Plasmasonic series meets the highest standards of productivity, reliability and automation. Through advanced CNC control, with automatic addressing of the parameter database, various technologies, such as Plasma or flame cutting / gas cutting in conjunction with pipe cutting and weld preparation are combined.

Cut sheets or pipes, chamfer, mark and perforate – “All in one” with an outstanding price/performance ratio*

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*Price/performance ratio may vary depending on specific model and configurations.
Plasma cutting

Kaast offers the five-axis-plasma cutting system Plasmasonic, one of the most compact machines in its class which has been designed for flexible chamfers for faster weld preparation in steel construction. The special feature is the possibility that the cutting head can change its angle of attack within a contour, so different chamfer types can arise during the process.

This property makes it superior to the classical three-axis and provides a distinct competitive advantage. Feasible chamfer types include Y-, V- and X-notch and bevel-square-bevel, and the adjustment of the chamfers where plates of different thicknesses join.

Technical features facilitate the weld preparation via plasma cutting.

Thanks to the following features the weld preparation for the user is much easier with plasma cutting:

- The design of the system ensures its smooth operation, even under tough conditions;
- A magnetic holder of the cutting head allows rapid change and in the case of collision avoids damage to the cutting head;
- Multiple plasma and oxy-acetylene cutting heads are optional. The controller allows the use of up to 4 cutting head-carriers (plasma and oxy-acetylene cutting heads with independent height adjustment), in any combination;
- Dual AC-Servo motors precisely drive the bridge from both sides, which means no lag error;
- User-friendly control panel allows not only the motors but also the source of power, suction and filtration systems to be monitored centrally.
- With the plasma cutting machine equipped with precision fine beam plasma generators, it combines the highest cutting quality with maintenance.
- The fine-beam generators PP (Precision Plasma) ensure very fast piercing and high cutting speeds, with an unusually clean and almost perfectly square cutting edge;
- Available with four or five-axis for bevel cutting
- Spare and wear parts for plasma cutting system available within 24 hours.

“The technique is deemed to be future-proof and provides sufficient reserve in terms of cutting performance, in order to cover a wide range of applications.”

The technique is deemed to be future-proof and provides sufficient reserve in terms of cutting performance, in order to cover a wide range of applications. Most features are included as standard such as an automatic gas mixing console, integrated marking system, CAD/CAM unit, integrated fully automatic nesting software and effective exhaust and filter unit.

The following options are available for the plasma generator:
- The piercing thickness is up to 35 mm and 20 mm for the PP130 and, depending to the type of steel, 65 mm or 36 mm for the PP260.
- The piercing thickness is up to 35 mm and 20 mm for the PP130 and, depending to the type of steel, 65 mm or 36 mm for the PP260.
- The PP130 and PP260 will cut 16 mm and 30 mm respectively in low carbon steel and 12 mm or 20 mm in stainless steel.

The positioning speed is 15,000 mm/min. The repeatability accuracy is ±0,05 mm and the positioning accuracy ±0,01 mm.

Almost all plasma cutting systems are supplied with 260 Amp plasma sources.

Currently 40 machines per month are leaving the production halls on which the manufacturer is giving a warranty of two years or 4000 operating hours. There also is the possibility of an optional warranty up to three years or 6000 operating hours.

Almost all plasma cutting systems are supplied with 260 Amp high-definition plasma sources. These provide the optimum balance between cutting performance and power usage/costs. The technique is deemed to be future-proof and provides sufficient reserve in terms of cutting performance, in order to cover a wide range of applications. Most features are included as standard such as an automatic gas mixing console, integrated marking system, CAD/CAM unit, integrated fully automatic nesting software and effective exhaust and filter unit.

The conventional weld preparation is extremely labor intensive and is one of the biggest time devourers in the steel and metal construction,” explains Benjamin Kaehlcke, the managing director of Kaast. Plasma-sonic achieves a tangible time and therefore cost advantage in comparison to competitors because the investment can be amortized quickly.

Another advantage which is reflected in the price-performance ratio, is the philosophy of the manufacturer: a high degree of vertical integration. Tables, motors, software, control and generators are manufactured in the same factory. The in-house development ensures perfectly matched components and makes them available on short call. Kaast guarantees the shipment of spare and wear parts usually within 24 hours.

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The following options are available for the plasma generator:

The piercing thickness is up to 35 mm and 20 mm for the PP130 and, depending to the type of steel, 65 mm or 36 mm for the PP260.

For plasma cutting you can use oxygen, air, nitrogen or H35. Oxygen and propane are used by the optional oxy-fuel cutting technology for cutting thicker material.

Optional are oxygen welding heads, an automatic pipe and profile cutter and multi plasma cutting heads and bridge unit. With the newly developed five-axis cutting head the user is well prepared for the modern requirements of the plasma cutting business.
CNC control

Your Production Partner!

- Industrial PC, USB port, CD drive, 80 GB hard drive, TFT Screen
- Easy integration into existing network through integrated network card
- CNC files can be imported in the following formats: ISO ESSI, G codes, DXF
- Extensive cutting parameter library
- Automatic setting of process parameters by the CNC (included: gas mixture, gas pressure, regulation of cutting current, selection of feed rates, indication of nozzle / cap combination)
- Fast switching of the cutting process from plasma to oxy-fuel cutting and back
- An NC program can be stopped at any point and then resumed from that point
- Override function during processing, in both automatic as well as manual mode
- Part rotation
- Automatic workpiece orientation
- Automatic adjustment of the cutting gap
- All relevant machine data and statuses are displayed at one glance
- Integrated standard parts library
- Editing and designing parts in the integrated CAD / CAM program
- High-speed operation
- Automatic look-ahead and feed regulation for tight radii
- Autonest program is included in the standard software package for optimal sheet usage
- Programmable microwebs

Standard configuration:
- Solid, welded, high quality steel frame
- Automatic gas and air pressure adjustment for plasma and oxy-fuel cutting is done in a control unit (only for PP130 and PP260)
- Hand operating unit (allows parameter changes while cutting)
- Automatic height control of plasma and oxy
- Exhaust and particulate filter unit
- Automatic marking for marking of workpieces (PP130 plasma source PP260)
- Ergonomic control panel for the central control of all machine components or areas
- Robust, stand-alone table with sectional extraction
- Import of DIN / ISO-G, DXF, ESSI files possible
- Integrated CAD program to create geometric part contours directly in the system
- Integrated fully automatic nesting software
- Recovery function to restore cutting operation from the point of interruption after a power failure or deliberate shutdown of the system
- Function for automatic process shutdown in case of electrode and nozzle break
- Look-ahead function to control the dynamics in cutting tight radii and corners
- Manual

Technical Specifications

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Technical Specification of the Plasma Generators

<table>
<thead>
<tr>
<th>Low-carbon steels</th>
<th>P100</th>
<th>P200</th>
<th>PP130</th>
<th>PP260</th>
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<tbody>
<tr>
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<td>Max. piercing thickness</td>
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<td>25 mm</td>
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<tr>
<td>Max. thickness (non-piercing)</td>
<td>20 mm</td>
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<td>35 mm</td>
<td>65 mm</td>
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<tr>
<td>Stainless steels</td>
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<tr>
<td>Cutting thickness</td>
<td>8 mm</td>
<td>15 mm</td>
<td>12 mm</td>
<td>20 mm</td>
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<tr>
<td>Max. piercing thickness</td>
<td>12 mm</td>
<td>20 mm</td>
<td>20 mm</td>
<td>36 mm</td>
</tr>
<tr>
<td>Max. thickness (non-piercing)</td>
<td>15 mm</td>
<td>38 mm</td>
<td>25 mm</td>
<td>65 mm</td>
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<tr>
<td>Control of gas pressure during cutting</td>
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<td>Gases used (plasma cutting)</td>
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<td>Air</td>
<td>Oxygen, air, nitrogen, F5, H35</td>
<td>Oxygen, air, nitrogen, F5, H35</td>
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<tr>
<td>Gases used (oxy-fuel)</td>
<td>Oxygen, propane</td>
<td>Oxygen, propane</td>
<td>Oxygen, propane</td>
<td>Oxygen, propane</td>
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</table>

Machining sizes of 1.5 x 3 m, 3 x 12 m, 4 x 16 m or 5 x 12 m are standard sizes
Plasma cutting machines which are equipped with fine beam plasma generators are in use by hundreds of customers every day under tough production conditions. They guarantee very fast piercing and high cutting speeds with an unusually clean and near perfectly perpendicular cutting edge.

Our machines are delivered with an automatic CNC controlled gas mixing console, cutting table with sectional suction, suction unit and particulate filter system. Options for pipe cutting system and oxy-fuel are available.

In addition, the flat bed machines can be combined with a pipe cutting system—available with 4 axes or with a bevel cutting unit to provide up to 5 axes.

Rigid and stable bridge construction for permanent use under tough production conditions!

Driven both sides to avoid lag errors.

Motorised turnable and manual swivable plasma torch for bevel cuts up to 45°

Proven technology from one of the market leader!

Thousands of installations worldwide!

Unbeatable price/performance ratio!

Plasma generator

Maximum open circuit voltage (OCV) 310 VDC
Maximum output current 260 Ampere
Maximum output voltage 200 VDC
Maximum power 52 kW
Power factor (cosφ) 0.85
Cooling type Compressed air
Weight 530 kg

Low consumable prices with proven long life

Pipe cutting system

Plasma torch

No. Part name
1 Shield cap
2 Shield
3 Gas ring
4 Nozzle
5 Swirl ring
6 Electrode
7 Water tube
8 Nozzle body
9 Main body
10 Main water tube
11 Water return
12 Ohmic contact tip
13 Plasma gas
14 Nozzle contact tip
15 Shield gas
16 Aluminium pipe
17 Screening holder

Thickness-Speed-Diagram

Cutting speed mm/min.

110 ampere
260 ampere

Stärke-Geschwindigkeits-Diagramm

Thickness mm / mild steel

8
9
10
11
12
13
14
15
16
17

Presented by KAAST. Your Production Partner!
To realize this, it is not enough to offer a good and reliable service. According to managing director Benjamin Kaehlcke it needs more. The company has to pay full attention to the customer and his needs. Employees of KAAST visit their customers regularly. This is important to demonstrate to the customer that KAAST is not going to sell a machine and forget them, but is working on an intensive and long-term partnership from which both parties benefit. This also provides us with valuable customer feedback which allow us to react to market trends.

The company Eurostahl Prignitz is a medium-sized company in the steel construction industry and is specialized at building construction and scaffolding. The company, located in Breese, attaches great importance to flexibility and quality. The company offers their customers everything from one source and accepts responsibility for the planning, drawing, delivery, installation and final inspection.

Since 2010 Eurostahl Prignitz has utilized a Plasmasonic from KAAST and is a strong reference customer of plasma cutting machines in Germany. The managing director, Jens-Peter Gorski, is very satisfied with the machine. It was the best investment his company has made since its founding. The payback-period was just 1 year, assures Jens-Peter Gorski. And he is enthusiastic about the durability of the consumables. This is another advantage of the Plasmasonic series, in addition to continuously good cutting results.

Both companies praise the fast service of KAAST. "If a technical problem occurs, a service technician is coming from Neumünster the next day and clarifies all questions.

Interested companies can visit these or other reference customers, to see for themselves the capabilities of these machines."
## Technical specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
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</table>

The Innovation in Plasma cutting

already from

$ 37,600 – *

* All shown prices are on EXW KAAST stock basis without VAT. Product offers are not binding. The above specifications are subject to change without prior notice, no liability for mistakes. Machines may be shown with optional equipment.