TX 38P

Orbital TIG orbital weld head for tube-to-tube sheet connections

Tube-to-tube-sheet orbital weld head

The orbital TIG weld head from Orbitalum for manufacturing pipe-to-pipe-sheet connections guarantees extremely short production times of industrial heat exchangers at constantly high reproducible quality. Also excellently suitable for repair, maintenance and servicing work.



Usable at flush, slightly offset and protruding tube ends



Ideal for the repair and maintenance of generously dimensioned heat exchanging systems



Precise centering of the weld head in the tube thanks to dimensionally stable clamping segments, available for tube inner diameters of 13.8 - 37 mm (0.543 - 1.457 in)

Process heat exchanger tubes particularly effectively and simply: With the TX 38P for automated TIG orbital welding you can in the future weld the base plate and heat exchanger tubes precisely and highly accurately, for example, for thousands of connection at cooling tubes.

In combination with an orbital weld head from ORBITALUM TOOLS the user holds an especially innovative as well economical welding system in their hands: The power sources detect the head automatically, so that before beginning welding only the specified welding program has to be called up and the welding process can be started.

To increase productivity, the optional ORBITWIN switching unit allows working with up to two heads in an alternating fashion, thus reducing conversion times and downtimes considerably.

THE ADVANTAGES AT A GLANCE:

- Handy TIG orbital weld head for welding of tubes in tube sheets
- Precise work in every position, thus high-quality results at horizontal or vertical tube sheets
- Can be used at flush, slightly offset and protruding tubes
- Compatible with AMI arbors, model 96
- Service-friendly design of the clamping and drive system in the housing
- Self-supporting at tube sheet through stable arbor designs (balancer anchorage point available)
- Limit switch for electrode position; thus start position can be selected freely
- Integrated express setting of the electrode position to the tube diameter
- Constant or pulsed rotor rotation possible (CONTSTEP mode)
- Robust, tachometer-regulated 24 volt drive motor with reduction gears
- Liquid-cooled sliding contact for weld current transfer. As a result no rotary transmission and no leaks
- Including highly flexible hose package (length: 7.5 m/24.6 ft) with strain relief to the power source – optionally extendable to up to 20.0 m (64 ft)

The highlights of the TX 38P:

- ✓ Pneumatic clamping and centering
- ✓ Liquid-cooled weld head housing
- ✓ One-hand operation
- ✓ Quick change system for arbors
- ✓ Integrated control panel
- ✓ Chambered protective gas cover

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Simple and precise setting of the electrode position



One-hand operation through remote control and pneumatics operation integrated In handle



High-quality results at horizontal or vertical pipe sheets



Rapid changing of clamping elements



Optionally available: Ground cable, spring sleeves and diverse clamping segment sizes



The perfect supplement:Smart Welder Plus Plus

APPLICATION AREA		TX 38P
Code		830 000 005
Pipe ID, min. - max.	[mm]	10 - 40
	[inch]	0.394 - 1.575
TECHNICAL SPECIFICATIONS		
Weld current, max.	[Amp DC]	150
Rotation speed, max.	[rpm]	10
Drive motor with tachometer regulation	[VDC]	24
Electrode diameter	[mm]	1.6 (optional 2.4)
	[inch]	0.063 (optional 0.094)
Gas flow	[l/min]	5 - 20
Gas type	Argon/argon-helium/argon-hydrogen	
Water pressure max.	[bar]	2.5
Pneumatics pressure	[bar]	5 - 7
Hose package length	[m]	7.5
	[ft]	25
Machine weight including Hose package	[kg]	7.5
	[lbs]	16.5
Connection type	Fully compatible to all Orbitalum power sources	

DIMENSIONS				
Dimension "**A**"	[mm]	65.0	[inch]	2.559
Dimension "**B**"	[mm]	241.0	[inch]	9.488
Dimension "**C**"	[mm]	207.0	[inch]	8.150
Dimension "**D**"	[mm]	36.0	[inch]	1.417
Dimension "**E**"	[mm]	68.0	[inch]	2.677
Dimension "**F**"	[mm]	185.0	[inch]	7.283
Dimension "**G**"	[mm]	110.0	[inch]	4.331

SCOPE OF DELIVERY

Including:
- 1 tube-to-tube-sheet orbital weld head TX 38P (Code 830 000 005)
- 1 hose package, length 7.5 m (25 ft)
- 1 integrated remote control
- 1 transport case
- 1 tool set
- 1 set of operating instructions and spare parts list

MANDATORY FOR THE USE OF THE TUBE-TO-TUBE-SHEET ORBITAL WELD HEAD:

Please order separately:
- Arbors
- Spring sleeves
- Clamping segments
- Electrode support

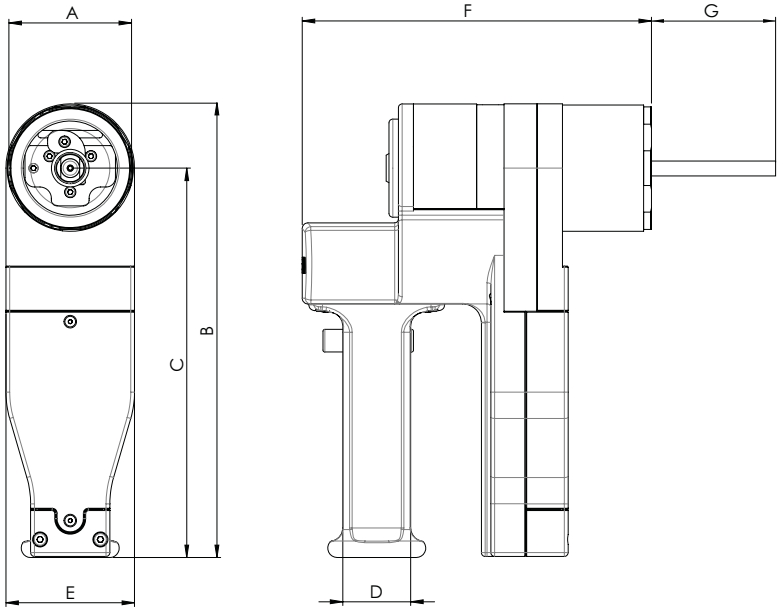
FURTHER ACCESSORIES

Optionally available:
- Balancer springs
- ESG electrode grinders
- Ground cable
- Hose package extensions 5 m/10 m/15 m
- Double pressure reducer
- WS2 tungsten electrodes

EQUIPMENT

Integrated remote control, function keys:
- START/STOP welding process
- ON/OFF gas
- Motor (rotor rotation)
- Approaching of the end position (home position)
- Actuation of arbor pneumatics

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





The tube-to-tube-sheet orbital weld head TX 38P:
Ideal for the repair, maintenance and servicing of industrial heat exchanging systems

Tube-to-tube-sheet orbital weld head

TX 38P



TX 38P

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

- Arbors
- Spring sleeves
- Clamping segments
- Ground cable

ITEM	CODE	MACHINE WEIGHT KG*	SHIPPING WEIGHT KG
Tube-to-tube-sheet orbital weld head TX 38P	**830 000 005**	7.500	15.600

* Machine weight including hose package

Suitable accessories (optionally available):

- Arbors
- Spring sleeves
- Clamping segments
- Electrode adapters
- Ground cable
- Balancer spring
- Hose package extensions
- Welding current connection adapter set

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Accessories for TX 38P

Arbors

Base arbor including insulation sleeve and clamping cone.

ITEM	SUITABLE FOR	CODE	KG
Arbor TX 38P, Type A	Spring sleeves, Type A	**830 020 020**	0.130
Arbor TX 38P, Type B	Clamping segments, Type B	**830 020 021**	0.130



Arbor TX 38P

Spring sleeves

Suitable for arbor, Type A.

ITEM	PIPE ID [MM]	PIPE ID [INCH]	CODE	KG
Spring sleeve TX 38P, Type A1	10.0 - 11.3	0.394 - 0.445	**830 020 022**	0.030
Spring sleeve TX 38P, Type A2	11.0 - 12.7	0.433 - 0.500	**830 020 019**	0.030
Spring sleeve TX 38P, Type A3	12.5 - 14.0	0.492 - 0.551	**830 020 023**	0.030



Spring sleeve

Clamping segments

Suitable for arbor, Type B.
Consisting of 1 set each with 2 clamping segments.
Differing dimensions on request.

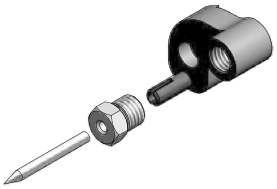
ITEM	PIPE ID [MM]	PIPE ID [INCH]	CODE	KG
Clamping segments TX 38P, Type B1	13.8 - 16.8	0.543 - 0.661	**830 020 024**	0.025
Clamping segments TX 38P, Type B2	16.6 - 19.6	0.654 - 0.772	**830 020 025**	0.045
Clamping segments TX 38P, Type B3	19.4 - 22.4	0.764 - 0.882	**830 020 026**	0.065
Clamping segments TX 38P, Type B4	22.2 - 25.2	0.874 - 0.992	**830 020 027**	0.085
Clamping segments TX 38P, Type B5	25.0 - 28.0	0.984 - 1.102	**830 020 028**	0.105
Clamping segments TX 38P, Type B6	28.0 - 31.0	1.102 - 1.220	**830 020 029**	0.130
Clamping segments TX 38P, Type B7	31.0 - 34.0	1.220 - 1.339	**830 020 030**	0.160
Clamping segments TX 38P, Type B8	34.0 - 37.0	1.339 - 1.457	**830 020 031**	0.200
Clamping segments TX 38P, Type B9	37.0 - 40.0	1.457 - 1.575	**830 020 032**	0.200



Clamping segments

Electrode adapters

ITEM	CODE	KG
Electrode adapter TX 38P cpl., 2.4 mm (0.094")	**830 013 014**	0.020



Electrode support

Other accessories for orbital welding

- Ground cable
- Double pressure reducer
- ESG electrode grinders
- WS2 tungsten electrodes
- Torch and cold wire accessories
- Welding current connection adapter set

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