

DATA SHEET

SMART FOCUS 300

TORCH PERCUT 4000

TORCH LEADS:

COMPACT SYSTEM** or IGNITION UNIT WITH CONNECTION HOSE AND CABLE PACKAGE:

** Only for small cutting systems at track length < 8 m

max. length 15 m

max. length 55 m

			O ₂ / O ₂ Air CC (S235/S355)	O ₂ / Air CCS (S235/S355)	N ₂ / F5,N ₂ HiFinox (1.4301)***	Ar,H ₂ / N ₂ Mix (1.4301)***	N ₂ / N ₂ HiFinox (AlMg ₃)	Ar, H ₂ / N ₂ Mix (AlMg ₃)
CUTTING RANGE	(recommended)	[mm]	2,0 - 30	8 - 40	1 - 6	5 - 40	2 - 6	6 - 40
CUTTING RANGE	(min/max.)	[mm]	1,0 - 30	4 - 60	1 - 6	5 - 70	1 - 6	6 - 70
CUTTING RANGE	(max. sep.)	[mm]	30	80 ⁸⁰	6	80 ⁸⁰	6	80 ⁸⁰
HOLE PIERCING	(max.)	[mm]	30	40	6	40	6	40

⁸⁰ < 80 % ED

* reduced life time

CUTTING EXAMPLES (Speed approx. values)		S235/S355					1.4301					AlMg ₃				
Plate thickness	[mm]	3	6	10	20	40	3	6	10	20	40	3	6	10	20	40
Quality cut	[mm/min]	2500	2700	2400	1800	800	3000	1800	1400	850	570	3500	2500	1300	1300	1200
High-speed cut	[mm/min]		3200	3400	2600					1200			3500	1600	2800	

GASES

		Min. supply pressure [bar]	Working pressure [bar]	Max. Flow rate [l/min]	S235/S355		1.4301		AlMg ₃	
					thin	thick	thin	thick	thin	thick
Air	Plasma	12	10±1	89	X	X			X	
Air	Swirl	12	10±1	77	X	X				
O ₂	Plasma/Swirl	12	10±1	62	X	X				
N ₂	Plasma/Swirl	12	10±1	87	X	X	X	X		
Ar	Plasma	12	10±1	44				X	X	X
H ₂	Plasma	13	11±1	20				X		X
F5	Plasma	12	10±1	26			X			
Ar	Marking**	12	10±1	44	X	X	X	X	X	X

** Marking only with automatic gas flow control

NOZZLE LIVE	unit / shift (approx.)	0,7	1,2 (1,3*)	1	2,0 (3,0*)	1	2,5
ELECTRODE LIFE	unit / shift (approx.)	0,7	1,2 (1,3*)	0,5	0,8 (1,2*)	0,5	1
NUMBER OF STARTS per electrode	(approx.)	1600	900 (760*)	2200	1400 (930*)	2000	1000

* Values valid for bevel cutting, only with PKS.

GAS PURITY

O ₂ :	99,5	%	(2.5)	The oxygen must be free of odorants.
N ₂ :	99,999	%	(5.0)	
H ₂ :	99,95	%	(3.5)	
Ar:	99,996	%	(4.6)	
F5:	99,95	%	(3.5)	

COMPRESSED AIR:	max. particle size	0,1	µm	(Class 1	ISO 8573)
	max. remaining oil content	0,01	mg/m ³	(Class 1	ISO 8573)
	max. compression dew point	+ 3	°C	(Class 4	ISO 8573)

- F5 = 95% N₂ + 5% H₂
- Pipeline network supply: Connecting of micro filter in series, supplied by the customer for air and O₂.
- Manual gas console **is standard** (In combination with this gas console the operator adjusts all cut charts manually).
- Automatic gas console **is charged optionally** (remote operation by separate panel or by machine's CNC. Current programming by part program is not possible).
- The torch is equipped with shielded parts, swirl gas technology.
- Marking quality is limited, because the minimum current is 10A (not for thin material).
- Marking does not allow for velocity dependent current control.

Cutting current (max.):	300	A	Cutting power at 100 % d.c.:	60	kW (300A)
Input power:	79 kVA	kVA	Rated frequency:	50	Hz
Main supply voltage:	400	V	Max. voltage deviation:	- 10 / + 10	%
Input current:	115	A	Ambient temperatures:	-10 to +40	°C
Dimensions L x W x H:	1030 x 680 x 1450	mm	Weight:	approx. 488	kg
Noise (depending on plate thickness):	> 95	dB (A)	UV – light protection required		

All previous editions of this data sheet are no longer valid.
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The manufacturer reserves the right to make alterations to product without notice.

MESSER
Cutting Systems