شرکت ماشین ابزار شوکا ارانه دهنده سرویسهای فنی -بازر گانی ماشین ابزار

### **CNC PLASMA CUTTING MACHINE**

Your partner for presentation of the needs

Innovative Technologies | www.ermaksan.com.tr | Plasma Series



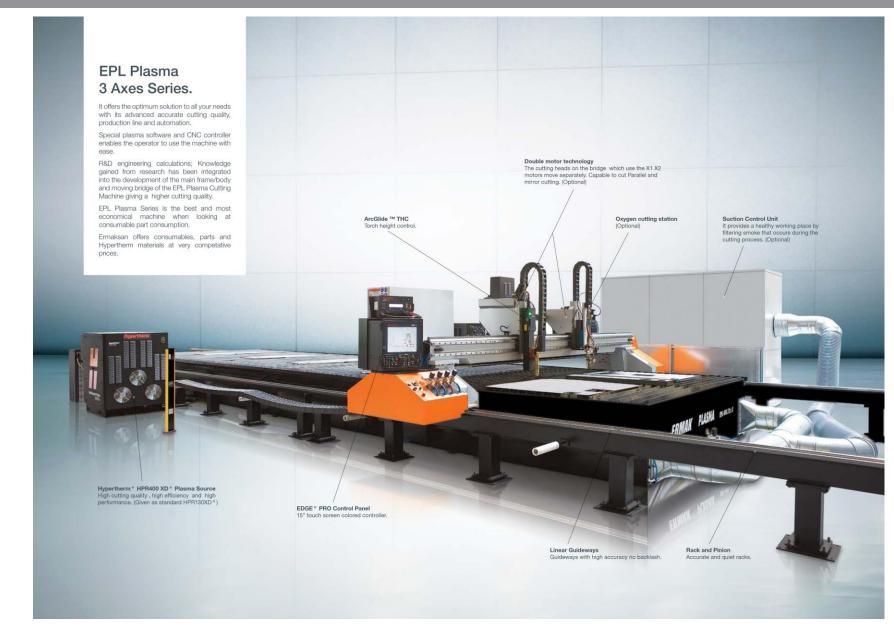




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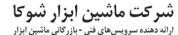
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nest utilization.

Fewer errors

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### **EDGE**<sup>®</sup> **Pro Controller**



Designed to be flexible and easy to use, the EDGE Pro delivers reliable performance for improved profitability and application performance such as True Hole technology. Using Phoenix software, this CNC improves cut quality and productivity by delivering our expertise directly to your factory, giving the best results with every operator.

#### Advantages+

#### Easy

- Using the CutPro<sup>TM</sup>Wizard new operators can be ready to cut production parts in less than 5 minutes.
- Built-in two-station operator's console, with tactile joystick, speedpot, and torch position control for easy operation
- Network and USB access for part program loading and software updates.
- Built-in help and cutting optimization tips for improving table performance and process outcomes on demand.

#### Reliable

- Durable glass touchscreen utilizing surface acoustic wave technology.
- · Air cooling to reduce stress on electronic components without dust ingress.
- Designed and stress tested to ensure consistent operation in the harsh plasma cutting environment.
- Intuitive hardware service kit helps rapidly isolate system errors.

#### Performance

- Oritical plasma, THC and table parameters can be controlled in the part program using Part Program Support (PPS) for repeatable cut quality.
- Watch Windows<sup>™</sup> enable on-screen real-time monitoring of key process performance parameters while cutting.
- Custom cut charts can be created and controlled in the part program or made available to the CutPro Wizard.
- Support for fast transitions from marking to cutting.

## Reliable, user friendly, high efficiency and applicability...

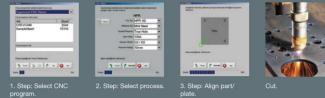
#### Ease of use: Phoenix software

 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! : CutPro<sup>™</sup> 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.



#### **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 Opcon standard
Operating voltage and frequency	100 – 240V, 50/60 Hz
Software utilities	Part Program Support (PPS), Remote Help, networking, Autogas support, DXF import, and simple shape nesting

### **CNC PLASMA CUTTING MACHINE**

ArcGlide<sup>™</sup> THC

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#### Advantages+

- 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.

#### Increase parts per hour

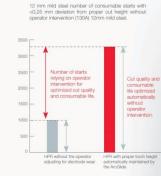
Up to 100% improvement in parts cut per hour by rapid ignition and movement optimization coded on software.

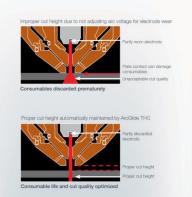


Part processing time 203 mm flange Number of parts - 203 mm flange 80% reduction in cut-to-cut cycle tim Pre-flow IHS Betract time Table motio Cutting ArcGlide THC with Hypertherm's suite of integrated plasma cutting products Arcglide THC only ArcClide THC with Hypertherm's suite of integrated plasma cutting products Command THC Comr Aroglide THC only

#### Decrease cost per part

ArcGlide THC continuously samples arc voltage and automatically adjusts arc voltage for proper torch height over the life of the consumables without requiring operator input.





### **CNC PLASMA CUTTING MACHINE**

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### Hypertherm **HPRXD<sup>®</sup>** Plasma Sources

HyPerformance® offers quality and sensitive cuts along with high productivity. HPR XD® plasma sources offer better general performance, productivity and profitability with its unique combination of superior technologies.



Torch

Quick disconnect

torch reduces

installation time.

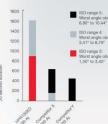
 High power element/ productivity. Low fluctuation on exit current for lower arc voltage lapse

- Serial communication port on CNC for system surveillance.
- CAN serial communication between main modules for system stability.
- Long distance surveillance feature if CNC is connected to network.

#### Manual Gas Console

- Provides HyDefinition cutting quality with LongLife Technology.
- Compensates for changes in the incoming gas pressure.
- Continuously measures and adjusts the flow of gas.

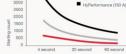
HPR130XD <sup>®</sup> Operating data	
Mild steel cut capacity	
Dross free	16 mm
Production pierce	32 mm
Maximum cutting capacity	38 mm
Stainless steel cut capacity	
Production pierce	20 mm
Maximum cutting capacity	25 mm
Aluminum cut capacity	
Production pierce	20 mm
Maximum cutting capacity	25 mm



Life long cut quality (130 A)







Cut time per start count

#### HPRXD plasma selections working data

	HPR260XD (30-260 amp)	HPR400XD (30-400 amp)	HPR800XD (30-800 amp)	
Mild steel cutting capacity				
Dross free	32 mm	38 mm	38 mm	
Production pierce	38 mm	50 mm	50 mm	
Maximum cutting capacity	64 mm	80 mm	80 mm	
Stainless steel cutting capacity				
Production pierce	32 mm	45 mm	75 mm	
Maximum cutting capacity	50 mm	80 mm	160 mm	
Aluminium cutting capacity				
Production pierce	32 mm	45 mm	75 mm	
Maximum cutting capacity	50 mm	80 mm	160 mm	

#### Automatic gas

- Allows full control of all requirements.
- Automatically changes processes on the fly to enable rapid switching between cutting and marking.
- Automatically adjusts for variations in incoming gas pressure to produce the most consistent cutting performance.

#### Advantages+

#### Increased parts per hour

- HyPerformance Plasma systems provide faster cut speeds to produce more parts per hour.
- Hypertherm's patented PowerPierce<sup>™</sup> technology makes it possible to cut thicker than ever before and replace slowercutting technologies such as oxyfuel.
- HvPerformance Plasma's superior guality and consistency maximize the number of parts produced per hour by minimizing time-consuming secondary operations.

#### Do more with less power

 HyPerformance Plasma enables extremely high cutting speeds per amp with less cutting current than other plasma solutions on the market.

#### Longer consumable life

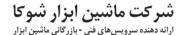
- LongLife® and PowerPierce™ technologies significantly increase consumable life and reduce your cost per part.
- Hypertherm consumables are manufactured with the highest quality standards to ensure consistently longer life.

#### Do more with less power.

- Patented consumable designs enable industry-leading cutting speeds and robust production piercing using lower amperage levels.
- HyPerformance Plasma enables extremely high cutting speeds per amp with less cutting current than other plasma solutions on the market.
- Hypertherm's power supplies are designed to be extremely efficient in their use of electricity, enabling lower electrical expense and a reduced impact on the environment

64 mm	80 mm	80 mm
Ownin	du min	eu mm
32 mm	45 mm	75 mm
50 mm	80 mm	160 mm
32 mm	45 mm	75 mm
50 mm	80 mm	160 mm
e option		
-		
n settings from the CNC,	simplifying operator trainin	9
	50 mm 32 mm 50 mm	50 mm 80 mm 32 mm 45 mm 50 mm 80 mm

### **CNC PLASMA CUTTING MACHINE**



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Ermaksan EPL series cutting machine provide more consistent cut quality and more powerful precision cutting which is Hypertherm's patented technologies.



#### HyDefinition® Technology

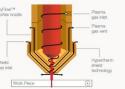
- Mouthed nozzle technology aligns and focuses the plasma arc.
- HyDefinition technology enables powerful precision cutting for superior quality and consistency.

#### LongLife° Technology

- Hypertherm's patented LongLife<sup>®</sup> technology increase and decrease gas flow and gradually to reduce electrode and nozzle erosion in extremely controlled manner.
- By reducing erosion of electrode and nozzle with LongLife<sup>®</sup>, longer period with more consistent quality of a cut while offers a significant reduction in operating cost.

#### PowerPierce<sup>™</sup> Technology

- Patented PowerPierce liquid cooled shield repels molten metal during piercing
- For maximum pierce capability of up to 50 mm mild steel and 75 mm stainless steel.
- Patented consumable designs deliver speed and thickness capabilities expected of higher amp systems







For a better quality performance at any point

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.



#### 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.

#### 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.



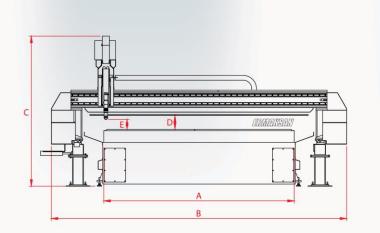


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شرکت ماشین ابزار شوکا ارائه دهنده سرویسهای فنی -بازرگانی ماشین ابزار

EPL Plasma 3 Axes Series Technical Data



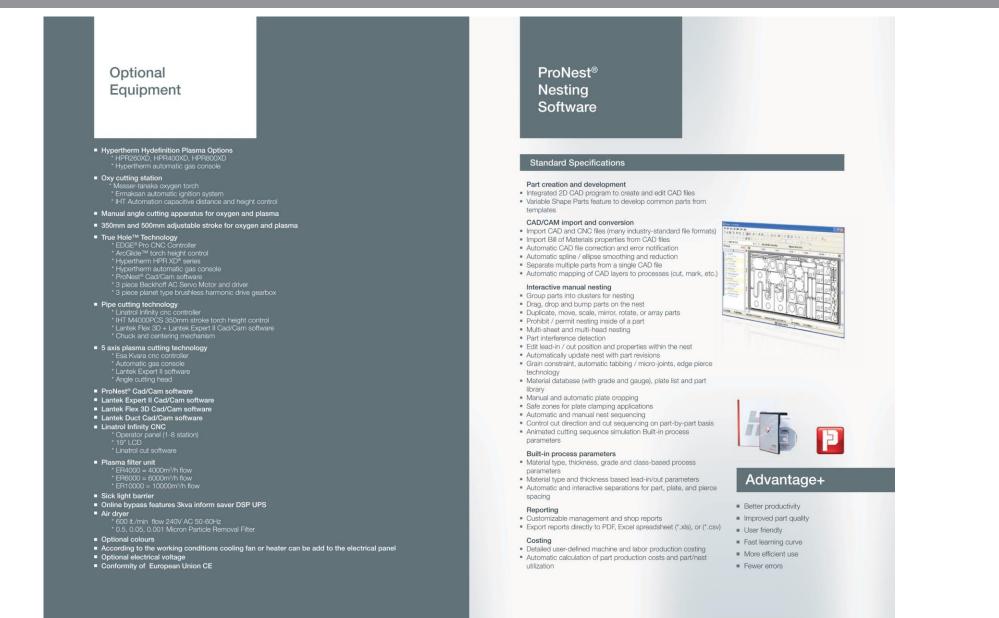
PLASMA SERIES		EPL 1530 Compact	EPL 2040 Compact	EPL 2060	EPL 20120	EPL 2560	EPL 25120	EPL 3060	EPL 30120	EPL 4060	EPL 40120
CUTTING WIDTH A	mm	1500	2000	2000	2000	2500	2500	3000	3000	4000	4000
TOTAL WIDTH B	mm	2500	3700	3700	3700	4200	4200	4700	4700	5700	5700
TOTAL HEIGHT C	mm	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280
NTER GAP D	mm	200	200	200	200	200	200	200	200	200	200
FORCH DISTANCE E	mm	100	100	100	100	100	100	100	100	100	100
CUTTING LENGTH	mm	3000	4000	6000	12000	6000	12000	6000	12000	6000	12000
TABLE HEIGHT	mm	900	900	750	750	750	750	750	750	750	750
SPEED	m/min	35	35	35	35	35	35	35	35	35	35
MACHINE AXIS		X , Y , Z	X,Y,Z	X,Y,Z	X,Y,Z	X,Y,Z	X,Y,Z	X,Y,Z	X, Y, Z	X, Y, Z	X , Y , Z
POSITIONING ACCURACY	mm	± 0,1 DIN 28206									
REPITITION ACCURACY	mm	± 0,05 DIN 28206									
PLASMA CUTTING UNIT		Hypertherm 130XD									
FORCH HEIGHT CONTROL		Hypertherm ArcGlide									
CUTTING CAPACITY	mm	1 - 38	1 - 38	1 - 38	1 - 38	1 - 38	1 - 38	1 - 38	1 - 38	1 - 38	1 - 38
ENERGY		400V, 50Hz, 6 bar air									
VEIGHT	kg	3750	4750	6750	12000	7500	14000	8250	15000	9750	18000



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## Add another dimension to your cutting capacity.







n with Z axis Can move totally 180 degrees at A axis utting head moves up and dow nd right and left with X axis.

All angles are calculated automatically with 5 axes cutting technology. During the cutting process, it composes the angle value automatically, which the operator needs to enter. 5 axes cutting technology is a perfect solution for vertical and angular cuts.

Automatic angle adjustment provides time saving to the operator and removes the issues which could be caused by operator errors.

35 mm Mild Steel





20 mm Mild Steel

50 mm Mild Steel

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شركت ماشين ابزار شوكا

ارائه دهنده سرویس های فنی - بازرگانی ماشین ابزار



#### Impressive cuts: True Hole™ Technology

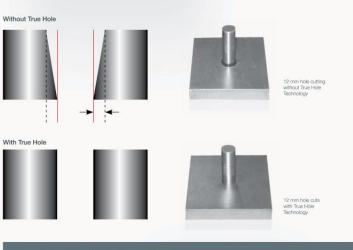
True Hole Technology, which has been developed for carbon steel, comes as standard with automatic gas consolled HPRXD<sup>®</sup> plasma system. Patented True Hole<sup>™</sup> technology which was developed for carbon steet, is a specific combination of cutting parameters which were optimised according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

With True Hole™, 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...



How is True Hole<sup>™</sup> Technology obtained?

Achieved with EDGE<sup>®</sup> Pro Controller, ArcGlide<sup>™</sup> THC, HPRXD<sup>®</sup>, Automatic gas system and ProNest<sup>®</sup> nesting software and well-matched cuttling table.



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

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

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## Impressive solutions at pipe cut...



### Advantages+

- Sensitive and gualified cuts with Hypertherm XD<sup>®</sup> plasma source
- Meeting the high speed plasma cutting standards with impeccable filtration system thanks to inner pipe suction design.
- High precision for edge cuts and round cuts with the milled teeth helical rack and pinion.
- Manual support system that provides 50 400 diameter pipe cuts.
- Advanced Height control unit designed for plasma cutting.
- A design that protects mechanical parts from fumes or impacts.
- Infinity CNC control unit is easy to use and efficient Sofware Lantek Cad/Cam
- Marking speciality
- Feature of returning backward and continue to cut where ever needed.
- Large utilization area like tank manufacturing, pipe line etc.





You can do bevel (angled) cuts with the 5 axes cutting head which is optional.





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#### Extremely reliable

In Ermaksan EPL plasma series, filter unit is an option. The heavy particles emerging during the cut should be taken away as much as possible. Filtering unit is designed specially for filtering the gas and particles. With this unit the dirty dust is removed, learning a safe & clean working environment.



#### Advantages+

- Clean working ambiance
- Integrated burr separator inhibiting sparks and heavy particles to Reach into the filtering unit during cutting.
- 99.9% filtration efficiency according to EN 60335/2/69
- Synchronized automatic start and stop from CNC cutting frame as command





#### Station Characteristics

- With Messer-Tanaka oxygen torch; 10 to 120
- mm cutting potentiality (300 mm as optional). IHT automation capacitive distance and height
- control
- IHT automation collision sensor.
- 220 mm standard stroke.
- 350 mm stroke.
- 500 mm stroke.
- 60 mm circle sensor.
- 35 mm circle sensor (optional).
  75 mm circle sensor (optional).
- Ermaksan auto ignition system.
- Flame is blocked to return to hose from the
- edge of torch thanks to Messer rebound safety valves.
- Oxygen cutting gas adjustments are done with free of problems thanks to regulator block of cutting, LPG, low and high annealing gases.
- The annealing duration decreases thanks to high annealing valves and thus cutting period is minimised.
- +/- 45 degree manual angled cutting apparatus for oxygen (optional).



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**Diverse Production Solutions** Pipe Cutting EPL Plasma

#### Impressive Integration : Pipe Cutting EPL Plasma

Ermaksan is continually developing to meet current demands. It can offer practical taylored solutions to suit special requests.

The pipe cutting EPL Plasma Series , is designed for cutting pipes with 12 m length and 600 mm diameter. It enables loading with the Automation System , accurate cutting with advanced technology.



