

# P16 EVO (KD), P16 EVO AVC

## Tube-to-tube-sheet orbital weld heads

The further developed P16 EVO series combines the economy and reliability of its predecessor with simplified handling and extended functionality: highest weld seam quality - reproducible thousands of times.

Reliable - power transmission with rotary coupling	✓
Adjustable without tools - Balance suspension with increased adjustment range	✓
Flexible operation - control panel integrated into the handle	✓
Easy operation - Optimized quick-change system for torches	✓
Precise - adjustment of the Wire feed tension	✓
Solid - stainless steel screws for fine adjustment of torch and wire nozzle	✓
Adjustable without tools - 3-point support welding head on tube sheet	✓



The P16 EVO TIG tube-to-tube-sheet weld head is the result of continuous further development of the proven P series. Tool-free balancing and integrated control keypad increase operating convenience. The use of high-quality components and materials raises the precise reproducibility of welds to a new level.

Liquid cooling up to the torch head ensures the consistent quality of the welding process and increases the duty cycle. The reliability of the current transmission is increased by the use of the new graphite coupling. The torch head, which can be continuously tilted by up to 30 degrees, enables complex applications in confined spaces.

### Features:

- Current transfer: Rotating clutch
- Gas water transfer: Rotating coupling
- Flexible operation via control panel in the handle of the power source
- Precise and comfortable balancing due to tool-

- free adjustable balance suspension with enlarged adjustment range
- 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
- 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/1 kg (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 stainless steel 3-point support adjustable without tools

- Including 7.5 m (24.6 ft) hose package and tool set

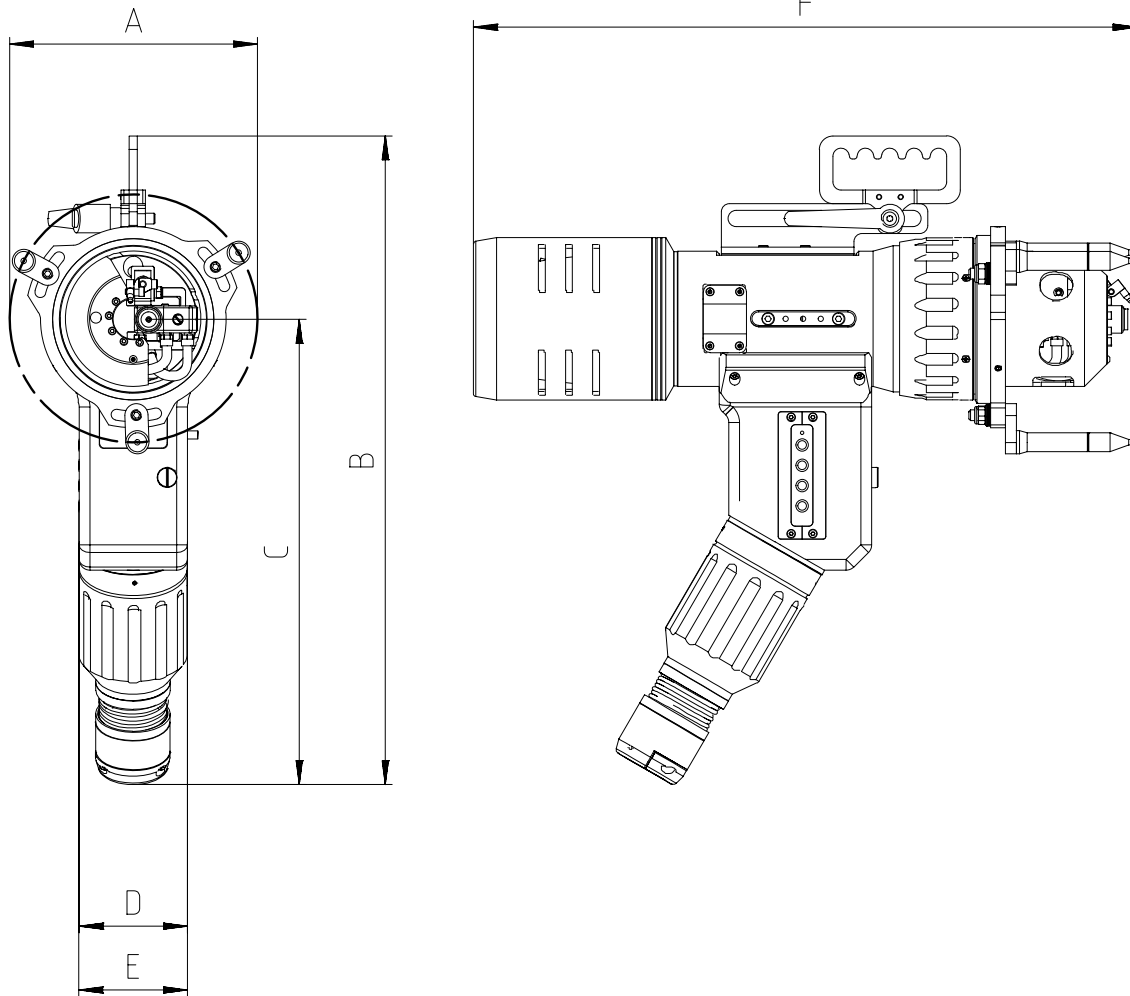
### Additional characteristics P16 EVO AVC:

- With electric arc distance control (AVC) - can only be used in combination with the ORBIMAT 300 CA AVC/OSC welding power source.



Integrated control panel

## DIMENSIONS (EXEMPLARY P16 EVO KD SHOWN, VALUES, SEE TABLE):



DIMENSIONS	P16 EVO	P16 EVO KD	P16 EVO AVC
Dimension "A"	183,00 mm 7.204 in	183,00 mm 7.204 in	184,00 mm 7.244 in
Dimension "B"	478,84mm 19.202 in	478,84mm 19.202 in	478,84mm 19.202 in
Dimension "C"	343,40 mm 13.504 in	343,40 mm 13.504 in	344,74 mm 13.572 in
Dimension "D"	80,00 mm 3.150 in	80,00 mm 3.150 in	80,00 mm 3.150 in
Dimension "E"	80,20 mm 3.157 in	80,20 mm 3.157 in	80,20 mm 3.157 in
Dimension "F"	357,31 mm 14.067 in	489,81 mm 19.284 in	591,50 mm 23.287 in
APPLICATION AREA	P16 EVO	P16 EVO AVC	
Code	with cold wire 833 000 001	833 000 002	
	Without cold wire 833 000 003	-	
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 EVO	P16 EVO 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	

\* Other dimensions on request.

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

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

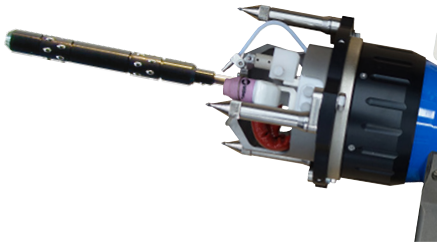
## Tube-to-tube-sheet orbital weld heads

### P16 EVO, P16 EVO KD, P16 EVO AVC

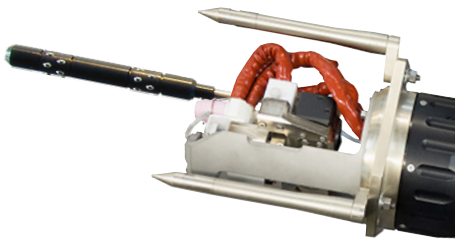
Properties, application area, technical specifications and delivery scope, see page 2.

**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
- Ground cable



P16 EVO KD



P16 EVO AVC KD

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

\* Machine weight including hose package

### Suitable accessories (optionally available):

- Centering cartridges and arbors, see page 87
- Ground cable, see page 101
- Special torch (box header/rear sheet), see page 85
- Quick-change adapter torch equipment, see page 85
- Balancer spring, see page 86
- Closed gas cover, see page 86
- Front cage, see page 86
- Remote control, see page 27

## Accessories for P16 EVO, P16 EVO AVC

### Special torches

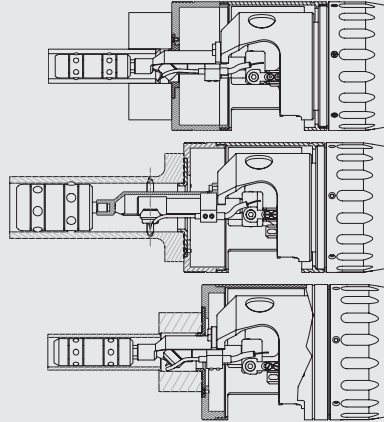
Individual special torches for following welding positions are available on request:

Box header torch



Box header torch

Inner torch:  
For welding of recessed tubes and rear sheet applications

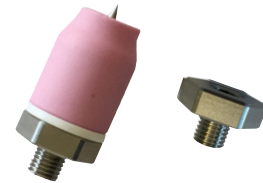


ITEM	CODE
Box header torch	on request
Inner torch	on request

### Quick-change adapter torch equipment

Through this quick-change adapter the torch equipment of the tube-to-tube-sheet orbital weld heads P16 and P16 AVC, can be set up comfortably and exchanged faster, irrespective of the torch.

ITEM	CODE	KG
Quick-change adapter torch equipment	831 050 019	0.012



Quick-change adapter torch equipment

### Cold-wire feeds KD (retrofitting kits)

For refitting of tube-to-tube-sheet orbital weld heads without wire unit.  
Wire coil mounting for  $\varnothing$  100 mm/1 kg (3.937"/2.2 lbs) standard coils.

ITEM	CODE	KG
Cold-wire feed P16/P16 AVC	831 001 116	1.500

#### TUBE-TO-TUBE-SHEET ORBITAL WELD HEADS