

APPLICATIONS RANGE



Machine Building



Automotive



Construction




Agricultural Industry



Pressure Vessels

KIBERYYS
ROBOTIC SYSTEMS

 KIBERYYS Ltd.
26, Ekzarh Antim I Str.
Stara Zagora 6000
BULGARIA

 +359 2 868 1562
 office@kiberyys.com
 www.kiberyys.com

KIBERYYS
ROBOTIC SYSTEMS



WELDING AND CUTTING

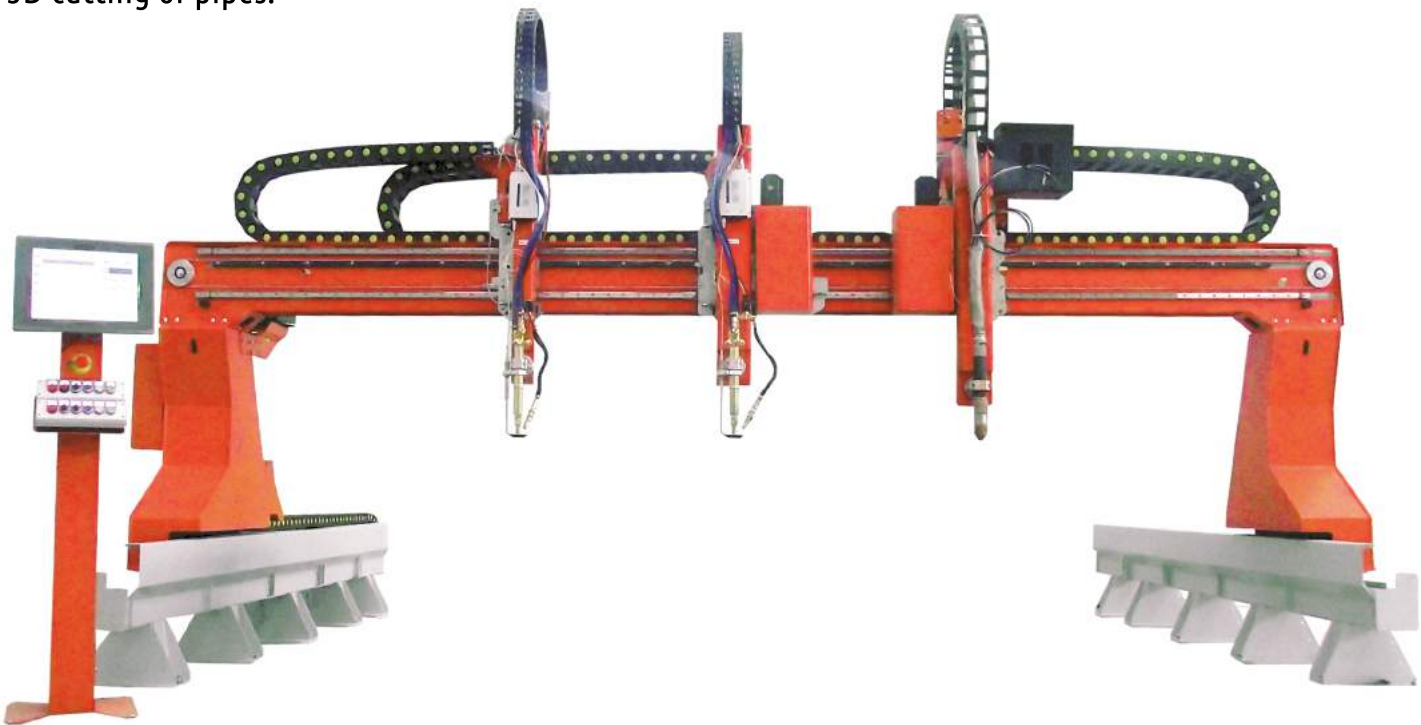
CNC Gantry systems for metal sheet and pipe cutting

The gantry systems are designed for plasma and oxy-fuel cutting. They cover a wide range of applications - sheets, pipes, profiles, beams, and more.

Low backlash, precision gears, highly rigid and precise rail guiding system enable smooth motion and excellent cut in corners and small holes.

The work-tables with robust design and fume extraction valves ensure good extraction capability.

The extended gantry work area together with 1-axis servo-positioner allow optimal results in 3D cutting of pipes.



FEATURES AND ADVANTAGES

- ◇ Modular design
- ◇ Straight and bevel cutting capabilities
- ◇ High durability
- ◇ Reliable components
- ◇ Well protected electrical design
- ◇ Easy upgrade to functionalities or processes
- ◇ Unique HMI software
- ◇ Great programming flexibility
- ◇ Simple to use
- ◇ Remote diagnostics over Internet



DRIVE SYSTEM	
Mechanical design	3 or 5 axis
Type of motors	AC synchronous servo motors
MOTION RANGE	
Transversal motion range: X axis	1500 – 3000 mm
Longitudinal motion range: Y axis	2000 – 12000 mm
Vertical motion range: Z axis	300 mm
SPEED	
Speed range on linear axes	0 – 30 000 mm/min
Speed range on rotational axes	0 – 120°/min
ACCURACY	
Positioning accuracy	+/- 0.10 mm/m
Repeatability	+/- 0.05 mm/m

Automated systems for welding and cutting

The automated systems are designed for welding, plasma and oxy-fuel cutting. They cover a wide range of applications - pipes, profiles, beams, and more.

The modular design of the system allows to expand at a low cost the work-area and by adding 1 and 2- axis servo-positioners to achieve maximum level of automation in your manufacturing process.

Offline programming in 3D is available for both welding and cutting systems. It allows to create and execute complicated motions needed to achieve a high quality product.

FEATURES AND ADVANTAGES

- ◆ Suitable for large work-pieces
- ◆ Full control over the welding process
- ◆ Weld monitoring functionality
- ◆ Improved access from above in tight places of work-pieces
- ◆ Capability to perform contour welding with minimal space requirements



FEATURES AND ADVANTAGES

- ◆ Full control over the plasma or oxy-fuel process from the user interface
- ◆ 6-axis design allows 3 and 4-sided cutting of profiles and beams
- ◆ Capable of cutting L, U, box section profiles, and H-beams
- ◆ Software for parametric design of pipe joints and libraries of multiple joint types



DRIVE SYSTEM	
Mechanical design	3, 5 or 6 axis
Type of motors	AC synchronous servo motors
MOTION RANGE	
Longitudinal motion range: X axis	3000 – 30000 mm
Transversal motion range: Y axis	1500 – 2500 mm
Vertical motion range: Z axis	1000 – 2000 mm
Range of rotation around Z-axis	+/- 360°
Range of inclination of torch	+/- 135°
SPEED	
Speed range on linear axes	0 – 30 000 mm/min
Speed range on rotational axes	0 – 120°/min
ACCURACY	
Positioning accuracy	+/-0.10 mm/m
Repeatability	+/-0.05 mm/m

Profile Cutting Lines

The fully automated profile cutting line consists of 2 servo manipulators and chain conveyors for automatically loading and positioning of the profiles. Sensors determine the size and length of the work-pieces.

The 6-axis robot is capable of 4-sided plasma cutting of square, rectangular, L, U, H profiles.

The finished parts are retrieved instantly by 2 output conveyors for small and large pieces.

The software for 3D offline programming accomplishes the whole system facilitating the process of designing complex shapes ready to cut.

ADVANTAGES AND FEATURES

- ◇ Automatic feeding and retrieving the work-pieces
- ◇ Servo-driven manipulators ensure precise positioning in the work area
- ◇ 4-sided cutting of L, U, box section profiles, and H-beams
- ◇ Maximum length of the profiles up to 12000mm
- ◇ Section profiles with dimensions from 20x20 to 500x300mm



Welding Lines

The welding line is especially designed for production of heat-exchanger panels for industrial boilers. It consists of 2 synchronized robots and 4 work-areas with servo-positioners.

The visual seam tracking system improves greatly the quality of the welds. The robots are equipped with 2 tandem welding systems achieving higher speed and plasma system for pipe cutting.

ADVANTAGES AND FEATURES

- ◇ 2 Synchronized welding robots
- ◇ 4 work-areas with servo-positioners
- ◇ Robotic welding of large heat-exchanger panels up to 9000mm in length and 2500mm in diameter
- ◇ Plasma pipe cutting capabilities
- ◇ Cutting of pipes with diameter up to 325 mm and length up to 6500 mm

VISUAL SEAM TRACKING DURING WELDING

- ◇ Automatically locating the beginning of the seam
- ◇ Smart visual tracking function correcting the position of torch during welding
- ◇ Suitable for tracking butt, fillet and overlap welding seams
- ◇ Air-cooled

