



## WELD HEADS

### FCH 3-21 / 3-38 / 6-76 / 9-114

/ TIG Orbital welding without filler wire



/ Closed weld heads for mechanized TIG Orbital welding of thin-walled tube connections with outer-diameters from 3 - 114 mm (0.12 - 4.49 in) and wall thicknesses up to 3,5 mm (0.14 in) made of stainless steel, titanium, austenite nickel-chromium-based superalloys, aluminum and other materials in application areas: microelectronics, bio-chemical industry, food industry, instrumentation, aerospace and aeronautics, etc.

#### FEATURES

- / FCH weld head with hose pack 8 m
- / High duty cycles due to top performance watercooling
- / Integrated servomotor
- / Automatic drive to opening position
- / Free defineable starting position
- / Automatic drive stop when overloaded
- / Compact design for use in areas with limited access
- / Protection chamber for gas-covering to avoid coloration
- / Clamping system for easy and fast fixing and centering
- / Quick change system for collets
- / High usability due to integrated control buttons
- / Transport case with trolley-system

#### ACCESSORIES

- / Collets set for different tube diameters
- / Customized collets
- / Offset electrode holder (FCH 6-76/9-114 only)
- / Stepless adjustable electrode holder (FCH 6-76 / 9-114 only)
- / Extension hose pack FCH/FOH 10 m (393.70 in)
- / Orbital system controller FPA 3020/3030

#### INTEGRATED BUTTONS



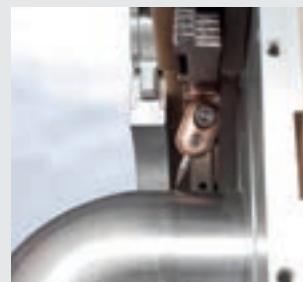
- 1** / LED indicator for 360° limit switch position
- 2** / Start/Stop welding
- 3** / Torch rotation
- 4** / Immediate welding stop  
/ Gas- and cooling test



/ Spring loaded clamping system



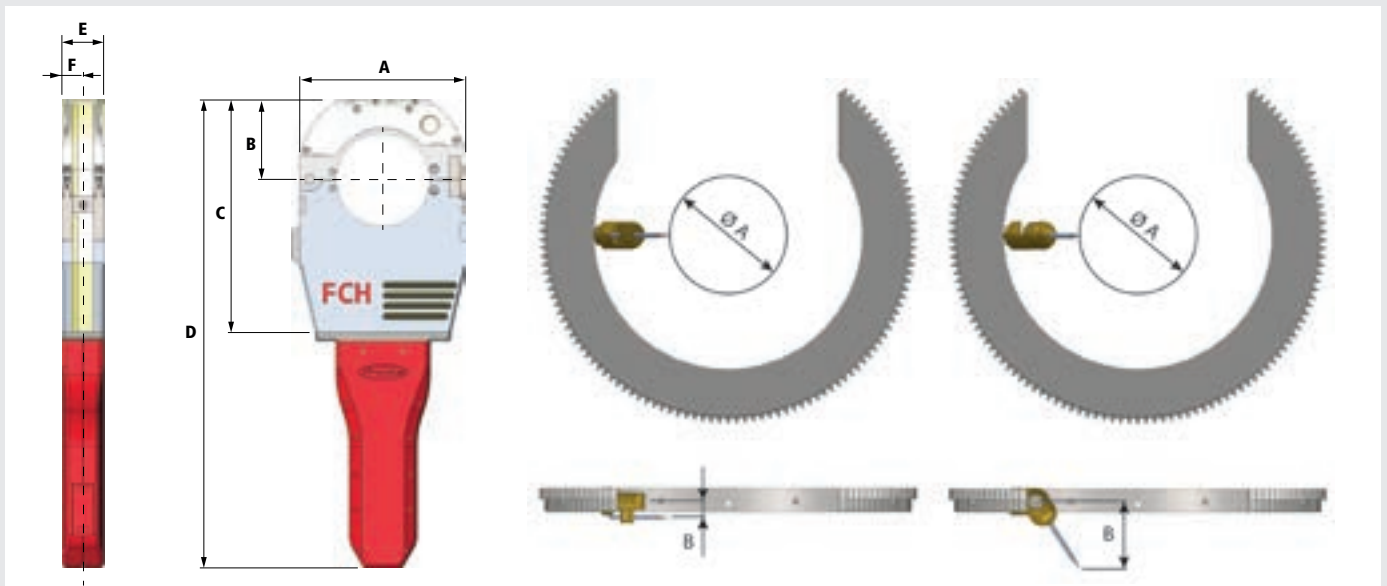
/ Perfect welds due to closed chamber



/ Stepless adjustable electrode holder



/ Transport case with trolley



	FCH 3-21	FCH 3-38	FCH 6-76	FCH 9-114
Tube outer-Ø	3-21 mm (0.12-0.83 in)	3-38 mm (0.12-1.49 in)	6-76 mm (0.24-2.99 in)	9-114 mm (0.35-4.49 in)
A	70 mm (2.76 in)	102 mm (4.02 in)	160 mm (6.30 in)	200 mm (7.87 in)
B	36,5 mm (1.44 in)	51 mm (2.08 in)	77 mm (3.03 in)	97 mm (3.82 in)
C	143 mm (5.63 in)	174 mm (6.85 in)	224 mm (8.82 in)	264 mm (10.39 in)
D	358 mm (14.09 in)	389 mm (15.31 in)	453 mm (17.83 in)	493 mm (19.40 in)
E	35 mm (1.38 in)	35 mm (1.38 in)	40 mm (1.57 in)	40 mm (1.57 in)
F	17,5 mm (0.69 in)	17,5 mm (0.69 in)	20 mm (0.79 in)	20 mm (0.79 in)
Electrode position				
Electrode-Ø	1,6 / 2,4 mm (0,06 / 0,09 in)			
Max. temperature of upper clamping shell	100° C (212° F)	100° C (212° F)	100° C (212° F)	120° C (248° F)
Max. current	100 A	150 A	200 A	200 A
Net weight incl. hose pack	5,89 kg (12.99 lbs)	6,45 kg (14.22 lbs)	11,93 kg (26.30 lbs)	13,66 kg (30.12 lbs)

Weldhead	Offset electrode holder		Stepless adjustable electrode holder	
	maximum Ø A	lateral offset B	maximum Ø A	lateral offset B
FCH 6-76	50,8 mm (2.00 in)	5-7 mm (0.20-0.28 in)	50,8 mm (2.00 in)	variable depend- ing on the
FCH 9-114	88,9 mm (3.50 in)	5-7 mm (0.20-0.28 in)	88,9 mm (3.50 in)	interaction of electrode length, angle and measure

/ Watch the Video on  
our YouTube channel.



/ Perfect Welding / Solar Energy / Perfect Charging

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What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 5,440 employees worldwide and 1,264 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

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