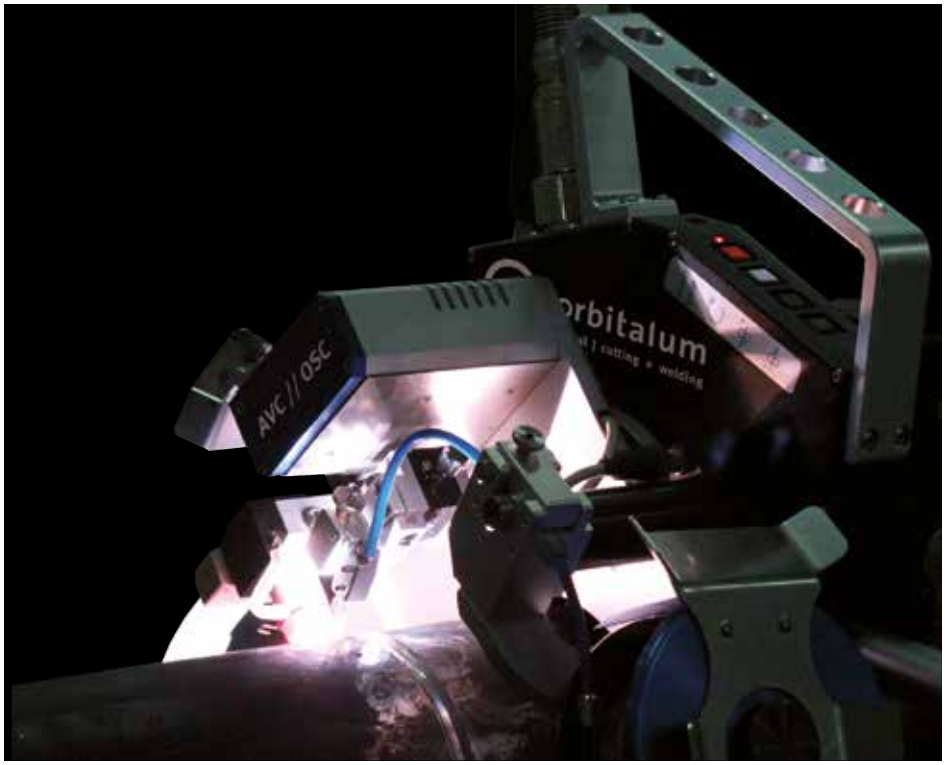
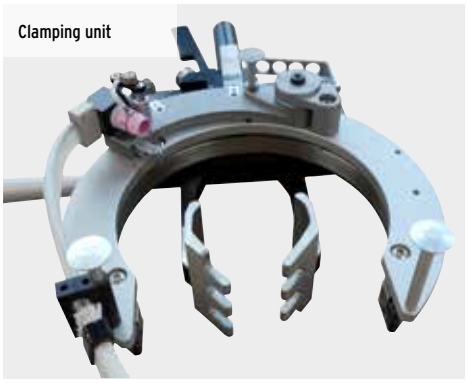
ORBIWELD TP

Open orbital weld heads

The ORBIWELD TP series is unique in design and functionality: Through the drive motor completely integrated into the housing an extremely compact design is realized. The drive concept furthermore makes the large and laborious gearing of conventional weld heads superfluous. This compact design offers huge advantages at mobile construction site operations.







PROPERTIES OF THE TP SERIES:

- Compact design without interfering protrusions
- Can be used with and without cold wire feeding
- Cold wire unit can be retrofitted at all TP heads
- Wire coil for mounting of the filler wire at TIG cold wire welding is mounted on the weld head housing for KD3 variants. This prevents disruptive twisting of the wire during welding
- Wire feed nozzle exactly adjustable vertically and horizontally
- Open arc system
- Infinitely variable adjustable clamping mechanism
- Liquid-cooled steplessly swiveling TIG torch head allows the welding of fillet welds or short tube collards
- TIG torch head is attached on an adjustable slide which allows precise fine-tuning of the electrode position even during the welding process
- Simple, toolless adjustment of the clamping unit onto the tube diameter
- The tube clamping for ORBIWELD TP 250, TP 400 and TP 600 is effected by means of clamping jaws made of stainless steel (1.4305). In addition to more clamping power this new clamping system offers an even easier and more precise alignment of the weld heads on the tube. Clamping jaws for clamping range extension (TP 400) are available optionally. The new clamping unit can be retrofitted for older TP 250, TP 400- and TP 600 models
- TP heads can be easily centered at the tube and are clamped via clamping levers
- Through the operating buttons integrated directly in the housing no additional remote control is required

ADDITIONAL CHARACTERISTICS TP AVC/OSC:

- With oscillation (OSC) and electronic arc gap control (AVC) – only in combination with the welding power supply ORBIMAT 300 CA AVC/OSC
- The arc length is kept mechanically at a constant distance; for AVC/OSC versions the constant distance spacing is effected automatically
- Can be used for thick-walled tubes (multi-layer weldings)
- Motor drive possibility ranging across the entire nominal diameter range of the TIG torch so that no additional mechanical basic default value is necessary a changed tube diameter
- Max. oscillation path of the torch: 20 mm (0,787")
- Complete with cold wire feed unit mounted directly on the weld head with mount for a D 100 mm/1 kg (3.937"/2.2 lbs) standard coil

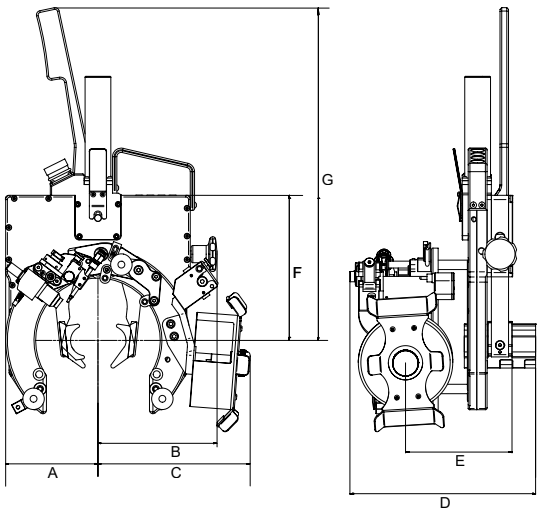
MODEL		TP 250	TP 250	TP 400	TP 400	TP 400	TP 600	TP 600	TP 600
With cold wire unit (KD):			KD4		KD3-100	KD3-100		KD3-100	KD3-100
With arc gap control (AVC) and oscillation (OSC):						AVC/OSC			AVC/OSC
Code		811 000 001	811 000 005	812 000 010	812 000 011	812 000 012	813 000 001	813 000 005	813 000 002
Application area	[mm]	8 - 28 28 - 76.2	8 - 28 28 - 76.2	(15)*/30 - 115	(15)*/30 - 115	(15)*/30 - 115	70 - 170	70 - 170	70 - 170
	[inch]	0.315 - 1.102 1.102 - 3.000	0.315 - 1.102 1.102 - 3.000	(0.591)*/ 1.181 - 4.528	(0.591)*/ 1.181 - 4.528	(0.591)*/ 1.181 - 4.528	2.756 - 6.693	2.756 - 6.693	2.756 - 6.693
Electrode lengths	[mm]	18 - 32	18 - 32	30 - 55	30 - 55	30 - 55	30 - 55	30 - 55	30 - 55
	[inch]	0.709 - 1.260	0.709 - 1.260	1.181 - 2.165	1.181 - 2.165	1.181 - 2.165	1.181 - 2.165	1.181 - 2.165	1.181 - 2.165
Wire diameter*	[mm]	0.8/ 1.0**	0.8/ 1.0**	0.8/ 1.0**	0.8/ 1.0**	0.8/ 1.0**	0.8/ 1.0**	0.8/ 1.0**	0.8/ 1.0**
	[inch]	0.031/ 0.039**	0.031/ 0.039**	0.031/ 0.039**	0.031/ 0.039**	0.031/ 0.039**	0.031/ 0.039**	0.031/ 0.039**	0.031/ 0.039**
Machine weight including hose package	[kg]	7.0	8.9	11.0	12.5	15.2	13.7	15.2	18.9
	[lbs]	15.4	19.6	24.3	27.6	33.5	30.2	33.5	41.7
Hose package length	[m]	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	[ft]	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
Dimension "**A**":	[mm]	86.00	86.00	108.00	108.00	150.00	147.00	147.00	185.00
	[inch]	3.386	3.386	4.252	4.252	5.906	5.787	5.787	7.283
Dimension "**B**" without cold wire KD:	[mm]	86.00	86.00	108.00	-	-	147.00	-	-
	[inch]	3.386	3.386	4.252	-	-	5.787	-	-
Dimension "**C**": with cold wire KD:	[mm]	-	-	-	180.00	175.00	-	196.00	215.00
	[inch]	-	-	-	7.087	6.890	-	7.717	8.465
Dimension"**D**":	[mm]	85.00	85.00	120.00	182.00	182.00	140.00	140.00	186.00
	[inch]	3.346	3.346	4.724	7.165	7.165	5.512	5.512	7.323
Dimension "**E**":	[mm]	74.00	74.00	90.00	165.00	165.00	97.00	97.00	172.00
	[inch]	2.913	2.913	3.543	6.496	6.496	3.819	3.819	6.772
Dimension "**F**":	[mm]	125.00	125.00	200.00	200.00	200.00	202.00	202.00	202.00
	[inch]	4.921	4.921	7.874	7.874	7.874	7.953	7.953	7.953
Dimension "**G**":	[mm]	275,78	275,78	387,54	387,54	387,54	417,78	417,78	417,78
	[inch]	10.858	10.858	15.258	15.258	15.258	16.448	16.448	16.448
Integrated remote control		●	●	●	●	●	●	●	●
Liquid-cooled torch body		●	●	●	●	●	●	●	●
Swiveling torch body		●	●	●	●	●	●	●	●
Fine-tuning of the electrode position		●	●	●	●	●	●	●	●
Coupling of manual rotation of the rotor		●	●	●	●	●	●	●	●
Infinitely variable adjustable clamping system		●	●	●	●	●	●	●	●
Optional clamping range extension		●	●	●	●	●	○	○	○
Integrated cold-wire feed		○	○	◐	●	●	◐	●	●
External cold-wire feed		◐	●	○	○	○	○	○	○
Fine-tuning of the wire position		◐	●	◐	●	●	◐	●	●
AVC electronic arc gap control***		○	○	○	○	●	○	○	●
OSC oscillation unit***		○	○	○	○	●	○	○	●

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

● = Function included ○ = Function not included ◐ = Function only conditionally included (can be retrofitted)

* with accessories ** KD conversion sets optionally available *** Can only be used in combination with the orbital welding power supply ORBIMAT 300 CA AVC/OSC

DIMENSIONS (VALUES, SEE TABLE):



SCOPE OF DELIVERY	
Including:	• 1 weld head ORBIWELD TP • 1 transport case • 1 handle • 1 expansion jaw set of size 8 - 28 mm/0.315" - 1.102" (TP 250 only) • 1 tool set • 1 set of operating instructions and spare parts list
Suitable accessories (optionally available):	• Clamping unit "V2" (retrofitting kits) • Cold-wire feeds KD (retrofitting kits) • Expansion jaw sets for TP 400 • Control cable • Remote control • ESG electrode grinders • ORBmax residual oxygen meter • ORBIPURGE forming set • Ground cable • Hose package extensions • WS2 tungsten electrodes

Open orbital weld heads OW TP

ORBIWELD TP 250
ORBIWELD TP 400 (AVC/OSC)
ORBIWELD TP 600 (AVC/OSC)

The following accessories are mandatory for the use of the TP orbital weld heads and must be ordered separately:

- Control cable
- Ground cable

ITEM	WITH COLD WIRE UNIT (KD)	CODE	MACHINE WEIGHT KG**	SHIPPING WEIGHT KG
Open orbital weld head TP 250	-	**811 000 001**	7.000	15.600
Open orbital weld headTP 250	KD 4	**811 000 005**	8.900	20.000
Open orbital weld head TP 400	-	**812 000 010**	11.000	20.000
Open orbital weld head TP 400	KD3-100	**812 000 011**	12.500	20.000
Open orbital weld head TP 400 AVC/OSC*	KD3-100	**812 000 012**	15.200	24.800
Open orbital weld head TP 600	-	**813 000 010**	13.700	23.600
Open orbital weld head TP 600	KD3-100	**813 000 011**	15.200	30.000
Open orbital weld head TP 600 AVC/OSC*	KD3-100	**813 000 012**	18.900	33.300

* Only usable in connection with an ORBIMAT CA AVC/OSC power source.
** Machine weight including hose package

Suitable accessories (optionally available):

- Cold-wire feeds KD (retrofitting kits)
- Extension clamping jaw kits for TP 400
- Ground cable
- Control cable
- Remote control



ORBIWELD TP 250



ORBIWELD TP 400 KD3-100



ORBIWELD TP 400 AVC/OSC



ORBIWELD TP 600

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Accessories for ORBIWELD TP



KD 4 with opened cover



KD3-100 with Ø 100 standard coil



KD retrofitting kit



Expansion clamping jaw kit for TP 400

Cold-wire feeds KD (retrofitting kits)

The scope of delivery includes:

- 1 feed motor for wire Ø 0.8 mm (0.031")
- 1 wire adjusting unit
- 1 wire nozzle with core (for wire Ø 0.8 mm (0.031"))
- 1 wire coil mounting for Ø 100 mm/1 kg (3.937"/2.2 lbs) standard coils.
  1 external cold-wire box (only for KD 4)

ITEM	CAN BE USED WITH	CODE	KG
Cold-wire feed KD 4	TP 250	**811 050 001**	2.110
Cold-wire feed KD3-100*	TP 400*	**812 050 061**	0.680
Cold-wire feed KD3-100	TP 600	**813 050 001**	0.680

* Weld heads must be sent in for the retrofitting.

KD retrofitting kits

For retrofitting the cold-wire feed to wire Ø 1.0 mm (0.039").

ITEM	CAN BE USED WITH	CODE	KG
KD retrofitting kit to wire Ø 1.0 mm (0.039")	TP 250	**811 050 046**	0.115
KD retrofitting kit to wire Ø 1.0 mm (0.039") V2*	TP 400/600/1000 incl. AVC/OSC	**812 050 076**	0.115

* Please note series no., see above.

Expansion clamping jaw kits

The **expansion jaw kits made of stainless steel** are only available for TP 400 for the extension of the clamping range to a min. of 15.00 mm (0.591").

ITEM	VERSION	TUBE OD [MM]	TUBE OD [INCH]	CODE	KG
Expansion clamping jaw kit for TP 400	Stainless steel	15.00 - 30.00	0.591 - 1.181	**812 002 005**	0.520

Other accessories for orbital welding

- ESG electrode grinders
- ORBmax residual oxygen meter
- ORBIPURGE forming set
- Hose package extensions
- WS2 tungsten electrodes
- Torch and cold wire accessories
- Ground cable

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