

# IK-12 NEXT

## The Portable Multi-purpose Carriage

Cutting oxy-fuel and plasma, welding

### Features and Benefits

- **Maximum reliability in most heavy-duty environment**  
Not affected by intense heat and fluctuating voltage, the maximum driving mechanism ensures steady traveling.
- **Precise speed control**  
Ensures stable and accurate speed control, achieved with encoder motor and digital speed indicator, which provides the famous sharp, fine cuts.
- **Choice of accessory and options**  
Features a wide variety of options that makes the machine suitable to achieve various cutting needs.
- **Wide speed ranges**  
Machine travel speed can be adjusted between 40 - 2400 mm/min precisely. The value is displayed on the digital display for repeatability.
- **Selectable torch set and rails**  
Each torch set is specially designed for the purpose, ensuring maximum results.
- **Versatility**  
Ready for oxy-fuel cutting, plasma cutting or welding.

The IK-12 NEXT is the successor of the IK-12 Max3, which has been highly rated among the portable oxy-fuel cutting machines. Body structure is systematized to apply to different types of work and meet the needs of oxy-fuel and plasma cutting and automatic welding. Each component is functionally worked out as an independent unit, selection and assortment are at the customers disposal to create the system needed for the requirement. Enjoy the maximum efficiency, versatility and productivity with the IK-12 NEXT.

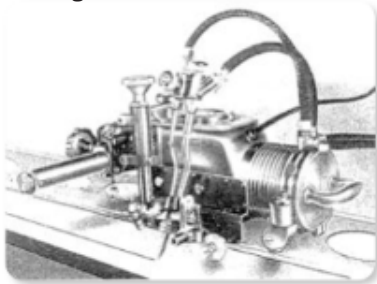
# Cutting and Welding Machines



## Carriage

### The Original.

Since 1951, when the first model was released in Japan, the Koike IK-12 series have been serving professionals who demand the highest quality in plate cutting.



The first generation,  
Japan, 1951

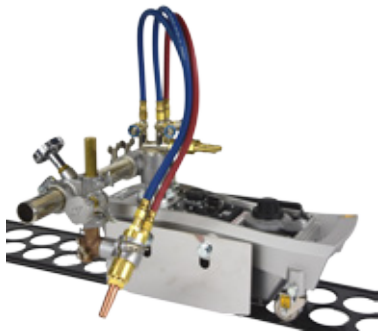
Today, the state-of-the-art 7th generation, the IK-12 NEXT has an increased stable and more accurate speed control system due to the encoder motor and electronics. The system can easily be adjusted with the dial knob and values are displayed in a digital scale. The speed parameters can be adjusted over a wide range (40 - 2400mm/min). The "CREEP MODE" (patent pending) is a welcome function to add user control at start/end point of thick plate cutting. The advanced design, accurate constant speed, wide range of input voltage, contributes to an extremely reliable and multi-functional carriage.

### Overview of the unit

- It offers excellent operability.
- It can travel over a wide speed range, from 40-2400 mm/min. It incorporates a motor equipped with an encoder and the actual speed is displayed on a digital display.
- Three speed settings can be saved by using the speed presetting function.
- Pressing the "Creep" button, instantly switches to slow mode travel to help to prevent uncut material being left at the start and finished ends when cutting thick material.
- The incorporated arc coupling function enables both plasma cutting and arc welding by changing the torch set.
- A weaving control function is incorporated, making it possible to perform weaving welding by installing the optional kit to mount the WU-3R weaving unit, with no need to add an extra control box.
- Torch sets, rails and other accessories of the existing IK-12 MAX3 model can be used without modification.

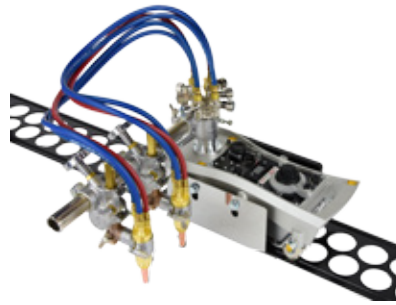
## Torch set

**Oxy-fuel cutting torch set** (Machine body is sold separately.  
Pictures for illustration purpose only)



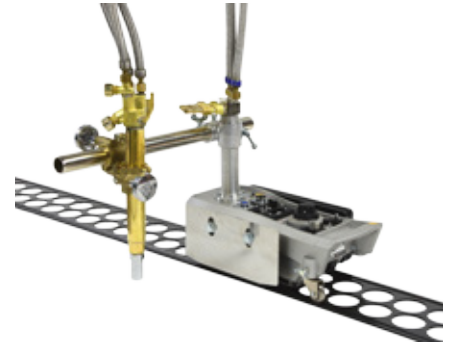
### S-100 Torch Set

- Standard 1 torch unit



### S-200 Torch Set

- Standard 2 torch unit



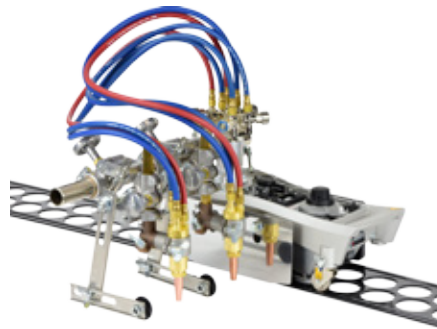
### L-100 Torch Set

- Heavy duty torch designed to cut up to 300 mm plate thickness
- Water cooled



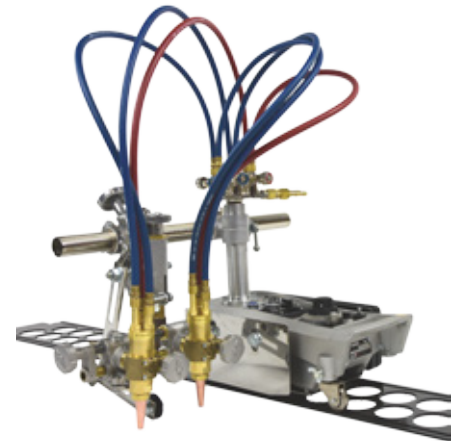
### SP-100 Torch Set

- 1 Torch unit with mechanical automatic torch height control



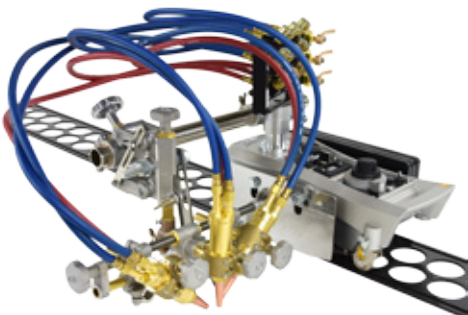
### SP-200 Torch Set

- 2 Torch unit with mechanical automatic torch height control on each torch unit



### SP-300 Torch Set

- 2 Torch unit with mechanical automatic torch height control
- Maintains angle of 2 torches for accurate Y and X bevel cuts



### SP-400 Torch Set

- 3 Torch unit with mechanical automatic torch height control
- Maintains angle of 3 torches for accurate Y, X, and K bevel cuts



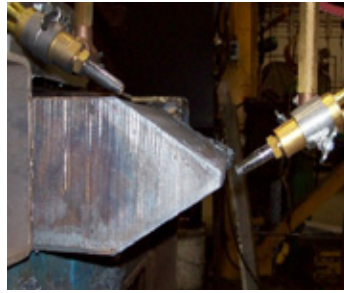
### EPOCH-300/600 Torch Set

- A safe, flashback-free out mixing torch, designed to cut up to 600 mm plate thickness
- Water cooled (EPOCH-600)

# Cutting and Welding Machines



S-100 Torch set



S-200 Torch set with long slide bar option



S-100 with long slide bar option



S-100 with long slide bar and bevel attachment option



EPOCH torch set with heavy duty rail



IK-12 NEXT straight welding



IK-12 NEXT straight cutting



S-100 Torch set with Long slide bar option



S-100 Torch set with long slide bar and guide roller option

Torch set		S-100	SP-100	S-200	SP-200	SP-300	SP-400	L-100	EPOCH-300	EPOCH-600
Stock #		90036	90038	90037	90039	90040	90041	90042	90043	90046
Max. cutting thickness (1 torch)		150 mm	150 mm	150 mm	150 mm	100 mm	100 mm	300 mm	300 mm	600 mm
Number of torches		1	1	2	2	2	3	1	1	1
Gas mixing	Tip mixing	•	•	•	•	•	•	•	-	-
	Out mixing	-	-	-	-	-	-	-	•	•
Mechanical auto height control		-	•	-	•	•	•	-	-	-
Standard pipe bar length (mm)		350	350	500	500	500	500	500	500	500
Vertical torch stroke (mm)		80	120	80	120	120	120	-	-	-
Cutting type		•	•	•	•	•	•	•	•	•
		•	•	•	•	•	•	•	•	•
		-	-	•	•	-	-	-	-	-
		-	-	•	•	-	-	-	-	-
		-	-	•	•	•	•	-	-	-
		-	-	•	•	•	•	-	-	-
		-	-	-	-	-	•	-	-	-
<b>Optional torch accessories</b>										
Long pipe bar		•	•	•	•	•	•	•	•	•
Long slide bar		•	•	•	•	-	-	-	-	-
Snap valve		•	•	•	•	-	-	-	-	-
Pre-set stop valve		•	•	•	•	-	-	-	-	-

• : possible

## Plasma cutting, welding torch set and accessories (Machine body is sold separately.

Pictures for illustration purpose only)

### Part numbers

IK-12 NEXT Cutting Set*	Stock #
IK-12 Next carriage	90140

\* Select a cutting torch set

IK-12 NEXT Plasma Set*	Stock #
IK-12 Next carriage	90140

Machine connection cable for IK-12 Next 61005388

Plasma holderset IK-12 Next 20511063

\* To be used with a plasma system

IK-12 NEXT Welding Straight Set*	Stock #
IK-12 Next carriage	90140

Machine connection cable for IK-12 Next 61005388

Welding Holder set IK-12 Next 20511050

\* To be used with a welding system

IK-12 NEXT Welding Weaving Set*	Stock #
IK-12 Next carriage	90140

Machine connection cable for IK-12 Next 61005388

Weaving holder set IK-12 Next 20511064

\* To be used with a welding system

### Accessories

Accessory	Stock #
IK-12 standard rail 1800 mm	30400
IK-12 heavy duty rail 1800 mm	90044
IK-12 MAX3 circle cutting rail	30410
Circle cutting attachment	30389
Plate edge guide roller	T60038959
Preset stop valve:	
1 Torch	80518
2 Torch	61003543
Snap valve B-type	80512
Torch bevel attachment	ON002
Twin torch attachment	ON001
Rail fixing magnet	D6010
MIG torch holder	61000676

Accessory		Stock #
Long slide bar	145 mm (standard)	30390
	250 mm	30430
	300 mm	30431
	400 mm	30433
	350 mm	30300
Long pipe arm	500 mm	30321
	1000 mm	30425
	1500 mm	30427
	2500 mm	30429
Stand	80 mm (standard)	30204
	105 mm	30378
Flashback arrestor hose set	600 mm hoses	On request
	900 mm hoses	On request

### Type and Specification

#### IK-12 NEXT

Weight (body)	8.5 Kg / 18.74lb
Machine size	432 mm / 17 inch
Machine width	220 mm / 8.66 inch
Max. loaded weight	50 kg / 110.23 lb
Traveling speed	40~2400 mm/min / 1.57~94.49inch/min
Creep speed	40~300 mm/min / 1.57~11.81inch/min
Input power	100~240VAC ±10% / 1.1~0.7A / 50-60Hz
Motor	24VDC motor with an encoder, 23W, 5600rpm
Transmission	Dial accelaration formula, variable speed
Speedometer	Digital display

### Scope of delivery

Machine body
Tip support
Hexagon bolt (2 pcs)
Operation manual

# Cutting and Welding Machines

## Optional accessories



### Standard rail 1800 mm

- Extendable 1800 mm rail
- Built of special steel to ensure long life time



### Circle cutting rail

- Cutting diameter  $\varnothing 40 - 360$  mm (inside);  $\varnothing 770 - 1150$  mm (outside)
- Counter weight recommended



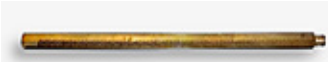
### Heavy duty rail 1800 mm

- Extendable, robust structured rail that does not bend
- Recommended when cutting thick plate over 150 mm



### Circle cutting attachment

- Cutting diameter  $\varnothing 400 - 2400$  mm



### Long slide bar

- Extends torch up/down stroke, used when cutting from the side of the plate
- Available in different lengths



### Plate edge guide roller

- Enables bevel cuts without rail by tracking plate edge
- For straight line cutting only



### Long pipe arm

- Long pipe arm to enable different torch positioning
- Available in different lengths



### Snap valve B-type

- Single action gas on/off
- Increases productivity by eliminating flame adjustments each time after cut



### Preset stop valve

- Single action gas on/off
- 2 models; single or two torches



### Twin torch attachment

- Enables 2-torch parallel cutting by attaching to a torch
- Torch distance 30 - 300 mm



### Torch bevel attachment

- Accurate bevel cutting with angle indicator
- Cuts bevel without tilting the torch



### Rail fixing magnet

- Holds the rail onto the place



### MIG torch holder

- Simple welding torch holder, clamp diameter
- $\varnothing 16 - 20$ mm



### Extended stand

- 105 mm long stand



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