

# 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
- Automated gouging minimizes or eliminates grinding compared to carbon arc gouging producing weld-ready parts faster with wider, deeper, and cleaner gouge profiles

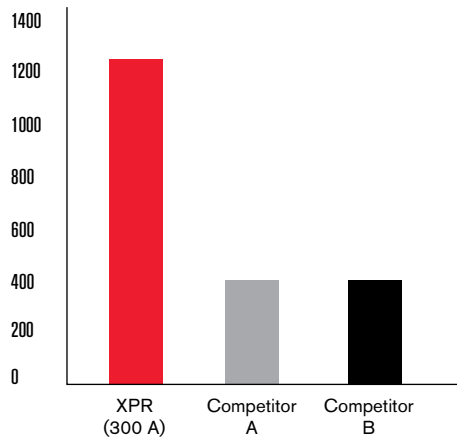
## Engineered system optimization and ease of use

- 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
- The web interface tool can be accessed via Wi-Fi and Ethernet LAN in the power supply for system monitoring and service
- Built-in IIoT via Ethernet LAN and MTCConnect® enables remote data access for smarter monitoring from anywhere in the world
- Manual Set-Mode is ideal for straightforward applications like gouging and off-table beveling; it retains your last setup for faster, repeatable workflows and simplifies set up and operations without the need for CNC/PLC integration

Mild steel		mm	inches
Production pierce capacity	(air shield gas)	45	1-3/4
Enhanced pierce capacity	(argon-assist shield gas)*	50	2
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

\*Argon-assist technology for thicker piercing is available with CorePlus, VWI and OptiMix gas consoles.

Number of 20-second starts with 5% ramp-down errors  
20 mm (3/4") mild steel



**POWER YOUR PROFITABILITY**

## Process control and delivery

Four 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.

CorePlus, VWI, and Optimix gas connect consoles provide a source of argon gas which can be used for significantly improved marking and extended capacity piercing in some applications.



Core™ console



CorePlus™ 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
IP Rating	IP21
Unit dimensions	H = 124.8 cm (49.12") L = 123.8 cm (48.75") W = 84.2 cm (33.14")
Lift points	Top lift eye weight rating 680 kg (1,500 lb.) Bottom lift truck slots

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

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

Hypertherm 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.

Console	Cutting gases	Current (A)	Thickness (mm)	Approximate cutting speed (mm/min)	Thickness (in.)	Approximate cutting speed (ipm)	
<b>Mild steel</b>							
Core, CorePlus, VWI, and OptiMix	O <sub>2</sub> plasma O <sub>2</sub> shield	30	0.5	5348	0.018	215	
			3	1153	0.135	40	
			5	726	3/16	30	
	O <sub>2</sub> plasma Air shield	50	3	3820	0.105	155	
			5	2322	3/16	95	
			8	1369	5/16	55	
	O <sub>2</sub> plasma Air shield	80	3	5582	0.105	225	
			6	3048	1/4	110	
			12	1405	1/2	55	
	O <sub>2</sub> plasma Air shield	130	3	6502	0.135	240	
			10	2680	3/8	110	
			38	256	1-1/2	10	
O <sub>2</sub> plasma Air shield	170	6	5080	1/4	200		
		12	3061	1/2	115		
		25	1175	1	45		
O <sub>2</sub> plasma Air shield	300	60	152	2-3/8	6		
		12	3940	1/2	155		
		25	1950	1	75		
N <sub>2</sub> shield	300	50	560	2	21		
		80	165	3	7		
<b>Stainless steel</b>							
Core, CorePlus, VWI, and OptiMix	N <sub>2</sub> plasma N <sub>2</sub> shield	40	0.8	6100	0.036	240	
			3	2683	0.105	120	
			6	918	1/4	32	
VWI and OptiMix	F5 plasma N <sub>2</sub> shield	80	3	4248	0.135	140	
			6	1916	1/4	70	
			12	864	1/2	34	
OptiMix	H <sub>2</sub> -Ar-N <sub>2</sub> plasma N <sub>2</sub> shield	170	10	1975	3/8	80	
			12	1735	1/2	65	
			38	256	1-1/2	10	
	H <sub>2</sub> -Ar-N <sub>2</sub> plasma N <sub>2</sub> shield	300	12	2038	1/2	80	
			25	1040	1	40	
			50	387	2	15	
VWI and OptiMix	N <sub>2</sub> plasma H <sub>2</sub> O shield	300	75	162	3	6	
			12	2159	1/2	85	
			25	1302	1	50	
Aluminum	N <sub>2</sub> plasma H <sub>2</sub> O shield	300	50	434	2	15	
Core, CorePlus, 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	N <sub>2</sub> plasma H <sub>2</sub> O shield	80	3	3820	1/8	140	
			6	2203	1/4	80	
			10	956	1/2	28	
	N <sub>2</sub> plasma H <sub>2</sub> O shield	130	6	2413	1/4	95	
			10	1702	3/8	70	
			20	870	3/4	35	
	N <sub>2</sub> plasma H <sub>2</sub> O shield	300	12	2286	1/2	90	
			25	1302	1	50	
			50	524	2	20	
OptiMix	H <sub>2</sub> -Ar-N <sub>2</sub> plasma N <sub>2</sub> 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

Learn more at [www.hypertherm.com/XPR300](http://www.hypertherm.com/XPR300)

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