DATA SHEET

SMART FOCUS 130 — TORCH PERCUT 2000

TORCH LEADS: max. length 15 m
COMPACT SYSTEM** or IGNITION UNIT WITH CONNECTION HOSE AND CABLE PACKAGE: max. length 55 m
** Only for small cutting systems at track length < 8 m

			O_2 / O_2 Air CC / CCS (S235/S355)	O_2 / Air CC / 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 - 20	8 - 20	1 - 6	5 - 25	2 - 6	6 - 25
CUTTING RANGE	(min/max.)	[mm]	1,0 - 20	4 - 40	1 - 6	5 - 40	1 - 6	6 - 40
CUTTING RANGE	(max. sep.)	[mm]	20	40^{80}	6	40^{80}	6	40^{80}
HOLE PIERCING	(max.)	[mm]	20	20	6	25	6	25

[80] < 80 % ED * reduced life time

CUTTING EXAMPLES
(Speed approx. values)

Plate thickness	[mm]	S235/S355 3	6	10	20	40	1.4301 3	6	10	20	40	$AlMg_3$ 3	6	10	20	40
Quality cut	[mm/min]	2500	2700	2400	1100		3000	1800	1400	650	180	3500	2500	1300	1000	300
High-speed cut	[mm/min]		3200	3400	1300	300							3500			

GASES

		Min. supply pressure [bar]	Working pressure [bar]	Max. Flow rate [l/min]	S235/S355 thin	S235/S355 thick	1.4301 thin	1.4301 thick	$AlMg_3$ thin	$AlMg_3$ 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

		S235/S355 thin	S235/S355 thick	1.4301 thin	1.4301 thick	$AlMg_3$ thin	$AlMg_3$ thick
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 for 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/m³	(Class 1	ISO 8573)
max. compression dew point	+ 3	°C	(Class 4	ISO 8573)

- F5 = 95% N_2 + 5% H_2
- Pipeline network supply: Connecting of micro filter in series, supplied by the customer for air and O_2.
- 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.):	130 A (100% DC)	Cutting power at 100 % d.c.:	20 kW (130A)
Input power:	28 kVA	Rated frequency:	50 Hz
Main supply voltage:	400 V	Max. voltage deviation:	- 10 / + 10 %
Input current:	31 A	Ambient temperatures:	-10 to +40 °C
Dimensions L x W x H:	1030 x 570 x 1260 mm	Weight:	approx. 266 kg
Noise (depending on plate thickness):	< 96 dB (A)	UV – light protection required	

The technical data and comments are provided for guidance purposes only and are non-binding.
The manufacturer reserves the right to make alterations to product without notice.
MESSER Cutting Systems