

# PNC-11 FLEX

Portable CNC Cutting Machine



## Features and Benefits

- **CNC-integrated plasma control unit**  
Initial torch height sensor and arc voltage height control are integrated in the CNC, maintaining constant torch height throughout the cut.
- **Simple operation**  
D421 CNC controller is easy to operate and has highly customizable parameters.
- **Rigid Crossbar with steel guiding**  
Extra wide aluminium extrude crossbar with steel guiding system assures stable movement throughout the range.
- **Lightweight longitudinal rail**  
High-precision aluminium alloy rail provides portability and quality cuts.
- **Suitable for both plasma and oxy-fuel cutting**  
PNC-11 FLEX is designed for both oxy-fuel and plasma cutting. With optional Plasma to Oxy-Fuel conversion kit, PNC-11 FLEX is allowing wide variety of cutting job to be performed.

**PNC-11 FLEX** is a flexible, productive, and affordable CNC cutting machine.

The new D421 controller is equipped with integrated plasma controller, allowing initial torch height sensing and torch height control during cutting.

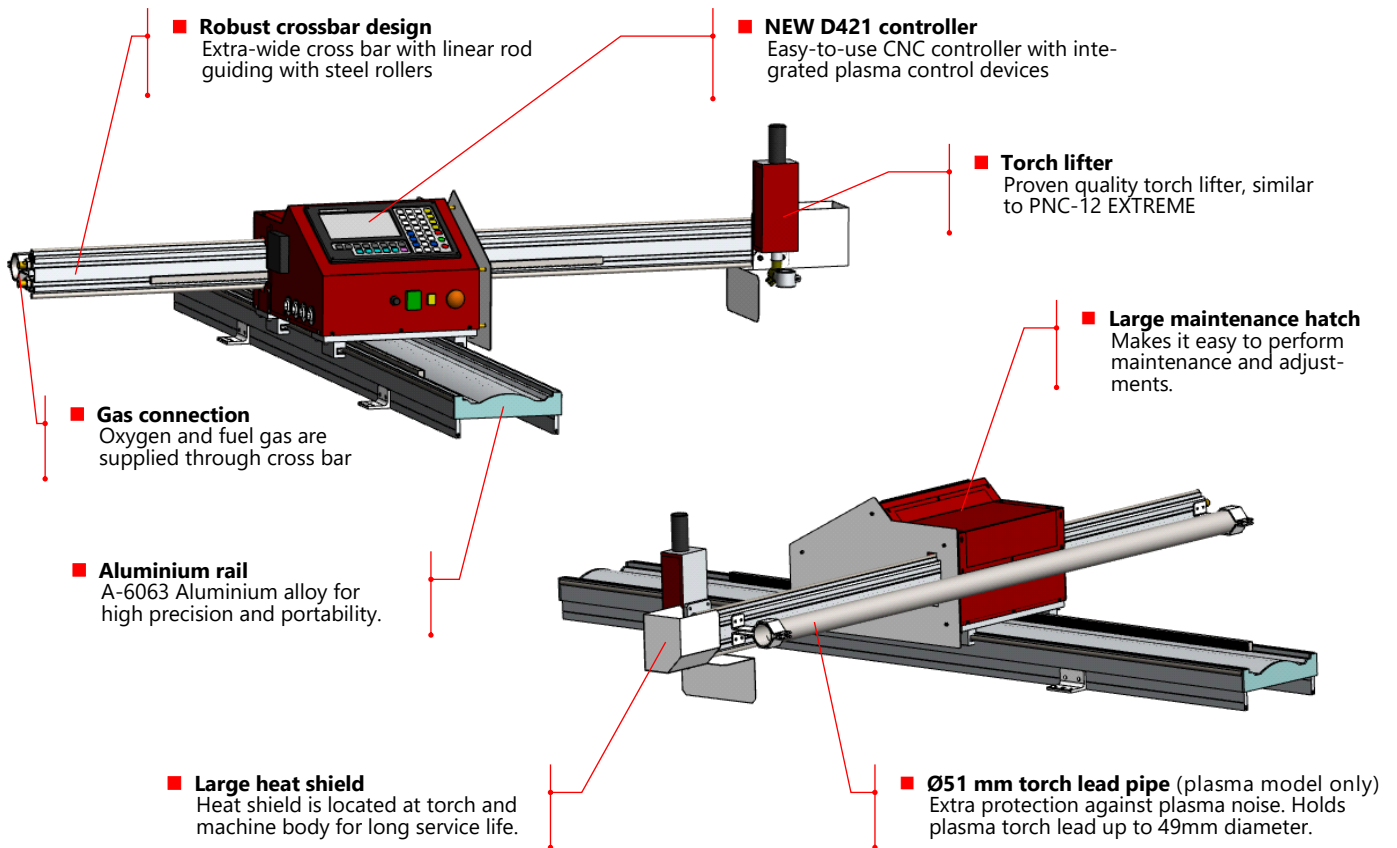
Designed with extra rigid aluminium construction, achieving quality cuts and portability at once.

Various configuration and options available to provide extended possibilities.



## PNC-11 FLEX:

PNC-11 FLEX is a affordable CNC cutting machine, suitable for both oxy-fuel and plasma cutting. Number of improvements have been made from its predecessor to increase performance and portability.



### Plasma configuration

PNC-11 FLEX is compatible with air plasma systems equipped with CNC interface for remote arc on/off and arc voltage output.

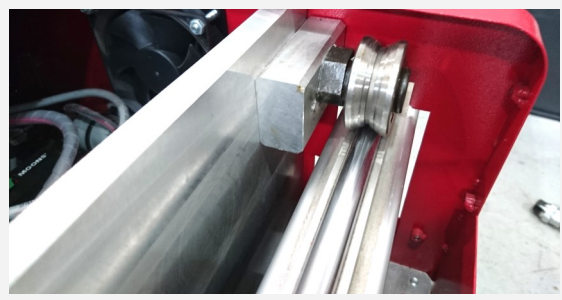
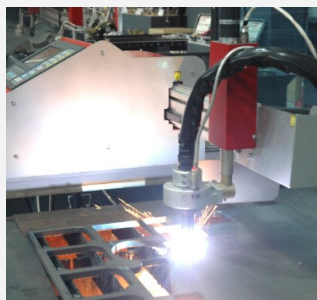
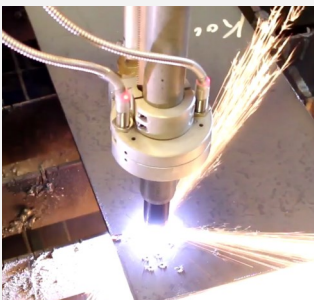
- CNC-integrated arc voltage torch height control (AVC) automatically controls torch height during cutting.
- Torch holder with Initial Height Sensor (IHS) and torch -break-away collision protection mechanism.
- Supports arc voltage output 50:1 or 1:1 (Raw voltage).

### Mechanical design

PNC-11 FLEX is designed to perform and last.

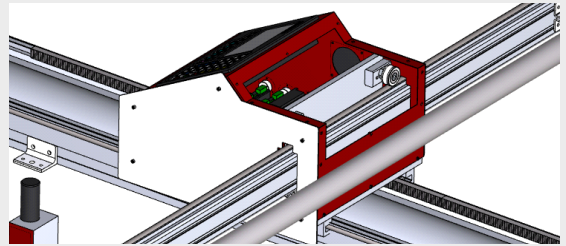
- Thick aluminium plates are used for the machine chassis, providing rigidity and lightweight at the same time.
- Extra wide cross bar is nicely held by 4x steel rollers for smooth movement and durability,
- Linear rod guiding system is used on both X and Y axis.
- Long rail model available (7m effective cutting lengths)

Extra wide, robust cross bar with steel rod is held by steel rollers.



## Maintenance

- Easy access to inside of the machine by large maintenance hatch.
- Proven-quality electrical parts. Most of electrical parts are common with other PNC-series machines.



## Standard accessories

### External voltage divider kit

Stock No.: T89000177

- Required to connect PNC-11 FLEX with plasma power source with raw arc voltage output (1:1).
- Includes external arc voltage divider box and necessary connection cables.



### Universal plasma torch holder kit

Stock No.: T89001997

- Supports large plasma torch up to 45mm diameter.
- Suitable for Hypertherm® Powermax 125.

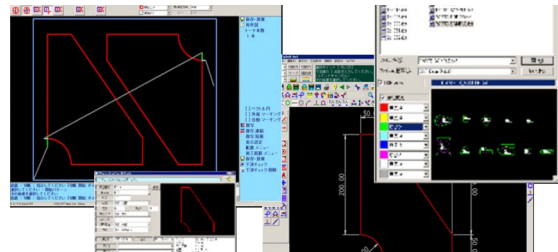


### PNC-CAM software

Stock No.: SPC00315

A simple and easy to use CAD/CAM software designed for use with Koike PNC series.

- DXF and DWG import.
- 2D CAD drawing and Creates NC data compatible with PNC-11 FLEX.



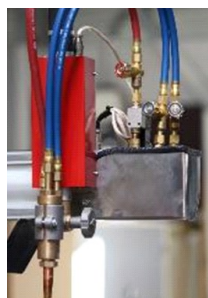
PNC-CAM: CAD/CAM software for PNC series

## Optional accessories

### Plasma to Oxy-Fuel conversion kit

Stock No.: depends on region

- Converts PNC-11 FLEX Plasma model into Oxy-Fuel model.
- Includes oxy-fuel torch, torch holder and solenoid valves with cables.



### Oxy-Fuel configuration (with optional Plasma to Oxy-Fuel conversion kit)

Suitable to cut mild steel plates with thickness ranges from 5 mm to 50 mm.

- Customizable automatic piercing sequence.
- Gas distributor at the torch is equipped with 3 x solenoid valves and regulation valves for fine flame adjustment and repeatability.
- Select Koike genuine nozzle for the best cutting result. (Separately sold)

## Specification

Type		PNC-11 FLEX	
		1530	1570
Effective cutting area		1500 x 3000 mm	1500 x 7000 mm
Rapid travel speed		5000 mm/min	
Maximum cutting speed		4000 mm/min	
Control axis		2-axis (X and Y)	
Motor: X-axis and Y-axis		Stepping Motor	
Motor: Torch lifter		DC motor	
Driving method		Rack and Pinion	
Rail system X-axis and Y-axis		Linear rod guiding	
Heat shield		Provided at side of the machine body and at torch lifter	
Input voltage		Selectable with internal switch. Single phase 100 - 120V / 220-240V	
CNC: Main features	Model	KOIKE D421	
	Display	7 inch colour	
	Program input	Manual MDI or by USB	
	Preinstalled cutting patterns	47 shapes	
	Program format	EIA format	
	Functions	Pattern nesting, rotation, mirror, recovery, piercing selection and more.	
Plasma configuration: features	Plasma system	Not included	
	Maximum cutting thickness	Depends on Plasma power source	
	Initial torch height control	Yes	
	Torch collision protection	Yes	
	Arc Voltage torch height control	Yes	
	Ratio of arc voltage output for AVC	<b>50:1</b> : External voltage divider is NOT required <b>1:1</b> : External voltage divider is REQUIRED	

\* Other machine sizes are also available upon request. Please contact to us for more information.

\* Applicable Plasma system is Non frequency arc start type plasma system.

Standard accessories		
External Voltage divider kit	Voltage output	For raw arc voltage output (1:1)
	Includes	Includes external arc voltage divider box and necessary connection cables.
Universal plasma torch holder kit	Plasma torch holder diameter	Ø35-45 mm
Software	Version	KOIKE PNC-CAM 2A Software
	CAD drawing	2D CAD software optimized for use with PNC-series
	CAD data import	DXF, DWG
	CAD data saving	DXF, PT (Koike part registration format)
	Auto nesting function	Yes
	Auto sequence function	Yes
Others	Basic tool	1set
	Manual	1set
Optional accessories		
Plasma to Oxy-Fuel conversion kit	Maximum cutting thickness	50 mm
	Number of solenoid valves	Total 3 pcs, 1 for each gas line
	Piercing sequence	Customizable torch up/down and gas control timing

\* Cutting tip is not included. Please purchase KOIKE Original 100type cutting tip.



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