



Consumables for Komatsu Razor systems

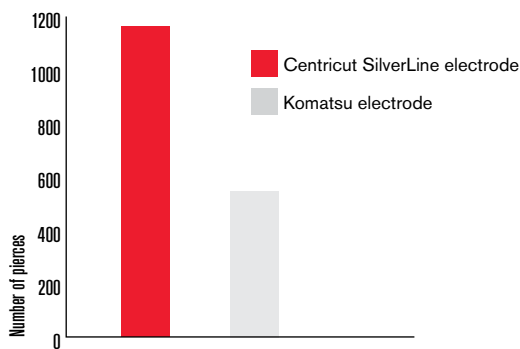


Lower your operating costs and improve your efficiency by upgrading to Centricut performance consumables.

Lower costs

- Centricut® SilverLine® electrodes have more than twice the life of Komatsu electrodes reducing the number of consumable parts purchased and improving the up-time of your cutting system.
- Centricut CoolFlow™ nozzles improve torch leak resistance allowing for longer overall consumable life and process reliability.
- SilverLine electrodes and CoolFlow nozzles deliver exceptional cut quality and fast cutting speeds over the full life of the consumables.

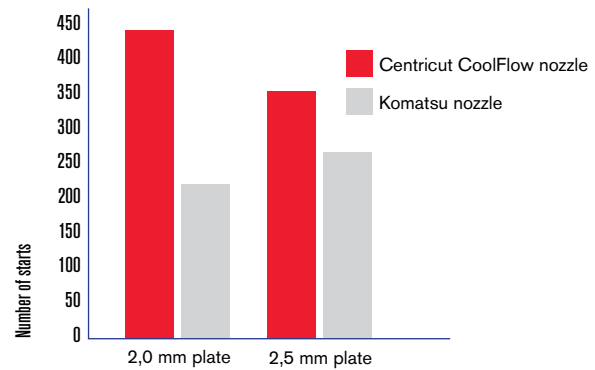
Electrode life
Cutting mild steel with O₂ at 120 A



Cut with confidence – it's Hypertherm

- As the recognized global leader in plasma cutting, Hypertherm® incorporates the latest engineered and patented technologies into all consumable products.
- Designed with critical-to-function tolerances to deliver the best quality product every time.
- Precision manufacturing of consumables assures consistency of parts, set to set.
- World-class plasma-process technical support.
- Easy to use – no special system set up required.

Nozzle life
Cutting mild steel with O₂ at 40 A in a customer application



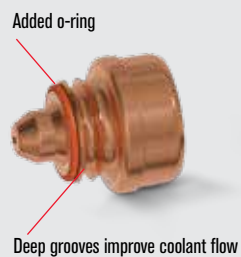
SilverLine electrode



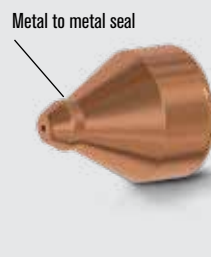
Komatsu electrode



CoolFlow nozzle



Komatsu nozzle

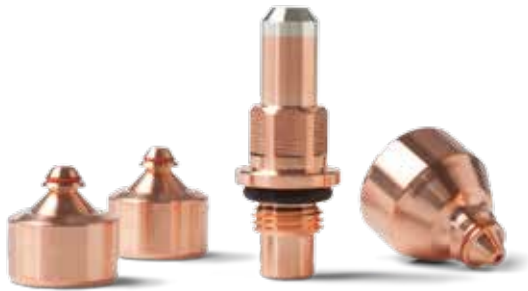


SilverLine electrode technology

- Robust solid-state copper/silver weld joint insures electrical and thermal conductivity improving overall electrode performance.
- A solid silver front-end maximizes hafnium pit depth and slows hafnium wear rate delivering longer consumable life.
- Redesigned electrode nose geometry improves the plasma gas flow to increase electrode life and performance.

CoolFlow nozzle technology

- Improved cooling maintains the size and shape of the orifice resulting in maximum life.
- Computer-designed contours optimize the coolant flow around the nozzle and substantially lower the operating temperature.
- O-rings on the nozzle insure a secure seal keeping coolant away from the plasma chamber and extending consumables and torch life.



Rasor 90/120 cut settings to optimize performance

		1/16	3/32	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4
Metal thickness	in.	1/16	3/32	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4
	mm	1,6	2,4	3,2	4,8	6,4	8	9,5	13	16	19
Air assist	Kg/cm ²	0	0	2-2	2-3	3-4	3-4	4-5	4-5	5-6	5-6
Pierce height	in.	0.125	0.125	0.125	0.125	0.25	0.25	0.25	0.3	0.3	0.3



To achieve maximum consumable life

A fully used SilverLine electrode will have a pit depth of 2,5 mm. Standard electrodes only achieve a pit depth of 1,3 mm before failing.

Properly tighten the retaining caps: Make sure both retaining caps are sealed tightly to maintain a proper seal and prevent leaking.

Purge torch and leak check: After each parts change purge the torch for at least 30 seconds to remove residual moisture. Check for leaks.

Verify plasma gas flow: Plasma gas flow rate is critical. High flow will cause rapid electrode wear and hard starting. Low flow will cause uncontrolled arcing. (See cutting tables in your owner's manual for plasma gas settings.)

Optimize assist gas: Increased assist gas helps to keep the nozzle clean and cool. (See cutting table below for optimal assist gas setting.)

Optimize pilot arc setting: Hypertherm recommends using the lowest possible pilot arc setting to achieve arc transfer.

Pilot current is adjustable with a toggle switch on the power supply or as a function in the Operator Control Unit (OCU).

Shield recommendation: Hypertherm recommends the use of 90-amp shield and spacer ring for all cutting. This shield provides greater nozzle protection.

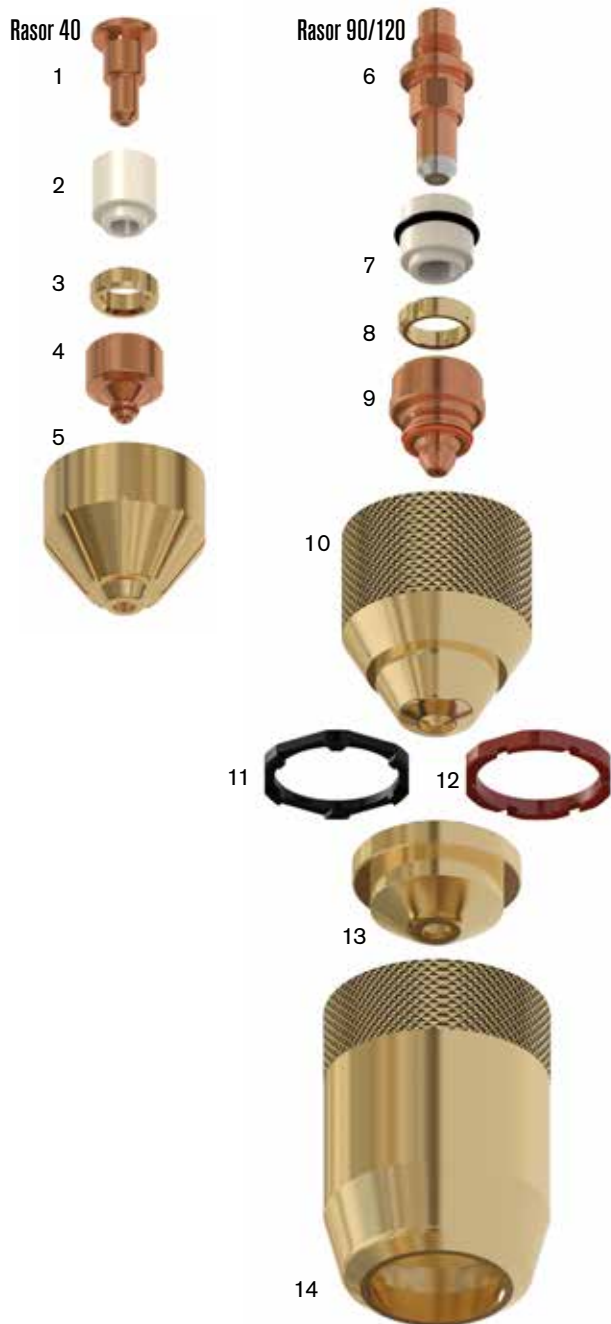
Pierce at optimized height: Hypertherm recommends piercing at a height optimized for this torch. Piercing too low causes molten metal (spatter) to hit the shield cap and nozzle. This is the most common cause of premature nozzle failure. Piercing too high can cause slow arc transfer and misfires. (See the table above for the Rasor 90/120.)

Adjust arc voltage: As the electrode wears, the torch will get closer to the plate. To maintain optimum cutting height, increase arc voltage in 2-volt increments up to 10 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 cap: Periodically clean the nozzle and shield cap to remove spatter. This will prevent double arcing which shortens consumable life.

Centricut products deliver superior performance and reliability at a competitive price.



Parts list

	Centricut number	Reference number	Description
Razor 40			
1	C33-930	65-0432-005, 7848-60-5910	Electrode with o-ring
2	C33-021	65-0432-021, 7848-60-5450	Ceramic guide
3	C33-006	65-0432-006, 7848-60-5350	Swirler, standard, CCW
	C33-066	65-0432-066, 7848-60-5860	Swirler, reverse, CW
4	C33-140	65-0432-003, 7848-60-5150	CoolFlow™ nozzle, O ₂ , 0.4 mm
	C33-130	65-0432-002, 7848-60-5130	CoolFlow nozzle, O ₂ , 0.6 mm
	C33-160	65-0432-013, 7848-60-5160	CoolFlow nozzle, O ₂ , 0.7 mm
5	C33-008	65-0432-001, 7848-60-5110	Cap #1
	C33-008T	N/A	Cap #1 with tab
	C33-007	65-0432-007, 7848-60-9850	O-ring kit
	K33-010	969-94-41010	Razor 40 torch body
	K33-420	65-0432-020	Razor 40 torch body with 1,8 mm leads
	O27055	N/A	O-ring lubricant 0.25 oz. (7 ml) tube
Razor 90/120			
6	C35-1020*	65-0442-001, 969-95-40220	SilverLine® electrode, 90-120 amp
7	C35-350	65-0434-020, 969-95-40160	Ceramic guide with o-ring
8	C35-018	65-0434-018	Swirler, 90 amp, CCW
	C35-003	65-0442-003, 969-95-40240	Swirler, 120 amp, CW
9	C35-160	65-0434-017, 7848-65-5160	CoolFlow nozzle, O ₂ , 0,8 mm
	C35-180	65-0434-007, 7848-65-5180	CoolFlow nozzle, O ₂ , 1,1 mm
	C35-002	65-0442-002, 969-95-40211	CoolFlow nozzle, O ₂ , 1,3 mm
	C35-8002	65-0438-002, 969-95-21110	CoolFlow nozzle, "S", 0,8 mm, quick silver
	C35-8003	65-0438-003, 969-95-21120	CoolFlow nozzle, "S", 1,1 mm, quick silver
10	C35-015	65-0434-015, 7848-65-5520	Cap #1
11	C35-540	65-0434-022, 7848-65-5540	Spacer ring, 90 amp
12	C35-250	65-0442-004, 969-95-40250	Spacer ring, 120 amp
13	C35-019	65-0434-019, 7848-65-5530	Shield cap, 90 amp
	C35-905	65-0442-005, 969-95-40270	Shield cap, 120 amp
	C35-004	65-0438-004, 969-95-21130	Shield cap, quick silver
14	C35-016	65-0434-016, 7848-65-5311	Cap #2
	C35-020	65-0438-005, 969-95-21140	Cap #2, quick silver
	C35-110	65-0442-009, 969-94-21110	Cooling tube, 90/120 amp
	K35-021	65-0434-021, 7848-65-9850	O-ring kit
	K35-006	65-0442-006	Razor 90/120 torch body without o-rings
	K35-690	969-94-49690	Razor 90/120 torch body with 6' leads
	O27055	N/A	O-ring lubricant 0.25 oz. (7 ml) tube

Contact Hypertherm to locate a distributor near you.

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One of Hypertherm's long-standing core values is a focus on minimizing our impact on the environment. Doing so is critical to our, and our customers' success. We are always striving to become better environmental stewards; it is a process we care deeply about.



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