

# TS 8/75

TIG - With or Without Filler Wire, AVC

## Open Welding Head

for welding of tube to tubesheet joints



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## General Characteristics

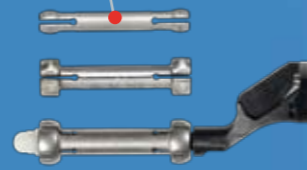
Cutting-edge design using the very latest materials and engineering technologies

### Advantages

- ▶ **More compact:** Reduced space and weight
- ▶ **More ergonomic:** double handle with integrated remote control for clamping and welding
- ▶ **More productive:** simultaneous use of multiple welding heads with pneumatic clamping by one operator
- ▶ **More automatic:** Standard version with AVC (Arc Voltage Control)
- ▶ **More simple:** simplified mechanical adjustments, in particular, filler wire positioning
- ▶ **More precise:** on board filler wire for constant wire feeding and accurate wire impact position

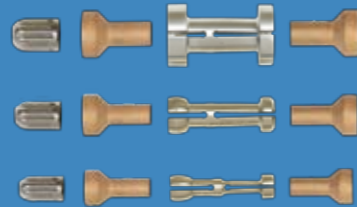
Resulting from 50 years' experience in mastering welding technologies

Optional: Centering Shafts and Mandrels for specific tube diameters



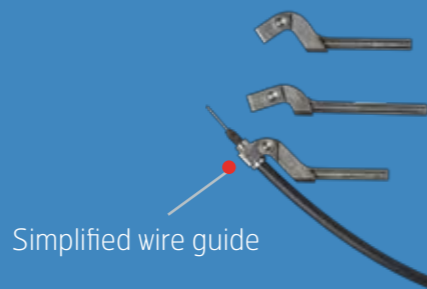
A wide variety of tooling is available to accommodate all existing tube sheet joint designs

Clamping/ centering mandrel for all tube I.D.'s



Standard version with pneumatic clamping/ centering system

Torch with ceramic nozzle and diffuser for laminar gas protection



Simplified wire guide

Return-to-home feature: the electrode automatically returns to its starting position

Designed for high duty cycle applications with high temperature resistant materials and closed loop water cooling

Adjustable stand-off legs for every pitch



Fixed or rotating on board filler wire

Endless rotating torch with no cable winding by means of a unique collector to supply the torch with welding current, shielding gas and cooling liquid

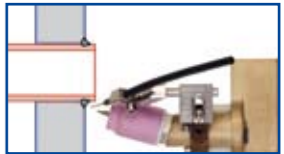
Motorized Arc Voltage Control (AVC) or programmable electrode height

Closed loop regulation to ensure precise, constant or pulsed welding speed

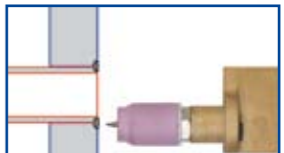
Encoder for position based control of the welding program

Integrated remote control in handle, for clamping and welding

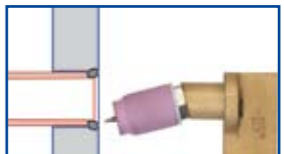
Different types of weld joint configurations:



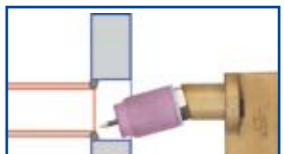
Protruding tube welding



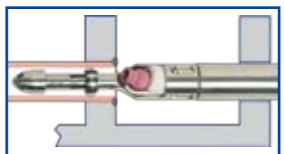
Flush tube welding



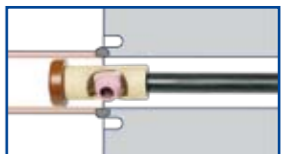
Recessed tube welding



Back plate tube welding



Double plate - header box welding



Internal tube welding

Associated Power Sources



#### ▶ P6

300 A, "all applications", programming by PC or touch screen, with Arc Voltage Control (AVC), three-phase power supply

Wire feeder



#### ▶ Polyfil-3

External wire feeder for 15kg spools

 Adapting to all your applications!



*« The most efficient and  
fastest way to produce all  
your tube sheet welds! »*



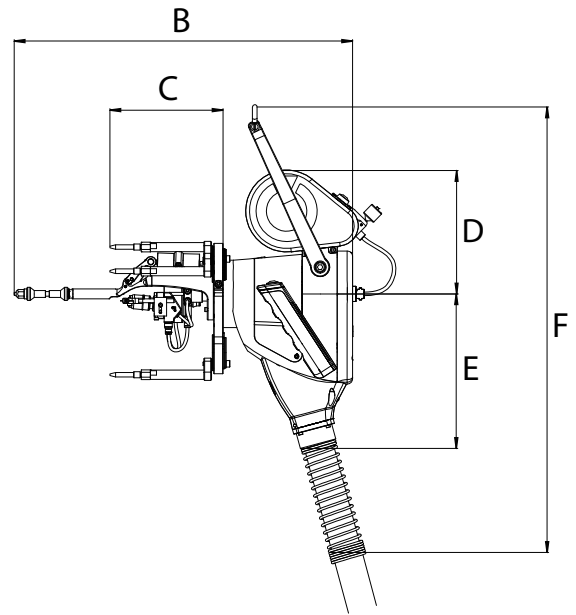
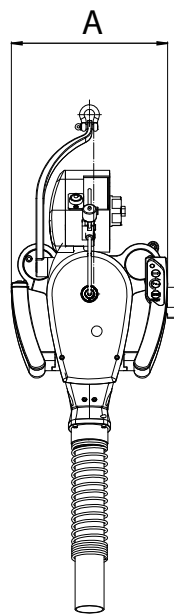
# Technical Specification

Min. tube I.D.	8 mm (0.315")
Max. tube O.D.	75 mm (2.95") (O.D.s > 60 mm on request)
Duty cycle (air cooled torch)	250 A / 60 % Option: water cooled torch
Cooling of welding head	Closed loop, water
Arc Voltage Control (AVC) or alternatively manual adjustment of distance electrode - work piece	✓ Stroke 20 mm
Central pneumatic clamping/ centering system	✓ For tube I.D. from 15 to 40 mm
Basic centering mandrel	✓ For tube I.D. from 10,5 to 60 mm
Wire feeder (on board or floor mounted)	✓ Rotating on board wire feeder
Wire spool diameter	
• on board	✓ 1,5 kg / 4"
• floor mounted	✓ 15 kg / 300 mm
Tube joint designs:	
• flush	✓ standard
• recessed	✓ 2 mm max
• protruding	✓ 13 mm max
• internal bore welding	✓
• back plate - header box welding	✓
Weight	7 kg (excl. cable and wire spool)
Cable length	9 m

✓ standard  
✓ option

## Dimensions in mm

	Basic centering mandrel	Pneumatic clamping/ centering mandrel
A	205	205
B	417	443
C	148	148
D	161	161
E	202	202
F	583	583



## Options and Accessories

- Clamping/ centering mandrels for all tube I.D.'s
- On board wire feeder (fixed or rotating) for precise and constant wire feeding
- Central (located in the tube to be welded), pneumatic clamping/ centering system for improved quality and productivity
- Accessories for all types of applications
- Extension cable (15m)
- Dual welding head switch box (without AVC)
- Compact shipping-case for transport and storage
- Tungsten electrodes pre-sharpened and pre-cut
- Tooling

# POLYSOUDE : Related Services

## ► Guidance and technical support

A welding application specialist in your area will advise you on the welding process and appropriate equipment for your application.

## ► Commissioning / Training

A complete training program will enable you to start using the equipment immediately and in the best way possible.

## ► Maintenance / Repair

Maintenance and repair operations can be carried out at the Polysoude plant as well as on site by our service network.

## ► Rental service

Increase the flexibility of your production! A large range of equipment is available for rental from our hire fleet.

## Your partners worldwide

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