

# FineFocus 450, 600, 800, 1600 Plasma Cutting from 3 to 160 mm



# Robust and reliable Equipment for the upper Cutting Range

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# For manifold Applications in the Industry

The robust plasma cutting units of the FineFocus series offer highest reliability and good cut quality even under extreme conditions. At the same time they achieve high efficiency due to the low gas consumption. The user is presented with a product of highest quality in an attractive price-performance-ratio.

Electrically conductive materials with a thickness of 3 mm to 160 mm can be cut reliably. The plasma cutting units can be adapted to CNC-controlled guiding systems and robots quickly and easily. With FineFocus it is possible to use also compressed air as plasma gas.



FineFocus 800, 600, 450

#### **Cutting Speeds**

Material thickness (mm)	FineFocus 200 A (mm/min)	Competitor 200 A (mm/min)
8	5000	4850
10	4500	3735
12	4000	3415
15	3500	2845
20	2300	1920
25	1700	1430
30	1000	805
40	650	570
50	300	270

#### Advantages at a glance

- Clean cut surfaces and therefore low rework costs
- Angular deviations ranging between 2 and 4 according to the standard DIN EN ISO 9013 and high cutting speeds on mild steel due to the FineFocus<sup>PLUS</sup> technology
- Long lifetime of consumables
- Use of the swirl gas technology for dry and underwater plasma cutting
- High efficiency and low running costs due to the integrated or external closed-circuit cooling and therefore lower gas consumption
- Microprocessor-controlled system for smooth and controlled process cycle

# **Fields of Application**





Dry plasma cutting

Underwater plasma cutting

- Steel and hall construction
- Tank and plant construction
- Metal and mechanical engineering
- Shipbuilding
- Job-shop
- Disassembling
- Offshore constructions
- · Wind power stations

## **HotWire Technology**



Cutting of combined materials

The FineFocus 800 can be modified quickly and easily for applying the HotWire technology. Electrically conductive, non-conductive, combined and interrupted materials e.g. gratings, armoured concrete or wired glass can be cut with this technology.

## The Mulit-Talent of the FineFocus Series

#### FineFocus 800

The FineFocus 800 is the most powerful power source of the FineFocus series and offers very good results when cutting medium-sized and thick materials. The plasma cutting unit can be used for straight, contour and bevel cutting up to 50° dry and under water.

Two versions are available:

· FineFocus "Single":

Equipped with one plasma torch connection. With the machine torch materials up to 80 mm can be cut.

• FineFocus "Twin":

Allows the connection of two plasma torches which can be operated alternately; one of them can be a manual torch.

#### FineFocus 1600

The maximum cutting performance of 600 A is achieved by connecting two FineFocus 800 in parallel thus forming a FineFocus 1600 with external water cooling. The FineFocus 1600 is preferably used for the automated cutting of stainless steel and aluminium up to 160 mm in combination with CNC-controlled guiding systems. It is possible to connect up to three different types of plasma torches.



The FineFocus 800 is especially suited for cutting in combination with guiding systems and robots and can be operated separately or in combination.





# **Cutting Ranges**

<sup>1</sup>These data are depending on the materials to be cut and their compositions. <sup>1</sup>Observe piercing sequence.

#### **Technical Data**

Power source	FineFocus 450	FineFocus 600	FineFocus 800	FineFocus 1600
Mains voltage (1)				3x 400 V, 50 Hz
Fuse, slow	50 A	100 A	125 A	2x 160 A
Connected load, max.	34 kVA	60 kVA	83 kVA	2x 100 kVA
Cutting current (100 % duty cycle)	40-130 A	40-200 A	80-300 A	100-600 A
Dimensions (L x W x H)	1025 x 711 x 970 mm	980 x 644 x 1320 mm	1375 x 870 x 1505 mm	2x 1375 x 870 x 1505 mm
Mass	251 kg	370 kg	556 kg	2x 564 kg
Plasma torch	PB-S47 W	PB-S60 W	PB-S80 W	PB-S 151W
Plasma gases	O <sub>2</sub> , Air, Ar, H <sub>2</sub> , N <sub>2</sub>	O <sub>2</sub> , Air, Ar, H <sub>2</sub>	O <sub>2</sub> , Air, Ar, H <sub>2</sub>	Ar, H <sub>2</sub>
Swirl gases	Air, N <sub>2</sub>	Air, N <sub>2</sub>	Air, N <sub>2</sub>	-

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

# **Operating Data (extract)**<sup>(2)</sup>

#### FineFocus 450

	Un- and low- alloyed steels		Alloyed steels		Aluminium	
Material- thickness (mm)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)
6	130	2800	130	1900	130	8000
10	130	1900	130	1900	130	5000
15	130	850	130	750	130	3000
20	130	750	130	500	130	1800
25	130	450	130	450	130	1200
30	130	350	130	430	130	850
40	130	200	120	200	120	500

#### FineFocus 600

	Un- and low- alloyed steels		Alloyed steels		Aluminium	
Material- thickness (mm)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)
6	60	3600	200	3800	60	2500
8	120	3100	200	3200	100	4600
10	120	2500	200	2400	100	3800
15	200	2600	200	1900	200	4200
20	200	2300	200	800	200	3800
30	200	1000	200	600	200	1200
40	200	650	200	350	200	950
50	200	300	200	250	200	750
60	200	250	200	150	200	500

<sup>(2)</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.

> Kjellberg Finsterwalde Group Welding Electrodes Welding Equipment Cutting Equipment Mechanical Engineering

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#### FineFocus 800

	Un- and low- alloyed steels		Alloyed steels		Aluminium	
Material- thickness (mm)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)	Cutting current (A)	Cutting speed (mm/min)
6	200	7500	200	3800	200	9000
8	200	5000	200	3000	200	8000
10	200	4500	200	2400	200	7000
15	250	3800	250	2200	250	4500
20	250	2300	250	1600	250	3700
30	300	1500	250	1000	250	2200
40	300	1100	250	700	150	1400
50	300	600	300	450	250	1200
60	300	350	300	250	250	800
70	300	200	300	150	250	250
80	300	100	300	100	250	150

#### FineFocus 1600

Alloyed steels							
	PB-S151 W	(only Ar/H <sub>2</sub> )	PB-S100 WU				
Material thickness (mm)	Cutting current (A)	Cutting speed (mm/min)	Material thickness (mm)	Cutting current (A)	Cutting speed (mm/min)		
60	600	500	60	500	400		
80	600	250	80	600	170		
100	600	200	100	600	180		
120	600	150	120	600	195		
150	600	100	150	600	100		

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.

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