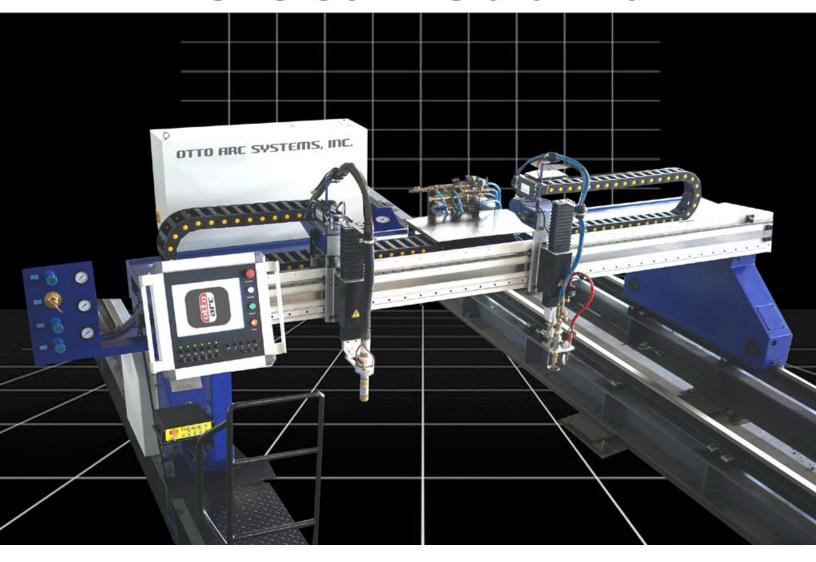


OTTO ARC SYSTEMS, INC. SINCE 1988

CNC CUTTING SYSTEMS



WWW.OTTOARC.COM

Rometec srl - www.rometec.it - info@rometec.it - Rometec srl - www.rometec.it - info@rometec.it

5' x 10' Laser Cutting with 2KW IPG Laser

The FL3015C Fiber Laser Cutting Machine is a high-quality & high-efficiency cutting expert which adopts IPG Fiber Lasers with up to 30% wall-plug efficiency. This machine is also integrated with a high feature control system and rigid mechanical structure. It is several times higher than conventional lasers and has numerous advantages such as, high accuracy, high speed, high reliability, fine beam quality, low overall cost, highly compact and user-friendly.



System Configuration:

Item	Specification
	Unitized table and gantry cutting machine
	Pinion, rack and linear guide way precision motion
Machanias Churchus	Rugged dual-side longitudinal pinion and rack driving
Mechanical Structure	Fume extraction structure design of cutting table, easy to connect fume extraction device.
	Light and solid gantry structure, qualified for high cutting precision and performance.
Driving Unit	YASKAWA Sigma-7 System:
(Longitudinal and transverse motion)	YASKAWA sigma-7 servo motor;
	2) Apex Planetary Gearbox
Laser Cutting Controller	FSCUT2000
IPG Laser Device	YLS 2000 Ytterbium Laser Source
Cooling for IPG Laser	Chiller
Torch Height Control	BCS100
Precitec Auto Focus Laser Head	Procutter Series
Gas Flow Control Panel	
Longitudinal drag chain, cable, gas hose	
Tool Box	
Regulated Power Supply	

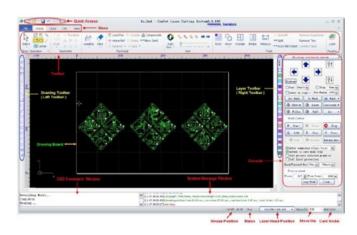
Technical Specifications:

Description		Parameter			
Effective Working Range (5'x10')					
X-axis		5'			
Y-axis		10'			
Z-axis		4"			
Maximum Speed					
X-axis		2240 IPM			
Y-axis		2240 IPM			
X-Y coordinated		3150 IPM			
Z-axis	1180 IPM				
Max. cutting speed	1575 IPM				
Acceleration					
X-Axis	≥	1G			
Y-Axis	≥	1G			
Z-Axis	Z-Axis ≥				
Accuracy					
Positioning Acc.	1/5000"				
Cutting Acc.	1/1250"				
Standard Cut Quality	ISO9013				

Rometec srl - www.rometec.it - info@rometec.it - Rometec srl - www.rometec.it - info@rometec.it

Laser Cutting Control System - FSCUT2000 Features:

- CypTronic-F CNC Specification:
- · Mainboard Model: BCE4
- CPU: Intel(R) Celeron(R) CPU J1900 @2GHz
- Chipset: Intel Bay Trail-TRAM: 4G (DDR3 1600MHz)
- Hard Drive: 64GB/SSD
- Power: DC 24V
- Protection Degree: IP40
- Operating System: Windows Embedded Standard 7(X86)
- Working Conditions:
 - -Temperature (0~65 deg C)
 - -Humidity 5%~95% (no condensation of moisture)





Power Source:

Laser System YLS-2000 IPG Photonics

- High power fiber laser device specialized in mechanized laser cutting system
- Low operation and maintenance cost;
- High wall-plug efficiency: ≥30%;
- No consumable parts to be replaced constantly, environment friendly

Fiber Laser Cutting Features:

- · Compact, rugged and easy to install
- Low energy consumption (70% lower than CO2 laser)
- Standard Laser Head
- Constant BPP over entire power range
- · Small focus over large working distance
- Fiber delivery No laser gas removing required, simple optical path system

IPG TechnicalSpecifications:

Item	YLS-2000
Туре	Ytterbium-doped fiber laser
Mode of Operation	CW/Modulated
Central Wavelength	1070 nm
Power Output	2000 W
Beam Parameter Product (BPP) M²	<1.15
Polarization State	Random
Max Modulation Frequency kHz	10
Supply Power	460 VAC ± 10%
Power input (kW)	8
Cooling (KW)	5
Diode Life (hrs)	>50000
Cooling type	Water cooling
Maintenance	Maintenance-free

• High cutting capability on high reflective materials like copper/red copper due to fiber laser's high absorptivity of carbon steel and copper. Its absorptivity can be 3-4 times higher than CO2 laser.

· Low operation cost, easy to operate and easy maintenance

Fiber Laser Head Precitec ProCutter Series AUTOFOCUS - USA

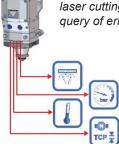
Dynamic laser cutting machines require lightweight, intelligent cutting heads. Even installed in the smallest possible space, the ProCutter offers a fully-integrated sensor system that monitors the cutting process and provides the user with relevant information. The head ensures a processing with up to 15 kW and that each component can be reproducibly manufactured at a high standard of quality.

The ProCutter offers a complete solution for the laser-based fusion cutting of thin and medium material thicknesses in the wavelength range around 1 $\mu m.$ In "flame cutting", greater material thicknesses can also be processed while maintaining high standards of quality. The potential of the cutting head is optimally converted into productivity, especially in the case of flatbed and pipe cutting machines, where innovative technologies are combined with proven concepts, providing the best possible performance, range of flexibility and degree of reliability.

Mobile App

The ProCutter APP is used to visualize the state of the laser cutting head and the query of error messages.





Benefits:

- Motorized focus position adjustment for automatic machine setup and piercing work
- Lightweight and slim design created for fast acceleration and cutting speed
- Drift-free, fast-reacting distance measurement
- Permanent protective window monitoring
- Completely dustproof beam path with protective

Light Duty Unitized System

AirCUT

The AirCUT cutting table is a light duty CNC cutting machine with 3 axis plate cutting, and sets up with an integrated cutting table with water table feature (optional downdraft table and fume collector), it is fully managed by a CNC Controller dedicated to shape cutting. The whole system is composed of the steel gantry, longitudinal driving system with linear guides, and horizontal driving system on high precision transverse guidance, and air plasma power source.

Machine Description:

The main structure which includes the gantry and cutting table is manufactured with A36 Steel and is welded together to become the structure and then machined by CNC machinery for a precise unitized structure which assures the gantry will accept mid-range speed movement up to 490 IPM and ensure a high precision cut. As part of the system, the cutting table is built into the system along with the water table system that is also included.

Basic Parameters/Hardware Configuration:

- MCU: ARM9
- Number of axis motion: Three axes motion
- Single cutting code size: 4MB
- Controlling accuracy: ±0.001mm (millimeter)
- Max pulse frequency: 250KHz: Max motion speed: 25m/sec.
- Time resolving capability:10ms
- System power:DC +24V
- Special configuration: Touch pad, 100m wireless remote controller and wire control box (optional for full range of HHX series)
- Support oxygen gas, plasma, powder and simulation demo mode



Effective Cutting Width (mm/Ft)	1500mm / 5'
Effective Cutting Length (mm/Ft)	3000mm / 10'
Cutting Thickness (mm/in)	25mm / 1" plasma
Max. Drive (m/in) per min.	12m/min 490 IPM
Cutting Mode	1 plasma air torch or 1 flame oxy torch
Drive Type	AC Dual Servo Driving Motor



Controller System: Multiple Control Option, HHX or F2300

The main structure which includes the gantry and cutting table is manufacture with A36 Steel and is welded together to become the structure and then machined by CNC machinery to become a precise unitized structure which assure the gantry will accept mid-range speed movement up to 490 IPM and ensure a high precision cut parts. As part of the system, the cutting table is built into the system as a water table system is also included and has already been set up. The downdraft table is an option.

The CNC system of HHX uses ARM and DSP motor control IC to implement cutting control, and the system is widely applied to oxygen gas cutting and plasma cutting processing industry. The system is designed for easy installation. The system is easy to operate and the worker can use the menu and the graphical hints to easily operate it. All the key buttons are designed in Rometec srl - www.rometec.it - info@rometec.it - Rometec srl - www.rometec.it - info@rometec.it

Affordable Gantry Style Flame/Plasma System EasyCUT

Our EasyCUT is a mid-range duty double sided AC Servo driving CNC cutting table. It has two types of carriers, the main horizontal driving carrier, which carries one torch and the second, which can carry an additional two torches together - one plasma torch and one flame torch. The maximum torch capacity is 3. This combination offers 3 flame cutting torches or 1 plasma with 2 flames torches.

The EasyCut table has the capability of multiple flame stations and increasing cutting area thanks to its design and comes equipped with a double cutting process that aids in job requirements just shy of heavy duty cutting. We have designed this machine so that it delivers high performance, stability and results without having to buy a larger more expensive piece of equipment.

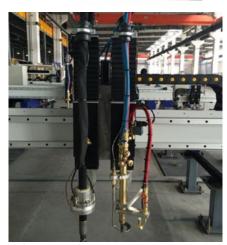




- Strong frame structure to insure cutting precision and durability
- Precision gear box torch trolley driving system to ensure high accuracy
- Various torches for various cutting processes as flame cutting and plasma cutting
- Suitable for wide and complicated applications
- Maxium size it can cut is 10' x 40'
- Doublesided driver (AC Servo)
- 15 inch high-resolution color LCD
- Flame cutting torch auto-ignitor (optional)
- Various FastCAM software available

Track Width (m/Ft)	1.5 / 2.4 / 3.0m 5 / 8 /10' Ft
Track Length (m/Ft)	Max. 10m / 40'
Cutting Thickness (mm/in)	50mm / 2" Plasma or 70 mm /2.75" flame
Max. Drive (m/in) per min.	12m/min 490 IPM
Cutting Mode	Plasma or Flame (cutting on both)
Drive Type	AC Dual Servo Driving Motor





Main Torch Carriage



Gas Controls



Heavy Duty Unitized Cutting Table

FineCUT

The FineCUT table is a heavy-duty high precision cutting table. The FineCUT has dual sided AC Servo Motors built around a rigid frame structure to ensure cutting precision and durability. The cutting table is designed to use a HD Plasma source, True Hole and standard plate cutting technology. It is a single station head, integrating the latest plasma technologies available on the market.

PERFORMANCE / TECHNICAL

- · Strong frame for single plasma cutting torch
- · Suitable for small plate sizes
- · Dual precision driving trolley system
- ullet One torch recommended, but up to two torches may be integrated (one plasma ullet one flame)
- · Precision gear box torch trolley driving system to ensure high accuracy in locating transmission
- · High cutting speed available
- 15 inch high-resolution color LCD
- Touch screen optional



Air tank is standard. Water tank is optional.

Effective Cutting Width (mm/Ft)	1500mm / 5'
Effective Cutting Length (mm/Ft)	3000mm / 10'
Cutting Thickness (mm/in)	50mm / 2" Plasma
Max. Drive (m/in) per min.	12m/min or 24m/min 490 IPM or 980 IPM
Cutting Mode	1 plasma air torch or 1 flame oxy torch
Drive Type	Dual AC Servomotors Drive

For larger requirements, please contact us.

Extra Heavy Duty Plasma and Flame Cutting System ProCUT

Customize the Length (up to 120')

PERFORMANCE / TECHNICAL

- Extra heavy duty thermal premier CNC plate cutting machine
- Special design to improve effective cutting width
- Ridgid frame structure to ensure cutting precision and durability
- Suitable for wide and custom applications
- · Various torches for an array of cutting processes such as, flame and plasma
- · Dual precision driving trolley system

- Precision gear box torch trolley driving system ensures high accuracy in locating transmission
- · High cutting speed is available
- 17 inch high-resolution color LCD or 15" touch screen
- Regular display or touch screen optional
- · Various FastCAM software available



Optional: Water or air tank available per request. Fume Extraction also available per request.

This machine is a heavy duty extended size CNC premier thermal cutting machine with multi-axis control suitable for various plate cutting applications. The driving trolley system is designed to assist with cutting larger width material. It also offers a variety of different tools including: strip cutting, triple torch and plasma arc contour beveling unit.

ProCut Plasma & Flame CNC Cutting Machine								
Track Width (mm) Track Width (feet)	3000 10'	3500 12'	4000 13'	4500 15'	5000 16'	6000 20'	7000 23'	8000 26'
Overall Width (mm) Track Length Overall Width (feet) Track Length	4000 13'	4500 15'	5000 16'	5500 18'	6000 20'	7000 23'	8000 26'	9000 29.5'
Drive Speed (mm / feet)	12000mm/min or 24000mm/min 490 IPM or 980 IPM							
Max. No. of Heads (mm / inches)		6 (with 2 plasma available)						

Note: Number of torches may change depending on application.

Details for CNC Plate Cutting Machines (for further info please contact us)

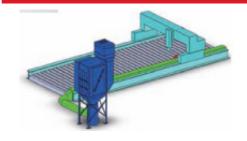
DRIVER







FUME EXTRACTION TABLE



Power Sources

Hypertherm

PRECISION PLASMA SOURCES





Precision Plasma Power Units						
Project	Model Number	HPR130XD	XPR300	HPR400XD		
	No Slag	16mm / 0.62"	45mm/ 1.75"	38mm / 1.5"		
Carbon Steel	Production Piercing	32mm / 1.25"	50mm/ 2"	50mm / 2"		
Carbon Steel	Quality Cutting	25mm / 1"	25mm / I" 38mm/ 1.5"			
	Edge Cutting	38mm / 1.5"	80mm / 3.125"	80mm / 3.14'		
Stainless Steel	Production Piercing	20mm / 0.79"	38mm/ 1.5"	45mm / 1.77"		
	Edge Cutting	25mm / 1"	75mm/ 3"	80mm / 3.14'		
Aluminum	Production Piercing	20mm / 0.79"	38mm/ 1.5"	38mm / 1.5"		
	Edge Cutting	25mm / I"	50mm/ 2"	80mm / 3.14'		
Power		19.5kw	66.5kw	80kw		
Current		30-130A	30-300A	30-400A		

OXYGEN & AIR PLASMA SOURCES





AIR PLASMA

Plasma Power Units						
		Air Plasma				Oxygen Plasma
Project	Model Number	Powermax 65	Powermax 85	Powermax 105	Powermax 125	MAXPro 200
	No Slag	Not applicable	Not applicable	Not applicable	Not applicable	20mm / 0.79"
(Contrary Charles (Sarahara)	Production Piercing / Max Piercing	12/16mm 0.47"/0.62"	15/19mm 0.60"/0.75"	18/22mm 0.70"/0.87"	20/25mm 0.79"/1"	25/32mm 1"/1.25"
Carbon Steel (mm/inches)	Quality Cutting	12mm / 0.47"	15mm / 0.60"	18mm / 0.70"	20mm / 0.79"	25mm / 1"
l	Edge Cutting	32mm / 1.25"	38mm / 1.5"	50mm / 2"	57mm / 2.25"	75mm / 3"
	Production Piercing / Max Piercing	12/16mm 0.47"/0.62"	15/19mm 0.60"/0.75"	18/22mm 0.70"/0.87"	20/25mm 0.79"/1"	25/32mm 1"/1.25"
Stainless Steel (mm/inches)	Quality Cutting	12mm / 0.47"	15mm / 0.60"	18mm / 0.70"	20mm / 0.79"	25mm / 1"
1	Edge Cutting	32mm / 1.25"	38mm / 1.5"	50mm / 2"	57mm / 2.25"	75mm / 3"
ĺ	Production Piercing / Max Piercing	12/16mm 0.47"/0.62"	15/19mm 0.60"/0.75"	18/22mm 0.70"/0.87"	20/25mm 0.79"/1"	25/32mm 1"/1.25"
Aluminum (mm/inches)	Quality Cutting	12mm / 0.47"	15mm / 0.60"	18mm / 0.70"	20mm / 0.79"	25mm / 1"
l	Edge Cutting	32mm / 1.25"	38mm / 1.5"	50mm / 2"	57mm / 2.25"	75mm / 3"
Power	-	9kw	12.2kw	16.8kw	21.9kw	33kw
				ì		

Rometec srl - www.rometec.it - info@rometec.it - Rometec srl - www.rometec.it - info@rometec.it -

Screen & Control Systems

Hypertherm CONTROLLER

Hypertherm Edge-Connect Controller:

EDGE Connect is the next generation of Hypertherm's industry leading automated control systems. This new platform is built upon 50 years of experience and commitment to develop, build, and sell products that improve your cutting operation.

EDGE Connect uniquely combines Hypertherm's embedded expertise with OEM customization. Cutting-machine OEMs can create greater differentiation leveraging Hypertherm's embedded cutting expertise foundation. EDGE Connect offers many new software features, enhanced hardware, and field based system configuration capabilities.

Republication of the second of



New with EDGE® Connect CNC

- Hypertherm's Phoenix® version 10 CNC software
- Microsoft Windows 10 embedded operating system
- ProNest® CNC automatic nesting with process optimization
- Internal Programmable 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 (19.5") projected capacitive touchscreen available on some models
- · 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 (Soft OpCon) for easy setup and operation of cutting station and manual motion

OTTO ARC Control Panel with F2300 CNC Controller:

The CNC system of F2000 series use ARM and DSP motor control IC to implement cutting control, and the system is widely applied to oxygen gas cutting and plasma cutting processing industry. The system is designed portably to be installed. The system is easy to be operated and the worker can use the menu and the graphical hints to operate it. All the key buttons are designed in ergonomic considerations to be used conveniently. The front USB port can import and export files conveniently.

- Screen: 10.4" 800*480 HD160m color LED
- RAM: 64M SDRAM
- Customer storage: 256M
- Main frequency: 400MHZ
- USB: Front USB1.1 port, support at least 16GB USB driver
- Case: Full metal structure, anti-electromagnetic interference and static-free



The CNC system of HHX uses ARM and DSP motor control IC to implement cutting control, and the system is widely applied to oxygen gas cutting and plasma cutting processing industry. The system is designed to be easily installed and easy to operate. Operator can use the menu and the graphical hints for easy and quick job applications. All the key buttons are designed in ergonomic consideration. The front USB port can import and export files conveniently.

Basic Parameters/ Hardware Configuration: See page 3, AirCut







Software Options (CAD/CAM Nesting Software)

Otto Arc Systems offers 2 brands of Nesting Software. These software programs are designed to draw, nest and cut materials simply and efficiently.

Hypertherm ProNest

ProNest is an industry leading CAD/CAM part nesting software designed for advanced mechanized cutting. It provides a single solution for all your profile cutting needs, including plasma, laser, waterjet, and oxyfuel. ProNest helps fabricators and manufacturers increase material savings, boost productivity, lower operating costs, and improve part quality by offering the highest level of cutting expertise.

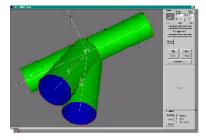
Hypertherm offers three levels of nesting software to fit everyones budget. 1) **ProNest LTS**: designed for light industrial, mechanized cutting in job shop environments. It provides a software solution for one cutting machine, equipped for either conventional plasma or oxyfuel. 2) **ProNest LT**: a powerful CAD/CAM part nesting software designed for light industrial, mechanized cutting in production environments. It provides a single software solution for all your conventional plasma and oxyfuel cutting machines. 3) **ProNest**: an industry leading CAD/CAM part nesting software designed for advanced mechanized cutting. It provides a single solution for all your profile cutting needs, including plasma, laser, and oxyfuel. ProNest helps fabricators and manufacturers increase material savings, boost productivity, lower operating costs, and improve part quality by offering the highest level of cutting expertise. Hypertherm also offer many additional Software, please go to www.hypertherm.com



FastCAM® is more affordable and far less complex than other systems. The system is designed to draw, nest and cut metal as simply and efficiently as possible. Ease of use is as important as the high levels of materials utilization and optimization the software provides. The easy editing and verification of geometry combined with one step nesting makes the system instantly productive. FastCAM's long experience in heavy plate fabrication makes the system ideal for even the largest construction jobs. The FastCAM® System is used successfully in Service Centers, Shipbuilding, Mining, Steel Fabrication, Metal Fabrication & Sign Cutting.

FastFRAME® is a powerful production tool that can save hundreds of hours in the design stage of complex space frame developments. Complete structural frames can be completed in days! Of equal value, the extraction of fabrication data needed for processing is simple so you can validate the structure before processing begins. FastFRAME® imports DXF/DWG drawings from steel detailing programs and provides all of the intersection details for single and multi-pipe intersections, including sequencing for construction. FastFRAME® can model individual nodes which you can view from any angle in wireframe or 3D. Even very complex detail can be viewed and checked. Details include full weld preparation information to International Standards,

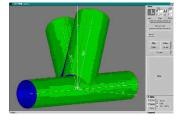
ensuring that the cut is accurate, even allowing for a continuously varying bevel.



FastFRAME® is suitable for the production of flat patterns for rolling, 'Wrap Patterns' or CNC controlled machinery. Developments can be used for NC controlled machinery or cut by hand. Output data is generally as patterns via conventional printer or plotter. Manual Wrap-around templates can also be created for users without specialist equipment. DXF output allows you to process the ends on your cutting equipment. Each element can be processed via Analogue or CNC controlled pipe cutting machines.

CNC pipe cutting machines are mainly used in two major areas: pipeline and space tube frame steel structures. The pipeline application areas are mainly concentrated in the petrochemical, natural gas, shipbuilding, metallurgy,

boiler / pressure vessel, power and other infrastructure industries, including long-distance pipeline, utility pipes and industrial pipes. The structural characteristics are usually single node intersects. Parts can be developed quickly and adjusted to seam locations etc., to ensure they fit available stock.



- · Automatically produces meaningful data for the forming and joining of parts when appropriate
- Creates a detailed Parts List table which is ideal for estimation. No more guesswork!
- Produces a full length wrap around template as a pattern. If the diameter or length exceeds the capacity of the pipe cutting machine it can be created as a DXF or CAM file which can be edited in an external CAM system (or plotted)

In addition, the FastCAM® System can be used to add various details to the pattern. e.g. Slots can be added to a pipe intersection profile when reinforcing plate is to be inserted in the joint. The system is sophisticated but uses familiar shop floor terminology making it very simple to use. To get a feel for the program you can check out our FastSHAPES playlist on FastCAM TV. The FastPIPE program is very similar in functionality. The difference is that FastSHAPES® is for preformed (flat) plate.

Four shapes cover most pipe development needs:

- Elbows: Transforming gored bends
- Pipe Branches: All types including 'set-on' and set-in' developments and offset branches
- Standard Pipes: Short square-cut stubs
- Mitred Straights: Short square-cut stubs, complete with mitred bend(s) and twists

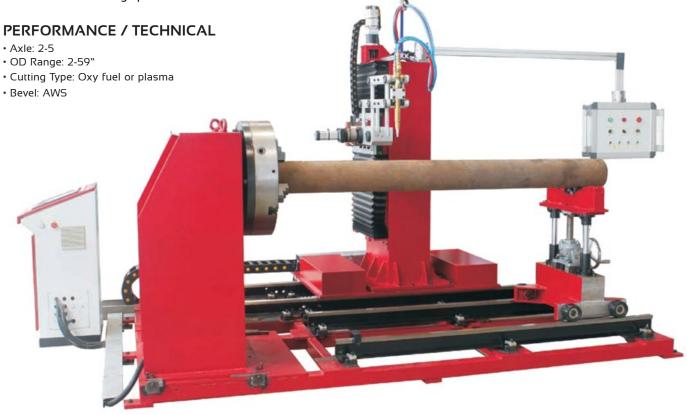


Plasma and Flame Pipe Cutting & **Profiling System (2-5 Axles)**

ProPipe

Our ProPipe is designed to cut profiles on steel or other various types of pipe material by using automatic calculation. It's widely used in cutting pipe and fittings for ship yards and other industrial steel structures, which require pipe intersection holes, or intersected ends. When using our ProPipe system, it eliminates the tough traditional way of marking your pipe along with lifting, cutting and lots of manual grinding. The traditional process is very time consuming, inconsistent, complicated and not cost effective! Using our system allows the operator to input the diameter and degree of the intersected pipe, and that's it! The machine will calculate the cut and the required bevel. There is minimal training required and it's very easy to educate lead managers and staff on how to use this efficient and quick system.

The system uses a cylindrical coordinating system with 5 synchronized axes, which can achieve fixed angle and multi-beveling angles as per AWS requirements. It also provides a multi-language interface input parameter and step by step communication during the cutting and beveling process. This system also has deviation function for various roundness, eccentricity, piercing and also includes a cutting speed control function.



ProPipe Plasma & Flame Pipe Cutting Machine (2-5 Axis)				
Axis	2-5 Axis			
OD (mm)	50-1500			
OD (inches)	2-59" (5ft.)			
Length (mm)	2000-18000			
Length (feet)	6.5' - 59'			
Thickness (mm)	5-60			
Thickness (inches)	0.19 - 2.36"			
Cutting Speed (mm/min)	80-2500			
Cutting Speed (inches/min)	3.15-98.5" (8ft.)			
Idle Speed (mm/min)	0-10000			
Idle Speed (inches/min)	0-39.37"			
Cutting Method	Oxy-Fuel or Plasma			
Bevel	V/Y ±45 deg.Plasma / ±60 deg Oxy Fuel			
Bevel Standard	AWS/fixed bevel/adjustable bed			
Rometec srl - www.ror	netec.it - info@rometec.it - Rometec.srl - www.rometec.it - info@rome			

info@rometec.it - Rometec sri -

October 2018



 $Distributor/Sales\,Representative\,Information:$

Otto Arc Systems, Inc.

10757 Cutten Road Building 1 • Houston, Texas 77066
DEMO SHOWROOM!

Phone Number: 832-680-5050

3921 Sandstone Drive • El Dorado Hils, CA 95762 Phone Number: 916-939-3400