HYPERTHERM®
A Hypertherm Associates Brand

XPR460®

Power your profitability with an unrivaled range of cutting versatility and power.

Part of the Hypertherm XPR® family, the XPR460 pays you back with maximum versatility, productivity, and precision.

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

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
- 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 MTConnect® 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

Precision cutting reduces secondary operations

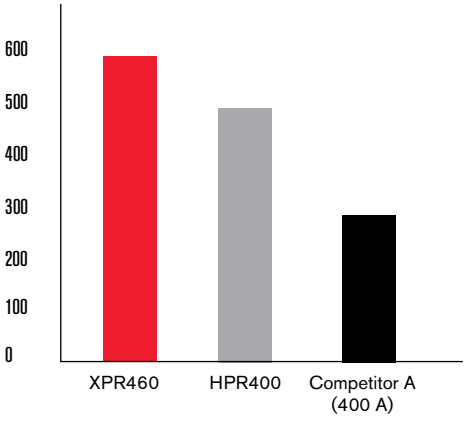
- Delivers excellent part-to-part consistency over consumable life from the first cut to the last
- Provides a smooth surface, low angularity, and minimal to no dross for clean parts off the table
- XPR embedded technology improves 45° bevel cut quality on thick material making the welding process more 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)*	100	4
Stainless steel		
Production pierce capacity	38	1.5
Enhanced pierce capacity (argon-assist piercing)*	64	2.5
Production severance	90	3.5
Enhanced severence (argon-assist cutting)*	130	5
Aluminum		
Production pierce capacity (N_2 shield gas)	38	1.5
Enhanced pierce capacity (argon-assist piercing)*	50	2.0
Production severance	90	3.5

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

Number of 20-second starts

25 mm (1") 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, 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 = 124.8 cm (49.12") L = 123.8 cm (48.75") W = 90.5 cm (35.64")
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.

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

Greener Cuts™

Learn more at www.hypertherm.com/XPR460

HYPERTHERM ASSOCIATES®

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 3 5	5348 1153 726	0.018 0.135 3/16	215 40 30
	O_2 plasma Air shield	50	3 5 8	3820 2322 1369	0.105 3/16 5/16	155 95 55
	O_2 plasma Air shield	80	3 6 12	5582 3048 1405	0.105 1/4 1/2	225 110 55
	O_2 plasma Air shield	130	3 10 38	6502 2680 256	0.135 3/8 1-1/2	240 110 10
	O_2 plasma Air shield	170	6 12 25 60	5080 3061 1175 152	1/4 1/2 1 2-3/8	200 115 45 6
	O_2 plasma Air shield	220	10 18 60	3715 2369 158	3/8 5/8 2-1/2	150 110 6
	O_2 plasma Air shield	300	12 25	3940 1950	1/2 1	155 75
	N_2 shield	300	50 80	560 165	2 3	21 7
	O_2 plasma Air shield	460	12 38 64* 100*	4940 1370 540* 100*	1/2 1-1/2 2-1/2* 4*	190 54 22* 4*
Stainless steel						
Core, CorePlus, VWI, and OptiMix	N_2 plasma N_2 shield	40	0.8 3 6	6100 2683 918	0.036 0.105 1/4	240 120 32
VWI and OptiMix	F5 plasma N_2 shield	80	3 6 12	4248 1916 864	0.135 1/4 1/2	140 70 34
OptiMix	H_2-Ar-N_2 plasma N_2 shield	170	10 12 38	1975 1735 256	3/8 1/2 1-1/2	80 65 10
		300	12 25 50 75	2038 1040 387 162	1/2 1 2 3	80 40 15 6
VWI and OptiMix	N_2 plasma H_2O shield	300	12 25 50	2159 1302 434	1/2 1 2	85 50 15
		460	16 38 60	2896 1172 564	5/8 1-1/2 2-1/2	115 46 20
OptiMix	H_2-Ar-N_2 plasma N_2 shield	460	16 38 60* 130*	2322 968 587* 76*	5/8 1-1/2 2-1/2* 5*	92 38 21* 3*
Aluminum						
Core, CorePlus, VWI, and OptiMix	Air plasma Air shield	40	1.5 3 6	4799 2596 911	0.036 1/8 1/4	240 85 32
VWI and OptiMix	N_2 plasma H_2O shield	80	3 6 10	3820 2203 956	1/8 1/4 1/2	140 80 28
	N_2 plasma H_2O shield	130	6 10 20	2413 1702 870	1/4 3/8 3/4	95 70 35
	N_2 plasma H_2O shield	300	12 25 50	2286 1302 524	1/2 1 2	90 50 20
OptiMix	H_2-Ar-N_2 plasma N_2 shield	300	12 25 50	3810 2056 391	1/2 1 2	150 80 15
VWI and OptiMix	N_2 plasma H_2O shield	460	16 38 50	3536 1605 1175	5/8 1-1/2 2	140 63 45
OptiMix	H_2-Ar-N_2 plasma	460	16 38 50*	5046 2290 1810*	5/8 1-1/2 2*	200 90 70*

PLAZMAX®