

HyPro2000™ upgrade torch for MAX200®



The HyPro2000 for the MAX200 provides increased productivity through 25% faster speeds, 75% longer life and a quick-disconnect torch

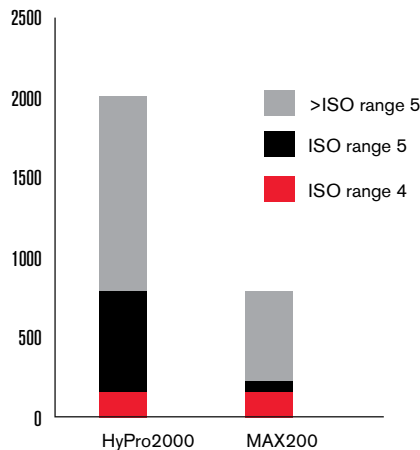
25% Increase in cutting speed

- HyPro2000 technology dramatically improves productivity with increased cut speeds of 25%, compared to the standard MAX200.

Quick-disconnect torch

- The HyPro2000 torch is a quick-disconnect with an easy alignment feature.

Cut quality over life (200 A)
12 mm (1/2") mild steel, 15 m (50') leads



The graph shows tested HyPro2000 consumables improving life by at least 75% over MAX200 standard copper

75% Increase in consumable life

- HyPro2000 consumable technology dramatically reduces operating cost with a 75% increase in consumable life, compared to the standard MAX200 copper electrode.

“As a steel structure manufacturer productivity is critical to our success. By simply retrofitting our recently purchased MAX200 with the new HyPro2000 torch, we’ve realized a 25% increase in hourly part production with the 30% increase in cutting speeds and improved consumable life at 200 amps. We are thrilled to have gained such a dramatic improvement in productivity for such a minimal investment.”

– Mr. Claude Simard,
Owner Jean Simard et Fils P.D.L. Lte. Trois-Rivieres,
QC, Canada

Technologies

Chambered Swirl Ring	gradually reduces gas pressure at the end of the cut to stabilize the hafnium insert prior to arc termination; this extends nozzle and electrode life.
Conical Flow™	nozzle technology increases arc energy density for superior cut quality with little dross.
CoolFlow™	delivers enhanced cooling of the nozzle through key features such as a deep groove, angled o-ring seal and specific shoulder contact for increased nozzle life and cut quality.
HyLife®	extends electrode life and lowers operating costs.
LongLife®	ramps current and gas flow up and down in a tightly controlled manner to reduce electrode and nozzle erosion.
TrueFlow™	allows for centered electrode alignment with the water tube to ensure optimal cooling, which increases life and produces a higher and consistent cut quality.
Vented Shield	is electrically isolated to prevent double arcing, the vent holes around the orifice stabilize the arc, cool the consumables, and protect them from spatter. These features improve piercing capabilities and increase consumable life.



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HyPro2000™ upgrade consumables for MAX200®

Technologies

Chambered
swirl ring

Conical Flow™

CoolFlow™

HyLife®

LongLife®

TrueFlow™

Vented shield



Mild steel /stainless steel/aluminum consumables

	Amperage	Shield	Retaining cap	Nozzle	Swirl ring	Electrode	Water tube
Air	50 A	220532	220936	220890	220529	220528	220521
			220935 without tab				
	130 A	220536	220936	220892	220488	220487	220521
			220935 without tab				
	200 A	420045	220936	420044	220488	220937	220521
			220935 without tab				



Mild steel consumables

	Amperage	Shield	Retaining cap	Nozzle	Swirl ring	Electrode	Water tube
O ₂	130 A	220536	220936	220892	220488	220487	220521
			220935 without tab				
	200 A	420045	220936	420044	220488	220937	220521
			220935 without tab				



Stainless steel/aluminum consumables

	Amperage	Shield	Retaining cap	Nozzle	Swirl ring	Electrode	Water tube
N ₂	200 A	420045	220936	420044	220529	020415	220521
			220935 without tab				



HyPro2000™ upgrade torch assembly options for MAX200®



HyPro2000 straight torch

Torch upgrade kits

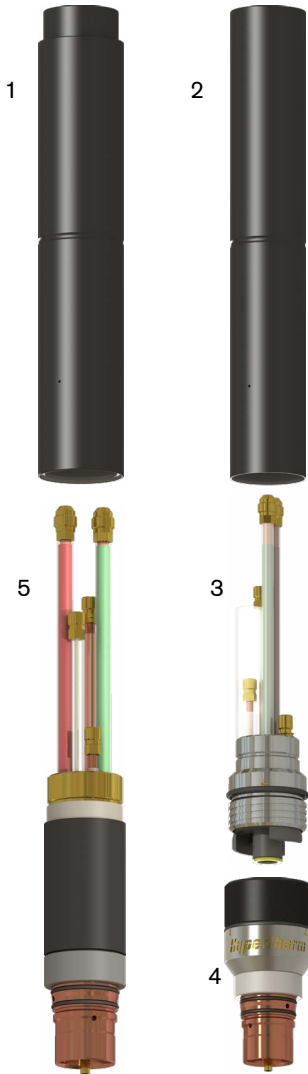
Part number	Kit	Description
228908	HyPro2000 for MAX200® quick-disconnect	Includes: machine torch (loaded with consumables), quick-disconnect receptacle, mounting sleeves (2" and 1.75"), 200 A Air/O ₂ electrodes (2), 200 A Air/O ₂ nozzles (2), silicone lubricant for o-rings, consumable removal tool, plastic tube for hoses, plasma gas extension hose, operating manual.
428256	HyPro2000 for MAX200 straight torch with 45 mm (1.75") sleeve	Includes: machine torch (loaded with 200 A consumables), mounting sleeve 45 mm (1.75"), silicone lubricant for o-rings, consumable removal tool, plastic tube for hoses, 200 A Air cut charts.
428255	HyPro2000 for MAX200 straight torch with 50 mm (2") sleeve	Includes: machine torch (loaded with 200 A consumables), mounting sleeve 50 mm (2"), silicone lubricant for o-rings, consumable removal tool, plastic tube for hoses, 200 A Air cut charts.



HyPro2000 quick-disconnect torch

Standard leads

Part number	Lead length
028383	7.5 m (25')
028457	9 m (30')
028458	10 m (35')
028459	12 m (40')
028460	14 m (45')
028773	18 m (60')
028781	30 m (100')



Mounting sleeves

	Part number	Length	Diameter
1	220943	279.4 mm (11")	50.8 mm (2")
2	220942	279.4 mm (11")	44.45 mm (1.75")

Torch options

	Part number	Description
3	220913	Quick-disconnect receptacle
4	220921	HyPro2000 Quick-disconnect torch
5	220961	HyPro2000 Straight torch

Additional parts available (not shown)

Part number	Description
104119	Consumables removal tool
027055	Silicone lubricant for o-rings
028872	Torch coolant - Cool solution: 70/30 PG, 1-gal.

See page 56 to learn about the value of preventive maintenance.

HyPro2000™ upgrade torch for HT2000®



The New HyPro2000 for the HT2000 provides increased productivity through 50% faster speeds, 75% longer life and a quick-disconnect torch.

50% Increase in cutting speed

- HyPro2000 technology dramatically improves productivity with increased cut speeds of 50% compared to the standard HT2000.

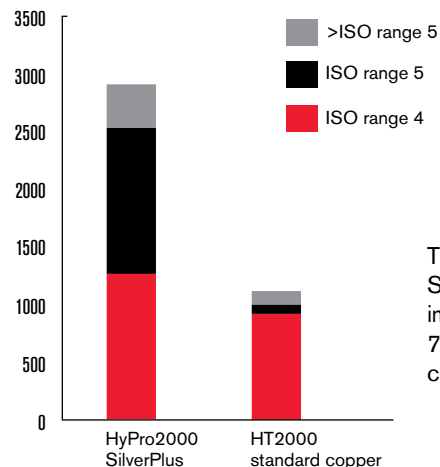
75% increase in consumable life

- HyPro2000 consumable technology dramatically reduces operating cost with significant increase in consumable life using SilverPlus®.

Quick-disconnect torch

- The HyPro2000 torch is a quick-disconnect with an easy alignment feature.

Cut quality over life (200 A)*
12 mm (1/2") mild steel



The graph shows HyPro2000 SilverPlus electrodes improving life by at least 75% over HT2000 standard copper.

*Results based on lab testing performed with torch manufacturer's recommended operating conditions. 20-second tests with 20% rampdown errors.



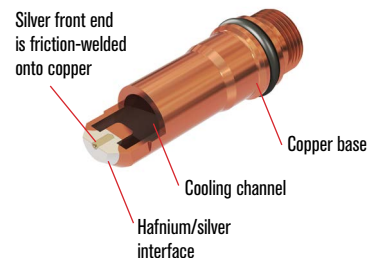
Plasma press test gauge, lubricant, HyPro2000 torch upgrade firmware, hose assemblies, consumable removal tool included with the upgrade kit.

“At NSC, we are very pleased with the performance of the New HyPro2000. Our productivity has improved with double-digit cut-speed increases and significant time reductions in consumable changes using the quick-disconnect torch system. Since the installation of the HyPro2000 torches we have enjoyed an increase in quality and productivity to an already reliable cutting system.”

– National Steel Car

Technologies

Chambered Swirl Ring	gradually reduces gas pressure at the end of the cut to stabilize the hafnium insert prior to arc termination; this extends nozzle and electrode life.
Conical Flow™	nozzle technology increases arc energy density for superior cut quality with little dross.
CoolFlow™	delivers enhanced cooling of the nozzle through key features such as a deep groove, angled o-ring seal and specific shoulder contact for increased nozzle life and cut quality.
HyLife®	extends electrode life and lowers operating costs.
LongLife®	ramps current and gas flow up and down in a tightly controlled manner to reduce electrode and nozzle erosion.
SilverPlus®	silver front end tip which dramatically extends electrode life, reduces the number of change outs and significantly reduces operating cost. For more information on SilverPlus technology, see page 21.



TrueFlow™	allows for centered electrode alignment with the water tube to ensure optimal cooling, which increases life and produces a higher and consistent cut quality.
Vented Shield	is electrically isolated to prevent double arcing, the vent holes around the orifice stabilize the arc, cool the consumables, and protect them from spatter. These features improve piercing capabilities and increase consumable life.



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to watch the installation demonstration video

HyPro2000™ upgrade consumables for HT2000®

Technologies

Chambered
swirl ring

Conical Flow™

CoolFlow™

HyLife®

LongLife®

SilverPlus®

TrueFlow™

Vented shield



Mild steel consumables

	Amperage	Shield	Shield cap	Nozzle	Swirl ring	Electrode	SilverPlus electrode	Water tube
O ₂	50 A	220532	220936	220891	220529	220528	-----	220521
			220935 without tab				-----	
	130 A	220491	220936	220893	220488	220487	420185	220521
			220935 without tab					
	200 A	220832	220936	220831	220834	220937	220925	220521
			220935 without tab					



Mild steel /stainless steel/aluminum consumables

	Amperage	Shield	Shield cap	Nozzle	Swirl ring	Electrode	Water tube
Air	50 A	220532	220936	220890	220529	220528	220521
			220935 without tab				
	130 A	220536	220936	220892	220488	220487	220521
			220935 without tab				
	200 A	420045	220936	420044	220488	220937	220521
			220935 without tab				



Stainless steel/aluminum consumables

	Amperage	Shield	Shield cap	Nozzle	Swirl ring	Electrode	Water tube
N ₂	200 A	420045	220936	420044	220529	020415	220521
			220935 without tab				



HyPro2000™ upgrade torch assembly options for HT2000

Torch upgrade kits

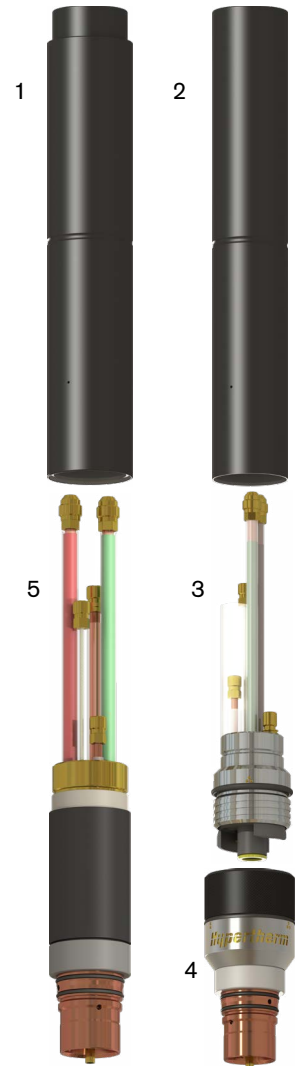
Part number	Kit	Description
HyPro2000 Quick-disconnect torch		
228549	HyPro2000 (Systems prior to 2003) RHF serial number 2000-06450 and below LHF serial number 2lhf2000-000580 and below.	Includes: control board, machine torch (loaded with consumables), quick-disconnect receptacle, mounting sleeves (2" and 1.75"), 200 A O ₂ shield, 200 A O ₂ shield cap, 200 A O ₂ nozzles, 200 A O ₂ swirl ring, 200 A O ₂ SilverPlus® electrodes, 200 A O ₂ copper electrodes, silicone lubricant for o-rings, consumable removal tool, chip removal tool, chip upgrade, pressure gage, plastic tube for hoses, hose (24"), operating manual.
228550	HyPro2000 (2003–current systems) RHF serial number 2000-06451 and above LHF serial number 2lhf2000-000581 and above.	Includes: machine torch (loaded with consumables), quick-disconnect receptacle, mounting sleeves (2" and 1.75"), 200 A O ₂ shield, 200 A O ₂ shield cap, 200 A O ₂ nozzles, 200 A O ₂ swirl ring, 200 A O ₂ SilverPlus® electrodes, 200 A O ₂ copper electrodes, silicone lubricant for o-rings, consumable removal tool, chip removal tool, chip upgrade, pressure gage, plastic tube for hoses, hose (24"), operating manual.
HyPro2000 for punch presses		
228778	HyPro2000 (Systems prior to 2003) RHF serial number 2000-06450 and below. LHF serial number 2lhf2000-000580 and below.	Includes: control board, straight torch for punch presses, mounting sleeves (2" and 1.75"), 200 A O ₂ shield, 200 A O ₂ shield cap, 200 A O ₂ nozzles, 200 A O ₂ swirl ring, 200 A O ₂ SilverPlus® electrodes, 200 A O ₂ copper electrodes, silicone lubricant for o-rings, consumable removal tool, chip removal tool, chip upgrade, pressure gage, plastic tube for hoses, hose (24"), operating manual.
228777	HyPro2000 (2003 – current systems) HF serial number 2000-06451 and above LHF serial number 2lhf2000-000581 and above.	Includes: straight torch for punch presses, mounting sleeves (2" and 1.75"), 200 A O ₂ shield, 200 A O ₂ shield cap, 200 A O ₂ nozzles, 200 A O ₂ swirl ring, 200 A O ₂ SilverPlus® electrodes, 200 A O ₂ copper electrodes, silicone lubricant for o-rings, consumable removal tool, chip removal tool, chip upgrade, pressure gage, plastic tube for hoses, hose (24"), operating manual.



HyPro2000 straight torch



HyPro2000 quick-disconnect torch



Standard leads – RHF

Part number	Lead length
028658	4.6 m (15')
028659	6.1 m (20')
028546	7.6 m (25')
028660	9.2 m (30')
028661	10.6 m (35')
028662	12.2 m (40')
028663	13.7 m (45')
028547	15.3 m (50')
028768	18.3 m (60')

Standard leads – LHF

Part number	Lead length
028658	4.6 m (15')
028659	6.1 m (20')
028546	7.6 m (25')
028660	9.2 m (30')
028661	10.6 m (35')
028662	12.2 m (40')
028663	13.7 m (45')

Mounting sleeves

	Part number	Length	Diameter
1	220943	279.4 mm (11")	50.8 mm (2")
2	220942	279.4 mm (11")	44.45 mm (1.75")

Torch options

	Part number	Length	Diameter
3	220913	Quick-disconnect receptacle	
4	220921	HyPro2000 Quick-disconnect torch	
5	220961	HyPro2000 straight-torch for punch presses	

Additional parts available (not shown)

Part number	Description
228557	Machine torch (Quick-disconnect torch, set of 200 A consumables)
228571	Chip upgrade (includes 2 chips)
027338	Chip removal tool
104119	Consumables removal tool
027055	Silicone lubricant for o-rings
028872	Torch coolant – Cool solution: 70/30 PG 1-gal.
129840	*HT2000 off-valve assembly – LHF

*129840 is required on LHF systems, if not already installed.
See page 56 to learn about the value of preventive maintenance.