Features and Benefits

- **Oxyfuel and plasma cutting**
  Machine is ideal for either oxyfuel or plasma cutting configuration

- **Easy operation**
  Simple CNC controller with highly customizable parameters enables high quality cuts to be achieved easily

- **Rigid linear guiding system**
  Rigid linear guiding system for both X and Y axis

- **Robust steel-made longitudinal rail**
  Steel-made rail provides extra stability and durability in heavy duty working environment

- **Auto Nesting CAD/CAM software**
  Every PNC-12 Extreme package comes standard with Koike original CAD/CAM software

- **Flexible shape cutting**
  CNC control allows cutting of various shapes

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**PNC-12 Extreme** is a flexible, productive, and affordable CNC cutting solution designed to provide high quality cuts using oxyfuel and plasma cutting technology.

**PNC-12 Extreme** is a perfect machine to enter the world of CNC cutting.
Designed with Koike quality standard

Flexible cutting

**Oxy-Fuel configuration**
- High quality cutting from 5mm to 50mm thickness mild steel.
- Affordable CNC cutting solution

**Plasma configuration**
- Faster cutting on almost all types of metal plates.
- Works with most air plasma systems upto 100A (plasma power source is sold separately)

Reliability and performance

**Cross bar design**
- Extra-wide cross bar with linear guiding system realizes high quality cuts.
- Cross bar compartments are separated from CNC for better dust protection for electrical parts.
- Plasma lead and cables are placed in metal square pipe for spatter protection.

**Longitudinal rail**
- Robust steel welded construction.
- Designed to maximize durability in heavy-duty working environment.
- Weight contributes to provide stability to the machine movements.
- Linear block is securely fixed onto a thick, long aluminium base that fully covers entire length of the machine body.

**Koike D420 Controller**
- Simple and easy to use.
- 47 pre-installed shape patterns
- Numerous functions including nesting, plate alignment, mirroring, pierce point selection, and more.

**KOIKE Auto Nesting CAD-CAM software included**
- Auto nesting and sequence up to 12 shapes per cutting plan.
- Easy to learn and operate.
Cutting Capability and standard features

Oxy-fuel cutting

Three solenoid valves
- Quick and easy ignition and flame adjustment.

Piercing sequence
- Customizable piercing sequence allows optimum piercing control and productivity.

Cross bar with integrated gas lines

Clean and sharp cuts
- Koike High-speed Divergent Nozzles are included in every oxy-fuel configured PNC-12 Extreme, providing outstanding cutting speed and quality.

Expansion possibilities
- Variety of optional accessories available. Machine can be reconfigured to Plasma, Twin gas torch etc., at any time when needed.

Plasma cutting

Arc voltage control
- Automatically detects live arc voltage and make necessary torch height adjustment during cutting.

Torch collision protection
- Magnetic torch break away system disjoint the torch from the lifter in case of torch collision.

Initial torch height control
- Initial height sensor is implemented in torch break away system, allowing fast and accurate torch initial height adjustment.

Internal torch cable carrier
- Cable carrier mounted on the cross bar allows easy handling of plasma torch cable during cutting. Fits most 100A plasma torch cable.

Plasma power source
- Most air plasma systems upto 105A with 35mm diameter torch.

Flexibility
- Variety of optional accessories available. Machine can be reconfigured to Oxy-fuel at any time when needed.
Optional Accessories

Conversion Kit

**Gas to Plasma Conversion Kit**
- A Kit to change an Oxy-Fuel configured machine to Plasma configuration.
  - Included: Arc Voltage Control (AVC) unit, Plasma torch holder with integrated torch break away system and initial height sensor, all required cables.
  - Plasma power source not included.

**Plasma to Gas Conversion Kit**
- A Kit to change a Plasma configured machine to oxy-fuel configuration.
  - Included: Koike oxy-fuel torch unit with solenoid valves and gas connections, a set of 3pcs HC nozzles.

Cutting Table and Filter System

**MCT Modular Cutting Table**
Modular cutting table system. 1 module covers cutting area 1500 mm x 1500 mm. Delivered in almost-ready package. Final assembly is required on site.
- MCT 1515 contains 1 Module for PNC-12 Extreme Type-1015.
- MCT 1530 contains 2 Modules for PNC-12 Extreme Type-1530.
Important: 85% of each module surface must be covered for effective fume extraction. Easy Transport and Installation.
Including rail support to mount PNC-12 Extreme.

**HELIOS Cutting Table for PNC**
A 1500 mm x 3000 mm cutting table, suitable for plasma cutting. The table has 6 divided internal sections (500mm x 1500mm each).
As machine travels, fume extraction opening of each section open/close automatically by mechanically triggered pneumatic valves, allowing effective fume extraction.
Delivered complete, Including rail support, pneumatic valves and tubing.

**VDS2-H5C Filter system**
A compact fume extraction filter unit. Requires Filter Kit to work with MCT cutting table. Full specification available upon request.
- Maximum flow capacity of 4000m³/hr
- Maximum pressure of 2000 Pa
- Includes PTFE made 2 cartridges. Each cartridge has filter surface of 20m².
- 80L dustbin capacity.

**Filter Kit H5C**
A Kit including duct pipes to connect VDS2-H5C with MCT Modular Cutting Table, air regulator, hose, vibration reducing mat and cartridge protection powder.
Plasma Power Source

Following is some products Koike Europe confirmed compatibility with PNC-12 Extreme.
- Hypertherm® Powermax series with interface connection
- Kjellberg® CutFire series with interface connection

Preassembled plasma interface cable is supplied, when one of above plasma systems are purchased (together with PNC-12 Extreme) from Koike Europe.

Oxy-fuel cutting accessories

Twin Torch Option
Adds 2nd oxy-fuel torch.
- Automatic gas control
- Manual torch up/down adjustment
- Maximum cutting thickness when using 2 torches: 30 mm
- Torch distance 75 - 600 mm

Twin Torch Attachment
A simple way to cut with two oxy-fuel cutting nozzle.
- Maximum cutting thickness when using 2 torches: 30 mm
- Torch distance 30 - 300 mm

Heavy Duty Torch set
Long oxy-fuel torch with 230 mm neck. Also includes metal bladed hose set. Recommended to customers who plan to cut thick materials on frequent basis. Metal blade protects the hose from spatters, which reduce frequency of hose replacement. Long torch allows machine to be positioned higher from the cutting table. Due to less heat input to the cross bar, longer service life can be expected.

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Type</th>
<th>Stock #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion Kit</td>
<td>Gas to Plasma</td>
<td>64072</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plasma to Gas</td>
<td>64073</td>
<td></td>
</tr>
<tr>
<td>Cutting Table</td>
<td>MCT Type-1515</td>
<td>239.100.813</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MCT Type-1530</td>
<td>239.100.814</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HELIOS Type-1530</td>
<td>239.100.815</td>
<td></td>
</tr>
<tr>
<td>Filter System</td>
<td>VDS2-HSC Filter System</td>
<td>239.100.119</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Filter Kit for VDS2-HSC</td>
<td>239.100.231</td>
<td></td>
</tr>
<tr>
<td>Plasma Power Source</td>
<td>Hypertherm® Powermax 65</td>
<td>64074</td>
<td>Stock # is valid only for purchases with PNC-12 Extreme.</td>
</tr>
<tr>
<td></td>
<td>Hypertherm® Powermax 85</td>
<td>64075</td>
<td>A convenient package including interface cable assembly by Koike.</td>
</tr>
<tr>
<td></td>
<td>Hypertherm® Powermax 105</td>
<td>64076</td>
<td>Contact Koike for detailed configuration and specification of each plasma power source.</td>
</tr>
<tr>
<td></td>
<td>Kjellberg® Cutfire 100i</td>
<td>64077</td>
<td></td>
</tr>
<tr>
<td>Oxy-fuel Accessory</td>
<td>Twin Torch Option</td>
<td>T89001600</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Twin Torch Attachment</td>
<td>ON001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heavy Duty Torch set</td>
<td>64080</td>
<td></td>
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## Type and Specification

### Specification

<table>
<thead>
<tr>
<th>Type</th>
<th>1015</th>
<th>1530</th>
</tr>
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<tbody>
<tr>
<td>Effective cutting area</td>
<td>1000 x 1500 mm</td>
<td>1500 x 3000 mm</td>
</tr>
<tr>
<td>Rapid travel speed</td>
<td>4000 mm/min</td>
<td></td>
</tr>
<tr>
<td>Maximum cutting speed</td>
<td>3000 mm/min</td>
<td></td>
</tr>
<tr>
<td>Longitudinal rail</td>
<td>Welded steel construction</td>
<td></td>
</tr>
<tr>
<td>Cross bar</td>
<td>Aluminium extrude with integrated gas piping</td>
<td></td>
</tr>
<tr>
<td>Motor: X-axis and Y-axis</td>
<td>Stepping Motor</td>
<td></td>
</tr>
<tr>
<td>Motor: Torch lifter</td>
<td>DC motor</td>
<td></td>
</tr>
<tr>
<td>Driving method</td>
<td>Rack and Pinion</td>
<td></td>
</tr>
<tr>
<td>Rail system X-axis and Y-axis</td>
<td>Linear guiding</td>
<td></td>
</tr>
<tr>
<td>Input voltage</td>
<td>Single phase 200–240VAC, 50/60 Hz</td>
<td></td>
</tr>
<tr>
<td>CNC: Main features</td>
<td>KOIKE D420</td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display</td>
<td>7 inch color</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>EN / DE / FR / IT / NL / RU / ES and other</td>
<td></td>
</tr>
<tr>
<td>Program input</td>
<td>Manual MDI or by USB</td>
<td></td>
</tr>
<tr>
<td>Preinstalled cutting patterns</td>
<td>47 shapes</td>
<td></td>
</tr>
<tr>
<td>Program format</td>
<td>EIA format</td>
<td></td>
</tr>
<tr>
<td>Functions</td>
<td>Rotation, mirror, nesting, cutting recovery, piercing point selection and more.</td>
<td></td>
</tr>
<tr>
<td>Bundled Software: Main features</td>
<td>KOIKE PNC-CAM Expert V2E</td>
<td></td>
</tr>
<tr>
<td>Version</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD drawing</td>
<td>2D CAD with many functions, optimizing cutting parts creation</td>
<td></td>
</tr>
<tr>
<td>CAD data import</td>
<td>DXF, DWG</td>
<td></td>
</tr>
<tr>
<td>CAD data saving</td>
<td>DXF, PT (Koike part registration format)</td>
<td></td>
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<tr>
<td>Auto nesting function</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Auto sequence function</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td># of shape types on 1 plan</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Nesting data export</td>
<td>Direct saving to USB, with PNC-12 Readable format</td>
<td></td>
</tr>
<tr>
<td>Oxy-fuel model features</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum cutting thickness</td>
<td>50 mm (*)</td>
<td></td>
</tr>
<tr>
<td>Number of solenoid valves</td>
<td>Total 3 pcs, 1 for each gas line</td>
<td></td>
</tr>
<tr>
<td>Piercing sequence</td>
<td>Customizable torch movement and timing</td>
<td></td>
</tr>
<tr>
<td>Cutting nozzle</td>
<td>5x KOIKE High-speed nozzles included</td>
<td></td>
</tr>
<tr>
<td>Plasma model features</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plasma system</td>
<td>Not included</td>
<td></td>
</tr>
<tr>
<td>Maximum cutting thickness</td>
<td>Depends on Plasma power</td>
<td></td>
</tr>
<tr>
<td>Torch holder diameter</td>
<td>For Ø35 mm plasma torch</td>
<td></td>
</tr>
<tr>
<td>Initial torch height control</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Torch collision protection</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Arc Voltage torch height control</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Compatible arc voltage division ratio</td>
<td>1:1 (raw arc voltage) or 50:1</td>
<td></td>
</tr>
</tbody>
</table>

(*) with standard setup. Contact Koike for requirements for thicker material cutting using PNC-12 Extreme

## PNC-12 Extreme: Selections

<table>
<thead>
<tr>
<th>Stock #</th>
<th>Model</th>
<th>Gas type</th>
<th>Cutting tool</th>
<th>Cutting area</th>
</tr>
</thead>
<tbody>
<tr>
<td>64030</td>
<td>PNC-12 Extreme Type-1015 ACE</td>
<td>Acetylene</td>
<td>Oxy-fuel</td>
<td>1000 x 1500 mm</td>
</tr>
<tr>
<td>64031</td>
<td>PNC-12 Extreme Type-1015 LPG</td>
<td>Propane</td>
<td>Plasma</td>
<td></td>
</tr>
<tr>
<td>64056</td>
<td>PNC-12 Extreme Type-1015 Plasma</td>
<td>-</td>
<td>Plasma</td>
<td></td>
</tr>
<tr>
<td>64032</td>
<td>PNC-12 Extreme Type-1530 ACE</td>
<td>Acetylene</td>
<td>Oxy-fuel</td>
<td>1500 x 3000 mm</td>
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<tr>
<td>64033</td>
<td>PNC-12 Extreme Type-1530 LPG</td>
<td>Propane</td>
<td>Plasma</td>
<td></td>
</tr>
<tr>
<td>64057</td>
<td>PNC-12 Extreme Type-1530 Plasma</td>
<td>-</td>
<td>Plasma</td>
<td></td>
</tr>
</tbody>
</table>
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