• 3-AXIS XPR SERIES

# New Generation Plasma System...

XPR300™ represents the latest level in Hypertherm's state-of-the-art plasma cutting technology and provides great savings from operating costs. The XPR, the new generation plasma system, offers the widest range of opportunities ever. While speed and efficiency are increased significantly, operating costs are reduced by 50%.

Designed as per the new operating characteristics, the system optimization allows for easier operation by minimizing operator intervention besides the high performance. In this way, high quality cuts are obtained.

Low energy consumption

Low cost of operation

> Long life performance

High efficiency

Simple operation

#### HIGH CUTTING QUALITY

By combining new technology with refined processes for new generation, X-Definition™ cutting operations on black sheet, stainless steel and aluminium materials, XPR brings the HyDefinition cutting quality much further.

#### **EASE OF USE**

Ensures easier operation with minimum operator intervention.

#### **LONG-TERM SAVINGS**

System feedback is provided thanks to the advanced power supply technology. Intervention is performed automatically to prevent events that affect efficiency of the system and the life cycle of consumables adversely.

#### LOW ENERGY CONSUMPTION

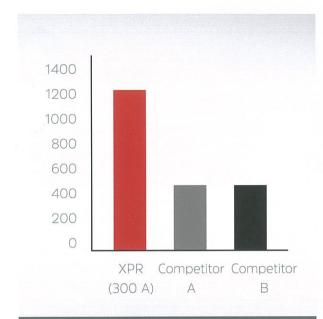
Designed for energy efficiency and lesser use of sources. Thus, savings and efficiency of the end user are increased and effects on the environment are reduced.



• 3 AXIS XPR GAS CONTROL FUNCTIONS

### **Engineered System Optimization And Ease Of Use**

- $\bullet$  Superior results on aluminum using Vented Water InjectionTM (VWI)
- Increases consumable life 3 times that of competitor's systems by eliminating the impact of ramp down errors
- 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
- EasyConnectTM torch lead and one hand torch-to receptacle connection for fast and easy change-outs
- QuickLockTM electrode for easy consumable replacement
- WiFi in the power supply can connect to mobile devices and LAN for multiple system monitoring and service



Number of 20-second starts with 5% ramp-down errors

Building on Hypertherm's industry-leading productivity technologies, XPRTM delivers faster cut speeds, higher quality cuts that reduce or eliminate secondary operations and increased consumable life with quicker set up time. These combine to further slash plasma system operating costs.



		XPR300
Maximum output power		63 kW
100% duty arc voltage		210 V
Cut chart thickness		mm (inch)
	Mild steel (argon-assist)	50 (2)
Pierce capacity	Mild steel (standard 02)	45 (1-3/4)
	Stainless steel	38 (1-1/2)
	Aluminum	38 (1-1/2)
	Mild steel	80 (3-1/8)
Severance capacity	Stainless steel	75 (3)
	Aluminum	50 (2)

#### **XPR 300**

#### Core™ Consol

Standard

Unmatched mild steel cutting performance and superior angularity and edge finish on stainless steel up to 12 mm (1/2"). This is delivered through a new N2 HDiTM process that prevents the mixing of air into the plasma gas, creating an improved, brighter edge finish.



#### Vented Water Injection (VWI) Consol

Option

All Core console capabilities plus argon marking and a more than 10% increase in piercing thickness with argon-assist. Significantly enhanced stainless steel and aluminum capabilities are delivered with the addition of F5 HDi processes and patent pending Vented Water Injection (VWI).



#### OptiMix<sup>™</sup> Consol

Optiono

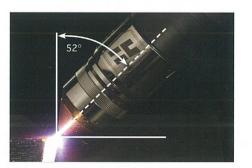
All the capabilities of the Core and VWI consoles plus discrete 3-gas mixing – Ar, H2, and N2 – for the world's most flexible, premium stainless steel and aluminum cutting capability.



	Gas-o	connect console gases/fluids	
	Core	Vented Water Injection (VWI)	OptiMix
O <sub>2</sub> /N <sub>2</sub> /Air	•	•	•
F5/Ar/H <sub>2</sub> O <sub>2</sub>			•
H <sub>2</sub> -N <sub>2</sub> -Ar Mixing			•

#### Improved Torch Geometry

Superior bevel capability and performance thanks to an enhanced tapered torch design that features a 76° included angle and bevel rotation of up to 52°.



- TRUE HOLE
- EDGE CONNECT

#### True Hole™ Technology

True Hole Technology, which has been developed for carbon steel, comes as standard with XPR 300 and automatic gas consolled of HPRXD® plasma system. Patented True Hole™ technology which was developed for carbon sheet, is a specific combination of cutting parameters which were optimised according to different hole sizes and material thicknesses.

With True Hole<sup>™</sup>, you acquire more consistent part dimensions and hence you need fewer second operations.

When this technology is compared with other plasma systems in the market, it provides enhancement in quality up to 50% in cylinder holes opened on carbon steel

# PRECISE HOLES WITH TRUE HOLE™ TECHNOLOGY...











■12 mm hole cutting without True Hole Technology







■12 mm hole cuts with True Hole Technology

#### How is True Hole™ Technology obtained?

Achieved with EDGE® Connect Controller, Ermak THC, HPRXD®, XPR, Automatic gas system and ProNest® nesting software and well-matched cutting table.

True Hole<sup>™</sup> technology of Hypertherm is a special combination of cutting parameters optimised for every single material thickness and hole dimensions

- Performed gas type
- Gas flow
- Amper
- Drilling method
- Input/output technique
- Cutting speed
- Timing

#### New with EDGE® Connect CNC

- Hypertherm'sPhoenix® version10CNCsoftware
- MicrosoftWindows10embeddedoperatingsystem
- ProNest® CNC automatic nesting with process optimization
- Internal Program mable Logic Controller (PLC) and software based operator's console that enable unique cutting machine features
- EtherCAT machine interface for easy connectivity and superior motion
- Integrated 495 mm projected capacitive touch screen available on some models

#### Easy to Use

Hypertherm's proprietary Phoenix software is common across the entire family of CNCs. This software is designed specifically for the X-Y and bevel cutting market. Through years of cutting experience, Hypertherm® engineers have learned the critical parameters to achieve superior cut quality on every part.

Phoenix CNC software improves cut quality and productivity by delivering our expertise directly to your factory, making it as if you have your best operator on every shift.

- Using the patented CutPro® Wizard, even new operators can be ready to cut production parts in less than five minutes
- On-screen Software Operator's Console (SoftOpCon) for easy setup and operation of cutting station and manual motion
- One touch access to supporting documentation including cutting optimization tips, consumable change instructions and diagnostic tools in multiple languages
- Integrated communications with plasma and torch height control systems deliver automated and expert control using installed factory or custom cut charts
- Custom cut chart scan be created and controlled in the part program or made available to the CutPro Wizard
- Configurable Watch Windows™ enable on-screen real-time monitoring of key process performance parameters while cutting



■ Edge connect TC



■ Integrates the EDGE Connect CNC into an industrial enclosure with a 495 mm (19.5") touchscreen.



A hardware operator's console with switches for start, stop, program and manual speed control, raise/lower torch and joystick is included for easy operation.

#### • GENERAL FEATURES

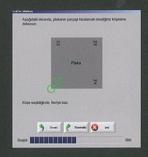
• Built-in cut charts for automatically setting process parameters for mild steel, stainless, and aluminum to enable consistently optimized cutting performance. Wizards and diagnostic support tools that enable easy setup, use and rapid troubleshooting.

#### As easy as 1, 2, 3, cut! : CutProTM Wizard

■ In field trials, new operators began cutting high-quality parts in less than 5 minutes without training, drastically reducing the "hire to cut" time









Step: Select CNC

2. Step: Select process

3. Step : Alin

Cut.

#### Remote Help

• Remote Help is an internet based tool that allows the manufacturer to be virtually in your factory within minutes. CNC, plasma system and cutting table diagnosis and repair can often be accomplished without an on-site visit. This means that machines can be up and running quickly and without costly travel and wait time.

#### **Standard Features**

Operating system	: Windows® Xpe
Hard Drive	: SATA drive
Display	: 15" glass touchscreen (surface acoustic wave technology)
Memory	: ≥1GB
USB interface	: Two USB 2.0 ports
Dimensions	: 435 mm (17.125") W; 463 mm (18.22") H; 316 mm (12.43") D
Temperature range	: -10° C to 40° C ambient (14° F to 104° F ambient)
Warranty	: Two-year warranty standard
Regulatory compliance	: CE, CSA
Operator's console	: Two-station Opcom standard
Operating voltage and frequency	: 100 – 240 V, 50/60 Hz
Software utilities	: Part Program Support (PPS), Remote Help, networking, Autogas support, DXF import, and simple shape nesting

#### **ProNest CAD/CAM Software**

ProNest® is an industry leading CAD/CAM nesting software designed for advanced mechanized cutting.

It provides a single solution for all of your profile cutting needs, including plasma, laser, waterjet, and oxyfuel.

ProNest offers all of the standard features you'll need to complete your jobs, plus optional modules for more advanced functionality.

Users agree this powerful software is surprisingly easy to learn and use. Your team will be up and running faster, and completing jobs more quickly.





PART DESİGN Includes an integrated 2D CAD program and variable shape library.



CAD IMPORT AND CONVERSION Automatically prepares the part for nesting

JOB SET UP Gives you control over materials, customers, plates, parts, and more.



SURECUT™ TECHNOLOGY
Refers to ProNest's built-in process parameters for
the highest level of ing performance through cutting
expertise.





Manual or automatic nesting makes it quick and easy to achieve your best nest.



Output

Delivers the optimal NC code for cutting with virtually any machine.

ProNest is not just an item that runs your machines.

It is a key part of your entire cut and fabricated ecosystem, from bidding to part design, from reporting to stock management.

ProNest can even connect to ERP / MRP to exchange real-time data.

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• GENERAL FEATURES



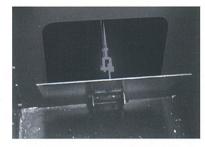
Ermaksan's high-quality and high-precision cutting machine, never compromising on quality, manufactured with the customer in mind, right down to the smallest detail.



#### Linear Guideways and Carriages

High-precision linear guideways and carriages are used in accordance with CE standards. So it provides high precision cutting results

Germany origin Atlanta helical rack used in accordance with CE standards and provides high precision cutting results, increased sensitivity range and cut quality. Also the sound caused by friction is minimized. Thread quality is 9e27.



#### **Cutting Table and Pneumatic Suction System**

PLC software follows the cutting head movements and individual pneumatic flaps at related cutting sector open; proves high efficiency suction of waste gas, dust and fume from working environment.



#### Servo Motor and Planet Type Gear Box

Double driven synchronous brushless 3 pieces AC servo motors used on X and Y axes. With high-precision servo motor reaction times, drive and gear, high acceleration is provided.



#### Cable Tray

Comply with CE standards. Due to high quality plastic material used in the cable tray it encompasses quality, durability, resistance to abrasion, durability to heavy loads and resistance to breaks and protects the cable ducts.



#### **ERMAK THC**

- Superior cutting quality and ideal consumables life with arc voltage sampling and control.
- $\bullet$  Up to 80 % increases in parts per hour production by minimizing cut to cut cycle time.
- Ultimately strong mechanics under 2 years warranty.
- Easy to use human machine interface for under one minute fast job adjustment.
- Performance advantages are achievable with minimal operator input, eliminating the need for extensive training and allowing you to get the best performance across any shift with any operator at any plant.



■ ERMAK THC (Torch High Control)

#### STANDARD EQUIPMENT

- Hypertherm EDGE Connect TC CNC
  - 19" LCD industrial type touch screen
  - Hypertherm operator panel
  - Safety module input and output
  - Ethercat communication system
  - Remote connection interface
  - Phoenix interface
  - Metric and inch gauges.
- Hypertherm® XPR300® Plasma Source
  - Hypertherm Core automatic gas console
  - Plasma Marking
- ERMAK THC Automatic High Control System
  - Ethercat communication system
  - Safety input-output interface module
  - Nozzle Sensor
  - Collision Sensor
  - 220 mm Standard Stroke
  - Laser Pointer
- ProNest® CAD / CAM Software
- 3 Axis (X, Y, Z)
  - 3 pieces Mitsubishi AC servo motor and driver
  - 3 pieces planet type Neugart gear box
  - High accuracy linear rails
  - High accuracy an silent Atlanta Helis rack and pinion
  - X,Y, Z Axis Igus brand silent cable tray
- Cutting table with pneumatic system
- Pilz safety PLC Module
- ■2 Emergency buttons
- ■6 Mechanical stops

#### **OPTIONAL EQUIPMENT**

- Hypertherm XPR300 VWI automatic gas console
- Hypertherm XPR300 Optimix automatic gas console
- Oxy-fuel cutting system
- Filter unit
- -/+45º manuel bevel cutting adaptor for oxy-fuel & Plasma
- 350 mm & 500 mm changeble stroke for oxy-fuel & Plasma
- Light barier
- Air drier
- According to the working conditions cooling fan or heater can be add to the electrical panel
- Optional electrical voltage

• TECHNICAL SPECIFICATIONS

TYPE	CUTTING WIDTH	ТОТАL WIDTH	TOTAL HEIGHT	WEIGHT	TORCH DISTANCE	CUTTING LENGTH	TABLE HEIGHT	SPEED	MACHINE AXIS
	А	В	С	D	Е				
	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	m/min.	-
EPL 1530 COMPACT	1500 (59)	3250 (128)	2280 (90)	220 (8,6)	100 (4)	3000 (118)	900 (35)	35	X, Y, Z
EPL 2040 COMPACT	2000 (79)	3750 (148)	2280 (90)	220 (8,6)	100 (4)	4000 (157)	900 (35)	35	X, Y, Z
EPL2060	2000 (79)	3950 (156)	2280 (90)	220 (8,6)	100 (4)	6000 (236)	750 (30)	35	X, Y, Z
EPL 20120	2000 (79)	3950 (156)	2280 (90)	220 (8,6)	100 (4)	12000 (472)	750 (30)	35	X, Y, Z
EPL 2560	2500 (98)	4450 (175)	2280 (90)	220 (8,6)	100 (4)	6000 (236)	750 (30)	35	X, Y, Z
EPL 25120	2500 (98)	4450 (175)	2280 (90)	220 (8,6)	100 (4)	12000 (472)	750 (30)	35	X, Y, Z
EPL 3060	3000 (118)	4950 (195)	2280 (90)	220 (8,6)	100 (4)	6000 (236)	750 (30)	35	X, Y, Z
EPL 30120	3000 (118)	4950 (195)	2280 (90)	220 (8,6)	100 (4)	12000 (472)	750 (30)	35	X, Y, Z
EPL 4060	4000 (157)	6150 (242)	2280 (90)	220 (8,6)	100 (4)	6000 (236)	750 (30)	35	X, Y, Z
EPL 40120	4000 (157)	6150 (242)	2280 (90)	220 (8,6)	100 (4)	12000 (472)	750 (30)	35	X, Y, Z

POSITIONING ACCURACY	POSITION REPEATABILITY ACCURACY	PLASMA CUTTING UNIT	TORCH HEIGHT CONTROL	CUTTING CAPACITY	ENERGY	WEIGHT
mm (inch)	mm (inch)			mm (inch)		kg (lbs)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	4100 (9051)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	5600 (12362)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	7100 (15673)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	12500 (27594)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	8150 (17991)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	14800 (32671)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	8900 (19647)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	15850 (34989)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	12350 (27263)
± 0,1 DIN 28206 (± 0,0039 DIN 28206)	± 0,5 DIN 28206 (± 0,0019 DIN 28206)	Hypertherm XPR300	Ermak THC	1-80 (,039-3,14)	400V, 50Hz, 6 Bar Air	22450 (49493)

<sup>\*</sup> All specifications subject to change without notice.