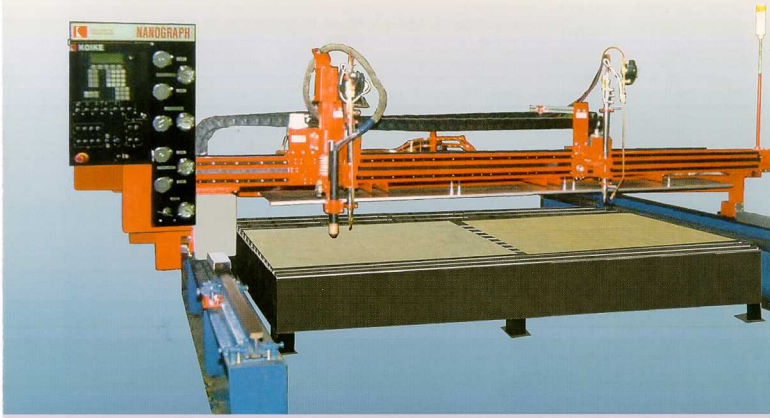
CNC GAS PLASMA CUTTING MACHINE

NANOGRAPH

A NEW APPROACH TO HIGH SPEED AND PRECISION CUTTING



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

9X2-17A51-1

KOIKE SANSO KOGYO CO., LTD.

■Linear Guide

High speed, accurate plasma cutting is reality using linear guide ways and slides to the X-direction main drive carriage.

■Operation Panel

Centralized control station groups all control and operating functions in a single location, convenient to the operator.

■Hi-Low Pre-heat Control unit

Hi-Low Pre-heat Control provided on the Nanograph shortens time required to pre-heat plate before piercing.
Perfect setting of the pre-heat flame is easy.

■Available Options

■Torch lifter

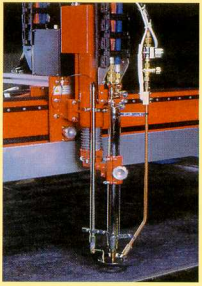
For CNC operation of an oxy-fuelcutting machine, automatic torch ignition and use of motorized torch lifter are strongly recommended.

■Aotomatic ignition

■Water spray

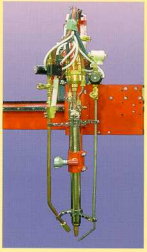
Water spray is recommended when cutting thin plate.
An additional advantage of the water spray is that it minimizes the presence of dust when cutting.

■Capacitive height sensor



To maintain constant standoff distance between the torch tip and the plate while cutting (necessary for quality cutting), an electrostatic capacitive height controlcan be provided.

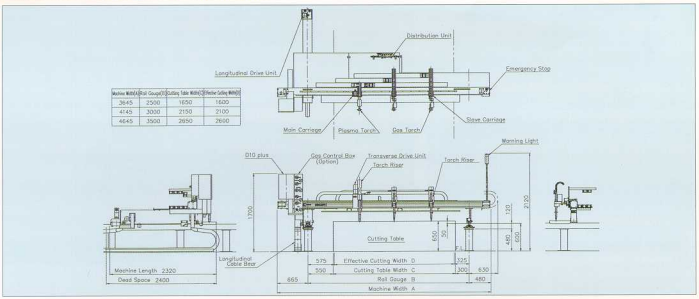
■Powder marking unit



A powder-marking system is Ideal for making welding or bend lines on steel plate.

- ■Rail extensions are available in 3 meter increments
- ■Operation panel can be mounted on the right handside of the machine
- ■Plasma cutting systems are available
- ■Individual torch preheat solenoid valves can be provided

■Machine Drawing and Dimensions



Machine Width(A)	Rail Gauge(B)	Cutting Table Width(C)	Effective Cutting Width(D)
3645	2500	1650	1600
4145	3000	2150	2100
4645	3500	2650	2600

■Specifications

Type	Nanograph-2500	Nanograph-3000	Nanograph-3500
Main body	Gantry type/Single-side drive		
Operator's side	Left side		
Drive method	Rack and pinion drive for X and Y axes		
Rail span	2500mm	3000mm	3500mm
Effective cutting width	1600mm	2100mm	2600mm
Effective cutting length	Rail length (standard ; 6000mm)—2400mm		
Torch mounting system	Steel belt connection system		
Cutting speed	6000mm/min		
Rapid/marking speed	12000mm/min		
CNC system	HYBRID D10 plus		
Torch quantity	Max. 4-torches		
Minimum torch distance	125mm		
Oxy/fuel cutting capacity	6～100mm (max.50mm by 4-torches)		
Power-supply voltage	Single phase 100V/110V		
Machine color	Koike Red (main body)		

■Basic options

- Hi/Low gas control
- Automatic piercing unit
- Automatic igniter
- Motorized torch lifter (HD)
- Forward/Backward adjuster
- Water spray unit
- Rail extension (increments of 3m)

■Custom options

- Right hand side operation
- Input transformer
- Alternate fuel gases
- Paint color
- Plasma cutting system (MAX-100/200)
- Solenoid valve selection of pre-heat gases for individual torches
- Powder marking torch
- Automatic igniter for marking torch
- Capacitance height sensor

Total system supplier of welding and cutting **KOIKE INTERNATIONAL GROUP**

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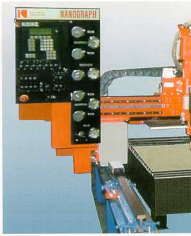
■Machine Outline

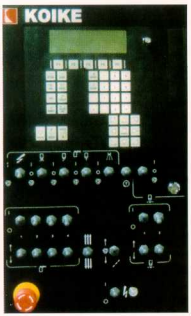


Machine frame designed for high cutting accuracy

The frame is a single side drive gantry structure.
As the frame is well balanced, highly responsive motion control is possible, producing smooth, accurate cutting all the time.
Highly accurate, smooth operation is assured thanks to precisely machined rails and a stable drive carriage.
Rail length can be extended in 3-meter increments.
Rapid traverse and marking speed is 12 meters per minutes, and the maximum cutting speed is 6 meters per minutes.

■D10 PLUS

Reliable and easy to use versatile computer numerical system



The HYBRID D10 PLUS is a versatile computer/numerical control (CNC) system.
This system operates as a sophisticated CNC system, with many pre-programmed part-programs or, by utilizing host computers, as an extension of your CAD-customized part-program.
The control unit contains the microprocessor driven CNC circuits, and cutting torch operating controls. This unit contains two power supplies; one for microprocessor-based circuitry and the other for servo-system and interface circuitry.
The system includes the following CNC features.

- ■240 X 64 pixel, 8-Line X 40 character LCD display for input and display of CNC parameters.
- ■Library of 32 standard parametric shapes and one test patterns for CNC operation.
- ■Operator entry of variable dimensions for standard library.
- ■Part Mirror, rotate and scale capability
- ■Upload/download capability to/from various CAM programs, via RS-232C interface, or Disk Drive.
- ■Automatic plate alignment, correction for skewed plates.
- ■On-path back-up, with off-path re-pierce and return-to-path functions.
- ■Complete built-in fault diagnostics.
- ■Full cut loss recovery capability including on-path back-up.
- ■Fully intelligent kerf compensation with kerf from 0.1 to 25.4 mm (0.001 inch to 0.999 inch).

■MAX-100/200

The MAX-200 is General Purpose Plasma Cutting system

- ■Suitable for cutting a variety different metals (mild steel, stainless steel, aluminum, etc.).
- ■Gases are selected to match the material to be cut.
- ■The sealed torch tip design (patented by Hypertherm, Inc.) virtually eliminates double arcing.
- ■IC control maintains fixed output current.
- ■Duty cycle is 100% at 200 Amps.

MODEL	MAX-100	MAX-200
Rated input Voltage	400 or 200V, 3-phase	400 or 200 V, 3-phase
Rated output current	30 t0 100A	40 to 200A
Duty Cycle	80% / 100A 100% / 80A	100%
Maximum Recommended plate thickness	Up to 12mm:quality cut 13～25mm: separation cut (mild steel, stainless steel, aluminum)	Up to 19mm:quality cut 20～ 50mm: separation cut (mild steel, stainless steel aluminum)
Gas	Nitrogen, Air, Argon/ Hydrogen	Oxygen, Nitrogen, Air, Argon/Hydrogen
Torch	Air cooled torch	Water cooled torch (built-in cooling unit)
Power supply Dimensions	H 1092 X W673 X D806mm	H 1,090 X W710 X D1,040mm
Weight	197kg	350kg