

Kjellberg[®]
FINSTERWALDE

the
FINE FOCUS[™]
company

Plasma Cutting Units

FineFocus 800

Dry plasma cutting up to 80 mm
Underwater plasma cutting up to 40 mm

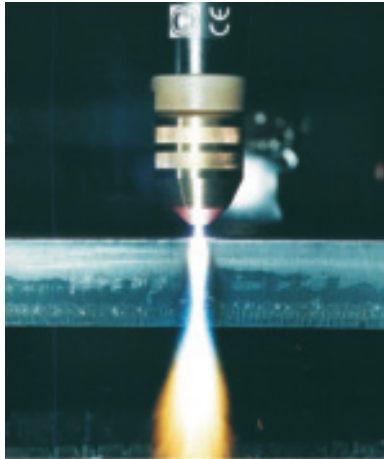
FineFocus 1600

Dry plasma cutting up to 160 mm
Underwater plasma cutting up to 100 mm



FineFocus Technology - our Experience for your prospective duties

The universal technological concept of the FineFocus 800 and FineFocus 1600 enables in connection with relevant accessories the effective solution of all cutting operations at metallic materials up to 80 mm resp. 160 mm. They are especially designed for cutting with CNC-controlled guiding systems and robots. FineFocus plasma cutting units are suitable for straight, profile and bevel cutting, for dry and under water applications, using all kind of cutting gases.



Dry plasma cutting



Underwater plasma cutting



Plasma cutting with robot

- **Minimised costs** through optimised application of plasma gases and electric energy, with optimum results compared to other cutting methods, and to competitors too
- **Reduced angularity and increased cutting speed** on mild steels by **FineFocus^{PLUS}** technology
- **Increased life of consumables** and improved cut shape at the cut end
- **High productivity** and reduced cutting costs through plasma torches with superb functionality. Cut surfaces requires nearly no further works.

Versatile Application of the plasma cutting unit FineFocus 800

FineFocus 800

- Cutting of all electrical conductive materials with maximum 300 A at 100 % duty cycle
- Cutting up to 80 mm thickness with one torch in the power source „single“
- In version „twin“ it is possible to cut with one of two connected torches, one can be a torch for manual plasma cutting
- PB-S80 W with swirl gas technology cut mild steel with O₂ or Air, stainless steel and aluminium with optimized gas mixtures of Ar/H₂/N₂ or Air
- Machine torch PB-S80 W and quick-change torch PB-80 WSM can be used for dry and underwater applications



PB-S80 W



PB-S80 WSM



PB-S151 W

FineFocus 1600

- Parallel operation of two units FineFocus 800 with external cooling
- Plasma machine torch PB-S151 W for dry cutting up to 160 mm
- Plasma machine torch PB-S100 WU for underwater cutting up to 100 mm

Free selectable gas mixtures ensure superior cutting results

To reach an optimized cutting result it is necessary to have specific mix of cutting gases with the correct adjusted gas pressure and flow rate according to the material.

To provide the correct gases and gas mixtures Kjellberg Finsterwalde offers the manual gas consoles PGE 2-800 and PGE 3-800 and the automatic gas box PGE 3-800 Automatic.



PGE 3-800
Automatic

PGE 3-800 PGE 2-800

Cuttind parameters (extract)²⁾

Material	FineFocus 800						FineFocus 1600					
	PB-S80 W			PB-S80 W (UWP)			PB-S151 W (nur Ar/H ₂)			PB-S100 WU		
	Thick-ness (mm)	Cutting current (A)	Cutting speed (mm/min)	Thick-ness (mm)	Cutting current (A)	Cutting speed (mm/min)	Thick-ness (mm)	Cutting current (A)	Cutting speed (mm/min)	Thick-ness (mm)	Cutting current (A)	Cutting speed (mm/min)
Mild steel	5	200	5000									
	6	200	4300									
	8	300	5000									
	10	300	4100									
	15	300	3200	6	300	4200						
	20	300	2000	10	300	2600						
	25	300	1500	20	300	1800						
	30	300	1200	25	300	1000						
	40	300	700	30	300	600						
	60	300	300	40	300	400						
Stainless steel				4	220	3800						
	5	200	2300	6	220	3200	20	220	900			
	10	200	1700	8	220	1800	30	250	700			
	15	250	1700	10	300	1600	45	500	600	20	600	1300
	20	250	1100	15	300	1300	60	600	500	40	600	800
	30	250	800	20	300	1000	80	600	250	60	600	500
	40	300	550	30	300	500	100	600	200	80	600	250
	60	300	200	40	300	400	120	600	150	100	600	200
Aluminium	6	200	5000									
	10	200	4000									
	16	250	3100									
	20	250	2500									
	30	250	1400									
	40	250	1000									
	60	250	450									

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

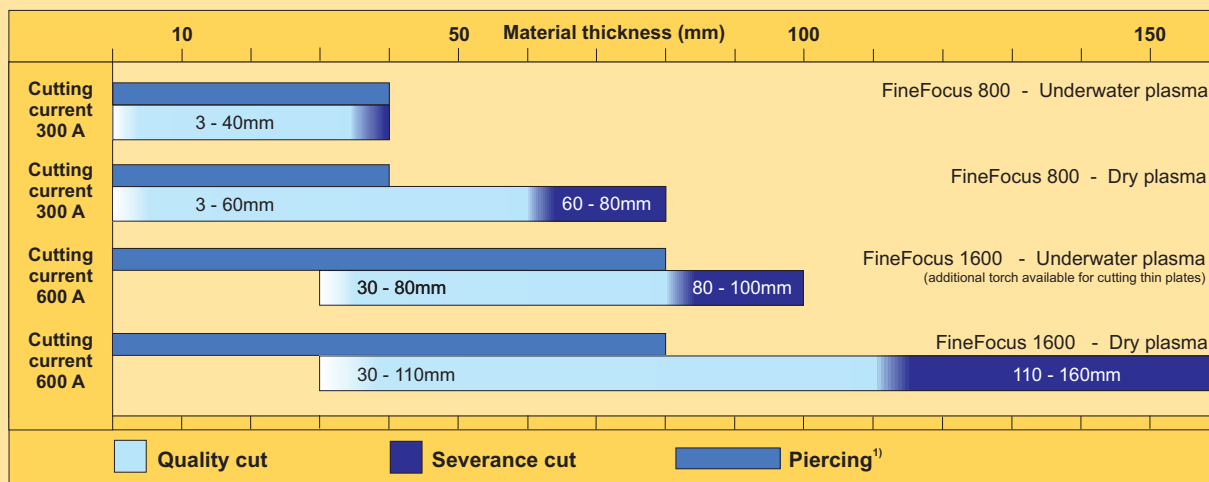
Technical data

Power source	FineFocus 800		FineFocus 800		FineFocus 1600 (2x FineFocus 800)
	Single	Twin	Single	Twin	
Technology	Dry plasma		UWP		Dry plasma/ UWP
Mains voltage ¹⁾	3 x 400 V, 50 Hz		3x 400 V, 50 Hz		3x 400 V, 50 Hz
Connected load	83 kVA		100 kVA		2x 100 kVA
Fuse, slow	125 A		160 A		2x 160 A
Open circuit voltage	400 V		400 V		400 V
Cutting current at 100 % d.c.	80 - 300 A		80 - 300 A		160 - 600 A
Cutting voltage	200 V		200 V		200 V
Cutting power	max. 60 kW		max. 60 kW		max. 120 kW
Protection class	IP 22		IP 22		IP 22
Dimensions (H x W x D)	1505 x 870 x 1375		1375 x 870 x 1505		2x 1375 x 870 x 1505
Weight	556 kg ²⁾	566 kg ²⁾	564 kg ²⁾	574 kg ²⁾	2x 552 kg ³⁾
Plasma torch	PB-S80 W		PB-S80 W		PB-S80 W, PB-S151 W, PB-S100 WU

1) other voltages and frequencies on request 2) inbuilt cooling 3) external cooling

Plasma torch	PB-S80 W	PB-S151 W	PB-S100 WU
max. Cutting current	300 A	600 A	600 A
Duty cycle	100%	100%	100%
Cutting range			
- Dry plasma	3 - 80 mm	30 - 160 mm	-
- UWP	3 - 40 mm	-	30 - 100 mm
Plasma gases	Ar, H ₂ , O ₂ , Air	Ar, H ₂	Ar, H ₂
Swirl gases	N ₂ , Air	-	N ₂
Torch cooling	Coolant "Kjellfrost"	Coolant "Kjellfrost"	Coolant "Kjellfrost"

Cutting ranges of FineFocus 800 and FineFocus 1600¹⁾



1) Attend piercing technology!

Kjellberg-plasma cutting systems are CE-conform and correspond with the valid guidelines and instructions of the European Union. They are developed and fabricated on basis of following standards: EN 60974 (VDE 0544). The plasma cutting systems 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 prospectus.

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