



PNC-12 EXTREME
Plasma & Oxy-fuel cutting

PNC-12 EXTREME

Innovation with KOIKE's high standard

The PNC-12 EXTREME is a whole new innovative cutting solution developed with KOIKE's highest standard. It is a perfect machine to enter the world of CNC cutting. Based on the demands from the market for a simple, affordable, and versatile CNC cutting machine, KOIKE designed a machine that is portable, operated by CNC, and suitable for both oxy-fuel and plasma cutting.

Due to its compact size and portability, installation of the machine is easier than ever. Assembly and setup of all components, such as machine body, rail, and cross bar do not require any special measuring tools. PNC-12 EXTREME is pre-adjusted at our factory before shipping, and besides filtering system and cutting tables, what customer needs to do at the installation site is to simply slide in all components together, and connect cables.

Flexibility to your cutting needs

The PNC-12 EXTREME is pre-configured with different sizes. KOIKE selected the rail to be made of robust structured steel, which ensures long lasting durability under heavy duty working environment. Cross bar is held with widened linear guide blocks, stabilizing the torch even when the cross bar is extended to its maximum length.

The PNC-12 EXTREME can be selected from either oxy-fuel or plasma cutting packages. Oxy-fuel package comes with an oxy-fuel torch set with integrated automated piercing sequence program and gas on/off solenoid valves on all gas lines. Plasma cutting package comes with Initial Torch Height Sensor (IHS), Arc Voltage Height Control (AVC), Torch Break-away System, and 35 mm diameter plasma torch holder.

- Ideal for all customers looking for a simple CNC cutting solution
- Plug and cut - minimal installation time
- Easy and simple CNC operation with pre-installed shape templates
- Suitable for both oxy-fuel and plasma cutting
- Compatible with most of air plasma's available in today's market
- Comes standard with CAD/CAM software



D420 CNC Controller

The all new KOIKE D420 CNC controller gives easy and flexible CNC experience. 45 Types of most common shapes are pre-installed in the controller, and for those who would like to customize, parameters can be edited to create special cutting settings.



Standard features

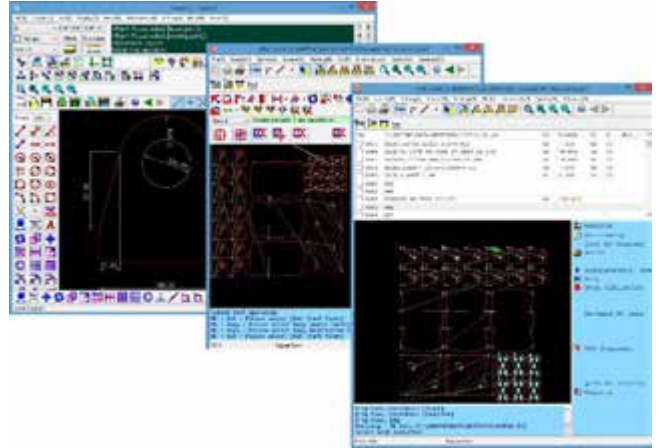
Rigid linear guiding system

Sets of extra-wide rigid linear guiding system are used for both X and Y-axis, mounted firmly onto the thick fixing plates of the machine body. Together with KOIKE's precise adjustments during assembly process, high level of cutting performance is maintained.



FigDef8/PNC-CAM, a bundle of CAD/CAM software specialized in cutting

All PNC-12 EXTREME comes with FigDef8/PNC-CAM NC programming software as standard. This bundle has the essence of KOIKE's experience in developing cutting-oriented NC programming software since 1980. Designing of cutting shapes, nesting of parts, and setting cutting orders can be done at ease.



Steel-made longitudinal rail

The one of KOIKE's designing goals is to provide products with long-lasting durability. The PNC-12 EXTREME is not an exception. It comes with a tough and rigid steel rail, which successfully minimizes vibrations during cutting, and lasts long in heavy-duty environment of the welding and cutting.



D420 CNC Controller and CAD/CAM software configured for PNC-12 EXTREME

KOIKE's new D420 Controller is equipped with the latest portable CNC control technology, such as automatic piercing sequence, mirror cutting, angle adjustments, nesting, rotation, and more. Clear and crisp 7-inch color screen displays the live status of the machine during cutting. Important cutting parameters, such as cutting speed as piercing timer delay, can be modified easily without exiting from current cutting menu. Together with KOIKE FigDef8 and PNC-CAM, which enables parts to be created from the scratch for PNC-12 EXTREME, CNC cutting can be achieved in a simple way.



Cutting tool selection

Plasma Cutting Package

In addition to the standard oxy-fuel cutting method, KOIKE provides a complete plasma cutting package. Package includes Arc Voltage Torch Height Control (AVC) and Initial Height Sensor (IHS).

With IHS, the plasma torch can be positioned to a proper distance from the plate when piercing, extending consumable life by decreasing the chance of spatters to adherent onto the tip.

AVC measures arc voltage during cutting, and by operating torch lifter to maintain the same voltage, correct torch height is maintained throughout the cut. Especially useful when cutting larger size parts or when cutting table is not flat from long-time use. Switching from oxy-fuel to plasma setup is not very complicated. KOIKE supplies most of external signal cables with pre-assembled metal connectors, which saves a lot of time to perform the modification.



Option

Cutting tool Conversion Kit

If cutting tool needs to be changed, Conversion kit is available to modify oxy-fuel configured machine into plasma cutting configuration, and vice versa.

- * Conversion kit: oxyfuel to plasma cutting
- * Conversion kit: plasma to oxy-fuel cutting

Oxy-fuel Cutting Package



PNC-12 EXTREME oxy-fuel cutting torch package is equipped with high-quality KOIKE cutting torch and automatic on/off solenoid valves on all gas lines, which enables presetting of the flame and automatic piercing sequence. Also, KOIKE D7-type high speed cutting nozzles are included in the package.

PNC-12 EXTREME

Type	Type-1015	Type-1530
Effective cutting width	1.000 mm	1.500 mm
Effective cutting length	1.500 mm	3.000 mm
Cross bar length	1.900 mm	2.400 mm
Longitudinal rail length	2.050 mm	3.540 mm
Rapid travel speed	4.000 mm/min.	
Maximum cutting speed	3.000 mm/min.	
Input voltage	Single phase 200 - 240 VAC, 50/60 Hz	
Oxy-fuel cutting specification (for Oxy-fuel Cutting Package only)		
Oxy-fuel Cutting Package	1 set motorized torch lifter with automatic solenoid valves, Koike high quality cutting torch	
Included cutting nozzles	5x KOIKE cutting nozzles	
Production maximum mm cutting thickness	5 - 50mm (*)	
Plasma cutting specification (for Plasma Cutting Package only)		
Torch control	Initial height sensing, Arc voltage torch height control, torch break-away	
Plasma system	Air-plasma system, torch diameter 35mm	
CNC		
CNC Model	KOIKE D420	
Display	7" color LCD	
Languages	English, Dutch, French, Spanish, and more	
Program input	Manual MDI or by USB stick (upto 16GB)	
Drive	X/Y with linear guiding, rack & pinion	
Program format	EIA format	
Pre-installed cutting shape	45 cutting patterns	
CNC functions	Rotation, back to pierce, scale, and much more	
CAD/CAM software	Bundle of FidDef8 (CAD) and PNC-CAM	

(*) For cutting of thicker materials, please contact KOIKE.

Full specification available upon request. Contact KOIKE sales representative for details.



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