ORBIWELD 19

Micro weld head
with additional advantages

Micro weld head

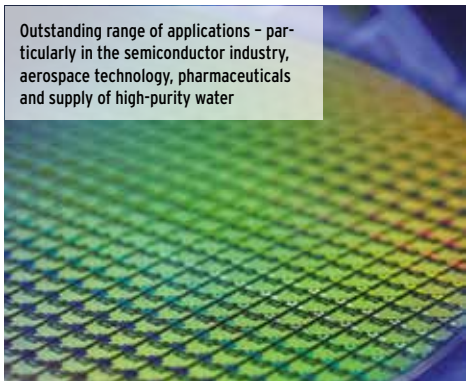
Small, robust and efficient: The OW 19 is the perfect tool when the task involves connections of ultra-high-purity tubes and high-performance tubes, such as are used for example in the semiconductor industry or applications in branches in which high purity and maximum performance are imperative. Even under extremely difficult conditions and in tight spaces the OW 19 produces excellent and reliable quality!



Can be used in all positions, irrespective of whether the tubes to be connected are positioned horizontally, vertically or inclined



Three-part clamping mechanism – no parts project beyond the head outline even in the opened position



Outstanding range of applications – particularly in the semiconductor industry, aerospace technology, pharmaceuticals and supply of high-purity water

Its extremely high endurance thanks to the intensive liquid cooling as well as its high-quality robust construction are characteristics which distinguish this micro weld head.

Thanks to the three-part clamping mechanism the head can be spread in very tight spaces since no parts project beyond the head outline even in the opened position. In addition an exact and offset-free alignment of the parts to be welded is ensured.

With a control panel integrated in the robust and stable aluminum handle of the weld head, all commands which are important for the welding process can be transferred to the power source so that no additional remote control is required.

All orbital welding power sources from Orbitalum automatically detect the head and its properties so that, before beginning to weld, the operator only has to call up their specified welding program and start the welding process.

The matching clamping inserts are available in narrow and broad versions and can be inserted into the weld head with just a few simple steps.

The head is 7.5 kg (16.5 lbs) light. All connections for electricity, gas and cooling water are firmly integrated in the OW 19.

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. For prefabrication and inline production, a conversion kit offers a simple way to convert the OW 19 to an OW 19 HD with a clamping cassette.

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 OW 19 – with many additional advantages:

- ✓ Optimized scissors clamping system
- ✓ Flip-up weld head cover "Flip Cover"
- ✓ Optimized weld gas control
- ✓ One-hand operation
- ✓ Completely liquid-cooled
- ✓ Integrated control panel
- ✓ 7.5 m (24.6 ft) hose package

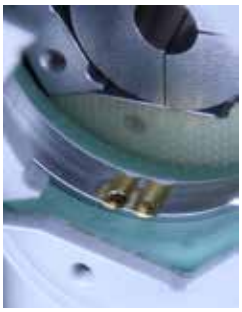
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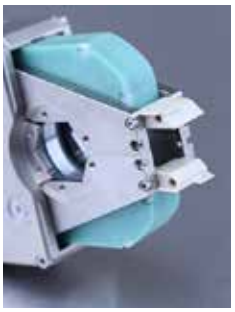
Robust and stable aluminum handle with integrated control panel



Practical clamping locks allowing single-hand operation



Simpler inserting of the electrodes by markings for Ø 1.0/1.6 mm (0.039"/0.063")



Folding weld head cover "FlipCover"

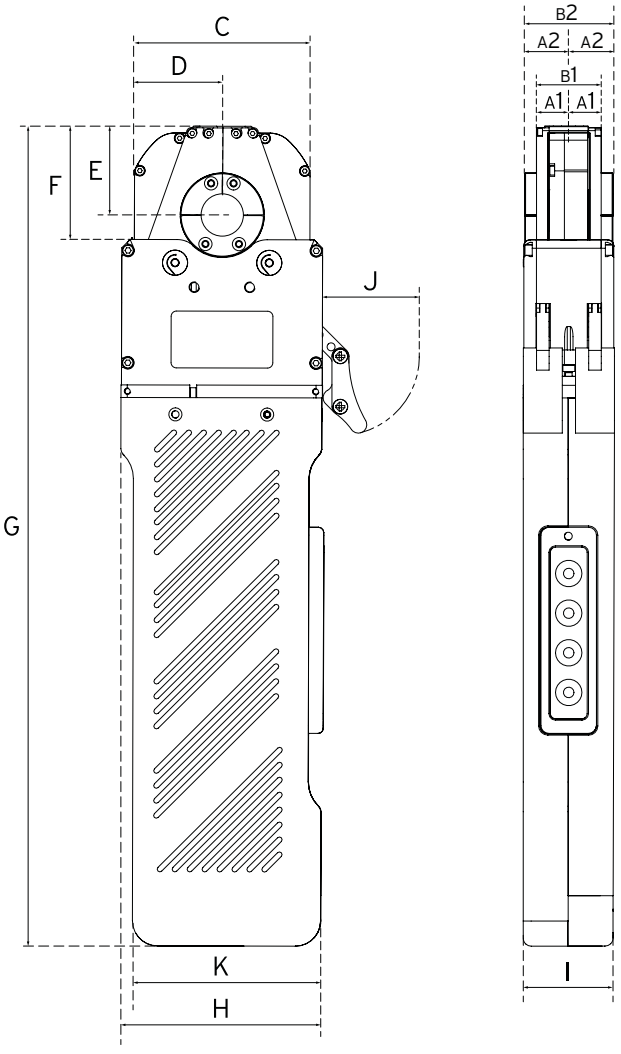


Diameter-specific clamping inserts (each 6-part, wide and narrow) available separately



Wide accessories program, e.g. ORBmax residual oxygen meter

APPLICATION AREA	ORBIWELD 19
Code	**822 000 010**
Pipe OD, min. - max.	3.0 - 19.05 mm 0.118 - 0.750 in
Electrode diameter	1.0/1.6 mm 0.039 / 0.063 in
Machine weight including hose package	6.5 kg 14.3 lbs
Hose package length	7.5 m 24.6 ft
SCOPE OF DELIVERY	
Including:	• 1 micro weld head ORBIWELD 19 • 1 transport case • 1 tool set • 1 feeler gauge • 1 General safety instructions • Operating instructions and spare parts list (PDF)
Suitable accessories (optionally available):	• Clamping inserts for OW 19 • Conversion kit OW 19 HD • ESG electrode grinders • ORBmax residual oxygen meter • ORBIPURGE forming set • Hose package extensions • WS2 tungsten electrodes



DIMENSIONS			ELECTRODE GAP			
ORBIWELD 19	DIMENSION		CLAMPING INSERT TYPE "S"		CLAMPING INSERT TYPE "W"	
	[MM]	[INCH]	[MM]	[INCH]	[MM]	[INCH]
Dimension "**A1**"	12.00	0.472	12.00	0.472		
Dimension "**A2**"	17.00	0.669			17.00	0.669
Dimension "**B1**"	24.00	0.945	24.00	0.945		
Dimension "**B2**"	34.00	1.339			34.00	1.339
Dimension "**C**"	66.50	2.618				
Dimension "**D**"	33.25	1.309				
Dimension "**E**"	35.20	1.386				
Dimension "**F**"	44.50	1.752				
Dimension "**G**"	313.50	12.343				
Dimension "**H**"	76.00	2.992				
Dimension "**I**"	34.00	1.339				
Dimension "**J**"	35.00	1.378				
Dimension "**K**"	71.00	2.795				

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



Micro weld head OW

ORBIWELD 19



ORBIWELD 19

Clamping inserts are not included in the scope of delivery.

ITEM	CODE	MACHINE WEIGHT KG*	SHIPPING WEIGHT KG
Micro weld head OW 19	**822 000 010**	6.500	14.800

* Machine weight including hose package

Suitable accessories (optionally available):

- Clamping inserts for OW 19
- Welding current connection adapter set



Clamping cassette for OW 19 HD
(Clamping inserts are not included in the scope of delivery)

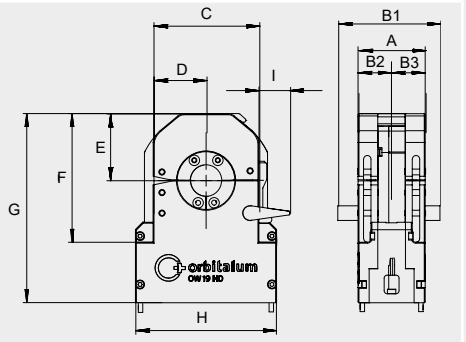
Conversion kit OW 19 HD

With the conversion kit, consisting of a clamping cassette and two fastening screws, the OW 19 can be quickly and easily converted to an OW 19 HD. The clamping cassette has been specially developed for inline assembly or prefab production of modules. For holding clamping inserts. The clamping cassette is supplied in a robust, lockable plastic box.

Scope of delivery:
- 1 x hexagon wrench 2x60
- 1 x cheese head screw ISO4762-M2.5x10-A2
- 1 x installation instructions for conversion kit OW 19 HD
- 1 x type plate engraved according to specifications
- 1 x plastic box

Suitable clamping inserts for different pipe diameters must be ordered separately.

DIMENSIONS	[MM]	[INCH]
A	36,00	1.417
B1	55,20	2.173
B2	18,00	0.709
B3	18,00	0.709
C	57,20	2.252
D	28,60	1.126
E	36,00	1.417
F	69,50	2.736
G	10,20	4.016
H	76,20	3.000



ITEM	CODE
Conversion kit,OW 19 HD	**822 030 011**

Clamping inserts for OW 19

A clamping insert consists of 6 individual parts (3 inserts per side).

Type "W" (wide) for standard applications.
Type "S" (small) for applications in extremely confined spaces.

ITEM	PIPE OD		TYPE "W" (WIDE)		TYPE "S" (SMALL/ NARROW)	
	[MM]	[INCH]	CODE	KG	CODE	KG
Clamping insert for OW 19, 6-part	3.00	0.118	**822 002 120**	0.100	**822 002 320**	0.044
Clamping insert for OW 19, 6-part	3.18	0.125	**822 002 122**	0.100	**822 002 322**	0.044
Clamping insert for OW 19, 6-part	3.95	0.156	**822 002 123**	0.099	**822 002 323**	0.044
Clamping insert for OW 19, 6-part	4.00	0.157	**822 002 124**	0.099	**822 002 324**	0.044
Clamping insert for OW 19, 6-part	4.78	0.188	**822 002 126**	0.099	**822 002 326**	0.043
Clamping insert for OW 19, 6-part	5.95	0.234	**822 002 127**	0.097	**-**	-
Clamping insert for OW 19, 6-part	6.00	0.236	**822 002 128**	0.097	**822 002 328**	0.043
Clamping insert for OW 19, 6-part	6.35	0.250	**822 002 129**	0.097	**822 002 329**	0.043
Clamping insert for OW 19, 6-part	7.00	0.276	**822 002 130**	0.096	**-**	-
Clamping insert for OW 19, 6-part	7.94	0.313	**822 002 132**	0.094	**-**	-
Clamping insert for OW 19, 6-part	8.00	0.315	**822 002 133**	0.094	**822 002 333**	0.042
Clamping insert for OW 19, 6-part	9.00	0.354	**822 002 134**	0.092	**822 002 334**	0.041
Clamping insert for OW 19, 6-part	9.53	0.375	**822 002 135**	0.091	**822 002 335**	0.040
Clamping insert for OW 19, 6-part	9.95	0.392	**822 002 136**	0.090	**822 002 336**	0.040
Clamping insert for OW 19, 6-part	10.00	0.394	**822 002 137**	0.090	**822 002 337**	0.040
Clamping insert for OW 19, 6-part	12.00	0.472	**822 002 143**	0.083	**822 002 343**	0.038
Clamping insert for OW 19, 6-part	12.10	0.476	**-**	-	**822 002 344**	0.038
Clamping insert for OW 19, 6-part	12.70	0.500	**822 002 145**	0.081	**822 002 345**	0.037
Clamping insert for OW 19, 6-part	13.00	0.512	**822 002 146**	0.080	**-**	-
Clamping insert for OW 19, 6-part	13.50	0.531	**822 002 148**	0.078	**822 002 348**	0.036
Clamping insert for OW 19, 6-part	14.00	0.551	**822 002 150**	0.076	**822 002 350**	0.035
Clamping insert for OW 19, 6-part	15.00	0.591	**822 002 153**	0.071	**822 002 353**	0.034
Clamping insert for OW 19, 6-part	15.30	0.602	**-**	-	**822 002 354**	0.033
Clamping insert for OW 19, 6-part	15.88	0.625	**822 002 157**	0.066	**822 002 357**	0.032
Clamping insert for OW 19, 6-part	16.00	0.630	**822 002 158**	0.066	**822 002 358**	0.032
Clamping insert for OW 19, 6-part	17.20	0.677	**822 002 162**	0.058	**-**	-
Clamping insert for OW 19, 6-part	17.30	0.681	**822 002 163**	0.058	**822 002 363**	0.030
Clamping insert for OW 19, 6-part	18.00	0.709	**822 002 164**	0.053	**822 002 364**	0.029
Clamping insert for OW 19, 6-part	19.00	0.748	**822 002 165**	0.044	**822 002 365**	0.027
Clamping insert for OW 19, 6-part	19.05	0.750	**822 002 166**	0.044	**822 002 366**	0.027



Clamping insert for OW 19 "W" (wide) 6-part



Clamping insert for OW 19 "S" (small/narrow) 6-part

Other accessories for orbital welding

- ESG electrode grinders
- ORBmax residual oxygen meter
- Hose package extensions
- WS2 tungsten electrodes
- Welding current connection adapter set

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