

SHAPING POSSIBILITY[®]

Power your profitability! Hypertherm XPR pays you back in maximum versatility, productivity, and precision.

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.

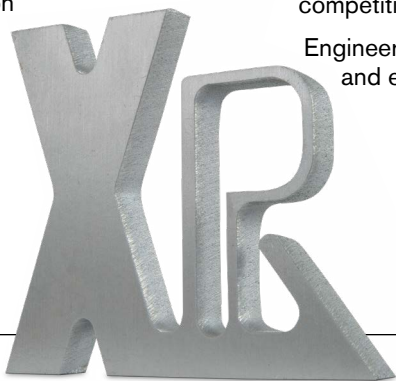
- Consistent ISO range 2 results on thin mild steel and extended range 3 cut quality on thicker mild steel and stainless steel
- Superior results on aluminum using Vented Water Injection[™] (VWI)

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 network mode for multiple system monitoring and service



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.



Scan to learn more about the XPR300



Core™ console



CorePlus™ console



Vented Water Injection™ (VWI) console



OptiMix™ console

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.
- Cool nozzle** feature on the 300-amp oxygen process provides liquid cooling directly to the nozzle bore. This cooling is a significant factor in increasing cut quality over the life of the consumables by over 40%.
- HyDefinition®** vented nozzle technology aligns and focuses the plasma arc for powerful precision cutting, superior quality, and consistency.
- LongLife®** ramps current and gas flow up and down in a tightly controlled manner to reduce electrode and nozzle erosion.
- PowerPierce®** liquid cooled shield technology repels molten metal during piercing. Enables robust production pierce capability up to 50 mm (2") mild steel and 75 mm (3") stainless steel and aluminum. Delivers speed and thickness capabilities.
- Plasma dampening** delivers increased arc density and cut speeds on thin stainless while maintaining arc stability and smoother cut edges.
- QuickLock™ electrode** delivers easy 1/4 turn tightening, reducing job setup time.



- 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.
- Vent-to-shield** technology mixes hydrogen reclaimed from the vented plasma gas with the shield gas to reduce angularity and deliver more consistent edge color on stainless steel up to 12 mm (1/2").
- Vented Water Injection™ (VWI)** process features a vented N₂ plasma and an H₂O shield. Edges are square, angularity is reduced and surface finish is excellent on non-ferrous materials, especially aluminum.

XPR® consumables

Mild steel consumables



Technologies

Chambered swirl ring

Conical Flow™

CoolFlow™

Cool nozzle

HyDefinition®

LongLife®

PowerPierce®

Plasma dampening

QuickLock™ electrode

TrueFlow™

Vented shield

Vent-to-shield

VWI™

XPR			Amperage	Process	Shield cap	Shield	Nozzle retaining cap	Nozzle	Swirl ring	Electrode	Water tube
170	300	460									
●	●	●	30 A	O ₂ /O ₂	420200	420228	420365	420225	420407	420222	420368
●	●	●	50 A	O ₂ /Air	420200	420237	420365	420234	420233	420231	420368
●	●	●	80 A	O ₂ /Air	420200	420246	420365	420243	420242	420240	420368
●	●	●	130 A	O ₂ /Air	420200	420255	420365	420252	420242	420249	420368
●	●	●	170 A	O ₂ /Air	420200	420513	420365	420261	420260	420258	420368
	●	●	220 A	O ₂ /Air	420200	420273	420365	420270	420406	420276	420368
	●	●	300 A	O ₂ /Air	420200	420491	420365	420279	420406	420276	420368
		●	460 A	O ₂ /Air	420200	520002	420365	520001	420819	420834	420368



Non-ferrous by amp

●	●	●	40 A	N ₂ /N ₂	420200	420291	420365	420288	420314	420303	420368
				Air/Air	420200	420291	420365	420288	420314	420294	420368
●	●	●	60 A	N ₂ /N ₂	420200	420309	420365	420297	420323	420303	420368
				F5/N ₂	420200	420309	420365	420297	420323	420303	420368
				N ₂ /H ₂ O	420200	420300	420365	420296	420323	420303	420368
				Air/Air	420200	420309	420365	420297	420323	420294	420368
●	●	●	80 A	N ₂ /N ₂	420200	420309	420365	420306	420323	420303	420368
				F5/N ₂	420200	420309	420365	420306	420323	420303	420368
				N ₂ /H ₂ O	420200	420300	420365	420290	420323	420303	420368
				Air/Air	420200	420309	420365	420306	420323	420294	420368
●	●	●	130 A	N ₂ /N ₂	420200	420318	420365	420315	420314	420356	420368
				H ₂ -Ar-N ₂ /N ₂	420200	420318	420365	420315	420323	420356	420368
				N ₂ /H ₂ O	420200	420469	420365	420315	420314	420356	420368
●	●	●	170 A	N ₂ /N ₂	420200	420327	420365	420324	420314	420356	420368
				H ₂ -Ar-N ₂ /N ₂	420200	420327	420365	420324	420323	420356	420368
				N ₂ /H ₂ O	420200	420472	420365	420324	420314	420356	420368
				Air/Air	420200	420513	420365	420524	420260	420258	420368
	●	●	300 A	N ₂ /N ₂	420200	420362	420365	420359	420323	420356	420368
				H ₂ -Ar-N ₂ /N ₂	420200	420362	420365	420359	420358	420356	420368
				N ₂ /H ₂ O	420200	420475	420365	420359	420323	420356	420368
		●	460 A	H ₂ -Ar-N ₂ /N ₂	420200	420998	420365	420996	420358	420997	420368

Non-ferrous by process

●	●	●	N ₂ /N ₂	40 A	420200	420291	420365	420288	420314	420303	420368
●	●	●		60 A	420200	420309	420365	420297	420323	420303	420368
●	●	●		80 A	420200	420309	420365	420306	420323	420303	420368
●	●	●		130 A	420200	420318	420365	420315	420314	420356	420368
●	●	●		170 A	420200	420327	420365	420324	420314	420356	420368
	●	●	F5/N ₂	300 A	420200	420362	420365	420359	420323	420356	420368
●	●	●		60 A	420200	420309	420365	420297	420323	420303	420368
●	●	●		80 A	420200	420309	420365	420306	420323	420303	420368
●	●	●	Air/Air	40 A	420200	420291	420365	420288	420314	420294	420368
●	●	●		60 A	420200	420309	420365	420297	420323	420294	420368
●	●	●		80 A	420200	420309	420365	420306	420323	420294	420368
●	●	●		170 A	420200	420513	420365	420524	420260	420258	420368
●	●	●	N ₂ /H ₂ O	60 A	420200	420300	420365	420296	420323	420303	420368
●	●	●		80 A	420200	420300	420365	420290	420323	420303	420368
●	●	●		130 A	420200	420469	420365	420315	420314	420356	420368
●	●	●		170 A	420200	420472	420365	420324	420314	420356	420368
	●	●	H ₂ -Ar-N ₂ /N ₂	300 A	420200	420475	420365	420359	420323	420356	420368
●	●	●		130 A	420200	420318	420365	420315	420323	420356	420368
●	●	●		170 A	420200	420327	420365	420324	420323	420356	420368
	●	●		300 A	420200	420362	420365	420359	420358	420356	420368
		●		460 A	420200	420998	420365	420996	420358	420997	420368



Please refer to page 55 for mirror-image cutting consumables.

XPR® torch assembly options

Torch assembly options

	Part number Standard	Part number Standard Bevel/Robotic	Part number Bevel/Robotic	Description
	428383	428825	428831*	Lead: 2 m (6.6')
	428384	428826	428832*	Lead: 2.5 m (8.2')
	428385	428827	428833*	Lead: 3 m (9.8')
	428386	428828	428834*	Lead: 3.5 m (11.5')
	428824	428829	428835*	Lead: 4 m (13.1')
	428387	428830	428836*	Lead: 4.5 m (14.8')
		428978**	428979**	Lead: 6 m (20')**
		428916		Lead: Thru arm robotic 3.5 m (11.5')
		428918		Lead: Thru arm robotic 4.5 m (14.8')
1	420500			Torch mounting sleeve: Standard
	420501			Torch mounting sleeve: Short
	420502			Torch mounting sleeve: Extended
5		420788		Rotational torch mounting sleeve: Short
		420789		Rotational torch mounting sleeve: Medium
		420790		Rotational torch mounting sleeve: Extended
2	420220			Quick-disconnect torch receptacle
3	420221			Quick-disconnect XPR torch
4	420368			Water tube

* Bevel/Robotic lead sets 428831–428836 include an extended 1.2 m (48") strain relief.

** The 6 m (20') lead is compatible only with console to console gas assemblies that are 7.5 m (24.6') or less.

Additional parts available

Part number	Description
429013	XPR electrode torque tool
10080574	XPR consumable tool
027055	Silicone lubricant for o-rings
028872	Torch coolant – Cool solution: 70/30 PG, 1-gal.
428840	XPR170 Mild steel consumables starter kit
428842	XPR170 mild steel consumables starter kit (torch included)
428843	XPR170 non-ferrous consumables starter kit
428841	XPR170 non-ferrous consumables starter kit (torch included)
428944	XPR170 Core console non-ferrous consumables starter kit
428616	XPR300 Mild steel consumables starter kit
428618	XPR300 Mild steel consumables starter kit (torch included)
428617	XPR300 Stainless steel consumables starter kit
428619	XPR300 Stainless steel consumables starter kit (torch included)
428945	XPR300 Core console non-ferrous consumables starter kit
10083904	XPR460 Mild steel consumables starter kit
10083905	XPR460 Mild steel consumables starter kit (torch included)
810060	XPR170 plasma instruction manual
809480	XPR300 plasma instruction manual
811530	XPR460 plasma instruction manual
809490	XPR Preventive maintenance instruction manual
428639	Torch rebuild and filter without coolant preventive maintenance kit
428640	Torch rebuild and filter with coolant preventive maintenance kit
428878	XPR170 electronics preventive maintenance kit (200–240 V)
428879	XPR170 electronics preventive maintenance kit (380–600 V)
428641	XPR300 Electronics preventive maintenance kit (200–240 V)
428642	XPR300 Electronics preventive maintenance kit (380–600 V)
10083902	XPR460 Electronics preventive maintenance kit (200–240 V)
10083903	XPR460 Electronics preventive maintenance kit (380–600 V)

