

P16, P16 AVC

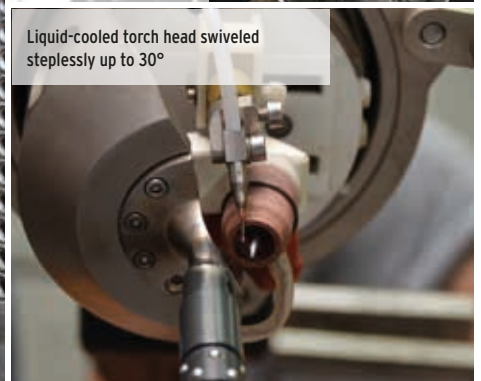
Tube-to-tube-sheet orbital weld heads

Easy handling for high efficiency and functionality is a feature of the Orbitalum P-series: These TIG tube-to-tube-sheet orbital weld heads produce several thousand weld seams of consistent seam quality with maximum precision.

Tube-to-tube-sheet weldings at generously dimensioned heat exchangers with highest precision and efficiency



Easy handling with maximum diversity of functions



Liquid-cooled torch head swiveled steplessly up to 30°

With these TIG tube-to-tube-sheet weld heads a welding of tubes in tube sheets with highest precision and continuous quality is no problem.

The liquid cooling of the P-series runs up to the TIG head torch which provides for a precise process and continuous quality of the welding process and extends the duty cycle. The torch head can be swiveled steplessly up to 30° - this function is, for example, valuable for tubes entering diagonally into the tube sheets and in tight spaces.

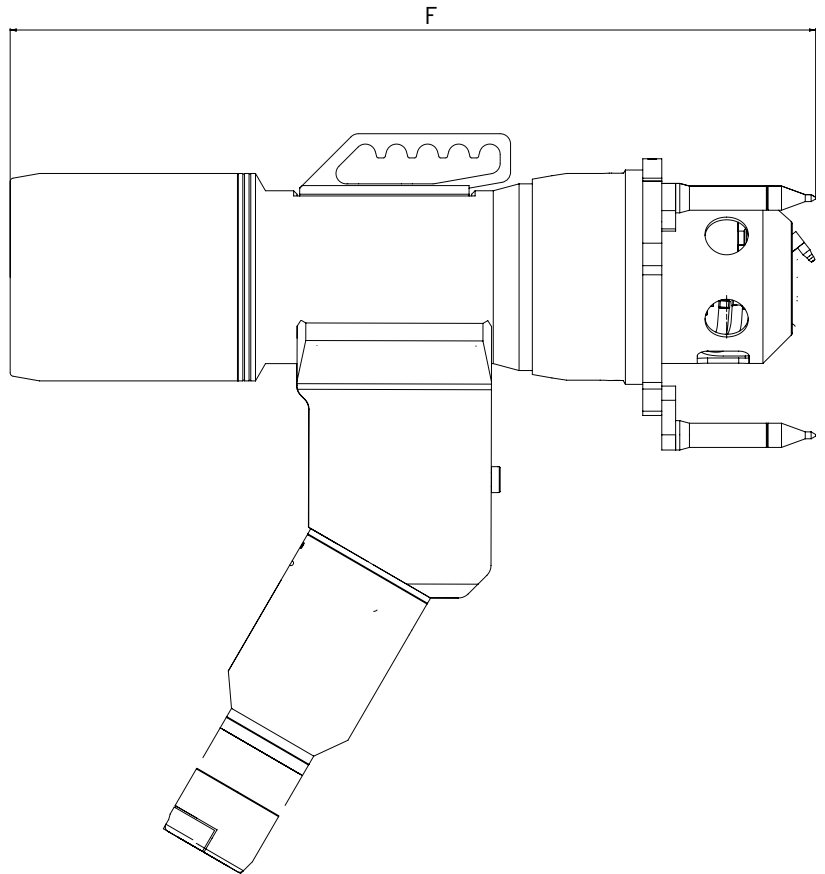
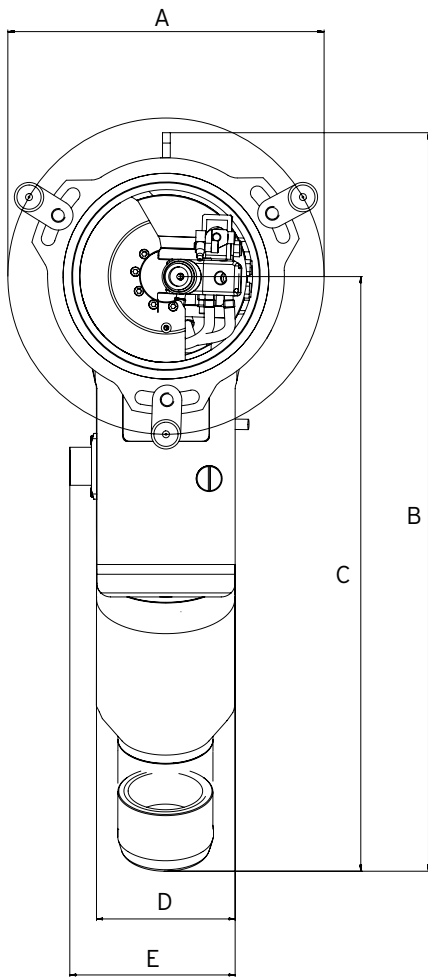
FURTHER PROPERTIES:

- Completely liquid-cooled weld head housing
- Torch head can be swiveled steplessly up to 30° (reduced diameter area)
- Weld seam geometries: Recessed, flush and protruding tubes
- Current transfer: Multi-plate clutch
- Gas water transfer: Rotating coupling
- Three-point support made of stainless steel
- Manual electrode position setting: Stroke +/- 5 mm
- Adaptable to special torches, e.g. box header, inner torch (with/without cold wire)
- Positioning in tube to be welded per centering cartridge, which is placed on an arbor (optionally available)
- Weld heads with cold wire unit are additionally equipped with a cold-wire feed mounted directly

- on the weld head, including a mounting gear for a D 100 mm/1kg (3.937"/2.2 lbs) standard wire coil
- Wire feeder following on the rotating axis of the TIG torch to prevent spin of the filler wire while running out of the wire nozzle
- Including three-point support
- Including 7.5 m (24.6 ft) hose package and tool set

ADDITIONAL CHARACTERISTICS P16 AVC:

- With electronic arc gap control (AVC) - only usable in combination with welding power supply ORBITMAT 300 CA AVC/OSC



DIMENSIONS		P16	P16 AVC
Dimension "A"		182.97 mm 7.204 in	187.05 mm 7.364 in
Dimension "B"		427.25 mm 16.821 in	427.25 mm 16.821 in
Dimension "C"		344.00 mm 13.543 in	344.00 mm 13.543 in
Dimension "D"		80.00 mm 3.150 in	80.00 mm 3.150 in
Dimension "E"		95.50 mm 3.760 in	95.50 mm 3.760 in
Dimension "F"		466.00 mm 18.346 in	582.00 mm 22.913 in
APPLICATION AREA		P16	P16 AVC
Code	with cold wire	831 000 001	831 000 002
	Without cold wire	831 000 003	-
From tube ID to tube OD		10 - 78 mm* 0.394 - 3.071 in*	12 - 100 mm* 0.470 - 3.937 in*
TECHNICAL SPECIFICATIONS		P16	P16 AVC
Weight machine including hose package	with cold wire	17.5 kg 38.6 lbs	18.3 kg 40.3 lbs
	Without cold wire	16.2 kg 35.7 lbs	-
Weight additional wire unit		1.0 kg 2.2 lbs	1.0 kg 2.2 lbs
Additional wire unit Ø		0.8 mm 0.03 in	0.8 mm 0.03 in

Hose package length	7.5 m 24.6 ft	7.5 m 24.6 ft
SCOPE OF DELIVERY		
Including:	<ul style="list-style-type: none"> • 1 tube-to-tube-sheet orbital weld head P16, or P16 AVC • 1 three-point support • 1 transport case • 1 tool set • 1 set of operating instructions and spare parts list 	
Suitable accessories (optionally available):	<ul style="list-style-type: none"> • Centering cartridges and arbors • Special torch (box header torch, rear sheet torch) • Quick-change adapter torch equipment • Cold-wire feeds KD • Balancer spring • Closed gas cover • Front cage • ESG electrode grinders • Ground cable • Hose package extensions • Double pressure reducer • WS2 tungsten electrodes 	

Technical specifications are non-binding. They do not constitute any assurance of properties. We reserve the right to make changes.

Tube-to-tube-sheet orbital weld heads

P16, P16 AVC

Properties, application area, technical specifications and delivery scope, see page 74.

The following accessories are mandatory for the use of the tube-to-tube-sheet orbital weld heads and must be ordered separately:

- Arbors and centering cartridges (see page 79)
- Ground cable (see page 93)



P16



P16 AVC

ITEM	CODE	MACHINE WEIGHT KG*	SHIPPING WEIGHT KG
Tube-to-tube-sheet orbital weld head P16 with cold wire	831 000 001	17.500	26.500
Tube-to-tube-sheet orbital weld head P16 without cold wire	831 000 003	16.200	25.100
Tube-to-tube-sheet orbital weld head P16 AVC with cold wire	831 000 002	18.300	27.300

* Machine weight including hose package

Suitable accessories (optionally available):

- Centering cartridges and arbors, see page 79
- Ground cable, see page 93
- Special torch (box header/rear sheet), see page 77
- Quick-change adapter torch equipment, see page 77
- Balancer spring, see page 78
- Closed gas cover, see page 78
- Front cage, see page 78
- Remote control, see page 21