

CNC Plasma and Flame Cutting Machine

The CNC plasma and flame cutting machine is designed for precision cutting of metal sheets, integrating both plasma and flame cutting capabilities. It features a CNC control system for automated path planning and execution, ensuring high accuracy and repeatability.



Overview

High-Precision CNC Cutting Solution

This CNC Plasma and Flame Cutting Machine is a versatile industrial solution designed for precision metal fabrication. It combines dual-mode cutting capabilities to handle a wide range of material thicknesses with high accuracy and repeatability. Engineered for reliability, the system integrates advanced CNC controls and robust gantry construction to meet the demanding needs of shipbuilding, automotive, and heavy manufacturing industries.

Performance Metrics

Key Performance Metrics

12000 mm/min

Positioning Speed

0.5 mm/1000mm

Positioning Accuracy

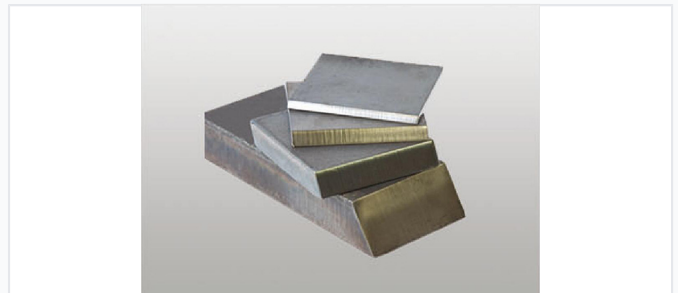
0.2 mm/1000mm

Repeating Accuracy

Cutting Capabilities



Example of a precision-engineered metal component produced by the system.



Demonstration of clean cuts across various metal types and thicknesses.

Flame Cutting Specifications

| Parameter | Value |
|-------------------|-------------------------|
| Compatible Gases | Acetylene, Propane, LPG |
| Cutting Thickness | 5 - 150 mm |
| Cutting Speed | 50 - 750 mm/min |

Plasma Cutting

Thickness and speed are dependent on the specific plasma unit selected (e.g., Powermax, HSD, Maxpro, or HPRXD series).


Technical Dimensions

Rail and Work Area


| Feature | Range/Value |
|--------------------------|---|
| Rail Width | 3000 - 6000 mm |
| Effective Cutting Width | 800mm less than rail width (with 2 torches) |
| Standard Rail Lengths | 8000 / 12000 / 16000 mm |
| Effective Cutting Length | 2000mm less than rail length |

System Components


Option 4
Torch Height controller



Standard: torch lifter





Upgrade: Sensor THC



Upgrade: ARCGLIDE

Machine at sites

Optional Torch Height Controller (THC) and ARCGLIDE systems for optimized cutting distance.

Premium Hardware

- Panasonic Servo Motors
- German NEUGART Gearbox
- TBI or HIWIN Linear Rails
- Schneider Breakers
- Omron Relays
- Automatic Torch Height Control (THC)

Software & Control

| | |
|----------------------------|--|
| Control System | Standard HG613 with 17" color monitor and USB port; upgrades available for Micro Edge Pro or Edge Connect. |
| Supported Nesting Software | FastCAM PRO, Libellula, ProNest LTS, SigmaNest |

Electrical Requirements

Input Voltage Options

- 110/220/230/240V (50/60Hz)
- 220/380/400/415V (50/60Hz)

Operational Workflow



Seamless integration from CAD design to CNC execution via USB transfer.

Digital Workflow

- Design: AutoCAD, TEKLA, SolidWorks
- CAM Processing: FastCAM, Libellula, Hypertherm
- Transfer: USB Program Upload
- Execution: CNC Automated Cutting