



KOIKE

General Catalog

Ver.7.01

Portable Machines

Gas Apparatus

Cutting Series

Welding Series

President Message

Since our establishment in 1918, Koike has played a major role in the development of key industries, as an acknowledged leader in the manufacture of machine tools that use gas as a power source. Over the years, we have pioneered the development of plasma and laser cutting machines and commercialized state of the art automated systems using CNC controls that kept pace with the latest market needs.

At the same time we established a network to supply total systems, from gas, welding, cutting solutions and related equipment, to fill our customers' needs.

As one of the companies with 100 years of experience in continuously changing world, experiencing the social change of company roles and employee lifestyles, we carry a precept of the master Confucius "If a man keeps cherishing his old knowledge, so as continually to be acquiring new, he may be a teacher of others". By reviewing the old experience and the technology accumulated in the past, we move forward our development with our total approach from the various perspectives such as environment, safety, and application of intelligence technology, etc. in order to endeavor to improve Customer Satisfaction (CS) and Employee Satisfaction (ES).

We will actively promote and engage in our business together with our group companies in today's relentlessly changing market under Globalization and Industry 4.0, at the cutting edge of the world.

Our corporate philosophy is:

1) Management Philosophy:

"To satisfy the needs and establish the trust of our worldwide customers as a total source manufacturer and supplier of gas, welding and cutting solutions."

2) Basic policies:

"To increase customer satisfaction, acquire new customers, and maintain lasting relationships with existing customers"

"To contribute to society as a meaningful and financially sound company."

"To improve our knowledge and skills and focus our efforts toward improving ours and our employees lives."

Looking towards the future, we will continue to commit to our Customer Satisfaction.



President
Hideo Koike



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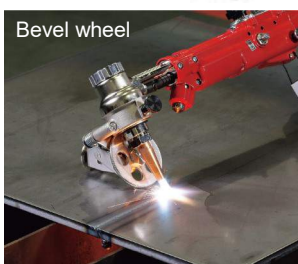
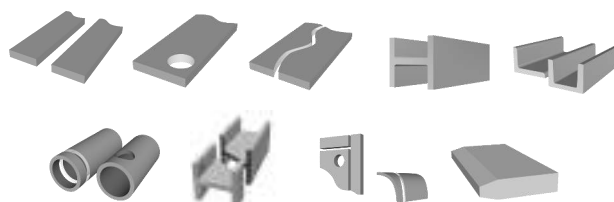
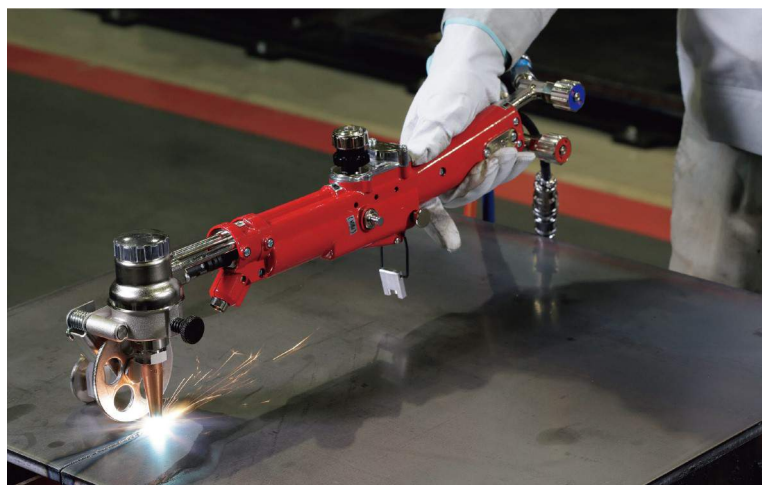


Portable machine

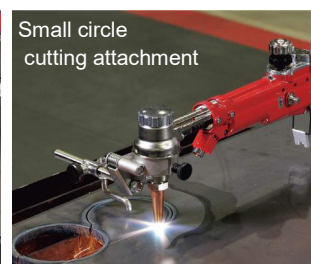
Semi-Motorized Oxy-Fuel Hand torch

HANDY AUTO PLUS

Most multi purposed hand torch with auto ignition.
A HANDY AUTO PLUS in every factory.



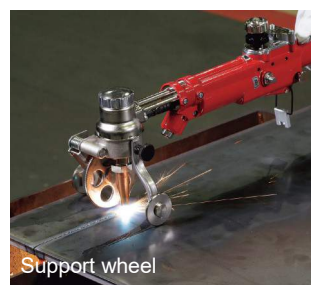
Bevel wheel



Small circle cutting attachment



Guide handle



Support wheel

Overview

HANDY AUTO PLUS is a hand held mechanized gas cutting torch that combines convenience of auto ignition and the preheat ON/OFF lever type to the function provided by the HANDY AUTO II. Allows cutting in any position from any direction, such as curves, circles, shapes, bevels, and straight line cutting, in plane plate, vertical plate, H-beam, etc. The HANDY AUTO PLUS Kit is composed by the main body and accessories in a special case convenient for carrying and storing.

Auto Ignition Device

Torch can be lit by the auto igniter lever, and the preheat gas adjusted beforehand. Flame can be extinguished by pressing the release button. After adjust the preheat flame once, it can be ignite and extinguished by operating the ignition lever.

Flame Adjustment Device

The flame adjustment valve has a lock function, and even if the knob is touched the valve adjustment will not change.

Feature

- Easy operation with excellent cutting quality.
- Attachments that allow various cutting.
- Quick change attachment structure.
- Multi adapter system for AC100 - 240V.

HANDY AUTO PLUS - Main Specification

Cutting Thickness	5 - 30mm
Cutting Speed	150 - 530mm/min (using standard wheel)
Rotation Speed	1.2 - 4.2rpm
Drive Method	Friction drive
Speed Control Method	Transistor control
Power Supply	AC100 - 240V
Body Length	525mm
Body Weight	2.8KG
Cutting Tip	102 (ACE) or 106 (LPG)

Main components and Accessories

[Standard Kit]

- Cutting Machine Main Body [HANDY AUTO PLUS]
- Power Cable with AC Adapter (5M)
- Instruction Manual
- Standard Wheel
- Fuse
- Wrench
- Cutting Tip Cleaner
- Cutting Tip 102 (ACE) or 106 (LPG) #0,1,2

Additional items for [Professional Kit]

- Support Wheel
- Bevel Wheel (degree 22 - 45)
- Guide Handle
- Small Circle Cutting Attachment (Radius 30 - 200mm)
- Steel Carrying Case

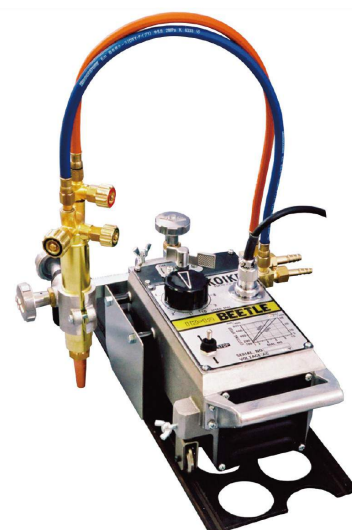
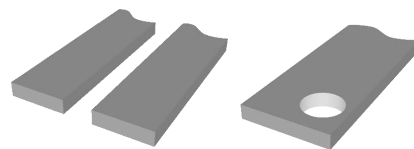
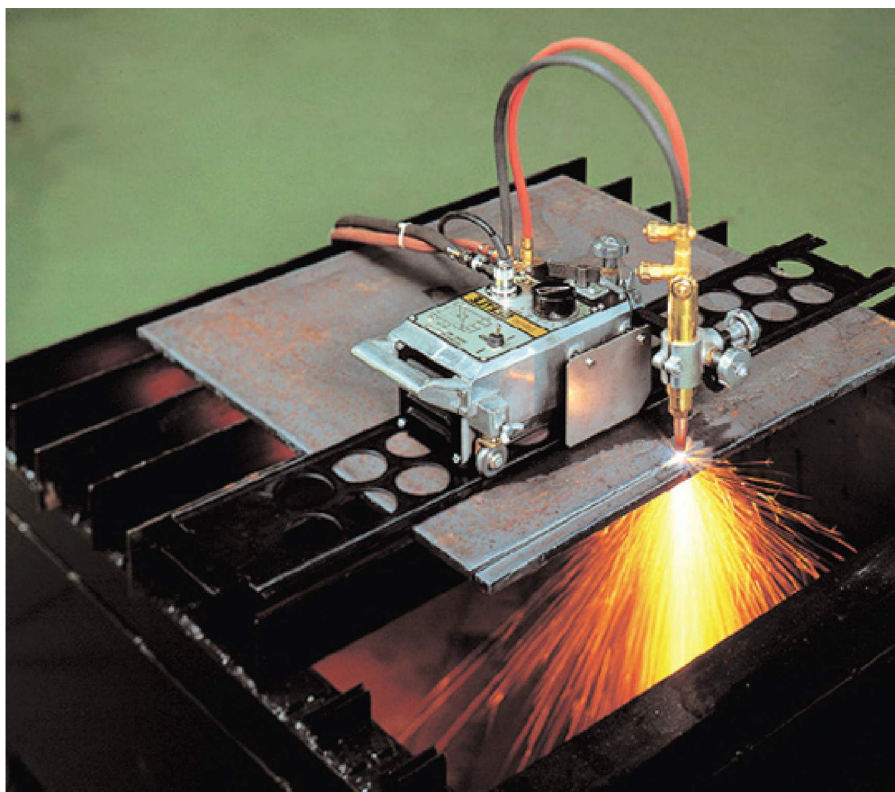


Handy Auto PLUS
KOIKE SANGYO KOGYO CO., LTD.

Oxy-Fuel Cutting Machine for Straight-Line

IK-12 BEETLE

IK-12 BEETLE is a portable flame cutting machine designed to cut straight lines, circles, and bevels with light weight body emphasizing utility.



Overview

IK-12 Beetle is a compact and lightweight type of automatic cutting machine for straight line cutting that emphasizes the practicality.

IK-12 Beetle has a stable driving performance by its powerful motor, which allows to easily perform various Straight (I-CUT) and Bevel cutting, or Circle cutting.

Machine has achieved a stable operation by the use of the single cone stepless transmission system.

The travel direction (forward, backward, stop) can be changed by single operation, and the machine's positioning reliably performed by clutch operation.

The cutting position can be adjusted by the horizontal bar and up and down torch rack.

IK-12 BEETLE - Main Specification

Cutting Thickness	5 - 50mm
Bevel Cut. Angle	0 - 45°
Traveling Speed	150 - 800mm/min
Speed Control	Dial Adjustment
Transmission System	Single Cone Stepless System
Motor	Condenser type Induction Motor 9/10W (50/60Hz)
Length	360mm
Wheel Width	160mm
Weight	9.5kg (with one torch)
Heat Shield	Double Insulation Plate
Cutting Tip	102 (ACE) or 106 (LPG)

Feature

- Travel direction (forward, backward, stop) can be changed by single operation.
- Stable operation achieved by the single cone stepless transmission system.
- Light weight (9.5kg) with easy movement and maneuverability.
- Machine with 2 torches for parallel and bevel cutting is also available.

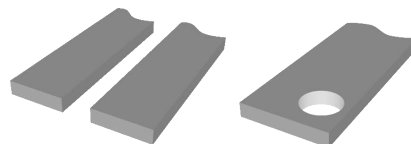
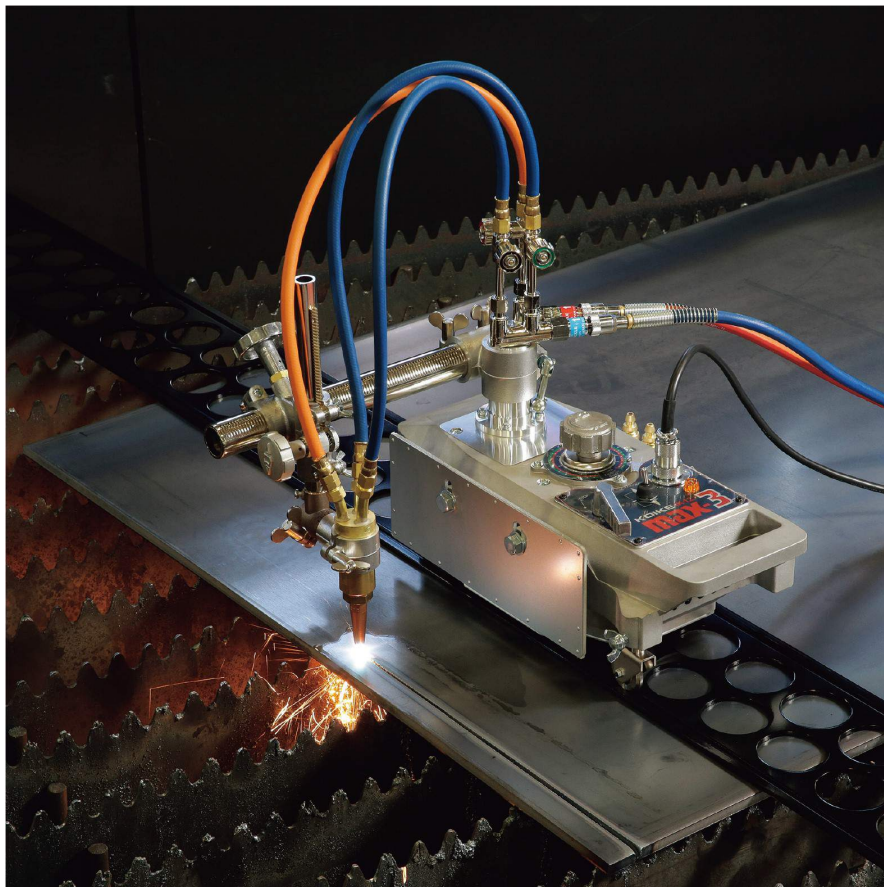
Main components and Accessories

- Cutting Machine Body [IK-12 Beetle]
- Power Cable (5M)
- Instruction Manual
- Tip Support
- Torch set (One torch)
- Cutting Tip 102 (ACE) or 106 (LPG) #0,1,2

Oxy-Fuel Cutting Machine for Straight-Line

IK-12 max3

IK-12 max3 is a high quality motor driven portable flame cutting machine designed to cut straight lines, circles, and bevels with clean, sharp, smooth edges providing various cutting attachments.



Main components and Accessories

- Cutting Machine Body [IK-12 max3]
- Power Cable (5M)
- Instruction Manual
- Tip Support

Overview

IK-12 max3 is a semi-automatic cutting machine, which can be used not only for gas cutting, but also for plasma cutting and welding. A large selection of accessories are available to be used combined to the main components (main body, torch set and rail) according to the application.

Our double cone stepless transmission system provides a stable rotational speed range, avoiding problems due to heating and unstable voltage. Machine also has a high thermal insulation performance due to the use of heat-resistant grease and Teflon wiring.

S-type is a mechanism for switching between the low speed and high speed. The running speed covers from 80 - 2400mm/min (50Hz), and from 100 - 3000mm/min (60Hz).

IK-12MAX3 - Main Specification

Cutting Thickness		According to the torch set*
Traveling Speed	Standard Type	80 - 800mm/min (50Hz), 100 - 1000mm/min(60Hz)
Transmission System		Double Cone Stepless System
Motor		Condenser type Induction Motor 9/10W (50/60Hz)
Length		430mm
Wheel Width		160mm
Weight		11kg (only main body)
Max. Loading Weight		50kg

*Please, select the suitable torch set from page 10.

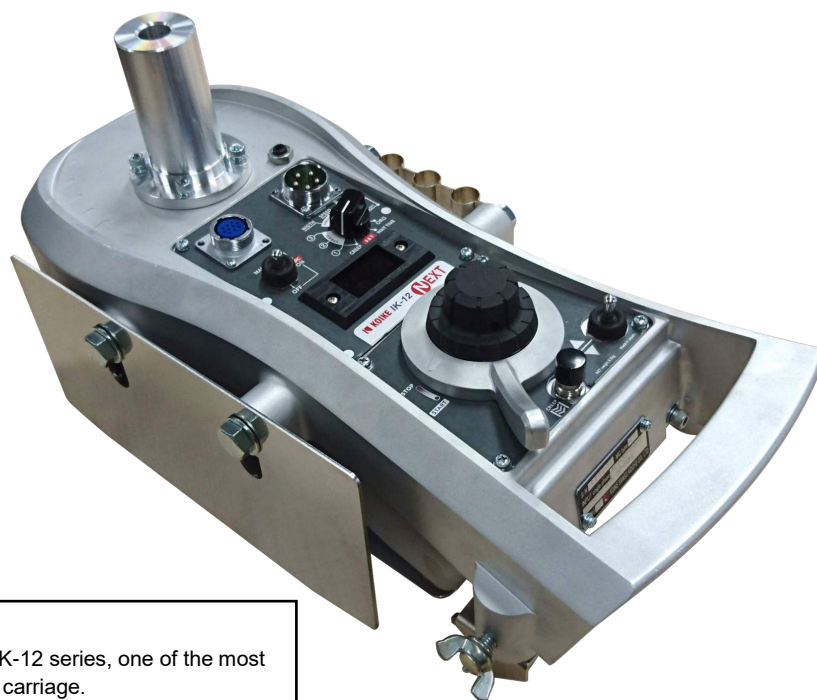
Feature

- Excellent operability and high versatile in every field, it's the KOIKE's portable bestselling machine.
- Excellent traction and gravity center balance provides stable operation.
- Lower body and heat insulating plate installed at machine cutting side provides high heat resistance.
- Longer lifetime due the Double Cone Stepless System.

Multi Purpose Portable Machine for Oxy-Fuel/Plasma Cutting and Welding

IK-12 NEXT

NEXT generation of portable carriage with NEW Design & Functions for WIDE Range of Applications.



Overview

IK-12 NEXT is the latest model of IK-12 series, one of the most popular and long-seller gas cutting carriage.

New control panel and Torch set: Wide range of application is possible to enable not only gas / plasma cutting, but also welding with the same carriage.

New drive control system allows you to set precise and wide range of travel speed from thin to thick plate thickness cutting application.

Newly equipped function; "Creep Mode" (Patent pending): By simply pressing the button, normal speed can instantly switched to low speed mode for easy adjustment at start/end point of thick plate cutting.

Adding Weaving Unit option: Butt-welding for thick plat can be easily made by Weaving Unit.

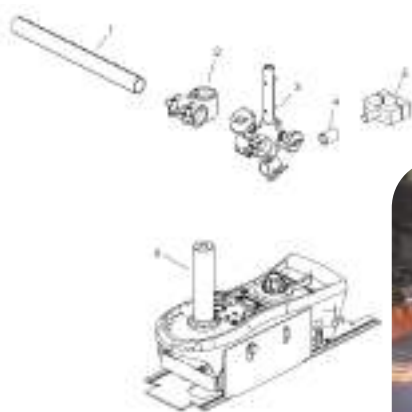
No need to add a separate control box for weaving function for its control unit is already built-in on IK-12 NEXT.

Feature

- Wide range of speed setting 40 - 2400mm/min.
- New control system allows Wide range of application; gas/ plasma cutting and welding.
- Stable and accurate speed control is achieved with encoder motor and digital speed indicator
- Easy speed control with "Creep Mode" at Lead-in/out of thick plate cutting. IK-12 NEXT directly inherits various options of IK-12max3, which can be used as such.

IK-12 NEXT - Main Specification

Specification of Carriage	Travel Speed	40 - 2400 mm/min
	Motor	DC24V Encoder electronic control
	Speed Dial	Infinite rotation multifunctional dial
	Digital Display	Travel Speed and parameters
	Body Weight (Kg)	8.5
	Machine Size	432(L) x 220(W) x 160(H)
	Input Power Source	Single phase AC100-240V 50Hz-60Hz
Gas Cutting	Straight cutting	Yes (with the same rail for IK-12)
	Circle cutting	Yes (with circle cutting rail or circle cutting attachment)
	Creep mode	Yes
Plasma cutting	Plasma arc interlocking	Yes
	Arc wait time	-10.0 - 10.0 sec
Welding	Position	Butt weld with straight downward position
	Weld interlocking start	Yes
	Arc wait time	-10.0 - 10.0 sec
Weaving control	Swing speed	400 - 1500 mm/min
	Swing range	0 - 100.0 mm
	Left/Middle/Right stop time	0.0 - 10.0 second

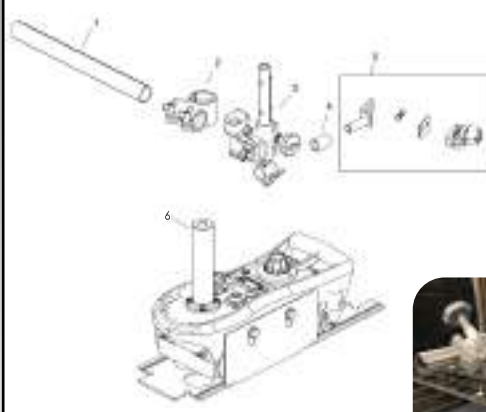


Plasma Holder Set

Standard type of holder is compatible with $\phi 35\text{mm}$ plasma torch. For $\phi 30\text{mm}$ or $\phi 25\text{mm}$ torches, torch bush has to be added as a option. Body of IK-12NEXT can interlock with a plasma power supply.



[Applicable Model] IK-12 NEXT



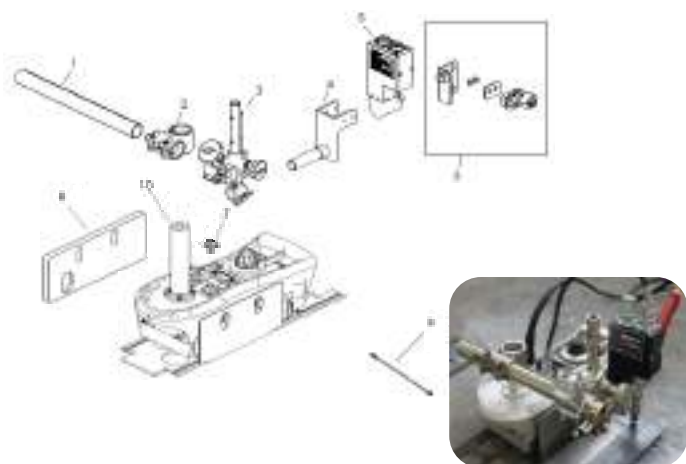
Welding Holder Set

It is an holder set for performing butt welding with IK-12 NEXT. IK-12 NEXT is equipped with arc control system. It can be easily applied to arc welding.

- $\phi 16 - 23\text{mm}$ torch can be clamp
- Fit for straight and curved torch.
- The aim angle can be adjusted according to the mounting angle of the torch holder.



[Applicable Model] IK-12 NEXT



Weaving Holder Set

Weaving unit increase the welding deposition with few pass. Numerical control for swing width and speed are available. IK-12 NEXT is equipped with ac control system, so it can be easily applied to arc welding.

- $\phi 16 - 23\text{mm}$ torch can be clamp
- Fit for straight and curved torch.



[Applicable Model] IK-12 NEXT

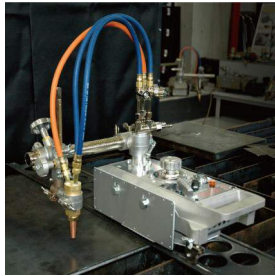


Torch set

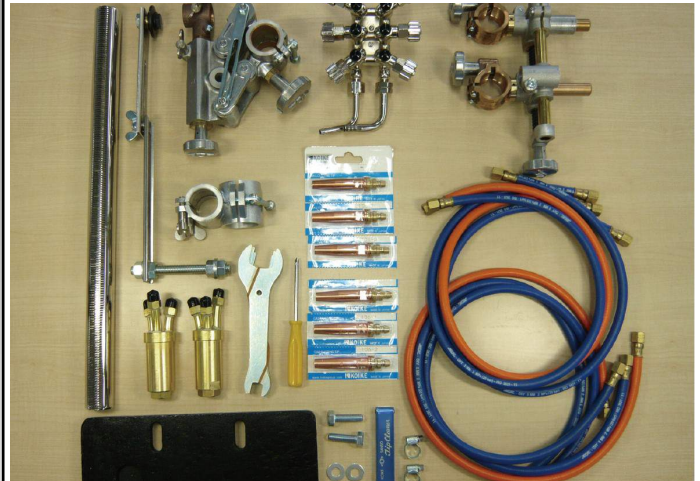


S-100 Single torch set

Standard torch set for single torch of IK-12 NEXT / max3. Torch up and down mechanism works smoothly due the pipe rack system and its operation has an improved durability. Cutting quality is further improved when using SP-type* torch holder with floating mechanism that automatically follows the bend of the steel plate in the guide rollers.



[Applicable Model] IK-12 NEXT and IK-12 max3 Series
*SP-100 single torch set is available.



SP-300 V-Bevel torch set

Dedicated torch set for the V Bevel cutting with the IK-12 NEXT / max3.



[Applicable Model] IK-12 NEXT and IK-12 max3 Series



S-200 Twin torch set

Torch set for two torches of IK-12 NEXT / max3. The just fit in design for IK-12 NEXT / max3 allows easy alignment of the torch. Cutting quality will be further improved when using SP-type* torch holder with floating mechanism that automatically follows the bend of the steel plate in the guide rollers.

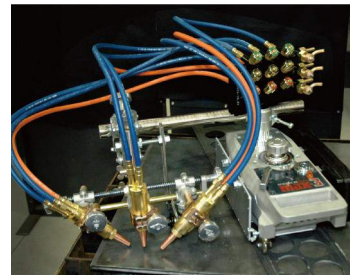


[Applicable Model] IK-12 NEXT and IK-12 max3 Series
*SP-200 twin torch set is available.

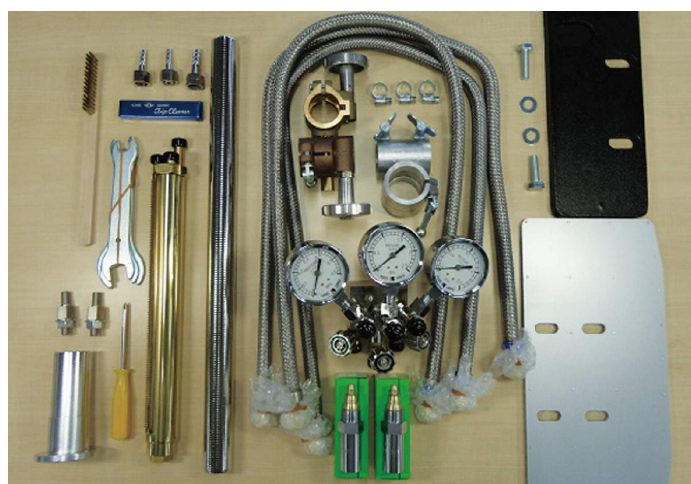


SP-400 X-Bevel torch set

Dedicated torch set for the X Bevel cutting with the IK-12 NEXT / max3.



[Applicable Model] IK-12 NEXT and IK-12 max3 Series

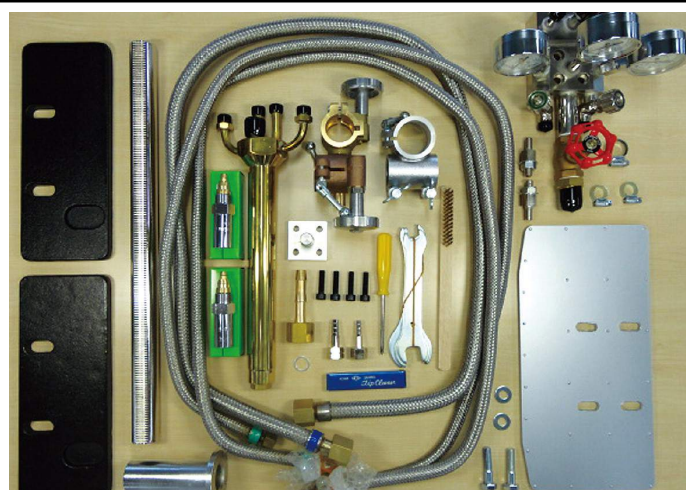


EPOCH300 Torch Set for thick material

Cutting torch set of out-mixing method for cutting of thick material. Using the dedicated tip EPOCH 300 which uses out-mixing method and avoiding backfires, thick materials can be safely cut. EPOCH 300 is used for cutting of cold steel plate of 100 - 300mm. Using gas is LPG. Please use it combined to a dedicated EPOCH rail.



[Applicable Model] IK-12 NEXT and IK-12 max3 Series

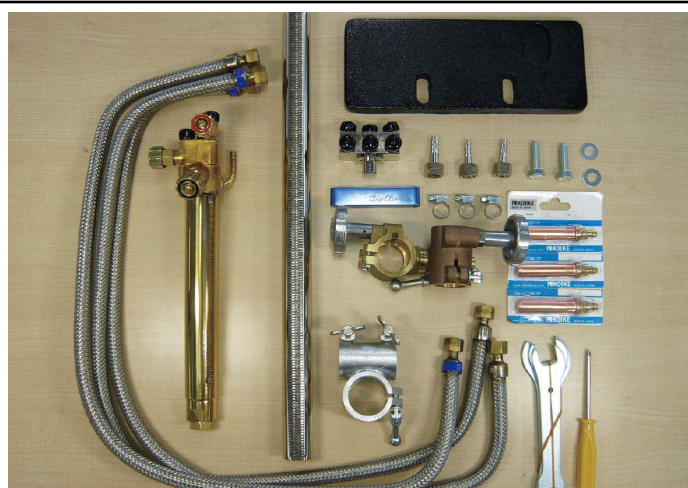


EPOCH600 Torch Set for thick material

Cutting set of out-mixing method for cutting of extra-thick materials. Using the dedicated tip EPOCH 600 which uses out-mixing method and avoiding backfires, extra thick materials can be safely cut. EPOCH 600 is used for cutting of cold steel plate of 300 - 600mm. Using gas is LPG. Please use it combined to a dedicated EPOCH rail.



[Applicable Model] IK-12 NEXT and IK-12 max3 Series

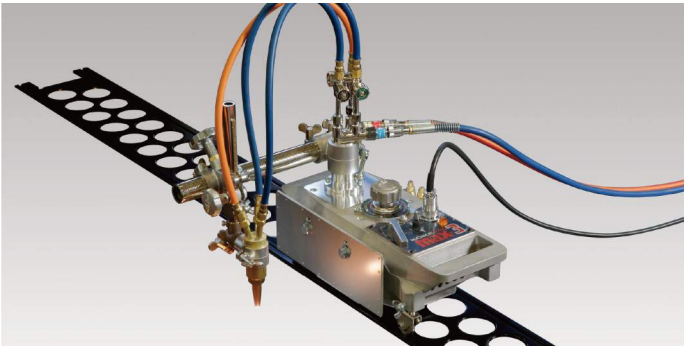


L-100 Torch Set for thick material

Thick material cutting torch set of tip mixing method, using a high number's 100 type of tip. It is necessary the cooling of the torch with water at the using time.



[Applicable Model] IK-12 NEXT and IK-12 max3 Series



1.8M Straight Rail

S/N: BCD19102

Straight rail for using in IK-12 series. Rail length is 1.8m, but by extensive use, it is also possible to perform a longer straight cut. Using material with hardly bends and excellent durability.

[Applicable Model] IK-12 NEXT, IK-12 max3 and IK-12Beetle



EPOCH Rail

S/N: BCD19108

Straight rail for using in IK-12 series with EPOCH torch set. Rail length is 1.8m, but by extensive use, it is also possible to perform a longer straight cut. Using material with hardly bends and excellent durability.

[Applicable Model] IK-12 NEXT and IK-12 max3

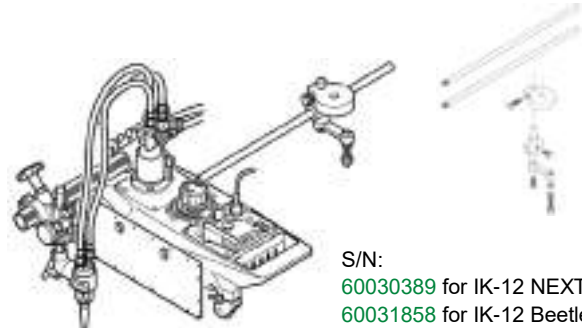


Circle Rail

Rail for cutting of circular shape with IK-12NEXT and IK-12 max3. It is possible to cut circle with Inside of $\phi 40$ -360mm, and Outside of $\phi 770$ -1150mm ($\phi 360$ -770mm can not be cut)

S/N: BCD19109 for IK-12 NEXT / max3
BCA19501 for IK-12 Beetle

[Applicable Model] IK-12 NEXT, IK-12 max3 and IK-12 Beetle



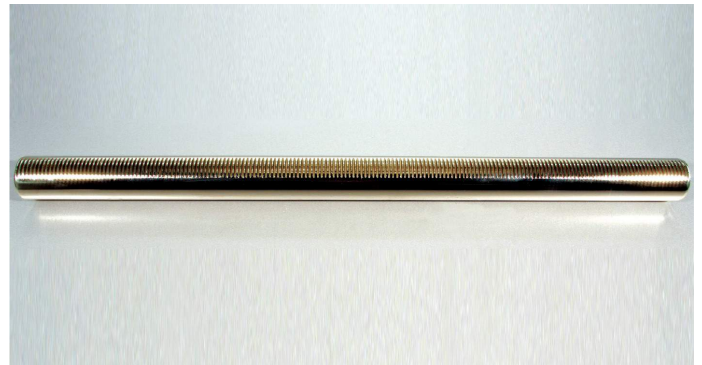
Circle Cutting Attachment

S/N:
60030389 for IK-12 NEXT / max3
60031858 for IK-12 Beetle

Attachment for performing circular cutting of $\phi 400$ - 2,200 mm.

- Since it is a compass type, positioning can be determined easily by aligning the center pin to the center of the circle you want to cut.
- The weight attached to the top of the center pin prevents misalignment.

[Applicable Model] IK-12 NEXT, IK-12 max3 and IK-12 Beetle



Pipe Arm 500/1000/2500mm

Pipe arm for supporting of the torch holder for IK-12 NEXT and IK-12 max3. The pipe arm for single torch set contains 350mm, and for two torch set contains 500mm. 1000mm and 2500mm will be only available in stand-alone. Please choose it depending on the application.

[Applicable Model] IK-12 NEXT and IK-12 max3



Torch Stand

Torch Stand for the supporting of pipe arm for IK-12 NEXT and IK-12 max3. Please select the proper length of stand depending on the torch set, cutting set and work condition.

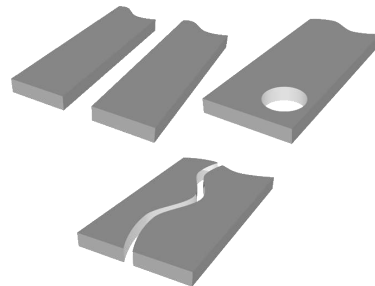
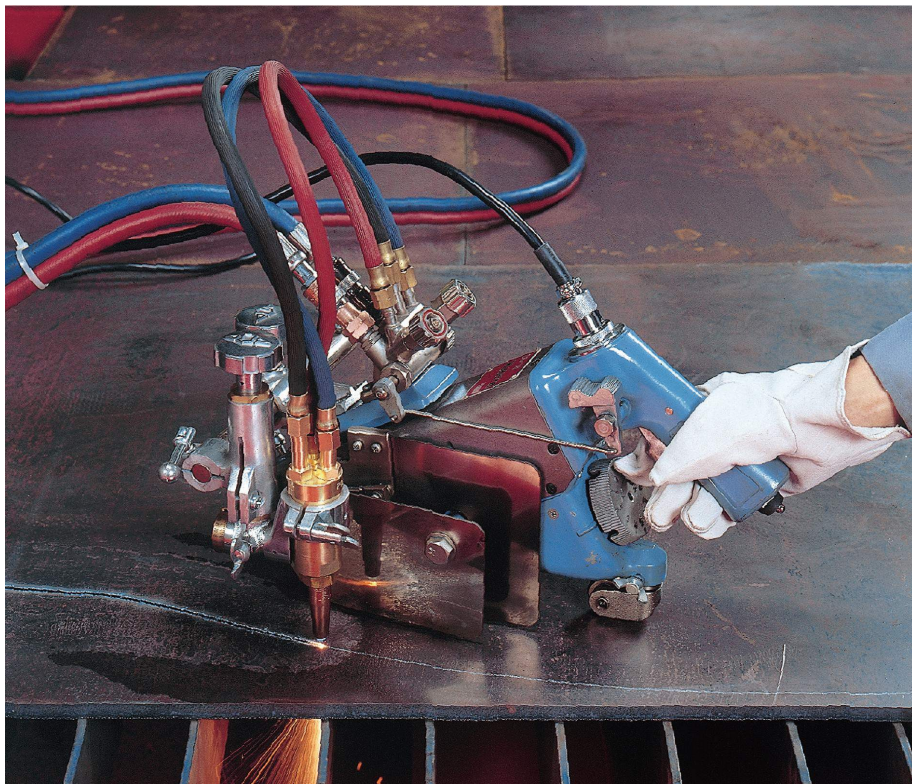
S/N:
60030204: 84L (Standard)
60030378: 114L (EPOCH)
60030440: 180L (Bevel attachment, Twin torch attachment, Plasma / Welding holder set)
60032374: 300L
60032375: 400L
60032376: 500L

[Applicable Model] IK-12 NEXT and IK-12 max3

Semi-Automatic Cutting Machine

IK-93 HAWK

Outstanding mobility and ease of operation resulting in high-quality “Hand-guided cutting”.



Overview

IK-93 Hawk is a semi-automatic cutting machine that has been developed primarily for the purpose of high quality straight line cutting by hand guided with smooth operation and running.

Designed after thoroughly checking of the operability. Easy to operate even in the curved cutting, Inside or Outside radius, by the improved position of the grip and the speed adjustment dial.

Feature

- Gas and Speed adjustment, and Clutch operation can be performed by only one hand.
- Easy operation by the tracer guidance.
- Forward and Backward movement available.
- Holders are available in 4 types, Rack type, Screw type, and 2 types for Bevel Cutting.
- Several options available, as Straight Cutting Rail, Circle Cutting Attachment.

IK-93 HAWK - Main Specification

Cutting Thickness	5 - 30mm
Bevel Cut. Angle	0 - 45°
Traveling Speed	100 - 1000mm/min
Speed Control	Dial Adjustment
Length	380mm
Wheel Width	100mm
Weight	7.5kg
Heat Shield	Double Insulation Plate
Cutting Tip	102 (ACE) or 106 (LPG)

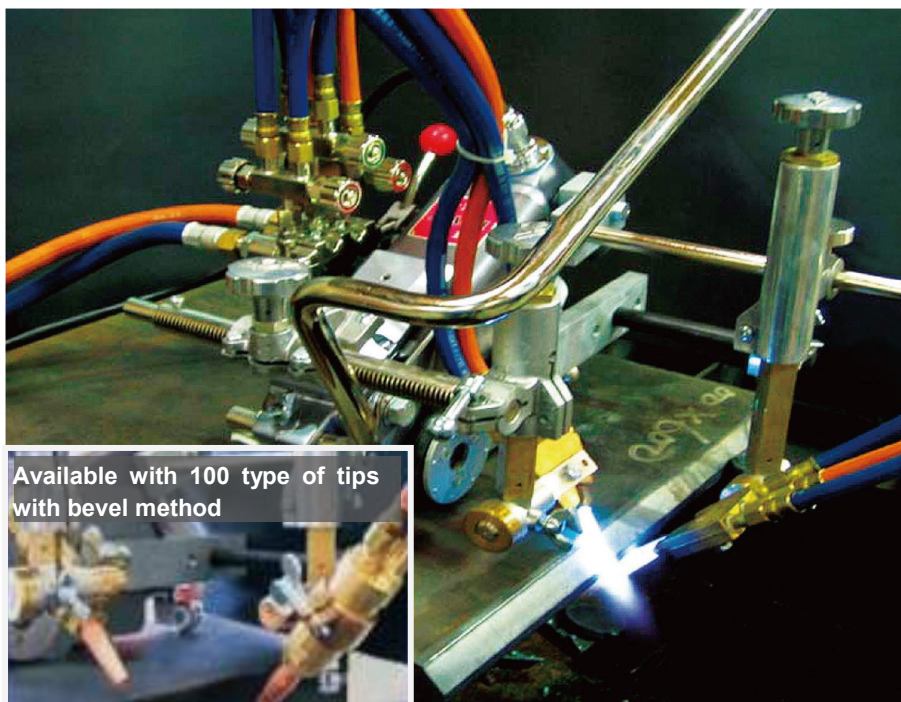
Main components and Accessories

- Cutting Machine Body [IK-93 HAWK]
- Power Cable (5M)
- Instruction Manual
- Single Torch Set
- Cutting Tip 102 (ACE) or 106 (LPG) #0,1,2

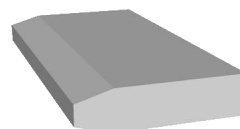
Semi-Automatic Oxy-Fuel Cutting Machine

IK-93 EDGE-CUT

The IK-93 EDGE-CUT creates a high quality single pass X-Bevel (upper and lower bevel)



Available with 100 type of tips with bevel method



Main components and Accessories

- Cutting Machine Body [IK-93 EDGE CUT]
- Power Cable (5M)
- Instruction Manual
- Screwdriver
- Wrench
- Cutting Tip Cleaner
- Cutting Tip 102 (ACE) or 106 (LPG) #0,1,2

Overview

IK-93 Edge-Cut is a cutting machine that can singly perform the X-Bevel Cut, which used to be cut by 2 portable machines.

A stable bevel cut with high quality is achieved by eliminating the speed variation by insulation measures and following the steel plate edge with a roller.

Machine designed from thorough research at the customer's workplace, with several KOIKE's features.

IK-93 EDGE-CUT Main Specification

Cutting Thickness	Up to 50mm at Bevel Cutting
Bevel Cut. Angle	0-45°
Traveling Speed	100 - 1000mm/min
Tracking Type	Plate Edge Track
Speed Control	Dial Adjustment
Length	402mm
Weight	12.5kg (100 type)
Heat Shield	Thermal bottom Insulation Plate + Insulation Plate
Gas Operation	Twin Valve Preset Function
Cutting Tip	102 (ACE) or 106 (LPG)

Feature

- KOIKE unique preset valve allows saving flame setting.
- Speed variation is avoided even on long distances.
- Immediate response for the root face cutting variation, by the smooth operation of torch holder structure.
- Equipped with standard bottom roller to make easier the Lead-In and Lead-Out.



Portable Oxy-Fuel Pipe Cutting Machine

PICLE 1-II

The PICLE-1 is a manual operated portable pipe cutting machine with a chain and gear drive system.



Overview

Compact pipe cutting machine developed over thoroughly researches from the actual construction sites and pipelines. Cover the majority of pipe processing, such as dimensional cutting and bevel cutting, from small to large dimension of pipes.

Since machine is manually operated, it is ideal for work in places without power supply. The combination of a pinion incorporated to the center of machine's main body and a chain tightened around the pipe periphery drives the machine smoothly by the machine's lower rollers. The length of the chain can be adjusted link by link, making it easy to match the chain to the circumference of the pipe.

Feature

- Small size and lightweight (8.3kg). Can be carried by one hand.
- No power needed to cut, high performance at any work site.
- From $\phi 114$ to 600mm is possible to cut only adding or removing the links.
- High precision of bevel cutting with no marking.
- Excellent cutting quality, no need of grinding. Butt welding of flange is possible just after cutting.
- Fix or move the machine is possible just loosening the wing nut on the top of machine.

PICLE 1-II - Main Specification

Cutting Thickness	5 - 30mm
Bevel Angle	0 - 45°
Effective Pipe Cutting Diameter	$\phi 114$ - 600mm
Torch Vertical Stroke	50mm
Torch Feed Stroke	100mm
Drive Method	Manual (No need electric power)
Wheel Width	210mm
Height	410mm
Weight	8.5kg
Cutting Tip	102(ACE) or 106(LPG)
Supplied Chain	80 links (equivalent to 2.4m)

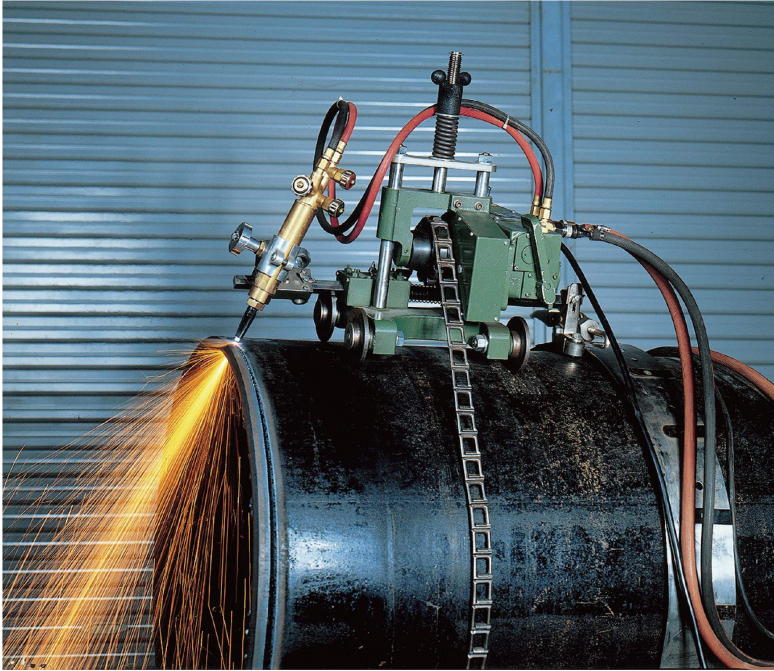
Main components and Accessories

- Cutting Machine Body [PICLE 1 - II]
- Chain (80 links)
- Instruction Manual
- Cutting Tip Cleaner
- Cutting Tip 102 (ACE) or 106 (LPG) #0, 1, 2

Remote Control Oxy-Fuel Pipe Cutting Machine

AUTO-PICLE

AUTO-PICLE is a remote control gas motorized pipe cutting machine. The special rail for torch/tip guidance system provides high cutting accuracy and makes the AUTO-PICLE-S particularly suitable for large pipes.



Overview

Auto-Picle is a motorized oxy-fuel pipe cutting machine with remote control. The special fixed rail for the torch guidance system provides high cutting accuracy even for large pipes.

Due the constant traveling speed, high quality cutting surface can be achieved. Various bevel angles is available adjusting the angle on the torch holder scale. Changes in the pipe diameter is easily to be matched adding or removing chain links as needed.

Feature

- High accurate cutting achieved by the guide rail.
- Vertical pipe cutting is possible by using the guide rail.
- Add or remove chain's links as needed according to the pipe diameter.
- Operate machine away from cutting area is possible by the remote control.

AUTO PICLE - Main Specification

Model name	AUTO-PICLE-II	AUTO-PICLE-S
Cutting Thickness	5 - 30mm	
Bevel Angle	0 - 45°	
Cutting Speed	100 - 700mm/min	
Effective Pipe Cutting Diameter	$\phi 150 - 600\text{mm}$ * Guide rails are not available to be used with AUTO PICLE II	$\phi 150 - 400\text{mm}$ w/o guide rail
		$\phi 400 - 600\text{mm}$ (with D-600)
		$\phi 600 - 900\text{mm}$ (with D-900)
		$\phi 900 - 1200\text{mm}$ (with D-1200)
		$\phi 1200 - 1500\text{mm}$ (with D-1500)
Drive Method	PWM Control	
Wheel Width	230mm	
Height	400mm	
Weight	14kg	15kg
Operation Box	Pendant type	
Cutting Tip	102(ACE) or 106(LPG)	
Supplied Chain	80 links (equivalent to 2.4m)	

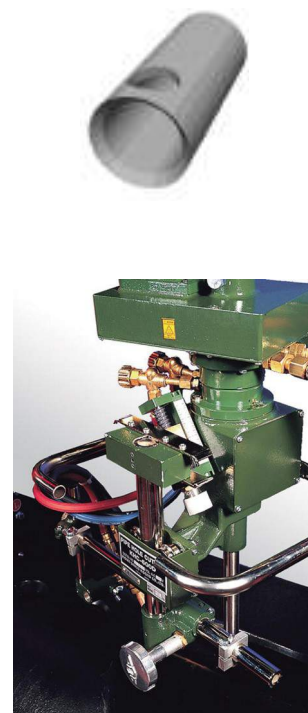
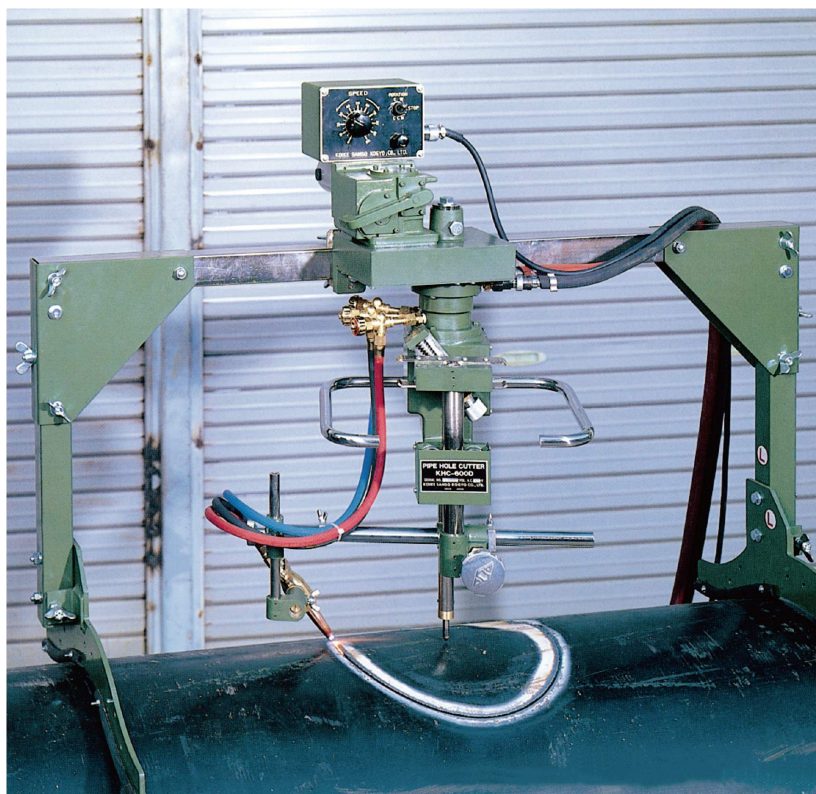
Main components and Accessories

- Cutting Machine Main Body [AUTO PICLE II / S]
- Chain (80 links)
- Power Cable (5M)
- Instruction Manual
- Fuse
- Wrench
- Cutting Tip Cleaner
- Cutting Tip 102 (ACE) or 106 (LPG) #0, 1, 2

Portable Automatic Pipe Hole Cutting Machine

KHC-600D

Great pipe fitter tool, allows tubes to be cut for welding fit-up work. Such as creating man hole opening, fish- mouth and creating T-joints.



Overview

KHC-600D is a portable automatic cutting machine for cutting holes in pipes. The machine can provide both Straight and Bevel cutting, and it is used in the manufacturing of high-pressure storage tanks and heat exchangers. Vertical motion of torch can be accurately adjusted by the eccentric mechanism, and the rotation distribution method prevents hoses twisting and leakage.

Pipe with $\phi 250$ to 800mm diameter can be cut by supporting the normal stand with small-diameter pipe fixture. In additional, using stand for overhang workpiece, the cutting of the edge face of the pipe is also possible to be cut. (please, use the small diameter pipe fixture together).

Feature

- Easy positioning by using the centering pin.
- Bevel cutting up to 45° is available.
- Rotation distribution method prevents hoses twisting and leakage.
- KOIKE special Torch Up/Down mechanism provides smooth movement.
- Circle cutting in plate is also available.

KHC-600D - Main Specification

Cutting Thickness	5 - 50mm
Bevel Angle	0 - 45°
Cutting Speed	100 - 700mm/min
Effective Circle Cutting Diam.	$\phi 80$ - 600mm
Applicable Main Pipe Diam.	$\phi 800$ mm or more*
Applicable Ratio Between Branch and Main Pipe Diam.	1 : 2 or more ($\phi 600$ mm hole can be cut in a $\phi 1200$ mm pipe)
Torch Up/Down Stroke	0 - 100mm
Speed Control Method	PWM Control
Motor	DC24V 15W DC Motor
Machine Dimension	L1050×W500×H760mm
Weight	26kg
Cutting Tip	102(ACE) or 106(LPG)

*Optional item: Small Diameter Pipe Fixture is available for less than $\phi 800$ mm

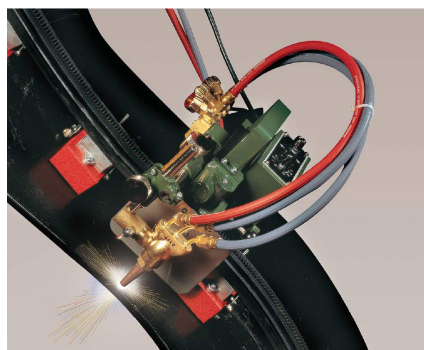
Main components and Accessories

- Cutting Machine Body [KHC-600D]
- Power Cable (5M)
- Centering Tool
- Instruction Manual
- Fuse
- Wrench
- Cutting Tip Cleaner
- Cutting Tip 102 (ACE) or 106 (LPG) #0, 1, 2

Automatic All-Position Cutting Machine

IK-72T

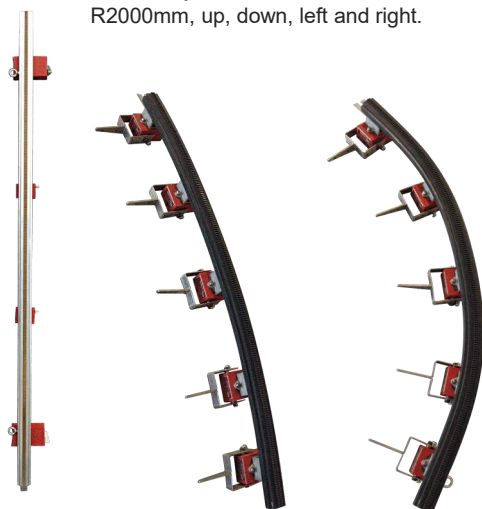
From flat to multi plane surfaces, the IK-72T can cut various types of steel shape, such as channel, curved plate, angled steel members and the like.



Overview

IK-72T is an all position cutting machine that provides cutting in any position. Various cutting can be performed, such as straight cutting of flat plate, circular arc cutting, side of structure, slope, steel plate and R-plane.

Cutting can be performed by combining 3 types of rail, straight (1D), 2 dimensional (2D) and 3 dimensional (3D). 2D rail is made by hard rubber and can be bent at minimum R2500mm, up and down. 3D rail is made by hard rubber and can be bent at minimum R2000mm, up, down, left and right.



1D rail

2D rail

3D rail

Feature

- Compact and light weight. Easy to carry, setting and operate, even in narrow spaces.
- Easy to setting and remove by using the magnet with switch.
- Rail centering can be easily adjusted due the magnet mounting structure.
- Easy positioning by the use of clutch device.
- Simple design with easy maintenance and inspection.

Main components and Accessories

- Cutting Machine Body
- Power Cable (5M)
- Instruction Manual
- Fuse
- Screwdriver
- Wrench
- Cutting Tip Cleaner
- Cutting Tip 102 (ACE) or 106 (LPG) #0, 1, 2

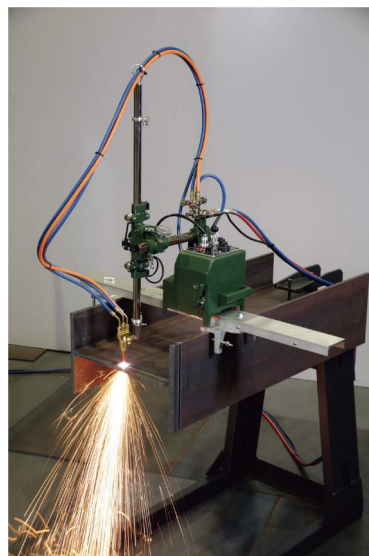
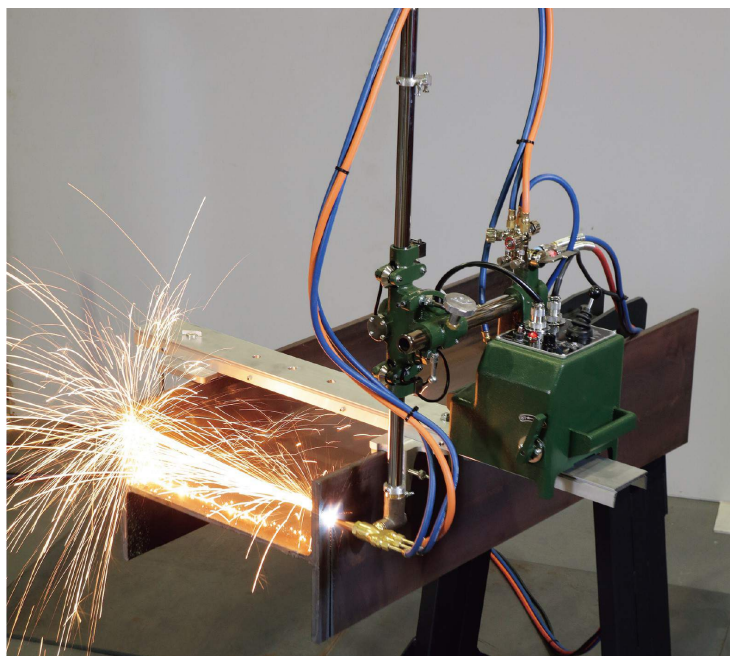
IK-72T - Main Specification

Cutting Thickness	5 - 30mm
Bevel Angle	0 - 45°
Cutting Speed	150 - 700mm/min
Driving Method	Rack and Pinion
Speed Control Method	Dial Adjustment
Machine Dimension	L190×W195×H140mm
Weight	4.5kg (Body)
Cutting Tip	102(ACE) or 106(LPG)

Semi-Automatic H-Beam Cutting Machine

MINIMANTIS-II

Rapid and precise cutting machine of H-shape web and flange.



Overview

MINIMANTIS-II is the most powerful cutting machine for cutting H-beam. Designed to make diagonal cut on the web and flange, and also bevel cutting, simply by changing the angle of the rail or the Up/Down rack bar, as well as the straight cutting.

Equipped with 2 drive motors for web and flange cutting. The carriage moves along the rail to cut the web and torch moves up and down to cut the flange. Therefore there is no need to align or rotate the H-beam when cutting. In addition, it is possible to use it in combination with 3 types of rails with different length, according to the web dimension.

Feature

- Setting time reduced by the integrated main body and guide rail.
- Easy carry and motion due the lightweight, also reduces the effort in movement.
- Diagonal cutting on web by 35° and bevel cutting on the flange up to 45°.
- PWM control provides stable feeding speed.
- Steel plate can also be cut.

MINIMANTIS II - Main Specification

Cutting Thickness	5 - 30mm	
Bevel Angle	Web	0 - 35°
	Flange	0 - 45°
Cutting Speed	100 - 700mm/min (Web and Flange)	
Effec. Cutting Range (I-Cut)	Web	Web : 150 - 600mm (with 600mm rail)
	Flange	Flange : 150 - 400mm (with ST-400 Vertical drive unit)
Drive Method	Web : Friction, Flange : Rack and Pinion	
Speed Control Method	PWM Control	
Motor	24V DC 15W DC Motor	
Weight	20kg (Main Body + 600 rail)	
Optional Vertical Drive Unit	ST-400 and ST-700	
Optional Rail	ST-600/900/1500mm rail	
Cutting Tip	102(ACE) or 106(LPG)	

Main components and Accessories

- Cutting Machine Body [MINIMANTIS II]
- Power Cable (5M)
- Instruction Manual
- Fuse
- Screwdriver
- Wrench
- Cutting Tip Cleaner
- Cutting Tip 102 (ACE) or 106 (LPG) #0,1,2



Extendable Rail 1.8M for IK-93

Straight rail used for IK-93 Hawk. Although the rail length is 1.8m, cutting of longer straight line is also possible by using it in a successively.

[Applicable Model] IK-93 HAWK and others

S/N: BBA19302



S/N:
60031131 for 1,000mm
60031101 for 2,400mm

Extension Chain

Chain for PICLE 1 II / AUTO-PICLE II / AUTO-PICLE S traveling around the pipe. Add it when the standard chain is not enough.

[Applicable Model] PICLE 1 II / AUTO-PICLE II / AUTO-PICLE S



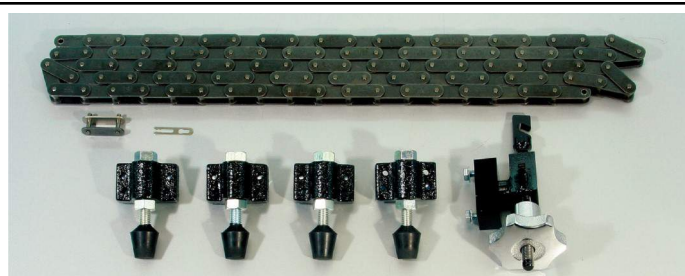
S/N:
BGB99101: D600
BGB99102: D900
BGB99103: D1200
BGB99104: D1500

Guide Rail

D-600 / D-900 / D-1200 / D-1500

Guide rail for AUTO-PICLE S. Select the rail model according to the pipe diameter. It must be used within the range specified.

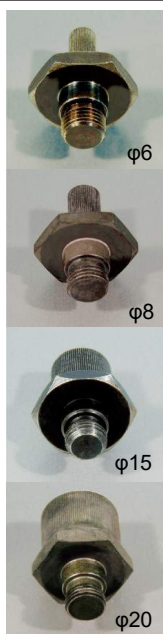
[Applicable Model] AUTO-PICLE S



Small Diameter Pipe Fixture S/N: BFC99101

This fixture tool allows KHC-600D to cut holes on pipes of 250 to 800mm by fixing the cutting machine to this small diameter pipes.

[Applicable Model] KHC-600D



Magnet Roller φ6 / φ8 / φ15 / φ20

Optional magnet roller for IK-54 D. Easy to match different shape mold dimensions by changing the diameter from the standard roller of φ10 to the other roller's diameter.

φ6 : Change to about 60 to 600mm/min.
Can follow shape corner of R4mm or more.

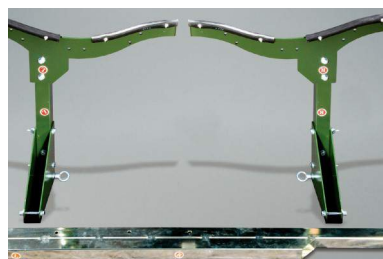
φ8 : Change to about 80 to 800mm/min.
Can follow shape corner of R5mm or more.

φ15 : Change to about 150 to 1500mm/min.
Can follow shape corner of R9mm or more.

φ20 : Change to about 200 to 2000mm/min.
Can follow shape corner of R11mm or more.

S/N: 60030722 for φ6 60030723 for φ8
60030724 for φ15 60030725 for φ20

[Applicable Model] IK-54 D



Overhang Stand

S/N: BFC99102

This stand allows KHC-600 D to cut pipes' edge surface. Normally, the machine works with the standard stand, but for cases such as for cutting of edge of the pipe, the overhang stand is provided.

[Applicable Model] KHC-600D

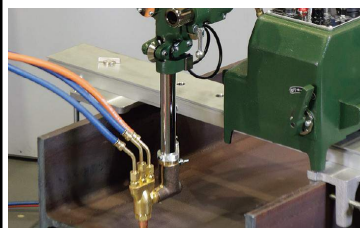


Vertical unit for MINIMANTIS-II

Vertical pipe unit for MINIMANTIS-II to extend the cut length of flange. Standard specification allows cutting of 400mm, and this accessory provides the cutting length up to 700mm.

- Vertical unit ST-400
- Vertical unit ST-700

[Applicable Model] MINIMANTIS II



Rail for MINIMANTIS-II

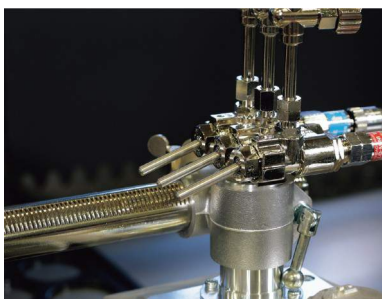
3 types of rail for MINI-MANTIS-II can be selected as effective length 600 / 900 / 1,500mm depending on size of H-beam.

[Applicable Model] MINIMANTIS-II

S/N: **BHA99201**: 600mm (1,100L) for ST
BHA99202: 900mm (1,500L) for ST
BHA19203: 1,500mm (2,100L) for ST

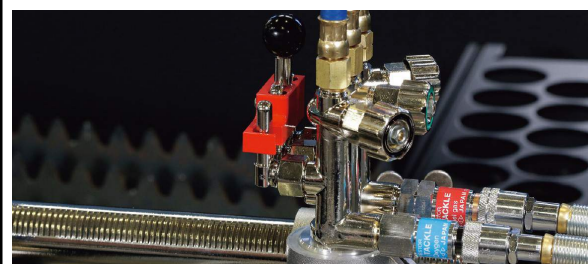
Snap Valve

Open and close of preheat gas, preheat oxygen and cutting oxygen can be done by individual levers.



[Applicable Model]

- BQA00001** Snap Valve (A) for AUTO-PICLE
- BQA00002** Snap Valve (B) for IK-12 NEXT / IK-12 max3 with 1 torch
- BQA00003** Snap Valve (C) for IK-12 NEXT / IK-12 max3 with 2 torch
- BQA00004** Snap Valve (D) for IK-12 BEETLE with 1 torch
- BQA00005** Snap Valve (E) for IK-12 BEETLE with 2 torch



Preset Valve

S/N: 60039410

Preheat gas and preheat oxygen, and also cutting oxygen can be opened and closed by one lever each. Preheat gas, preheat oxygen and cutting oxygen can all be turned OFF at the same time by operating one lever.

[Applicable Model] IK-12 NEXT and IK-12 max3

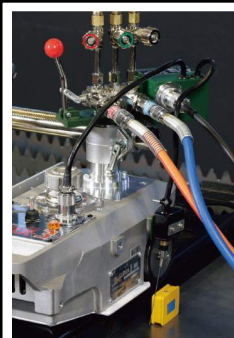


Twin Torch Attachment

S/N: BQC00002

Enables the IK-12 NEXT, IK-12max3, and others, to perform parallel cutting with 1 torch and 2 cutting tips. The tip distance can be set from 32 to 310mm, allows strip cutting and a closer distance between small parts. It use 100 type cutting tip.

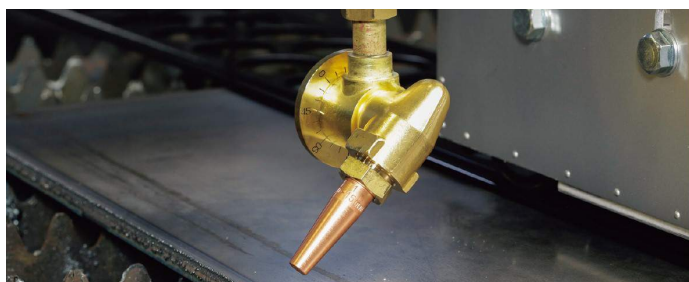
[Applicable Model] IK-12 NEXT and IK-12 max3



Auto Stop Valve

One single lever operation, provides switching between 3 positions: 1) Preheat gas and preheat oxygen ON. 2) Preheat gas, preheat oxygen, and cutting oxygen ON. 3) All OFF. An device placed at the end of cutting position automatically stops the machine running and gas supply by interlocking the detection device attached to the machine with the electro-magnet.

[Applicable Model] IK-12 NEXT, IK-12 max3 and IK-12 BEETLE for 1 distributor or 2 distributor.



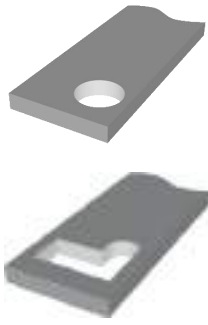
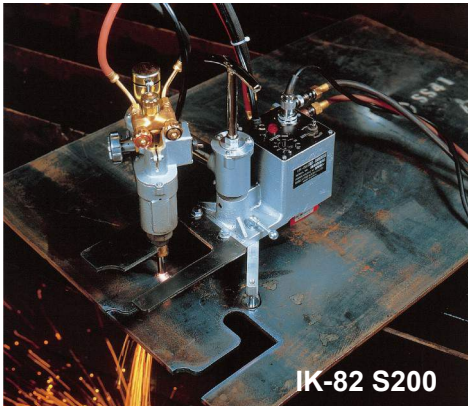
Bevel Cutting Attachment

S/N: BQB00003

Allows the cutting tip angle setting, by attaching to the torch, enables the bevel cutting with the IK-12max3 series, and others. The setting of positive or negative bevel cutting is easy. It use 100 type cutting tip.

[Applicable Model] IK-12 NEXT and IK-12 max3

Other portable cutting machines



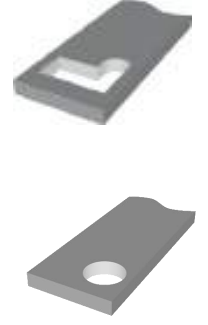
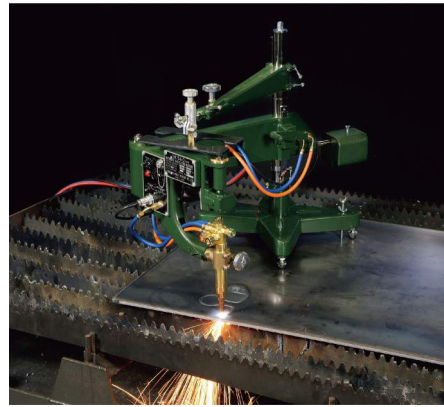
Automatic Shape Cutting Machine

IK-82 S200/M300

Most advanced magnetic tracing type gas cutting machine. Effective designing and modular structure greatly reduce equipment weight, and provide a system configuration to ensure operation ease according to the particular operation requirements.

IK-82 S200 / M300 - Main Specification

Model name	IK-82 S200	IK-82 M300
Cutting Thickness	5 - 50mm	
Magnet Roller	Φ25mm	Φ16mm
Cutting Speed	100 - 900mm/min	100 - 600mm/min
Eff. Cutting Range	Circle Φ200mm	Φ300mm
	Ellipse 420 x 160 mm	600 x 200 mm
Speed Control Method	Transistor Control	
Weight	7.5kg	9.5kg
Cutting Tip	406NT(LPG) or 402ST(Acetylene) #0,1,2	



Automatic Shape Cutting Machine

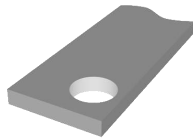
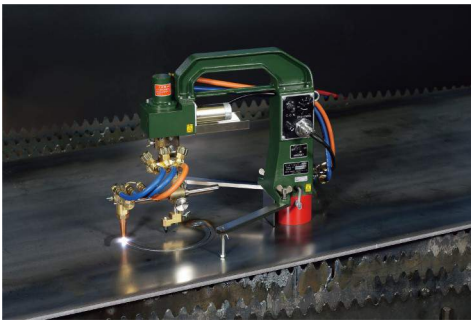
IK-54D

IK-54 D is a mold tracing cutting machine with a robust structure that can cut mild steel up to thickness 100mm with high quality. Machine traces the mold reliably with a powerful magnet roller. In addition, by selecting the magnet roller by different diameter (φ6/ 8/10/15/20mm), it's possible to correspond to various mold shapes.

IK-54D - Main Specification

Cutting Thickness	5 - 100mm (in case of #5 cutting tip)	
Eff. Circle Cut. Diam.	φ30 - 700mm (φ600 - 1700mm, in case of Main Shaft)	
Eff. Square Cut. Range	φ30 - 600mm (φ500 - 1200mm, in case of Main Shaft)	
Cutting Speed	100 - 1000mm/min	
Speed Control	PWM Control	
Magnet Roller	dia. 10mm* (Standard)	
Weight	44kg (Weight included)	
Machine size	1,260(L) * 695(W) * 550(H) mm	
Cutting Tip	102 (ACE) or 106 (LPG)	

*Magnet roller: Dia. 6, 8, 15 and 20mm are available



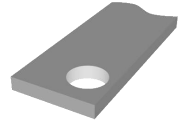
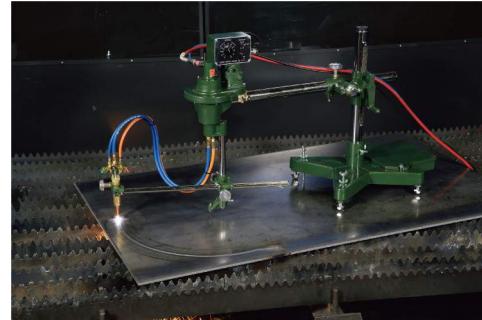
Automatic Circle Cutting Machine

CIR CUT-I/II

CIR CUT I / II is an automatic cutting machine for circle cutting, which can perform I-CUT and bevel cutting up to 45°. The main body is fixed on the steel plate by magnets, the model I uses permanent magnet, and the model II uses electromagnet. The model II powerful electromagnet allow the machine to perform cutting in any position, including perpendicular and vertical position.

CIR CUT I/II - Main Specification

Model name	CIR CUT-I	CIR CUT-II
Cutting Thickness	5 - 30mm	
Bevel Angle	0 - 45°	
Eff. Circle Cut. Diam.	φ40 - 200mm	
Torch Rotation Speed	0.6 - 6.0rpm	
Drive Method	PWM Control	
Motor	15W DC Motor	
Weight	11kg	11.3kg
Fixing Method	ON/OFF type magnet	Electro Magnet
Cutting Tip	102(ACE) or 106(LPG)	



Automatic Circle Cutting Machine

IK-70 600 / 1000

IK-70 is a portable automatic circle cutting machine developed to cutting of large circle diameter of circle including bevel cutting in horizontal posture.

The cutting of circle with φ30 to 600mm in case of the model 600, and φ150 to 1000mm in case of the model 1000 is possible.

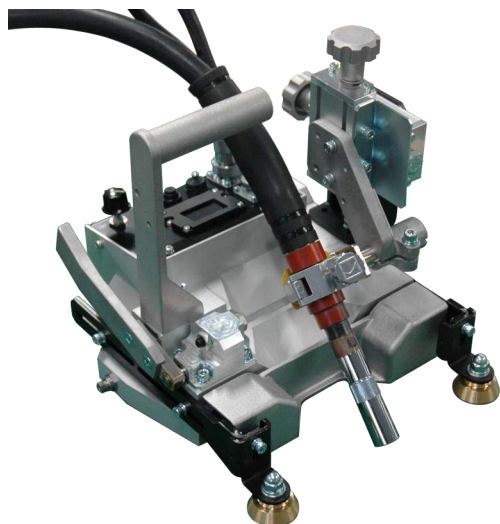
IK-70 - Main Specification

Model name	IK-70 600	IK-70 1000
Cutting Thickness	5 - 50mm (in case of #4 cutting tip)	
Bevel Angle	0 - 45°	
Eff. Circle Cut. Diam.	φ30 - 600mm	φ150 - 1000mm
Plate Angle for Bevel cut.	0 - 45°	
Torch Rotation Speed	0.2 - 6.0rpm	0.04 - 1.5rpm
Drive Method	PWM Control	
Motor	15W DC Motor	
Weight	24kg	55kg
Cutting Tip	102(ACE) or 106(LPG)	

Welding Carriage

WEL-HANDY MULTI NEXT

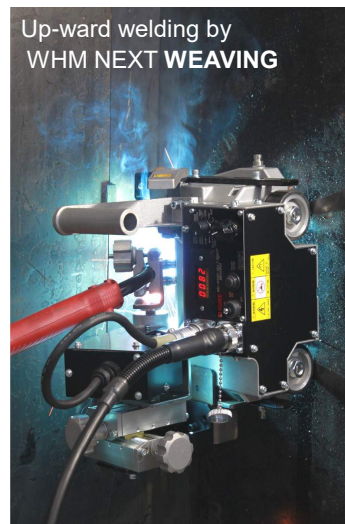
NEXT stage for welding carriage ! Challenge for 100% Welding Automation !



Stitch welding by
WHM NEXT TACK



Up-ward welding by
WHM NEXT WEAVING



Overview

WEL-HANDY MULTI NEXT is a high performance welding carriage available with multi-purpose of application. The combination of permanent magnet and 4-wheel drive system ensured Stable driving.

Industry's top class strong magnet (power 50kg), allows you to weld in any kind of posture.

Machines designed for specific use such as Tack or Weaving welding and a wide range of options are at your disposal.

NEXT series are equipped with high function controllers with numerical control by digital display. Parameters can be changed during welding.

WEL-HANDY MULTI NEXT series continue to evolve with you

Feature

- **New action lever:** detach magnet with little effort.
- **New gearbox:** Secured the durability of the driving system
- **New universal torch holder:** designed for both straight and curved torch.
- **New guide roller:** designed for multiple application
- **New slide unit:** torch adjustment is now smoother and more accurate

WEL-HANDY MULTI NEXT Main Specification

Model name		WEL-HANDY MULTI NEXT	WEL-HANDY MULTI NEXT TACK	WEL-HANDY MULTI NEXT WEAVING
Driving System		4 Wheel Driving		
Traction		Horizontal Fillet 16kg (Strong Magnet) / Vertical Fillet 16kg (Included Body Weight)		
Gap (Floor to Bottom)		5.5 mm		
Magnet Up / Down system		Light Action Lever at Body Side (Pull The Lever to released the magnet)		
Magnet Type		Permanent Magnet 50Kg		
Travel Speed		50 - 1500 mm/min		
Tracing Method		Guide Roller		
Applicable Posture		Horizontal Fillet Vertical Fillet (Only Strong magnet)	Horizontal Fillet & Vertical Fillet	
Start Interlocking Welding		Yes		
Automatic Stop by Limit Switch		Yes		
Arc Test		Yes		
Arc Stabilization Time (sec)		No	0 - 10.0	
Crater Current Correspondence		No	Yes	
Tack		No	Yes	
WEAVING	Weaving Speed(mm/min)	No	400 - 1500	
	Weaving Width(mm)	No	0.0 - 100.0	
	Stop Time on Left, Middle, Right(sec)	No	0.0 - 10.0	
Body weight (kg)		8.7	8.8	10.8
Body Dimensions W x D x H (mm)		280×280×270		310×280×270
Input Power Supply		Single Phase AC100 to 240V 50Hz-60Hz		

Welding Carriage

WEL-HANDY COMPACT

Smallest & Lightest welding carriage in KOIKE history. Take the unprecedented mobility in your hand.



Size & Weight comparison

Overview & Feature

WEL-HANDY COMPACT is a high performance welding carriage for fillet welding.

- **Smallest** of our Welding Carriages Series (New Development)
- **Extremely light** & High Durability of the Body (**5.2Kg**)
- **Push and Switch Arms** (New Development & Patent Pending)
- **Customizable Handles** (New Development)
- **Wide Adjustable range of Slide Holder and Torch** (New Development)
- Straight Torch / Curved Torch **Common Used Clamp**
- **Limit Switch** on Both Side for Auto Stop Function



WH-MINI STRONG

WHM-NEXT

WH-COMPACT

Model	Size (mm) / Weight
WEL-HANDY COMPACT	200×255×230 / 5.2 kg
WEL-HANDY MINI STRONG	260×265×300 / 8.2 kg
WEL-HANDY MULTI NEXT	280×260×300 / 8.5 kg

WEL-HANDY COMPACT Main Specification

Model name	WEL-HANDY COMPACT	
Weight	5.2 kg	
Body Size	200(L)×250(W)×230(H)	
Traction	11 kg	
Gap (Floor - Bottom)	5 mm	
Driving System	4 Wheel Driving	
Magnet Type	Permanent Magnet	
Magnet Power	25 kg	
Travel Speed	100 mm to 550 mm/min	
Tracking Method	Vertical Tracking by Guide Roller	
Applicable Posture	Horizontal Fillet Welding	
Torch Adjustable Range	Torch Angle	35° - 55°
	UP and Down	Max. 45 mm
	Forward/Backward (Length)	Max. 45 mm
	Forward/Backward (Angle)	Forward:5°, Backward:4°
Automatic Stop Functions	Limit switch on each end of carriage	
Non-Weld Parts	210 mm(Total)	
Power Cable	Optional	
Torch Holder Size (Diameter)	Φ16 - 23mm	
Motor	DC Motor	
Input Power	AC100 - 240V 50/60Hz	



Push one of the arms into the body, and it will change the direction. (No tools required)

CNC machine that is possible to use in single phase power supply!

PNC-11 / PNC-12

It is a CNC Cutting Machine that can be simply used by CNC device mounted in a compact body.



Gas cutting by
PNC-12 EXTREME



Plasma cutting by
PNC-12 EXTREME

Overview

CNC device equipped with a simple operation keypad, and a display with a 7 inch LCD easy to understand graphically. Cutting of various types of shapes is possible using the 47 pre-programmed patterns, and function that keep the high quality and

accuracy even in the cutting of small sizes, such as Mirror Image/ Rotation/ Dry Run/ Reverse/ start point return.

Feature

- Oxy-Fuel gas cutting type and Air Plasma cutting type are available.
- 47 pre-programmed patterns are available.
- CAD/CAM software "PNC-CAM" for complex shapes is supplied exclusively for PNC.
- The initial height control and height control during the cutting is available for plasma cutting type.

PNC-11 / 12 - Main Specification

Model name		PNC-11 FLEX	PNC-12 EXTREME
Machine body	Effective cutting width	1000mm, 1250mm, 1500mm	
	Effective cutting length	1500mm, 3000mm, 7000mm, 9000mm	1500mm, 2000mm, 3000mm
	Max. Rapid speed	5000mm/min	3000mm/min
	Max. Cutting speed	4000mm/min	2000mm/min
	Drive method	Rack and Pinion	
Oxy-fuel cutting	Oxy-fuel cutting torch	1 set with motorized torch riser	
	Cutting tips	102(ACE) or 106(LPG)	
	Cutting thickness	5 - 50mm	
Plasma cutting	Torch holder	1 set with motorized torch riser / Diameter 35mm	
	Available Plasma System	POWERMAX series or non high frequency arc start type Plasma system (Customer's scope of supply. Please select the suitable plasma system as per thickness of cutting material.)	
	Torch protection	Torch Magnetic de-coupler	
	Torch height control	Initial height sensing/Arc voltage torch height control	
CNC	Name of CNC	KOIKE D421	KOIKE D420
	Display	7 inch color LCD graphic display and key pad	
	Program input	Manual MDI or by USB stick	
	Control axis	X/Y 2 axis control	
	Shape library	47 patterns	
CAD/CAM	Operation function	Dry run, Pattern nesting, Reverse, Plate alignment, Mirror, etc.	
	Model	PNC-CAM 2A {KAP Portable CNC editions}	



Pipe Cutting Machine

PNC-PIPE

Simple-operation to cut both steel plate and pipe!
Improve your productivity by automated plasma cutting



Overview

PNC-PIPE is a pipe cutting machine realized with our conception of simple-operation system. Maintaining the conventional flat plate cutting function of famous PNC-12, pipe cutting function is newly added on PNC-PIPE. By a simple switching, pipe is integrated into PNC-PIPE, which can be regarded as a superior and derivative type of original PNC with higher multiplicity.

Simple-operation system, user-friendly, and compact body will enable in-house cutting production and increase your productivity by automating manual cutting process.

Feature

- Available with flat plate and pipe cutting
- Superior accuracy with excellent cutting quality compared with manual cutting
- Simple and user-friendly operation by CNC
- Contribution to in-house cutting production

PNC-PIPE Main Specification

Model Name		PNC-PIPE
Cutting Material		Flat Plate and Pipe by switching
Max. Cutting Speed		2000 mm/min
Max. Rapid Speed		3000 mm/min
Pipe cutting	Max. Length	3000 mm
	Pipe Diameter Range	Φ40 - 260 mm
	Thickness	4 - 16 mm
	Max Load	400 kg
	Pipe Accuracy	Tolerance < 2 % (for both Roundness/ Straightness)
Flat plate cutting	Effective Cutting Width	1500 mm
	Effective Cutting Length	3000 mm
Chuck Type		Triple-Jaws hollow chuck for connection to fume collecting duct
Pipe Support		2 sets
Number of Control Axis		2 axis
Number of Plasma Torch		1 (Plasma cutting system is not included.)
Plasma Height Sensor/ Initial Height Sensor Unit		Built-in as standard
CAD/CAM Software for Flat Plate		1 License as standard (PNC CAM)
CAM Software for Pipe		1 License as standard (FAST-CAM FAST-PIPE BASIC 10 module)
Machine size W×D×H(mm)		3870mm x 2820mm x 1110mm
Input Voltage		Single phase AC100 – 240V 50Hz/60Hz



Gas Apparatus

Cutting

Middle pressure type Hand Cutting Torch

MK type Cutting Torch

Standard medium-pressure gas cutting torch. Mainly used as a cutting torch for disconnect components. For Tip mixing method, it is safe and difficult to occur backfire.



MK-100, 150, 250 and 300
(Lever with lock type)



MK-K251, K251B
(Lever without lock type)

Torch model	Cutting thickness (mm)	Torch body length (mm)	Torch body weight (g)	Torch head angle (deg.)	Lever/Trigger	Cutting tip	Fuel gas
MK-100	100mm Max.	466	900	75, 90, 180	Lever with lock	102, 102HC, 106, 106HC, 103, 107	Acetylene, Propane, Ethylene and Natural gas
MK-150	150mm Max.	495	880	90			
MK-250	250mm Max.	525	1,500	75, 90, 180			
MK-300	300mm Max.	661	1,550	75, 90, 180			
MK-K251	250mm Max.	495	1,000	90	Lever without lock		
MK-K251B*							

*Bottom Lever Type

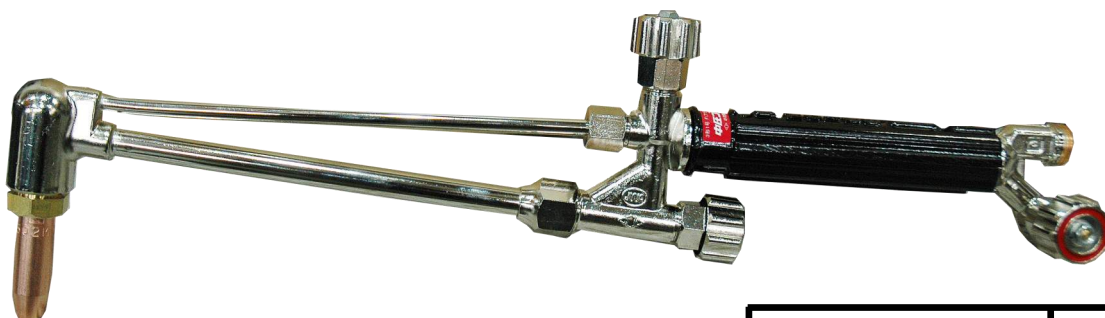
Ask KOIKE for hose connection type

Cutting

Middle pressure type Hand Cutting Torch

GOLD-MM Torch

New improved cutting torch reduce risks of flashback at cutting tip and significant improvement of heating energy with new type 502 / 506 MM nozzles.



- JIS Model 3 No.1 equivalent*
- JWA certification number 8605-310

* JIS=Japanese Industrial Standards

Cutting Tip 502MM for Acetylene	Cutting Tip 506MM for LPG
■ Stock No. DB151186F	■ Stock No. DB15410F

Torch model	Cutting thickness (mm)	Torch body length (mm)	Torch body weight (g)	Torch head angle (deg.)	Torch type	Cutting tip	Fuel gas
S type	50mm Max.	392	690	90	Valve	502MM, 506MM 502A, 506A	Acetylene, Propane
L-type		480	740				

Middle pressure type Hand Cutting Torch

Cutting

Heating

Skill Cut Torch

Mainly used as a cutting torch, and it is available for Gouging and Heating.



For heating, Skill cut-250 with Cutting tip 122B and Acetylene needs to be selected.
For heating with LPG, Line Heating Torches are recommended.

- JIS Model 3 No.1 & 2 equivalent
- JWA certification number 8605-310 & 320

Torch model	Cutting thickness (mm)	Torch body length (mm)	Torch body weight (g)	Torch head angle (deg.)	Torch type	Cutting tip	Fuel gas
Skill cut-100	100mm Max.	515	700	75, 90, 180	Valve	502A, 506A	Acetylene, Propane
Skill cut-250	250mm Max.	578	980			102, 106	

Low pressure type Hand Cutting Torch

Cutting

Gold Light-II Torch

Light weight and compact. If flashback arrestor "Apollo mini-tackle" are used together, safety is further improved.



- JIS Model 1 No.1 & 2 equivalent
- JWA certification number 8605-110 & 120

Torch model	Tip No.	Cutting thickness (mm)	Torch body length (mm)	Torch body weight (g)	Torch head angle (deg.)	Torch type	Gas pressure (MPa)	
							Oxygen	Fuel gas
No. 1 (M-cut)	C-I #1	3 - 10	395	610	90	Valve	0.3	0.02
	C-I #2	10 - 20						
	C-I #3	20 - 30						
No.2 (A-cut)	C-II #1	3 - 15	477	760	90	Valve	0.3	0.02
	C-II #2	15 - 40						
	C-II #3	40 - 80						

Tip model	Stock No.	Shape	Used gas
C-1	SK-1011 to 3		Acetylene
	SK-1021 to 3		LPG
C-2	SK-2011 to 3		Acetylene
	SK-2021 to 3		LPG

Low pressure type Hand Cutting Torch

Cutting

Safety Light-II Torch

Light weight and compact with less backfire by spring function. If flashback arrestor "Apollo mini-tackle" are used together, safety is further improved.



- JIS Model 1 No.1 & 2 equivalent
- JWA certification number 8605-110 & 120

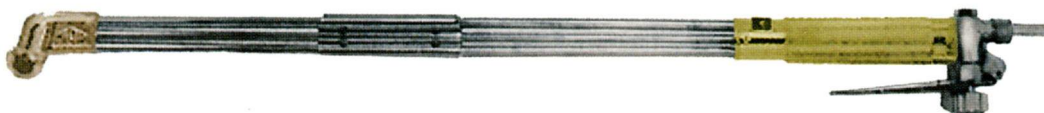
Torch model	Tip No.	Cutting thickness (mm)	Torch body length (mm)	Torch body weight (g)	Torch head angle (deg.)	Torch type	Gas pressure (MPa)	
							Oxygen	Fuel gas
No. 1 (M-cut)	C-I #1	3 - 10	430	610	90	Valve	0.3	0.02
	C-I #2	10 - 20						
	C-I #3	20 - 30						
No.2 (A-cut)	C-II #1	3 - 15	486	725	90	Valve	0.3	0.02
	C-II #2	15 - 40						
	C-II #3	40 - 80						



Tip model	Stock No.	Shape	Used gas
C-1	SK-1011 to 3		Acetylene
	SK-1021 to 3		LPG
C-2	SK-2011 to 3		Acetylene
	SK-2021 to 3		LPG

Scarfig

Scarfig Torch

MK-Scarfig Torch

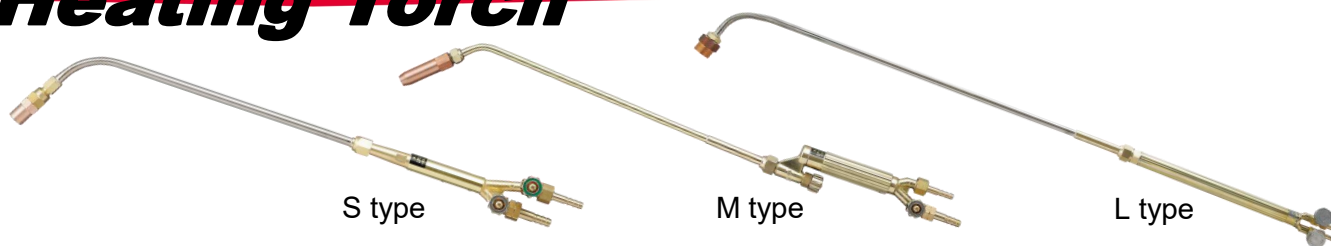


Torch model	Tip type	Tip No.	Gas pressure (MPa)		Welding width (mm)	Welding depth (mm)	Torch body length (mm)	Torch body weight (g)	Injector	Torch type	Tip model	Stock No.	Shape	Used gas				
			Oxygen	Fuel gas														
MK-Scarfig No. 1, 2 and 3	MKS (AC)	1	0.7 - 0.9	0.04	20-30	2 - 4	No. 1: 890 No. 2: 1190 No. 3: 1620	No. 1: 2000 No. 2: 2150 No. 3: 2450	Fixed	Bottom Lever w/o lock	MKS	Ask KOIKE		Acetylene				
		2		0.05	30-40													
		3			40-50													
	MKPS (LPG)	1		0.015	20-30	2 - 4					MKPS	DB89481 D - F		LPG				
		2		0.02	30-40													
		3		0.025	40-50													

Heating

Line Heating Torch

Heating Torch

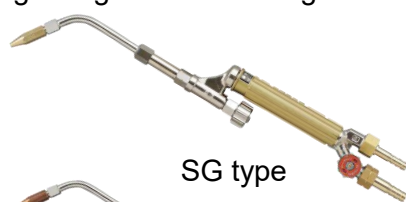


Torch model	Tip No.	Gas pressure (MPa)		LPG flow rate (L/h)	Flame Condition	Injector	Torch body length (mm)	Torch body weight (g)	Torch type
		Oxygen	Fuel gas						
S type	L-1000S/SK	0.2	0.02	1000	L-S,M,L type: Diffusion	Fixed	620	610	Valve
	L-1500S	0.3	0.03	1500					
	L-2000S	0.4		2000					
	L-2500S	0.5	0.04	2500					
	L-3000S/SK	0.6	0.05	3000					
M type	L-3000M/MK	0.3	0.05	3000	L-SK, MK type: Centralization	Changeable	700	880	Valve
	L-4000M	0.5		4000					
	L-5000M/MK	0.55		5000					
	L-7000L	0.3		7000					
L type	L-10000L	0.45	0.05	10000		Fixed	1600	2800	
	L-12000L	0.55		12000					

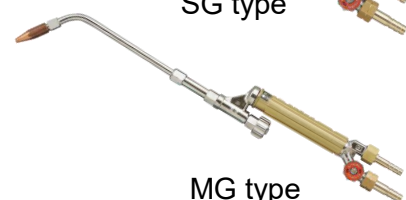
Low pressure type Welding Torch

GOLD Welding Torch

Having fuel gas valve locking mechanism can reduce the risk of unintentional valve open.



SG type



MG type

*Ask KOIKE for LG type

- JIS Model B No.0 & 1 equivalent



Torch model	Tip type	Tip No.	Welding thickness (mm)	Gas pressure (MPa)		Torch body length (mm)	Torch body weight (g)	Injector	Torch type
				Oxygen	Acetylene				
SG		50	- 0.5	0.2	0.02	260	530	Fixed	Valve
		70	0.5 - 0.7						
		100	0.7 - 1.0						
		140	1.0 - 1.4						
		200	1.4 - 2.0						
MG		200	- 2.0	0.3	0.02	432	544	Fixed	Valve
		225	2.0 - 2.3						
		250	2.3 - 2.5						
		315	2.5 - 3.2						
		400	3.2 - 4.0						
		450	4.0 - 4.5						
		500	4.5 - 5.0						

Tip model	Stock No.	Shape		Used gas
SG	DB57181A - E (Tip No. 50,70,100,140,200)			Acetylene
MG	DB57182A - G (Tip No. 200,225,250,315,400,450,500)			

Heavy Duty Scarfig Torch

Power-1350D Scarfig Torch

Torch model	Tip type	Used gas	Gas pressure (MPa)		Scarfig width (mm)	Scarfig depth (mm)	Torch body length (mm)	Torch body weight (g)	Injector	Torch type
			Oxygen	Fuel gas						
1350D	P-15	Propane	0.9 - 1.3	0.06-0.1	60-90	2 - 5	1320	2300	Fixed	Bottom Lever w/o lock
		Coal gas		0.08-0.14						

Tip model	Stock No.	Shape		Used gas
P-15	DB89881A			Propane Coal Gas

Cutting Tip

102

• Standard Tip

Acetylene

S/N: DB11181B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Acetylene		Jet Oxygen	Preheat Oxygen	Acetylene
00	3 - 5	0.8	0.15	0.02	700 to 660	690	410	370
0	5 - 10	1.0	0.2		660 to 550	1,200		
1	10 - 15	1.2	0.25		550 to 490	2,100	480	430
2	15 - 30	1.4	0.3		490 to 400	3,400		
3	30 - 40	1.6		400 to 350	4,300			
4	40 - 50	1.9	0.35	0.025	350 to 320	6,500	550	500
5	50 - 100	2.3	0.4	0.03	320 to 200	11,000	690	630
6	100 - 150	2.7		0.035	200 to 150	15,000	770	700
7	150 - 250	3.0	0.45	0.04	150 to 80	22,000	1,060	960
8	250 - 300	3.4			80 to 45	28,000		

102HC

• For Hand Cutting and Portable Cutting

Acetylene

S/N: DB11285B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Acetylene		Jet Oxygen	Preheat Oxygen	Acetylene
00	3 - 5	0.8	0.15	0.02	700 to 660	690	410	370
0	5 - 10	1.0	0.2		660 to 550	1,200		
1	10 - 15	1.2	0.25		550 to 490	2,100	480	430
2	15 - 30	1.4	0.3		490 to 400	3,400		
3	30 - 40	1.6		400 to 350	4,300			
4	40 - 50	1.9	0.35	0.025	350 to 320	6,500	550	500
5	50 - 100	2.3	0.4	0.03	320 to 200	11,000	690	630
6	100 - 150	2.7		0.035	200 to 150	15,000	770	700
7	150 - 250	3.0	0.45	0.04	150 to 80	22,000	1,060	960
8	250 - 300	3.4			80 to 45	28,000		

102D5

• Divergent High Speed Tip

Acetylene

S/N: DB11183B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Acetylene		Jet Oxygen	Preheat Oxygen	Acetylene
00	3 - 5	0.6	0.5	0.02	to 700	850	520	470
0	5 - 10	0.8			700 to 625	1,600		
1	10 - 15	1.0			625 to 550	2,400	600	550
2	15 - 30	1.2			550 to 475	3,600		
3	30 - 40	1.4		0.025	475 to 425	4,800	750	680
4	40 - 50	1.6			425 to 350	5,600		
5	50 - 100	1.9			350 to 250	8,800	860	780
6	100 - 150	2.3			250 to 175	13,500	950	860
7	150 - 250	3.0	0.03	0.04	175 to 90	24,000	1,330	1,210
8	250 - 300	3.4			90 to 60	31,000	1,600	1,450

102D7

• Divergent High Speed Tip

Acetylene

S/N: DB11184B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Acetylene		Jet Oxygen	Preheat Oxygen	Acetylene
00	3 - 5	0.4	0.7	0.02	to 750	750	520	470
0	5 - 10	0.6			750 to 680	1,100		
1	10 - 15	0.9			680 to 600	2,500	600	550
2	15 - 30	1.1			600 to 500	3,800		
3	30 - 40	1.3		0.025	500 to 450	5,400	750	680
4	40 - 50	1.5			450 to 400	7,300		
5	50 - 100	1.8			400 to 260	10,000	860	780
6	100 - 150	2.1			260 to 180	14,000	950	860
7	150 - 250	2.6	0.03	0.04	180 to 100	22,000	1,330	1,210
8	250 - 300	3.2			100 to 70	35,000	1,600	1,450

402ST

• Standard Tip
(Only for IK-82)

Acetylene

S/N: DB14183C-H



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Acetylene		Jet Oxygen	Preheat Oxygen	Acetylene
0	5 - 10	1.0	0.2	0.02	500 to 450	1,200	380	340
1	10 - 15	1.2	0.25		450 to 400	2,100	485	440
2	15 - 30	1.4	0.3		400 to 350	3,200		
3	30 - 40	1.6	0.3		350 to 300	4,200	550	500
4	40 - 50	1.8	0.35	0.025	300 to 250	6,800	640	580
5	50 - 100	2.1	0.5	0.03	250 to 200	11,000	730	660

406NT

• Standard Tip
(Only for IK-82)

LPG

S/N: DB14483C-H



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	LPG		Jet Oxygen	Preheat Oxygen	LPG
0	5 - 10	1.0	0.2	0.02	500 to 450	1,200	1,640	410
1	10 - 15	1.2	0.25		450 to 400	2,100		
2	15 - 30	1.4	0.3		400 to 350	3,200		
3	30 - 40	1.6	0.3		350 to 300	4,200		
4	40 - 50	1.8	0.35		300 to 250	6,800	2,160	540
5	50 - 100	2.1	0.5		250 to 200	11,000		

Cutting Tip

106,106O

- Standard Tip
- 106O is for quick type torch

LPG

S/N: 106: DB11481B-L
106O: DB11484B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	LPG		Jet Oxygen	Preheat Oxygen	LPG
00	3 - 5	0.8	0.3	0.02	700 to 660	690	1,180	310
0	5 - 10	1.0			660 to 550	1,200		
1	10 - 15	1.2			550 to 490	2,100		
2	15 - 30	1.4	0.35	0.025	490 to 400	3,400	1,370	360
3	30 - 40	1.6			400 to 350	4,300		
4	40 - 50	1.9			350 to 320	6,500		
5	50 - 100	2.3	0.4	0.03	320 to 200	11,000	1,860	490
6	100 - 150	2.7			200 to 150	15,000		
7	150 - 250	3.0			150 to 80	22,000		
8	250 - 300	3.4			80 to 45	28,000		
				0.04			3,720	980

106HC

- For Hand Cutting and Portable Cutting

LPG

S/N: DB11589B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	LPG		Jet Oxygen	Preheat Oxygen	LPG
00	3 - 5	0.8	0.3	0.02	700 to 660	690	1,180	310
0	5 - 10	1.0			660 to 550	1,200		
1	10 - 15	1.2			550 to 490	2,100		
2	15 - 30	1.4	0.35	0.025	490 to 400	3,400	1,370	360
3	30 - 40	1.6			400 to 350	4,300		
4	40 - 50	1.9			350 to 320	6,500		
5	50 - 100	2.3	0.4	0.03	320 to 200	11,000	1,860	490
6	100 - 150	2.7			200 to 150	15,000		
7	150 - 250	3.0			150 to 80	22,000		
8	250 - 300	3.4			80 to 45	28,000		
				0.04			3,720	980

106D5,05

- Divergent High Speed Tip
- 106O5 is for quick type torch

LPG

S/N: 106D5: DB11482B-L
106O5: DB11485B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	LPG		Jet Oxygen	Preheat Oxygen	LPG
00	3 - 5	0.6	0.5	0.02	to 700	850	1,180	310
0	5 - 10	0.8			700 to 625	1,600		
1	10 - 15	1.0			625 to 550	2,400		
2	15 - 30	1.2			550 to 475	3,600		
3	30 - 40	1.4			475 to 425	4,800		
4	40 - 50	1.6			425 to 350	5,600		
5	50 - 100	1.9			350 to 250	8,800		
6	100 - 150	2.3			250 to 175	13,500		
7	150 - 250	3.0			175 to 90	24,000		
8	250 - 300	3.4			90 to 60	31,000		
				0.04			3,720	980

106D7,07

- Divergent High Speed Tip
- 106O7 is for quick type torch

LPG

S/N: 106D7: DB11483B-L
106O7: DB11486B-L



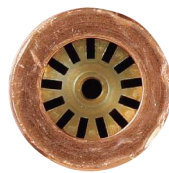
Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	LPG		Jet Oxygen	Preheat Oxygen	LPG
00	3 - 5	0.4	0.7	0.02	to 750	750	1,180	310
0	5 - 10	0.6			750 to 680	1,100		
1	10 - 15	0.9			680 to 600	2,500		
2	15 - 30	1.1			600 to 500	3,800		
3	30 - 40	1.3			500 to 450	5,400		
4	40 - 50	1.5			450 to 400	7,300		
5	50 - 100	1.8			400 to 260	10,000		
6	100 - 150	2.1			260 to 180	14,000		
7	150 - 250	2.6			180 to 100	22,000		
8	250 - 300	3.2			100 to 70	35,000		
				0.04			3,720	980

106M

- Standard Tip
- Heavy Preheat Oxygen Tip

LPG

S/N: DB11487B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	LPG		Jet Oxygen	Preheat Oxygen	LPG
00	3 - 5	0.8	0.3	0.02	700 to 660	690	1,710	450
0	5 - 10	1.0			660 to 550	1,200		
1	10 - 15	1.2			550 to 490	2,100		
2	15 - 30	1.4	0.35	0.025	490 to 400	3,400	2,470	650
3	30 - 40	1.6			400 to 350	4,300		
4	40 - 50	1.9			350 to 320	6,500		
5	50 - 100	2.3	0.4	0.025	320 to 200	11,000	2,890	760
6	100 - 150	2.7			200 to 150	15,000		
7	150 - 250	3.0			150 to 80	22,000		
8	250 - 300	3.4	0.45	0.03	80 to 45	28,000	3,990	1,050

106M5

- Divergent High Speed Tip
- Heavy Preheat Oxygen Tip

LPG

S/N: DB11595B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	LPG		Jet Oxygen	Preheat Oxygen	LPG
00	3 - 5	0.6	0.5	0.02	to 700	850	1,710	450
0	5 - 10	0.8			700 to 625	1,600		
1	10 - 15	1.0			625 to 550	2,400		
2	15 - 30	1.2			550 to 475	3,600		
3	30 - 40	1.4			475 to 425	4,800		
4	40 - 50	1.6			425 to 350	5,600		
5	50 - 100	1.9			350 to 250	8,800		
6	100 - 150	2.3			250 to 175	13,500		
7	150 - 250	3.0			175 to 90	24,000		
8	250 - 300	3.4			90 to 60	31,000		
				0.03			3,990	1,050

Cutting Tip

106M7

- Divergent High Speed Tip
- Heavy Preheat Oxygen Tip

LPG

S/N: DB11489B-L



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	LPG		Jet Oxygen	Preheat Oxygen	LPG
00	3 - 5	0.4	0.7	0.02	to 750	750	1,710	450
0	5 - 10	0.6			750 to 680	1,100		
1	10 - 15	0.9			680 to 600	2,500		
2	15 - 30	1.1			600 to 500	3,800		
3	30 - 40	1.3			500 to 450	5,400		
4	40 - 50	1.5			450 to 400	7,300		
5	50 - 100	1.8			400 to 260	10,000	2,890	760
6	100 - 150	2.1			260 to 180	14,000	3,570	940
7	150 - 250	2.6			180 to 100	22,000	3,990	1,050
8	250 - 300	3.2			100 to 70	35,000		

EPOCH

- For Thick Plate Cutting
- Post-mixing type tip (Epoch torch only)

LPG

S/N:

EPOCH300: DB19481A

EPOCH600: DB19481B



Tip No.	Plate Thickness (mm)	Kerf Width. (mm)	Gas pressure (MPa)			Cutting Speed (mm/min)	Gas flow amount (Nm ³ / h)		
			Jet Oxygen	Preheat Oxygen	LPG		Jet Oxygen	Preheat Oxygen	LPG
300	100	5.5 - 7.0	0.4	0.05 - 0.06	0.03 - 0.04	250 to 290	27	3.3 - 4.0	2.3 - 2.7
	200	6.0 - 8.0	0.45			170 to 190	30		
	300	7.0 - 9.0	0.5			130 to 150	32		
600	300	8.0 - 12	0.6	0.07 - 0.1	0.05 - 0.06	80 to 90	70	4.8 - 7.0	3.1 - 3.4
	400	10 - 13	0.6			60 to 70	80		
	500	11 - 14	0.7			50 to 60	110		
	600	12 - 15	1.0						

103

- Standard Tip

Ethylene

S/N: DB11781C-J



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Ethylene		Jet Oxygen	Preheat Oxygen	Ethylene
0	5 - 10	1.0	0.3	0.02	660 to 550	1,200	800	460
1	10 - 15	1.2			550 to 490	2,100		
2	15 - 30	1.4	0.35	0.025	490 to 400	3,400	900	500
3	30 - 40	1.6			400 to 350	4,300		
4	40 - 50	1.9			350 to 320	6,500		
5	50 - 100	2.3	0.4	0.035	320 to 200	11,000	1,200	660
6	100 - 150	2.7			200 to 150	15,000		

103D5

- Divergent High Speed Tip

Ethylene

S/N: DB11782C-J



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Ethylene		Jet Oxygen	Preheat Oxygen	Ethylene
0	5 - 10	0.8	0.5	0.02	700 to 625	1,600	800	460
1	10 - 15	1.0			625 to 550	2,400		
2	15 - 30	1.2		0.025	550 to 475	3,600	900	500
3	30 - 40	1.4			475 to 425	4,800		
4	40 - 50	1.6		0.035	425 to 350	5,600	1,200	660
5	50 - 100	1.9			350 to 250	8,800		
6	100 - 150	2.3			250 to 175	13,500	2,200	1,280

103D7

- Divergent High Speed Tip

Ethylene

S/N: DB11783C-J



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Ethylene		Jet Oxygen	Preheat Oxygen	Ethylene
0	5 - 10	0.6	0.7	0.02	750 to 680	1,100	800	460
1	10 - 15	0.9			680 to 600	2,500		
2	15 - 30	1.1		0.025	600 to 500	3,800	900	500
3	30 - 40	1.3			500 to 450	5,400		
4	40 - 50	1.5		0.035	450 to 400	7,300	1,200	660
5	50 - 100	1.8			400 to 260	10,000		
6	100 - 150	2.1			260 to 180	14,000		

Cutting Tip

105A

• Standard Tip

Hydrogen

S/N: Ask KOIKE



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Hydrogen		Jet Oxygen	Preheat Oxygen	Hydrogen
00	3 - 5	0.8	0.15	0.02	700 to 660	690	260	850
0	5 - 10	1.0	0.2		660 to 550	1,200		
1	10 - 15	1.2	0.25		550 to 490	2,100		
2	15 - 30	1.4	0.3		490 to 400	3,400		
3	30 - 40	1.6	0.35	0.03	400 to 350	4,300	300	1,000
4	40 - 50	1.9			350 to 320	6,500		
5	50 - 100	2.3			320 to 200	11,000		

105A5

• Divergent High Speed Tip

Hydrogen

S/N: Ask KOIKE



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Hydrogen		Jet Oxygen	Preheat Oxygen	Hydrogen
00	3 - 5	0.6	0.02	0.5	to 700	850	260	850
0	5 - 10	0.8			700 to 625	1,600		
1	10 - 15	1.0			625 to 550	2,400		
2	15 - 30	1.2			550 to 475	3,600		
3	30 - 40	1.4	0.025	0.03	475 to 425	4,800	300	1,000
4	40 - 50	1.6			425 to 350	5,600		
5	50 - 100	1.9			350 to 250	8,800		

105A7

• Divergent High Speed Tip

Hydrogen

S/N: Ask KOIKE



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Hydrogen		Jet Oxygen	Preheat Oxygen	Hydrogen
00	3 - 5	0.4	0.7	0.02	to 750	750	260	850
0	5 - 10	0.6			750 to 680	1,100		
1	10 - 15	0.9			680 to 600	2,500		
2	15 - 30	1.1		0.025	600 to 500	3,800	300	1,000
3	30 - 40	1.3			500 to 450	5,400		
4	40 - 50	1.5			450 to 400	7,300		
5	50 - 100	1.8	0.03	0.03	400 to 360	10,000	400	1,350

107

• Standard Tip

Natural Gas

S/N: DB11881B-J



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Natural Gas		Jet Oxygen	Preheat Oxygen	Natural Gas
00	3 - 5	0.8	0.3	0.015	700 to 660	690	1,000	600
0	5 - 10	1.0			660 to 550	1,200		
1	10 - 15	1.2	0.35		550 to 490	2,100	1,200	700
2	15 - 30	1.4			490 to 400	3,400		
3	30 - 40	1.6			400 to 350	4,300		
4	40 - 50	1.9			350 to 320	6,500		
5	50 - 100	2.3			0.4	320 to 200	11,000	1,700
6	100 - 150	2.7	200 to 150			15,000		

107D5

• Divergent High Speed Tip

Natural Gas

S/N: Ask KOIKE



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Natural Gas		Jet Oxygen	Preheat Oxygen	Natural Gas
0	5 - 10	0.8	0.5	0.01	750 to 625	1,600	1,220	740
1	10 - 15	1.0			625 to 550	2,400		
2	15 - 30	1.2			550 to 475	3,600		
3	30 - 40	1.4		0.015	475 to 425	4,800	1,390	840
4	40 - 50	1.6			425 to 350	5,600		
5	50 - 100	1.9			350 to 250	8,800		
6	100 - 150	2.3	0.02	0.02	250 to 175	13,500	2,310	1,400

107D7

• Divergent High Speed Tip

Natural Gas

S/N: DB11882C-J



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Natural Gas		Jet Oxygen	Preheat Oxygen	Natural Gas
0	5 - 10	0.6	0.7	0.01	750 to 680	1,100	1,350	800
1	10 - 15	0.9			680 to 600	2,500		
2	15 - 30	1.1			600 to 500	3,800		
3	30 - 40	1.3		0.015	500 to 450	5,400	1,700	1,000
4	40 - 50	1.5			450 to 400	7,300		
5	50 - 100	1.8			400 to 260	10,000		
6	100 - 150	2.1	0.02	0.02	260 to 180	14,000	2,200	1,300

Cutting Tip

107M

- Standard Tip
- Heavy Preheat Oxygen Tip

Natural Gas

S/N: Ask KOIKE



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Natural Gas		Jet Oxygen	Preheat Oxygen	Natural Gas
0	5 - 10	1.0	0.3	0.015	660 to 550	1,200	1,500	900
1	10 - 15	1.2	0.35		550 to 490	2,100		
2	15 - 30	1.4			490 to 400	3,400	2,000	1,150
3	30 - 40	1.6			400 to 350	4,300		
4	40 - 50	1.9	0.4	0.02	350 to 320	6,500	2,400	1,400
5	50 - 100	2.3		0.025	320 to 200	11,000		
6	100 - 150	2.7			200 to 150	15,000	3,200	1,900

107M5

- Divergent High Speed Tip
- Heavy Preheat Oxygen Tip

Natural Gas

S/N: DB11883C-J



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Natural Gas		Jet Oxygen	Preheat Oxygen	Natural Gas
0	5 - 10	0.8	0.5	0.015	700 to 625	1,600	1,500	900
1	10 - 15	1.0			625 to 550	2,400		
2	15 - 30	1.2			550 to 475	3,600	2,000	1,150
3	30 - 40	1.4			475 to 425	4,800		
4	40 - 50	1.6	0.02	0.02	425 to 350	5,600	2,400	1,400
5	50 - 100	1.9			350 to 250	8,800		
6	100 - 150	2.3			250 to 175	13,500	3,200	1,900

107M7

- Divergent High Speed Tip
- Heavy Preheat Oxygen Tip





















Natural Gas

S/N: DB11885C-J



Tip No.	Plate Thickness (mm)	Oxy hole dia. (mm)	Gas pressure (MPa)		Cutting Speed (mm/min)	Gas flow amount (L / h)		
			Oxygen	Natural Gas		Jet Oxygen	Preheat Oxygen	Natural Gas
0	5 - 10	0.6	0.7	0.015	750 to 680	1,100	1,500	900
1	10 - 15	0.9			680 to 600	2,500		
2	15 - 30	1.1			600 to 500	3,800	2,000	1,150
3	30 - 40	1.3			500 to 450	5,400		
4	40 - 50	1.5		0.02	450 to 400	7,300	2,400	1,400
5	50 - 100	1.8			400 to 260	10,000		
6	100 - 150	2.1		0.025	260 to 180	14,000	3,200	1,900

Gouging Tip

Tip model	Tip #	Stock No.	Photos	Used Gas	Torch	Tip shape	
<div>100 type gouging tip</div> <div>Gouging width: 7 - 17.5mm Gouging depth: 2 - 8.5mm</div>							
111	6 - 14	DB81181J - N, P - S			Acetylene	Skill Cut-250	Straight
113		DB81183J - N, P - S					Bent
161	6 - 12	DB81481J - N, P, Q			LPG	Skill Cut-250	Straight
181		Ask KOIKE			Ethylene		
163		DB81482J - N, P, Q			LPG		Bent
183		DB81782J - N, P, Q			Ethylene		
<div>400 type gouging tip</div> <div>Gouging width: 7 - 12.5mm Gouging depth: 2 - 7mm</div> <div>*205 type adapter is required to use with No. 2 torch. S/N: DA152819</div>							
411	1 - 3	Ask KOIKE			Acetylene	Gold light-II No. 2, Safety light No. 2 (A-cut)	Straight
413		DB84183D - F					Bent
461		Ask KOIKE			LPG		Straight
481		Ask KOIKE			Ethylene		
463		DB84482D - F			LPG		Bent
483		Ask KOIKE			Ethylene		
<div>500 type gouging tip</div> <div>Gouging width: 7 - 12.5mm Gouging depth: 2 - 7mm</div>							
513	1 - 3	Ask KOIKE			Acetylene	Skill Cut-100, GOLD-MM	Bent
563		Ask KOIKE			LPG		

*205 type adapter is required
to use with No. 2 torch.
S/N: DA152819

Heavy Duty Gas Cutting Nozzle

106PS Series

The 106PS gas cutting tip allows you performing stable piercing for thick material even more than 100mm. And preheat time can be sufficiently reduced combined with machine and system.



Feature

- Significant reduction of preheat time (Combined with our machine and system).
- Improved Piercing Capacity and Stability (Combined with our machine and system).
- Improvement of productivity by reducing preheat time.
- Expanded outer cap lifetime.
- Improved sputter slag separation.
- Sharp, high quality cuts.
- Limited upper edge melt.
- Limited upper edge slag.
- Keep Steady and Safe cutting operation.
- Keep Cutting with small gas consumption.

Main Specification

Piercing Thickness	MAX. 150mm
Piercing Limit by Machine Torch	FP-A: Up to 100mm FP-C: Up to 150mm
Seat (Fitting) angle	KOIKE standard (30°)
Fuel Gas	Propane

Preheat Time Comparison

Thickness	Pre-heating Time (sec.)	
	Conventional	106PS
50mm	80	25
75mm	120	25
100mm	160	30
150mm	160	30

Note: Compared to KOIKE previous models in process and nozzle.



Outer Cap (PS Tip Cover)

DB11607A	#0 - #3
DB11607B	#4 - #6

106PS Series & Stock Number

106PS (3.5Mpa) Standard Nozzle			106PS-D5 (5 Mpa) High Speed Nozzle			106PS-D7 (7 Mpa) High Speed Nozzle		
Stock #	Thickness (mm)	Tip #	Stock #	Thickness (mm)	Tip #	Stock #	Thickness (mm)	Tip #
DB11608C	5-10	0	DB11610C	5-10	0	DB11612C	5-10	0
DB11608D	10-15	1	DB11610D	10-15	1	DB11612D	10-15	1
DB11608E	15-30	2	DB11610E	15-30	2	DB11612E	15-30	2
DB11608F	30-40	3	DB11610F	30-40	3	DB11612F	30-40	3
DB11608G	40-50	4	DB11610G	40-50	4	DB11612G	40-50	4
DB11608H	50-100	5	DB11610H	50-100	5	DB11612H	50-100	5
DB11608J	100-150	6	DB11610J	100-150	6	DB11612J	100-150	6

Gas cylinder Pressure Regulator

Safety Gold-V (Deluxe type)

Best selling regulator for gas cylinder in Japan.



Safety Gold-V (Oxygen)



Safety Gold-V (Acetylene)

Model	Gas	Pressure gauge (MPa)			Flow capacity	Body weight
		Inlet	Outlet	Max. Delivery pressure	[Pressure]	(kg)
Safety gold-V (Oxygen)	Oxygen	25	2.5	0.99	35Nm ³ /h [0.8MPa]	1.4
Safety gold-V (Acetylene)	Acetylene	2.5	0.2	0.098	7Nm ³ /h [0.05MPa]	1.8

Gas cylinder Pressure Regulator

Safety Custom-II

Best selling regulator for gas cylinder in Asian market.



Safety Custom-II (Oxygen)



Safety Custom-II (Acetylene)



Safety Custom (Argon)

Model	Gas	Pressure gauge (Mpa)			Flow capacity	Body weight
		Inlet	Outlet	Max. Delivery pressure	[Pressure]	(kg)
Safety custom-II (Oxygen)	Oxygen	25	2.5	0.99	35Nm ³ /h [0.8MPa]	1.3
Safety custom-II (Acetylene)	Acetylene	2.5	0.2	0.098	7Nm ³ /h [0.05MPa]	1.8
Safety custom (Others)	Argon, Nitrogen and Others	35	2.5	0.99	35Nm ³ /h [0.8MPa]	1.3

Gas cylinder Pressure Regulator

CUSTOM-K

Standard regulator with reasonable price.



CUSTOM-K101 (Oxygen)



CUSTOM-K202 (Acetylene)



CUSTOM-K206 (Propane)

Model	Gas	Pressure gauge (Mpa)			Flow capacity	Body weight
		Inlet	Outlet	Max. Delivery pressure	[Pressure]	(kg)
Custom-K101	Oxygen	25	2.5	0.99	25Nm ³ /h [0.8MPa]	1-1.5
Custom-K202	Acetylene	2.5	0.3	0.13	5Nm ³ /h	1-1.5
Custom-K206	Propane				[0.05MPa]	

Note, The maximum cylinder pressure for the Oxygen is 15Mpa

Pipe line Gas Pressure Regulator

Safety Gold-Line

Best selling gas regulator for factory pipe.



SG-L1 (Oxygen)



SG-L2 (Acetylene)



SG-L3 (Propane)

JWA certification number:

- 8605-S30 for SG-L1
- 8605-AC3 for SG-L2
- 8605-LP3 for SG-L3

Model	Gas	Gas pressure (MPa)			Standard flow amount (Nm ³ / h)	Body weight (g)
		Inlet gauge	Outlet gauge	Max. Delivery pressure		
SG-L1	Oxygen	-	1.5	0.7	26 (for 0.4MPa)	1,000
SG-L2	Acetylene		0.2	0.07	6.6 (for 0.05MPa)	
SG-L3	Propane				4.8 (for 0.05MPa)	

Dial type Gas Flow Regulator

AccuFlow

High precision and maintenance free. Flow rate can be set just by adjusting the dial.



AR-16 / 30
for Cylinder



AR-16 / 30
for gas piping



AccuFlow
for balloon



CWH-25D
with heater for cylinder

Model	Gas	Pressure gauge (Inlet) (MPa)	Delivery Pressure (Outlet) (MPa)	Range of flow rate reg.		Body weight
				(NL/min)		(kg)
AR-16 for cylinder	Argon	25	0.2 Pre-set	4 to 16	10 step setting	0.6
AR-30 for cylinder				9 to 30		
AR-16 for gas piping		1.5		4 to 16		
AR-30 for gas piping				9 to 30		
CO2-25	CO2	25	0.35 Pre-set	7 to 25	2 step setting	0.7
AccuFlow for balloon	Helium			120 to 260		
CWH-25D	CO2			0.2 Pre-set		

Safety coupling device

Apollo Safety Products

One-touch coupling with built-in micro backflow/backfire prevention mechanism! It obstructs backflow/ backfire generated in oxy-fuel cutting.



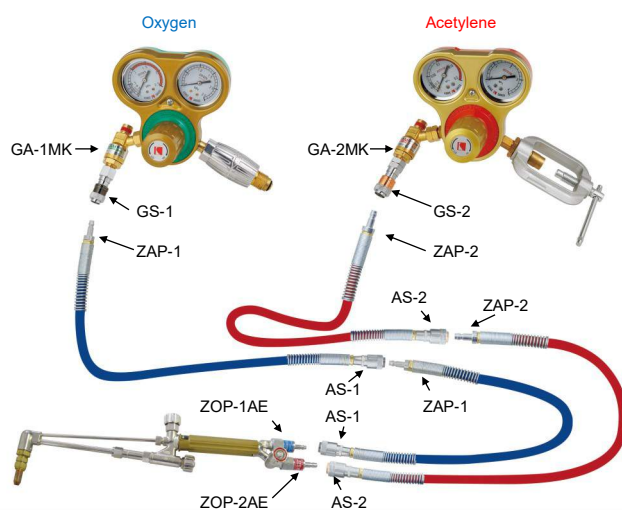
Overview

KOIKE has always been developing its gas welding/cutting equipment for higher safety and easier handling. Apollo Coupling is one of the outstanding result of KOIKE's effort.

The Apollo Coupling is fitted to the outlet pipe, connecting hose, and the welding/cutting machine and outfit, removing possible risks accompanying the gas welding/cutting operation and making preparation and maintenance of the welding/cutting machines easy.

Further, each type is specially designed for oxygen or fuel gas in order to prevent mistakes.

Hoses, safety device for piping lines and other safety products are also available with Koike's high standard safety.



Coupling connection diagram



Apollo Global coupling series



Apollo Universal Hose

Available to use with various fuel gas such as Hydrogen, Acetylene, Propane, MPS, Natural gas and etc.



BIG TACKLE for pipe line



GAS-HAI

Dry type flashback arrestor for hose & torch / portable machine

Apollo Mini-Tackle

Reverse flow / Flashback prevention mechanism built-in. Cut off any possibility of flashback accident.

Feature

- Reverse flow prevention
- Check valve
- Fire extinguisher
- Gas flow cut-off valve
- Temperature activated cut-off valve



ZOP-1AE

ZOP-2AE

Model	Gas	Operation Pres. range	Max. Flow rate	Length	Weight
ZOP-1AE	Oxygen	0.2 to 0.9MPa	10.000NI/h	54mm	48g
ZOP-1AEL			20.000NI/h	62mm	71g
ZOP-2AE	Acetylene, Propane	0.02 to 0.08MPa	1.500NI/h	55mm	49g
ZOP-2AEL			2.500NI/h	68mm	72g

Dry type flashback arrestor for gas cylinder regulator

Gold Arrestor-MK

Most safe flashback arrestor with temperature activated cut-off valve for gas cylinder regulator.

Feature

- Reverse flow prevention
- Check valve
- Fire extinguisher
- Gas flow cut-off valve
- Temperature activated cut-off valve



GA-1MK



GA-2MK



Model	Gas	Operation MAX. pressure (Mpa)	Max. Flow rate (Nm3/h)	Length	Weight	Reset function	Cut-off temperature
GA-1MK	Oxygen	0.1 - 0.9MPa	25	72	210	Red signal, pin-lock type	95 deg
GA-2MK	Fuel gas	0.01 - 0.13	3				

Dry type flashback arrestor for large flow volume of gas manifold and factory piping

BIG TACKLE

Feature

- Flashback / reverse flow prevention with cut-off valve
- One-touch reset type
- For manifold and factory piping
- Parallel use is available for large flow volume



BIG TACKLE-5



BIG TACKLE-10



BIG TACKLE-30



BIG TACKLE-60

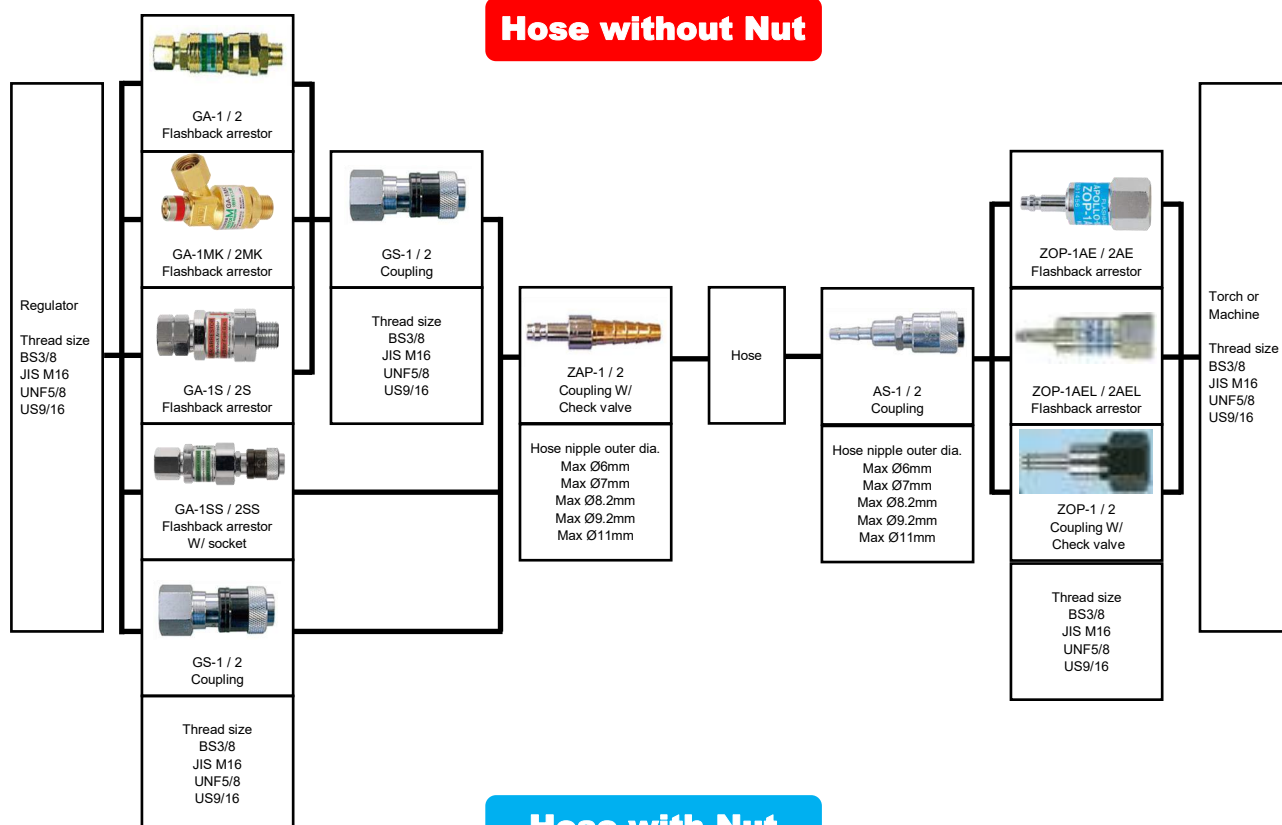


BIG TACKLE-100/100L

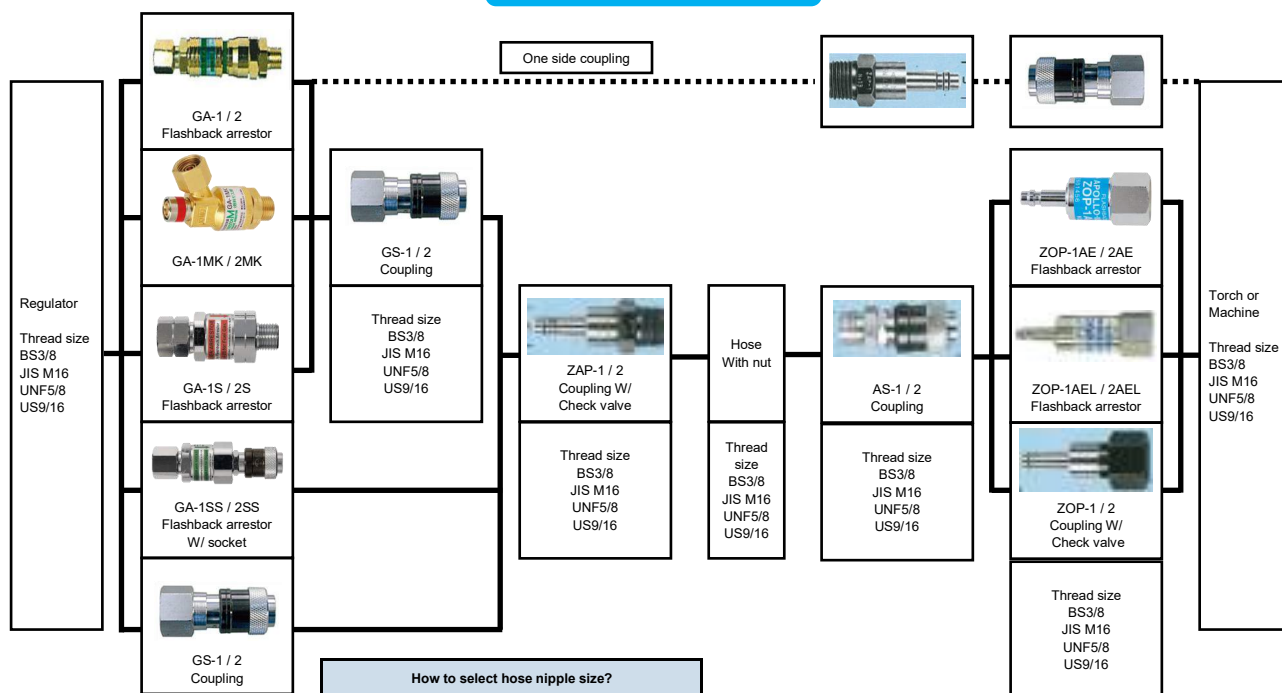
Model	Gas	Operation MAX. pressure (Mpa)	Max. Flow rate (Nm3/h)	Inlet & Outlet size	Length (mm)	Weight (kg)
BIG TACKLE-5	Acetylene	0.13	5	JIS10k x 20A	262	4.5
	Propane	0.15				
	LNG	0.3				
BIG TACKLE-10	Acetylene	0.13	10	JIS10k x 25A	335	6.4
	Propane	0.15				
	LNG	0.3				
BIG TACKLE-30	Acetylene	0.13	30	JIS10k x 25A	448	16.6
	Propane	0.15				
	LNG	0.3				
BIG TACKLE-60	Acetylene	0.13	60	JIS10k x 50A	582	38
	Propane	0.15				
	LNG	0.3				
BIG TACKLE-100	LNG	0.3	100	JIS10k x 50A	726	43
BIG TACKLE-100L	Propane	0.15			806	48

Flashback Arrestor / Coupling selection

Hose without Nut



Hose with Nut



How to select hose nipple size?

Hose nipple outer diameter	Hose inner dia.
Max Ø6mm	4mm
Max Ø7mm	6mm
Max Ø8.2mm	8mm
Max Ø9.2mm	9mm
Max Ø11mm	10mm

Following combinations are available

Coupling		Flashback Arrestor	
Model name	Contents	Model name	Contents
ZGSP-1 / 2	GS-1 / 2 + ZAP-1 / 2	ZOSP- 1AE / 2 AE	AS-1 / 2 + ZOP-1AE / 2AE
ZASP-1 / 2	AS-1 / 2 + ZAP-1 / 2	ZOSP- 1AEL / 2 AEL	AS-1 / 2 + ZOP-1AEL / 2AEL
ZOSP-1 / 2	AS-1 / 2 + ZOP-1 / 2	WZO-AE	ZOSP-1AE + ZOSP-2AE
WZG	ZGSP-1 + ZGSP-2	WZO-AEL	ZOSP-1AEL + ZOSP-2AEL
WZA	ZASP-1 + ZASP-2	For other combination, please ask KOIKE.	
WZO	ZOSP-1 + ZOSP-2		

Flashback Arrestor / Coupling Safety Basic

Safety elements for device		
1	SMF	Sintering metal filter stops the flame.
2	PCV	Pressure controlled valve to cut off gas supply at the event of flashback.
3	RSTV	Re-settable function of pressure controlled valve.
4	IDCTN	The indication of cutting off gas supply by pressure controlled valve.
5	CHKV	Check valve stops the reverse gas flow.
6	TCFV	Prevent burnbacks by the thermal cut-off valve.
7	QKCL	Quick – action coupling.

Name	Code	1	2	3	4	5	6	7
		SMF	PCV	RSTV	IDCTN	CHKV	TCFV	QKCL
Sentinel Plus	GA-1	○	○	○	○	○	—	—
UL No.: MH 16462	GA-2	○	○	○	○	○	—	—
Gold Arrestor	GA-1MK	○	○	○	○	○	○	—
	GA-2MK	○	○	○	○	○	○	—
Silver Arrestor	GA-1S	○	—	—	—	○	○	—
	GA-2S	○	—	—	—	○	○	—
Silver Arrestor with Socket	GA-1SS	○	—	—	—	○	○	○
	GA-2SS	○	—	—	—	○	○	○

Apollo Coupling	ZAP-1					○		○
	ZAP-2					○		○

Mini-Tackle	ZOP-1					○		○
	ZOP-2					○		○
Super Sentinel UL No.: MH 16462	ZOP-1A	○	—	—	—	○	—	○
	ZOP-2A	○	—	—	—	○	—	○
Mini-Tackle E-Type	ZOP-1AE	○	—	—	—	○	—	○
	ZOP-2AE	○	—	—	—	○	—	○
Mini-Tackle L-Type	ZOP-1AEL	○	—	—	—	○	—	○
	ZOP-2AEL	○	—	—	—	○	—	○

Sentinel Plus for Machine Torch	GAM-1L	○	○	○	○	○	—	—
	GAM-1	○	○	○	○	○	—	—
	GAM-2L	○	○	○	○	○	—	—

BIG Tackle— 5	○	○	○	○	○	○	—	—
BIG Tackle— 10	○	○	○	○	○	○	—	—
BIG Tackle— 30	○	○	○	○	○	○	—	—
BIG Tackle— 60	○	○	○	○	○	○	—	—
BIG Tackle— 100	○	○	○	○	○	○	—	—



Cutting Series

KOIKE

The ShopPro offers fabricators unprecedented value for small shops

ShopPro



Feature

- All-in-One type of CNC Plasma cutting machine (Water table is ready)
- Low-cost investment for high productivity
- Gantry bridge with dual-side rack and pinion drive
- Simple Operation by touch panel PC
- Easy control software of integrated CAD, CAM and Auto-Programming
- Best match to Hypertherm Powermax series air plasma system (upto 125amp for ShopPro)
- Best match to Hypertherm MaxPro200 air plasma system (upto 200amp for ShopPro XHD)
- Easy machine installation at customer site

Overview

KOIKE ARONSON ShopPro is the company's newest valuepriced, made in America high performance cutting system, offering fabricators premium features in a package compact enough to fit in small shops. Ruggedly built, the ShopPro has the same reliability and accuracy found with all Koike Aronson cutting systems. The ShopPro was developed with the help of feedback of fabricators and metal workers, who demanded a robust feature set at a reasonable price.

The ShopPro was developed with the help of feedback of fabricators and metal workers, who demanded a robust feature set at a reasonable price.

ShopPro	SP0040	SP0018	SP0003	SPXHD0021
Model	ShopPro 4x4	ShopPro 4x8	ShopPro 5x10	ShopPro XHD 5x10
Effective Cutting Area(WxL)	1.2 x 1.2 M	2.4 x 1.2 M	3.0 x 1.5 M	3.0 x 1.5 M
Machine Size w/o CNC(WxL)	2.0 x 1.8 M	3.2 x 1.8 M	3.8 x 2.1 M	4.0 x 2.1 M
Machine weight	600kg	1000kg	1600kg	2000kg
Rack & Pinion Drive System	954 oz-in NEMA-34 Stepper Motors			550 oz-in NEMA-34 Servo Motors
Gear Reduction	3 pcs of Precision Helical 10:1 gearboxes			
Rapid Traverse Speed	25,400mm/min			
CNC Controller	FlashCut CNC 21" Panel PC			

CNC Gas-Fuel Gas & Plasma Cutting Machine at Economical Price

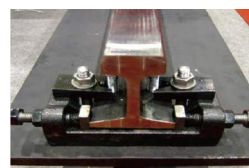
MAXIGRAPH-S/-C



	MAXIGRAPH-S	MAXIGRAPH-C
Rail Span	3000, 3500, 4000mm	3500, 4000mm
Max. Rail Length (Rail Unit: 3 m)	15,000mm	9,000mm
Torch carriage connecting method	Steel Belt	Steel Wire
Machine Structure	Gantry Bridge / Dual Drive (Rack and Pinion)	
Effective Cutting Width	Rail Span -900mm (without Belt-type Ducting)	Rail Span -1,000mm (without Belt-type Ducting)
Effective Cutting Length	Rail Length -1,750mm	Rail Length -1,800mm
Rail Weight (Type)	22kg/m	
Max. Rapid Drive Speed	12,000mm/min	
Input Power Supply	For Machine: 1-phase, AC200/220V±10%, 50/60Hz For Air Plasma : depends on selected model	
CNC	D430	
Max. Number of Torch Block	4 Torches (3 Torches when equipped with Plasma torch)	
Available Plasma System	Air Plasma	

Feature

- Simple CNC on rigid Gantry structure.
- High precision Dual side rack & pinion drive.
- Max. Rail span : 4,000 mm
- Max. 4 sets of Oxy-fuel Gas cutting torches.
- Air Plasma cutting system is available.



22 kg/m Rail



Double Square Column



Steel Belt



Bevel Cutting Attachment

FLEXIGRAPH-Smart



FLEXIGRAPH-Smart – Main Specification

Rail Span	3500, 4000mm
Max. Rail Length (Rail Unit: 5 m)	1,5000mm
Torch carriage connecting method	Steel Bar
Machine Structure	Gantry Bridge / Dual Drive (Rack and Pinion)
Effective Cutting Width	Rail Span –1,000mm (without Belt-type Ducting)
Effective Cutting Length	Rail Length –1,800mm
Rail Weight (Type)	T-type (@5m unit)
Max. Rapid Drive Speed	10,000mm/min
Input Power Supply	For Machine: 1-phase, 220V, 50/60Hz For Plasma : depends on selected model.
CNC	D430
Max. Number of	2 Torches (1 Torches when equipped with Plasma)
Available Plasma System	Air Plasma

Feature

- Simple CNC on simple gantry structure.
- High precision dual side rack & pinion drive.
- Max. Rail span: 4,000 mm
- Max. 2 sets of Oxy-fuel gas cutting torches.
- Air Plasma cutting system is available.
(Max. 1 Plasma + 1 Gas Torch)
- T-type Longitudinal Rail



T-type Rail



Compact Trapezoid Frame



Steel Bar



Twin Torch Attachment

All round cutting machine from thin plate to thick plate

MAXIGRAPH

CNC machine that provides high versatility in cutting from thin plate to thick plate, with reasonable investment. Specialized machine for Oxy-Fuel or Plasma cutting or Combined machine are available.



Overview

Multiples Oxy-Fuel Gas cutting torches (max. 6 torches), and Oxygen plasma system "SUPER-400PROII", which is the highest class plasma power source in the industry, can be equipped, and even the cutting of thick plates is possible, while being a simple machine structure. Moreover, if "XPR-300" is selected, then high level of cutting quality can be implemented in both mild steel and stainless steel. Taking advantage of its light footwork this versatile cutting machine can cut with high precision.

Feature

- CNC control and two wheels drive can be adopted, while low price.
- Maximum number of Oxy-Fuel cutting torches: up to 6.
- Maximum rail span: up to 6,000m.
- Torch mounting method without overhang (steel belt).
- 38kg/m high rigidity rail can also be applied.
- Easy operation by CNC device.

	MAXIGRAPH-DE	MAXIGRAPH-DX
CNC	D600pro	FS-0i
Max. Rapid Speed	12,000mm/min	15,000mm/min
Available Plasma System	Air Plasma	SUPER400ProII / XPR-300
Machine Structure	Gantry Bridge / Double Side Drive	
Drive System	Rack and Pinion	
Rail Span	3,500 to 6,000mm (Increments of 500mm)	
Total Rail Length (MAX 30M)	KSK 4800×Nmm, KET 3000×Nmm	
Effective Cutting Width	Rail Span - 900mm	
Effective Cutting Length	Rail Length -1750mm	
Rail Weight	KSK 37kg/m, KET 22kg/m or 38kg/m	
Input Power Supply	For Machine3-phase, 200/220V±10%, 50/60Hz For plasma 3-phase, 380V±10%, 50Hz	
Torch carriage connecting method	Steel Belt	
Max. Num. Oxy-Fuel Gas cutting Torches	6 Torches (5 torches when equipped with Plasma)	
Cut. Thickness (Oxy-Fuel)	6 to 100mm / to 50mm (Simultaneous 4 Torches)	

[Note]

KSK: KOIKE SANSO KOGYO CO. in Japan

KET: KOIKE ENGINEERING TANGSHAN CO.,LTD. in China

KOIKE standard for highest performance can be shown in all business

VERSAGRAPH

Can be widely used as a specialized machine for Oxy-Fuel/Plasma Cutting or as a combined machine. It is the Cutting Machine which can correspond with the main force options of demand and it is actively used in the market.



VERSAGRAPH-5500ZX 3D-Link
Special green color

Overview

High speed and high precision cutting is implemented by the combination of high rigid gantry and large output servo motor. Oxy-Fuel Gas cutting of plate thickness up to 100mm is possible, and several option such as 3D link, inkjet marker, and drill unit can be mounted on this KOIKE's standard model.

Feature

- All-purpose machine that can correspond to Drill Unit and printing device in addition to the Oxy-Fuel, Plasma, and Water jet.
- Easy to use machine in which carriage operation panel and operation step is a standard equipment.
- The installation of the KOIKE original CNC "KATANA" is possible.
- Plasma underwater cutting is also available.

VERSAGRAPH- Main Specification

Machine Structure	Gantry Bridge / Double Side Drive	
Drive System	Rack and Pinion	
Rail Span	3,500 to 6,500mm (Increment of 500mm)	
Total Rail Length	KSK 4800×Nmm, KET 3000×Nmm	
Effective Cutting Width	Rail Span -900mm	
Effective Cutting Length	Rail Length -2,500mm	
Rail Weight (Type)	KSK 37kg/m or KET 38kg/m	
Max. Cutting Speed	10,000mm/min	
Max. Marking Speed	24,000mm/min	
Max. Rapid Speed	Longitudinal	24,000mm/min
	Transverse	34,000mm/min
Torch Up/Down Speed	20,000mm/min	
Input Power Supply	For Machine & Plasma, 3-phase 200/220V 50/60Hz	
CNC	FANUC FS-30i for 3D bevel specification	
	FANUC Series 0i / KATANA-CX	
Torch carriage connecting method	Steel Belt / Square Steel Bar	
Max. Number of	Steel Belt : 8	
Oxy-Fuel Gas Cutting Torch	Square Bar : 20	
Cut. Thickness (Oxy-Fuel)	6 - 100mm	
	Up to 50mm (Simultaneous 8 Torches)	
Available Plasma System	SUPER-400Pro II / XPR-300 / HiFocus Series	

CNC Oxy-Fuel Gas cutting machine instead of optical tracer

NANOGRAPH

Cutting Machine exclusively for Oxy-Fuel Gas cutting, in which the cutting is performed by NC program instead of optical tracer.



Overview

The Gantry structure provides higher speed compared to the conventional optical tracer. The latest CNC "KATANA" provides high precision cutting and control. Simple CNC cutting machine with single side wheel drive and excellent cost performance.

Feature

- It is a machine with excellent maintainability by single side wheel drive.
- Maximum Number of Oxy-Fuel Gas cutting Torch: up to 6.
- Air plasma / powder marking torch mounting option is possible.
- Torch mounting method without overhang (steel belt).
- 37kg/m rail with high rigidity is adopted.



NANOGRAPH - Main Specification

Machine Structure	Gantry Bridge / Single Side Drive
Drive System	Rack and Pinion
Rail Span	Rail Span 2,500~4,000mm (Increments of 500mm)
Total Rail Length	KSK 4800×Nmm
Effective Cutting Width	Rail Span -900mm
Effective Cutting Length	Rail Length -2500mm
Rail Weight (Type)	KSK 37kg/m
Max. Cutting Speed	10,000mm/min
Max. Marking Speed	10,000mm/min
Max. Rapid	10,000mm/min
Input Power Supply	3-phase 200/220V 50/60Hz
CNC	CNC KATANA-CX
Torch Mounting System	Steel Belt
Max. Number of	6 Torches (5 Torches when equipped with Plasma)
Cut. Thickness (Oxy-Fuel)	6~100mm/~50mm (Simultaneous 6 Torches)
Installed Plasma System	Air Plasma

Flagship model of Oxy-Fuel Gas / Plasma Cutting Machine

MYNUC

The highest performance of KOIKE models, MYNUC is the most versatile option in the cutting field, widely applied to various jobs as a specialized cutting machine of Oxy-fuel Gas or Plasma, or even as a combination of both systems, with several options available.



MYNUC-6000D 3D-Link
Special blue color

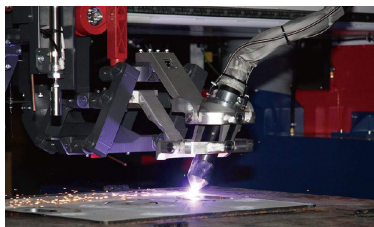
Overview

MYNUC meets in detail several needs of users. CNC cutting machine equipped with the high precision and multi-functional FANUC CNC. MYNUC has several options available, such as 3D-Link (Plasma Bevel Device), Oxy-Fuel Gas Bevel Device, NC Drill, Ink Jet Marker, Dot Marker, Shot Blast etc.

Moreover, MYNUC is a tough cutting machine, which can correspond to rail spans wider than 10m, as well as mounting fume collector, and simultaneous cutting for jobs on oversized steel plates extensively required in the shipbuilding field.

Feature

- Several options/tools available. Machine can be completely customized.
- Most robust machine structure, correspond to rail span up to 12m.
- High dust collection capability performed by fume collector mounted type.
- For heavy user with high occupancy rate.
- Installation of 4 sets of Oxy-fuel Gas Bevel torch block or 2sets of 3D-Link Plasma Bevel device available.



MYNUC - Main Specification

Machine Structure	Gantry Bridge / Double Side Drive	
Drive System	Rack and Pinion	
Rail Span	4,500 to 12,000mm (Increment of 500mm)	
Total Rail Length	KSK 4800×Nmm, KET 3000×Nmm	
Effective Cutting Width	Rail Span -900mm	
Effective Cutting Length	Rail Length -3500mm	
Rail Weight (Type)	KSK 37kg/m or 50kg/m, KET 38kg/m	
Max. Cutting Speed	10,000mm/min	
Max. Marking Speed	36,000mm/min	
Max. Rapid	Longitudinal	54,000mm/min
Speed	Transverse	36,000mm/min
Torch Up/Down Speed	20,000mm/min	
Input Power Supply	3-phase 200/220V 50/60Hz	
CNC	FANUC Series 31i / FANUC Series 30i / FANUC Series 0i	
Torch Mounting System	Steel Belt / Square Bar	
Max. Number of Oxy-Fuel Cutting Torches	Steel Belt : 12 Square Bar : 20	
Cut. Thickness (Oxy-Fuel)	6 to 250mm Up to 50mm (Simultaneous 20 Torches)	
Installed Plasma System	SUPER-400Pro II / HPR-260XD / HiFocus Series	

CO₂ Laser cutting machine oscillator mounted on the carriage

LASERTEX

KOIKE original CO₂ Laser Cutting Machine in which the Oscillator is mounted on the carriage. Even if LASERTEX fixed optical path length device is not used, the optical path length is kept fixed, providing stable laser beam transmission and cutting quality.



Overview

Original KOIKE's structure of Σ box and oscillator mounted on carriage provides stable optical axis and optimum path length improving the cutting performance. The Σ box (KOIKE patented technology) fixes the optical components of optical path in the fixed box, avoiding any influence, such as deflection of structure. The pressurized clean air structure protects the optical component to become dirty, keeping the internal environment clean for a long period, which not only stabilize the optical axis but also suppresses the power loss.

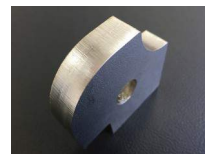
After the cutting is completed, the dry running is started while the torch is raising, then the torch will start lowering just before reach the next piercing point (Frog control), reducing the time required for move. Torch UP/Down movement is improved, corresponding to the optimal position distance, reducing the risk of nozzle/torch touch the steel plate. Moreover, due to the improvement of sequence, the piercing operation was speed up, which contributes with the improvement of productivity on the process of small parts and parts with large quantity of hole piercing.

Feature

- Shortened time of external beam axis adjustment in the Σ box.
- Corresponds to wide span in Σ box.
- Optical axis deviation relieved for mounted oscillator.
- The torch Up/Down speed was improved to 20m/min.
- Productivity improvement by optimization of Frog Control.
- 3 types of piercing methods available, suiting up each application

LASERTEX - Main Specification

Model		LASERTEX-XX20Z	LASERTEX-XX40Z II	LASERTEX-XX60Z II
Oscillator		FANUC C2000i	FANUC C4000i	FANUC C6000i
Rating Output		2,000W	4,000W	6,000W
Type of Laser		Carbon Dioxide Laser		
Structure		Oscillator on Carriage type / Σbox		
CNC		FANUC Series 31i		
Rail Span		4,500 to 6,500mm (Increments of 500mm)		
		※Extensible up to 8,500mm as special option		
Rail Length		4800×Nmm (MAX.50,000mm)		
Effective Cutting Width		Rail Span -1,000mm		
Effective Cutting Length (mm)		Rail Length - 3,000	Rail Length - 3,000	Rail Length - 4,000
Max. Cutting Speed		10,000mm/min		
Max. Rapid Speed		24,000mm/min		
Max. Torch Up/Down Speed		Manual Feed : 3,000mm/min		
		Automatic Operation : 20,000mm/min		
Cutting	Mild Steel	3.2 to 16mm	3.2 to 22mm	3.2 to 25mm
Thickness	Stainless Steel	1.5 to 8mm	1.5 to 12mm	1.5 to 25mm



12kW DBC Fiber Laser cutting machine

FIBERTEX-Zero Series

The world's first fiber laser cutting machine equipped with DBC (Dual Beam Control) oscillator. The best fiber laser cutting machine in KOIKE history will meet the concerns of all users.



What is DBC?

The total output beam can be divided into two beams; the center beam and the outer circumference beam. In addition, the output of the center beam and the outer circumference beam can be adjusted. Therefore, various beam shapes can be formed. The use of the central beam only can be the same performance as single-type fiber laser beam. The use of outer circumference beam together with the center beam can gain improved absorption on steel plate material, and the beam diameter can be expanded without impairing the beam quality. The simultaneous use can improve the discharge of molten metal in kerf, which can be applied to a wide range of plates from thin plates, medium-thick, and thick plates. Also, difficult-to-cut material, or rusted-surface plate can be cut without pre-burning. Bevel cutting unit can be equipped, which enables to cut by bevel cutting.

Feature

- **IPG 12kW DBC oscillator** is equipped.
- By adopting new torch head for fiber laser named as **"K torch"** and DBC dedicated nozzle, the cutting performance of DBC fiber laser has been enhanced to the utmost limit.
- Cutting accuracy has been improved by increasing the rigidity of the machine body.
- Laser cutting has been considered as difficult for cutting SN 490 C material; however, 12kW DBC can cut SN 490 C material with stable cutting with plate thickness of 25 mm.

FIBERTEX-Zero - Main Specification

Model	New FIBERTEX-xx12 Zero	
Oscillator	IPG YLS DBC	
Rating Output	12000W	
Structure	Gantry Bridge / Stand-Alone Oscillator	
CNC	FANUC Series 31i	
Rail Span	3500~6500mm (Increments of 500mm)	
Rail Length	KSK 4800×Nmm (MAX.30000mm)	
Effective Cutting Width	Rail Span -1250mm	
Effective Cutting Length	Rail Length -4000mm	
Max. Cutting Speed	10000mm/min (High Speed Type : 24000mm/min)	
Max. Rapid Traverse Speed	24000mm/min (High Speed Type : 36000mm/min)	
Max. Torch Up/Down Speed	Manual Feed : 3000mm/min Automatic Operation : 20000mm/min	
Cutting Thickness	Mild Steel	3.2~28mm
	Stainless Steel	1.5~30mm



New torch head for DBC fiber laser named as **"K torch"**



12kW Fiber Laser cutting machine
Material: SN490C Thickness 25mm

CNC Controllers

They are full featured, shaped cutting controls incorporating the latest advancement in Graphical User Interface and Motion Control Technology. Our pre-programmed shape library allows you to create over 300 custom shapes at your fingertips. Reduce programming errors and assure increased repeatability and accuracy at faster processing speeds.

D430



- 10.4" TFT color LCD display
- 47 Standard Patterns
- 2 Axis control board
- EIA program format
- Main HDD 256MB
- USB Memory Port
- MDI (Manual Data Input)
- 64MB CPU
- Max. 150,000 lines Program Code
- Max. 4MB Single Code File
- FLMC-F2300T/A Operating system

D600 Pro



- 15" high light LCD
- More than 90 standard graphics libraries
- Build-in touch-screen
- Automatic identification of EIA
- Code and ESSi code
- Support FLCAM, Fast cam,
- Sigma Nest and other nesting software.
- Support suffix TXT, CNC, NC, MPG, B3
- and other G Internal storage: 4G
- Hard disk: 128G solid state
- Linux real-time operating system Windows 10

KATANA-CX



- 15" TFT color LCD display
- Touch Screen function
- 64 Standard Patterns
- MAX. 8 Axis control board
- EIA program format
- RAM memory capacity 4GB
- CF 16GB Solid State Device.
- USB Memory Port x 2
- Local Area Network Port
- Windows Operating System

FANUC FS-0i



- 15" TFT color LCD display
- Touch Screen function
- 60 Standard Patterns
- MAX. 4 Axis control board
- EIA program format
- SSD 8GB: System 2GB, Data 6GB
- USB Memory Port
- MDI (Manual Data Input)
- Local Area Network Port
- Windows-10 Operating System

FANUC FS-31i



- 15" TFT color LCD display
- Touch Screen function
- 60 Standard Patterns
- MAX. 3&4 Axis control board
- EIA/ESSi program format
- SSD 8GB: System 2GB, Data 6GB
- USB Memory Port
- MDI (Manual Data Input)
- Self Diagnostic Alarm Devices
- RS-232C Port for Ext. Devices
- Local Area Network Port
- Windows-10 Operating System

FANUC FS-30i



- 15" Color LCD display
- Touch Screen function
- 60 Standard Patterns
- MAX. 5 Axis control board
- EIA/ESSi program format
- SSD 8GB: System 2GB, Data 6GB
- USB Memory Port
- MDI (Manual Data Input)
- Self Diagnostic Alarm Devices
- RS-232C Port for Ext. Devices
- Local Area Network Port
- Windows-10 Operating System

Highest level Oxygen Plasma in the world.

~~SUPER-400Pro II / SUPER-300Pro II α~~

Latest developed original plasma unit of KOIKE that commercialized oxygen plasma for the first time in the world. By the combination of many years of plasma cutting know-how and the state of the art technology, the SUPER series continues to evolve.

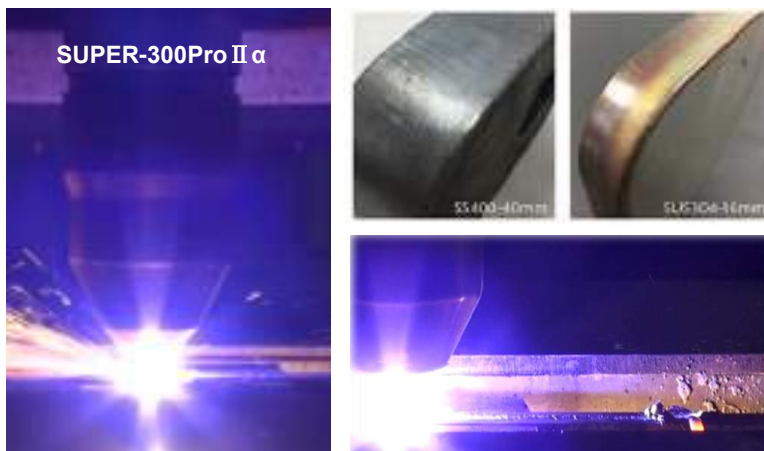
Overview

The plasma unit that provides excellent usability in a variety of cutting application due to the automatic cutting parameters setting system connected to CNC cutting machine.

Gas pressure is from 0.5 to 0.7Mpa and can be supplied by general piping. Life time of consumables and cutting quality were improved compared to the previous model. In addition, the anti-magnetic arc blow function improves due to the review of consumables structure, and cutting is also possible under magnetic force of 300mT. (under the test environment in the company).

New function of jet pierce that perform safe piercing was added.

High pressure gas is injected from the orifice of the torch tip, blowing the slags during the piercing. (Patent No. 3751728)



SUPER-400ProII/Super-300ProIIα Main Specification

		SUPER-400Pro II	SUPER-300Pro Iia
Power Supply Model		KP-4055	KP-3055
Input Power Supply		3-phase 200/220V 50/60Hz 3-phase 380/400/440V 50/60Hz	
Rated Input		119kVA	89kVA
Rated Current		400A	300A
Plasma Gas		O2(Mild Steel)/ N2(Stainless Steel)	
Shield Gas		O2/Air(Mild Steel)/ H35(Stainless Steel)	
Cutting	Mild Steel	Max. 50 mm	Max. 40 mm
Thickness	Stainless Steel		
Severing Cut		80 mm	
Cutting Groove		I-CUT、 V-CUT、 Y-CUT	I-CUT

Feature

- Automatic cutting parameter setting.
- Improvement of anti-magnetic arc blow function.
- Improved life time of consumables.
- High quality cutting from thin plate to thick plate.
- Improvement of piercing performance.
- Improvement of small hole cutting performance.
- Bevel cutting of Stainless Steel and Mild Steel.
- Tool-less consumable exchange structure.

XPR-300(Hypertherm Inc.)

The most significant advance in mechanized plasma cutting technology, which redefines what plasma can do by expanding its capabilities and opportunities.

Overview

The XPR advances HyDefinition® cut quality by blending new technology with refined processes for next generation, X-Definition™ cutting on mild steel, stainless steel and aluminum.

Consumable life time increases of over 40% compared with previous systems



Feature

- Industry-leading X-Definition cut quality.
- Optimized Productivity and Reduced Operating Cost.
- Engineering System Optimization and easy-of-use features.
- Advanced Process Control and Delivery.
- Chiller unit is integrated.

XPR-300 - Main Specification

Model	XPR300	
Power Supply Model	Core / OptiMix	
Input Power Supply	3-Phase, 200/220V, 50/60Hz or 380/400/440V, 50/60Hz	
Rated Input	75kVA	
Rated Current	300A	
Plasma Gas	O2, N2 (Mild Steel)	F5, H2/N2/Ar (Stainless Steel)※
Shielding Gas	O2 / Air (Mild Steel)	N2 (Stainless Steel)※
Piercing Thickness	Max. 50mm (Mild Steel) (Core Specification: 45mm)	Max. 38mm (Stainless Steel)※
Cutting Thickness	80mm (Mild Steel)	75mm (Stainless Steel)※
Cutting Shape	I-Cut	

※Stainless Steel Mix Gas specification is available only with OptiMix Specification.

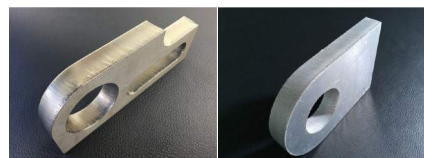
New Standard for the Stainless Steel Cutting

HiFocus Series

The excellent quality achieved in stainless steel cutting by HiFocus Series was not seen in plasma cutting till now. HiFocus series sets new standards for plasma cutting of stainless steel.

KOIKE SUPER PLASMA HiFocus Series - Main Specification

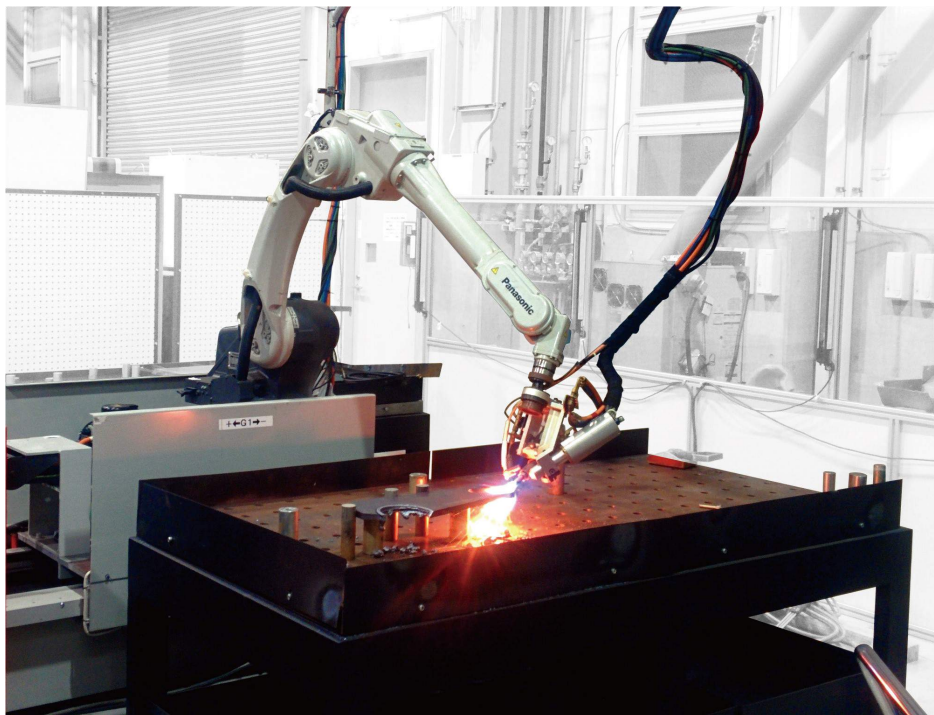
Power Supply	Power Supply Model		HiFocus 280i neo	HiFocus 440i neo	HiFocus 600i neo
	Input Power Supply		3-phase 400/440V 50/60Hz 3-phase 200/220V 50/60Hz (only 280i and 440i)		
	Rated Input		67kVA	127kVA	180kVA
	Rated Current		280A	440A	600A
	Current Adjustable Range		10~280A	10~440A	10~600A
	Usage Rate		100%		
	Plasma Gas		Ar/H2/F5 (N2 95%+H25%)		
	Shield Gas		N2		
	Working Pressure		0.9~0.99MPa		
	Outline Dimension (W×L×H)		680×1030×1450mm		680×1030×1450mm ×2 units
Torch	Cutting Thickness (Stainless Steel)	Dry	2.3~50mm	6~100mm	6~150mm
		Under Water	10~30mm	10~70mm	10~70mm
	Torch Model		PerCut 450M		PerCut 611
	Max. Working Current		440A		600A
	Usage Rate		100%		
	Cooling System		Water Cooling (Circular)		
	Torch Lead Length		1.5m		
	Outline Dimension		φ57×450mm		



New proposal of Oxy-Fuel Gas Bevel Cutting

BEVEL MASTER

Specialized in the flame bevel cutting of steel shapes commonly used in the construction machinery and shipbuilding industry. By combining a work piece touch sensor the part position deviation can be corrected.



Overview

High quality bevel cut is provided even in shapes that includes arcs by using the 6 axis articulated robot. KOIKE's 2D CAD/CAM software "KAP" is selected in this system, and program for the robot can be created from the parts data. By connecting with KAP interoperability achieved is similar to a NC Cutting Machine, solving the problem of decrease of production efficiency due to the teaching work in the conventional robot operation.

BEVEL MASTER - Main Specification

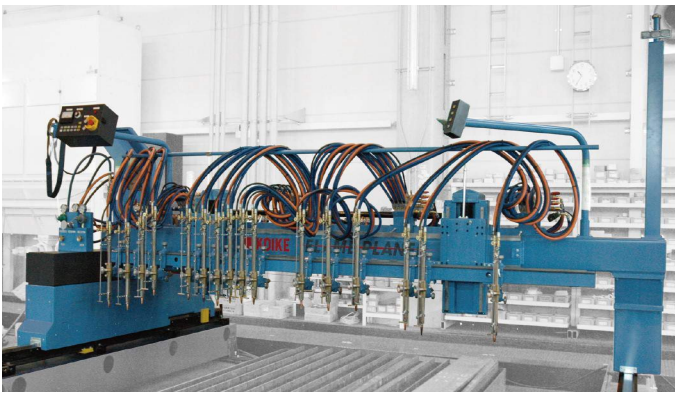
Structure	Fixed Type	Slider Type	Overhanging Type
Robot Type	Panasonic TL-1800GIII		
Touch Sensor	Sensing Probe Type		
Number of Motion Axis	6-axis	7-axis	
Effective Cutting Range	1000×1000mm	1000×4000mm	2000×6000mm
Max. Cutting Thickness	50mm (Please consult in case of thick plate more than 50mm)		
Max. Bevel Angle	45° Positive/Negative		
Fuel Gas for Cutting	LPG or SUPERCUT H (Hydrogen mixed gas)		
Hi/Low Switch	Yes		

Feature

- By adopting the 6 axis articulated robot, high quality and automated curved bevel cutting is possible.
- Off-line automatic programming is possible, it is perfect choice for multi-product production.
- Cutting table with pins is used to support the work piece, there is no need for any work piece jig.
- The position deviation at the time of workpiece setting is corrected by mounting of the touch sensor.
- Cutting of large work piece is also possible by using the Traveling Slider and Overhanging System.
- Air Plasma cutting is also available.



Other cutting machines



Multi Oxy-Fuel Gas Torch Straight Line Cutting Machine

FLAME PLANER

FLAME PLANER - Main Specification

Machine Structure	Gantry Bridge / Single Side Drive	
Drive System	Rack and Pinion	
Rail Span	4000 to 12000mm (Increments of 500mm)	
Rail Length	4800×Nmm	
Effective Cutting Width	Rail Span -1000mm	
Effective Cutting Length	Rail Span 4000 to 5500mm	Rail Length -3400mm
	Rail Span 6000 to 9000mm	Rail Length -4200mm
	Rail Span 9500 to 12000mm	Rail Length -5200mm
Rail Weight (Type)	KSK 37kg/m or 50kg/m	
Max. Cutting Speed	1200mm/min	
Input Power Supply	1-phase 100/110V, 3-phase 200/220V 50/60Hz	
Max. Number of torch	40 Torches	



CNC Piercing hole drill specialized machine specialized in piercing holes where cutting is necessary.

ADS

ADS - Main pecification

Machine Structure	Gantry Bridge / Single Side Drive	
Drive System	Rack and Pinion	
Rail Span	4000 to 6500mm (Increments of 500mm)	
Rail Length	4800×Nmm	
Rail Weight (Type)	37kg/m	
Ma. Drive Speed	12000mm/min	
Input Power Supply	3-phase 200/220V 50/60Hz	
Max. Processing Thickness	200mm(mild steel)	
Hole diameter	10mm	
Machining Time	Thick. 100mm	Approx. 50sec.
	Thick. 150mm	Approx. 70sec.



KOIKE's specialized marking machine

KAMS

KOIKE Auto Marking System (KAMS) is a specialized marking machine created for users that perform various marking work.

KAMS - Main Specification

Machine Structure	Gantry Bridge / Double Side Drive	
Drive System	Rack and Pinion	
Rail Span	4000 to 6500mm (Increments of 500mm)	
Total Rail Length	4800×Nmm	
Rail Weight	37kg/m	
Maximum Marking Speed	48000mm/min	
Input Power Supply	3-phase 200/220V 50/60Hz	
Character Type (PJ-1B, PJ1B (Type-0))	Alphanumeric / Katakana / Symbols (27 symbols)	
Max. Character Size (W×H)	48×72mm (PJ-1B-0) 36×36mm (PJ1B (Type-0))	
Printable Surface Treatment	Black Scale / Zinc Primer / Wash Primer	

NC Automatic Programming System

KAP 8030N Ver.5

CAD/CAM Software developed based on the rich experience of KOIKE in Oxy-Fuel gas, plasma and laser cutting. Special processes such as Corner Process, Bevel Cutting, Water Drainage Cutting can be configured by adding the customer's know-how and achieving product accuracy. It can also be connected with production control, operation management, steel stock management system.



KAP8030N Ver.5

Free Parts Shape Creation	Automatic Sequence
DXF/DWG Conversion	Common Line Cutting
Basic Shapes Pattern(55 kinds)	Cut-In / Out Pattern Creation
Automatic Dimension Display	Multiple Torch Cutting Route Creation
Automatic Nesting	Cutting Route Interference Check
Yield Display	Remnant Plate Processing Management
Min. Required Mother Material Indexing	NC Date Transfer
CSV Date Output	

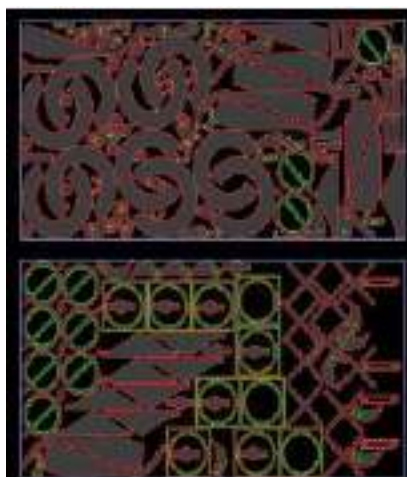
Feature

- System maximize the Cutting Machine processing performance.
- Fine cutting is achieved meeting the customer needs.
- Special cutting such as bevel cutting is available.
- Cutting Machine can be connected to cutting schedule management and performance management.
- Various traceability enhancement is available.

Display Layout



Auto Nesting



The navigation system is original patented technology by KOIKE

Navigation System

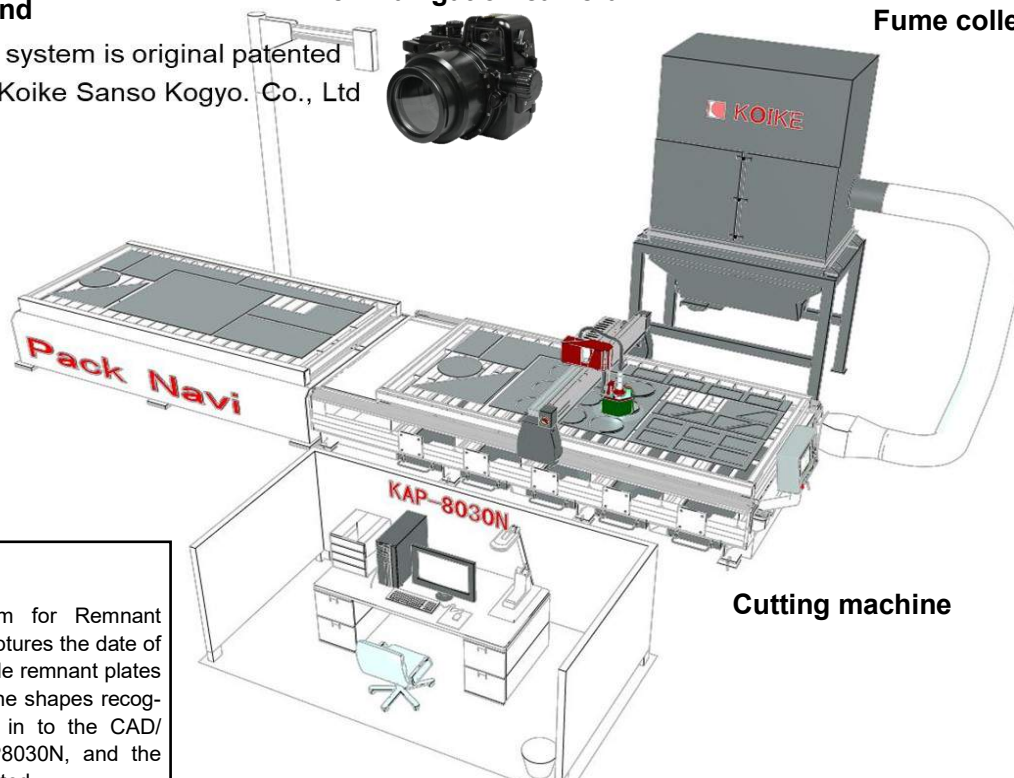
Effective use of remnants reduce material scrap ratio and improve profit. Scrap ratio is significantly reduced from conventional single part cutting. By cutting remnants/plural plates at a same time, working efficiency is improved.

Navigation stand

The navigation system is original patented technology by Koike Sanso Kogyo. Co., Ltd

New navigation camera

Fume collector



Overview

Navigation System for Remnant Plate Processing captures the data of shapes of the multiple remnant plates by a camera, then the shapes recognized are imported in to the CAD/CAM software KAP8030N, and the NC date can be created.

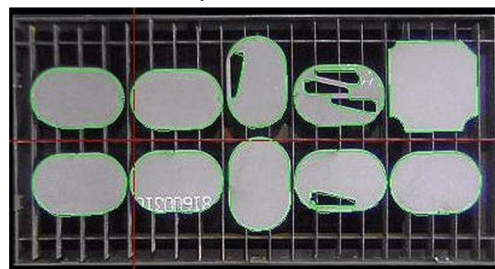
Feature

- From the image the value is coordinated and multiple remnant plates can be processed by CNC cutting machine at once.
- Remnant plates shape and position are accurately recognized, and the nesting of cutting products can be optimized.
- Profit increases significantly due to yield improvement and shortened processing time.
- Production efficiency can be improved combining the Stocker and Conveyor Line.
- Products tracking and management can be achieved by connection with Product Control System, also for remnant plate.

Remnants setting & Shooting



Remnant's shape extraction



Nesting & data creation



NC data transfer & cutting



General	Oxy-Fuel Cutting	Oxy-Fuel Gas Cutting Torch
<p>Scrap Hand Cutting Torch</p> <p>Hand Cutting Torch such as skill cut 250 is equipped and gas outlet is installed in the on-board piping of cutting machine.</p> <p>Jet Air Cleaner</p> <p>Air gun and hanger for cleaning is installed on cutting machine.</p> <p>Multi-point Remote Controller</p> <p>Remote controller, which can perform remote operation such as JOG Feed, Torch up and down, Start, Stop, Reverse by using radio waves, is installed.</p> <p>Illuminating Lamp</p> <p>2 Eye lamps of 200W are installed at the lower parts of the frames.</p> <p>Cold Area Specification</p> <p>Heater is equipped in the operation panel and control panel.</p> <p>Collision Prevention Function</p> <p>(Backward/Forward)</p> <p>When other machine is driven over the common rail, the sensor for prevention of mutual collision is installed. When this sensor is activated, the machines will be stopped.</p> <p>Rail Air Blow</p> <p>Before and after the roller is installed a device to blow away the dust and iron powder on the rail.</p> <p>Solenoid Valve for Rail Air Blow</p> <p>The air is jetted by the solenoid valve control connected with the longitudinal drive unit.</p> <p>Rail Wiper Brush</p> <p>The dust on the rail surface is removed by the brush which is rotated by a motor. The motor does not rotate when machine is not moving in the longitudinal direction.</p> <p>Blinking Warning Light</p> <p>The Alarm (red), Power-on (yellow), Automatic Operation (green) conditions are displayed at the LED light of 3 stages.</p> <p>Safety Device of Photo Sensor Type</p> <p>1 pair of photo sensor type safety device is installed at machine's front and rear. If the photo sensor is shielded then there is an alarm and the machine is paused.</p> <p>Intrusion Prevention device of Wire Type</p> <p>1 par of Wire type safety device is installed at machine's front and rear. If the wire is pulled then there is an alarm and a buzzer alarm, and the machine is paused.</p> <p>Tape Switch</p> <p>Tape touch switch is installed in the most protruding corners at machine's front and rear. When this switch is pressed then the machine is emergency stopped and there is a buzzer alarm.</p> <p>Fluid Shut Off Valve</p> <p>Fluid solenoid valve is installed on the machine. When there is an NC alarm or a pressure drop, the solenoid valve is closed and the fluid is stopped.</p> <p>Operation Hour Meter</p> <p>An instrument which can display the using time of cutting oxygen is installed on the operation panel.</p>	<p>Thick Plate Cutting Treatment</p> <p>Following units changed as insulation measures for thick plate cutting.</p> <ul style="list-style-type: none"> - Machine Saddle is considered as High Saddle type. - Insulation plate is installed to the bottom surface of frames, saddle side surface and the operation panel side. - Axial fan installed between frame bottom surface and insulation plate. - Gas operation panel is changed to large flow rate type and the on-board piping is changed to loop type. - Distribution hose is considered as heat-resistant hose. <p>Piercing for Thick Plate</p> <p>At the time of starting the cutting, the jet of the cutting oxygen pressure and the torch height are automatically adjusted and optimized. Normally for a piercing capacity of 25mm, safe and certain piercing can be done up to maximum of 100mm.</p> <p>Quick Torch</p> <p>It is a torch which the cutting tip can be exchange by one touch. FP-A torch and FP-C torch correspond to this.</p> <p>Hi-Low Regulator</p> <p>The High-Low switching function that shortens the preheating time piercing has been added in the gas regulator unit of standard type.</p> <p>Motorized Lifter Device (HDH)</p> <p>The torch up and down operation is possible by program commands or the operation panel switch. The up and down stroke is 100mm. The up and down speed is 870mm/min (in case of 60Hz) or 720mm/min (in case of 50Hz).</p> <p>Forward/Backward Adjuster for Torch</p> <p>At the time of align the cutting tip with the steel plate edge, the torch can be adjusted in the forward and backward by the handle. The forward and backward adjustment stroke is 50mm. In case of square steel type, the torch minimum interval becomes 125mm.</p> <p>Water Spray Device (Ring Type)</p> <p>The solenoid valve for watering connected with the cutting oxygen is opened and closed, during the cutting, cooling the steel plate surrounding the cutting tip by the water spray.</p> <p>Auto Ignition Device</p> <p>This device auto ignite the cutting torch and marking torch by program command or the switch of the operation panel. Since the model of auto ignition device changes according to the gas type, the confirmation of gas type is necessary.</p> <p>Capacitance Height Sensor</p> <p>It is a electrostatic capacity type sensor installed at the motorized torch up and down device in which the distance between the cutting tip and the steel plate is maintained to a constant by the detection of the steel plate surface.</p> <p>Square Steel Bar</p> <p>It is a torch carriage connecting method which becomes the guide for shifting to the left and right. The corner connected to the carriage can hold multiple torch units.</p> <p>Steel Belt</p> <p>Multiple torch units are clamped to the steel belt to be rotated in the transversal stroke direction. It is a torch mounting system in which isomorphic cutting and symmetric cutting is possible in the direction of the clamp.</p> <p>Torch Select I</p> <p>By the selection of switch on the operation panel, the cutting oxygen and the operation of motorized torch up and down device are controlled. Only the selected torch performs the operation.</p> <p>Torch Select II</p> <p>By the selection of switch on the operation panel, preheating oxygen, preheating gas, auto ignition and water spray are controlled. Only the selected torch performs the operation</p>	<p>Standard Torch (300L/400L/500L)</p> <p>It is a Tip Mixing gas cutting torch for plate thickness up to 150mm. Different lengths of 300mm/400mm/500mm are lined up depending on the cutting thickness and machine structure.</p> <p>FP-C Torch</p> <p>It is a Tip Mixing gas cutting torch for plate thickness up to 250mm.</p> <p>6023 Torch</p> <p>It is a Tip Mixing gas cutting torch for plate thickness up to 350mm.</p> <p>EPOCH 300</p> <p>It is a Out Mixing gas cutting torch for plate thickness up to 300mm. Excellent heat resistant and prevent backfire.</p> <p>EPOCH 600</p> <p>It is a Out Mixing gas cutting torch for plate thickness up to 300mm. Excellent heat resistant and prevent backfire</p>
<div>Plasma Cutting System</div> <p>Torch Release Mechanism (Magnet Type)</p> <p>In the case of the plasma torch collision with the plate, this function detects that the plasma torch is detached from the torch holder.</p> <p>Forecast Device for Plasma Electrode Life Time</p> <p>The time for plasma cutting and the number of piercings are integrated and measured. % (percentage) of the remaining life of the electrode time is shown.</p> <p>Detection Device for Plasma Electrode Life Time</p> <p>(Dr.ElecV)</p> <p>It is a function that detects the breaking/ usage condition of the plasma electrode by monitoring.</p> <p>Initial Height Setting Device (IHS)</p> <p>The initial height can be set by the contact of torch or dedicated probe with the steel plate. (Torch-contact type, air cylinder type)</p> <p>Spray Device for Spatter Deposition Inhibitor</p> <p>When small circle, small parts are to be cut, in order to prevent the adhesion of spatters which can be a problem at the time of piercing, it is a device for spraying spatter deposition inhibitor in the piercing position periphery on the steel plate before piercing.</p> <p>Shield Curtain for Plasma Arc</p> <p>Shielding curtain is installed in the plasma torch periphery and the arc at the time of plasma cutting is prevented from leaking to the outside.</p> <p>Plasma Marking</p> <p>Draw a marking line on a steel plate is possible by the plasma arc.</p>		

Laser	CNC	Cutting Table / Fume Collector / Ancillary Equipment
<p>Frog Control</p> <p>After the cutting is completed, the dry run is started by raising the torch, then this function will start the lowering before reaching the next piercing point.</p> <p>AI Contour Control</p> <p>In case of Laser making and pre-burn process, AI contour control that performs high precision processing is carried out by commanding an arbitrary range on the program.</p> <p>Skip Function</p> <p>This function moves automatically by dry operation to the next piercing point in case of touch alarm during cutting. Valid/ invalid can be selected by the selection switch on the operation panel.</p> <p>Retry Function</p> <p>This function automatically returns from the place of occurrence in case of cutting alarm is generated during automatic operation. It is also possible to skip to the next cutting start point by the skip function, when the cutting alarm is generated continuously.</p> <p>Laser Marking</p> <p>Clear marking line can be drawn by the laser beam on the steel plate by oxygen assist gas or nitrogen assist gas.</p> <p>Nitrogen Cutting for Stainless steel.</p> <p>Stainless steel can be cut with high quality by the nitrogen assist gas.</p> <p>Spike Piercing</p> <p>Spike piercing irradiates high output pulse laser while controlling the oxidation reaction. Small hole can be opened in a short time. It is an excellent piercing function for mild steel of KOIKE original.</p> <p>HSQ Piercing</p> <p>This piercing function can open smaller hole by optimizing the focus, nozzle height, inner assist gas pressure. The plate thickness for mild steel is 22mm.</p> <p>Burning Detection</p> <p>It is a sensor that monitors the cutting. It cannot be used in high speed cutting (in case of CW cutting). The burning alarm becomes effective when the switch of the operation panel "Burning Sensor Enable" is selected. (Detection plate thickness: SS400/SUS304 MAX.16mm, possible only for CO2 laser)</p> <p>Selection of Scheduled operation</p> <p>For cutting, laser marking, pre-heat burning, and line marking, etc.</p> <p>the processing order can be selected which one to be executed at the time or after setting by scheduled operation</p> <p>Pre-burn Function</p> <p>The processing conditions for the pre-burn are provided. This function burns the surface of cutting path, in order to improve the cutting performance of painted coating steel plate or steel plate with surface bad condition.</p> <p>CCD / ITV camera / monitor with switch</p> <p>The image of the 180° range on the backside of the machine can be seen by a monitor for safety.</p> <p>Push Air / Exhaust Fan (FIBER LASER Machines only)</p> <p>Air discharge device for sending fume to the exhaust and Fan to exhaust fume outside out of the machine are installed.</p> <p>DVR function</p> <p>Recording device can record video capture taken by CCD / ITV camera. The recorded video can be seen any time</p> <p>Cutting table only for FIBER LASER Machines</p> <p>The reflection of fiber laser is measured. In the limited access area for Fiber laser, KOIKE original cutting table is installed for safety.</p>	<p>Coordinate Rotation Function</p> <p>In accordance with the Gas Torch cutting tip and Laser Spot the NC device can calculates the inclination of steel plate from the rail by the input of 2 points at the edge of steel plate. According to the calculation results, the shape commanded by the program can be rotated.</p> <p>Axis Name Modification</p> <p>Change of the axis name ($\pm X/Y$).</p> <p>Optional Block Skip</p> <p>By ON of the optional skip switch of the operation panel, the block that includes the Slash code "/" or "/1" in the program can be ignored.</p> <p>Schedule Operation Function</p> <p>By memorizing the position of each steel plate and its angle inclination relative to the longitudinal rail, the parts processing, such as cutting, can be automatically and sequentially performed continuously. The maximum of 20 steel plates can be placed on the cutting table.</p> <p>Mirror Image Function</p> <p>When the mirror image function is enabled, the movement of the horizontal axis will be opposite to the program command.</p> <p>Manual Absolute</p> <p>In case of absolute command, the CNC can select whether the amount of movement by manual operation will be added on the coordinate values.</p> <p>KFCNC Operation Counting Function</p> <p>This function detects the signals such as cutting oxygen, pre-heating, marking powder, plasma arc, marking pre-heating, and measures the operation time and sends the combined data to the host computer through the network. Moreover, the current status of the above mentioned signal is displayed on the CNC screen by the screen operation.</p> <p>Pattern input function</p> <p>The cutting can be performed by the built-in pattern shapes of NC device.</p> <p>Marking</p> <p>Powder Marking Device (White)</p> <p>This device perform white line marking by thermal spray of zinc powder. At the time of steady running, the marking line width will be within 1.2mm.</p> <p>Powder Marking Device (Blue/Red/Yellow)</p> <p>This device perform line marking by fusing glass particles with pigments. The color can be selected from 3 colors; blue, red and yellow.</p> <p>Pen Marking Device</p> <p>It is a line marking device in which the marking is done by a felt-tip pen.</p> <p>Inkjet Marker</p> <p>It is a device which can write various characters at a speed of 20m/min with different sizes, and marking of lines of approximate line width 0.5mm by using the ink jet printer. The marking colors can be selected from 6 colors; white, black, blue, green, yellow and red.</p> <p>Dot Printing Marker</p> <p>It is a dot printing device which forms the characters by controlling the ON/OFF of the multiple holes that discharge the paint.</p> <p>Dot Line Marker</p> <p>It is a dot line marking which can draw lines with width approximately 1mm. For the WB type color can be switched between 2 colors blue/ white.</p>	<p>Palette Changer</p> <p>If there is a Palette Changer, after the completion of cutting, the waiting palette is send to the cutting stage and it can be immediately moved on to the next cutting.</p> <p>Combining with the Navigation Camera, in connection with Stocker the automation progresses is facilitated, and the operation rate of cutting machine can be maximized.</p> <p>Stocker</p> <p>It is a hierarchical rack that collects the palettes in which the steel plates and remnant plates processing is arranged. By combining with the Palette Changer, the palettes are fed in the cutting stage, and the cutting process of multiple steel plates can be automated and scheduled.</p> <p>Housing</p> <p>It is a housing for covering of the cutting area aiming to improve the work environment, providing measures such as shielding, sound proof and dust control. The most suitable structure is suggested according to customer demand and target machine.</p> <p>ECO BOX</p> <p>If Fume Collector has the ECO BOX attached, when the plasma main arc is ON the Fume Collector is started and when the main arc is OFF it is turned off for energy saving operation and power consumption reduces.</p> <p>Belt Duct Type Fume Collector</p> <p>The suction hood connected with the cutting machine collects the fumes by constantly following the cutting area. The suction hood and suction duct are connected and sealed by the belt. In this fume collection system the optimal suction space is achieved by maintaining a constant water level in the cutting table, and the maximum of the fume collection capability is exerted even in a wide cutting area.</p> <p>Damper Type Fume Collector</p> <p>Multiple fume suction ports provided in the side walls of dry cutting table which opens and closes in accordance with the cutting area. It is a dust collection system which exerts constantly high fume collection capability.</p> <p>Push Fan</p> <p>A fan for push the fumes to the fume collection duct is installed in the cutting machine.</p> <p>Push Air</p> <p>A air discharger nozzle for push the fumes to the fume duct is installed in the cutting machine.</p>

Comparison Chart for Koike Engineering Tanshan (KET) Gas / Plasma cutting machine

		FLEXIGRAPH -Smart	MAXIGRAPH-C	MAXIGRAPH-S	MAXIGRAPH-DE	MAXIGRAPH-DX
Rail Span		3,500 to 4,000mm	3,500 to 4,000mm	3,000 to 4,000mm	3,500 to 6,000mm	3,500 to 6,000mm
Rail Length		5,000×Nmm MAX. 15,000mm	3,000×Nmm or MAX. 15,000mm	3,000×Nmm or MAX. 15,000mm	3,000×Nmm or MAX. 30M	3,000×Nmm or MAX. 30M
Rail		T-type (@5m unit)	22kg/m (@3m unit)	22kg/m (@3m unit)	22kg/m (@3m unit) 38kg/m (@3m unit)	22kg/m (@3m unit) 38kg/m (@3m unit)
Maximum Rapid Traverse Speed (m/min)		10,000mm/min	10,000mm/min	12,000mm/min	12,000mm/min	15,000mm/min
CNC	FANUC Series 0i					✓
	FANUC Series 30i (Plasma bevel)					
	D600 Pro				✓	
	D430	✓	✓	✓		
Cutting Tools	Oxy-Fuel Torch	2 (1 with plasma)	4 (3 with plasma)	4 (3 with plasma)	6 (5 with plasma)	6 (5 with 1 plasma / 2with 2 plasma)
	SUPER-400PROII					✓
	SUPER-400PLUS					✓
	XPR300					✓
	HiFocus Series					✓
	Air Plasma	✓	✓	✓	✓	✓
Plasma Option	3D-Link (Plasma Bevel Cutting)					
	Y Bevel Cutting with					
	Fume Collector			✓	✓	✓
	Fume Collector Device on Machine					
Powder line marking torch with Auto Igni-				✓	✓	✓
Ink Jet Marking Option						
2Plasma (MaxPro200 x2) by FS-0i						✓
Note					Equivalent model to KSK "ECONOGRAPH"	Equivalent model to KSK "ECONOGRAPH"

		VERSAGRAPH-DD	VERSAGRAPH-DX (with Plasma 3D)	MYNUC-D (with Plasma 3D)
Rail Span		3,500 to 6,500mm	4,000 to 6,500mm	4,500 to 12,000mm
Rail Length		3,000×Nmm	3,000×Nmm	3,000×Nmm
Rail		38kg/m (@3m unit)	38kg/m (@3m unit)	38kg/m (@3m unit)
Maximum Rapid Traverse Speed (m/min)		Longitudi- nal:24,000mm/min Transverse:34,000mm/ min	Longitudi- nal:24,000mm/min Transverse:34,000mm/ min	Longitudinal: 36,000mm/min Transverse 36,000mm/min
CNC	FANUC Series 0i	✓		✓
	FANUC Series 30i (Plasma bevel)	✓	✓	✓
	D600 Pro			
	D430			
Cutting Tools	Oxy-Fuel Torch	Steel Belt : 6 Square Bar : 24 (5 with 1 plasma / 2with 2 plasma)	(1 with 1 plasma)	Steel Belt : 12 Square Bar : 24 (5 with 1 plasma / 2with 2 plasma)
	SUPER-400PROII	✓	✓	✓
	SUPER-400PLUS	✓	✓	✓
	XPR300	✓		✓
	HiFocus Series	✓	✓	✓
	Air Plasma	✓		✓
Plasma Option	3D-Link (Plasma Bevel Cutting)		✓	
	Y Bevel Cutting with 2 Torches			
	Fume Collector Sys- tem	✓	✓	✓
	Fume Collector De- vice on Machine			✓
Powder line marking torch with Auto Igni- tor		✓	✓	✓
Ink Jet Marking Option		✓	✓	✓
2Plasma (MaxPro200 x2) by FS-0i		✓		✓
Note		Equivalent model to KSK "TECHNOGRAPH"	Equivalent model to KSK "TECHNOGRAPH"	Equivalent model to KSK "UNITEX"



Welding Series

Small-sized Positioner

LD-R Series

A compact positioner standard model designed and manufactured to provide stable positioning control on a wide range of rotation speed.

Overview

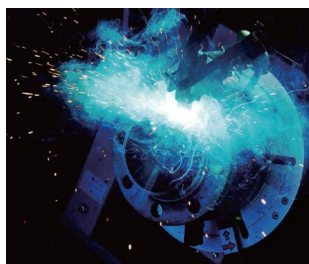
KOIKE LD-R Series is a versatile compact positioner. The LD-60R, LD-150R, LD-300R has a wide range of rotation speed by the dedicated controller LDR-B and DC motor.

High welding noise tolerance design ensures the possibility to use any welding method. (compatible with High-frequency TIG).

LD-600R performs table rotation and electric tilt axis through AC motor and inverter control. In addition, table can be rotated right or left without switching operation, by using the 2-pedal foot switch.

Feature

- Extremely wide range of rotation speed from low to high.
- High welding noise tolerance, also compatible with high-frequency TIG.
- Excellent grounding power collection even when brushless.
- LD-600R uses electric model for table tilt.



LD-R Series Positioner - Main Specifications

Model	LD-60R	LD-150R	LD-300R	LD-600R
Stock No.	ALD10100	ALD10200	ALD10300	ALD10400
Maximum Horizontal Load (kg)	60	150	300	600
Maximum Vertical Load (kg)	30	120	200	500
Table Diameter (mm)	φ300	φ380	φ450	φ620
Table Tilt Method	Manual			Electric
Max. Table Tilt Torque (kgf/mm)	Manual			141500
Max. Height of Center of Gravity with Max. Load (mm)	150	110	150	
Table Tilt Axis Distance (mm)	96	100		133
Table Tilt Angle	-135 ~ 135°	0 ~ 90°		
Table Rotation Speed (rpm)	0.15 ~ 20	0.1 ~ 6.2	0.1 ~ 4.6	0.2 ~ 1.16
Max. Rotation Torque (kgf/mm)	1500	3000	8000	50000
Max. Eccentricity of Center of Gravity with Max. Load (mm)	50	25	40	100
Max. Welding Electric Current (A)	500			750
External Dimensions W x D x H (mm)	421×530×379	542×747×432	575×750×550	744×993×728
Body Weight (kg)	28	60	110	270
Input Power Source	1-Phase 100~240V 50/60Hz			3-Phase 200/380V 50/60Hz

High Functioning Small Positioner

LD-RW Series

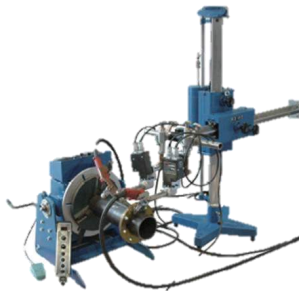
A high-functioning compact positioner series that enables the automation of circumferential welding with a single unit. It can also be extended by using the weaving unit (sold separately) or the external operation box.

Overview

Advanced model that adds a welding interlocking function to the compact positioner LD-R. Combined with Scroll Chuck and Torch Stand, it provides automatic circumferential welding system with little effort.

Adding the optional weaving unit function expands the welding range even further. The twin torch weaving consists of:

- LD-150RW Positioner
- Weaving Unit WU-3R×2
- Remote Pendant
- Scroll Chuck WP-300
- Torch Stand L



Feature

- Automates circumferential welding just by including a connector
- Reduces wiring with an internal controller
- Compatible with crater current switching of welder
- Welding schedule can be managed easily with the digital display



LD-RW Series Positioner - Main Specifications

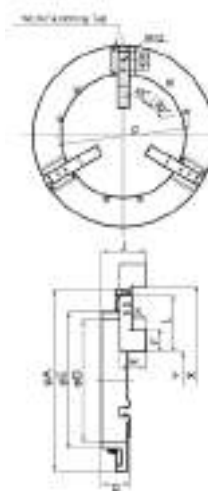
Model	LD-60RW	LD-150RW	LD-300RW	LD-600RW
Stock No.	ALD10105	ALD10205	ALD10305	ALD10405
Maximum Horizontal Load (kg)	60	150	300	600
Maximum Vertical Load (kg)	30	120	200	500
Table Diameter (mm)	φ300	φ380	φ450	φ620
Table Tilt Method	Manual			Electric
Max. Table Tilt Torque (kgf/mm)	Manual			141500
Max. Tilt Torque of Center of Gravity with Max. Load (mm)	Manual			141500
Table Tilt Axis Distance (mm)	96	100		133
Table Tilt Angle	-135 ~ 135°	0 ~ 90°		
Table Rotation Speed (rpm)	0.42 ~ 16	0.15 ~ 6.2	0.23 ~ 4.6	0.2 ~ 1.10
Max. Rotation Torque (kgf/mm)	1500	3000	8000	50000
Max. Eccentricity of Center of Gravity with Max. Load (mm)	50	25	40	100
Setting Items	Standard Function	Rotation Speed Adjustment, Normal Rotation/Reverse Switch, Automatic Circumferential Welding Mode/Manual Operation Mode Switch, Initial Arc Time Settings (0~99.99 sec.), Overwrap Time Settings (0~99.99 sec.)		
	WU-3R	Weaving unit swing speed settings (400~1500mm/min), Weaving unit swing width setting (0~100.0mm), Weaving unit left/middle/right stop time (0~10 sec.)		
Max. Welding Electric Current (A)	500			750
Operation Panel	Installed in main body			Remote Pendant
External Dimensions W x D x H (mm)	421×579×379	542×747×432	575×750×550	744×993×728
Main Body Weight (kg)	35	66	115	271
Input Power Source Single Phase	1-Phase 100~240V 50/60Hz			3-Phase 200/380V 50/60Hz

Turning Roll Chuck

WP Series

Feature

- Perfect combination with LD series positioner.
- Compatible with work of different diameter by opening/closing the three Jaws.
- Tap hole is also available to prevent workpiece from slipping on the table surface.



WP Series Chuck - Main Specifications

Model	WP-200	WP-300	WP-400
Stock No.	W0300100	W0300200	W0300300
Dimensions (mm)	A	200	300
	B	39	45
	D	80	100
	P	100	120
Included Mounting Bolts	Hexagon bolts with hole M8×30 3units	Hexagon bolts with hole M8×40 3units	Hexagon bolts with hole M10×40 3units a
Grip Range (mm)	X	20 ~ 130	80 ~ 190
	Y	110 ~ 210	170 ~ 280
Grip Force(KN(kgf))	2 (200)	2.5 (250)	3.5 (350)
Body Weight(kg)	6	12	24

WP Series Chuck - LD Positioner Compliance Chart

Model	WP-200	WP-300	WP-400
LD-60R/RW	Handle with included bolts	Hexagon bolts with hole M8-45 3units	Hexagon bolts with hole M10-50 3units
LD-150R/RW	Handle with included bolts		Hexagon bolts with hole M10-60 3units
LD-300R/RW	Hexagon bolts with hole M8-40 3units	Hexagon bolts with hole M8-35 3units hole	Hexagon bolts with M10-50 3units
LD-600R/RW	Hexagon bolts with hole M8-40 3units	Handle with included bolts hole	Hexagon bolts with M10-55 3units

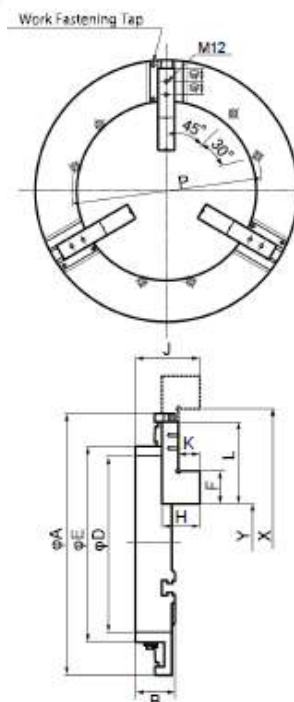
*1. Put the screw through slit on table and tighten with bolt from the back side. Please prepare separately the screws required for the installation.

*2. Tap added in the table requires additional processing. Separate processing fees are required when tap processing is ordered.

WPS Series

Feature

- Welding chuck for large workpieces.
- Compatible with work of different diameter by opening/closing the three Jaws.
- Hole structure that reduces the height of the center of gravity.

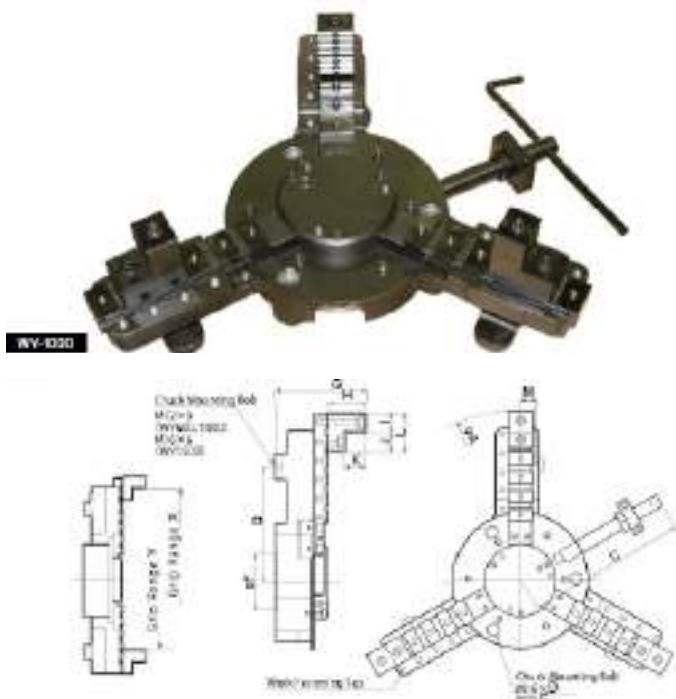


WPS Series Chuck - Main Specifications

Model	WPS-500	WPS-600	WPS-800	WPS-1000	WPS-1200
Stock No.	2WP00500	2WP00600	2WP00700	2WP00800	2WP00900
Dimensions (mm)	A	500	600	800	1000
	B	105	120	135	145
	D	270	365	540	700
	E	330	425	600	760
	F	70	100	100	900
	H	100	115	115	
	J	170	195	210	220
	K	60	65	65	
	L	200	250	250	
Included Mounting Bolts	P	300	400	575	735
		M12×100 6units	M16×130 6units	M16×140 6units	865
Grip Range (mm)	X	330 ~ 540	400 ~ 620	550 ~ 830	750 ~ 1050
	Y	50 ~ 330	150 ~ 400	250 ~ 550	450 ~ 750
Grip Force(KN(kgf))	20 (2000)		29 (3000)		
Height of Center of Gravity x Capability	100/mm×600kg	150/mm×600kg	200/mm×600kg	250/mm×600kg	300/mm×600kg
Max. Load Capability (kg)	800	1000	1500	2000	2000
Body Weight(kg)	57	87	110	180	290

Chuck

WY Series



Feature

- Welding chuck for large workpieces.
- Compatible with work of different diameter by opening/closing the three Jaws.
- Tap hole is also available to prevent workpiece from slipping on the table surface.

WY Series Chuck - Main Specifications

Model	WY-600	WY-1000	WY-1500
Stock No.	2WP00201	2WP00301	2WP00501
Dimensions (mm)	A	726	1126
	B	250	430
	C	340	545
	D	3	6
	E	241.3	340.4
	F	120	260
	G	190.7	244.5
	H	80	95
	I	40	50
	J	40	50
	K	45	48
	L	80	100
Grip Range (mm)	M	34	50
	X	240 ~ 640	240 ~ 1040
	Y	160 ~ 560	160 ~ 960
		235 ~ 1435	
Grip Force(KN(kg))	20 (2000)		29 (3000)
Height of Center of Gravity x Capability (mm) x (kg)	100×400		100×700
Max. Load Capability (kg)	600		1200
Body Weight(kg)	58	90	230

Turning Roll

TR-R Turning Roll

Overview

The KOIKE Turning Roll TR Series is a line-up of models that support loads from 1ton to 50t.

For roller interval adjustment, TR-1BR is set to any position on the frame and fixed in place, TR-3BR is fixed in place with a knock-pin and for TR-5R and above models, a screw structure is used. Besides the standard nitrile rubber, roller materials are available in urethane, which helps prevent damage to installed work piece and steel, which is resistant to friction.



TR-R Turning Roll - Main Specifications

Model	TR-1BR	TR-3BR	TR-5R	TR-10R	TR-20R	TR-30R	TR-50R
Stock No.	ATR22100	ATR22200	ATR22400	ATR22500	ATR22600	ATR22700	ATR22800
Maximum Load (kg)	1000	3000	5000	10000	20000	30000	50000
Maximum Diameter (mm)	50 ~ 1500	200 ~ 2000	300 ~ 3500		400 ~ 5000		500 ~ 6000
Roller Peripheral Speed (mm/min)	70 ~ 700	139 ~ 1390	134 ~ 1340	139 ~ 1390	148 ~ 1480		147 ~ 1470
Roller Interval (mm)	160 ~ 700	210 ~ 900	420 ~ 1600		420 ~ 2200	470 ~ 2200	500 ~ 2800
Roller Size Diam. x W (mm)	150×100	200×120	300×120	300×140	300×160	300×180	420×240
Drive	1 wheel		2 wheels				
Body Weight (kg)	200	260	900	930	1400	1500	3250
Input Power Source	3-Phase 200/380V 50/60Hz						

Medium-sized Positioner

P II -Type Series Positioner

Medium-sized positioner designed to provide safety and simple structure with excellent operability.

Overview

KOIKE P-Type Series Positioner provides easy operation and excellent safety while a medium-sized positioners. The simple table elevating function enables the positioner for working on different position and tasks.

Feature

- Can be adjusted at 5 levels (a crane is required to adjust height).
- Rotation table tilt range is assured at 0-135°.
- Self-locking structure gear box avoid table to flip over under the workpiece's weight.



P II Series Positioner - Main Specifications

Model	30PII	60PII	120PII
Stock No.	20100	20300	20500
Maximum Load (kg)	1350	2700	5400
Table Dimensions	φ1067	φ1524	
Tilt Speed (rpm)	50Hz:0.44 60Hz:0.52	50Hz:0.52 60Hz:0.62	
Tilt Torque N/m (kgf/m)	6400(658)	14200(1455)	30100(3070)
Max. Height of Center of Gravity with Max. Load (mm)	300		
Table Tilt Angle	0 ~ 135°		
Table Rotation Speed (rpm)	0.12 ~ 1.2	0.10 ~ 1.0	0.08 ~ 0.8
Rotation Torque N/m (kgf/m)	4000(415)	8100(831)	16200(1662)
Max. Eccentricity of Center of Gravity with Max. Load (mm)	300		
Table Height (mm)	1095 ~ 1695(150 pitch)	1256 ~ 1864(152 pitch)	1263 ~ 1863(150 pitch)
Max. Welding Electric Current (A)	750		
Outside Dimensions W x D (mm)	1558×1975	1754×2156	1830×2248
Body Weight (kg)	1710	3000	3200
Input Power Source	3-Phase 200/380V 50/60Hz		

Automatic Girth Welder



Automatic Girth Welder



Feature

- Self propelled unit for controlled quality
- Travel speeds from 10cm/min to 270cm/min based on procedures
- Plate sizes up to 3m tall and up to 45mm thick, tanks 9m in diameter or larger
- Can use any combination of wire and flux based on procedure
- Can weld from one side or both sides of tank
- Can weld with single wire or twin wire; sub arc or open arc process

V.U.P Tank Welder



V.U.P Tank Welder

Feature

- High deposition rates of 18 to 30 kg per hour
- Fast vertical speeds, 23cm/min on 9mm plate, 15cm/min on 25mm plate, 10cm/min on 100mm plate
- X-Ray quality with impacts better than 13.5m/kg at -17°C
- Weld joints of either square edge or single bevel
- Square butt reduces plate preparation time
- Operates with either two movable shoes or one moving shoe with a fixed backing bar

VI-2. Plasma Welding



Inverter-control / Pulse plasma

PW-350FR

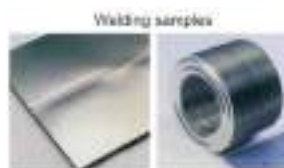
(Medium steel plates 3 to 9mm)

Inverter-control / Pulse plasma

PW-100FR (Thin plates 0.5 to 5mm)

Feature

- Bevel cutting is not necessary
- Easy penetration beading.
- Very few angular distortion.
- Sputter less.
- Little electrode consumption.



Butt welding (Stainless Steel)

Coupling (SUS304)



Hollow ball

Pipe joint (SUS304)

Welding bevels

VI-2. Plasma Welding

Model	PW-350FR	PW-100FR
Rated input voltage	200V±10%	200V±10%
Rated Frequency & Phase	3phase, 50/60Hz	3phase, 50/60Hz
Rated Input Voltage	19.6KVA	6.9KVA
Rated Output Current	350A	100A
Duty Cycle	300A 100%	350A100%
Rated Load Voltage	40V	35V
Pulse Frequency Range	0.5~300Hz(2stage)	0.5~300Hz(2stage)
Pulse Duty Range	15~85%	15~85%
Gas	Plasma	Ar
	Shield	Ar + H ₂
Cooling System	Closed-loop forced water circulating	Closed-loop forced water circulating
Dimensions (W*D*H)	610×1088×1137mm	470×994×1020mm
Weight	220kg	140kg

Balance Positioner

Universal Balance Positioner

Overview

Universal Balance Positioner allow safe and quick manipulation of large objects with small manual force by setting work based on the center of gravity. Universal Balance Positioner doesn't use any force of motors. Work piece can be rotate 360 degrees around both axis, allowing effortless access to any desired location upon a mounted fixture.

Feature

- Allows downhand position with rotation/turning operations.
- Without using any kind of electric or air force.

Universal Balance Positioner - Main Specifications

Model	C-50	C-250	C-450	C-900
Stock No.	ABP00100	ABP00200	ABP00300	ABP00500
Maximum Load (kg)	50	250	450	900
Table Diameter (mm)	φ125	φ203		
Max. Height of Center of Gravity (mm)	100	300		
Rotation Method	360° Manual			
Tilt Method	360° Manual			
Table Height (when horizontal) (mm)	175	750-1050	775-1050	840-995
Max. Welding Electric Current (A)	600	800		1200
Body Weight (kg)	7	95	100	200



Torch Stand

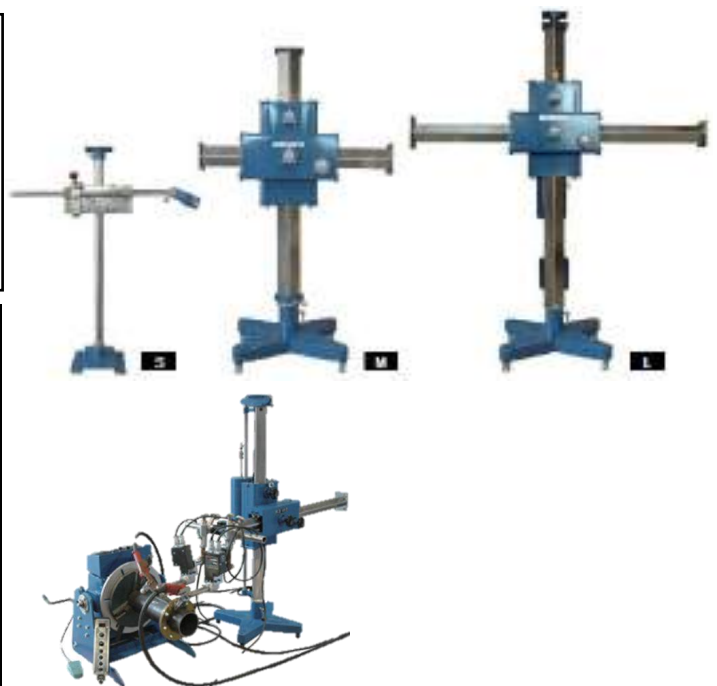
Overview

The Torch Stand supports welding torch and assures accurate welding. Automatic welding system can be easily constructed by the combination of a variety of attachments.

The squared flange of the boom edge in Torch Stand M and L type, allows the installation not only CO2 welding torch but also weaving unit WU-3R.

Torch Stand - Main Specifications

Model	Torch Stand S	Torch Stand M	Torch Stand L
Stock No.	W0200100	W0200200	W0200300
Height (mm)	800	1106	1330
Arm Length (mm)	660	662	1088
Vertical Stroke (mm)	500		
Horizontal Stroke (mm)	150	300	700
Edge Max. Load (kg)	5	10	
Main Body Weight (kg)	13	40	50
Weaving Unit Accessory	×	○	





KOIKE

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