

NC Gas Plasma Cutting Machine

MAXIGRAPH



**A Series of Superior CNC Cutting Machines
Within a range of 1.6m to 4.1m**

- High performance and efficiency to meet a wide range of requirements
- 6 models available
- Effective cutting widths: 1.6m, 2.1m, 2.6m, 3.1m, 3.6m, 4.1m
- Precision machined steel rails for longitudinal axis
- Extendable cutting length

KOIKE SANSO KOGYO CO., LTD.

Machine Outline

Body Structure Designed for High Cutting Accuracy

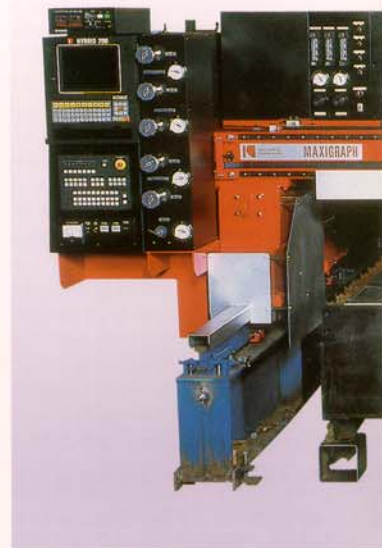


- The body has a gantry structure and single-side and dual side drive systems are available. Work proceeds smoothly at all times since the body is well balanced and very responsive.
- Rack and pinion drive is used for both the cross (X axis) and longitudinal (Yaxis) directions, for speedy and accurate NC advance.
- The running speed is 12 meters per minute for the DD type and 6 meters per minute for the SD type in the rapid traverse mode. The cutting and marking speed is 6 meters per minute.
- Highly accurate, smooth operation is assured thanks to precision machined steel rails and a stable longitudinal drive mechanism. Also, the rail length can be extended in increments of 3 meters.

CNC Controller with Advanced Functions for Enhanced Productivity and Efficiency



- The HYBRID-200 CNC controller has a flash memory capacity and a monochrome display as standard equipment (a color display is available as an option). The 9.4-inch LCD screen permits viewing of patterns while operating the system.
- Since 60 built-in patterns are provided, cutting can be performed simply by inputting the work dimensions. Also, additional part patterns may be put in (approximately 300 patterns).



Operation Panel



Mountable Plasma Units

High-quality, High-accuracy, Multipurpose Plasma Cutting Unit SUPER-200

- This cutting unit uses KOIKE's high-quality super (perpendicular) cutting plasma.
- Perpendicular cutting with no drag line delay results in clean corner cutting without rounding on the top or bottom surfaces.
- Common line cutting of mild steel 6mm or less in thickness is supported.
- High-quality, highly accurate cutting of mild steel, stainless steel, or aluminum plate, whether thick or thin.
- Special control of the flow of gas and electric current dramatically extends the service life of the electrodes and tip.

Rated input voltage	400 or 200 V, 3-phase, 50/60 Hz
Rated output current	30 to 200A
Rated usage ratio	100%
Maximum recommended plate thickness	19 mm (mild steel) 25 mm (stainless steel, aluminum)
Gas	Steel: Oxygen, air Stainless steel/aluminum: Nitrogen, argon/hydrogen
Torch	Water-cooled torch (separate cooler unit)
Power supply exterior dimensions	339(D) × 489(W) × 782(H)mm
Weight	210kg



General-use Plasma Cutting Unit

MAX-200

- Suitable for cutting many different metals (mild steel, stainless steel, aluminum, etc.).
- The gas may be selected to match the material to be cut.
- The sealed torch tip design (patented) virtually eliminates double arc formation.
- IC control maintains a fixed output current at all times.
- Extended continuous operation is possible at 200 A and with a usage ratio of 100%.

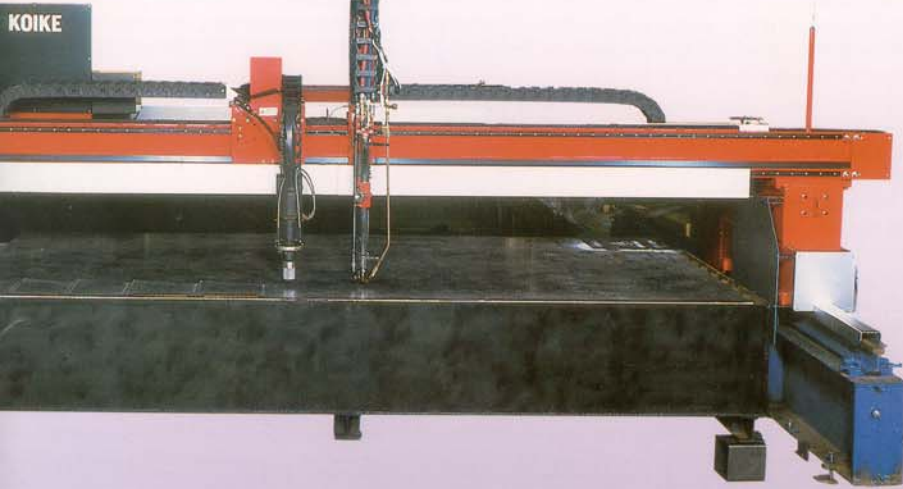
Rated input voltage	400 or 200 V, 3-phase, 50/60 Hz
Rated output current	40 to 200 A
Rated usage ratio	100%
Maximum recommended plate thickness	Up to 19 mm: quality cut 20 - 50 mm: separation cut (mild steel, stainless steel, aluminum)
Gas	Oxygen, nitrogen, air, argon/hydrogen
Torch	Water-cooled torch (built-in cooler unit)
Power supply exterior dimensions	1,040(D) × 710(W) × 1,090(H)mm
Weight	350kg



Every necessary control and operation can be performed as the CNC screen, the operation control panel, and plasma monitoring controls are all mounted on the Maxigraph.

Hi-Low pre-heating unit

For shortening of the pre-heat time before cutting, the Hi-Low pre-heat unit is standard mounted on the Maxigraph. This unit makes perfect setting of the pre-heat time.



■ Linear Guide



High speed, accurate plasma cutting has become reality by adding linear guide ways and slides to the X-direction main drive carriage and sub carriages.

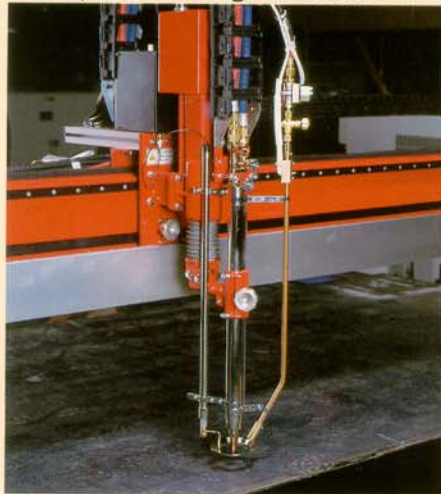


be made simply at one location
box, the gas control unit and
whithin the operators reach.

piercing a Hi-Low pre-heating
eat flames possible.

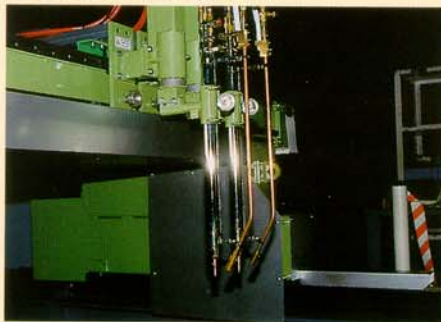
■ Available Options

■ Capacitive height sensor



In order to keep a constant distance in between the tip and the plate during cutting (necessary for quality cutting) an electrostatic capacitive height adjustment system can be mounted.

■ Automatic ignition



For CNC operation of the machine automatic ignition is highly recommended.

- Oxy-ful gas bevel cutting device
- Scrap torch ■ Torch cable bear

■ Line marking unit



To mark lines on the steel plate (for welding or bending purposes) it is ideal to use a powder-marking unit.

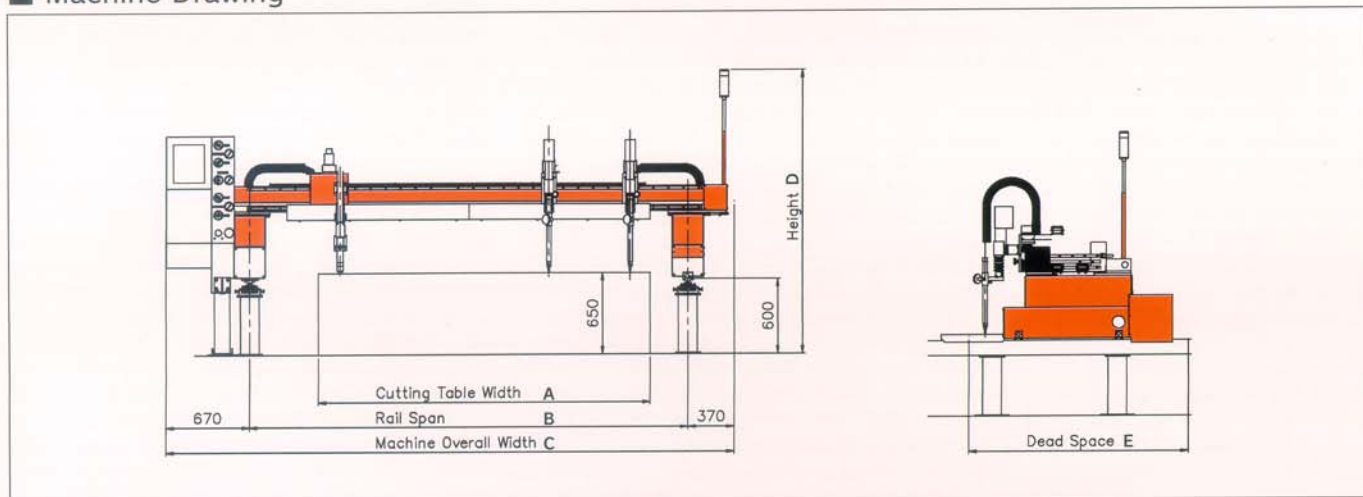
■ Waterspray



Waterspray is recommended when cutting thin plate.
Another advantage of the waterspray is to minimize the dust occured during cutting.

- Forward / Backward adjustr
- Extension rails is lengths of 3M units

Machine Drawing



Machine Dimensions

Model		A	B	C	D	E
DD type	3,500	2,600	3,500	4,540	2,300	1,750
	4,000	3,100	4,000	5,040	2,300	1,750
	4,500	3,600	4,500	5,540	2,300	1,750
	5,000	4,100	5,000	6,040	2,300	1,750
SD type	2,500	1,600	2,500	3,540	2,300	2,350
	3,000	2,100	3,000	4,040	2,300	2,350
	3,500	2,600	3,500	4,540	2,300	2,350

Specifications

Type	SD Type			DD Type		
	Gas cutting only	Plasma cutting only	Gas/Plasma cutting	Gas cutting only	Plasma cutting only	Gas/Plasma cutting
Main body (gantry type)	Single-side drive			Dual-side drive		
Effective cutting width	1.6/2.1/2.6m	1.6/2.1m	1.6/2.1m	2.6/3.1/4.1m	2.6/3.1/4.1m	2.6/3.1/4.1m
Effective cutting length	Rail length -2,350mm			Rail length -1,750mm		
Drive method	Rack and pinion drive for X and Y axes					
Torch mounting system	Steel belt connection system					
Cutting speed	Maximum 6 m/min.					
Rapid/marketing speed	Rapid 15 m/min./Marking 9 m/min.			15 m/min.		
CNC system	HYBRID-200 (monochrome CRT)					
Cutting capacity	6-100mm	Depend on plasma used	Depend on plasma used	6-100mm	Depend on plasma used	Depend on plasma used
Torch quantity	Standard: 1set (Max.: 4sets)	plasma torch 1set	Plasma: 1set Gas: 3sets(Max)	Standard: 1set (Max.: 6sets)	Plasma torch 1set	Plasma: 1set Gas: 2sets(Max)
Minimum torch distance	125 mm					
Machine color	Koike Red (main body)					



Total system supplier of welding and cutting

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