

Kjellberg[®]
FINSTERWALDE

the
FINE FOCUS
company

Plasma Cutting System

HiFocus 130

**Cutting and Marking
in HiFocus Quality at Minimum Cost**



**Plasma cutting
from 0.5 mm up to 40 mm**

made in Germany

Contour Cut Determines the State of the Art

Kjellberg Finsterwalde stands for plasma cutting at the highest level of precision. Our HiFocus systems with the latest plasma cutting technology Contour Cut for mild steel ensures an improved quality with respect to contour accuracy, perpendicularity and surface quality without time-consuming after-treatment and at low costs.

High-Precision Cutting Results

Convincing qualities can be achieved when cutting contours, in particular small holes as well as fine inner and outer contours.

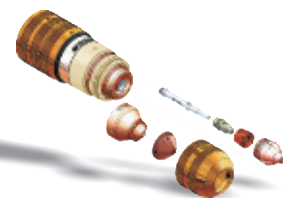
- Holes with angular deviations ranging between 2 and 4 according to the DIN EN ISO 9013
- Further reduction of perpendicularity tolerances at inner and outer contours
- High cut quality and contour accuracy when cutting thin and medium-sized plates
- Very high repeatability and dimension accuracy
- Very small heat-affected zones and, therefore, nearly no distortion, also on thin plates
- Highest flexibility due to easy switching from marking to cutting mode while using the same consumables

In connection with the new plasma torches PerCut 200 and PerCut 210, the system offers **diverse possibilities for cutting** mild steel, alloyed steel, aluminium and other electrically conductive materials with a thickness between 0.5 and 40 mm. The system meets the requirements of metal working and mechanical engineering, container construction and many other industries.

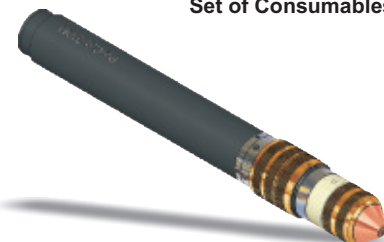
contour cut



PerCut 200



Set of Consumables



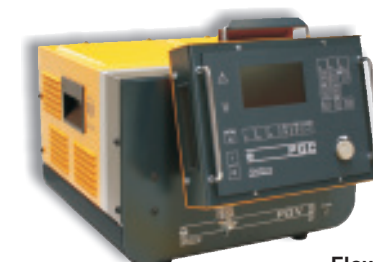
PerCut 210M

Fields of application

| Material thickness | | 10 mm | 20 mm | 30 mm | 40 mm |
|--------------------------------------------|------------------------------------------|-------|-------|-------|-------|
| The maximum values depend on the material. | Piercing with hole piercing sequence | Yes | | Yes | Yes |
| | Recommended cutting range for production | Yes | | | Yes |
| | Maximum cutting range | Yes | | | |

Optimal gas mixtures

In addition to the manual plasma gas control unit, the HiFocus 130 is also available with the automatic plasma gas console FlowControl. It makes it possible to select cutting data from pre-adjusted databases and modify them, if required.

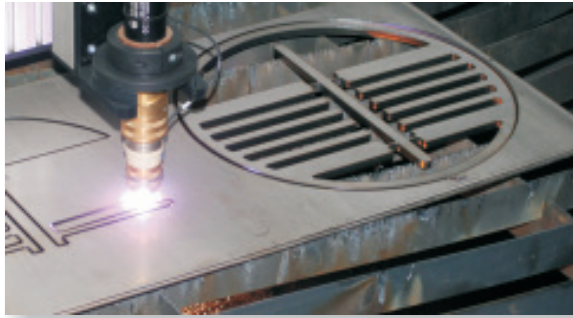


FlowControl

Process stability and reliability for automated operation

Diverse fields of application in

- Metal cutting centres
- Automotive industry
- Offshore and shipyards



- Tube and profil cutting
- Plant and container construction
- Building industry

Latest torch technology

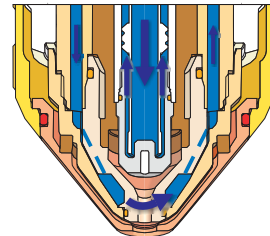
The HiFocus 130 is equipped with the plasma torch PerCut 200/210. Compared to the previous PerCut 160/170, the new torch is characterised by increased arc constriction of plasma, the use of smaller nozzle diameters, increased gas rotation and a more effective liquid cooling system.

The PerCut 200 is suited for standard applications as well as for high-precision bevel cutting. Thanks to the quick change system of the PerCut 210, the installation of the torch head is quick and handy.

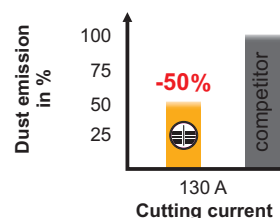
Advantages of the new torch PerCut 200/210 :

- Higher cutting speeds reduce the costs per cutting metre (e.g. lower gas consumption and less emissions)
- Long lifetime of the consumables saves resources
- Narrower cutting kerfs and, therefore, less emissions and waste
- Significant lower gas consumption compared to competitive products due to more effective liquid cooling system
- Due to lower gas consumption comparatively low noise level
- Lower diversity of consumables
- Bevel cutting up to 50 degrees with standard consumables
- Cutting and marking with the same consumables

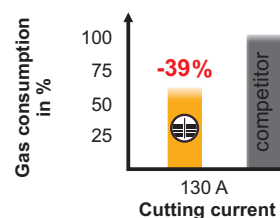
Effective liquid cooling system



Dust emission



Gas consumption



Technical Data

| Power source | HiFocus 130 |
|-----------------------------|--------------------------|
| Mains voltage ¹⁾ | 3x 400 V, 50 Hz |
| Connected load | 32 kVA |
| Cross section, Cu | 4 x 10 mm ² |
| Fuse protection | T50A |
| Cutting current | 20 - 130 A (100 % d. c.) |
| Marking current | 16 A |
| Open circuit voltage | 400 V |
| Ignition | High voltage |
| Protection class | IP 22 |
| Insulation class | F |
| Dimensions (H x W x D) | 1050 x 540 x 960 mm |
| Weight | 251 kg |

| Plasma torch | PerCut 200/210 |
|----------------------|-----------------------------------------------------|
| Standard version | PerCut 200 |
| Quick Change system | PerCut 210 |
| Max. cutting current | 200 A |
| Duty cycle | 100 % |
| Clamping diameter | 50.8 mm |
| Max. cutting range | 60 mm (200 A) |
| with HiFocus 130 | 40 mm (130 A) |
| Cooling | coolant „Kjellfrost“ |
| Plasma gases | O ₂ , Ar/H ₂ , N ₂ |
| Marking gas | Ar |
| Swirl gases | O ₂ , N ₂ , Air, F5* |

*) Forming gas F5 (95% N₂, 5% H₂)

1) Other voltages and frequencies on request

Cutting parameters (extract) ¹⁾

| Material-thickness (mm) | Unalloyed steels | | Alloyed steels | | Aluminium | |
|-------------------------|---------------------|------------------------|---------------------|------------------------|---------------------|------------------------|
| | Cutting current (A) | Cutting speed (mm/min) | Cutting current (A) | Cutting speed (mm/min) | Cutting current (A) | Cutting speed (mm/min) |
| 1 | 20 | 5500 | 60 | 6000 | 35 | 3800 |
| 2 | 35 | 2800 | 80 | 5000 | 35 | 2800 |
| 3 | 35 | 2500 | 80 | 3500 | 35 | 2400 |
| 4 | 60 | 5000 | 80 | 3200 | 50 | 1500 |
| 5 | 60 | 4000 | 130 | 2300 | 50 | 1400 |
| 6 | 90 | 4000 | 130 | 1900 | 50 | 1300 |
| 8 | 90 | 3000 | 130 | 1300 | 130 | 2000 |
| 10 | 130 | 3800 | 130 | 1100 | 130 | 1500 |
| 12 | 130 | 2800 | 130 | 950 | 130 | 1400 |
| 15 | 130 | 2500 | 130 | 750 | 130 | 1100 |
| 20 | 130 | 1600 | 130 | 550 | 130 | 800 |
| 25 | 130 | 900 | | | 130 | 600 |
| 30 | 130 | 700 | | | | |

1) The listed cutting speeds depend on material characteristics, gas parameters, the guiding system as well as the consumables. According to the quality parameters of the respective cutting task, the user can change the cutting speed.

Kjellberg-plasma cutting units are CE-conform and correspond with the valid guidelines and instructions of the European Union. They are developed and fabricated on the basis of the standard EN 60974 (VDE 0544). The plasma cutting units are labelled with the S-sign and therefore applicable to environments with increased hazard of electric shock.


The fabrication takes place according to DIN EN ISO 9001. In our house quality assurance comprises piece and cutting performance tests, documented by test certificate.

Our products represent a high level of quality and reliability. We reserve the right to change the design and/or technical specifications during the series fabrication. Claims of any kind can not be derived from this brochure.

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