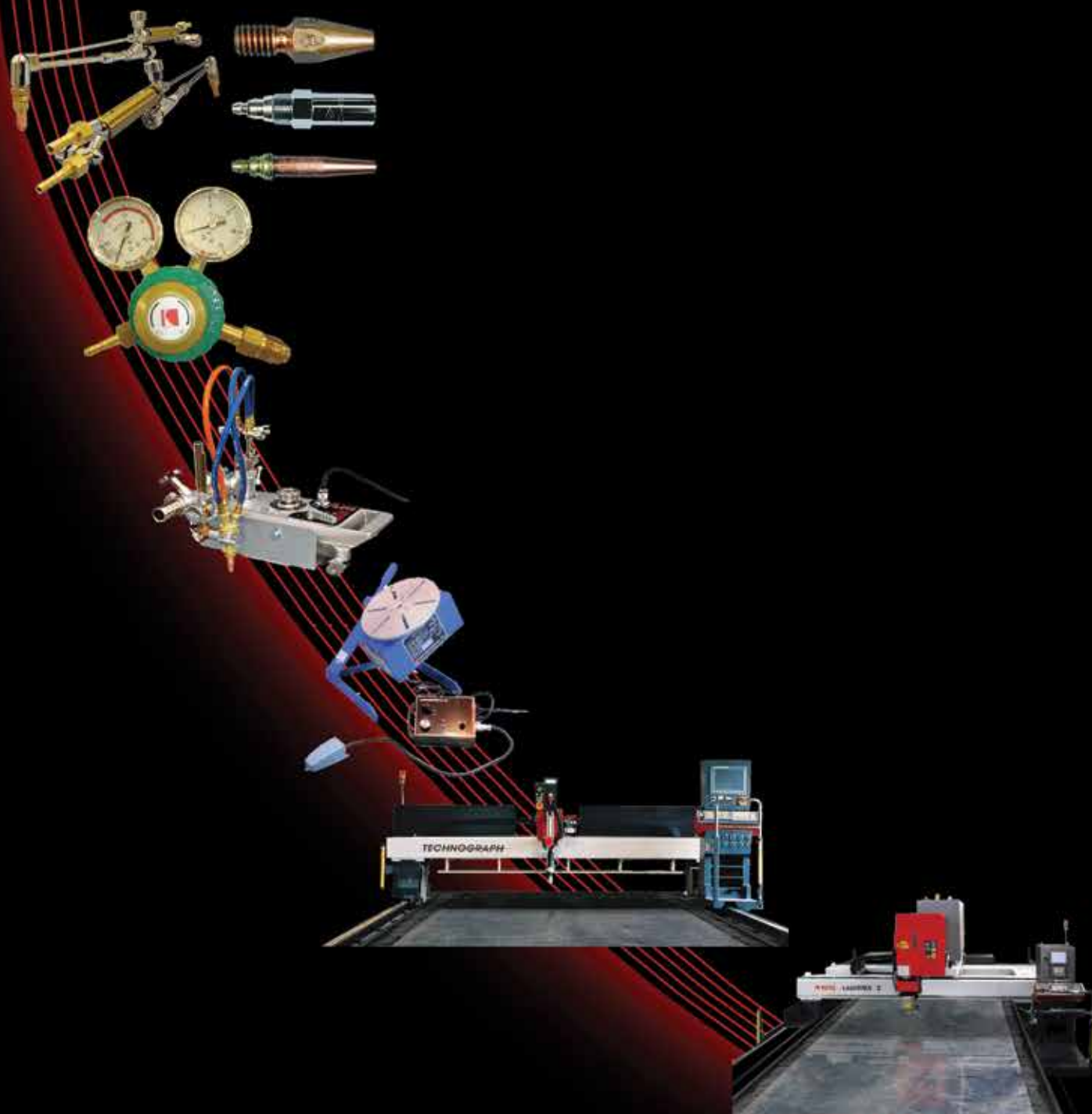


KOIKE

CUTTING, POSITIONING & WELDING EQUIPMENT

THE MOST COMPLETE LINE IN THE INDUSTRY





President Message

Osamu Yokota, President

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 have established a distribution network to supply total systems for Gas, Welding, cutting solutions and related equipment to fill our customers' needs.

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:

- a. "To increase customer satisfaction, acquire new customers, and maintain lasting relationships with existing customers"
- b. "To contribute to society as a meaningful and financially sound company."
- c. To improve our knowledge and skills and focus our efforts toward improving the company and our employees well being

Based on these philosophies we will continue to move forward, responding to the dramatic changes in the 21st century, through our own continuous improvement programs as well as developing new technologies that are environmentally friendly and address the needs of our customers.

We appreciate your continued support and business and hope to maintain it going forward.

Thank You.

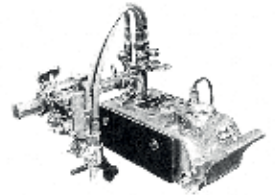


Milestones

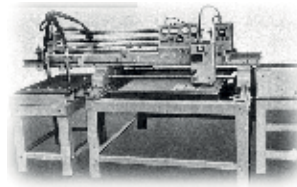
Oct. 1918	Koike Seisakusho, the precursor of today's Koike Sanso Kogyo Co., Ltd. was founded in Tokyo, JAPAN.
Dec. 1936	Koike Seisakusho was incorporated as Koike Sanso Co., Ltd.
Apr. 1937	The start of the production of the IK-12 portable automated gas cutting machine.
Jan. 1953	The company name was changed to Koike Sanso Kogyo Co., Ltd.
Jan. 1954	The start of the production of the Optical Tracing Machine.
Jan. 1966	The start of production of the NC Cutting Machine.
Apr. 1974	Koike America Inc. was established in Chicago, Illinois, as a marketing and after-sales service base in the United States. (Later merged with Koike Aronson, Inc.)
Aug. 1975	Gunma Koike Co., Ltd. was established in Isesaki City, Gunma.
Apr. 1976	Koike begins the manufacture and sales of the "Handy Auto" semi-automatic cutting machine, that offers the handling ease of a handheld cutter.
May 1982	Koike Europe B.V. was established in Amsterdam, the Netherlands, as a marketing and after-sales service base in Europe.
Aug. 1983	The start of the production of the Laser Cutting Machine.
Aug. 1985	Koike acquires Aronson, Inc., a specialized manufacturer of large-scale welding tools, and establishes Koike Aronson, Inc. in New York. Koike Aronson becomes a sales base for large-scale welding tools in Japan and a local production base for cutting equipment in the United States.
Aug. 1988	Koike Korea Engineering Co., Ltd. was established in Gimcheon-si, Korea, as a production and after-sales service base in Korea.
Apr. 1993	Koike Techno Center was established in Midori-ku, Chiba, as the first step in establishing unmanned plants.
Jan. 1998	Koike Techno Center gained ISO 9001 certification.
Oct. 2002	Koike Engineering (Tangshan) Co., Ltd. was established in Tangshan, Hebei Province, China.
Oct. 2008	Koike Engineering Germany was established in Friedberg, Germany.
Jul. 2011	Established Koike Cutting & Welding (India) Pvt. Ltd. in Pune, Maharashtra, India
Nov. 2012	Koike Aronson established Koike Aronson Biondi in Sao Paulo, Brazil.



- Jan. 1929 -



- IK-12 Max -



- IK-5 Optical Tracing Machine -



- NC Cutting Machine -



- Gunma Koike Co., Ltd. -



- Handy Auto -



- Koike Europe B.V. -



-Laser Cutting Machine-



- Koike Aronson Inc. -



- Koike Korea Engineering Co., Ltd. -



- Koike Techno Center -



- Koike Techo Center & Gumma Koike gained ISO 9001 certification -



- Koike Engineering (Tangshan) Co., Ltd. -



- Koike Engineering Germany. GmbH-

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I. Gas Apparatus

I -1. Hand Torch Series

I -1-1. Cutting Torches

MK-Type Cutting Torch Series



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



MK-251, 251B
(Lever w/o lock type)

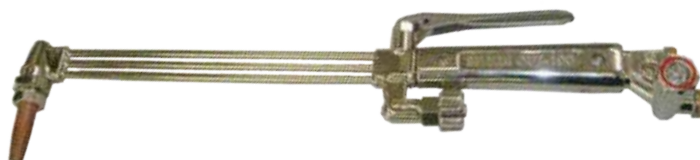


Samurai HK-251
(Bottom lever type)

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 w/ 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	1500	75, 90, 180					
MK-300	300mm Max.	661	1550	75, 90, 180					
MK-251	250mm Max.	495	1000	90	Lever w/o lock				
※ MK-251 B									
MK-24	200mm Max.	610	1300	75, 90, 180	Trigger				
MK-36		915	1500						
MK-48		1220	1800						
Samurai HK-251	250mm Max.	495	1000	90	Bottom Lever	H type			

※ Bottom Lever Type

Silver Cut-100 Torch



Torch Model	Cutting Thickness (mm)	Torch Body Length (mm)	Torch Body Weight (g)	Torch Head Angle (deg.)	Lever/Trigger	Cutting Tip	Fuel Gas
Silver cut-100	50mm Max.	470	750	90	Lever w/o lock	502-N (#1,2,3)	Acetylene

Any hose connection available

Skill Cut Torch



Skill cut-100, 250

Skill cut-250 is available for gouging and heating use

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	150mm Max.	578	980			102, 106	

Pegasus



Valve Type



Adopted valve locking mechanism



Lever Type

Torch Model	Cutting Thickness (mm)	Torch Body Length (mm)	Torch Body Weight (g)	Torch Head Angle (deg.)	Torch Type	Cutting Tip	Fuel Gas
Pegasus L	100mm Max.	480	750	90	Valve	502B, 506B	Acetylene, Propane
					Lever w/o lock		

Safety Light Cutting Torch



No. 1 Safety light cutting torch



No. 2 Safety light cutting torch

Torch Model	Cutting Thickness (mm)	Torch Body Length (mm)	Torch Body Weight (g)	Torch Head Angle (deg.)	Torch Type	Cutting Tip	Fuel Gas
No. 1	30mm Max.	430	610	90	Valve	C-I	Acetylene, Propane
No. 2	80mm Max.	486	725			C-II	



Valve locking mechanism: This mechanism locks the fuel gas valve and reduces the risk of accidental gas leak from unintentional valve open.

I. Gas Apparatus

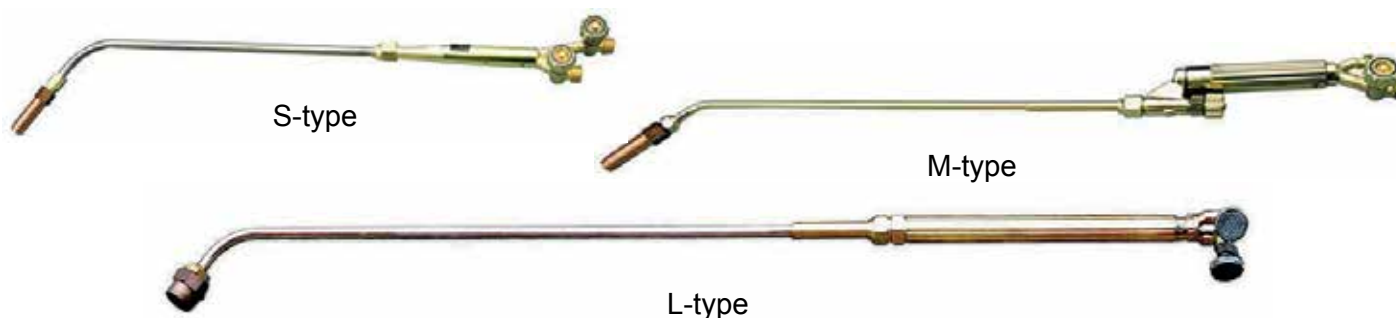
I -1-2. Heavy Duty Cutting Torch

M3B2 Cutting Torch



Torch Model	Cutting Thickness (mm)	Torch Body Length (mm)	Torch Body Weight (g)	Torch Head Angle (deg.)	Torch Type	Cutting Tip	Fuel Gas
M3B2	300mm Max.	850	2300	75, 90, 180	Trigger	102, 106 (#7,8)	Acetylene, Propane

I -1-3. Line Heating Torches



Torch Model	Flame Condition	Torch Body Length (mm)	Torch Body Weight (g)	Injector	Torch Type	Heating Nozzle	Fuel Gas
L-type	Diffusion	1580	2670	Fixed	Valve	L model	Propane, Ethylene
M-type	Centralization or Diffusion	740	815	Changeable		M model	
S-type		650	540	Fixed		S model	

※ For detail information of heating nozzles, please refer the P.10

** For Acetylene, please use Skill Cut - 250.

*** Heating Nozzle SK and MK types are diffusion type.

I -1-4. Scarfing Torches

MK-Scarfing Torch



MKS scarfing nozzle

Torch Model	Scarfing Width	Torch Body Length (mm)	Torch Body Weight (g)	Injector	Torch Type	Scarfing Nozzle	Fuel Gas
No. 1	50mm Max.	890	2000	Fixed	Bottom Lever w/o lock	MKS and MKPS	Acetylene, Propane
No. 2		1190	2150				
No. 3		1620	2450				

Power-1350D Scarfing Torch



P-15 scarfing nozzle

Torch Model	Scarfing Width	Torch Body Length (mm)	Torch Body Weight (g)	Injector	Torch Type	Scarfing Nozzle	Fuel Gas
Power-1350D	90mm Max.	1770	2300	Fixed	Lever w/o lock	P-15 and, PKK	Propane, Coal gas

I -1-5. Welding Torches

MK-Welding Torch



Torch Model	Welding Plate Thickness (mm)	Torch Body Length (mm)	Torch Body Weight (g)	Torch Head Angle (deg.)	Torch Type	Welding Nozzle	Fuel Gas
MK-Welding Torch	35mm Max.	330	810	Fixed	Valve type	※ MK-Welding	Acetylene

※For detail information of welding nozzles, please refer P.11

A1 Welding Torch, A2 Welding Torch, 3G Welding Torch



A1 Welding torch



A2 Welding torch



3G Welding torch

Torch Model	Welding Plate Thickness (mm)	Torch Body Length (mm)	Torch Body Weight (g)	Torch Head Angle (deg.)	Torch Type	Welding Nozzle	Fuel Gas
A1 Welding Torch	7mm Max.	490	930	Fixed	Tap lever Valve	※ A1	Acetylene
A2 Welding Torch	35mm Max.	530	930		Tap lever Valve	※ A2	
3G Welding Torch	1.5mm Max.	300	510		Valve	※ 3G	

※For detail information of welding nozzles, please refer P.11



Valve locking mechanism: This mechanism locks the fuel gas valve and reduces the risk of accidental gas leak from unintentional valve open.









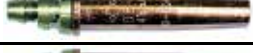









I. Gas Apparatus

I -2. Tips and Nozzles

I -2-1. Cutting Tips

100 Type Straight Cutting Tips















Standard type

Fuel gas	Tip model	Side view	Outlet
Acetylene	102		
	102 HC Hand cut		
Propane	106		
	106 HC Hand cut		
	106-O quick torch		
	106-M heavy pre-heating		
Ethylene	103		
Natural gas	107		
	107-M heavy pre-heating		

Max. cutting thickness: 300mm Tip No; 00 to 8

100 Type High-Speed Divergent Cutting Tips

Better durability w/ stainless steel pipe

Fuel gas	Tip model	Side view	Outlet
Acetylene	102-D5/ D7		
Propane	106-D5/D7		
	106-O5/ O7 Quick torch		
	106-M5/M7 Heavy pre-heating		
Ethylene	103-D5/D7		
Natural gas	107-D5/D7		
	107-M5/M7 Heavy pre-heating		







Cutting oxygen gas pressure 5kg/cm2 D5, O5, M5
7kg/cm2 D7, O7, M7

I -2-2. Heavy Duty Cutting Tips

Heavy Duty Cutting Tips










Fuel gas	Tip model	Side view	Outlet
Propane	Epoch		
Natural gas			
Coal gas			
Propane	6023		

500 Type Cutting Tips

Fuel gas	Tip model	Side view	Outlet
Acetylene	502-A		
	502-B		
Propane	506-A		
	506-B		
Ethylene	503-A		
Natural gas	507		

Max. cutting thickness: 100mm, Tip No; 0 to 5

















C-Type Cutting Tips

Fuel gas	Tip model	Side view	Outlet
Acetylene	C-I		
	C-II		
Propane	C-I		
	C-II		
Ethylene	C-I		
	C-II		
Natural gas	C-I		
	C-II		

Max. cutting thickness: C-I 30mm, C-II 80mm
Tip No; 1 to 3

I -2-3. Line Heating Nozzles





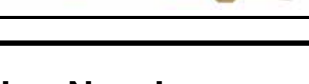

Line Heating Nozzles

Fuel gas	Nozzle model	Side view	Outlet
Acetylene	122B		
Propane	126B		
	126M		
	L-S		
	L-SK		
	L-M		
	L-MK		
	L-L		
Ethylene	R-S		
	R-M		

Type SK and MK heating nozzle are diffusion type











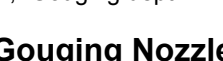

I -2-4. Scarfing Nozzles

Scarfing Tips

Fuel gas	Nozzle model	Side view	Outlet
Acetylene	MKS		
Propane	MKPS		
Coal gas	P-15		











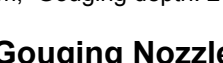

I -2-5. Gouging Nozzles

100 Type Gouging Nozzles

Fuel gas	Nozzle model	Side view	Outlet
Acetylene	111		
	113		
Propane	161		
	163		
Ethylene	181		
	183		





Gouging width: 7 to 17.5mm, Gouging depth: 2 to 8.5mm

400 Type Gouging Nozzles

Fuel gas	Nozzle model	Side view	Outlet
Acetylene	411		
	413		
Propane	461		
	463		
Ethylene	481		
	483		

Gouging width: 7 to 17.25mm, Gouging depth: 2 to 7mm











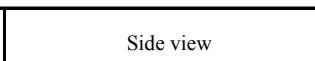

500 Type Gouging Nozzles







Fuel gas	Nozzle model	Side view	Outlet
Acetylene	513		
Propane	563		

Gouging width: 7 to 17.25mm, Gouging depth: 2 to 7mm

I -2-6. Tips for Portable





Cutting Machine (Special Purpose tips)



Fuel gas	Tip model	Side view	Outlet
Acetylene	102 LUG		
	402 ST		
	502-L		
Propane	106 LUG		
	406 NT		
	506-L		

Gases	Tip model	Side view	Outlet
Oxygen	301		
	301-D7		
Acetylene	302		
Propane	306		
Ethylene	303		
Natural gas	307		

※For Weasel eccentric type torch

I -2-7. Welding Nozzles

Fuel gas	Tip model	Side view	Outlet
Acetylene	A1		
	A2		
	MK-welding nozzles		

Fuel gas	Tip model	Side view	Outlet
Acetylene	3G		

I. Gas Apparatus

I -3. Gas Regulators

I -3-1. Gas Pressure Adjustment Type

Safety Gold Regulator Series (Deluxe type)



Safety gold-III Regulator (Oxygen)



Safety Gold-III Regulator (Acetylene)



Safety Gold-II Regulator (Propane)

Model	Gas	Pressure gauge (MPa)			Flow capacity [Pressure]	Body weight (kg)
		Inlet	Outlet	Max. Delivery pressure		
Safety gold-III (Oxygen)	Oxygen	25	2.5	0.99	35Nm ³ /h [0.8MPa]	1.5
Safety gold-III (Acetylene)	Acetylene	4	0.2	0.098	7Nm ³ /h [0.05MPa]	2.0
Safety gold-II (Propane)	Propane	-	0.2	0.15	5Nm ³ /h [0.05MPa]	1.0

Pipe line regulator is available.

Protective guard type is also available.

Safety Custom Regulator (available for special gas)



Safety custom Regulator (Oxygen)



Safety custom Regulator (Acetylene)



Safety Custom Regulator (Nitrogen)

Model	Gas	Pressure gauge (Mpa)			Flow capacity [Pressure]	Body weight (kg)
		Inlet	Outlet	Max. Delivery pressure		
Safety custom (Oxygen)	Oxygen	25 35	2.5	0.99	35Nm ³ /h [0.8MPa]	1.3
Safety custom (Acetylene)	Acetylene	4	0.2	0.098	7Nm ³ /h [0.05MPa]	1.8
Safety custom (Others)	Others	35	2.5	0.99	35Nm ³ /h [0.8MPa]	1.3

*1. Argon, Nitrogen, Helium, Hydrogen and Oxygen are available. *2. Oxygen, Acetylene, Helium and Hydrogen models are made in NCC.

*3. Argon, Nitrogen and other gas models are made in Gunma Koike.

Custom Regulator Series (Standard type)



Custom 101 Regulator (Oxygen)



Custom 202 Regulator (Acetylene)

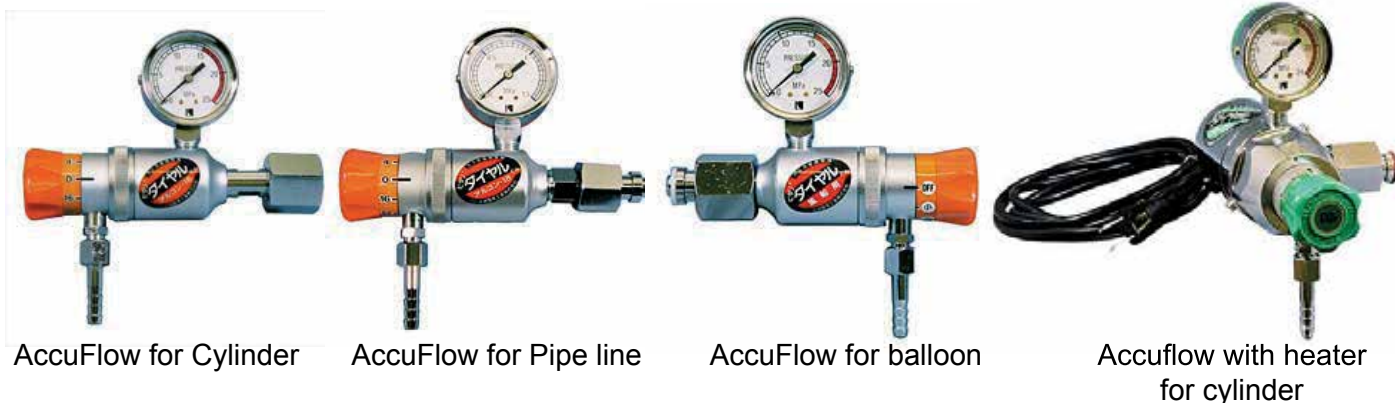


Custom 206 Regulator (Propane)

Model	Gas	Pressure gauge (Mpa)			Flow capacity [Pressure]	Body weight (kg)
		Inlet	Outlet	Max. Delivery pressure		
Custom 101	Oxygen	28	2.5	0.99	25Nm ³ /h [0.8MPa]	1.0
Custom 202	Acetylene	2.5	0.2	0.99	5Nm ³ /h [0.05MPa]	1.0
Custom 206	Propane					

I -3-2. Gas Flow Adjustment Type

AccuFlow Series



Model	Gas	Pressure gauge (Inlet) (MPa)	Delivery Pressure (Outlet)(MPa)	Range of flow rate reg. (NL/min)		Body weight (kg)
AR-16 for cylinder	Argon	2.5	0.2 Fixed	4～16	10 step setting	0.6
AR-30 for cylinder				9～30		
AR-16 for pipe line		1.5		4～16		
AR-30 for pipe line				9～30		
CO2-25				7～25		
AccuFlow for balloon	Helium	25	0.35 Fixed	120～260	2 step setting	0.7
Accuflow with heater for cylinder	CO2		0.2 Fixed	7～25	10 step setting	2

Flow rate can be set just by adjusting the dial.

I -3-3. Regulators for Special Application



CWH-25F (CO₂) (w/ Heater)

- For CO₂ cylinder
- Press. Gauge (Inlet) : 1.5MPa Max.
- Max. Delivery Press:0.99MPa
- Flow capacity: 1.5Nm³/h
- Body weight: 3.1kg

* CO₂ regulators w/o heater (Model : CW-25G, CW-25F) is also available.



KR-50F-R II

- For Ar / N₂ / O₂ cylinder
- For MIG, TIG, Laser cutting



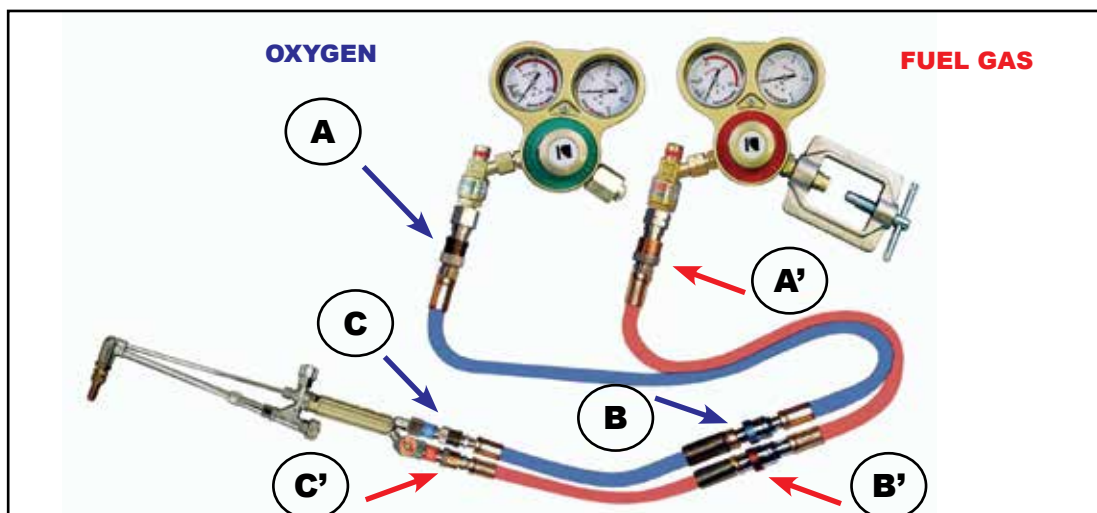
SG-Saver Jr.

- Save 20 to 40% of your gas consumption with repetition 10 sec.
- For welding
- For CO₂ or Argon cylinder

Other Regulator Available

I -4. Apollo Safety Devices

I -4-1. Apollo Coupling Series



A and A' (Regulator to hose)

Model		Side view	UL Certificate file No.
GA-1/GA-2	Dry flashback arrestor		MH 16462
GA-1MK/GA-2MK			MH17441
GA-1S/GA-2S			MH17441
GA-1SS/GA-2SS	Dry flashback arrestor w/ socket		MH17441
GS-1/GS-2	Socket		MH11234 (with ZAP-1/ZAP-2)

B and B' (Hose to hose)

Model		Side view	UL Certificate file No.
AS-1/AS-2	Socket		MH11234 (with ZOP-1/ZOP-2)
AP-1/AP-2	Plug		MH11234 (with GS-1/GS-2)
ZAP-1/ZAP-2			

C and C' (Equipment to hose)

Model		Side view	UL Certificate file No.
ZOP-1/ZOP-2	Plug		MH11234 (with AS-1/AS-2)
ZOP-1AE/ZOP-2AE	Dry flashback arrestor w/ plug		MH17441
ZOP-1AEL/ZOP-2AEL	Dry flashback arrestor w/ plug		MH17441

Model name -1: For Oxygen, -2: For Fuel gas

I. Gas Apparatus

I -4-2. Flashback Arrestor for Equipment to Hose

Main features

1. Reverse flow prevention
= Check valve
2. Fire extinguisher



Apollo mini-tackle



Model	ZOP-1AE	ZOP-1AEL	ZOP-2AE	ZOP-2AEL
Gas	Oxygen		Acetylene, Propane	
Operation Pres. range	0.2~0.9MPa		0.02~0.08MPa	
Max. Flow rate	10.000Nℓ/h	20.000Nℓ/h	1.500Nℓ/h	2.500Nℓ/h
Length	53mm	62mm	55mm	68mm
Weight	48g	71g	49g	72g



ZOP-1AE



ZOP-2AE



ZOP-1AEL



ZOP-2AEL

I -4-3. Flashback Arrestor with Cut-off valve



Gold arrestor-MK series



GA-1MK
For Oxy.



GA-2MK
For Fuel.

Main features

1. Reverse flow prevention
= Check valve
2. Fire extinguisher
3. Gas flow cut-off valve
4. Temperature activated cut-off valve

Gas distributor



GAS HAI G103



I -4-4. Flashback Arrestor for Regulator to Hose

Main features

1. Reverse flow prevention
= Check valve
2. Fire extinguisher
3. Temperature activated cut-off valve



Silver arrestor series

Model	GA-1S	GA-2S	GA-1SS	GA-2SS
Gas	Oxygen	Fuel gas	Oxygen	Fuel gas
Operation Pres. range	0.1~0.9MPa	0.01~0.13MPa	0.1~0.9MPa	0.01~0.13MPa
Max. Flow rate	25,000NL/H	3,000NL/H	25,000NL/H	3,000NL/H
Connection	Various connection type will be available. For details, Please ask to us.			
Length	60.5mm		81.0mm	83.0mm
Weight	122g		157g	160g



GA-1S



GA-2S





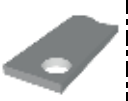



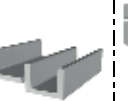










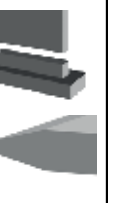
GA-1SS



GA-2SS

II. Portable Cutting Machines

II -1. Cutting Application for Portable Cutting Machines

									
	Straight-Line	Shape	Circle	Curved-Line	Pipe	H-Beam	Shape Steel	All Position	Other Application
Process Cutting									
Multi Purpose	Handy Auto Series		Handy Auto Series	Handy Auto Series	Handy Auto Series	Handy Auto Series	Handy Auto Series	Handy Auto Series	Handy Auto Series
	H/A PLUS Series		H/A PLUS Series	H/A PLUS Series	H/A PLUS Series	H/A PLUS Series	H/A PLUS Series	H/A PLUS Series	H/A PLUS Series
Specialized Machine	Weasel IK-93 HAWK IK-12 Beetle IK 12 AB		Weasel IK-93 HAWK IK-12 Beetle IK-12Max Series	Weasel IK-93 HAWK IK-12 Beetle IK-12Max Series					
	IK-12Max-Series		Cir-Cut ∇ Cir-Cut ∇ U IK-70 Series		Picle 1- Auto Picle Series KHC-600D	Minimantis II		IK-72T	Edge-Cut
Cutting with Template		IK-54 Series IK-82 Series	IK-54 Series IK-82 Series						

Automation in cutting process aims to reduce the following:-

- Material wastage.
- Grinding process.
- Rejects and Rework.

Greater production productivity is achieved through:-

- Consistent and Accurate cut quality.
- Good weld fit-ups and reduced weld volume.
- Maximised material usage through parts nesting.
- Enhanced work safety and increased work output.

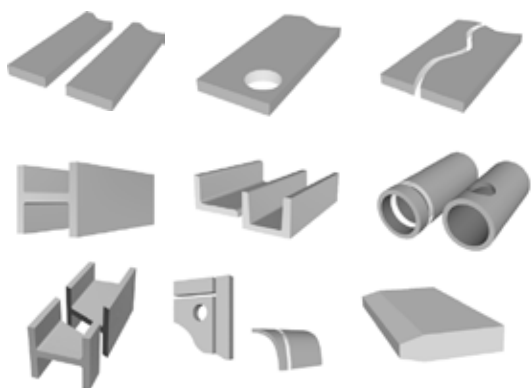
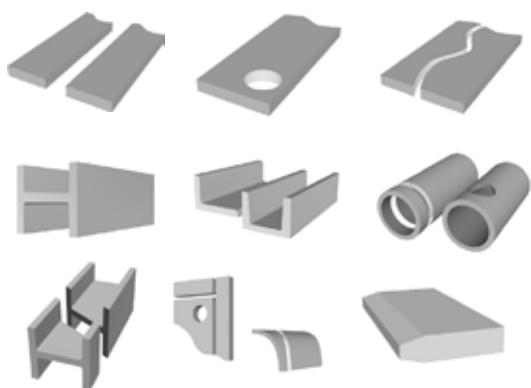


II. Portable Cutting Machines

II -2. Cutting Machines for Multi Purpose ①

Increase your productivity with our largest range of portable machines

HANDY AUTO Series



Ignition	Manual
Cutting Thickness	5-30mm
Cutting Speed	150-530mm/min
Weight/Length	2.7kg/500mm
Standard Kit Package of contents	Handy Auto Std. Drive Wheel Wrench Fuse Cutting tips 102(ACE) or 106(LPG)
Pro Kit Package of contents (total weight 7.8kg)	Handy Auto Standard Kit Support Wheel Bevel Wheel (22-45°) Guide Handle Small Circle Cutting Attachmt.: Radius 30-200mm Steel Carrying Case

Optional Equipment
Large Circle Cutting Attachment : Radius 120-500mm Guide rail : 500mm

HANDY Auto PLUS Series

Semi-Motorized Oxy Fuel Hand Torch

Ignition	Auto Ignition
Cutting Thickness	5-30mm
Cutting Speed	150-530mm/min
Weight/Length	2.8kg/525mm
Standard Kit Package of contents	Handy Auto Plus Std. Drive Wheel Wrench Fuse Cutting tips 102(ACE) or 106(LPG)
Pro Kit Package of contents (total weight 7.9kg)	Handy Auto Plus Standard Kit Support Wheel Bevel Wheel (22-45°) Guide Handle Small Circle Cutting Attachmt.: Radius 30-200mm Steel Carrying Case

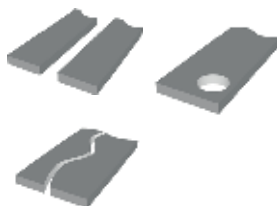
Optional Equipment
Large Circle Cutting Attachment : Radius 120-500mm Guide rail : 500mm



Handy Auto PLUS KIT

II. Portable Cutting Machines

II -3. Cutting Machines for Multi Purpose ②



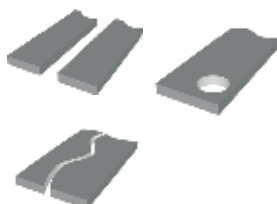
WEASEL

Portable Multi-Purpose Oxy Fuel Cutting Machine

Cutting Thickness	5-30mm
Cutting Speed	150-1000mm/min
Direction	Forward only
Bevel Cut Angle	0 to 45°
Weight/Length	9.8kg/460mm
Cutting Tip Type	102(ACE) or 106(LPG)
Standard Equipments	Circle cutting attachment : dia. 100-1100mm

*German type (Eccentric tip type) set is available

Optional Equipment
2-torch set
Rail : 1800mm

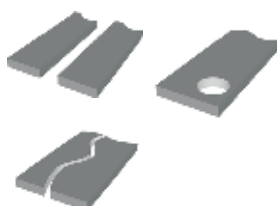
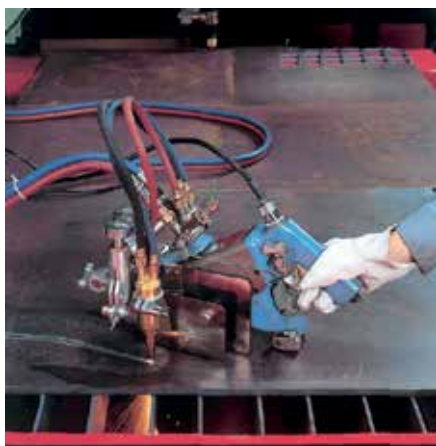


IK12AB

Portable Multi-Purpose Oxy Fuel Cutting Machine

Cutting Thickness	5-100mm
Cutting Speed	80-760mm/min
Direction	Forward & Reverse
Bevel Cut Angle	0 to 45°
Weight	9.0kg
Cutting Tip Type	102(ACE) or 106(LPG)

Optional Equipment
Twin touch set
Rail : 1800mm



IK-93 HAWK

Portable Multi-Purpose Oxy Fuel Cutting Machine

Cutting Thickness	5-100mm
Cutting Speed	100-1000mm/min
Direction Changing	Forward/reverse switch
Bevel Cut Angle	0 to 45°
Weight/Length	7.5kg/395mm
Cutting Tip Type	102(ACE) or 106(LPG)

Optional Equipment
Circle cutting attachment : dia. 100-1100mm
Tracer guide (for Edge)
Tracer guide (for Scribe line)
Rail : 1800mm

*Different torch set is available.



IK-12 BEETLE Single Torch Set

Portable Multi-Purpose Oxy Fuel Cutting Machine

Cutting Thickness	5-50mm
Cutting Speed	150-800mm/min
Speed Control	Single cone system
Direction	Forward/Reverse
Bevel Cut Angle	0 to 45°
Weight	9.5kg
Carriage Size	350(L)*140(W)*175(H)mm
Cutting Tip Type	102(ACE) or 106(LPG)

Optional Equipment
Circle cutting attachment : dia. 400-2400mm
Circle Track : dia. 40 -360mm inside
: dia. 770 - 1150mm outside
Rail : 1800mm

*IK-12 BEETLE 2torch set is available.

II. Portable Cutting Machines

II -4. Cutting Machines for Straight-Line

IK-12 max3 Portable Carriage

Cutting Speed	80-800mm/min
Speed control	Double cone stepless system
Direction	Forward/Reverse
Bevel cut angle	0 to 45°
Weight	10.0kg
Machine Size	430(L)*220(W)*215(H)mm

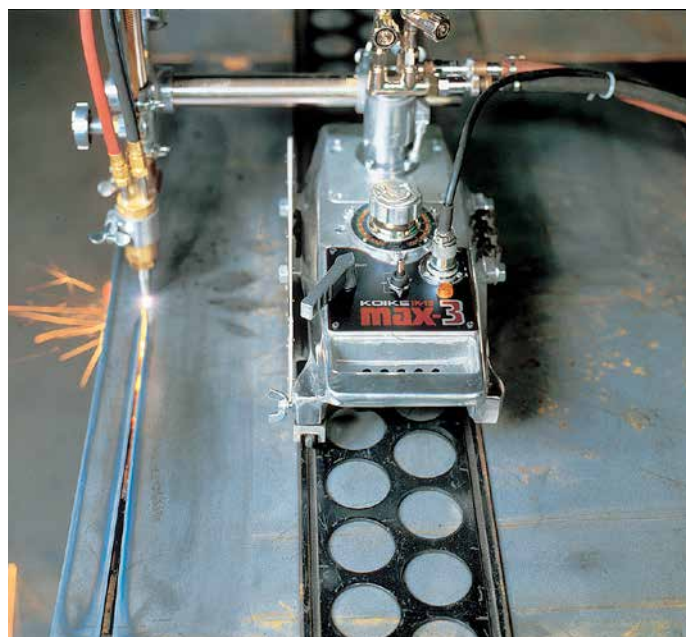
Optional Equipment	
Circle cutting attachment	: dia. 400-2400mm
Circle Track	: dia. 40 -360mm inside
	: dia. 770 - 1150mm outside
Rail : 1800mm	

IK-12 max3 <S TYPE>

Traveling Speed	80-800mm/min(Low) to 240-2400mm/min(High)
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IK-12 max3 <ML>

Traveling Speed	40-400mm/min
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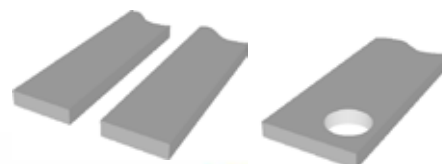
Torch Set for IK-12 max3

Name	Specification	Purpose	Cutting Thickness
S-100	Single torch set	for square or V bevel cutting	5-30mm
S-200	2 torches model of S-100	for square, V, Y or X bevel cutting	5-30mm
SP-100	Single torch set with a plate rider	for square or V bevel cutting	5-30mm
SP-200	2 torches model of SP-100	for square, V, Y or X bevel cutting	5-30mm
SP-300	2 torches for V bevel cutting with a plate rider	for square, V, Y or X bevel cutting	5-30mm
SP-400	3 torches for X bevel cutting with a plate rider	for square, V, Y, X or K bevel cutting	5-30mm
L-100	Long torch set	for square or V bevel cutting	5-30mm
S-EPOCH 300	Single torch set for Epoch-300 cutting tip	for thick plate cutting	100-300mm
S-EPOCH 600	Single torch set for Epoch-600 cutting tip	for thick plate cutting	300-600mm
S-6023	Single torch set for 6023 cutting tip	for thick plate cutting	200-350mm

*Cutting Tip Type : 102(ACE) or 106(LPG), except for S-EPOCH 300, S-EPOCH 600 & S-6023.

Rail for IK-12 max3

Straight Track 1800mm
Extreme Duty Track 1800m



II -5. Cutting Machines for Pipe



PICLE1 - II

Portable Oxy Fuel Pipe Cutting Machine

Drive Method	Manual
Cutting Thickness	50mm
Effective Cutting Diameter	dia. 114-600mm w/ std. chain. Over dia. 600mm with add. chain
Bevel Cutting	0 to 45°
Weight/Length	8.5kg/410mm
Cutting Tip Type	102(ACE) or 106(LPG)

*Additional chain(1m, 2.4m) is available.

AUTO PICLE Series

Motorised Oxy Fuel Pipe Cutting Machine

Model	AUTO PICLE-II	AUTO PICLE-S
Control Type	Pendant type	
Cutting Thickness	50mm	
Cutting Speed	100-700mm/min	
Bevel Cutting	0 to 45°	
Effective Cutting Pipe Diameter	dia. 150-600mm w/ std. chain Over dia. 600 mm w/ add. chain	Determined by selected guide rail.
Weight/Length	15.0kg	15.0kg
Cutting Tip Type	102(ACE) or 106(LPG)	

*Additional Chain(1m, 2.4m) is available for Auto Picle-II.



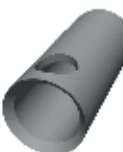
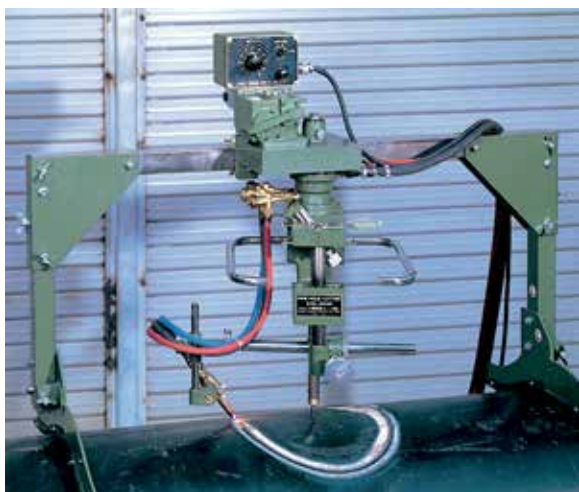
Selectable Equipment for Auto Picle S	
Guide Rail :	D-600 : dia. 400-600mm D-900 : dia. 600-900mm D-1200 : dia. 900-1200mm D-1500 : dia. 1200-1500mm

KHC-600D

Portable Pipe Hole Cutting Machine

Cutting Thickness	5-50mm
Cutting Speed	0.12-1.2rpm
Cutting Diameter	dia. 80-600mm
Min. Main Pipe Dia.	φ800mm
Ratio Btwn Branch and Main Pipe Dia.	Minimum 1 : 2 or more
Bevel Cut Angle	0 to 45°
Machine Dimensions	1050(L)*500(W)*760(H)mm
Weight	26.0kg
Cutting Tip Type	102(ACE) or 106(LPG)

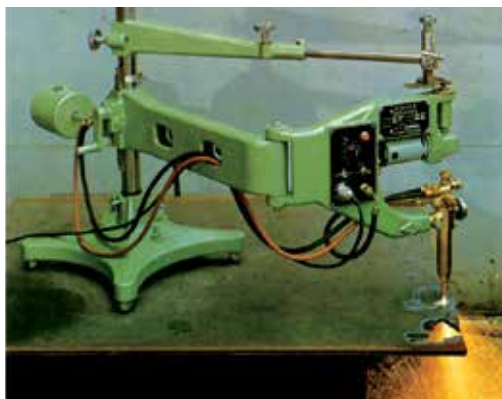
Optional Equipment	
Small diameter pipe fixture (for dia. 250-800mm pipe) Stand for overhanging workpiece	



II. Portable Cutting Machines

II -6. Cutting Machines for Shape Cut

IK-54D



Portable Shape Oxy Fuel Cutting Machine

Cutting Thickness	3-100mm
Cutting Speed	100-1000mm/min
Circle Cutting Range	dia. 30-700mm
Square Cutting Range	Square Side 30-600mm
Magnet Roller	dia. 10mm
Weight	33.0kg without weight
Machine Size	1260(L)*695(W)*550(H) mm
Cutting Tip Type	102(ACE) or 106(LPG)

*Magnet Roller : dia. 6, 8, 15 and 20mm is available.

Optional Equipment	
Circle Cutting Attachment w/Motor	dia. 60-400mm
Large Template Cutting Adapter	
Cutting Range : Circle	dia. 600-1700mm
Square	500-1200mm

*Model for Plasma torch is available.



IK 82 M Shape cutter for long profiles.

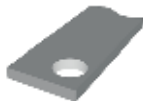


Model	M300
Template Setting	On Material to be cut
Cutting Thickness	5-50mm
Cutting Speed	100-600mm/min
Effective cutting capacity	Circle : dia. 300mm Ellipse : 600*200mm
Weight	9.5kg
Cutting Tip Type	402ST(A), 406NT(LPG)



II -7. Cutting Machines for Circle Cut

CIR CUT I/II



Model	Model I: Permanent Magnet Model II: Electro Magnet
Cutting Thickness	5-30mm
Cutting Speed	0.5-7.5rpm
Bevel Cut Angle	0 to 45°
Circle Cutting Range	dia. 40-200mm
Weight	11.0kg (Model I) / 11.3kg (Model II)
Cutting Tip Type	102(ACE) or 106(LPG)

IK-70

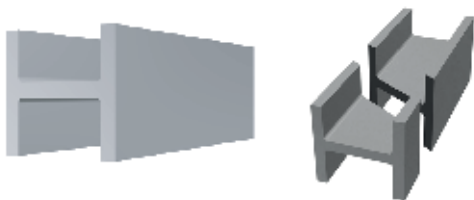


Model	600	1000
Cutting Thickness	15-50mm	
Cutting Speed	0.2-6rpm	0.04-1.5rpm
Bevel Cut Angle	0 to 45°	
Circle Cutting Range	dia. 30-600mm	dia. 150-1000mm
Weight	24.0kg	40.0kg
Cutting Tip Type	102(ACE) or 106(LPG)	
Optional Equipment		
Flange Cutting Kit (Only for Model 1000)		

II. Portable Cutting Machines

II -8. Cutting Machine for H-Beam

MINIMANTIS II



Portable H-Beam Oxy Fuel Cutting Machine

Cutting Thickness	5-30mm
Cutting Speed	100-700mm/min
Right Angle Cutting	Web length = 150-600mm with 600rail Flange dimension = 150-400mm
Capacity	with ST-400
Diagonal Web Capacity	35°at 400mm diagonal web length
Flange Diagonal Cutting Capacity	30°at 300mm maximum diagonal flange dimension
Bevel Cutting	35°for both web and flange
Weight/Length	20.0kg / 1100mm (600rail incl.)
Cutting Tip Type	102(ACE) or 106(LPG)

Optional Equipment

Vertical Drive Unit :	Short Torch : 400mm Short Torch : 700mm
Rail :	600/900/1500mm rail for Short Torch only

II -9. Cutting Machine for All Position

IK-72T



Portable All-position Oxy Fuel Cutting Machine

Cutting Thickness	5-30mm
Cutting Speed	150-700mm/min
Drive method	Rack and pinion
Bevel cut angle	0 to 45°
Body Weight	4.5kg
Cutting Tip Type	102(ACE) or 106(LPG)
Selectable Rails	1D 1500mm extendable alumi. 2D 1000mm extendable rubber (Minimum radius : 2500mm) 3D 1000mm extendable rubber (Minimum radius : 2000mm)

- * 1D rail for accurate straight cutting.
- * 2D rail for straight cutting and curved plane cutting.
- * 3D rail for straight cutting and twisted plane cutting.

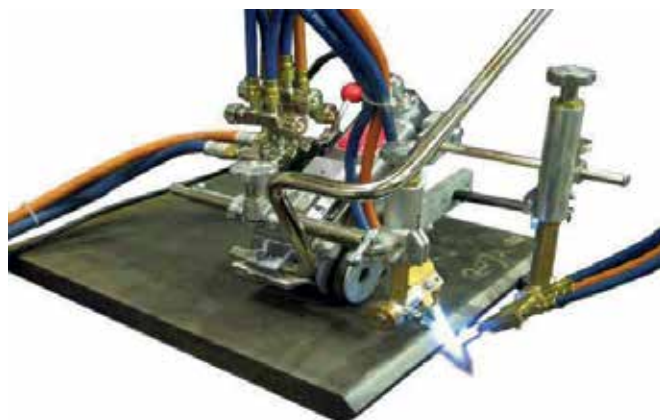
II -10. Other Cutting Machines

Portable Trackless Oxy Fuel X-Beveling Machine



Cutting Thickness	Up to 50mm at Bevel Length
Cutting Speed	100-1000mm/min
Direction Changing	Forward/reverse Switch
Bevel Cut Angle	0 to 45°
Weight/Length	12.5kg/402mm
Cutting Tip Type	102(ACE) or 106(LPG)
Feature	Tracer Guide 2-Torch set for X-bevel cutting Heavy Duty Heat Shield

EDGE-CUT



II - 1. Welding Carriage - All Position

1

IK 72 W1



Drive System	Rack & Pinion
Travel speed	150 to 1500 mm/min
Adjustment range of welding gun	Angle 40 to 55 degrees. Vertical 45 mm Horizontal 45mm
Welding margin	Start : 125 mm End : 140 mm
Welding Position	Fillet weld, Butt weld & Vertical fillet
Power supply	AC 100 V / 240 V , 50/60Hz , 1 Phase
Weight	4.5 kgs
Carriage dimension	350 x 250 x 230 mm

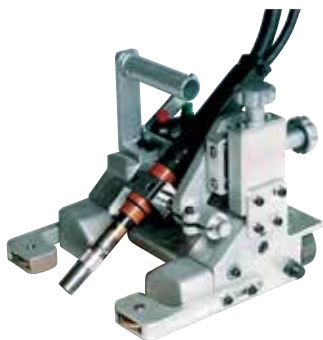
IK 72 W2



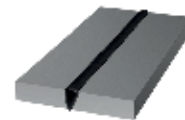
Drive System	Rack & Pinion
Travel speed	150 to 1500 mm/min
Adjustment range of welding gun	Angle 40 to 55 degrees. Vertical 45 mm Horizontal 45mm
Welding margin	Start : 140 mm End : 140 mm
Welding Position	Fillet weld, Butt weld & Vertical fillet
Oscillation setting	Width 1 to 25 mm Frequency 30 to 125 rpm
Dwell input settings	Stop time : 0.9 to 9.9 sec Arc start time : 0.9 to 9.9 sec Crater fill time : 0.9 to 9.9 sec
Power supply	AC 100 V / 240 V , 50/60Hz , 1 Phase
Weight	9.8 kgs
Carriage dimension	350 x 250 x 230 mm

III. Portable Welding Carriages

III -1. WEL-HANDY MULTI Series



WEL-HANDY MULTI (Standard) Multi Purpose Semi-Automated Welding Carriage



Traveling Speed	150-1500mm/min
Drive System	4-Rubber Wheel Drive, Attachment by Permanent Magnet
Traveling Type	Horizontal
Tracking Method	Vertical Plate Tracking with Guide Roller
Guide Roller Height	Adjustable to 10mm, 20mm, 38mm
Torch Adjustment Range	Horizontal angle : 40-55° Up/Down : 45mm Front/Rear : 45mm
Unwelded Area	Start 127mm/End 127mm
Automatic Stop	Limit Switches on both Ends of Body

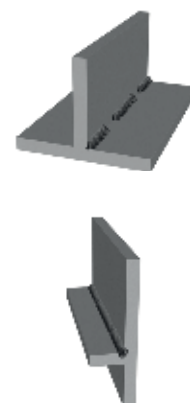
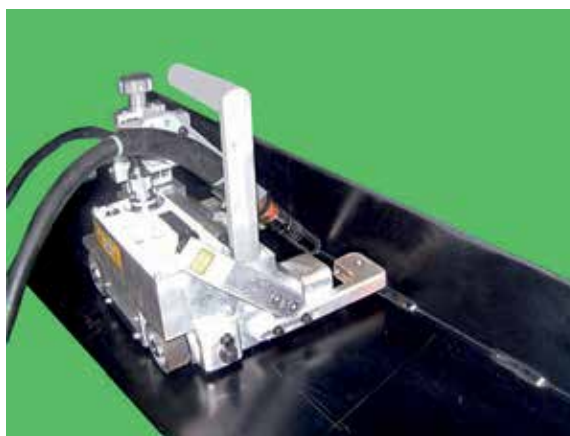
Traction Power	16.0kg
Weight	6.9kg
Machine Size	259(L)*259(W)*264(H) mm

*Powerful magnet type is available.

Optional Equipment (There are more than 20 options.)
Guide Roller
Various Torch Holder

Traveling Speed	150-1500mm/min
Drive System	4-Rubber Wheel Drive, Attachment by Permanent Magnet
Traveling Type	Horizontal and Vertical
Torch Adjustment Range	Horizontal angle : 40-55° Up/Down : 45mm Front/Rear : 45mm
Unwelded Area	Start 127mm/End 127mm
Automatic Stop	Limit Switches
Welding Length	1-999mm
Dry run Length	1-999mm
Reverse Distance of Crater Processing	0-9.9mm
Arc time	0.1-9.9sec.
Crater Processing	0.1-9.9sec.
Traction Power	16.0kg
Weight	6.8kg
Machine Size	259(L)*259(W)*264(H) mm

WEL-HANDY MULTI TACK Semi-Automated Tack (Stitch) Welding Carriage



WEL-HANDY MULTI WEAVING Semi-Automated Weaving Welding Carriage



Traveling Speed	60-600mm/min
Drive System	4-Rubber Wheel Drive, Attachment by Powerful Permanent Magnet.
Travelling Type	Horizontal, Vertical and Upward/Downward.
Torch Adjustment Range	Horizontal angle : 40-55° Up/Down : 45mm Front/Rear : 45mm
UN Welded Area	Start and End approx. 267mm
Automatic Stop	Limit Switches on both Ends of Body
Welding Width	1-25mm
Weaving Cycle Time	3-120cycle/minute
Traction Power	22kg
Weight	9.8kg
Machine Size	300(L)*300(W)*264(H) mm



APPLICATIONS CASE STUDIES



Wel-Handy Carriage on
Fillet Welds



Wel-Handy Mini for
narrow widths



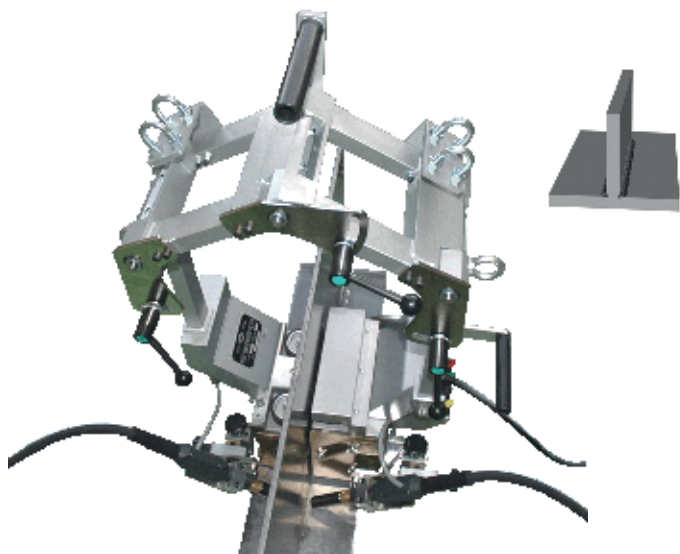
Wel-Handy Carriage on
Circular Welds

III. Portable Welding Carriages

III -2. WEL-TWIN, IK-12 MAX3 W

WEL-TWIN

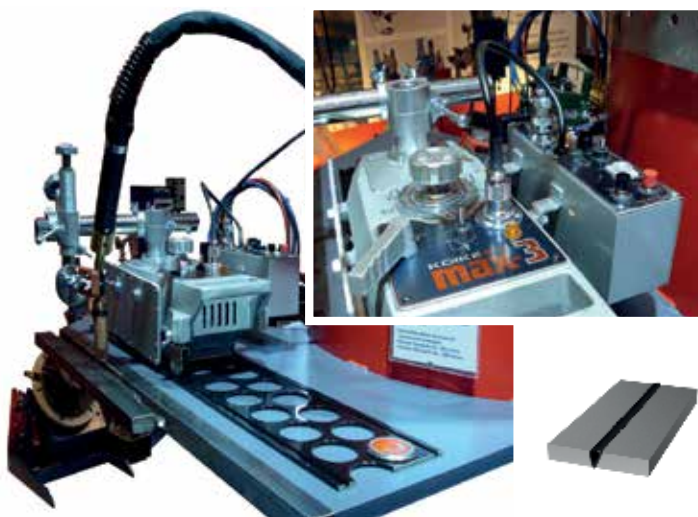
Semi-Automated Carriage for Welding Both Sides



Traveling Speed	200-1200mm/min
Adjustable range for weldments	Valve plate 300*110*11/45 - 500*110*11/45 Angle 200*90*9/14 - 400*110*13/18 Build up 350*100*19/19 - 600*150*13/25 Base Plate 400*t32 - 550*t35
Drive System	4-Rubber Wheel Drive, Attachment by Permanent Magnet
Traveling Type	Horizontal
Torch Adjustment Range	Horizontal angle : 40-50° Up/Down : 32mm Front/Rear : 32mm
Unwelded Area	Start and End max. 350mm
Automatic Stop	Limit Switches on both Ends of Body
Weight	33.0kg
Machine Size	300(L)*550(W)*720(H) mm

IK-12 MAX3 W + FR1 + WU 1

Straight Track Butt Welding Carriage with Weaving



Traveling Speed	80-800mm/min
Drive System	Double cone stepless system
Traveling Type	Horizontal
Tracking Method	Horizontal Plate Tracking with 1.8m straight rail
Controller for Weaving	Remote Control
Weaving Width	3.0-25.0mm
Weaving Cycle	3-120times/min
Hold Time in Weaving	Left, Center, Right 0.0-3.0sec
Torch Adjustment Range	Horizontal angle : 35-55° Up/Down : 33mm Front/Rear : 33mm
Unwelded Area	Start and End approx. 220mm
Weight	11.0kg
Machine Size	430(L)*220(W)*215(H) mm

* For details, please ask us

HEAT LINER

Portable Automatic Heating Carriage



Gas	Oxygen and LPG
Cooling	Cooling water
Heated object thickness	5-6mm
Heat flow	To the heating tips L-1000S
Torch Adjustment Range	Horizontal: 600-900mm Vertical: 80mm
Traveling speed	150-1500mm/min
Drive system	4-wheel drive, rubber wheels (permanent magnet power) (Lower plate traveling on a iron-based steel sheet)
Tractive force	16kg
Applied position	On a horizontal steel sheet
Weight of machine	15.5kgs
Dimensions	350(L)*1000(W)*500(H)mm
Power source	220v/50Hz/1Phase

IV. Medium to Large-size Cutting Machines

IV -1. Medium-size Cutting Machines

PNC-10 Elite / PNC 12 Extreme

PORTABLE-TYPE CNC CUTTING MACHINE

A low cost investment for high cutting productivity



Model		PNC-10 Elite	PNC-12 Extreme
Machine body	Type	1000 1250 1500	
	Effective cutting width	1000mm 1250mm 1500mm	
	Longitudinal rail length	2000mm, 3000mm, 3500mm selectable	
	Effective cutting length	1500mm, 2500mm, 3000mm selectable	
	Rapid speed	3000mm/min	
	Cutting speed	100-2,000mm/min	
	Supply voltage	1phase, 110V or 220/230V selectable by internal switch	
	Heat shield plate	Provided at side of the machine and the torch motor	
Oxy-fuel cutting	Oxy-fuel cutting torch	1 set with motorized torch riser	
	Cutting tips	KOIKE 100 series tip	
	Cutting thickness	Max. cutting thickness is subject to cutting tip size	
Plasma cutting	Torch holder	1 set with motorized torch riser / Diameter 35mm	
	Available Plasma System	Non high frequency arc start type Plasma system (Customer's scope of supply)	
	Plasma cable hold	Transverse bar hold type	
	Torch protection	Not Available	Torch Magnetic de-coupler
	Torch height control	Not Available	Initial height sensing/Arc voltage torch height control
	Fume collecting system	Not included	
CNC	Model of CNC	KOIKE D420	
	Operation panel	7 inch color LCD graphic display and key pad	
	Language	English, Japanese, Chinese, etc	
	Program input	Manual MDI or by USB stick (up to 16GB)	
	Control axis	X/Y 2 axes control	
	Shape library	47 patterns	
	Operation function	Dry run, Reverse, Plate alignment, Mirror, etc	
CAD/CAM	Model	PNC-CAM [KAP Portable CNC editions : KAP Jr.]	

* The rail of PNC-12 Extreme is not compatible with the rail of PNC-10 Elite.

MONOGRAPH EXTREME

CNC PLASMA CUTTING MACHINE

An entry level compact CNC investment for high cutting productivity



CNC Control	KOIKE EDGE PRO TI
Effective cutting area	1.5m x 3 / 6m up to 1.8m x 3 / 6m
Max plate thickness	12mm to 19mm depending on plasma P.S.
Rapid traverse speed	25 M / MIN.
Machine height	1,600 MM
Machine width	2,108 mm up to 2413 mm
Machine length	4,850 mm up to 9703 mm
Drive	Pulse width modulation w/rack and pinion
Air plasma system	Hypertherm Powermax 100 / 125
Drive system	2 AXIS SERVO DRIVE
Approximate ship weight	1,130 KG
Machine Power Supply	220 Volts / 1 Phase / 50 – 60 Hz @ 15 amps.
Plasma power source	400 VOLTS / 3 PHASE / 50 – 60 HZ
Table Duct opening	300mm diameter for all models
Table type	Down draft extraction.

NANOGRAPH

CNC OXY-FUEL & PLASMA CUTTING MACHINE

A high performance CNC investment for high cutting productivity for most applications



Model	2500	3000	3500	4000
Main Body Construction	Gantry Bridge / Single Side Drive			
Operator Console	Selectable Left or Right side			
Drive Method	Rack and Pinion drive for X and Y axis.			
Rail Span	2500mm	3000mm	3500mm	4000mm
Effective Cutting Width	1600mm	2100mm	2600mm	3100mm
Effective Cutting Length	Rail length (Standard 6000 mm) minus 2400 mm			
Torch Mounting System	Steel band connection system			
Cutting Speed	6000 mm/min			
Rapid/Marking Speed	10 000 mm/min			
CNC Control System	KOIKE D 500 Windows Based (Touch Screen) Fanuc Oi			
Shape Library	60 Standard Shape Patterns			
No. of Torch block	Maximum 6 torches			
Min. Torch Distance (Oxy-Fuel)	125 mm			
Oxy-Fuel Cutting Thickness	6-100mm (50mm with 4 torches)			
Power Supply	Single phase 100 volts / Three Phase 200 volts, 50/60 Hz			

* Plasma Cutting System is available for Model 2500-3500 Model 4000 is specialized for gas cutting only.

IV. Medium to Large-size Cutting Machines

MAXIGRAPH

CNC OXY-FUEL & PLASMA CUTTING MACHINE

A heavy duty advanced CNC investment for high cutting productivity



Model	3500	4000	4500	5000	6000
Main Body Construction	Gantry Bridge/Dual Side Drive				
Operator Console	Left-hand use (Right-hand use is optional)				
Drive Method	Rack and Pinion Drive for X and Y axis.				
Rail Span	3500mm	4000mm	4500mm	5000mm	6000mm
Effective Cutting Width	2600mm	3100mm	3600mm	4100mm	5100mm
Effective Cutting Length	Rail Length minus 1750mm				
Torch Mounting System	Steel Belt connection system				
Cutting Speed	6000 mm/min				
Rapid Traverse Speed	15000mm/min				
Marking Speed	9000mm/min				
CNC Control System	D-500, D-600, D-650, Fanuc Oi				
No. of Torch Block	Maximum 6 torches				
Min. Torch Distance (Oxy-Fuel)	125mm				
Oxy-Fuel Cutting Thickness	6–100mm (Max. 50mm by 4 torches)				
Hose & Cable Bearer	Polymer Energy Chain System for Longitudinal & Traverse				
Power Supply	Single Phase 100/110V, Three Phase 200/220V, 50/60 Hz				

Optional Accessories

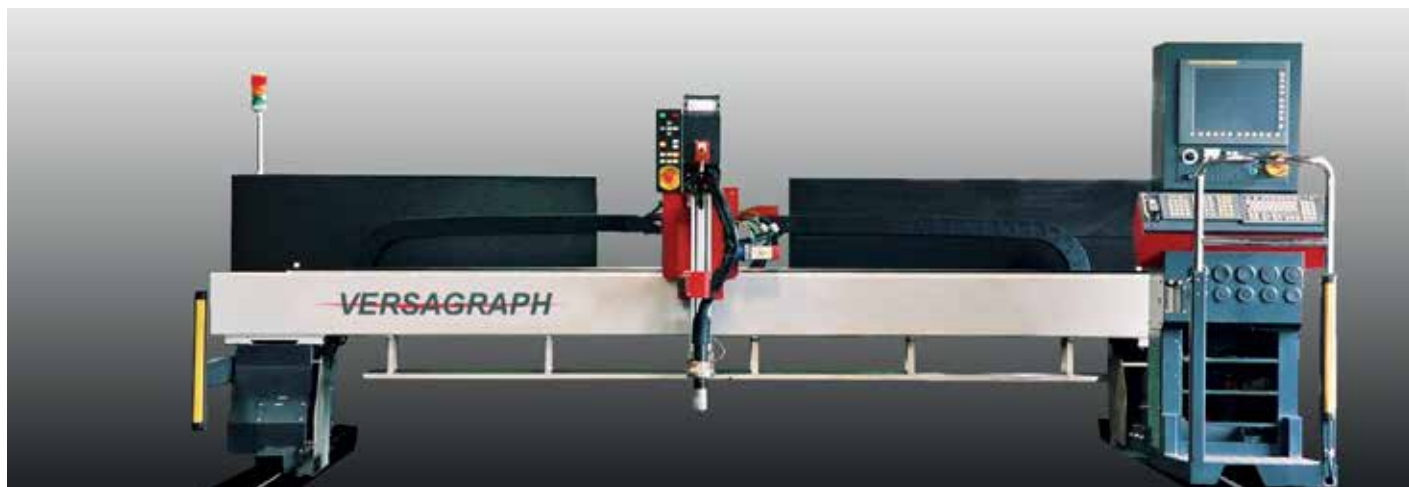
Plasma Cutting, Line Marking, Water Spray, Auto Ignition, Hi-Lo Oxy-Fuel Manifold, Capacitance Height Sensor.

IV -2. Large-size Cutting Machines

VERSAGRAPH

CNC OXY-FUEL & PLASMA CUTTING MACHINE

Advanced investment for high cutting productivity with plasma bevel cutting capability



Model	VERSAGRAPH-Z & ZX						VERSAGRAPH-DXI				
	3500	4000	4500	5000	5500	6000	4000	4500	5000	5500	6000
Specification	Plasma Cutting ONLY						Combination of Oxy-Fuel&Plasma Cutting				
Main Body Construction	Gantry Bridge / Double Side Drive										
Operator Console	Left-hand use (Right-hand use is optional)										
Drive Method	Rack and Pinion Drive for X and Y axis.										
Rail Span	3500mm	4500mm	4500mm	5000mm	5500mm	6000mm	4000mm	4500mm	5000mm	5500mm	6000mm
Effective Cutting Width	2600mm	3600mm	3600mm	4100mm	4600mm	5100mm	3100mm	3600mm	4100mm	4600mm	5100mm
Effective Cutting Length	Rail Length minus 3000 mm										
Torch Mounting System	Carriage System						Steel Belt Connection System				
Cutting Speed	6000mm/min										
Rapid Traverse Speed (Longitudinal)	27000mm/min						27000mm/min				
Rapid Traverse Speed (Transverse)	36000mm/min						15000 m/min				
Marking Speed	24000 m/min						15000 m/min				
CNC Control System	FANUC FS 31i (FS 30i for 3D Bevel Specification)										
Maximum No. of Torch Block	-						Oxy-Fuel : 8sets Oxy-Fuel : 4sets + Plasma : 1set				
Min. Torch Distance (Oxy-Fuel)	-						125 mm				
Oxy-Fuel Cutting Thickness	-						6–100mm (Max. 50mm by 8 torches)				
Power Supply	Single Phase 100/110V, Three Phase 200/220V, 50/60 Hz										
Hose & Cable Bearer	Polymer Energy Chain System for Longitudinal & Traverse.										
Installed Plasma System	SUPER400PLUS. Other Plasma System is available										

Optional Accessories

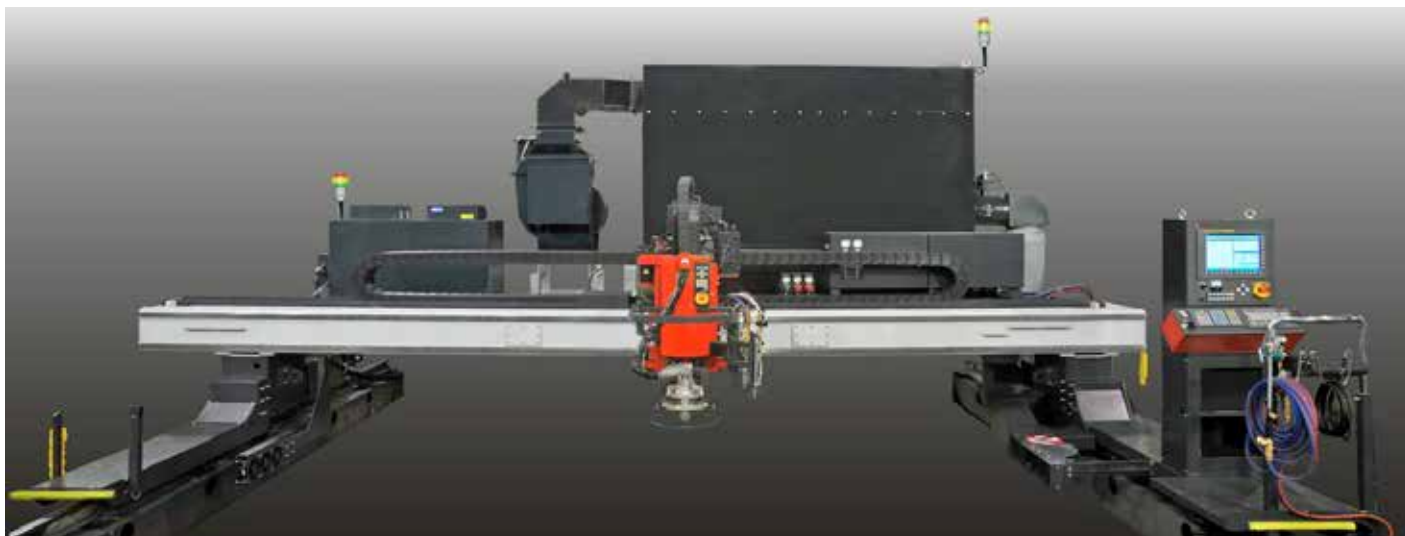
Plasma Cutting, Line Marking, Water Spray, Auto Ignition, Hi-Lo Oxy-Fuel Manifold, Capacitance Height Sensor, Decoupling Holder for Plasma Torch, 3D Link Device for Plasma Bevel Cutting Feature.

IV. Medium to Large-size Cutting Machines

MYNUC

CNC OXY-FUEL & PLASMA CUTTING MACHINE

Largest span, heavy duty with multiple tools for cutting, line marking & character marking



Model	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
Main Body	Gantry Bridge / Double Side Drive											
Operator Console	Left-hand use (Right-hand use is optional)											
Drive Method	Rack and Pinion Drive for X and Y axis.											
Rail Span	4500mm	5000mm	5500mm	6000mm	6500mm	7000mm	7500mm	8000mm	8500mm	9000mm	9500mm	10000mm
Effective Cutting Width	3500mm	4000mm	4500mm	5000mm	5500mm	6000mm	6500mm	7000mm	7500mm	8000mm	8500mm	9000mm
Effective Cutting Length	Rail Length minus 3000 mm											
Torch Mounting System	Steel Belt Connection System or Carriage system											
Cutting Speed	6000 mm/min											
Rapid Traverse Speed	Plasma machine : Stand-alone dust collector type 54000mm/min On-board dust collector type 36000mm/min Oxy-Fuel & Plasma machine : 24000mm/min											
Marking Speed	Plasma machine : 36000mm/min, Oxy-Fuel & Plasma machine : 24000mm/min											
CNC Control System	FANUC FS 31i / FS 30i for 3D Link bevel											
No. of Oxy-Fuel Torch block	Maximum 12 torches											
Minimum Torch Distance	125 mm											
Oxy-Fuel Cutting Thickness	6 – 200 mm (Max. 50mm by 4 torches)											
Power Supply	Single Phase 100/110V, Three Phase 200/220V, 50/60 Hz											
Hose & Cable Bearer	Polymer Energy Chain System for Longitudinal & Traverse.											
Installed Plasma System	SUPER400PLUS. Other Plasma System is available											

Optional Accessories

Plasma Cutting, Line Marking, Water Spray, Auto Ignition, Hi-Lo Oxy-Fuel Manifold, Capacitance Height Sensor, Decoupling Holder for Plasma Torch, 3D Link device for Plasma Bevel Cutting Feature.

Torch Options for Cutting Machines

Twin Cutting Attachment

Torch Option for Strip Cutting of Steel Plates



Cutting Thickness	5-40mm
Min. Cutting Width	32mm
Max. Cutting Width	310mm
Cutting Tip Type	102 (ACE) or 106 (LPG)

Bevel Cutting Attachment

Torch option for Beveling of Steel Plates



Cutting Thickness	5-75mm
Bevel Cut Angle	0 to 45°
Cutting Tip Type	102 (ACE) or 106 (LPG)

SP-400 Torch Set

Torch option for X-Bevel cutting with a plate rider



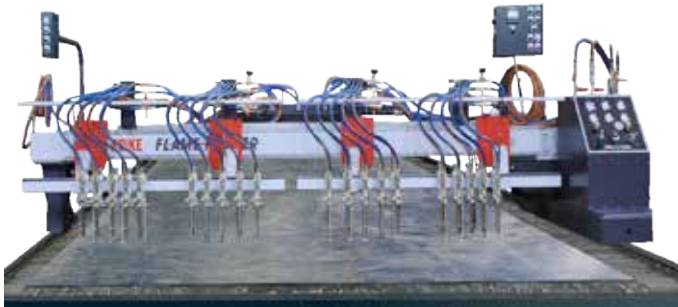
Cutting Thickness	5-30mm
Cut-shape	I, V, X or K-cut
Cutting Tip Type	102 (ACE) or 106 (LPG)

IV -3. Other Cutting Machines

Flame Planner

OXY-FUEL CUTTING MACHINE

Heavy duty, precision and multiple oxy-fuel stripping machine.



Type	4000 to 12000
Main Body	Gantry Bridge / Single Side Drive
Operator Console	Left-hand use (Right-hand use is optional)
Drive Method	Friction
Rail Span	4000 to 12000 mm
Effective Cutting Width	3000 to 11000mm
Effective Cutting Length	Rail Length minus 4.0 m
Cutting Thickness & Shapes	6-50 mm / I , V , Y , X .
Minimum Cutting Width	Parallel - 50 mm / Bevel – 550 mm
No. of Torch Block	Any number is available.
Cutting Speed	100 – 1200 mm/min
Driving Direction	Forward and Reverse
Longitudinal Accuracy	Long. Straightness + 0.1 mm / 12000 mm
Power Supply	Single Phase 100/110V, Three Phase 200/220V, 50/60 Hz

AB-GRAPH

CNC ANGLE BAR PROFILE CUTTING MACHINE

Special profile cutting machine for flats, angle, L, T and Bulb profiles.



Main Body	Gantry Bridge
Operator Console	Left-hand use (Right-hand use is optional)
Drive Method	Rack and Pinion
Rail span	1,700 mm
Effective Cutting Width	Web : 550mm, Flange : 200mm
Effective Cutting Length	Rail Length minus 5000mm
Cutting Speed	6,000 mm/min
Marking Speed	18,000 mm/min (on Web)
Rapid Speed	Longitudinal : 36,000 mm/min Transverse : 12,000mm/min
CNC Control System	FANUC FS 300i
Power Supply	Three Phase 200/220V, 50/60 Hz

KOIKEJET

ULTRA-HIGH PRESSURE WATERJET CUTTING MACHINE

KOIKEJET system combines Koike Aronson's experience and unsurpassed customer support with latest in waterjet technologies.

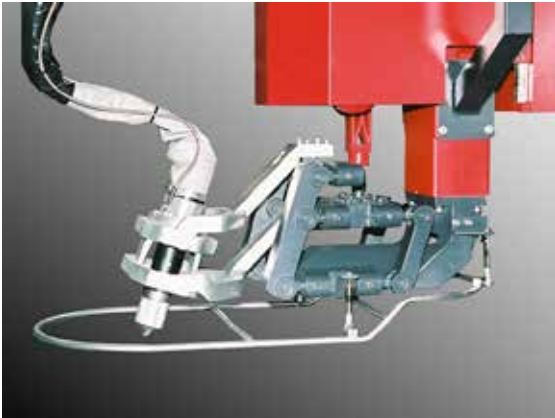


Model	KOIKEJET66	KOIKEJET610	KOIKEJET612
Y-axis Machine length	2896mm	4267mm	4877mm
Y-axis effective cutting length	1880mm	3099mm	3708mm
X-axis machine width	2845mm		
X-axis Effective Cutting Width	1880mm		
Machine Height (excl. cable)	2185mm		
Table Height	1033mm		
Z-axis Operation Range (motor drive)	203mm		
Location setting precision	±0.076mm		
Repeating Precision (per 1 axis)	±0.025mm		
Forwarding Speed	12,700mm/min		
Cutting Speed Range	0~7620mm		
CNC Control Unit	BURNY XL Controller (USB port, LAN port unit)		
Drive Method	AC servo		
Drive Conversion Method	Ball screw		

Torch Options & Power Supplies

3D-LINK

New Lightweight Bevel Head

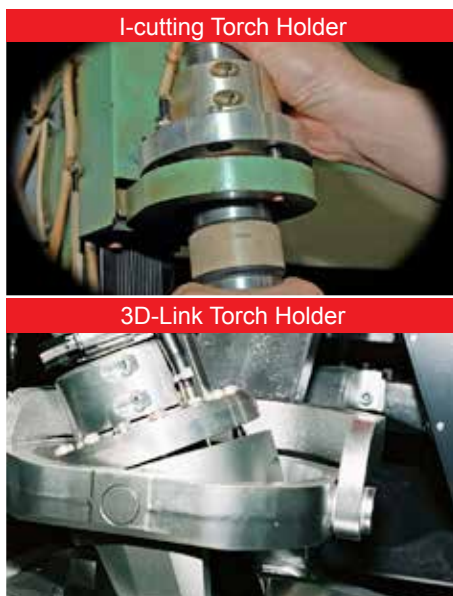


Rotating speed	60rpm
Angle Setting Speed	100deg/sec
Torch Up/Down Speed	Max. 20m/min
Bevel Cut Angle	0 to 45°

- The new 3D-Link bevel cutting block helps to set the torch angle for bevel cutting.
- Angle setting speed and position control speed are twice as fast as conventional units. Moreover, complex shapes can be cut and total processing time can be shortened.
- The travel distance needed to change the bevel angle has been shortened and the position control area in corners has been reduced, resulting in improved yield during cutting.

Torch Decouplers

Easy Attach/Detach of Plasma Torch



- When the torch comes into contact with the steel plate, the magnet portion of the torch holder detaches to reduce the damage from collision.
- A sensor is activated when the holder detaches and the machine automatically stops. At the same time, an alarm is sounded to alert the operator.
- The torch does not need to be re-centered or re-positioned, so it can be easily reattached allowing quick restarting of cutting work.
- Decouplers are available for I-cutting and for 3D-Link bevel cutting.

Super-400 Plus

Leading-Edge, Powerful Plasma Power Supplies and New Torches



Model	SUPER-400 PLUS
Power Supply	KP-4054
Input Power	200V/220V
Rated Input	104kVA
Output Current	400A
Usage Rate	100%
Torch Model	433-OPS, 434V-OPS, 434i-OPS
Cooling System	(Cold Water)
Machine Size	W750mm D1000mm H1200mm
Weight	350kg
Plasma Gas	Mild Steel: Oxygen Stainless Steel: Nitrogen
Secondary Gas	Mild Steel: Air Stainless Steel: Argon + Hydrogen
Shield Gas	Stainless Steel: Carbon Dioxide + Hydrogen

- SUPER-400 PLUS new plasma system
 - The service life of consumables is extended by approx. 50%.
 - Thick-plate cutting is now possible with a capacity up to 50mm thickness.(cutting with edge start)
- Digital control technology allows “automatic current setting” and “automatic gas flow setting” by NC data command, as well as “optimum cutting.”

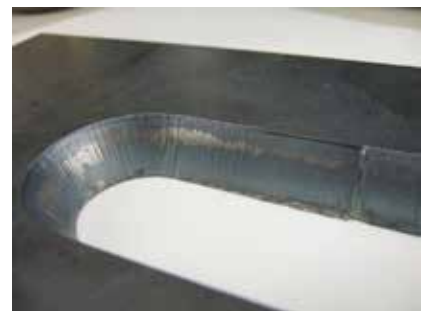
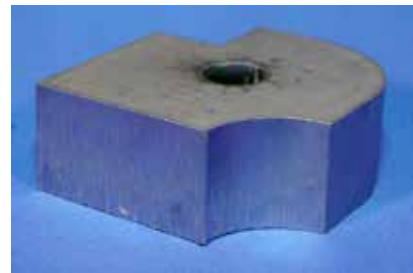
IV. Medium to Large-size Cutting Machines

IV -4. CO2 Laser Cutting Machines

LASERTEX

WIDE SPAN HIGH OUTPUT LASER CUTTING SYSTEM

High Speed, High Quality, High Productivity, and unmanned operation.



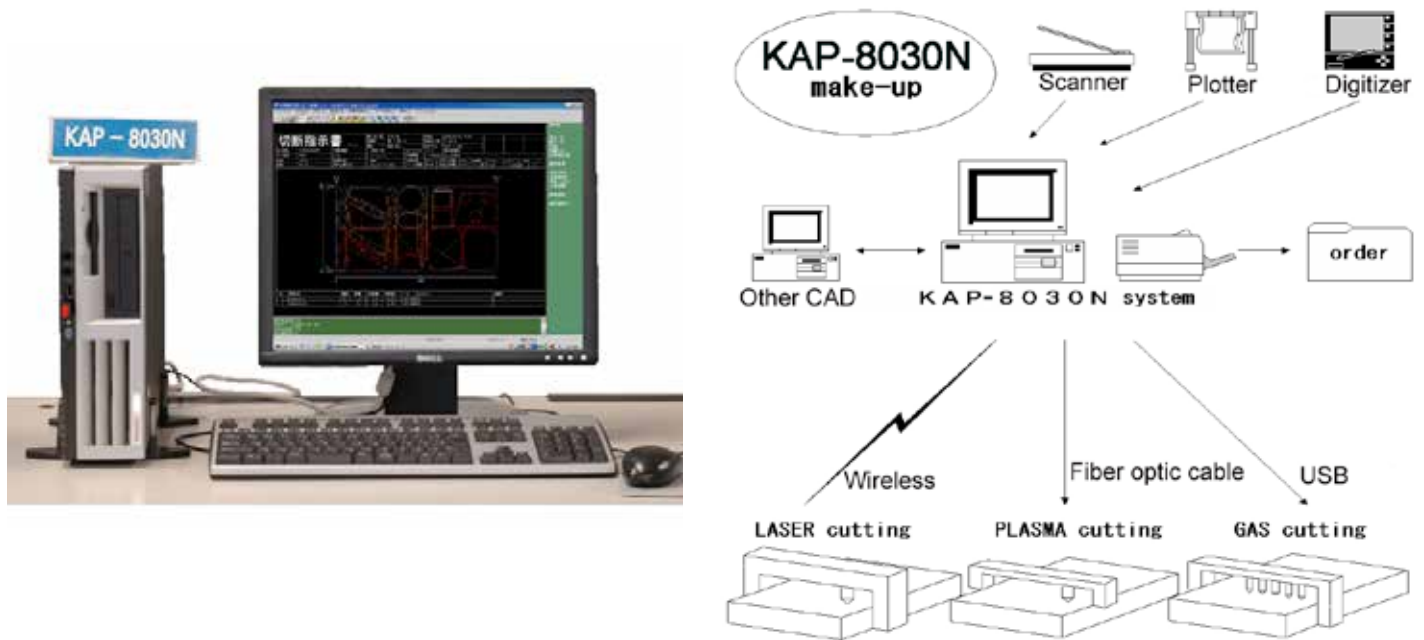
Model	LASERTEX-xx40Z	LASERTEX-xx60Z	LASERTEX-xx60TRZ	LASERTEX-xx60TRVZ
Structure	Resonator Carriage Mounted Type	Oscillator Mounted Type	Resonator Carriage Mounted Type	
NC	FANUC FS-160i-LB		YSC(Yaskawa Siemens)	
Rail length	Any Length is available.			
Rail Span	3000-10000mm	4500-10000mm		
Effective Cutting Width	2100-9100mm	3600-9100mm		
Effective Cutting Length	Rail Length minus 3000mm, Max.47000mm			
Marking Speed	18000mm/min		24000mm/min	
Cutting Parameter	Cutting parameter setting function			
Cutting Capacity	Mild Steel: 20mm Stainless Steel: 12mm	Mild Steel: 22mm Stainless Steel: 25mm	Mild Steel: 25mm Stainless Steel: 25mm	Mild Steel : I-CUT 25mm, 19mm V30°(16mm V45°)
Input Voltage	Three Phase 200/220V, 50/60Hz			

Model	FANUC C4000i-B	FANUC C6000i-B	TRUMPF TLF6000t
Structure	Integrated Resonator & Power supply		Separated Resonator & Power supply
Laser Rated Output	4000W	6000W	6000W
Laser Max. Output	4000W	6000W	6000W
Output Stability	± 2%	± 2%	± 2%
Wave Length	10.6μm		
Pulse Output Command Frequency	5-2000Hz		310-100000Hz
Laser Gas Composition	CO2:N2:He		
Laser Gas Consumption Volume	10L/h	20L/h	20L/h
Coolant Flow	160L/min or more	250L/min or more	155L/min or more (Aluminum Line) 62L/min or more (Brass Line)
Input Power Source	55kVA	75kVA	82kVA
Weight (approx.)	900kg	1300kg	Resonator : 450kg Power Supply : 1560kg

IV. Medium to Large-size Cutting Machines

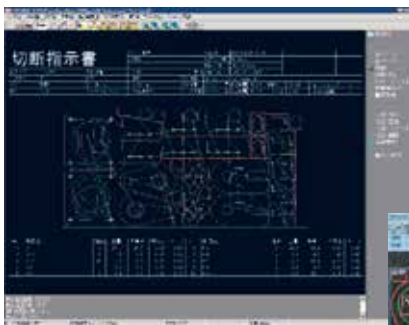
IV -5. KAP-8030 NC Programming System

An intelligent CAD / CAM software that generates a part drawing to the creating of N.C. cutting data within a minutes



- Cost performance (Packaged functions satisfy all the full automatic programming needs)
- Speed and power (No time for training, easy operation can start product right away)
- Increasing cutting productivity and quality (Output NC program involved best cutting technique)
- Expandable options
(Many options to maximize your large sophisticated gantry cutting machine to small tracing)

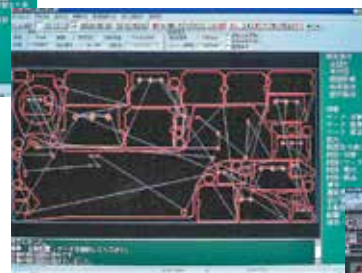
Step 1 Drawing (Pattern Screen)



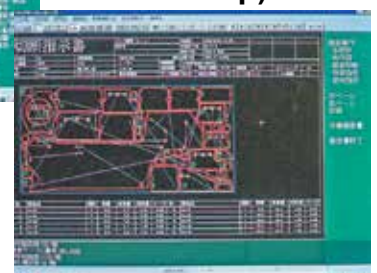
Step 2 Nesting (Auto Nested Screen)



Step 3 Cutting sequence (Lead in Pattern Screen)



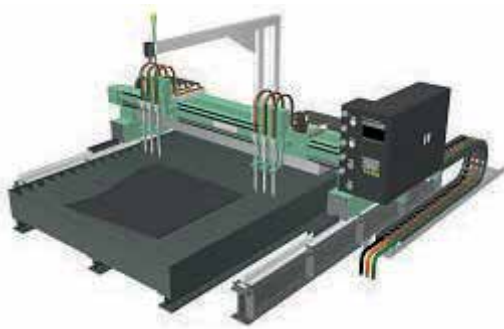
Step 4 Out put (Order Sheet System make up)



IV. Medium to Large-size Cutting Machines

IV- 6. KOIKE NAVIGATOR

Parts Nesting System for Remnant Plate Processing



Turn your scrap and remnant steel plates into profits with the Navigator CCTV camera image capturing and auto nesting system.

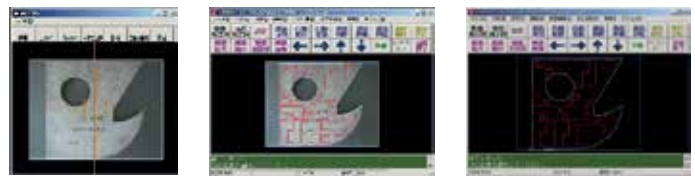


Image capture > Parts Select > Auto Nesting > Cutting



IV -7. 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 finger tips. Reduce programming errors and assure increased repeatability and accuracy at faster processing speeds.

FANUC FS-0i



- 15" Locor LCD display
- Touch screen function
- 60 Standard Patterns
- Max. 4 Axis control board
- EIA format
- SSD 8GB : System 2GB, Data 6GB
- USB Memory Port
- MDI (Manual Data Input)
- Local Area Network Port
- Windows XP or 7 Operating System

D-600



- 15" TFT color LCD display
- Touch Screen function
- 82 Standard Patterns
- 3 Axis control board
- EIA/ ESSI program format
- SSD 8GB : System 2GB, Data 6GB
- USB Memory Port x 2
- MDI (Manual Data Input)
- Local Area Network Port
- Windows-7 Operating System

FANUC FS-31i



- 15" Color LCD display
- Touch Screen function
- 60 Standard Patterns
- 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 display.
- RS-232C Port for Ext. Devices
- Local Area Network Port
- Windows-7 Operating System

FANUC FS-30i



- 15" Color LCD display
- Touch Screen function
- 60 Standard Patterns
- 5 Axis control board
- EIA/ ESSI program format
- SSD 8GB : System 2GB, Data 6GB
- USB Memory Port
- MDI (Manual Data Input)
- Self Diagnostic Alarm display.
- RS-232C Port for Ext. Devices
- Local Area Network Port
- Windows-7 Operating System

V -1. Universal Balance Positioner

No matter what size the piece, no matter what angle you need, KOIKE has a positioner that will do the job efficiently. Our many models can handle standard parts or awkward objects in any shape from 45 kg to 1,800 kg.

Features:

- Safe and quick manipulation of large, awkward pieces
- Allows the welder to position objects by just fingertip pressure without raising a helmet or breaking an arc
- Pieces can be rotated 360° on the horizontal and vertical axis to maintain the most productive downhand welding position



It can be carried by hand and used for assembling and cleaning small motors, and welding metal containers.

Specifications for C-50

Model		C - 50
Max. workpiece weight	[kg]	50
Height of center of gravity	[mm]	100
Table diameter	[mm]	125
Adjustable table range	[mm]	175
Max. welding current	[A]	600
Machine weight	[kg]	7



It can be carried comparatively easily and used for welding construction machinery, automobile parts, grinding and painting.

Specifications for C-250

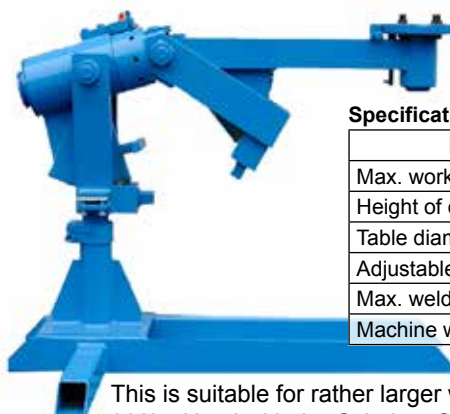
Model		C - 250
Max. workpiece weight	[kg]	250
Height of center of gravity	[mm]	300
Table diameter	[mm]	203
Adjustable table range	[mm]	750 - 1,050
Max. welding current	[A]	800
Machine weight	[kg]	95



This type together with the C-900 is the most popular of the positioners and is suitable for welding parts of motors, construction machinery, cars and the like.

Specifications for C-450

Model		C - 450
Max. workpiece weight	[kg]	450
Height of center of gravity	[mm]	300
Table diameter	[mm]	203
Adjustable table range	[mm]	750 - 1,050
Max. welding current	[A]	800
Machine weight	[kg]	100

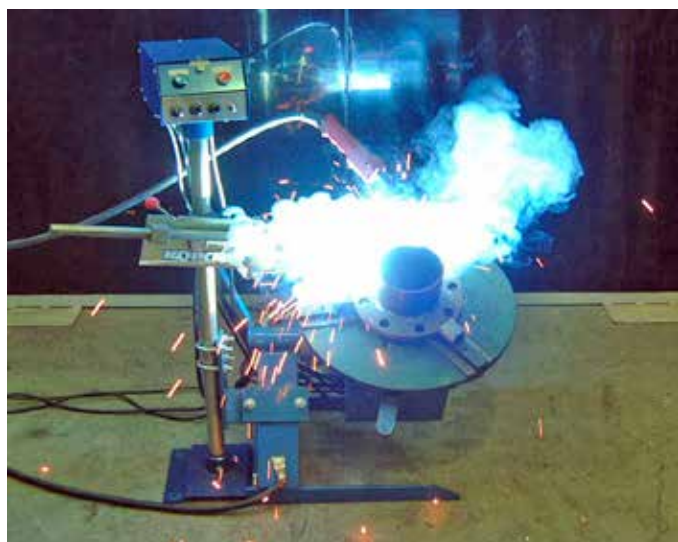


Specifications for C-900

Model		C - 900
Max. workpiece weight	[kg]	900
Height of center of gravity	[mm]	300
Table diameter	[mm]	203
Adjustable table range	[mm]	840 - 995
Max. welding current	[A]	1,200
Machine weight	[kg]	200

This is suitable for rather larger workpieces weighing up to 900kg. Used with the C-250 or C-450, even wider application is possible.

V -2. Small-size Positioner



LD-R Model Positioner

Features:

- Selecting the right positioner model is easy!
- High TIG welding noise tolerance (New design featuring outstanding noise tolerance)
- Excellent Durability
- Safety design
- Wide assortment of optional accessories

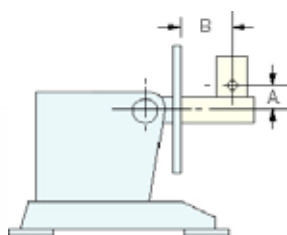
Specifications

Model		LD-60R	LD-150R	LD-300R	LD-600R
Power supply	[V]	AC 100V single-phase	AC 100V single-phase	AC 100V single-phase	AC 200V 3-phase 50/60Hz
External dimension (Width x Depth x Height)	[mm]	400 x 580 x 385	505 x 515 x 435	570 x 750 x 530	726 x 50 x 728
Table diameter	[mm]	300	380	450	620
Table rotation	Min.	0.42	0.15	0.23	0.2
	Max.	20.0	6.2	4.6	1.16
Table tilt angle	[°]	-135 ~ 135	0 ~ 90		
Table height when horizontal	[mm]	385	435	530	728
Height of tilt axis	[mm]	290	335	430	595
Max. table rotation torque	[kgf*mm]	1,500	3,000	8,000	50,000
Max. table tilt torque	[kgf*mm]	Manual			141,500
Weight	[kg]	30	60	135	320
Allowable welding current	[A]	500			750
Control Method	Control	SCR			Inverter
	Controller	LDR-A			Pendant Control Unit

※ A new positioner controller has been developed for LD-60R/150R/300R models!

LD-600R is inverter-controlled. The Controller is a pendant-type control box.

LD-60R



Specifications for LD-60R

Max. horizontal load	60 kg
Max. vertical load	30 kg
Max. eccentricity of the center of gravity during max. load (A)	50 m
Max. height of the center of gravity during max. load (B)	150 m

LD-150R



Specifications for LD-150R

Max. horizontal load	150 kg
Max. vertical load	120 kg
Max. eccentricity of the center of gravity during max. load (A)	25 m
Max. height of the center of gravity during max. load (B)	110 m

LD-600R



Specifications for LD-600R

Max. horizontal load	600 kg
Max. vertical load	120 kg
Max. eccentricity of the center of gravity during max. load (A)	100 m
Max. height of the center of gravity during max. load (B)	150 m

LD-300R



Specifications for LD-300R

Max. horizontal load	300 kg
Max. vertical load	200 kg
Max. eccentricity of the center of gravity during max. load (A)	40 m
Max. height of the center of gravity during max. load (B)	150 m

V -3. Large-size Ransome Positioner P-Type Series Positioner

KOIKE Positioners are engineered to provide versatility and safety over a wide range of weldment handling capacities from 45 kg to over 40 tons.



Features:

- Free standing with rated load applied precision balanced so it can't tip over.
- Dynamic braking stops instantly.
- Jam proof switching maintains total control.
- Fully remote control ensures operator safety.
- Rapid travel index eliminates operator anxiety.
- Totally enclosed D.C. variable speed drive rotation motor is out-of-the-way.
- 135° of powered tilt.

High capacity mechanical ground shoe protects pre-loaded tapered roller bearings from welding current

Hollow spindle for gas shielding or fixturing

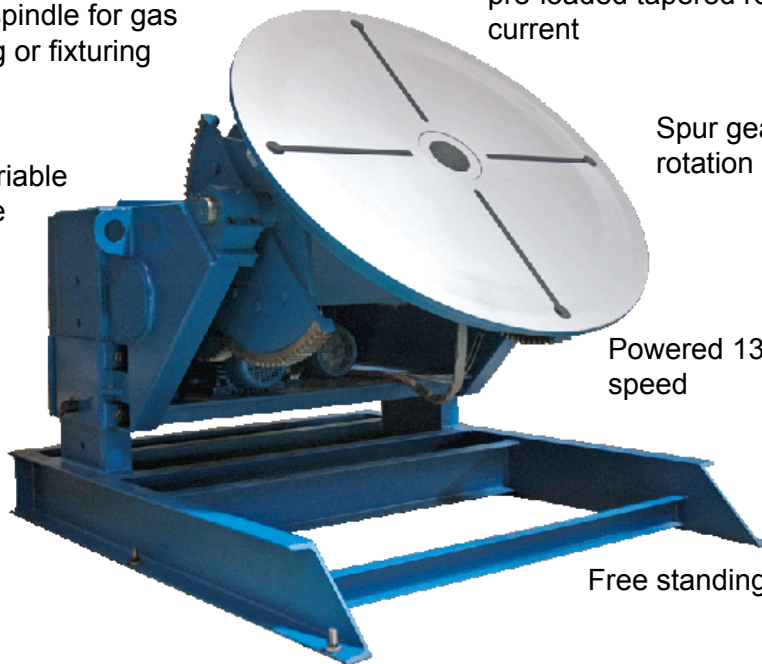
Totally enclosed variable speed rotation drive

Spur gear final stage on tilt and rotation

Easy to read Tilt Protractor

Powered 135° forward tilt at constant speed

Free standing under full rated load



Specifications

Model	Basic Load Capacity	Distance between Axis and Table	Table Diameter	Rotation Torque	Tilt Torque	Table Rotation Min.	Table Rotation Max.	Rotation Drive Motor	Tilt Drive Motor	Weight Gravity	Eccentricity	Center Gravity
	[t]	[mm]	[mm]	[kgf·m]	[kgf·m]	[rpm]	[rpm]	[kw]	[kw]	[kg]	[mm]	[mm]
10P	0.45	115	760	69.3	121	0.050	2.00	0.241	0.375	460	152.4	152.4
25P	1.13	153	810	173	246	0.038	1.55	0.560	0.375	980	152.4	152.4
30P	1.36	178	1060	415	658	0.031	1.24	1.125	0.750	140	304.8	304.8
40P	1.81	165	910	277	577	0.031	1.24	0.750	0.562	1,660	152.4	152.4
50P	2.27	178	1,060	346	750	0.031	1.24	0.750	0.750	1,410	152.4	152.4
60P	2.70	229	1,520	831	1,455	0.025	1.00	0.750	0.750	2,300	304.8	304.8
100P	4.50	260	1,520	1,385	2,569	0.020	0.80	2.250	2.250	4,050	304.8	304.8
120P	5.40	260	1,520	1,662	3,083	0.020	0.80	2.250	2.250	4,050	304.8	304.8
200P	9.00	229	1,520	2,771	4,849	0.012	0.48	2.250	3.750	6,390	304.8	304.8
250P	11.30	229	1,520	3,464	6,061	0.012	0.48	3.750	3.750	5,460	304.8	304.8
300P	13.60	292	1,820	4,156	8,140	0.011	0.47	3.750	3.750	6,370	304.8	304.8
400P	18.10	292	2,130	5,542	10,853	0.007	0.30	5.625	5.625	11,820	304.8	304.8
500P	22.70	292	2,130	6,927	13,566	0.007	0.30	5.625	5.625	14,550	304.8	304.8
600P	27.20	260	2,130	8,313	15,413	0.008	0.32	5.625	7.500	16,820	304.8	304.8
900P	40.90	305	2,130	12,469	24,938	0.007	0.31	7.500	11.250	24,800	152.4	304.8

V -4. G - GE Positioners, Turning Rolls

G Series Positioner



GE Series Positioner



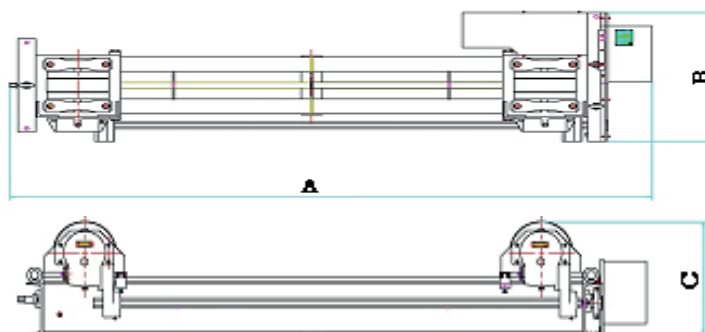
Turning Rolls

Effective Positioning of long or cylindrical workpieces



Specifications

Model	TR-1BR	TR-3BR	TR-5R	TR-10R	TR-20R	TR-30R	TR-50R
Workpiece weight [kg]	1,000	3,000	5,000	10,000	20,000	30,000	50,000
Workpiece diameter [mm]	50 ~ 1,500	200 ~ 2,000	300 ~ 3,500	300 ~ 3,500	400 ~ 5,000	400 ~ 5,000	500 ~ 6,000
Speed range [mm/min]	74 ~ 740	145 ~ 1,450	140 ~ 1,400	156 ~ 1,560	156 ~ 1,560	156 ~ 1,560	138 ~ 1,380
Roller center distance [mm]	160 ~ 700	210 ~ 900	410 ~ 1,600	420 ~ 1,600	420 ~ 2,200	470 ~ 2,200	500 ~ 2,800
Roller size (diameter x width) [mm]	150 x 100	200 x 120	300 x 120	300 x 140	300 x 160	300 x 180	420 x 240
Motor in/out put	0.2Kw, 3phase, 200V	0.4Kw, 3phase, 200V	0.4Kw, 3phase, 200V	0.75Kw, 3phase, 200V	1.5Kw, 3phase, 200V	1.5Kw, 3phase, 200V	2.2Kw, 3phase, 200V
Drive	One-Wheel	One-Wheel	Two-Wheels	Two-Wheels	Two-Wheels	Two-Wheels	Two-Wheels



Specifications for Equipment Dimension

Model	TR-1BR	TR-3BR	TR-5R	TR-10R	TR-20R	TR-30R	TR-50R
Length A	Main side [mm]	1,680	1,700	2,420	2,420	3,065	3,090
	Subordinate side [mm]	850	1,115	2,196	2,196	2,800	2,804
Max. Width B	Main side [mm]	425	370	742	792	810	980
	Subordinate side [mm]	220	300	350	400	584	524
Height C	Main side [mm]	430	400	497	507	543	561
	Subordinate side [mm]	276	309	497	507	543	561
Total Weight [kg]		200	260	900	930	1,400	1,500

V -5. Manipulator

KOIKE manufactures a complete line of welding manipulators which maximize both safety and production with load capacities ranging from 68kg to 1,300kg on each end of the boom.



Features:

- For positioning welding equipment
- Precise reach and lift ranges from 1 meter to 9 meters
- Rack & pinion elevating system – NO CHAIN LIFT
- Base can be fixed, portable or mounted on travel car
- King-pin rotation available for mast
- Ideal for fabrication and maintenance applications
- Speeds welding operation
- Eliminates fatigue of hand operations
- Easy to operate
- Remote control for operator safety

KOIKE manipulators are a versatile and rugged solution to obtain up to 9 meters of lift and reach to duplicate the function of a highly skilled welder. Manual or powered mobile sub base cars can be included for varying length weldments and procedures.

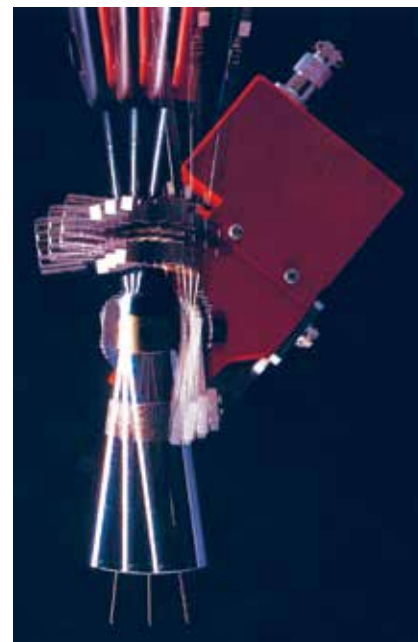
Specifications

	Model	M-66	66	99	1212	1212RF	SHD	XHD	XXHD
Traverse Boom Type	1 Boom Construction	Box	Box	Box	Box	Box	Box	Box	Box
	2 Rail Ways	Square	Square	Square	Square	Square	Square	Square	Square
	3 Forward & Reverse Drive	Manual	Powered	Powered	Powered	Powered	Powered	Powered	Powered
	4 Drive Type	Rack & pinion	Rack & pinion	Rack & pinion	Rack & pinion	Rack & pinion	Rack & pinion	Rack & pinion	Rack & pinion
	5 Motor Capacity [kw]	Manual	0.25	0.25	0.563	0.563	0.75	1.125	2.25
	6 Speed Range [mm/min]	Optional	100 - 3,800	100 - 3,800	115 - 2,475	115 - 2,475	85 - 5,480	90 - 5,640	70 - 2,700
	7 Remote Speed Control	Optional	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	8 Standard Stroke [mm]	1,800	1,800	2,700	3,650	3,650	4,250	4,250	4,550
	9 Maximum Stroke [mm]	2,700	3,000	3,000	5,450	5,450	6,050	7,600	7,600
	10 Load each end [kg]	90	150	220	440	440	450	680	900
	11 Total Lift Load [kg]	180	300	440	880	880	900	1,800	2,270
	12 Center line height above floor min. [mm]	473	608	724	1,003	1,003	1,143	1,346	1,442
Vertical Mast Type	1 Mast Construction	Tubular	Tubular	Tubular	Tubular	Tubular	Box	Box	Box
	2 Rail Ways	Square	Square	Square	Square	Square	Square	Square	Square
	3 Rail Replaceable	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	4 Mast Rotation [deg]	360	360	360	360	360	360	360	360
	5 Rotation Bearing Diameter [mm/dia]	685	711	711	711	711	1,118	889	1,245
	6 Mast way keeper plate	Not Required	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	7 Rack & pawl anti-fall device	Not Available	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Elevator Saddle	1 Type of Lift	Cable	Roller Chain	Roller Chain	Roller Chain	Roller Chain	Roller Chain	Roller Chain	Roller Chain
	2 Lift Drive Motor [kw]	Manual	0.249	0.375	0.562	0.75	1.125	3.75	5.625
	3 Speed [mm/min]	Manual	1000	1000	960	960	1040	890	1340
	4 Stroke [mm]	1,800	1,800	2,700	3,650	3,650	4,570	4,260	6,090
	5 Stroke Maximum	3,040	3,040	3,040	4,870	4,870	6,090	7,620	9,140
Etc	1 Height [mm]	3,200	3,240	4,380	5,930	5,930	6,950	7,260	10,400
	2 Controls	Manual	Remote	Remote	Remote	Remote	Remote	Remote	Remote
	3 Weight [kg]	960	1,360	1,820	3,860	4,130	5,450	10,000	18,200

V -6. Other Applications ①

Weaving Unit

- Compact and lightweight
The compact and lightweight unit can be easily mounted on an existing portable welding carriage, manipulator, etc.
- Simple operations
Electronic control makes operations extremely simple.
Weaving requirements, swing width, and origin (center of swing width) may be changed even during welding.
- Digital display
Setting values are digitally displayed for easy reference.
- Available in 2 types
 - 1) WU-1
Ideal for welding systems that use welding jig
Use in combination with LD-R positioner and torch stand
 - 2) WU-2
Ideal for portable welding carriages



Control Box

Model	WU-1	WU-2
Weight	1.2kg (not including cable connector)	
Operating Parameters	(1) Swing width: 3.0 – 25.0mm (2) Frequency: 3 – 120 swings/min (3) Dwell time (left/center/right): 0.0 – 3.0 sec	
Switches	(1) Power (2) Interlock/standalone switch* (3) Arc (4) Travel to origin (5) Setting value display panel (6) Swing width setting key (7) Frequency setting key (8) Dwell time setting key (9) Setting dial (10) Start (11) Stop	
Operating Method	Remote control	Attachment
Interlocking Function	No	Yes
Center Position	Can be changed during weaving	
Swing Width	Can be changed during weaving	
Input Power Supply	AC100V, 50/60Hz (single phase)	
Controller Size	90(L)*95(W)*160(H) mm	90(L)*95(W)*180(H) mm

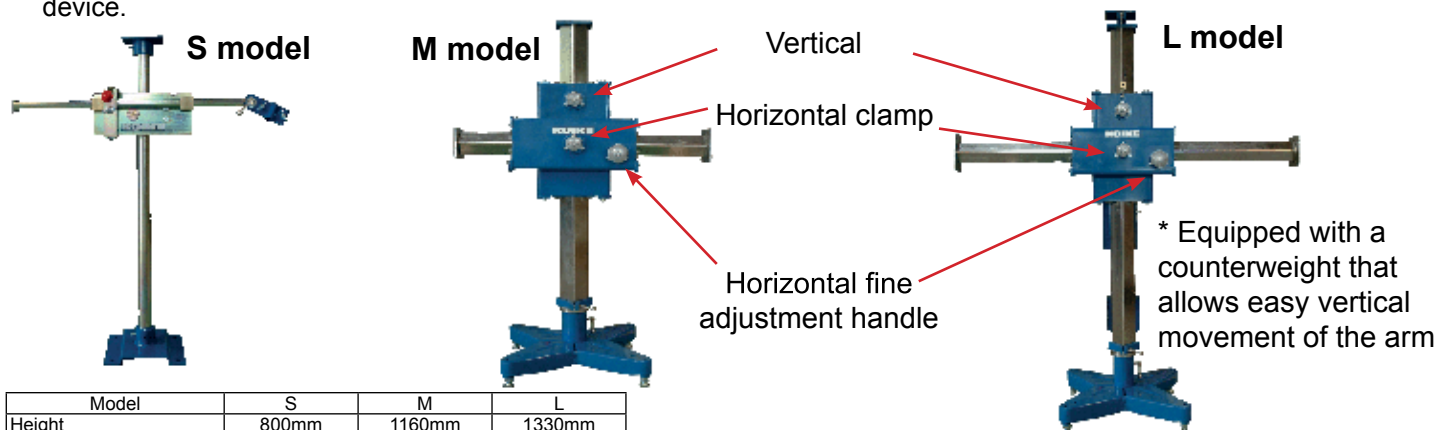
Swing width (mm)	Frequency (swings/min)
3	30 - 120
5	20 - 80
10	10 - 40
15	10 - 25
20	5 - 20
25	3 - 15

Main unit

Model	WU-1	WU-2
Weight	2.2kg	
Forward/Reverse	20°	
Groove Angle	0 – 45°	
Rotation Torque	Max. 100kg·cm (When setting weaving operations, always take into account the state of the torch cable along with other conditions.)	
Main Unit Size	175(L)*85(W)*230(H) mm	175(L)*85(W)*230(H) mm

Torch Stand

- One-touch torch detachment
Once it is aligned, the torch can be detached with a single touch. This increases work efficiency and ensures stable quality of products.
- 2-part square holder
A 2-part square holder allows all types of welding torches to be secured firmly.
- Versatile torch angles
When integrated with an interlocking control unit, positioner, etc., it can be used as a simple automatic welding device.

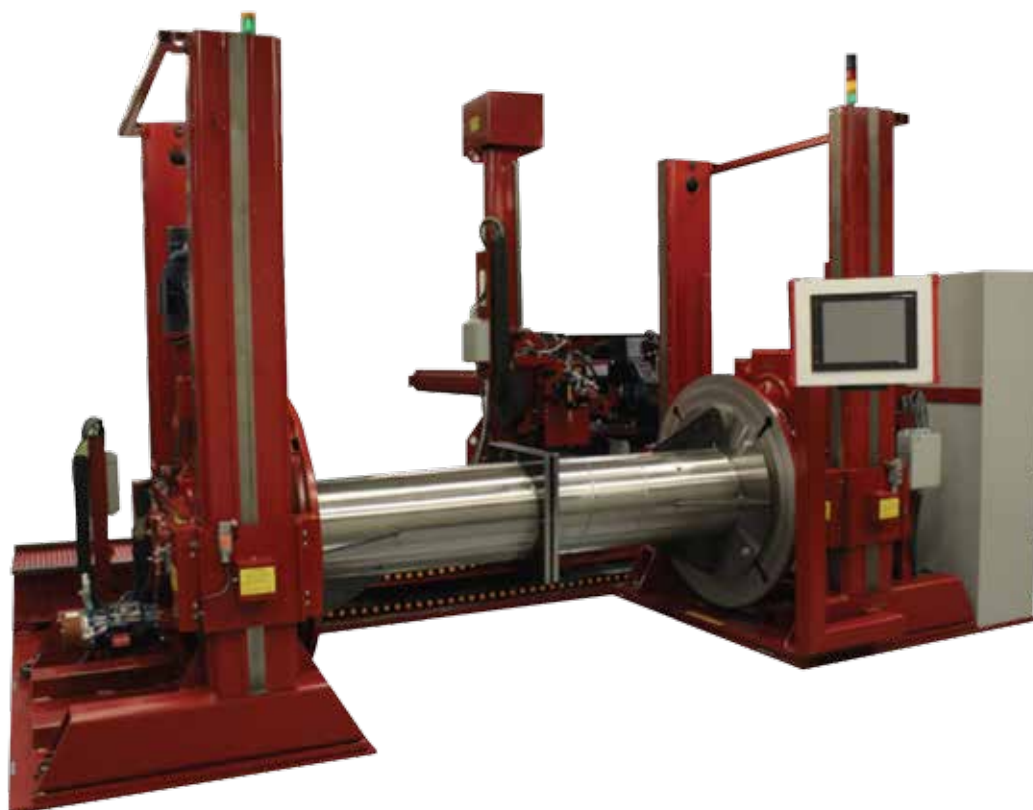


Model	S	M	L
Height	800mm	1160mm	1330mm
Arm Length	660mm	662mm※	1088mm※
Vertical Stroke	500mm	500mm	500mm
Horizontal Stroke	150mm	300mm	700mm
Max. End Load	5.0kg	10.0kg	10.0kg
Detach/Slide Method	Lever	Handle	Handle
Weight (kg)	13.0kg	40.0kg	50.0kg

※Length between the flanges at both ends of the arm.

V -7. Other Applications ②

Head Stock and Tail Stock



The Powered Elevation design makes maximum use of proven commercially available components, both in the elevation and guidance systems.

Features:

- Low efficiency gearboxes for safety
- Machined Tables
- All drive components mounted on top for easy access
- Boots on elevation jacks protect screws from debris
- All steel heavy-duty construction
- Tables are slotted for quick clamping of weldments

Specifications

Model		2H2T	3H3T	4H4T	5H5T	6H6T	7H7T	8H8T	
Max. Load Capacity between Head & Tail		[kg]	2,200	2,700	5,400	11,500	14,500	21,800	36,300
Max. Eccentricity (when Head & Tail hold)		[mm]	150	150	150	150	150	150	150
Max. Load Capacity of Head stock only.		[kg]	1,100	1,350	2,700	5,700	7,200	10,900	18,100
Max. Eccentricity (when only Head stock holds)		[mm]	300	300	300	300	300	300	300
Fixed speed type	Headstock type		2H	3H	4H	5H	6H	7H	8H
	Tailstock type		2T	3T	4T	5T	6T	7T	8T
	Table rotation speed	[rpm]	1.00	1.00	0.50	0.52	0.56	0.56	0.32
	Rotation torque	[kgf · m]	346	415	831	1,385	2,216	3,325	5,541
	Motor	[kW]	0.75	1.125	2.25	2.25	3.75	3.75	5.625
Variable speed type	Head Stock		2HV	3V	4V	5V	6V	7V	8V
	Table rotation speed	[rpm]	0.025 ~ 1.0	0.025 ~ 1.0	0.013 ~ 0.52	0.013 ~ 0.52	0.014 ~ 0.56	0.014 ~ 0.56	0.008 ~ 0.32
	Rotation torque	[kgf · m]	346	415	831	1,385	2,216	3,325	5,541
	Motor	[kW]	0.562	1.125	2.25	2.25	3.75	5.625	5.625
Height of Rotation Axis		[mm]	790	990	1,020	1,020	1,270	1,480	1,670
Table		[mm]	915	1,015	1,220	1,220	1,350	1,525	1,730
Table-ditch Quantity		[pc]	4	4	4	4	4	4	4
Table-ditch Width		[mm]	17.5	20.6	28.6	28.6	28.6	28.6	33.9
Headstock Weight		[kg]	660	910	1,200	1,430	2,455	2,682	4,045
Tailstock Weight		[kg]	250	460	900	1,090	1,365	1,477	2,205

V -8. Other Applications ③

Turntable

Standard Heavy-Duty Precision Turntable



Many variations in speeds, control, table size and configuration, and overall height are available. Standard Turntables are available in all capacities from 1 ton to 55 tons. Larger capacities and custom specifications are available on special order.

For prompt evaluation and detailed proposal on your Turntable requirement contact KOIKE.

Automatic Storage Tank Welding Systems



Automatic Girth Welder



V.U.P Tank Welder

Automatic Girth Welder (Submerged arc welding)

Features:

- 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 tiny twin wire; sub arc or open arc process

Vertical-VUP Welder (Flux cored welding)

Features:

- 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-1. LFS-LOSSNAI Factory System



The Lossnai Factory System (LFS) allows metal plate cutters to use material more efficiently, increase machine productivity and shorten production cycle.

The LFS navigation technology uses a CCD camera to identify remnant materials that are randomly put on the cutting table.

Then, the KAP (Koike Automatic Programming) system in the cutting machine's controller identifies the shape, holes and position of the remnant plate and create a CNC program for cutting more parts.

The program is transferred directly to the cutting machine and cutting begins in a matter of minutes.

VI-2. Plasma Welding



**Inverter-control / Pulse plasma
PW-350FR**

(Medium steel plates 3~9mm)

**Inverter-control / Pulse plasma
PW-100FR**

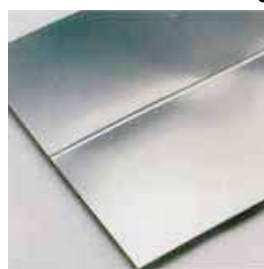
(Thin plates 0.5~5mm)

■Features

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

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%, 350A	100%
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	Ar
	Shield	Ar + H2	Ar + H2
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

Welding samples



Butt welding
(Stainless 0.1mm t)



Coupling
(SUS304)



Welding bellows



Pipe joint (SUS304)



Hollow ball

VI-3. Dust Press (Compresses Oxygen Plasma Fume into Pellets)



Connection with Fume Collector



External appearance of Dust Press



Dust Solid

Fumes that are produced when performing plasma cutting operation are collected by fume collector and discharged from outlet of Dust Press as dust powder. By compressing dust into solid, the Dust Press prevents dust dispersal, minimizes the volume of dust, improves working environment, prevents secondary dust problems during the disposal of collected dust, and reduces.

VI-4. Belt-type Dust Collector System



Overview with NC Machine



Belt-Type Duct

Cutting table is designed for easy flow of fumes. Belt-type dust collector has down draft table is zoned into smaller cutting areas for efficient dust collection. Fumes are sent to the on-board dust collector via duct.

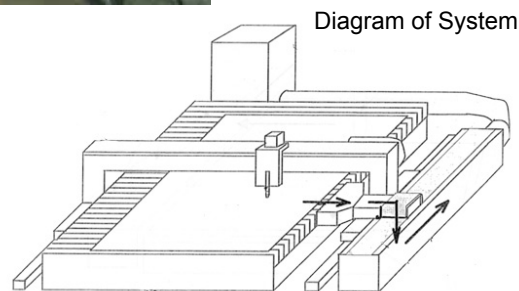


Diagram of System

VI-5. Components for MYNUC NC gas cutting machine

MYNUC, NC gas cutting machine can install above bevel block. The combination of manual angle setting and automatic angle setting beveling block make it possible to cut I, V, Y, X, K beveling.



Overview: Manual Angle Setting X Bevel Block



Manual Angle Setting X Bevel Block



Automatic Angle Setting Bevel Block



CUSTOMER SATISFACTION

We shall strive for excellence in everything we do

We shall set our goals to be recognized by customers as a Leader in total quality and customer satisfaction.

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