

# P16, P16 AVC, P20

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

Our P series is characterized by special design features intended to ensure easy handling combined with a high level of economy and functionality.

With extreme precision, these tube-to-tube-sheet orbital weld heads will produce several thousand weld seams at constant quality.



Tube-to-tube-welding on large-scale heat exchanger with highest precision and efficiency

Easy handling and a maximum of functionality

Liquid-cooled weld head up to 30° freely pivotable

**With this TIG weld heads, it is no longer a problem to weld tubes to tubesheets with the highest of accuracy and consistent quality**

Its liquid cooling is fed right to the TIG burner head, which ensures more precise working and consistent quality of the welding process, as well as extending the power-on time. The burner head can be pivoted freely by up to 30° - this function is valuable, for instance, on tubes that are entering tubesheets at an angle or in restricted spaces.

### ADDITIONAL FEATURES:

- Completely liquid-cooled weld head housing (P16/P16 AVC only)
- Burner head can be pivoted freely by up to 30° (reduced diameter range)
- Weld seam geometries: Recessed, flush and protruded tubes
- Current transmission via multi-plate clutch
- Gas/liquid transmission via rotating coupling
- Three-point mounting made of stainless steel
- Manually electrode positioning Stroke +/- 5 mm
- Special burner heads adaptable, e.g. for box-header welding (P16, P16 AVC only) or for IBW/ internal bore welding (with/without cold wire)
- Positioning on the tube to be welded is by means of a centering tool that is placed on a retaining arbor (available option)

- The weld heads with integrated cold wire unit additionally include a retaining mechanism for Ø 100 mm/1 kg (3.937"/2.2 lbs) standard wire reels
- Revolving wire feed on the rotational axis of the TIG burner prevents the additional wire from twisting when it exits the wire nozzle (only P16/P16 AVC)
- Three-point mounting included
- 7.5 m (24.6 ft) hose package and tool set included

### ADDITIONAL FEATURES P16 AVC:

- Equipped with an electric arc voltage control (AVC) - only applicable in combination with the orbital welding power supply ORBITAT 300 CA AVC/OSC



P16



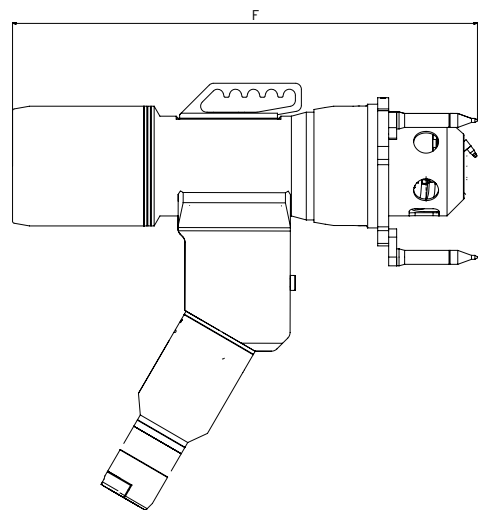
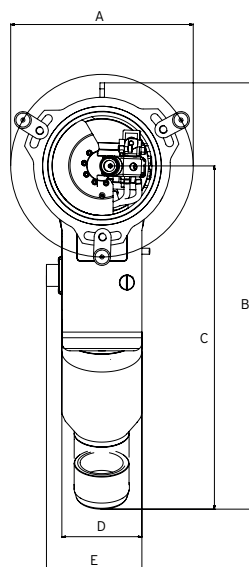
P16 AVC



P20

APPLICATION RANGE		P16	P16 AVC	P20
Code	with cold wire unit	831 000 001	831 000 002	832 000 002
	without cold wire unit	831 000 003	-	832 000 001
From tube ID to tube OD		10 - 78 mm* 0.394" - 3.071"*	12 - 100 mm* 0.470" - 3.937"*	10 - 70 mm* 0.394" - 2.756"*
TECHNICAL DATA		P16	P16 AVC	P20
Weight of machine with hose package	with cold wire unit	17.5 kg 38.6 lbs	18.3 kg 40.3 lbs	12.75 kg 28.1 lbs
	without cold wire unit	16.2 kg 35.7 lbs	-	11.5 kg 25.4 lbs
Weight of cold wire unit		1.0 kg 2.2 lbs	1.0 kg 2.2 lbs	1.0 kg 2.2 lbs
Cold wire unit Ø		1.0 kg 2.2 lbs	1.0 kg 2.2 lbs	100 mm 3.937"
Hose package length		7.5 m 24.6 ft	7.5 m 24.6 ft	7.5 m 24.6 ft
SCOPE OF DELIVERY				
Including:		<ul style="list-style-type: none"> <li>• 1 Tube-to-tube-sheet orbital weld head P16, P16 AVC or P20</li> <li>• 1 Three-point mount</li> <li>• 1 Durable storage and shipping case</li> <li>• 1 Tool set</li> <li>• 1 Power connector adapter</li> <li>• 1 Operating instructions and spare parts list</li> </ul>		
Suitable accessories (available option):		<ul style="list-style-type: none"> <li>• Centering tools and retaining arbors</li> <li>• Special torches (e.g. for boxheader or internal bore welding (IBW))</li> <li>• Quick-change adapter torch equipment</li> <li>• Cold wire feed units (retrofit kits)</li> <li>• Spring balancers</li> <li>• Closed gas covers</li> <li>• Front cages</li> <li>• ESG tungsten grinders</li> <li>• Earth cable</li> <li>• Hose package extensions</li> <li>• Pressure regulator</li> <li>• WS2 tungsten electrodes</li> </ul>		
DIMENSIONS		P16	P16 AVC	P20
Dimension "A"		182.97 mm 7.204"	187.05 mm 7.364"	175.00 mm 6.890"
Dimension "B"		427.25 mm 16.821"	427.25 mm 16.821"	400.00 mm 15.748"
Dimension "C"		344.00 mm 13.543"	344.00 mm 13.543"	331.40 mm 13.047"
Dimension "D"		80.00 mm 3.150"	80.00 mm 3.150"	72.00 mm 2.835"
Dimension "E"		95.50 mm 3.760"	95.50 mm 3.760"	87.50 mm 3.445"
Dimension "F"		466.00 mm 18.346"	582.00 mm 22.913"	461.16 mm 18.156"

\* Smaller and larger dimensions on request.



The technical data are not binding. They are not warranted characteristics and are subject to change.