

DVR

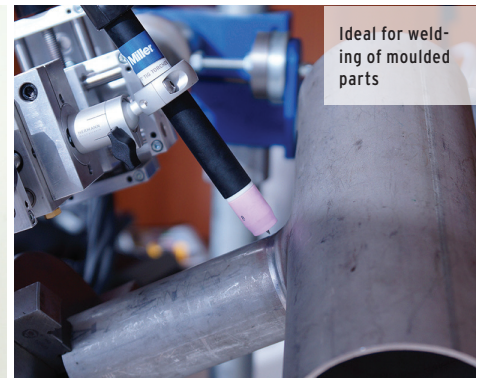
Turtables for TIG orbital welding

Welding turtables

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



Welding turntable DVR 100 with ORBIMAT 165 CA power source



Ideal for welding of moulded parts



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 his or her 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 safety 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 welding torch
- Liquid-cooled TIG torch head (200 A)
- Remote controls for higher operator comfort (available optionally)
- Cold-wire supply for wire Ø 0.8 mm (0.031") and 1.0 mm (0.039") for welding with cold wire (available optionally)

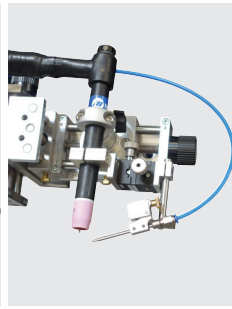
- Modern functional design
- Arc gap control unit for automatic controlling and holding of the arc gap (AVC = Arc Voltage Control)
- Shorter welding times at constant high quality
- Compatible with all power sources of the ORBIMAT series

The most important advantages of the DVR turntables:

- ✓ Stepless tilting 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 supplies DVR (retrofitting kits) for welding with cold wire including feed motor and wire adjusting unit

FEATURES & TECHNICAL DATA		DVR 50	DVR 50 AVC	DVR 100	DVR 100 AVC
Code		855 000 011	855 000 012	855 000 001	855 000 002
WELDING TURNTABLES		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")	300 x 300 x 395 mm (11.8" x 11.8" x 15.6")	600 x 570 x 695 mm (23.6" x 22.4" x 27.4")	600 x 570 x 695 mm (23.6" x 22.4" x 27.4")
Distance floor to rotating axis:		279 mm (11")	279 mm (11")	590 mm (23.2")	590 mm (23.2")
Turntable can be tilted steplessly from 0 to 90°		●	●	●	●
Locking via two clamping levers		●	●	●	●
Turning plate-Ø OD:		300 mm (11.81")	300 mm (11.81")	400 mm (15.75")	400 mm (15.75")
Hollow shafts-Ø ID:		30 mm (1.18")	30 mm (1.18")	125 mm (4.9")	125 mm (4.9")
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 ORBITAT-DVR, turntable motor, limit switch, cold wire supply 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")	50 x 1200 mm (2" x 47.2")	50 x 1200 mm (2" x 47.2")	50 x 1200 mm (2" x 47.2")
Dimensions extension arm OD x L:		50 x 800 mm (2" x 31.5")	50 x 800 mm (2" x 31.5")	50 x 800 mm (2" x 31.5")	50 x 800 mm (2" x 31.5")
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: 50 mm (2") each		●	●	●	●
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")		●	●	●	●
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)	Pc.	1	1	1	1
Stand	Pc.	1	1	1	1
Signal distribution box	Pc.	1	1	-	-
Machine torch with equipment	Pc.	1	1	1	1
AVC linear unit	Pc.	-	1	-	1
Operating instructions and spare parts list	Set	1	1	1	1

The technical data are not binding. They are not warranted characteristics and are subject to change.

● = feature included

○ = feature not included

◐ = feature limited included

* only applicable in combination with the orbital welding power supply ORBITAT 300 CA AVC/OSC as well as the ground cable for 300 CA AVC/OSC power sources

Welding turntables

DVR

Features, application range, technical data and scope of delivery, see from page 71.

The following accessory is essentially required for operating the DVR welding turntables and must be ordered separately:

- Control cable (see page 74)
- Earth cable (see page 74)
- Three-jaw lathe chuck (see page 74)

ARTICLE	CODE	WEIGHT OF MACHINE KG	DISPATCH WEIGHT KG
Welding turntable DVR 50	855 000 011	45.000	
Welding turntable DVR 50 AVC*	855 000 012	50.000	
Welding turntable DVR 100	855 000 001	100.000	
Welding turntable DVR 100 AVC*	855 000 002	105.000	

* Only applicable in combination with the orbital welding power supply ORBIMAT 300 CA AVC/OSC (see from page 11).

Suitable accessories (available option):

- Three-jaw lathe chuck, see page 74
- Control cable, see page 74
- Earth cable, see page 74
- Remote control OWH BASIC, see page 75
- Remote control ORBIMAT, see page 17
- Cold wire feed units DVR, see page 75
- Power connector adapter set, see page 87



Welding turntable DVR 50



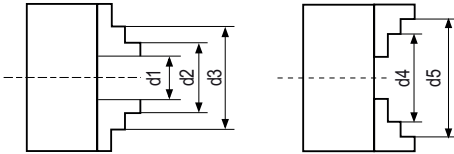
Welding turntable DVR 100

WELDING TURNTABLES

Accessories for welding turntables DVR



Three-jaw lathe chuck



Clamping range three-jaw lathe chuck

Three-jaw lathe chuck

Centered clamping three-jaw chuck made of hardened and polished steel. With cylindrical retainer for clamping the pipe.

Scope of delivery:

- 1 Three-jaw lathe chuck
- 1 three-jaw lathe chuck
- 1 adapter plate for the clamping turning plate
- 1 chuck key
- 1 set each of turning and drilling jaws, graded to the inside and outside

CLAMPING RANGE	D1		D2		D3 MAX.		D4 MAX.		D5 MAX.	
	[MM]	[INCH]	[MM]	[INCH]	[MM]	[INCH]	[MM]	[INCH]	[MM]	[INCH]
Three-jaw lathe chuck DVR 50	4-90	0.16-3.54	52-135	2.05-5.31	120-202	4.72-7.95	60-145	2.36-5.71	130-200	5.12-7.87
Three-jaw lathe chuck DVR 100	5-118	0.20-4.65	62-174	2.44-6.85	145-256	5.71-10.18	77-188	3.03-7.40	160-250	6.30-9.84
Three-jaw lathe chuck DVR 100	10-131	0.39-5.16	78-200	3.07-7.87	172-299	6.77-11.77	90-215	3.54-8.46	190-315	7.48-12.40

ARTICLE	OUTER Ø CHUCK		INNER Ø HOLE		CODE	KG
	[MM]	[INCH]	[MM]	[INCH]		
Three-jaw lathe chuck DVR 50	200.0	7.874	55.0	2.165	890 030 050	14.500
Three-jaw lathe chuck DVR 100	250.0	9.842	76.0	2.992	890 030 054	25.700
Three-jaw lathe chuck DVR 100	315.0	12.402	103.0	4.055	890 030 051	44.200

Control cable

Required for use with DVR welding turntables.



Control cable for welding turntables DVR

ARTICLE	LENGTH [M]	LENGTH [FT]	CODE	KG
Control cable for welding turntables DVR	5.0	16.4	890 030 022	1.170

Earth cable

Required for use with DVR welding turntables.



Earth cable for welding turntable DVR

ARTICLE	SUITABLE FOR ORBITAT	LENGTH [M]	LENGTH [FT]	CODE	KG
Earth cable for welding turntable DVR	165/180/300	5.0	16.4	890 030 015	2.500
Earth cable for welding turntable DVR	300 AVC	5.0	16.4	890 030 017	2.885

WELDING TURNTABLES

Remote control OWH BASIC

Can be used with all DVR turntables without AVC/OSC function.
 For advanced functions such as the **AVC/OSC control**, etc. please order our **remote control ORBIMAT**, see page 17.

For even more operator comfort the DVR welding turntables can be controlled with this "OWH BASIC" remote control. The remote control is connected directly to the turntable and disposes of the following standard functions:

- Start/Stop button
- Direction of rotation
- Wire feed
- Wire withdrawal



Remote control OWH BASIC

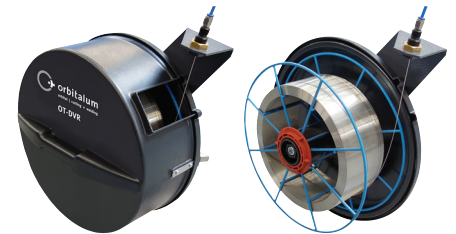
ARTICLE	CABLE LENGTH [M]	CABLE LENGTH [INCH]	CODE		KG
Remote control OWH BASIC	7.5	24.6	871 050 035		0.368

Cold wire feed units DVR

For welding with cold wire. Can be retrofitted to all DVR turntables.
 The cold wire unit can be adjusted individually in four axes.
 Retooling of the wire diameter is carried out completely without tools.

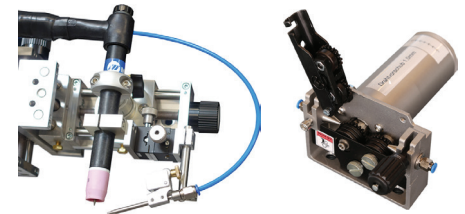
Scope of delivery:

- 1 Feed motor
- 1 Wire adjusting unit
- 2 Wire nozzles with wire core
- 1 Wire reel retainer
- Fastening material



Cold wire feed unit DVR 100 (with and without cover hood)

TECHNICAL DATA	WIRE FEED QUANTITY MAX.		WIRE Ø		WIRE COIL Ø		WEIGHT WIRE COIL	
	[MM/MIN.]	[MM]	[MM]	[INCH]	[MM]	[INCH]	[KG]	[LBS]
Cold wire feed unit DVR 50/100	1300	0.8 / 1.0	0.031 / 0.039	100.0	3.937	1.0	2.2	
Cold wire feed unit DVR 100	1300	0.8 / 1.0	0.031 / 0.039	300.0	11.811	15.0	33.0	



Adjusting unit and feed motor

ARTICLE	APPLICABLE WITH	CODE		KG
Cold wire feed unit DVR 50	DVR 50*	855 050 008		
Cold wire feed unit DVR 100	DVR 100 (AVC)	855 050 005		

* Can also be used with DVR 100

Other accessories for orbital welding

- ESG tungsten grinders, see page 79
- ORBmax residual oxygen meter, see page 83
- ORBIPURGE forming set, see page 86
- WS2 tungsten electrodes, see page 87
- Torch and cold wire consumables, see page 89
- Power connector adapter set, see page 87

WELDING TURNABLES