages. It gives squarer and more consistent cut quality, improved arc starting, and longer life. You can replace the 250 amp electrode with the 360 amp electrode in all of our torches. (PT-15XL, PT-19XL, PT-19XLS, and PT-600)

PT-19XLS vs PT-600:

The PT-600 was developed to improve cut quality and consistency. It is not repairable like the PT-19XLS but the Torch For Life Program has removed this objection.

- The PT-600 nozzles were designed to improve cut quality and can be used in the PT-19 family of torches as well.
- The electrodes for the PT-19XLS and the PT-600 are different. If you have a customer using both of these torches, you can put the PT-600 electrode holder in the PT-19XLS torch and use the PT-600 electrode in both torches.
- The literature for the PT-600 does not show the two-piece nozzles because the two-piece nozzle will not give the accuracy and consistency of a one-piece nozzle. I show the two-piece part numbers with the PT-600 because some customers are only interested in price and not optimum cut quality. Our competition offers the two-piece nozzle for the PT-600. (Remember to tighten the two-piece nozzle with a wrench for optimum quality and parts life.)

Inventory Reduction:

Most companies today realize the importance of inventory control and reducing the number of line items. The following are a few suggestions.

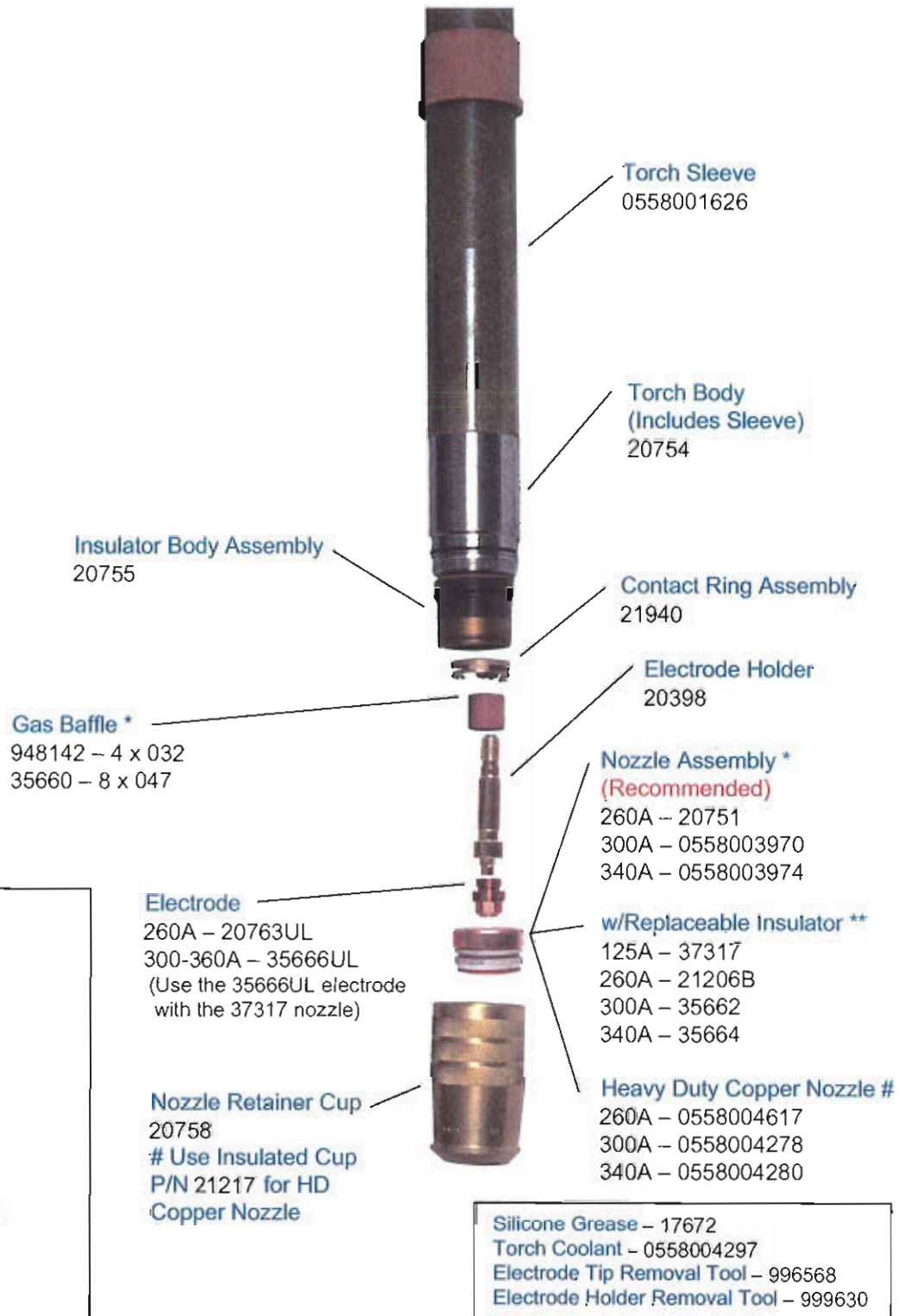
- Electrodes: The 360UL electrode will replace the 250XL, 250UL and the 360XL for all torches. (PT-15XL, PT-19XL, PT-19XLS, and PT-600)
- Electrode Holders: If your customer is using the PT-19XLS and the PT-600 torches, replace the PT-19XLS electrode holder with the PT-600 electrode holder and use the PT-600, 360 amp UL electrode.
- Nozzles: The PT-600 nozzles can be used in all the PT-19 torches.

PT-15XL Plasma Torch

Parts for Oxygen Cutting

Instruction
Literature
F-15-031

Available Online
at
www.esabna.com



*** Reverse Swirl**

***Gas Baffle**

948143 – 4 x 032

35661 – 8 x 047

***Nozzle Assembly**

260A – 20920

****Replaceable**

125A – 37318

260A – 21207B

300A – 35663

340A – 35665

#Heavy Duty Copper Nozzle

260A – 0558004618

300A – 0558004279

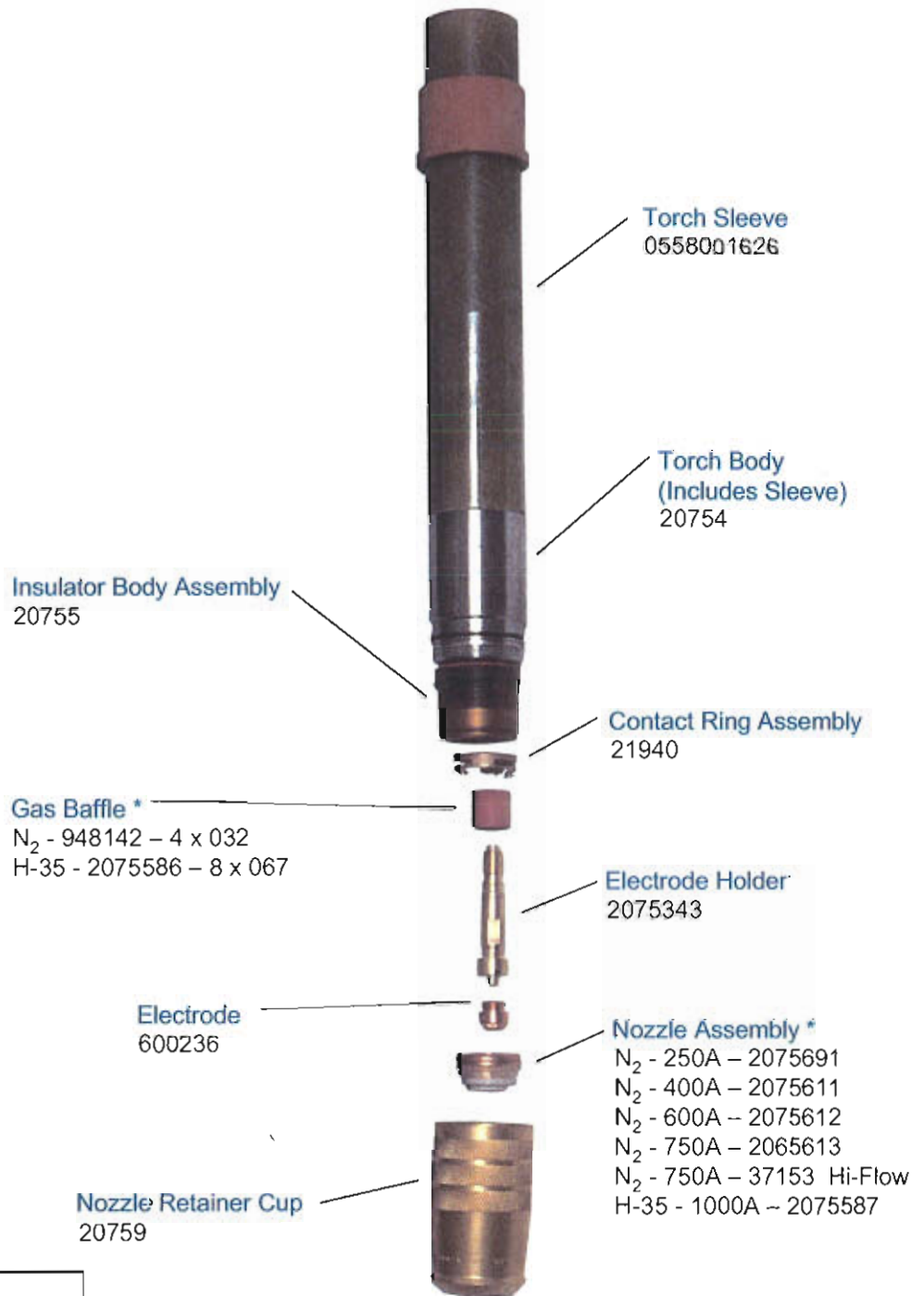
340A – 0558004281

PT-15XL Plasma Torch

Parts for Nitrogen & H-35 Cutting

Instruction
Literature
F-15-031

Available Online
at
www.esabna.com



Silicone Grease - 17672
Torch Coolant - 0558004297
Electrode Tip Removal Tool - 996568
Electrode Holder Removal Tool - 999630

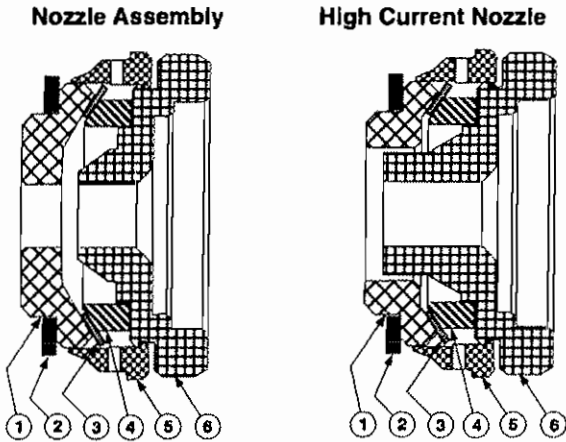
* For Reverse Swirl - see table on back side

ESAB Customer Service - 1-800-362-7080

PT-15XL Plasma Torch

Parts for Nitrogen & H-35 Nozzles

5.5.1 Nitrogen and Argon/Hydrogen



1	Insulator (see below for P/N)
2	Gasket P/N 996628
3	Spacer P/N 996619
4	Centering Sleeve P/N 996618
5	Water Swirl (s) P/N 2075584, (rev) P/N 2075616
6	Nozzle Base (see below for P/N)

1. To disassemble an XR nozzle assembly, pry off the centering sleeve (996618) using a small screwdriver between the sleeve and nozzle body. Replace the parts shown in figure 2 if necessary.

2. Replace the ceramic insulator if it is cracked. Check the orifice diameter of the replacement insulator. It should be 0.015 to 0.030-in. larger than the nozzle body orifice. (See table below)

3. In some locations, deposits left by evaporated hard water may build up on the nozzle orifice tip. Carefully remove the deposit using a small brush or drill bit. If using a drill bit, insert carefully and push it back and forth. Do NOT twist the drill bit. This action may tend to remove base material.

4. To reassemble the nozzle assembly, snap the centering sleeve onto the copper nozzle body (bevel facing away from body). Insert the nylon spacer.

5. Oxygen nozzles P/N's 20751 & 20920 are one piece nozzles and do not come apart. They must be replaced as complete units.

Repair Parts for Repairable N₂ and H-35 Nozzles

Current Rating	Complete Nozzle Assembly		Nozzle Base		Insulators	
	Standard Swirl	Reverse Swirl	Part No.	Orifice Diameter	Part No.	Orifice Diameter
250A	2075691	2075692	2075694	.0125	2075693	0.140
400A	2075611	2075614	2075608	0.156	2075617	0.180
600A	2075612	2075615	2075609	0.200	2075606	0.220
750A	2075613	2075690	2075610	0.230	37152	0.260
1000A	2075587	--	19810	0.250	2075588	--

5-10

PT-15XL Plasmarc Cutting Torch

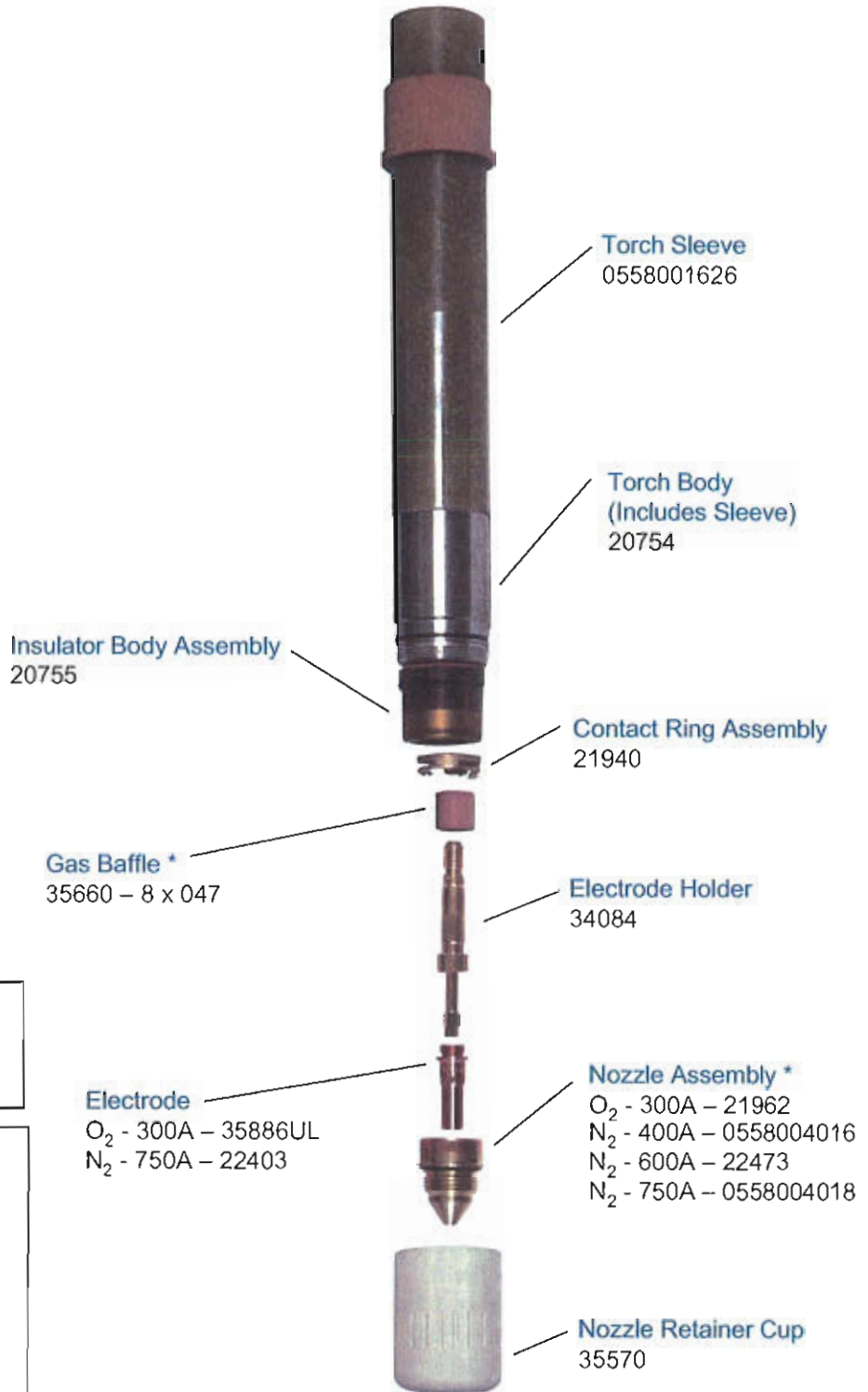
<p>*Gas Baffles - Reverse Swirl N₂ Rev. - 2075360 – Brown, 4 Hole N₂ Rev. - 948143 – Pink, 4 Hole</p>	<p>*Nozzle Assembly – Reverse Swirl N₂ Rev. - 250A – 2075692 N₂ Rev. - 400A – 2075614 N₂ Rev. - 600A – 2075615 N₂ Rev. - 750A – 2065690 N₂ Rev. - 750A – 37154 Hi-Flow</p>
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PT-15XL Plasma Torch

Parts for Bevel Cutting

Instruction
Literature
F-15-031

Available Online
at
www.esabna.com



Silicone Grease - 17672
Torch Coolant - 0558004292
Electrode Tip Removal Tool - 996568
Electrode Holder Removal Tool - 37110

*** Reverse Swirl**

*** Gas Baffle**
35661 - 8 Hole

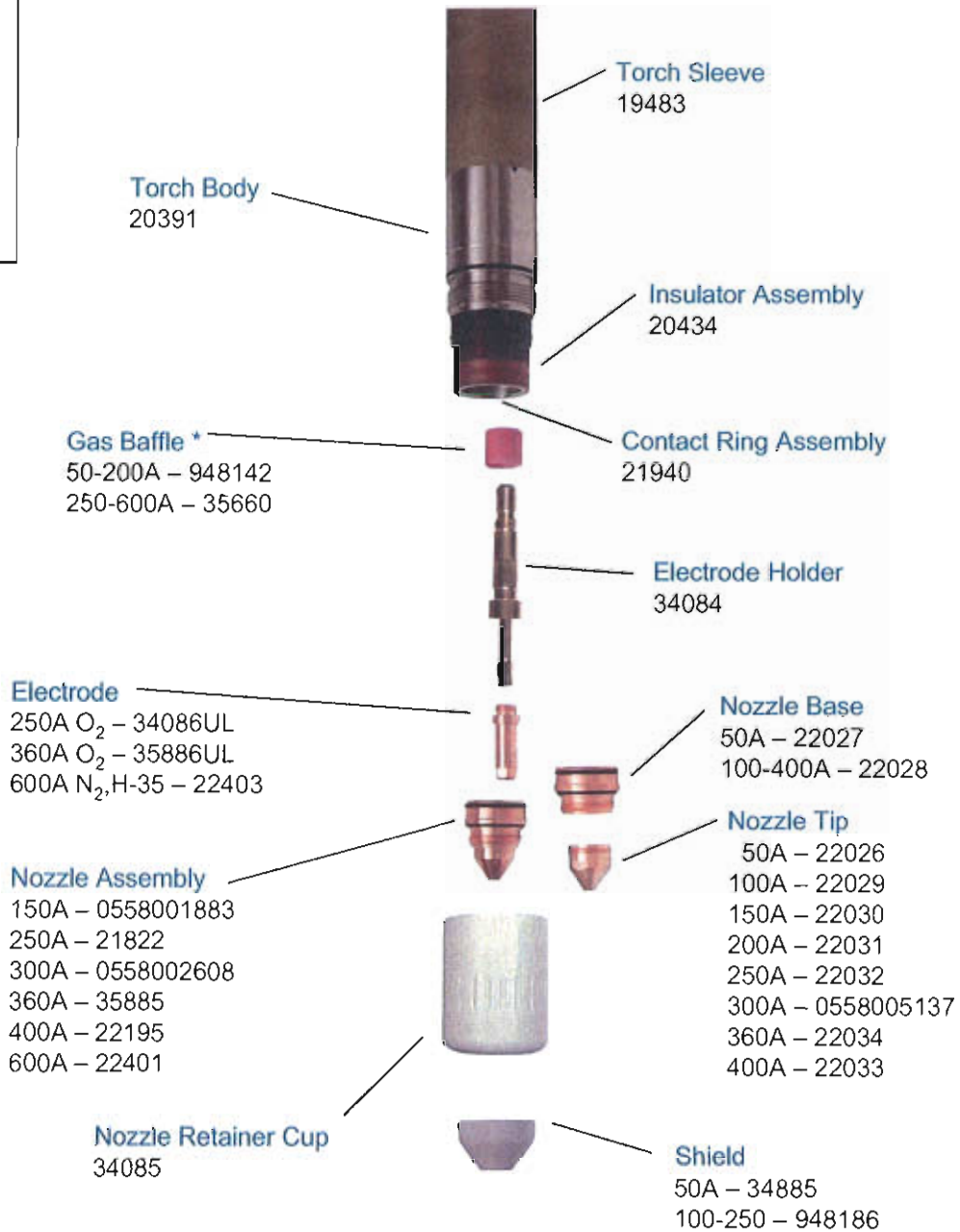
*** Nozzle Assembly**

O₂ - 300A - 21963
N₂ - 400A - 0558004017
N₂ - 600A - 22474
N₂ - 750A - 0558004019

PT-19XL Plasma Torch

Instruction
Literature
F-15-147

Available Online
at
www.esabna.com



*** Reverse Swirl
Gas Baffles**

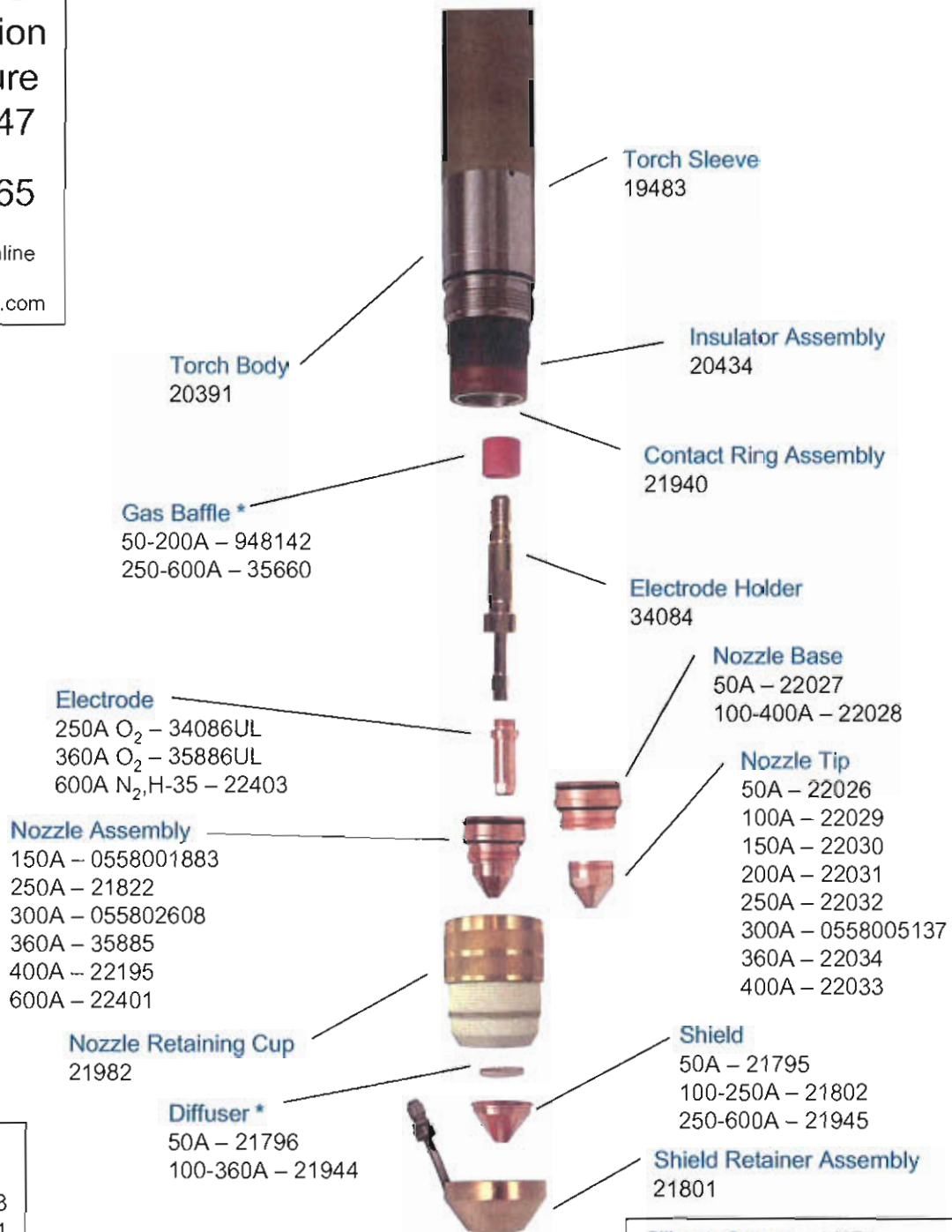
50-200A – 948143
250-600A – 35661

Silicone Grease – 17672
Torch Coolant – 0558004297
Electrode Tip Removal Tool – 996568
Electrode Holder Removal Tool - 37110

PT-19XL Plasma Torch w/Shield

Instruction
Literature
F-15-147
&
F-15-265

Available Online
at
www.esabna.com



*** Reverse Swirl
Gas Baffles**
50-200A – 948143
250-600A – 35661

Diffuser
22496

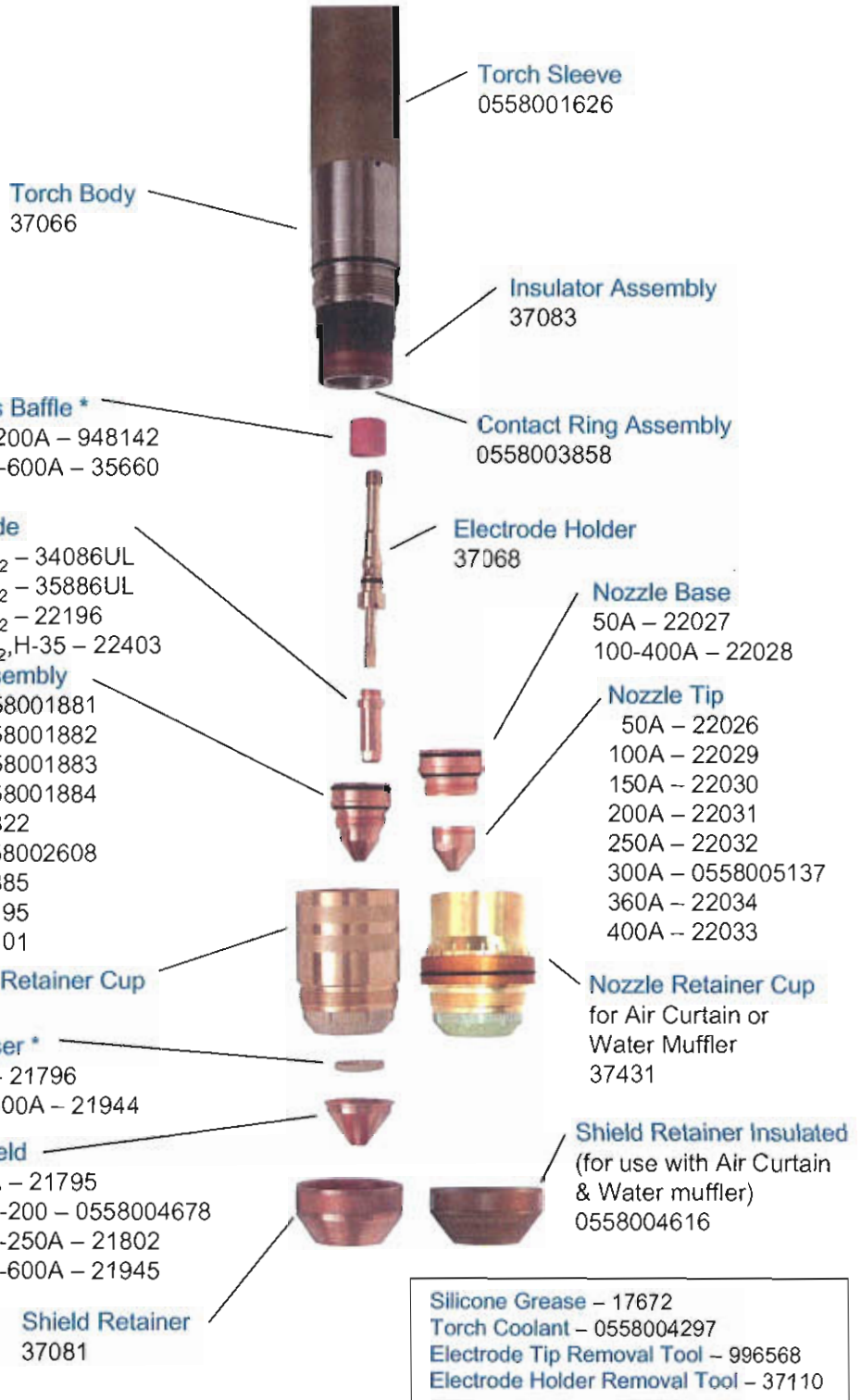
Silicone Grease – 17672
Torch Coolant – 0558004297
Electrode Tip Removal Tool – 996568
Electrode Holder Removal Tool - 37110

ESAB Customer Service – 1-800-362-7080

PT-19XLS Plasma Torch

Instruction
Literature
F-15-430

Available Online
at
www.esabna.com



*** Reverse Swirl
Gas Baffles**
50-200A – 948143
250-600A – 35661

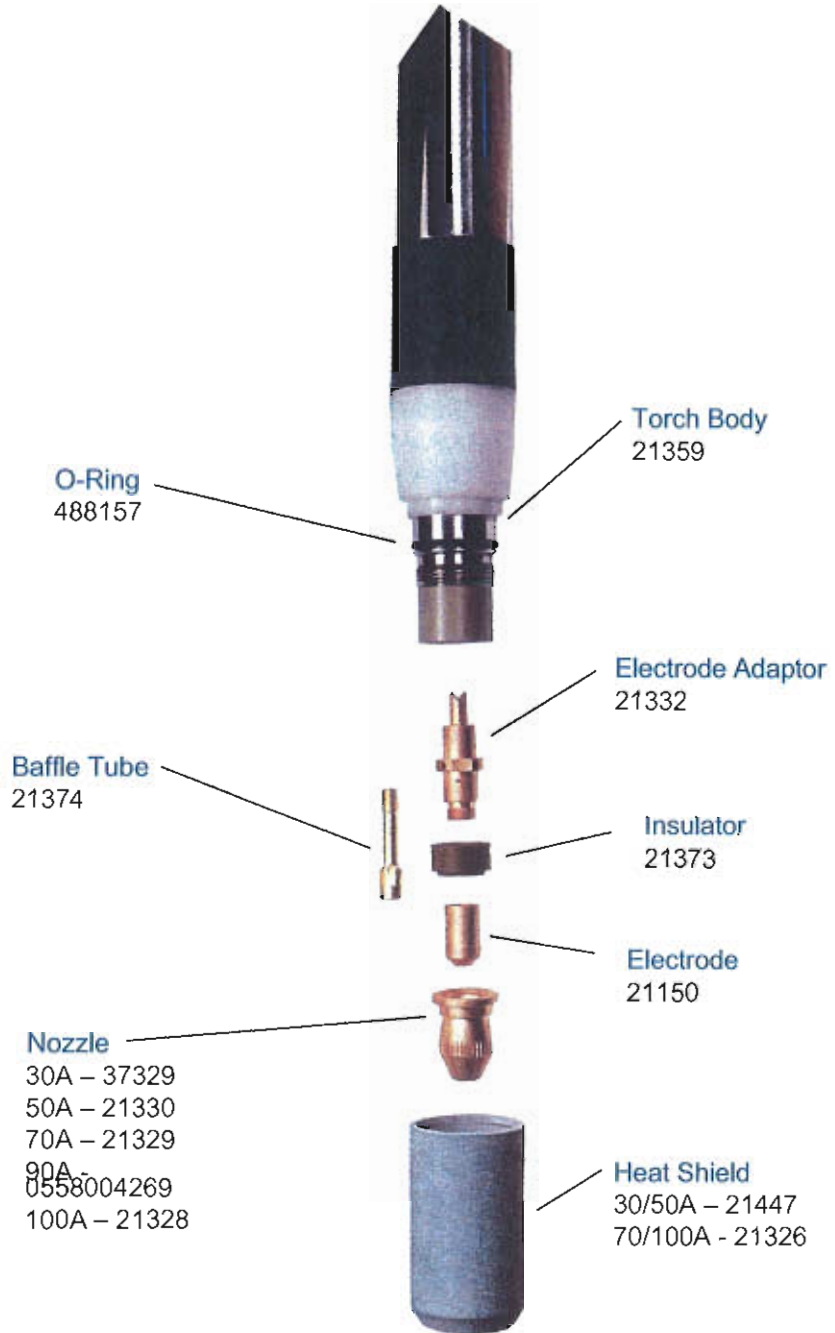
Diffuser
100-600A – 22496

PT-20AMX/PT-21AMX Plasma Torch

Parts for Air Cutting

Instruction Literature
 F-15-114
 F-15-778
 0558004233

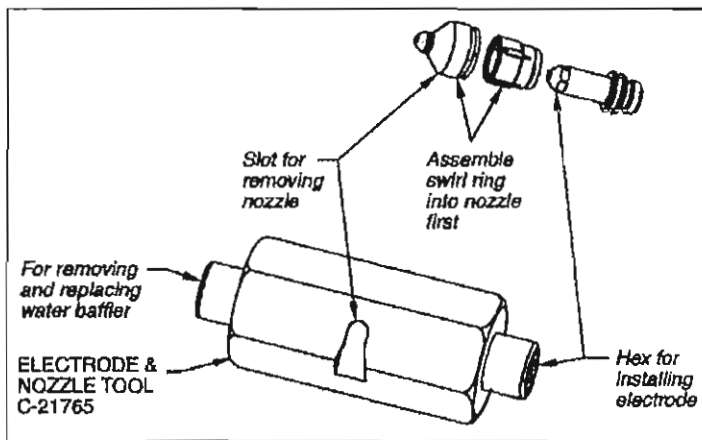
Available Online at
www.esabna.com



PT-24 Plasma Torch

Instruction
Literature
F-15-754
0558004705

Available Online
at
www.esabna.com



Silicone Grease - 17672
Krytox - 73585064

Swirl Baffle

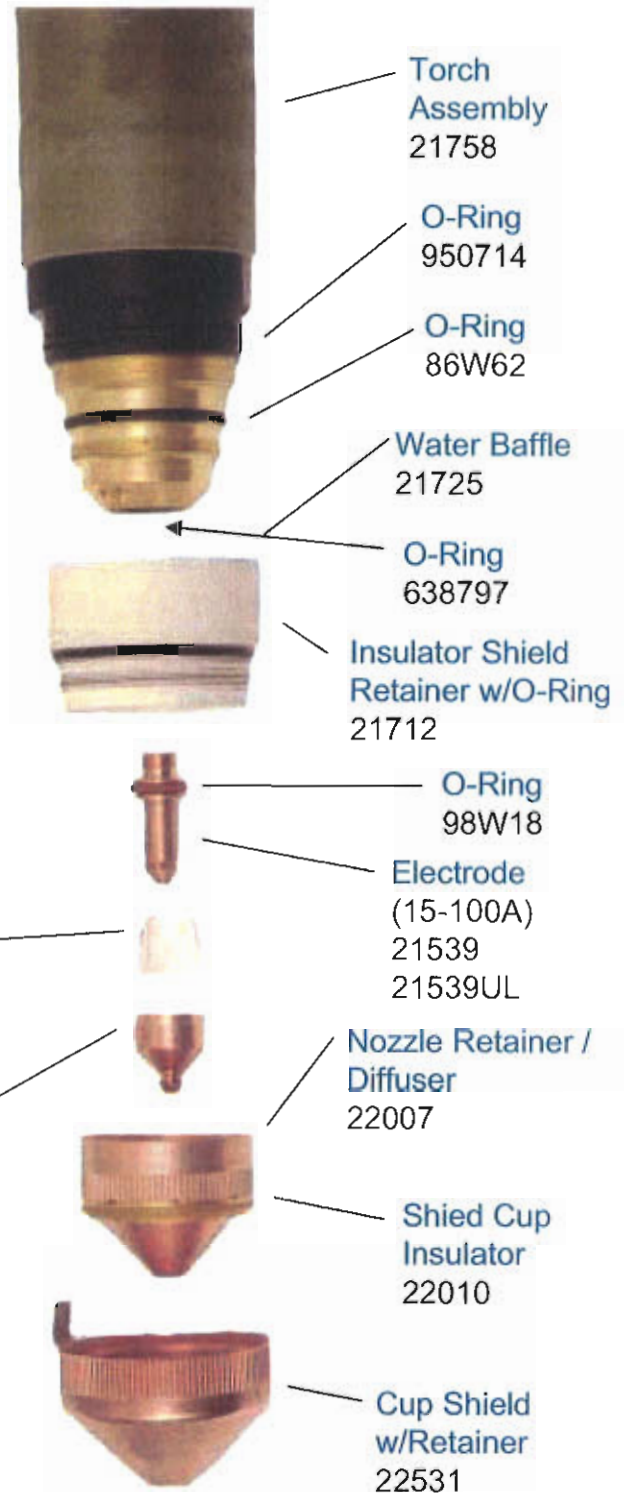
21852 (15A) - 2 Holes
21536 (30A) - 3 Holes
21692 (50/70/100A) - 4 Holes



One-Piece - Insulator/
Shield/Cup/Retainer
0558005309

Nozzle

"A" (15A) - 21540
"B" (30A) - 21541
"C" (50A) - 21542
"D" (70A) - 21543
"E" (100A) - 21923
"EE" (80-100A) - 21923SS



PT-35 Plasma Torch

Consumables, Spare Parts Kits, Consumable Kits and Value Packs

Electrode, 50A, PT-35	0558005200
Nozzle, "A", PT-35	0558004356
Nozzle "B", PT-35	0558004358
<i>(Optimized for grate cutting and thin duct cutting applications)</i>	
Nozzle Retaining Cup	0558004357
Insulator	0558004387
Consumable Set "A", 50A, PT-35	0558005201
<i>(Consists of nozzle "A" and an electrode)</i>	
SAVES 10%	
Consumable Set "B", 50A, PT-35	0558005202
<i>(Consists of nozzle "B" and an electrode)</i>	
SAVES 10%	
Value Pack "A", 50A, PT-35	0558005203
<i>(Consists of 15 nozzles and 10 electrodes in a reusable plastic parts kit)</i>	
SAVES 15%	
Spare Parts Kit, PT-35	0558005210
<i>(Consists of a nozzle retaining cup, an insulator, 4 electrodes and 6 nozzles in a reusable plastic parts kit)</i>	

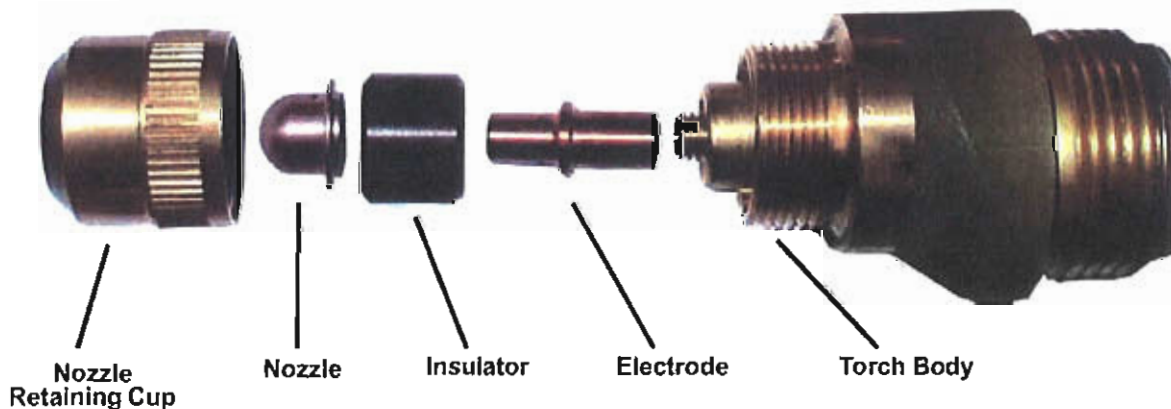


Accessories

Plate Rider Assembly	0560936972
Adjustable Torch Holder	16V83
CNC Interface Adapter, HT TD	0558004363
Standoff Gauge	0558004364

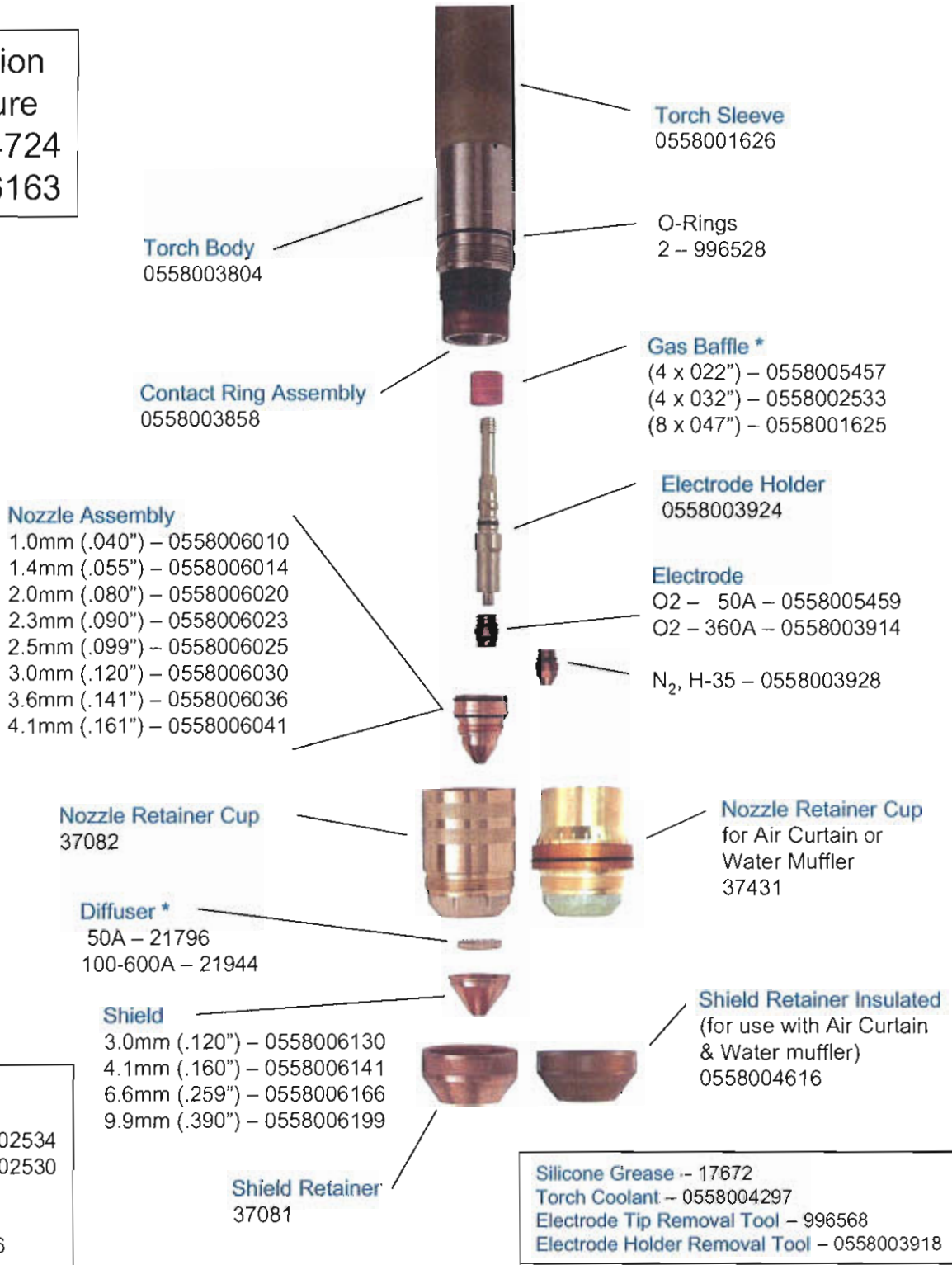
Instruction Literature

ESP-50 Plasma Machine.....	0558004311
PT-35 Torch.....	0558004309



PT-36 & 36R Plasma Torch

Instruction Literature
0558004724
0558006163



PT-36 - 600 Amp, H-35, 3 1/2" - 6"



Torch Sleeve
0558001626

Torch Body
0558003804

Electrode/Collet Holder
0558005689

Collet Body
0558003967 - 3/16"

*** Reverse Swirl
Gas Baffles**
32 X 023 - 0558002531

Diffuser
100-600A - 22496

Gas Baffle *
0558002532 - 32 X 023

Collet
0558003964 - 3/16"

Electrode
0558003963 - 600A, 3/16"

Nozzle Assembly
0558003965 - 600A, 6"

Nozzle Retainer Cup
37082

Diffuser *
21944 - 600A

Shield
0558005692 - 600A

Shield Retainer
37081

**High Current Nozzle
Retaining Cup**
0558006690
Nozzle O-Ring
488158 (not shown)

High Current Shield
0558006688



Electrode/Collet Holder Tool
0558003918



Collet/Electrode Setback Tool
0558003962

Silicone Grease - 17672
Torch Coolant - 0558004297

PT-37 Plasma Torch

Instruction
Literature
0558005966



Swirl Baffle
30-70A - 0558005217
100A - 0558004870



Electrode
0558004875 - Long Life
0558005220 - Standard



Nozzle
30A - 0558005218
50A - 0558004878
70A - 0558005219
100A - 0558004879



Nozzle Retainer
0558006600



Shield
30-40A - 0558006603
50-70A - 0558006602
100A - 0558006601

Silicone Grease - 17672

ESAB Customer Service - 1-800-362-7080

PT-600 Plasma Torch

Precision Cutting with
Gas Mixer Box

50 amp

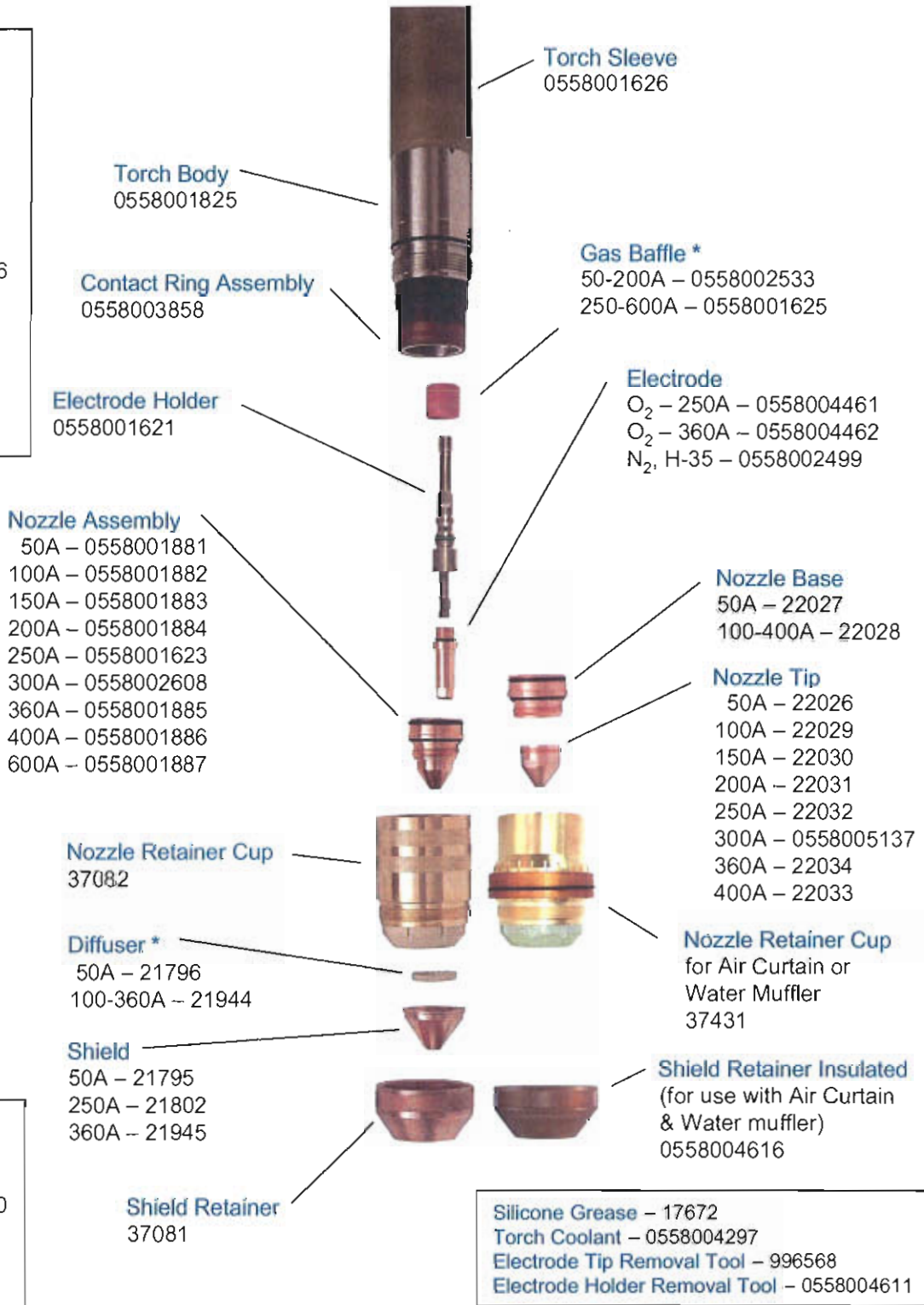
Baffle – 0558005457
Nozzle – 0558005456
Gas Diffuser – 21796
Shield – 0558005458
Retainer – 0558004616

100 amp

Nozzle – 0558005306
Shield – 0558004678

200 amp

Nozzle – 0558001883
Shield – 0558004678



Instruction
Literature
F-15-646

*** Reverse Swirl
Gas Baffles**

50-200A – 0558002534
250-600A – 0558002530

Diffuser

100-360A – 22496

PT-19XLS/600 - 600 Amp, H-35, 3 1/2" - 6"



Torch Sleeve
0558001626

Torch Body
PT-19XLS - 37066
PT-600 - 0558001825

Electrode/Collet Holder
0558003966

Collet Body
0558003967 - 3/16"

*** Reverse Swirl Gas Baffles**
32 X 023 - 0558002531

Diffuser
100-600A - 22496

Gas Baffle *
0558002532 - 32 X 023

Collet
0558003964 - 3/16"

Electrode
0558003963 - 600A, 3/16"

Nozzle Assembly
0558003965 - 600A, 6"

Nozzle Retainer Cup
37082

Diffuser *
21944 - 600A

Shield
0558005692 - 600A

Shield Retainer
37081

Silicone Grease - 17672
Torch Coolant - 0558004297




C-67 Gas Cutting Torch 1566 HS Cutting Nozzles



C-67-20, LPMC, P/N – 28X29

1566 HS Ordering Information

Description	Metal Thickness		Size in.	Internal Part No.	(External Sleeve)			No. Preheat Holes or Slots	Cleaning Preheat	Drill Size Cutting
	in.	mm			Natural Gas Propane	FG-2 MAPP	FG-2 MAPP*			
Fuel Gas Nozzles 1566 HS Series 	1/2	13	1/2	639600	639322	998277	998557	12 slots	▲	#
	3/4	19	3/4	639601	↓	↓	↓		▲	
	1	25	1	639602					▲	
	1-1/2	38	1-1/2	639603					▲	
	2	50	2	639604					▲	
	2-1/2	64	2-1/2	639605					▲	
	4	100	4	639606					▲	
	6	150	6	639607				▲		
	Two-piece, high-speed, high preheat for machine cutting. Fuel gases other than acetylene.	8	200	8	998739	14Z39	114Z08	998561	16 slots	▲
		10	250	10	998740	14Z77†	639755	998558		
		14	350	14	998741	↓	↓	↓		

* Use where high preheat intensity is desired.

† Heavy-duty sleeve (Part No. 14Z96) is available for use in place of standard sleeve (Part No. 14Z77).

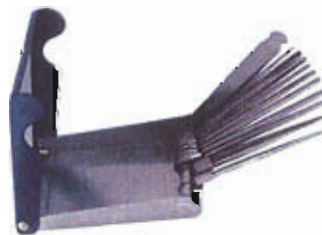
▲ To clean preheat slots, remove external sleeve and use a soft bristled brush.

Clean cutting orifice only with H.S. cleaning kit (P/N 755F00).

1566 HS Series Operating Data

Metal Thickness in.	Nozzle Size	Internal** Part No.	Gas Pressure - PSIG			Cutting Speed ipm	Gas Consumption - CFH		Avg. Kerf Width in.
			Cutting Oxygen	Preheat Oxygen	Fuel		Total Oxygen	Propane	
1/2	1/2	639600	90	20 - 50	3 - 5	21 - 26	60 - 80	5 - 10	.045
3/4	3/4	639601	90	20 - 50	3 - 5	20 - 25	110 - 130	5 - 10	.055
1	1	639602	90	20 - 50	3 - 5	18 - 23	120 - 140	8 - 15	.060
1-1/2	1-1/2	639603	90	20 - 50	3 - 5	13 - 18	175 - 195	8 - 15	.080
2	2	639604	90	20 - 50	3 - 5	12 - 17	265 - 285	8 - 15	.090
2-1/2	2-1/2	639605	90	25 - 55	3 - 5	10 - 17	275 - 295	8 - 15	.105
3	4	639606	90	25 - 55	5 - 10	8 - 15	275 - 295	15 - 20	.110
4	4	639606	90	25 - 55	5 - 10	7 - 13	315 - 325	15 - 20	.115
6	6	639607	90	25 - 55	5 - 10	6 - 10	330 - 350	15 - 20	.150
8	8	998739	90	30 - 60	5 - 10	4 - 6	670 - 690	20 - 25	.160
10	10	998740	90	30 - 60	10 - 15	3 - 4	705 - 730	25 - 30	.190
12	14	998741	90	30 - 60	10 - 15	3 - 4	850 - 875	25 - 30	.210
14	14	998741	90	35 - 65	15 - 20	2 - 4	1110 - 1135	25 - 30	.250

Tip Cleaner Set
for
1566 HS Nozzles
P/N - 755F00



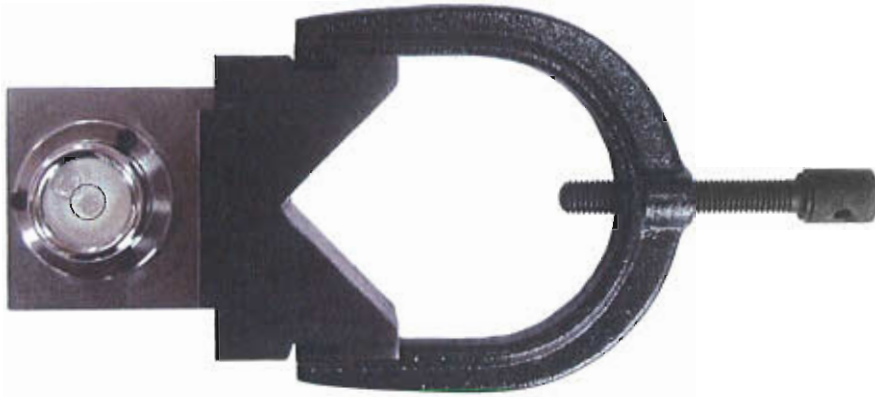
Tip Cleaner Set

Electrode Removal Tool

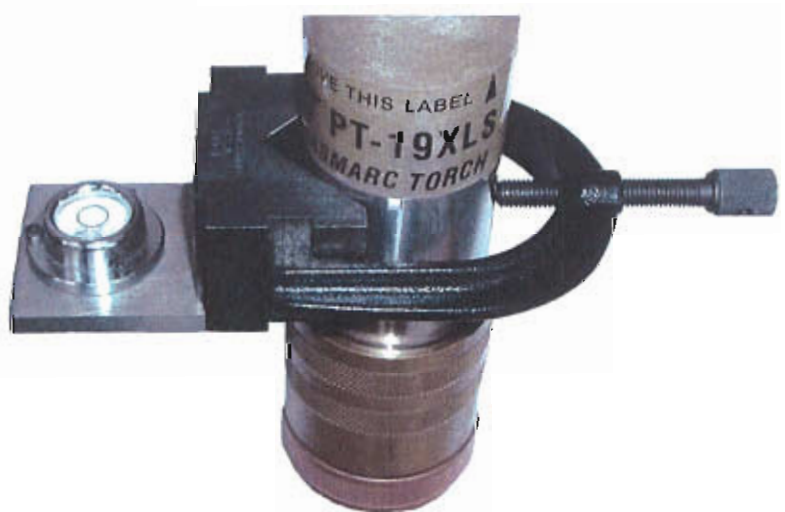
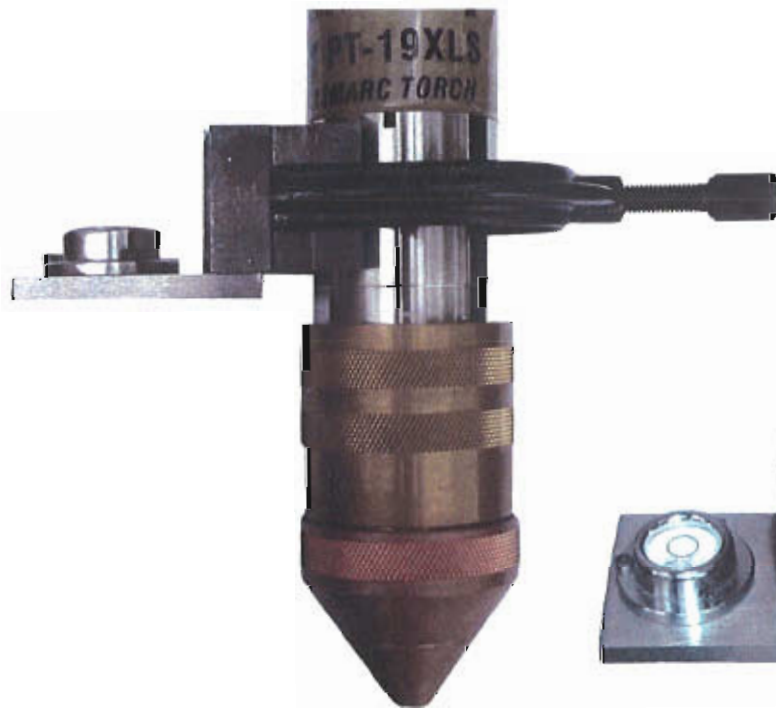
Electrode Holder Removal Tool



Plasma Torch Leveling Tool



Torch Leveling P/N - 0558004936



Air Curtains, Water/Bubble Mufflers

PT-19XL & PT-15XL Bevel
Air Curtain



PT-19XLS, PT-36 & PT-600
Air Curtain



PT-15XL Air Curtain



PT-19XLS, PT-36 & PT-600
Water Muffler



PT-15XL Bubble Muffler



PT-19XL & PT-15XL Bevel Air Curtain



PT-19XL & PT-15XL Bevel Nozzle
Air Curtain - 21549

Instruction
Literature
F-15-189

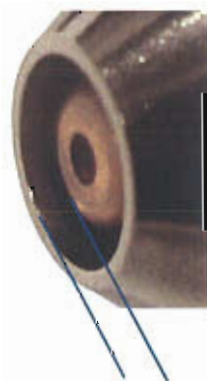
Available Online
at
www.esabna.com



Air Curtain
Body - 21550

Nozzle Retaining
Cup - 35570

Nozzle



Sleeve - 21551

Retainer - 21553

Adjust the position of the Air Curtain Assembly on the torch until the nozzle is recessed .10" from the end of the Air Curtain Sleeve. Lock the Air Curtain in place by tightening the Allen screw on the Air Curtain.

Set air pressure to 20 psi.



PT-19XL & PT-15XL Bevel Air Curtain

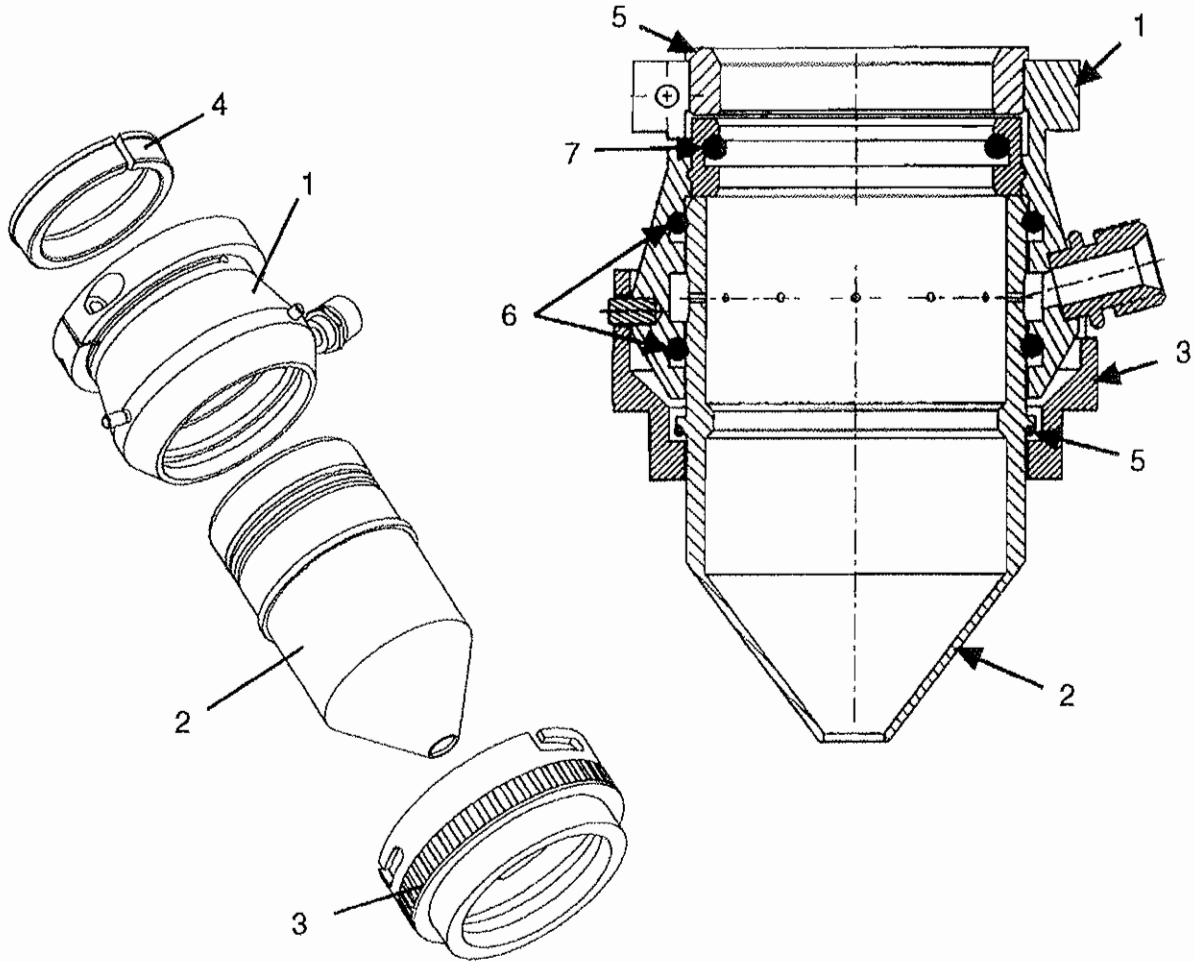
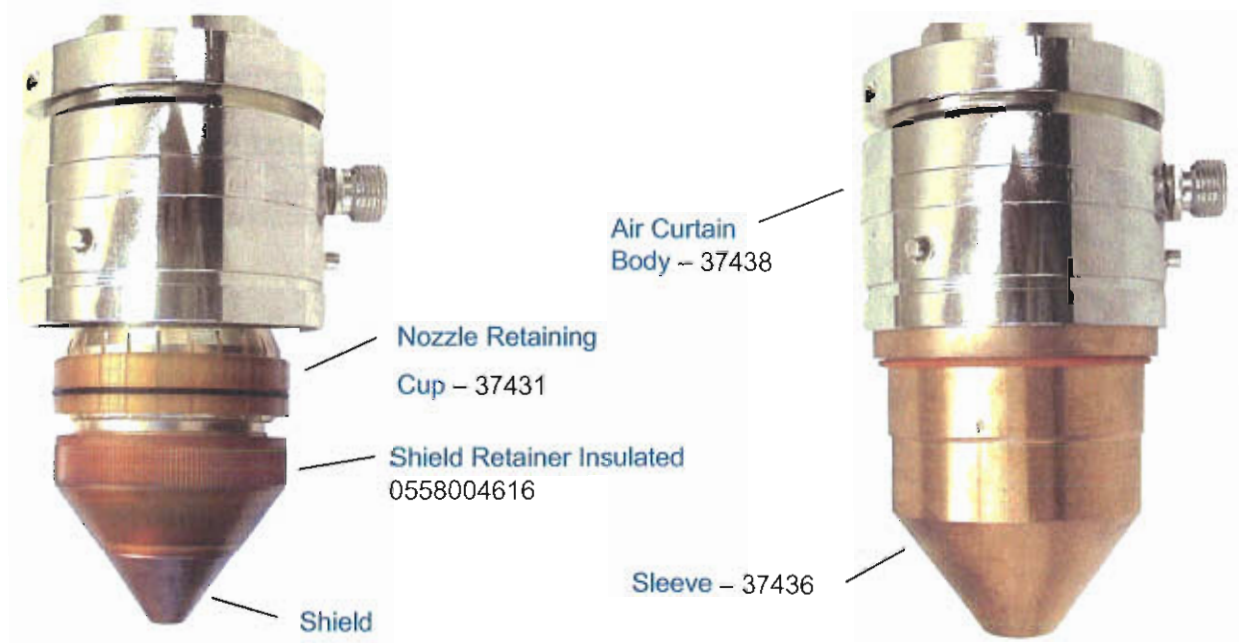


Figure 4. Air Curtain Assembly, P/N 21549 for use W/ PT-19XL and PT-15XL With Long Beveling Nozzle

ITEM NO.	QTY REQ.	PART NO.	DESCRIPTION
1	1	21550	BODY, AIR CURTAIN
2	1	21551	SLEEVE, AIR CURTAIN
3	1	21553	RETAINER, AIR CURTAIN
4	1	21380	BUSHING, SPLIT
5	1	2221978	'O' RING, 1.799ID X .103 SILICON, 60A
6	2	21214	'O' RING, 2.484ID X .139 NEOPR, 70A
7	1	85W87	'O' RING, 1.984ID X .070 NEOPR, 70A

Note: Some spare o-rings are supplied with the Air Curtain assembly 21549

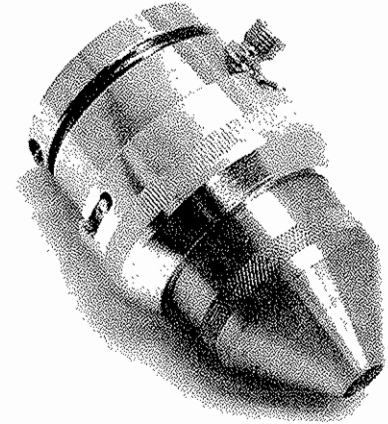
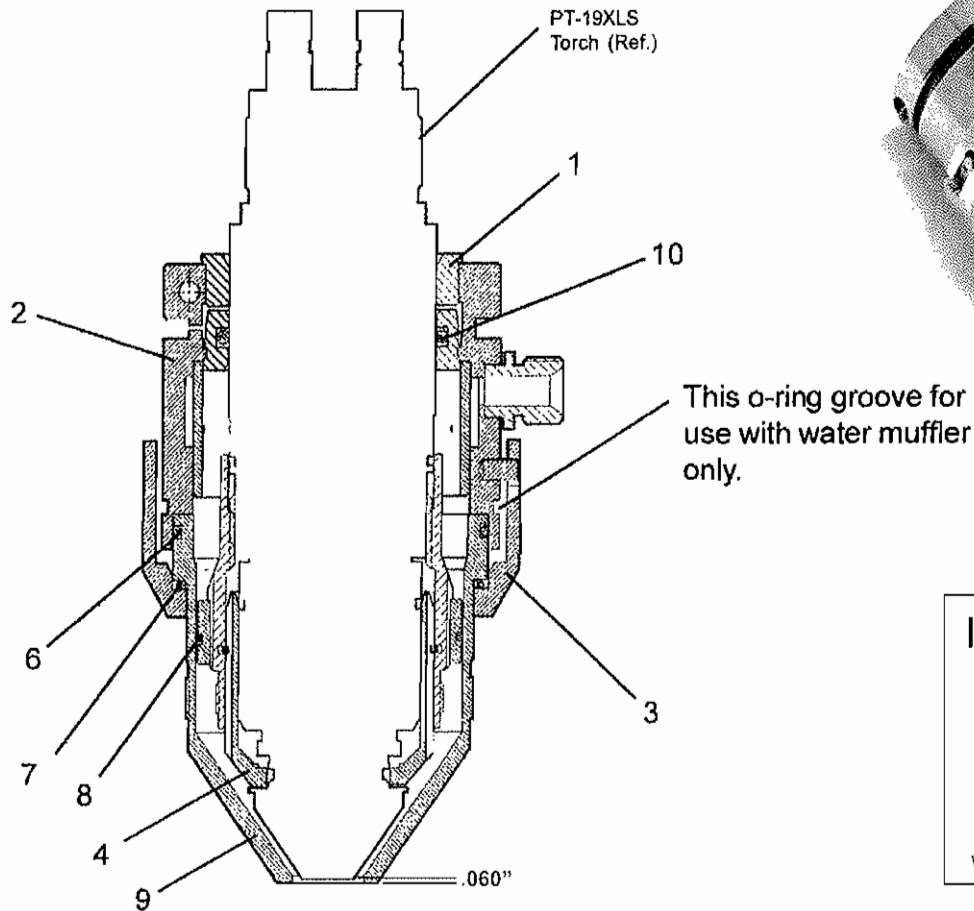
PT-19XLS, PT-36 & PT-600 Air Curtain



Instruction Literature
F-15-475
Available Online at
www.esabna.com

PT-19XLS & PT-600
Air Curtain Assy. - 37460

PT-19XLS, PT-36 & PT-600 Air Curtain



Instruction
Literature
F-15-475

Available Online
at
www.esabna.com

Figure 1. Air Curtain Assembly, P/N 37460 for use with PT-19XLS

ITEM NO.	QTY REQ.	PART NO.	DESCRIPTION
1	1	21380	BUSHING SPLIT BEVEL A/C
2	1	37438	BODY A/C PT-19XLS
3	1	37435	RETAINER, A/C PT-19XLS
4	1	37431	CUP NOZZLE RETAINING
6	1	443315	'O' RING, 1.612 ID X .103W NEOPRENE
7	1	2221978	'O' RING, 1.799 ID X .103W SILICON RUBBER
8	1	2114581	'O' RING, 2.114 ID X .070W NEOPRENE 70A
9	1	37436	SLEEVE A/C PT-19XLS
10	1	85W87	'O' RING 1.984 ID X .139W NEOPRENE

PT-19XLS, PT-36 & PT-600 Water Muffler



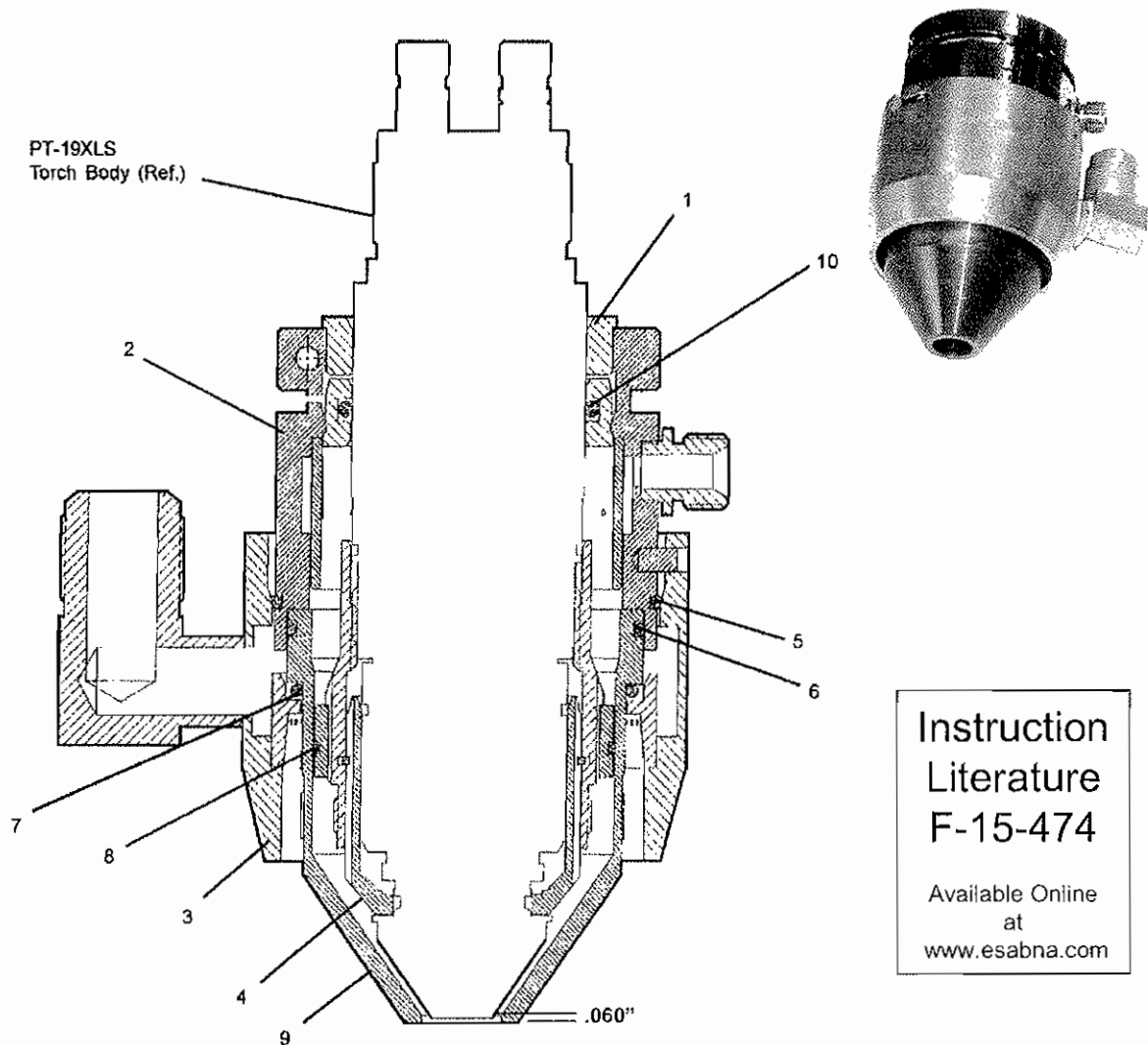
PT-19XLS & PT-600
Water Muffler - 37150



Instruction
Literature
F-15-474

Available Online
at
www.esabna.com

PT-19XLS, PT-36 & PT-600 Water Muffler



Instruction
Literature
F-15-474

Available Online
at
www.esabna.com

Figure 2. Water Muffler PT-19XLS, P/N 37150

ITEM NO.	QTY. REQ.	PART NO.	DESCRIPTION
1	1	21380	BUSHING SPLIT BEVEL A/C
2	1	37438	BODY A/C PT-19XLS
3	1	37433	RETAINER WATER MUFFLER
4	1	37431	CUP NOZZLE RETAINING
5	1	519369	O-RING, 3" ID X 3-3/16" O.D. X 3/32"
6	1	443315	O-RING, 2.612 ID X .103W NEOPRENE
7	1	2221978	O-RING, 1.799 ID X .103W SILICONE RUBBER
8	1	2114581	O-RING, 2.114 ID X .070W NEOPRENE 70A
9	1	37436	SLEEVE PT-19XLS A/C
10	1	85W87	O-RING, 1.984 ID X .139W NEOPRENE

NOTE: 4 each of the above o-rings are supplied.

PT-15XL Air Curtain

Instruction
Literature
F-15-189

Available Online
at
www.esabna.com

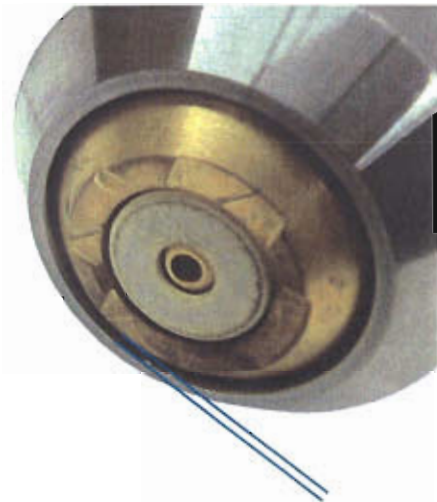


PT-15 Air Curtain Assy. - 21856



Air Curtain
Body - 21550

Standard/Bevel Nozzle
Retaining Cup - 20758



There should be a gap of .040" to .062" between the Nozzle Retaining Cup and the inside of the Air Curtain Sleeve, P/N 21859.

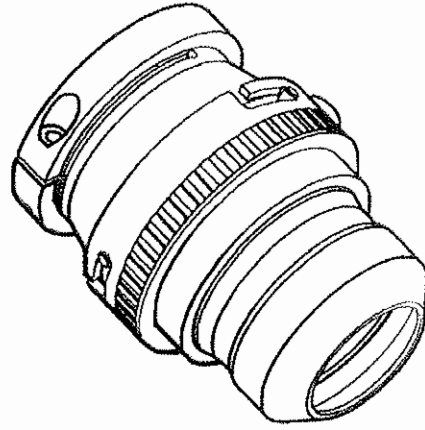
Sleeve Assy. - 21859



Retainer - 21553



PT-15XL Air Curtain



Instruction
Literature
F-15-189

Available Online
at
www.esabna.com

21856 Air Curtain Assembly
PT-15XL H.D.

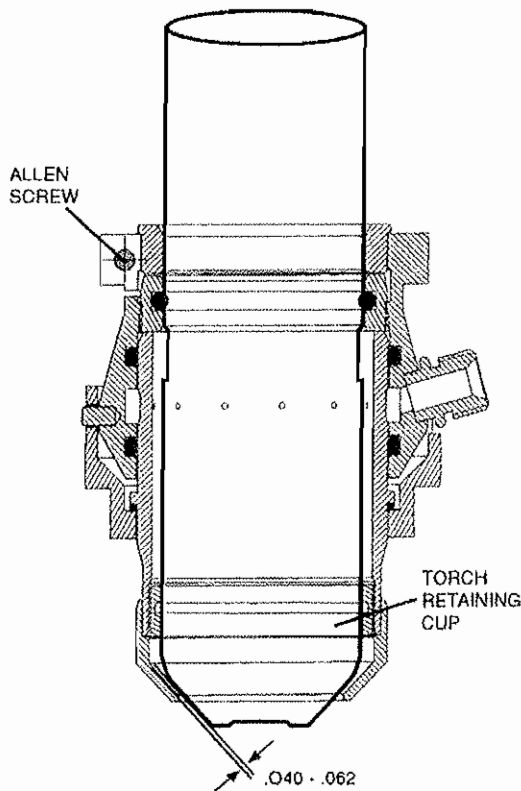


Figure 1. Air Curtain Installation on PT-15XL

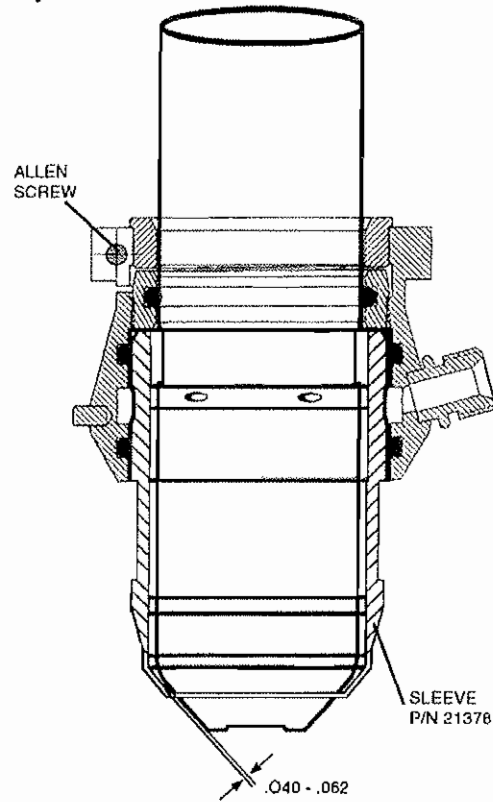


Figure 2. Air Curtain Installation on PT-15XL
(For Beveling with standard length nozzles)

There should be a gap of .040" to .062" between the Nozzle Retaining Cup, P/N 20758, and the inside of the Air Curtain Sleeve, P/N 21859.

There should be a gap of .040" to .062" between the Nozzle Retaining Cup, P/N 20758, and the inside of the Air Curtain Sleeve, P/N 21378.

PT-15XL Air Curtain

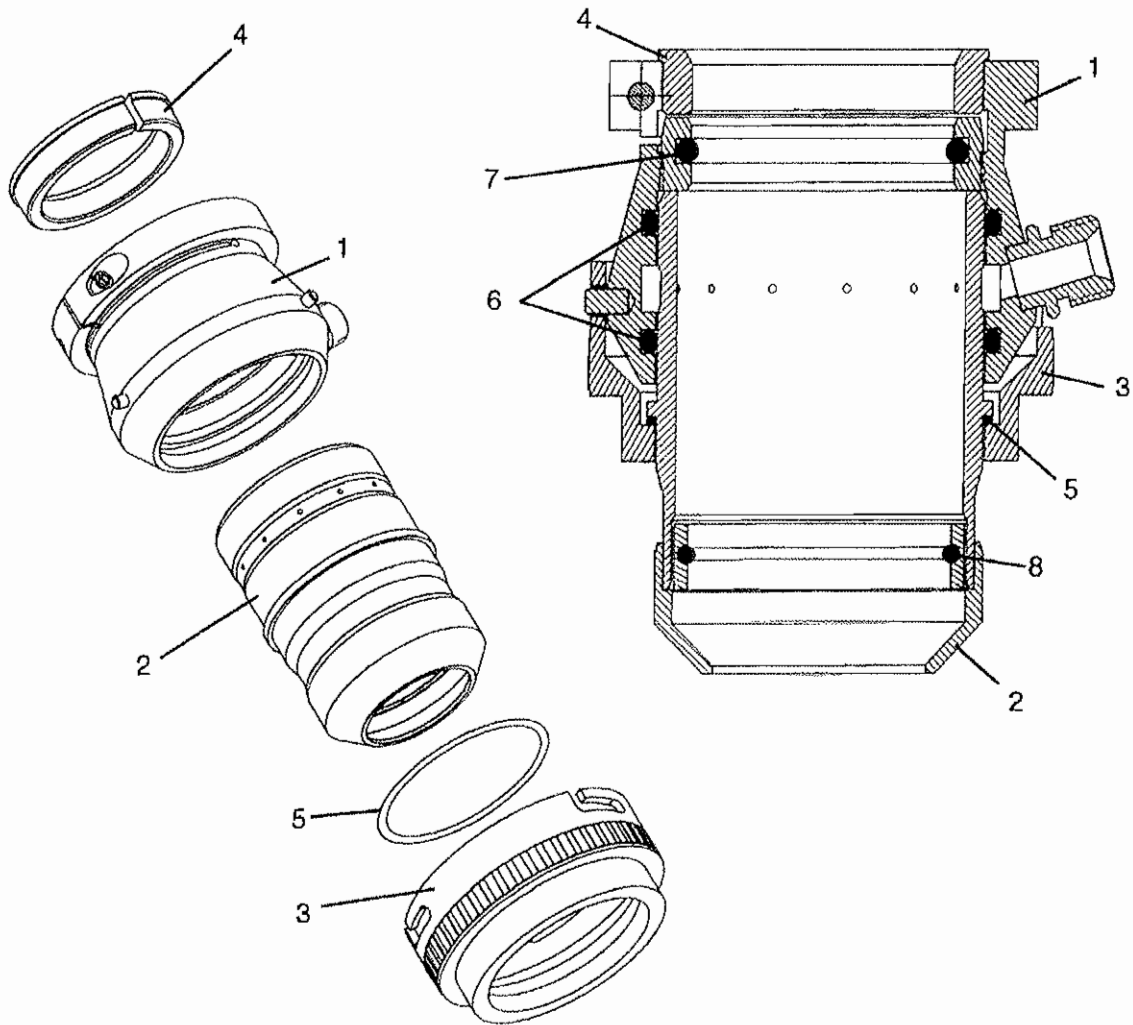


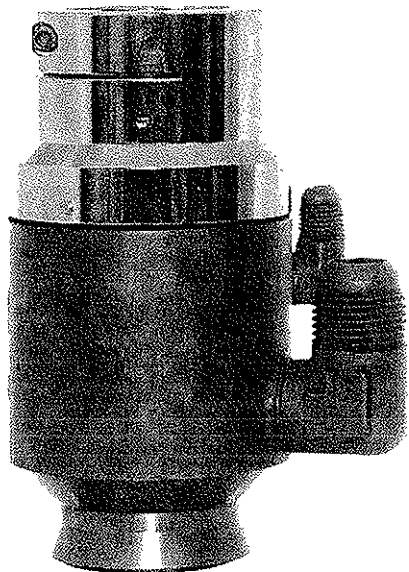
Figure 5. H.D. Air Curtain Assembly, P/N 21856 for use W/ PT-15XL

ITEM NO.	QTY REQ.	PART NO.	DESCRIPTION
1	1	21550	BODY, AIR CURTAIN
2	1	21859	SLEEVE ASSY, AIR CURTAIN
3	1	21553	RETAINER, AIR CURTAIN
4	1	21380	BUSHING, SPLIT
5	1	2221978	"O" RING, 1.799 ID X .103 SILC 60A
6	2	21214	"O" RING, 2.484 ID X .139 NEOPR, 70A
7	1	85W87	"O" RING, 1.984 ID X .139 NEOPR, 70A
8	1	952062	"O" RING, 1.989 ID X .070 NEOPR, 70A

NOT SHOWN, 1PC P/N 21378 SLEEVE BEVELING AIR CURTAIN

Note: Some spare o-rings are supplied with the Air Curtain assembly 21856

PT-15XL Bubble Muffler



Instruction
Literature
F-15-127

Available Online
at
www.esabna.com

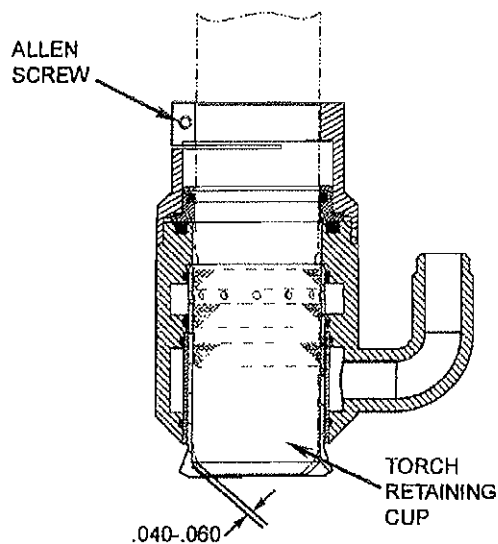


Figure 1. Bubble Muffler Installation

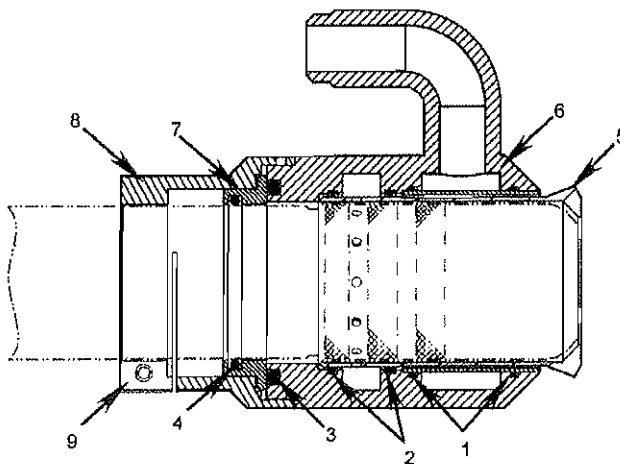


Figure 3. Bubble Muffler Assembly, P/N 21131

ITEM NO.	QTY. REQ.	PART NO.	DESCRIPTION
1	2	21431	O-RING, 2.364 ID X .070 NEOP 70A
2	2	21430	O-RING, 2.175 ID X .103 NEOP 70 A
3	1	21432	O-RING, 2.100 ID X .210 NEOP 70A
4	1	85W87	O-RING, 1.98 ID X .139 NEOP 70A
5	1	21128	SLEEVE
6	1	21130	MAIN BODY
7	1	21127	INSULATOR CLAMP
8	1	21129	CLAMP
9	1	61640912	SCREW, #10-32X3/4" STAIN. STEEL SOCKET HEAD CAP

NOTE: 4 each of the above o-rings are supplied.

PT-25 Plasma Torch

Parts for Air, Nitrogen & H-35 Cutting

Accessories

PT-25/100 amp Spare Parts Kit, P/N 21946

Part No.	Description	Quantity
21595	Electrode Air/N ₂	5
21667	Swirl Baffle	2
21597	Nozzle-100A	5
21599	Nozzle-Gouging	2
21654	Heat Shield	2
21656	Gouging Guard	1
21943	Stand-Off Guide	1

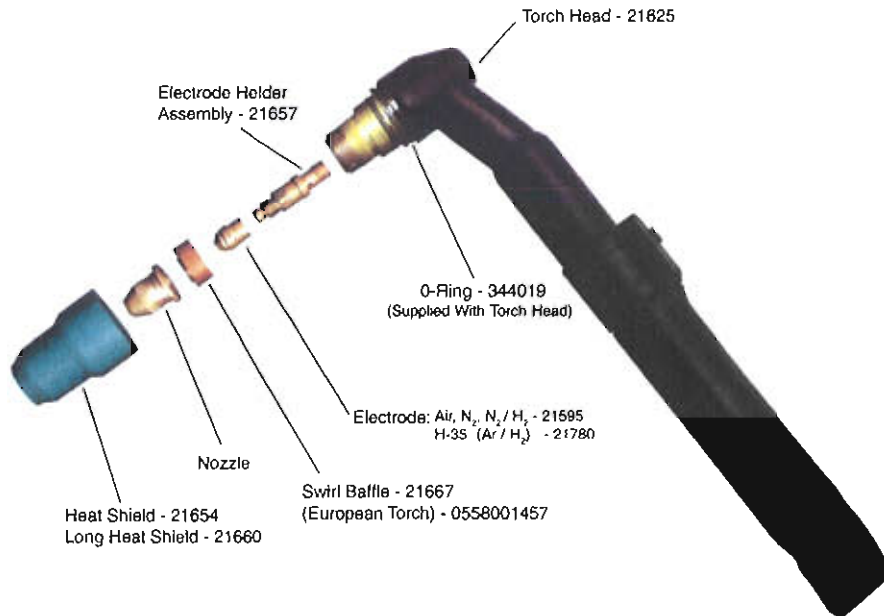
PT-25/150 amp Spare Parts Kit, P/N 21947

Part No.	Description	Quantity
21780	Electrode Ar/H ₂	5
21667	Swirl Baffle	2
21598	Nozzle-150A	5
21599	Nozzle-Gouging	2
21654	Heat Shield	2
21656	Gouging Guard	1
21943	Stand-Off Guide	1

Optional Accessories

Torch Guide Kit For circle and straight line cutting	604624
Plasmit Torch Head Protector For gouging	20801
Leather Sheath For service line protection, 10 ft. (254 cm) length	20812
Plasma Flow Measuring Kit For checking gas flow through the torch	19765
Retrofit Kit for PCM-100/150 Enables use of PT-25 with PCM-100/150	21932
European Swirl Baffle	0558001457

Instruction Literature
F-15-266



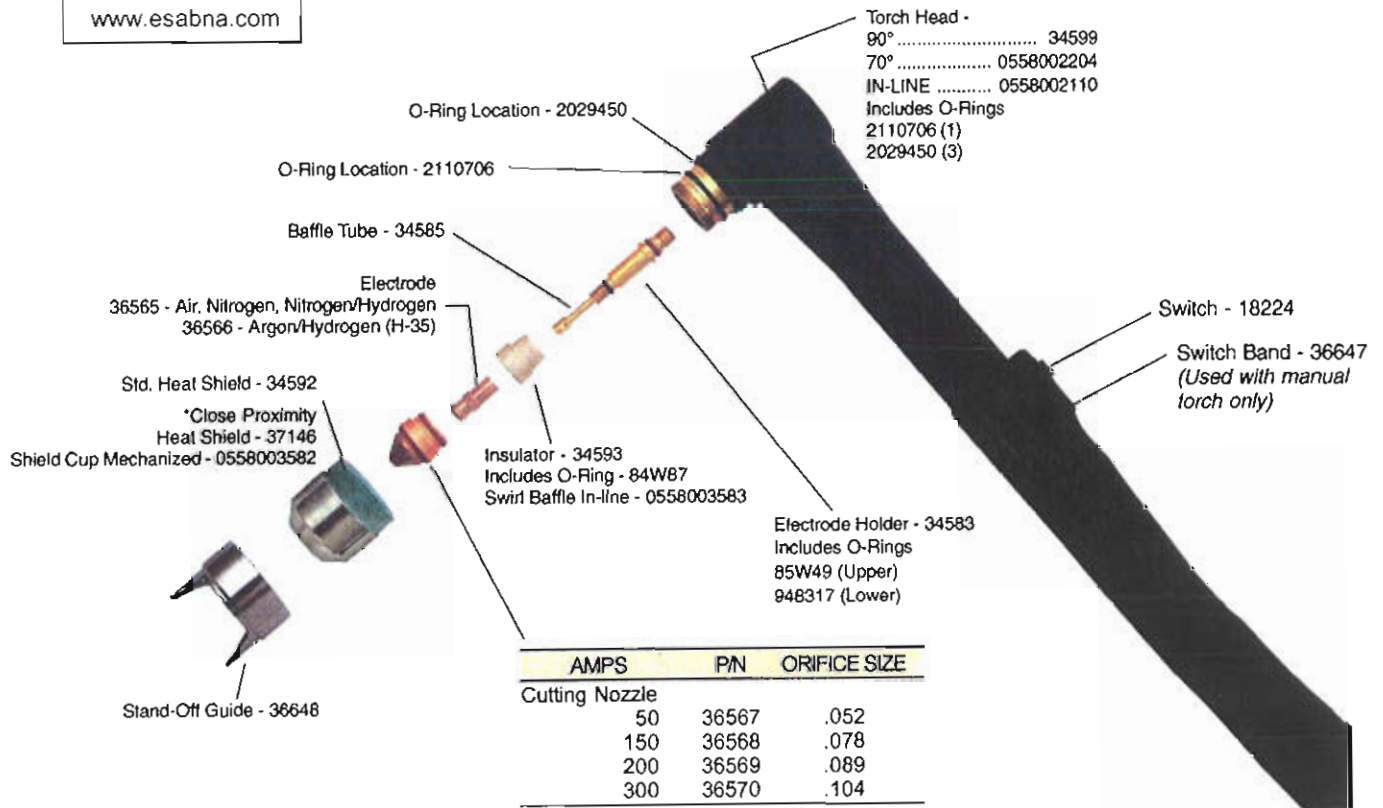
PT-26 Plasma Torch

Parts for Air Cutting

Instruction
Literature
F-15-345

Available Online
at
www.esabna.com

Assembly of PT-26 Front End Parts



AMPS	P/N	ORIFICE SIZE
Cutting Nozzle		
50	36567	.052
150	36568	.078
200	36569	.089
300	36570	.104
Gouging Nozzle		
200	36571	.125
300	36572	.144

* For use when cutting or gouging in
close proximity of workpiece.
Standard on In-line version.

All include O-Rings 2110578 (Upper)
994092 (Lower)

Mechanized Swirl
Baffle - 0558003583

Close Proximity Mechanized
Shield Cup - 37146

Standard Mechanized
Shield Cup - 0558003582

PT-26 Plasma Torch

Parts Information

Optional Accessories

Plasmit Torch Head Protector	
For gouging	20806
25 ft. Leather Sheath*	
Protects torch leads from abrasion and molten metal; particularly recommended for plasma gouging	0558002921
50 ft. Leather Sheath*	0558002922
Spare Parts Kit* 300 amp Deuce Pack & ESP-200	36821
Spare Parts Kit 150 amp ESP-150	0558002864
Torch Holder, 2"	0558002985
Torch Rigging Kit	0558003186

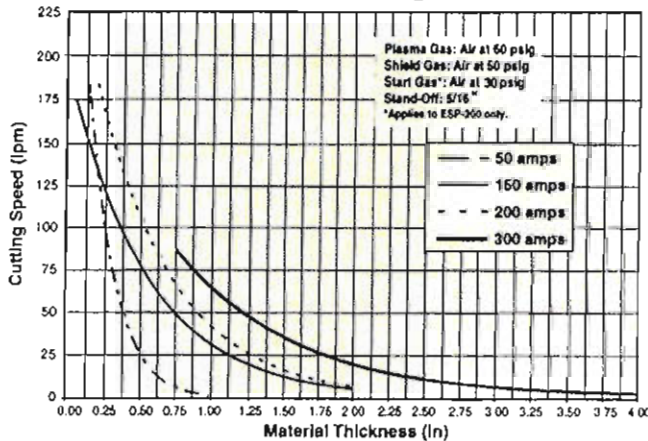
*Standard on manual torch.

Contents of PT-26 Spare Parts Kit (P/N 36821)

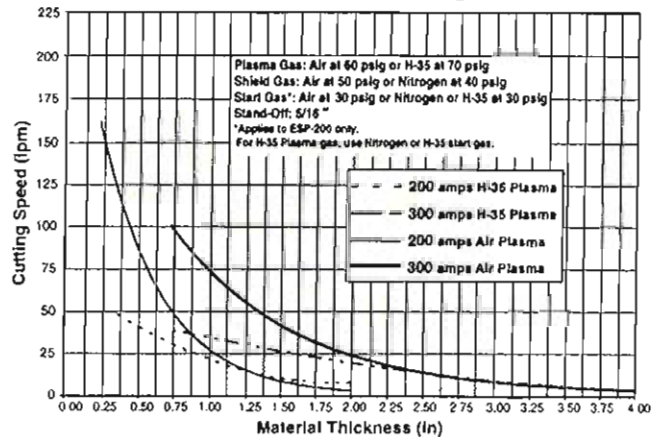
Description	P/N	Qty
Electrode Air/N ₂	36585	3
Electrode H-35	36566	3
Nozzle 50A	36567	3
Nozzle 150A	36568	3
Nozzle 200A	36569	3
Nozzle 300A	36570	3
Nozzle Gouging 200A	36571	1
Nozzle Gouging 300A	36572	1
Wrench	19129	1
Heat Shield	34592	1
Stand-Off Guide	36648	1

Cutting Parameters for Hand Cutting

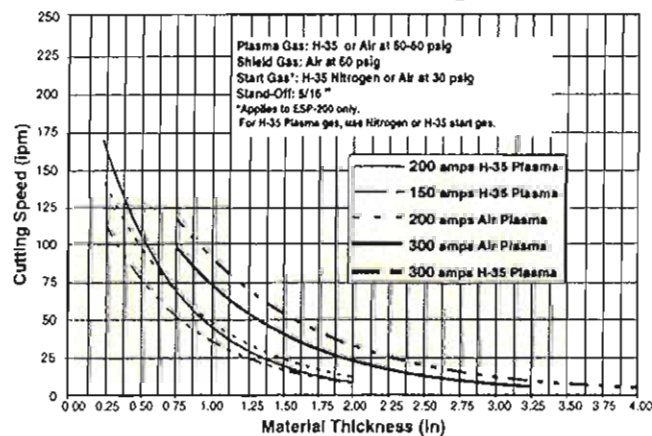
PT-26 Steel Cutting Data



PT-26 Stainless Steel Cutting Data



PT-26 Aluminum Cutting Data



PT-27 Plasma Torch

Parts for Air Cutting

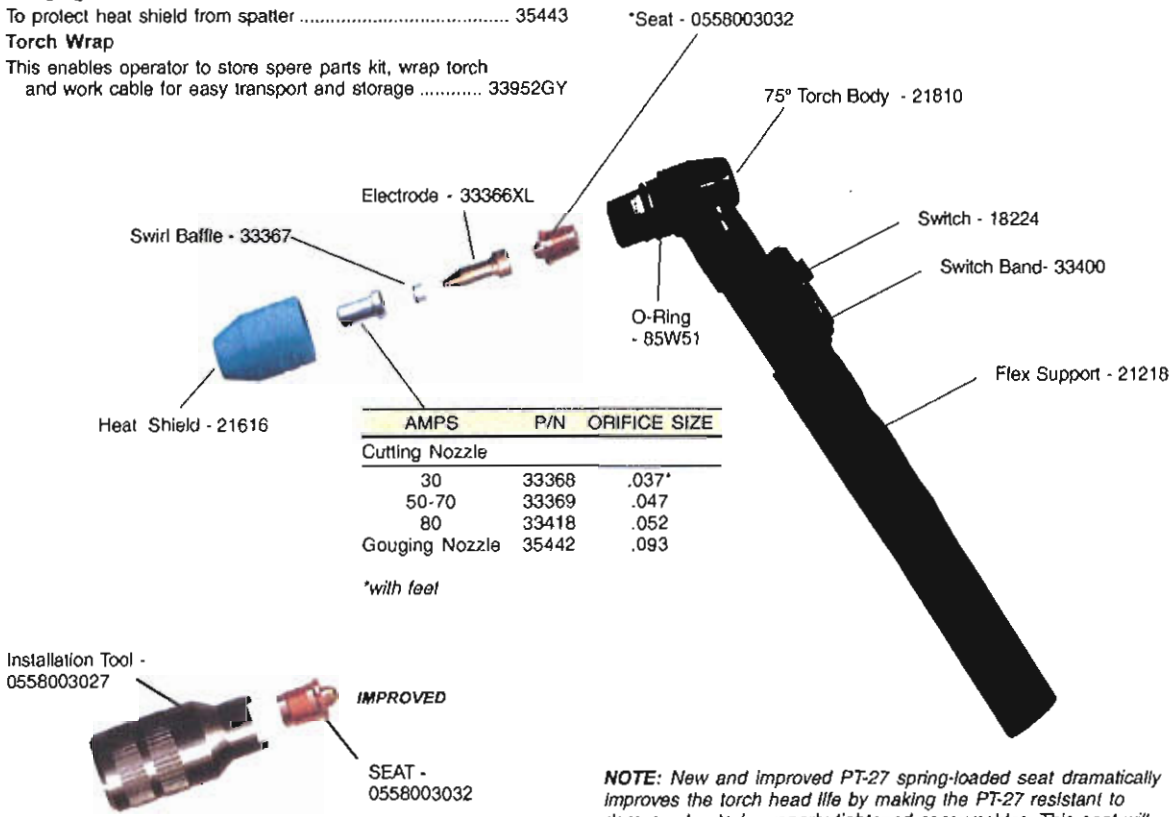
Optional Accessories

- 50-70 amp Spare Parts Kit 21623
- 80 amp Spare Parts Kit 21624
- Plasma Flow Measuring Kit**
- This valuable troubleshooting tool allows measurement of the actual plasma gas flow through the torch 19765
- Torch Guide Kit**
- This complete kit, in a rugged plastic carrying case, includes attachments for circle and straight line cutting on ferrous and non-ferrous metals
- Deluxe: 1-3/4" - 42" (44.5 mm - 106 cm) Radius 0558003258
- Torch Guide**
- Basic: 1-3/4" - 28" (44.5 mm - 71 cm) Radius 0558002675
- Stand-off Guide**
- For proper stand-off distance when drag cutting 21420
- 90° Adaptor for PT-27 Torch**
- To convert your 75° torch to a 90° torch 000222
- Gouging Nozzle**
- For gouging with PT-27 torch 35442
- Gouging Shield**
- To protect heat shield from spatter 35443
- Torch Wrap**
- This enables operator to store spare parts kit, wrap torch and work cable for easy transport and storage 33952GY

Contents of PT-27 Spare Parts Kits

Description	P/N	P/N 21623	P/N 21624	P/N 35776
		50/70 A XT PCM-875	80 A XT PCM-1125	50/70 A PCM-875CE
Heat Shield	21616	2	2	-
50-70 amp Nozzle	33369	4	-	4
60 amp Nozzle	33416	-	4	-
Swirl Baffle	33367	1	1	1
Electrode	33366XL	3	3	3
Fuse, 15 amp, 600 vdc	952137	1	1	4
Stand-off Guide	21420	1	1	1
Heat Shield, Long	35547	-	-	2

Instruction Literature
F-15-203



***NOTE:** If your PT-27 torch still has the old style Valve Pin, you will need to retrofit the torch to the improved seat design.

NOTE: New and improved PT-27 spring-loaded seat dramatically improves the torch head life by making the PT-27 resistant to damage due to improperly tightened consumables. This seat will not correct a torch head that is already burned out, but it will prevent torch head burnout on functioning torches.

ORDER:
Seat, Tool, & Installation Instructions P/N 0558003032

PT-31XL Plasma Torch

Parts for Air Cutting

Optional Accessories

35/40 amp XL Spare Parts Kit 21980 *
 40 amp Standard Spare Parts Kit 0558003301 **

*PCM-500I and HANDY PLASMA 550 ONLY.

**PowerCut-650 ONLY.

Plasma Flow Measuring Kit

This valuable troubleshooting tool allows measurement of the actual plasma gas flow through the torch 19765

Torch Guides Kits

The Deluxe kit comes in a rugged plastic carrying case, includes attachments for circle and straight line cutting on ferrous and non-ferrous metals

Deluxe: 1-3/4 in. (44.5 mm) - 42 in. (106 cm) Radius 0558003258

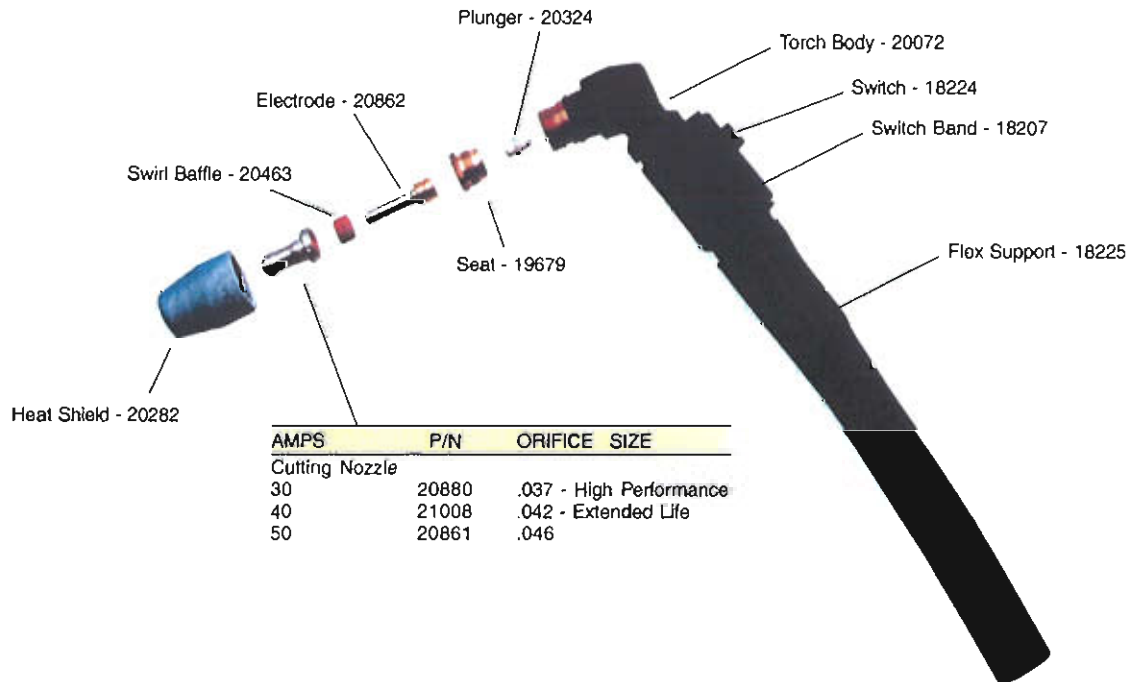
Basic: 1-3/4 in. (44.5 mm) - 28 in. (71 cm) Radius ... 0558002675

Instruction Literature
F-14-246

NOTE: XT nozzles have extended shape.

Contents of Spare Parts Kits

Description	P/N	PT-31XL	PT-31XLPC
		P/N 21980 35/40A XL	P/N 0558003301 30/40A
Heat Shield	20282	1	1
30 amp High Performance Nozzle	20860	-	3
40 amp Extended Life Nozzle	21008	3	-
50 amp Nozzle	20861	-	-
Swirl Baffle	20463	1	1
Electrode	20862	2	2
Plunger	20324	-	-



AMPS	P/N	ORIFICE SIZE
Cutting Nozzle		
30	20880	.037 - High Performance
40	21008	.042 - Extended Life
50	20861	.046

PT-32EH Plasma Torch

Parts for Air Cutting

Optional Accessories

- 50/70 amp Spare Parts Kit (PC-875/1125) 0558002822
- 70 amp Spare Parts Kit (PC-1250) 0558003508
- 70 amp Spare Parts Kit (PC-1250) "CE" 0558003560
- 90 amp Spare Parts Kit (PC-1500) 0558003062
- 90 amp Spare Parts Kit (PC-1500) "CE" 0558003557

Plasma Flow Measuring Kit

This valuable troubleshooting tool allows measurement of the actual plasma gas flow through the torch 19765

Torch Guide Kit

This complete kit, in a rugged plastic carrying case, includes attachments for circle and straight line cutting on ferrous and non-ferrous metals.

Deluxe: 1-3/4 in. (44.5 mm) - 42 in. (106 cm) Radius 0558003258

Basic: 1-3/4 in. (44.5 mm) - 28 in. (71 cm) Radius 0558002675

Stand-off Guide

For proper stand-off distance when drag cutting 0558002393

40 amp Drag Nozzle 0558002908

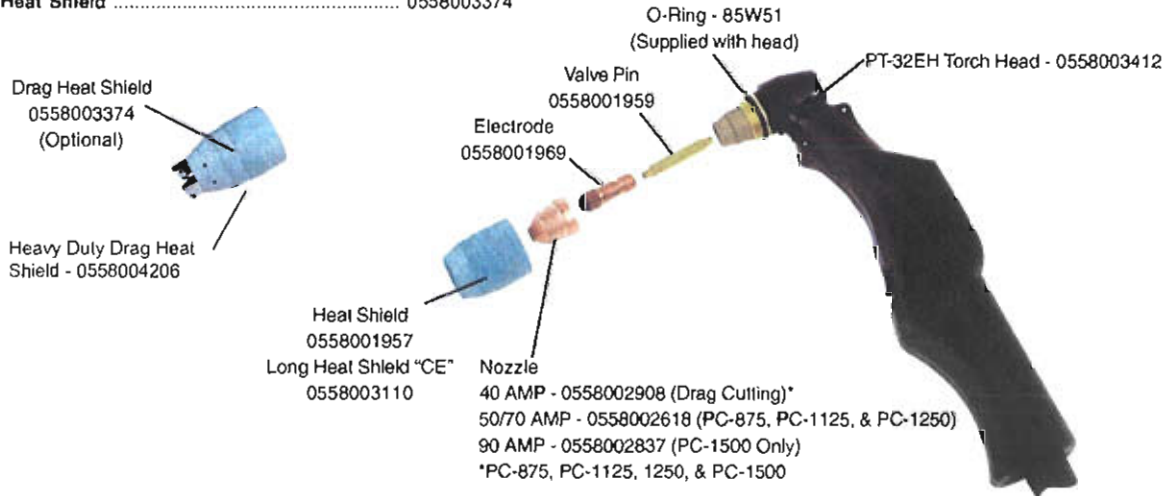
Gouging Nozzle 0558003089

Heat Shield Gouging 0558003090

Heat Shield Long "CE" 0558003110

Drag Heat Shield 0558003374

Instruction Literature
 PT-32EH – F-15-747
 PT-32 – F-15-440



Contents of PT-32EH Spare Parts Kits

Description	P/N	PC-875/1125	PC-1250	PC-1250	PC-1500	PC-1500
		P/N 0558002822 50/70 Amp Quantity	P/N 0558003508 70 Amp Quantity	P/N 0558003560 70 Amp 400V "CE" Quantity	P/N 0558003062 90 Amp Quantity	P/N 0558003557 90 Amp 400V "CE" Quantity
Heat Shield Long	0558003110	-	-	2	-	2
Heat Shield	0558001957	2	2	-	2	-
50/70 amp Nozzle	0558002618	4	4	4	-	-
90 amp Nozzle	0558002837	-	-	-	4	4
40 amp drag Nozzle	0558002908	1	1	1	1	1
Electrode	0558001969	3	3	3	3	3
Valve Pin	0558001959	1	1	1	1	1
Fuse 2 amp, 600vdc	0558003075	-	1	1	1	1
Stand-off Guide	0558002393	1	1	1	1	1
Wrench	19129	1	1	1	1	1
Lubricant	17672	1	1	1	1	1

PT-34 Plasma Torch

Parts for Air Cutting

Equipment Supplied with Packages 37884 and 37885:

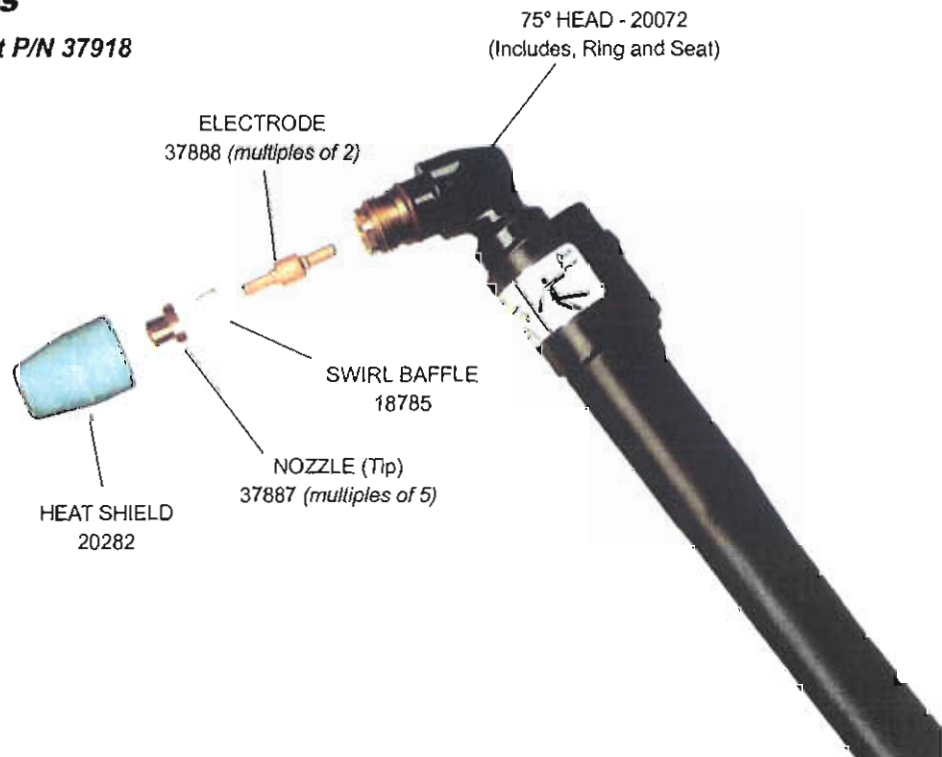
PT-34, 75° Torch w/ 15-ft. lines	37886
Torch Start Up-Kit	
Work Cable, 12-1/2-ft	680950

Optional Accessories

Optional Torch Spare Parts Kit P/N 37918

Contains:

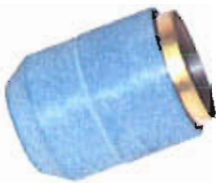
- 2- Heat Shield, P/N 20282
- 4- Nozzle Tip, P/N 37887
- 1- O-Ring Lube P/N 17672
- 2- Electrode, P/N 37888
- 1- Swirl Baffle, P/N 18785



PT-38 Plasma Torch

Instruction Literature
0558007165

Retaining/Shield Cup
40-90A - 0558007549



Gouging Retaining/
Shield Cup
0558008186
(Not Shown)

Electrode
055800-5220



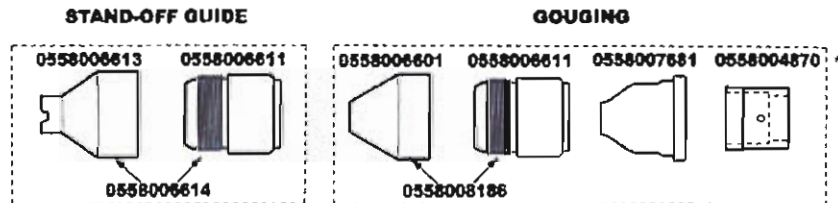
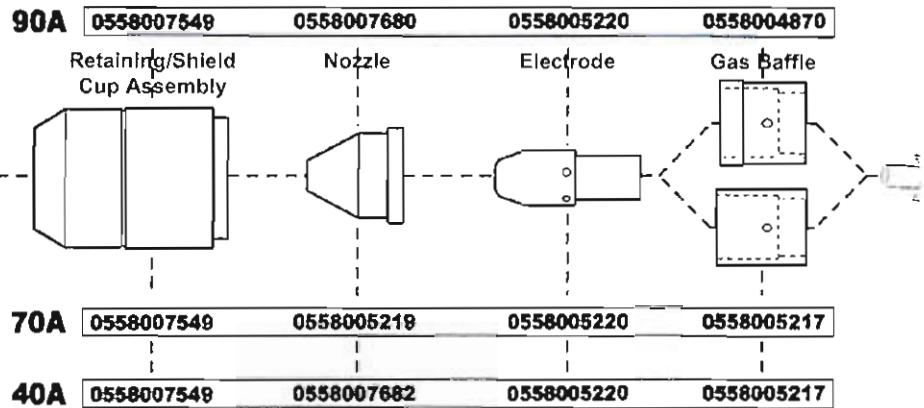
Gas Baffle

90A - 0558004870
40-70A - 0558005217



Nozzle

90A - 0558007680
70A - 0558005219
40A - 0558007682 (Drag)



Silicone Grease - 17672

*Note: When Gouging use 90 amp Baffle (0558004870)

PT-17A Plasma Torch

Parts for Air Cutting

Optional Accessories

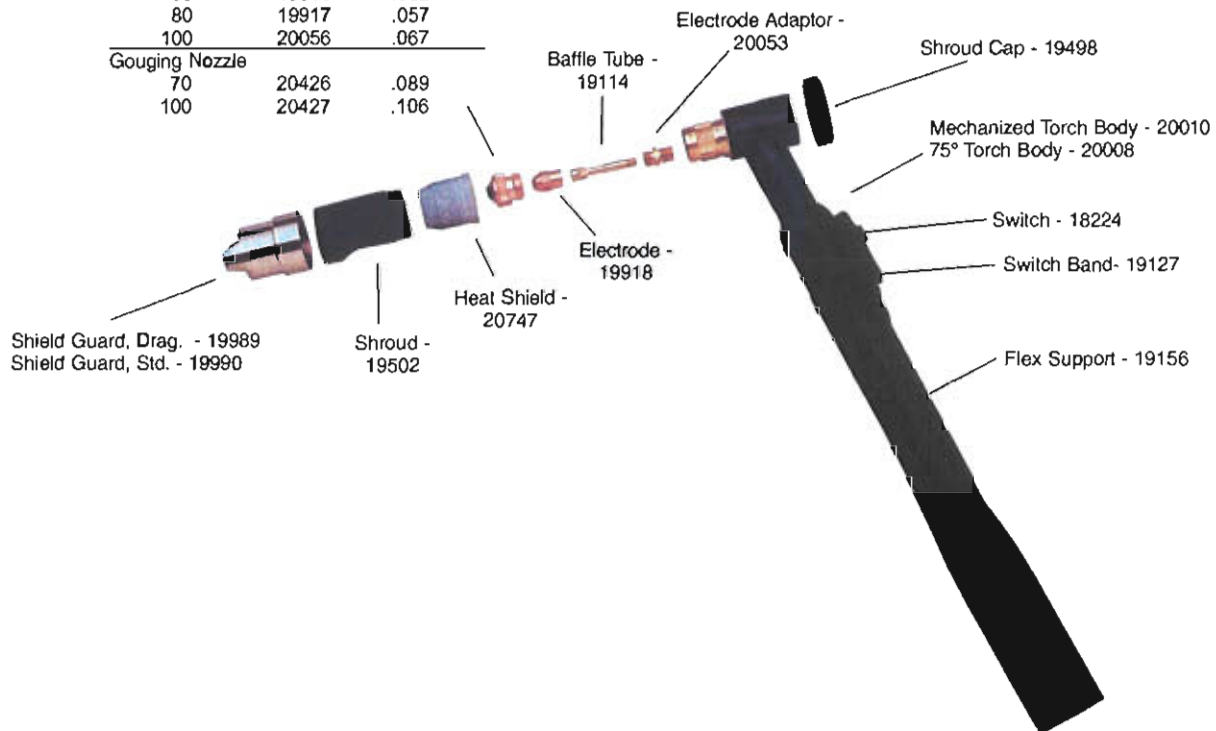
50 amp Spare Parts Kit	20062
70 amp Spare Parts Kit	20063
100 amp Spare Parts Kit	20064
Plasma Flow Measuring Kit	
This valuable troubleshooting tool allows measurement of the actual plasma gas flow through the torch	
	19765
Torch Guide Kit	
This complete kit, in a rugged plastic carrying case, includes attachments for circle and straight line cutting on ferrous and non-ferrous metals, 1-3/4 in. (44.5 mm) - 42 in. (106 cm) Radius	
	604608
Spatter Shield	
Use for piercing	20748
75° Plasmit Torch Head Protector	
For gouging	20803
Mechanical Plasmit Torch Head Protector	
For gouging	20804
Leather Sheath	
10 ft. (25.4 cm) length	20812
Heavy Duty Heat Shield	20747
Heat Shield Guard	19990
Drag Heat Shield Guard	19989

Contents of PT-17A/17AM Spare Parts Kits

Description	P/N	P/N 20062			P/N 20063			P/N 20064		
		50 amp	70 amp	100 amp	50 amp	70 amp	100 amp	50 amp	70 amp	100 amp
Heat Shield	20747	2	2	2						
Shield Guard, Drag	19989	2	2	2						
	Type									
Shield Guard, Std.	19990	1	1	1						
	Type									
Cutting Nozzle, .046	19915	5	5	-						
Cutting Nozzle, .052	19916	-	5	5						
Cutting Nozzle, .057	19917	-	5	5						
Cutting Nozzle, .067	20056	-	-	5						
Electrode	19918	5	5	5						
Electrode Adaptor	20053	1	1	1						
Baffle Tube	19114	1	1	1						
Shroud Cap	19498	1	1	1						
Shroud	19499	1	1	1						
Wrench	19129	1	1	1						
Pilot Arc Adaptor	19497	1	1	1						
70 amp Gouging Nozzle	20426	-	1	1						
100 amp Gouging Nozzle	20427	-	-	1						

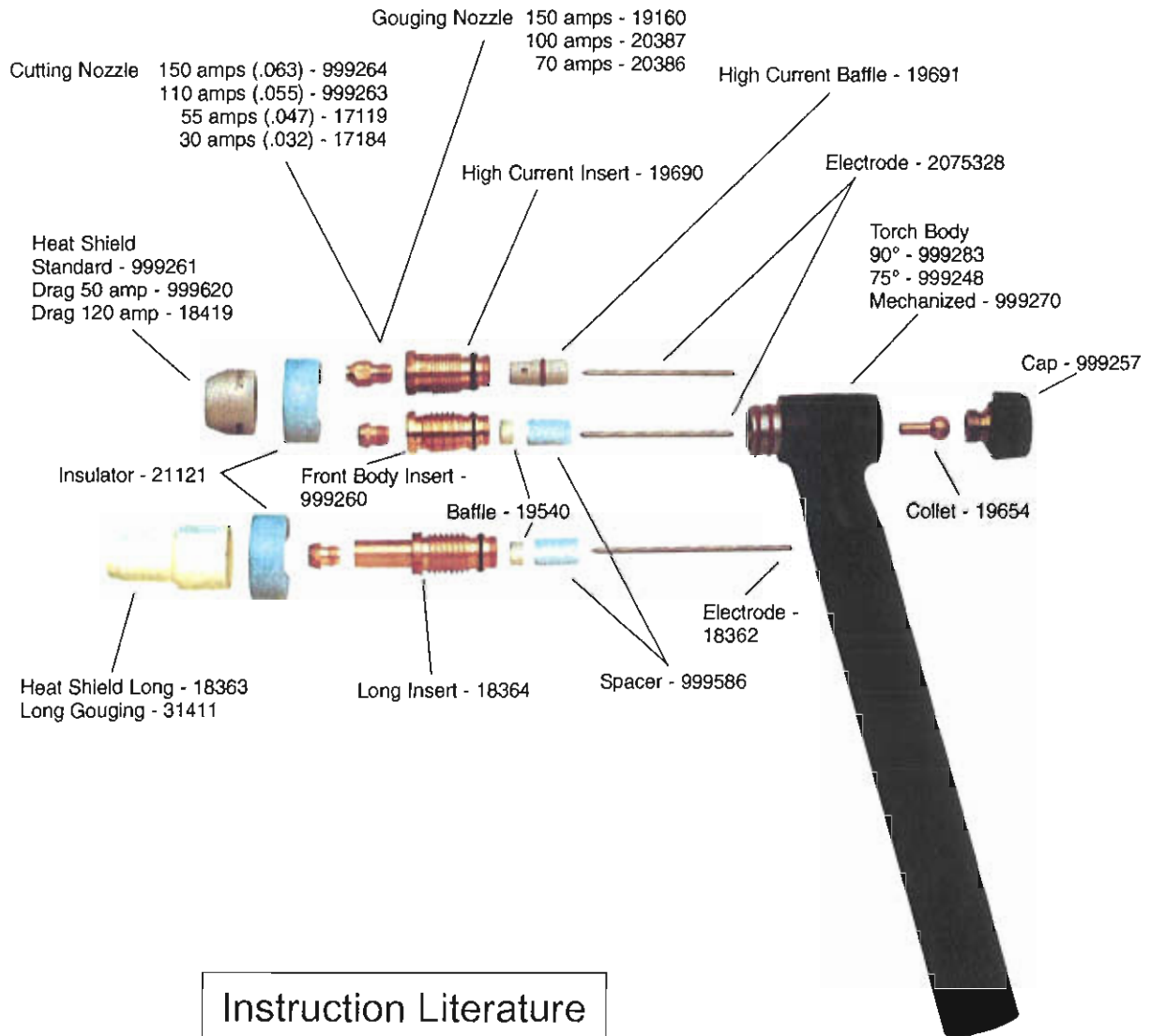
AMPS	P/N	ORIFICE SIZE
Cutting Nozzle		
30	19915	.046
60	19916	.052
80	19917	.057
100	20056	.067
Gouging Nozzle		
70	20426	.089
100	20427	.106

Instruction Literature
F-14-436



PT-121 Plasma Torch

Parts for Nitrogen & H-35 Cutting



Instruction Literature
F-15-794

PT-121 Plasma Torch

Parts Information

Contents of PT-121/PCM-150 Torch Spare Parts Kit (P/N 19539)

Description	Part No.	Quantity	Description	Part No.	Quantity
Cutting Nozzles (0.063 in.)	999264	5	High Current Insert	19690	2
Cutting Nozzles (0.055 in.)	999263	5	High Current Baffle	19691	2
Cutting Nozzles (0.047 in.)	17119	5	Baffle	19540	2
Gouging Nozzles 150 amp	19160	2	Spacer	999586	1
Electrode (Std)	2075328	5	Torch Cap	999257	1
Electrode (Long)	18362	2	O-Ring	994092	5
Collet (Copper), Hvy-duty	19654	2	O-Ring	96W97	2
Heat Shield	999261	2	O-Ring	85W50	2
Heat Shield (Long)	18363	2	Center-Adjust Tool	999266	2
Gouging Heat Shield	31411	2	Tip Wrench	996568	1
Heat Shield (Drag Type)	18419	2	Silicone Lubricant (1 oz.)	17672	1
Front Body Insert	999260	1	Tool Box	950272	1
Front Body Insert (Long)	18364	1			

Instruction Literature, order number F-12-794

Optional Accessories

150 amp Spare Parts Kit	19539
Plasma Flow Measuring Kit	
This valuable troubleshooting tool allows measurement of the actual plasma gas flow through the torch	19765
75° Plasmit Torch Head Protector - For gouging	20742
90° Plasmit Torch Head Protector - For gouging	20801
Mechanical Plasmit Torch Head Protector	20802
Leather Sheath - 10 ft. (254 cm) length	20812
Heavy Duty Gouging Heat Shield	20087
Two-Piece Non-Ceramic Gouging Heat Shield	20378
1.6 mm Cutting Nozzle	20859
Use with centering adjustment tool (P/N 948178)	

Deuce Pack 150

Parts for Air, Nitrogen & H-35 Cutting & Gouging

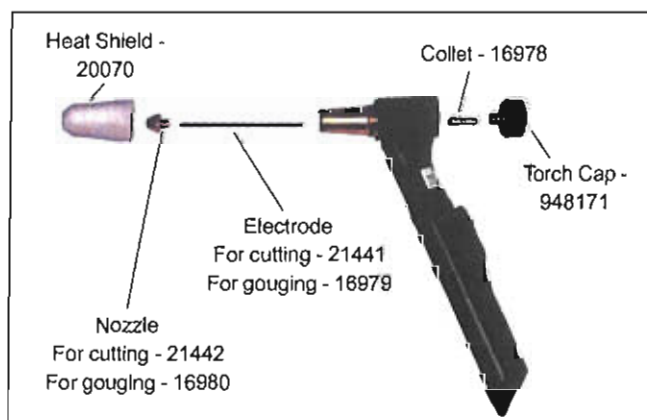
*Contents of DEUCE PACK 150 Spare Parts Kit for PT-251 Torch (P/N 21446)

Description	P/N	Qty
.093 Cutting Nozzles	21442	15
Gouging Nozzles	16980	10
5/32 Cutting Electrodes	21441	3
5/32 Gouging Electrodes	16979	2
5/32 Collet	16978	1
Long Heat Shields	20070	10
Long Front Body	20068	1
Screws	61346255	2
Torch Cap Assembly	948171	1
Gaskets	948179	4
O-Rings	86W99	4
O-Rings	14K12	4
Rubber Plugs	950423	2
Cutting Center Adjust Tool	21443	1
Gouging Center Adjust Tool	16985	1
Tip Wrench	2064111	1
1-oz. Silicone Lubricant	17672	1
Hex Screwdriver	2064112	1

Contents of PT-26 Spare Parts Kit (P/N 36821)

Description	P/N	Qty
Electrode Air/N ₂	36565	3
Electrode H-35	36566	3
Nozzle 50A	36567	3
Nozzle 150A	36568	3
Nozzle 200A	36569	3
Nozzle 300A	36570	3
Nozzle Gouging 200A	36571	1
Nozzle Gouging 300A	36572	1
Wrench	19129	1
Heat Shield	34592	1
Stand-Off Guide	36648	1

Instruction Literature
F-15-777



PT-251 with Long Front Body

