

**Kjellberg**<sup>®</sup>  
**FINSTERWALDE**

the  
**FINE FOCUS**<sup>™</sup>  
company

## Plasma Cutting System

**NEW!**

### HiFocus 161i

for marking and clean cutting of metals  
from 0.5 mm up to 50 mm thickness



**GREENLINE**<sup>®</sup>

Already thinking about tomorrow.

made in Germany

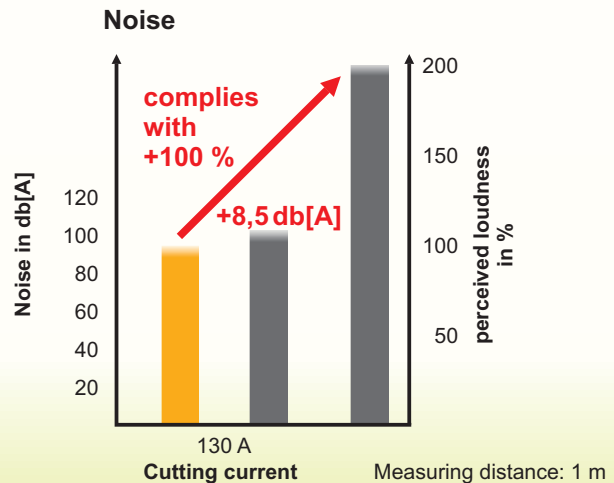
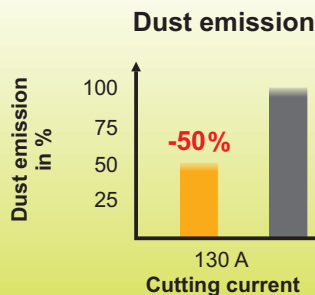
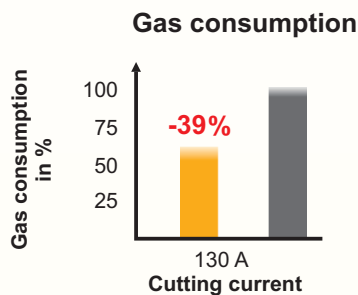
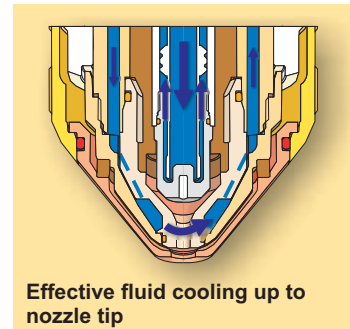
## GREENLINE<sup>®</sup> - Already thinking about tomorrow.

Worldwide excellent reputation of HiFocus range has been established due to its superior cutting quality. Apart from highest precision in terms of rectangularity and surface roughness as per DIN EN ISO 9013 an outstanding productivity can be achieved.

HiFocus161i has been designed as Kjellberg's further consequent development of latest state-of-the-art plasma technology. In addition to performance and precision also environmental aspects increasingly came into picture. With its GreenLine<sup>®</sup> Kjellberg Finsterwalde consequently implemented these endeavours and environmental aspects in development of new plasma systems. HiFocus161i is the first power source in this new generation.

HiFocus161i has been equipped with latest technology and presents itself in typical and well known HiFocus design. This system is not just powerful but also following benefits could be generated due to Kjellberg's consistent further development:

- Higher cutting speeds reduce cutting meter costs (e.g. less energy- and gas consumption as well as reduces emissions),
- Longer consumable life saves resources,
- Narrower kerf and consequently fewer emissions and material scrap,
- Significant less gas consumption than competitors due to more effective fluid cooling of torch,
- Lower noise level due to less gas consumption,
- Fewer gas costs,
- Higher efficiency factor of inverter power module,
- Further costs saving effects due to rarer filter replacement of fume extractors.



### Legend

Material: Mild steel	<span style="color: orange;">■</span> HiFocus
Material thickness: 10 mm	<span style="color: grey;">■</span> Competitor A
Plasma gas: Oxygen	
Swirl gas: Air or Oxygen	

HiFocus161i with latest **soft-switch-inverter** and new plasma torches PerCut 200 and PerCut 210 provides manifold possibilities for **marking and cutting** of carbon steel, alloyed steels and Aluminium as well as all other electro conductive materials in the **range from 0.5 mm up to 50 mm thickness**. HiFocus160i meets high demands of metal- and container construction, automotive industry and many other applications.

## Latest torch technology

Particularly for HiFocus range Kjellberg has developed a new torch generation. This provides higher constriction of plasma arc by using nozzles with smaller diameters, increased rotation of gases and improved use of swirl gases. These torches are designated for marking and cutting without inevitable change of consumables.

**PerCut 210 with quick change head** offers highest precision and comfortable handling. Consumables are subject to strict quality inspections and provide high lifetime.

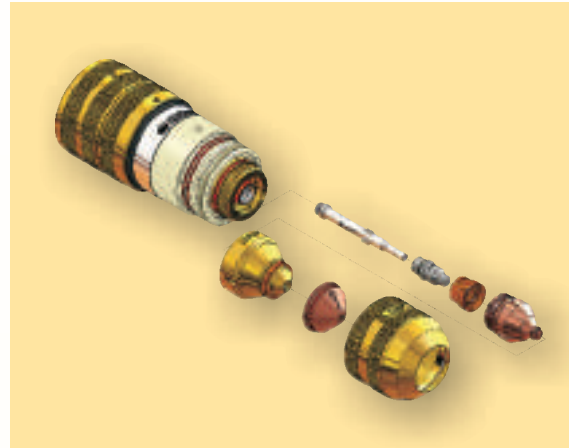
Downtimes are reduced due to:

- Quick and clean switch of technology as per changing requirements
- Quick power adjustment for cutting of different thicknesses
- Quick change of consumables

Both torch models PerCut 200 and PerCut 210 have been developed under extensive consideration in terms of technology, simplicity and customer convenience.

PerCut 200 serial torch without quick change head is designated for standard application as well as high precision bevel cutting jobs. PerCut 210 is equipped with a quick change head for quick and comfortable consumable replacement.

Both torches use same consumables as all other PerCut systems and variety of torch parts has been reduced significantly. These torches and all standard consumables are suitable for 3D and bevelling up to 50 degree.



The new PerCut 210M

## Technical data

Power source	HiFocus 161i
Mains voltage	3x 400 V, 50 Hz
Connected load, max.	30 kVA
Fuse, slow	50 A
Cross section mains cable, Cu	4 x 10 mm <sup>2</sup>
Open circuit voltage	330 V
Cutting current	10 - 160 A (100 % d. c.)
Marking current	5 - 25 A (100 % d. c.)
Cutting voltage	160 V
Cutting power	max. 25,6 kW
Protection class	IP 22
Dimensions (L x W x H)	985 x 680 x 1300 mm
Weight	223 kg

Plasma torch	PerCut 200/ 210
Plasma machine torch	PerCut 200
Quick change torch	PerCut 210
Max. cutting current	200 A
Duty cycle	100 %
Max. cutting range with HiFocus 161i	60 mm (200 A) 50 mm (160 A)
Clamping diameter	50,8 mm
Plasma gas	O <sub>2</sub> , Ar/H <sub>2</sub> , N <sub>2</sub>
Marking gas	Ar
Swirl gas	O <sub>2</sub> , N <sub>2</sub> , Air, F5 <sup>1)</sup>
Cooling	Coolant "Kjellfrost"

1) Forming gas F5 consisting of 95 % N<sub>2</sub> and 5 % H<sub>2</sub>

### Operating data (extract)<sup>2)</sup>

Material-thickness (mm)	Mild steel		Stainless steel		Aluminium	
	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)
0,5	20	8000				
1	20	5500	30	5000	35	6000
3	35	4500	60	4500	35	3000
5	60	3500	60	3800	50	1400
10	130	3800	160	1400	160	1800
15	160	2400	160	950	160	1250
20	160	1800	160	700	160	1000
30	160	550	160	400	160	600
40	160	400	160	250	160	400
50	160	200	160	150	160	200

2) Listed cutting speeds are preliminary and depending on material characteristics, gas parameter, guiding system as well as proper consumables. According to quality requirements cutting speeds may differ.

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 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. The factory-owned 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 rights to change design and/or technical specification during the series fabrication. Claims of any kind can not be derived from this brochure.

10-10-11

**Kjellberg**<sup>®</sup>  
**FINSTERWALDE**

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