Hypertherm®

XPR300™

The most significant advance in mechanized plasma cutting technology redefines what plasma can do.

Industry leading cut quality – X-Definition

The XPR advances HyDefinition® cut quality by blending new technology with refined processes for next generation, X-Definition™ cutting on mild steel, stainless steel and aluminum.

- Consistent ISO range 2 results on thin mild steel and extended range 3 cut quality on thicker mild steel and stainless steel
- Superior results on aluminum using Vented Water Injection™ (VWI)

Optimized productivity and reduced operating costs

- Significantly reduced operating costs than previous generation technology
- Increased cut speeds on thicker materials
- Dramatic improvement in consumable life on mild steel applications
- Thicker piercing capability than competitive plasma systems

Engineered system optimization and ease of use

- Ramp down error protection significantly increases realized consumable life
- Reduces the impact of catastrophic electrode blowouts which can damage the torch at high current levels
- Automatic system monitoring and specific troubleshooting codes for improved maintenance and service prompts
- EasyConnect™ torch lead and one hand torch-to receptacle connection for fast and easy change-outs
- QuickLock™ electrode for easy consumable replacement
- WiFi in the power supply can connect to mobile devices and LAN for multiple system monitoring and service

Mild steel		mm	inches
Pierce capacity	(argon-assist)	50	2
	(standard O_2)	45	1-3/4
Severance		80	3-1/8
Stainless steel			
Pierce capacity		38	1-1/2
Severance		75	3
Aluminum			
Pierce capacity		38	1-1/2
Severance		50	2

Number of 20-second starts with 5% ramp-down errors
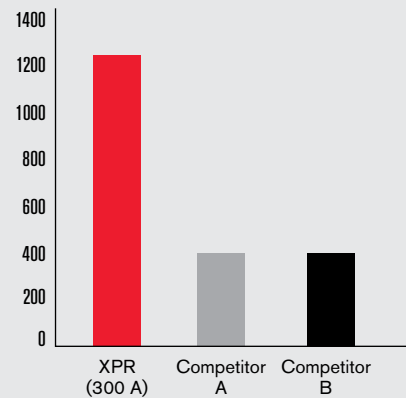
Process control and delivery

Three gas connect console options offer unmatched mild steel cut quality with each console delivering successively enhanced cutting capabilities on stainless steel and aluminum. All consoles can be fully controlled through the CNC for high productivity and ease of use.

Core™ console

Vented Water Injection™ (VWI) console

OptiMix™ console

Specifications

Maximum open-circuit voltage	360 VDC
Maximum output current	300 A
Maximum output power	66.5 kW
Output voltage	50–222 VDC
100% duty arc voltage	222 V
Duty cycle rating	100% at 66.5 kW, 40° C (104° F)
Operational ambient temperature range	-10° C–40° C (14° F–104° F)
Power factor	0.98 @ 66.5 kW
Cooling	Forced air (Class F)
Insulation	Class H
EMC emissions classification (CE models only)	Class A
Lift points	Top lift eye weight rating 680 kg (1,500 lb.)
	Bottom lift truck slots

Hypertherm's quality management system is registered to the International Standard ISO 9001: 2015.

Hypertherm's full-system warranty provides complete coverage for one year on the torch and leads and two years on all other system components.

Hypertherm's plasma power supplies are engineered to deliver industry leading energy efficiency and productivity with power efficiency ratings of 90% or greater and power factors up to 0.98. Extreme energy efficiency, long consumable life, and lean manufacturing lead to the use of fewer natural resources and a reduced environmental impact.

Environmental stewardship is one of Hypertherm's core values, and it is critical to our success and our customers' success. We are striving to reduce the environmental impact of everything we do. For more information: www.hypertherm.com/environment.

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Console	Cutting gases	Current (A)	Thickness (mm)	Approximate cutting speed (mm/min)	Thickness (in.)	Approximate cutting speed (ipm)
Mild steel						
Core, VWI, and OptiMix	O₂ plasma O₂ shield	30	0.5	5348	0.018	215
			3	1153	0.135	40
			5	726	3/16	30
	O₂ plasma Air shield	50	3	3820	0.105	155
			5	2322	3/16	95
			8	1369	5/16	55
	O₂ plasma Air shield	80	3	5582	0.105	225
			6	3048	1/4	110
			12	1405	1/2	55
	O₂ plasma Air shield	130	3	6502	0.135	240
			10	2680	3/8	110
			38	256	1-1/2	10
	O₂ plasma Air shield	170	6	5080	1/4	200
			12	3061	1/2	115
			25	1175	1	45
			60	152	2-3/8	6
	O₂ plasma Air shield	300	12	3940	1/2	155
			25	1950	1	75
	N₂ shield	300	50	560	2	21
			80	165	3	7
Stainless steel						
Core, VWI, and OptiMix	N₂ plasma N₂ shield	40	0.8	6100	0.036	240
			3	2683	0.105	120
			6	918	1/4	32
VWI and OptiMix	F5 plasma N₂ shield	80	3	4248	0.135	140
			6	1916	1/4	70
			12	864	1/2	34
OptiMix	H₂-Ar-N₂ plasma N₂ shield	170	10	1975	3/8	80
			12	1735	1/2	65
			38	256	1-1/2	10
	H₂-Ar-N₂ plasma N₂ shield	300	12	2038	1/2	80
			25	1040	1	40
			50	387	2	15
			75	162	3	6
VWI and OptiMix	N₂ plasma H₂O shield	300	12	2159	1/2	85
			25	1302	1	50
			50	403	2	15
Aluminum						
Core, VWI, and OptiMix	Air plasma Air shield	40	1.5	4799	0.036	240
			3	2596	1/8	85
			6	911	1/4	32
VWI and OptiMix	N₂ plasma H₂O shield	80	3	3820	1/8	140
			6	2203	1/4	80
			10	956	1/2	28
	N₂ plasma H₂O shield	130	6	2413	1/4	95
			10	1702	3/8	70
			20	870	3/4	35
	N₂ plasma H₂O shield	300	12	2286	1/2	90
			25	1302	1	50
			50	524	2	20
OptiMix	H₂-Ar-N₂ plasma N₂ shield	300	12	3810	1/2	150
			25	2056	1	80
			50	391	2	15

This does not represent a complete list of processes or thicknesses that are available

Hypertherm®
SHAPING POSSIBILITY™