

DVR

Turning devices for
TIG orbital welding

Welding turntables

The turning gears of Orbitalum for the mechanical TIG orbital welding are a reliable and efficient solution for the welding of rotating workpieces, short fittings and fittings.



Welding turntable DVR 100 with ORBIMAT 165 CA power source



Ideal for welding fittings



Welding turntable DVR 50

Three-jaw chuck for exact positioning and fixating of the workpiece

Compact turntables for industrial manufacturing or for flexible workshop use - in combination with a power source of the ORBIMAT series a welding system of the highest precision and nevertheless extremely simple handling.

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

The welding turntables are available in different versions and can be equipped with various options as required. Thanks to the stable construction even massive workpieces can be positioned without any problems. In the process the powerful clamping is carried out without any deformation of the workpiece.

While the quality of the weld seam remains at a constantly high level, the physical burden for the operator is reduced significantly.

The result: maximum reliability and productivity.

The advantages at a glance:

- Turntable can be tilted steplessly from 0 to 90°
- Centered clamping three-jaw chuck made of hardened and polished steel
- Three-jaw lathe chuck available for different clamping ranges
- Robust steel structure, excellently suited for use even under extreme process conditions
- Stable, swivel torch stand
- Three-coordinate torch support
- Ball-joint holder for TIG machine torch
- Liquid-cooled 250 A TIG machine torch
- Remote controls for higher operator comfort (available optionally)
- Cold-wire feed for wire Ø 0.8 mm (0.031") and 1.0 mm (0.039") for welding with cold wire (available optionally)
- Modern functional design
- Arc gap control unit for automatic controlling and holding of the arc gap (AVC = Arc Voltage Control)

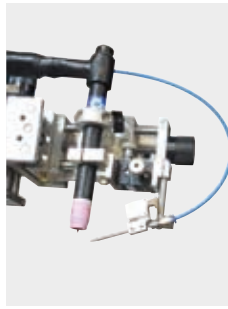
- Shorter welding times at constant high quality
- Compatible with all power sources of the ORBIMAT series

The most important advantages of the DVR turning devices:

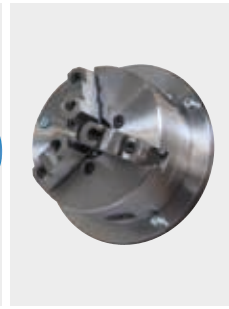
- ✓ Infinitely variable swiveling up to 90°
- ✓ High-quality three-jaw chuck
- ✓ 3-axis torch support
- ✓ Modular extendable structure
- ✓ Direction of rotation selection
- ✓ Cold wire retrofitted optionally
- ✓ Wire equipping quick-change system
- ✓ Liquid-cooled torch



Robust steel structure, excellently suited for use even under extreme process conditions



Liquid-cooled torch



Three-jaw lathe chuck (available separately)



Control cable and ground cable (available separately)



Remote controls for higher operator comfort (available separately)



Cold-wire feeds DVR (retrofitting kits) for welding with cold wire including feed motor and wire adjusting unit

PROPERTIES & TECHNICAL SPECIFICATIONS		DVR 50	DVR 50 AVC	DVR 100	DVR 100 AVC
Code		855 000 011	855 000 012	855 000 001	855 000 002
TURNTABLE		DVR 50	DVR 50 AVC	DVR 100	DVR 100 AVC
Max. load in horizontal position (workpiece + lathe chuck), max.:		50 kg (110 lbs)	50 kg (110 lbs)	100 kg (220 lbs)	100 kg (220 lbs)
Dimensions:		300 x 300 x 395 mm (11.8 x 11.8 x 15.6 in)	300 x 300 x 395 mm (11.8 x 11.8 x 15.6 in)	600 x 570 x 695 mm (23.6 x 22.4 x 27.4 in)	600 x 570 x 695 mm (23.6 x 22.4 x 27.4 in)
Distance floor to rotating axis:		279 mm (11in)	279 mm (11in)	590 mm (23.2in)	590 mm (23.2in)
Turntable can be tilted steplessly from 0 to 90°		●	●	●	●
Locking via two clamping levers		●	●	●	●
Turning plate-Ø OD:		300 mm (11.81in)	300 mm (11.81in)	400 mm (15.75in)	400 mm (15.75in)
Hollow shaft Ø ID:		30 mm (1.18in)	30 mm (1.18in)	125 mm (4.9in)	125 mm (4.9in)
Built-in weld power coupling for mass transfer to turning plate		●	●	●	●
Weld current built-in plug for ground cable connection		●	●	●	●
Limit switch for zero setting and speed calibration		●	●	●	●
Stand console for mounting the stand directly on the turntable		○	○	●	●
Mounting holes for floor fastening		●	●	●	●
Signal distribution box with connecting option for control cable ORBIMAT-DVR, turntable motor, limit switch, cold wire feed and remote control OWH BASIC		●	●	●	●
Tilt lever for selecting the direction of rotation		●	●	●	●
STAND		DVR 50	DVR 50 AVC	DVR 100	DVR 100 AVC
Weld torch stand mounted on console		○	○	●	●
Weld torch stand to be fastened separately		●	●	○	○
Base clamp with mounting holes for fastening at point of use		●	●	○	○
Dimensions stand tube OD x L:		50 x 1200 mm (2 x 47.2 in)	50 x 1200 mm (2 x 47.2 in)	50 x 1200 mm (2 x 47.2 in)	50 x 1200 mm (2 x 47.2 in)
Dimensions extension arm OD x L:		50 x 800 mm (2 x 31.5 in)	50 x 800 mm (2 x 31.5 in)	50 x 800 mm (2 x 31.5 in)	50 x 800 mm (2 x 31.5 in)
Extension swivel unit with magnetic stop for locking the welding position		●	●	●	●
Rough adjustment possible without tools via clamping lever, incl. cross-clamping unit		●	●	●	●
Three-coordinate support for torch fine adjustment. Linear adjustment path: each 50 mm (2in)		●	●	●	●
Torch holder with ball head		●	○	●	○
MACHINE TORCH		DVR 50	DVR 50 AVC	DVR 100	DVR 100 AVC
Liquid-cooled machine torch with hose package length 4 m (13.12 ft)		●	●	●	●
Current carrying capacity DC: 250 A, AC: 180 A at 100% ED		●	●	●	●
Incl. standard torch equipment for electrode diameter 2.4 mm (0.09 in)		●	●	●	●
AVC LINEAR UNIT*		DVR 50	DVR 50 AVC	DVR 100	DVR 100 AVC
Arc gap control unit for automatic controlling and holding of the arc gap		○	●	○	●
Linear stroke: 55 mm		○	●	○	●
SCOPE OF DELIVERY		DVR 50	DVR 50 AVC	DVR 100	DVR 100 AVC
Welding turntable of the DVR series (without lathe chuck)	PCS.	1	1	1	1
Stand	PCS.	1	1	1	1
Signal distribution box	PCS.	1	1	-	-
Machine torch with equipment	PCS.	1	1	1	1
AVC linear unit	PCS.	-	1	-	1
Welding current connection adapter	PCS.	1	1	1	1
Operating instructions and spare part list	set	1	1	1	1

● = Function included

○ = Function not included

◐ = Function only conditionally included

* Can only be used in combination with the orbital welding power sources ORBIMAT 300 CA AVC/OSC as well as ground cable for 300 CA AVC/OSC power sources

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

Welding turntables

DVR

Properties, application area, technical specifications and delivery scope, see from page 80.

The following accessories are mandatory for the use of the welding turntables and must be ordered separately:

- Control cable (see page 83)
- Ground cable (see page 83)
- Three-jaw lathe chuck (see page 83)



Welding turntable DVR 50



Welding turntable DVR 100

ITEM	CODE	MACHINE WEIGHT KG	SHIPPING WEIGHT KG
Welding turntable DVR 50	855 000 011	45.00	
Welding turntable DVR 50 AVC*	855 000 012	50.00	
Welding turntable DVR 100	855 000 001	100.00	
Welding turntable DVR 100 AVC*	855 000 002	105.00	
Welding turntable DVR 100 AVC/OSC*	855 000 003	105.00	

* Can only be used in connection with an ORBIMAT CA AVC/OSC power source (see from page 16).

Suitable accessories (optionally available):

- Three-jaw lathe chuck, see page 83
- Control cable, see page 83
- Ground cable, see page 83
- Remote control OWH BASIC, see page 84
- Remote control ORBIMAT, see page 21
- Cold-wire feeds DVR, see page 84
- Welding current connection adapter set, see page 95

WELDING TURNTABLES