

XPR460

An unrivaled range of cutting versatility and power



Part of the Hypertherm XPR® family, the XPR460 delivers the most consistent cut quality, thicker cutting capability, and faster cutting speeds in its class—increasing productivity and lowering operating costs.

Widest versatility expands capabilities

- Provides superior cutting versatility for mild steel, stainless steel, and aluminum
- Offers the widest range of cutting power for various metals and thicknesses
- Delivers high-quality, consistent cutting on imperfect metal surfaces, including paint and rust

Optimized productivity drives lower operating costs

- Maximum power optimizes productivity by delivering higher cut quality, thicker cutting capability, and faster cutting speeds
- Argon-assist technology enables piercing and edge-starting on the thickest mild steel and stainless steel
- Cuts with oxygen up to 460 amps, delivering the best cutting outcomes on mild steel
- Exclusive Arc Response Technology™ intervenes in adverse events to preserve consumable life and prevent torch damage

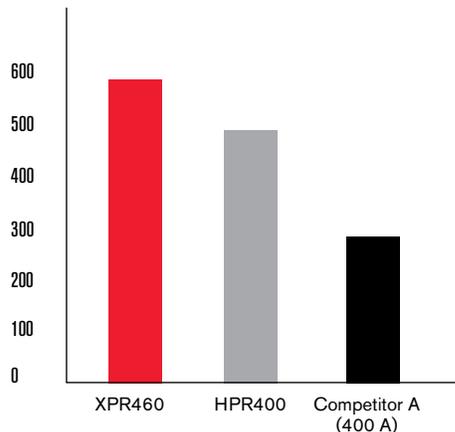
Precision cutting reduces secondary operations

- Delivers excellent part-to-part consistency over consumable life from the first cut to the last
- Provides a smooth surface, low angularity, and minimal to no dross for clean parts off the table
- XPR embedded technology improves 45° bevel cut quality on thick material making the welding process more efficient
- Exclusive SureCut™ technology delivers improved outcomes by automatically embedding advanced cutting capabilities into our plasma cutting process

Mild steel	mm	inches
Production pierce capacity	50	2
Enhanced pierce capacity (argon-assist piercing)*	64	2.5
Production severance	90	3.5
Enhanced severance (argon-assist cutting)*	102	4
Stainless steel		
Production pierce capacity	38	1.5
Enhanced pierce capacity (argon-assist piercing)*	63	2.5
Production severance	90	3.5
Enhanced severance (argon-assist cutting)*	130	5
Aluminum		
Production pierce capacity (N ₂ shield gas)	38	1.5
Enhanced pierce capacity (argon-assist piercing)*	63	2.5
Production severance	80	3

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

Number of 20-second starts with 5% ramp-down errors
25 mm (1") mild steel



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, extended capacity piercing, and extended severance cutting in some applications.



Core™ console



CorePlus™ console



Vented Water Injection™ (VWI) console



OptiMix™ console

Specifications

Maximum open-circuit voltage	360 VDC
Maximum output current	460 A
Maximum output power	102 kW
Output voltage	50-222 VDC
100% duty arc voltage	222 V
Duty cycle rating	100% at 102 kW, 40° C (104° F)
Operational ambient temperature range	-10° C-40° C (14° F-104° F)
Power factor	0.98 @ 102 kW
Cooling	Forced air (Class F)
Insulation	Class H
EMC emissions classification (CE models only)	Class A
IP Rating	IP21
Unit dimensions	H = 124.76 cm (49.12") L = 127.28 cm (50.11") W = 87.3 cm (34.5")
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.

Learn more at www.hypertherm.com/XPR460

Unless otherwise noted in the collateral, all trademarks are property of Hypertherm, Inc. and may be registered in the United States and/or other countries.

Please visit www.hypertherm.com/patents for more details about Hypertherm Associates patent numbers and types.

© 5/2024 Hypertherm, Inc. Revision 0

898610

Console	Cutting gases	Current (A)	Thickness (mm)	Approximate cutting speed (mm/min)	Thickness (in.)	Approximate cutting speed (ipm)
Mild steel						
Core, CorePlus, VWI, and OptiMix	O ₂ plasma O ₂ shield	30	0.5	5348	0.018	215
			3	1153	0.135	40
			5	726	3/16	30
	O ₂ plasma Air shield	50	3	3820	0.105	155
			5	2322	3/16	95
			8	1369	5/16	55
	O ₂ plasma Air shield	80	3	5582	0.105	225
			6	3048	1/4	110
			12	1405	1/2	55
	O ₂ plasma Air shield	130	3	6502	0.135	240
			10	2680	3/8	110
			38	256	1-1/2	10
	O ₂ plasma Air shield	170	6	5080	1/4	200
			12	3061	1/2	115
			25	1175	1	45
	O ₂ plasma Air shield	220	60	152	2-3/8	6
10			3715	3/8	150	
18			2369	5/8	110	
O ₂ plasma Air shield	300	60	158	2 1/2	6	
		12	3940	1/2	155	
		25	1950	1	75	
N ₂ shield	300	50	560	2	21	
		80	165	3	7	
		12	4826	1/2	190	
O ₂ plasma Air shield	460	38	1372	1 1/2	54	
		60	559	2 1/2	22	
		102	130*	4	5*	
Stainless steel						
Core, CorePlus, VWI, and OptiMix	N ₂ plasma N ₂ shield	40	0.8	6100	0.036	240
			3	2683	0.105	120
			6	918	1/4	32
VWI and OptiMix	F5 plasma N ₂ shield	80	3	4248	0.135	140
			6	1916	1/4	70
			12	864	1/2	34
OptiMix	H ₂ -Ar-N ₂ plasma N ₂ shield	170	10	1975	3/8	80
			12	1735	1/2	65
			38	256	1-1/2	10
		300	12	2038	1/2	80
			25	1040	1	40
			50	387	2	15
VWI and OptiMix	N ₂ plasma H ₂ O shield	300	75	162	3	6
			12	2159	1/2	85
			25	1302	1	50
OptiMix	H ₂ -Ar-N ₂ plasma N ₂ shield	460	50	434	2	15
			18	2337	5/8	92
			38	1372	1 1/2	38
OptiMix	H ₂ -Ar-N ₂ plasma N ₂ shield	460	60	559	2 1/2	21
			127	127*	5	3*
			30	762	3	30
Aluminum						
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 ₂ plasma H ₂ O shield	80	3	3820	1/8	140
			6	2203	1/4	80
			10	956	1/2	28
	N ₂ plasma H ₂ O shield	130	6	2413	1/4	95
			10	1702	3/8	70
			20	870	3/4	35
OptiMix	H ₂ -Ar-N ₂ plasma N ₂ shield	300	12	2286	1/2	90
			25	1302	1	50
			50	524	2	20
OptiMix	H ₂ -Ar-N ₂ plasma N ₂ shield	460	12	3810	1/2	150
			25	2056	1	80
			50	391	2	15
	H ₂ -Ar-N ₂ plasma	460	18	2337	5/8	92
			38	1372	1.5	38
			60	559	2.5	21
OptiMix	H ₂ -Ar-N ₂ plasma	460	80	762	3	30

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

As 100% Associate owners, we are all focused on delivering a superior customer experience. www.hyperthermassociates.com/ownership

Environmental stewardship is one of Hypertherm Associates' core values. www.hyperthermassociates.com/environment

100% Associate-owned

