

## Upgrade to SilverLine® technology!

Patented SilverLine technology improves electrode and nozzle life so you can cut more metal with one set of consumables. To start saving with SilverLine just follow the instructions on our Quick Set-up card: the more you cut the more you save!

Centricut product for ESAB®

# PT-600

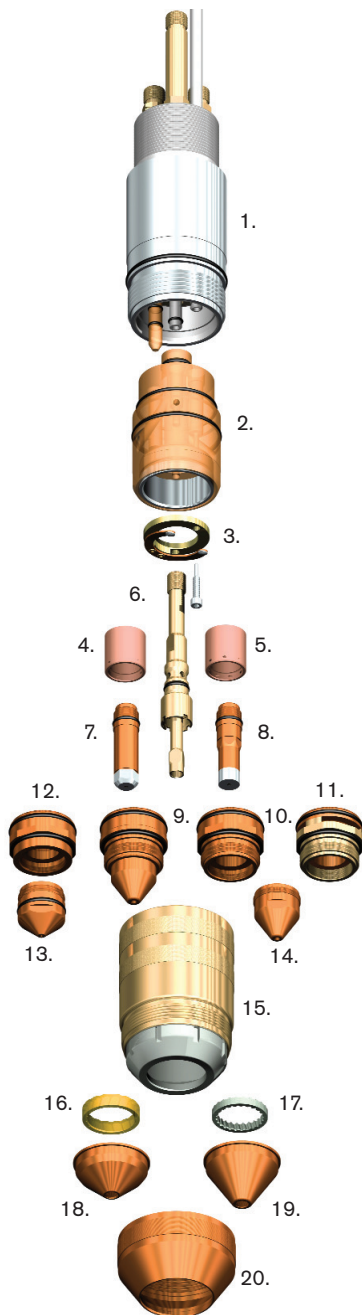
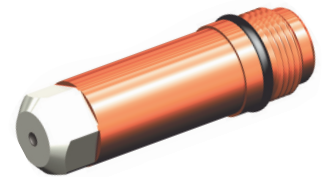
## Quick Set-up



### SilverLine electrodes on average last twice as long as standard electrodes.

The hafnium-silver bond is more effective than hafnium-copper in standard electrodes. This allows the SilverLine electrode to achieve a 33% deeper pit depth.

The robust copper-silver interface, combined with the hafnium-silver bond deliver consistent performance and lower the overall cost of cutting.



Part number	Reference	Description
1. C47-066	37066	Torch body
C96-925	0558001825	Torch body, modular (includes item #2)
C96-993	N/A	SilverLine, torch assembly, 250 amp
C96-994	N/A	SilverLine, torch assembly, 360 amp
2. C47-083	37083	Insulator body
C47-073	37073	Screw, contact ring
3. C47-071	37071	Contact ring assembly
4. C47-142	948142, 0558002533	Gas swirl baffle, ceramic, 4 x .032"
L47-143	948143, 0558002534	Gas swirl baffle, ceramic, 4 x .032", rev
5. C10-660	35660, 0558001625	Gas swirl baffle, ceramic, 8 x .047"
L47-194	22194	Gas swirl baffle, ceramic, 32 x .023"
6. C96-621	0558001621	Electrode holder
7. C96-1024	0558001624	SilverLine electrode, 250 amp
8. C96-1016	0558002516	SilverLine electrode, 360/400 amp
9. C47-822	21822, 0558001623	Nozzle, .099, 250 amp
C47-885	35885, 0558001885	Nozzle, .120, 360 amp
C47-195	22195, 0558001886	Nozzle, .130, 400 amp
L47-401	22401, 0558001887	Nozzle, 600 amp
10. C47-028	22028	Nozzle base
11. C47-928	N/A	Nozzle base, extended life, 100 – 400 amp
12. C47-027	22027	Nozzle base, 50 amp
13. C47-026	22026	Nozzle tip, .041, 50 amp
14. C47-029	22029	Nozzle tip, .071, 100 amp
C47-030	22030	Nozzle tip, .082, 150 amp
C47-031	22031	Nozzle tip, .091, 200 amp
C47-922	22032	Nozzle tip, .099, 250 amp
C47-985	22034	Nozzle tip, .120, 360 amp
C47-995	22033	Nozzle tip, .130, 400 amp
15. C47-082	37082	Nozzle retaining cap
16. L47-796	21796	Diffuser, 50 amp
17. C47-944	21944	Diffuser, 100 – 600 amp
C47-496	22496	Diffuser, 100 – 600 amp, rev
18. L47-795	21795	Shield, 50 amp
19. C47-802	21802	Shield, 100 – 250 amp
C47-945	21945	Shield, 325 – 600 amp
20. C47-081	37081	Shield retainer
C10-483	19483, 0558001626	Double threaded mounting tube
C47-900	N/A	Insulating tube kit, PT-19XLS/PT-600

## Recommended parameters for mild steel cutting with oxygen

Thickness		Amps	Plasma start gas		Plasma cut gas		Shield start gas		Shield cut gas		Arc voltage	Cut height		Initial height		Speed		Pierce delay
in.	mm	A	psi	bar	psi	bar	psi	bar	psi	bar	V	in.	mm	in.	mm	in/min	mm/min	sec
1/8	3	100	25	1.7	47	3.2	20	1.4	10	0.7	123	.156	4	.375	10	190	4826	0
1/4	6		25	1.7	44	3.0	20	1.4	18	1.2	133	.156	4	.375	10	120	3048	0
3/8	10		25	1.7	47	3.2	20	1.4	16	1.1	149	.187	5	.375	10	80	2032	0.2
1/2	13	150	20	1.4	38	2.6	20	1.4	16	1.1	140	.250	6	.500	13	75	1905	0.4
5/8	16		20	1.4	44	3.0	21	1.5	18	1.2	151	.312	8	.500	13	55	1397	0.5
3/4	19		20	1.4	38	2.6	18	1.2	10	0.7	157	.394	10	.500	13	45	1143	0.8
1/2	13	200	25	1.7	44	3.0	20	1.4	10	0.7	129	.250	6	.500	13	90	2286	0.2
5/8	16		20	1.4	41	2.8	20	1.4	11	0.8	139	.250	6	.500	13	65	1651	0.3
3/4	19		25	1.7	41	2.8	18	1.2	11	0.8	142	.312	8	.500	13	55	1397	0.3
1	25	250	25	1.7	41	2.8	18	1.2	12	0.9	153	.312	8	.500	13	40	1016	0.5
1/2	13		25	1.7	44	3.0	20	1.4	16	1.1	135	.312	8	.500	13	115	2921	0.2
5/8	16		25	1.7	41	2.8	14	1.0	12	0.9	138	.312	8	.500	13	80	2032	0.1
3/4	19	360	25	1.7	38	2.6	18	1.2	12	0.9	142	.312	8	.500	13	65	1651	0.2
1	25		25	1.7	38	2.6	18	1.2	12	0.9	150	.416	11	.625	16	50	1270	0.4
1-1/4	32		26	1.8	44	3.0	22	1.5	22	1.5	162	.416	11	.625	16	33	838	0.8
3/4	19	400	25	1.7	35	2.4	22	1.5	22	1.5	132	.312	8	.500	13	100	2540	0.3
1	25		25	1.7	35	2.4	22	1.5	22	1.5	141	.416	11	.625	16	65	1651	0.7
1-1/4	32		25	1.7	38	2.6	22	1.5	22	1.5	146	.416	11	.625	16	45	1143	0.9
1	25	400	25	1.7	37	2.5	22	1.5	22	1.5	141	.416	11	.625	16	80	2032	0.3
1-1/4	32		25	1.7	37	2.5	22	1.5	22	1.5	142	.416	11	.625	16	60	1524	0.7
1-1/2	38		25	1.7	37	2.5	22	1.5	22	1.5	150	.416	11	.625	16	43	1092	1.2

### Achieve maximum consumable life

**Use electrode to full life:** A fully used SilverLine electrode will have a pit depth of .120" (3.0 mm). This is deeper than the recommended pit depth for standard parts of .090" (2.3 mm).

**Properly tighten the nozzle retaining cap:** Make sure the nozzle retainer is sealed tightly against the nozzle to prevent leaking.

**Purge torch:** After each parts change, purge the torch for at least 30 seconds to remove residual moisture.

**Leak check:** After purging the torch, make sure all o-ring seals are tight and there are no torch coolant leaks.

**Adjust plasma gas pressure:** Plasma gas flow rate is critical. High flow will cause rapid electrode wear and hard starting. Low flow will cause uncontrolled arcing.

**Adjust shield gas pressure:** Refer to the cut chart for optimum shield gas pressure. Having the correct start shield flow provides protection to the nozzle and shield during the pilot process.

**Contact your Hypertherm distributor or call 1-800-752-7623 for the location nearest to you.**

**Pierce at correct height:** Refer to the cut chart for optimum pierce (initial) height. Piercing too low causes molten metal (spatter) to hit the shield and nozzle – the most common cause of premature nozzle failure. Piercing too high can cause misfires.

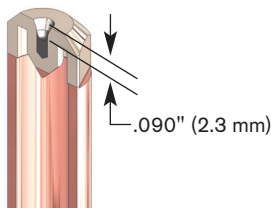
**Adjust arc voltage:** As the consumables wear, the torch will get closer to the plate. To maintain optimum cutting height, increase arc voltage in 5-volt increments, up to 20 volts higher than the initial setting.

**Avoid arc stretching:** This can occur during rip cutting off the plate or when the lead out is improperly programmed. This shortens consumable life.

**Clean the nozzle and shield:** Periodically clean the nozzle and shield to remove spatter. This will prevent double arcing which shortens consumable life.

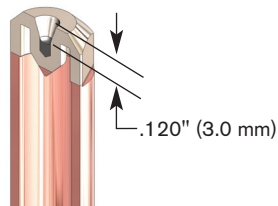
#### Partially-used electrode

This SilverLine electrode is only partially consumed. The pit in the center of the part measures .090" (2.3 mm). Electrodes are often removed prematurely due to cut quality deterioration related to nozzle failure. Additional life can be achieved by replacing the nozzle and leaving the electrode in place.



#### Fully-used electrode

This SilverLine electrode has provided full use. The pit depth is .120" (3.0 mm). The operator increased the arc voltage in 5-volt increments, up to 20 volts from the first cuts made with this electrode to the last. This maintains a constant distance between the torch and the work-piece through the life of the electrode.



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