



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

## **HiFocus 280i, 360i and 440i neo**

**Plasma Cutting from 0.5 to 120 mm at highest Quality**



Made in Germany

**Cutting and Marking with Contour Cut**

[www.kjellberg.de](http://www.kjellberg.de)

## Plasma Cutting with HiFocus neo

### neo: new – efficient – original

HiFocus neo systems offer a new higher level of performance. Users benefit from an excellent cutting and marking quality. High speeds improve productivity and lower process costs. Due to optimised technology, HiFocus neo delivers longer consumable life and consistent cut quality over entire parts life.

The units HiFocus 280i, 360i and 440i neo can be used for diverse cutting tasks with material thicknesses from 0.5 to 120 mm. With the same equipment it is also possible to cut underwater.



# neo

**contour cut**  
SPEED



12 mm mild steel

### Cutting faster by 50 %

The patented Contour Cut technology stands for precision when cutting mild steel. Small contours, narrow webs and above all small holes with a hole diameter to material thickness ratio of 1:1 can be cut with Contour Cut in excellent quality. Contour Cut Speed allows the cutting of contours in similar quality with a speed that is up to 50 % higher.

### Advantages

- Suited for all common guiding systems as there are CNC-controlled guiding systems, pipe cutting machines or robots
- High-quality reproducible cutting results due to automatic gas control unit
- Long lifetime of consumables
- Higher cutting speeds reduce the costs per cutting metre
- Nearly dross-free cuts and therefore almost no rework required
- Low perpendicularity and surface roughness

### Application Areas

- Metal construction and engineering
- Steel service centres
- Steel and hall construction
- Plant and tank construction
- Pipeline engineering
- Shipbuilding
- Commercial vehicle industry
- Crane construction
- Offshore constructions
- Wind power plants



Punching with variable penetration



Marking with adaptable line width and depth



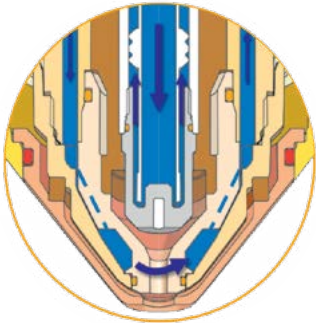
Bevel cutting with an angle of 50°



HotWire-cutting of non-conductive materials

## Components for flexible Use

### Cost-saving Torch Technique



Liquid cooling system up to the torch tip

The Kjellberg plasma torches of the PerCut series are equipped with a unique liquid cooling system which guarantees a long lifetime of the consumables, thus making it possible to achieve savings in the gas consumption. Furthermore, the quick change head reduces the times for changing the consumables. Due to their acute-angled design, difficult-to-access areas can be reached easily and bevel cuts with an angle of up to 50° are possible.

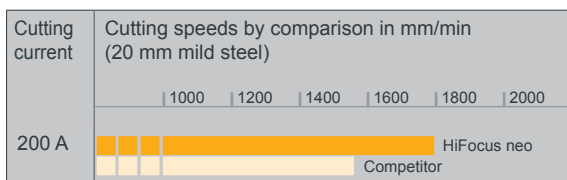
### Torch Exchange Unit



The ATChanger for automated torch exchange

The ATChanger (automatic torch changer) allows the automated exchange of up to eight plasma torch heads for unchanged or different cutting tasks and is therefore an important component for the automation of plasma cutting processes.

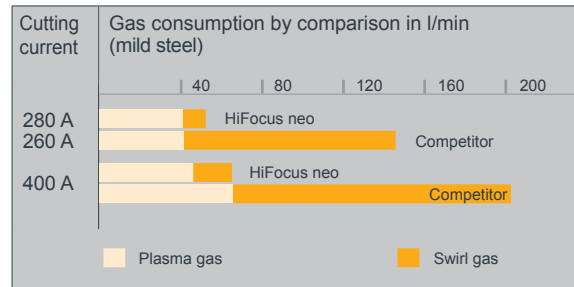
### Cutting Speed



The units of the HiFocus neo series show a considerably higher cutting speed compared to competitive products. The results are narrow kerfs and thus fewer emissions and waste. The lower energy consumption and time expenditure resulting therefrom save the environment as well as the user's resources.

### Efficient Gas Supply

The adjustment and control of the plasma gases can be done manually or automatically. The automatic gas control unit FlowControl stores the adjusted values of the plasma gases and thus allows a constantly high quality and reproducible cutting results.



### Robust Consumables

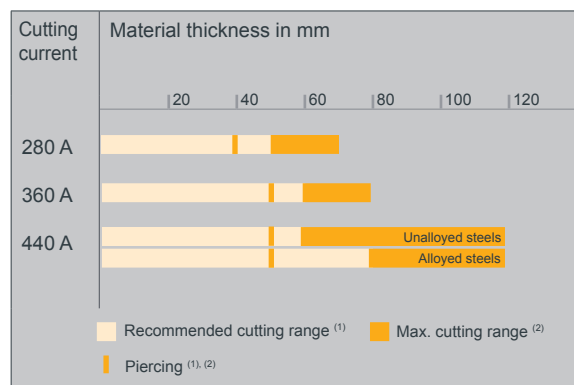


Copper cathodes for cutting with oxygen

With the long-living consumables made by Kjellberg, changeover times can be reduced and the productivity of the cutting process increased. The previously offered range of consumables for cutting with oxygen is expanded by powerful copper cathodes which convince with a long life and an excellent price-performance ratio.

**neo**  
new – efficient – original

### Cutting Ranges



(1) These data are depending on the materials to be cut and their compositions.

(2) Observe piercing capability.

## Technical Data

### HiFocus 280i, 360i, 440i neo

Power source	HiFocus 280i neo	HiFocus 360i neo	HiFocus 440i neo
Mains voltage <sup>(1)</sup>	3x 400 V; 50 Hz		
Fuse, slow	100 A	125 A	200 A
Connected load, max.	67 kVA	87 kVA	127 kVA
Cutting current 100 % duty cycle	280 A	360 A	440 A
Marking current	5-50 A		
Dimensions (L x W x H)	1030 x 680 x 1450 mm		
Mass	505 kg	517 kg	589 kg

Plasma torch	PerCut
Standard version	PerCut 441
Quick change system	PerCut 451
Cutting range	0.5 to 120 mm
Clamping diameter	50.8 mm
Plasma gas	O <sub>2</sub> ; Ar; H <sub>2</sub> ; F5 <sup>(2)</sup>
Marking gas	Ar
Swirl gas	O <sub>2</sub> ; N <sub>2</sub> ; Air

<sup>(1)</sup> Other voltages and frequencies on request.

<sup>(2)</sup> Forming gas F5 (95% N<sub>2</sub>/5% H<sub>2</sub>)

### Operating Data (extract) <sup>(3)</sup>

#### HiFocus 280i, 360i and 440i neo from 0.5 mm

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	6000	-	-	-	-
1	20	4200	60	8000	35	6000
2	35	1600	60	7000	35	6000
4	60	4100	60	5000	60	3300
6	90	3700	130	1600	130	3500
8	130	3700	130	1500	130	1400
10	130	3400	130	1400	130	1300
12	160	3400	130	1200	130	1200
15	200	2800	280	1900	280	4300

#### Mild steel from 20 mm

Material thickness (mm)	HiFocus 280i neo		HiFocus 360i neo		HiFocus 440i neo	
	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)
20	280	2100	360	2700	400	2800
30	280	1200	360	1550	400	1800
40	280	720	360	1000	400	1150
50	280	400	360	700	400	720
60	280	200	360	450	400	520
70	280	150	360	170	400	320
80	-	-	360	120	440	280
100	-	-	-	-	440	150
120	-	-	-	-	440	100

#### Stainless steel from 20 mm

Material thickness (mm)	HiFocus 280i neo		HiFocus 360i neo		HiFocus 440i neo	
	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)
20	280	1500	360	1700	440	2100
30	280	1000	360	1200	440	1300
40	280	670	360	850	440	1000
50	280	570	360	600	440	750
60	280	430	360	530	440	630
70	280	280	360	420	440	480
80	-	-	360	330	440	440
100	-	-	-	-	440	190
120	-	-	-	-	440	100

<sup>(3)</sup> Listed cutting speeds are depending on material characteristics, gas parameters, guiding system as well as proper consumables. According to the quality requirements of the cutting task, the user may change the cutting speed.

#### Aluminium from 20 mm

Material thickness (mm)	HiFocus 280i neo		HiFocus 360i neo		HiFocus 440i neo	
	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)
20	280	3800	360	4000	440	4500
30	280	2200	360	3000	440	2800
40	280	1550	360	1800	440	2400
50	280	1200	360	1500	440	1700
60	280	800	360	1300	440	1300
70	280	450	360	1000	440	1000
80	-	-	360	750	440	850
100	-	-	-	-	440	300
120	-	-	-	-	440	150

### Kjellberg Finsterwalde Group


Welding Electrodes  
Welding Equipment  
Cutting Equipment  
Mechanical Engineering

#### Kjellberg Finsterwalde Plasma und Maschinen GmbH

Oscar-Kjellberg-Str. 20 | 03238 Finsterwalde | Germany  
Phone: +49 3531 500-0 | Fax: +49 3531 500-8510  
plasma@kjellberg.de | www.kjellberg.de

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 cannot be derived from this brochure.

  YellowXLife, XL, HiFocus, PGC, PerCut CUTI and Contour Cut are trademarks of the Kjellberg Foundation/Kjellberg Finsterwalde and may be registered in Germany and/or other countries.

Copyright © 2013 Kjellberg Finsterwalde Plasma und Maschinen GmbH.  
All rights reserved.