



Tube-to-Tube Sheet Welding System

P16

Typically used for the manufacture and repair of heat exchangers in the petrochemical, power generation, HVAC, food and beverage industries, the Liburdi range of tubesheet welding equipment provides choice and flexibility for applications which require strength in the weld.

As with all Liburdi Dimetrics weld heads, the P-16 and P-20 weld heads are rugged enough to withstand the rigorous activity of heat exchanger manufacturing. The wide ID range and highly flexible P-16/P-20 weld heads are designed for the user who needs one welding tool to accomplish not only strength and seal welds, but also internal bore and box header welds.

The Models P-16, P-16M and P-20 tube sheet weld heads accommodate flush, recessed and extended tube applications covering the range of .394" to 5.5" diameters.

Specifically:

- The basic Model P-16 covers the range of 0.394" (10mm) to 3.0" (78mm) tubes.
- The more advanced Model P-16-M is a multi-pass unit with AVC and wire feed capabilities for tube diameters 0.394" (10mm) to 5.5" (140mm) tubes.
- The smaller Model P-20 covers a 0.394" (10mm) to 2.75" (70mm) diameter. The P-16/P-20 weld heads can be hand-held but can also be used with a spring-loaded balancer to reduce operator fatigue in production.

All Liburdi Dimetrics tubesheet weld heads are compatible with all Liburdi Dimetrics® power supplies. The P-16/P-20 weld heads are particularly suited for use in conjunction with the P-300 power supply.



Weld Quality Starts in the Arc

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P16 with custom clamping and centering extension

Physical Characteristics

- Welding Head Control: Pulse Emitter
- Welding Position: Horizontal, Vertical
- Welding Procedure: TIG and TIG + Filler Wire
- Welding Current: MAX 200 A
- Tube Diameters: 10-78 mm 10-38 mm with electrode inclined at 30°
- Welding Geometry: Up to 78 mm with electrode parallel to the tube
- Current Transmission: Recessed, Flush and Protruding Tubes
- Gas, Water Transmission: Lamellar Coupling
- Front Ring: Rotating Coupling
- Mandrel Support Vessel: Stainless Steel
- Machine Body Cooling: Stainless Steel

Wire Feed Characteristics

- Wire Speed: 18v dc Standard Motors or with TACHOFEEDBACK
- Wire Spool: min 0.33 RPM; max 6.00 RPM
- Filler Wire Group: min 0.15 m/min; max 1.50 m/min
- Wire Diameter: 1 Kg Midget Spool, DIAM 100 mm, Mounted on Machine Body
- Electrode Diameter: Rotates Coaxially with the Torch
- Weight: 0,6-1,2 mm (standard) 0,8 mm 1,0-3,2 mm (standard 2,4 mm) with filler wire: 10 kg without filler wire: 8kg

Torch Characteristics

- Torch and Wire Nozzle: Water
- Torch Cooling: Adjustable on three axis according to welding geometry
- Electrode-Workpiece Regulation: Water up to electrode
- Rotation / Wire Motor: Forward and backward, micrometrical regulation
- Rotation Speed: Stroke +/- 5 mm, even during welding



With up to 300 Amps of welding current and a multi-servo computer controller, Liburdi Dimetrics' P300™ GTAW Portable Welding System is ideal for those demanding Tube and Pipe applications.



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