

# HEAVY-DUTY NC ROTARY TABLES WITH TWIN DRIVE **FIBROMAX®**





# FORCE AND PRECISION FLEXIBLE USE

FIBRO ROTARY TABLES ARE KNOWN FOR THEIR RIGID MECHANICAL DESIGN, PERFECTLY MATCHED DRIVE AND CONTROL TECHNOLOGY AS WELL AS LOW MAINTENANCE REQUIREMENTS.

Every day, large individual workpieces or several clamping fixtures holding heavy weights can be accurately positioned and machined with maximum precision in 3, 4 or 5 axes simultaneously on FIBROMAX® tables.

# Standard or individual solutions – your production must be running at its best

Whether a free-standing rotary-linear table in a lateral/gantry (portal) milling centre or an integrated rotary table: the particular design of your FIBROMAX® table offers you the flexibility demanded by your range of workpieces. The FIBRO engineering department will be glad to provide you with fast and competent consultation whenever the technical requirements and production-specific circumstances require more than just a standard solution.

# ACCURACY IN THE PM RANGE MOVE UP HEAVIEST LOADS

THE EXPERT AND ROTARY-TABLE PIONEER FIBRO BASED IN WEINSBERG, GERMANY PRESENTS THE NEW FIBROMAX® SERIES: A COMPLETELY REVISED SERIES OF ITS XXL ROTARY DISPLACEMENT SERIES.

### Heavy-duty NC rotary tables with twin drive

Compared to the first generation, the bearing diameter and thus the rigidity of the heavy-load positioner has increased significantly, while the costs remain virtually the same. The continuously ever-increasing requirements regarding the construction of wind power plants, roller bearings, turbines, gearbox cases and construction machines were the reasons for the new heavy-load design.

Rotary tables with table top dimensions of  $3\times3$  metres and transport loads of up to 55 tons have become the standard at FIBRO. Its heavy-duty tables provide a positioning accuracy of

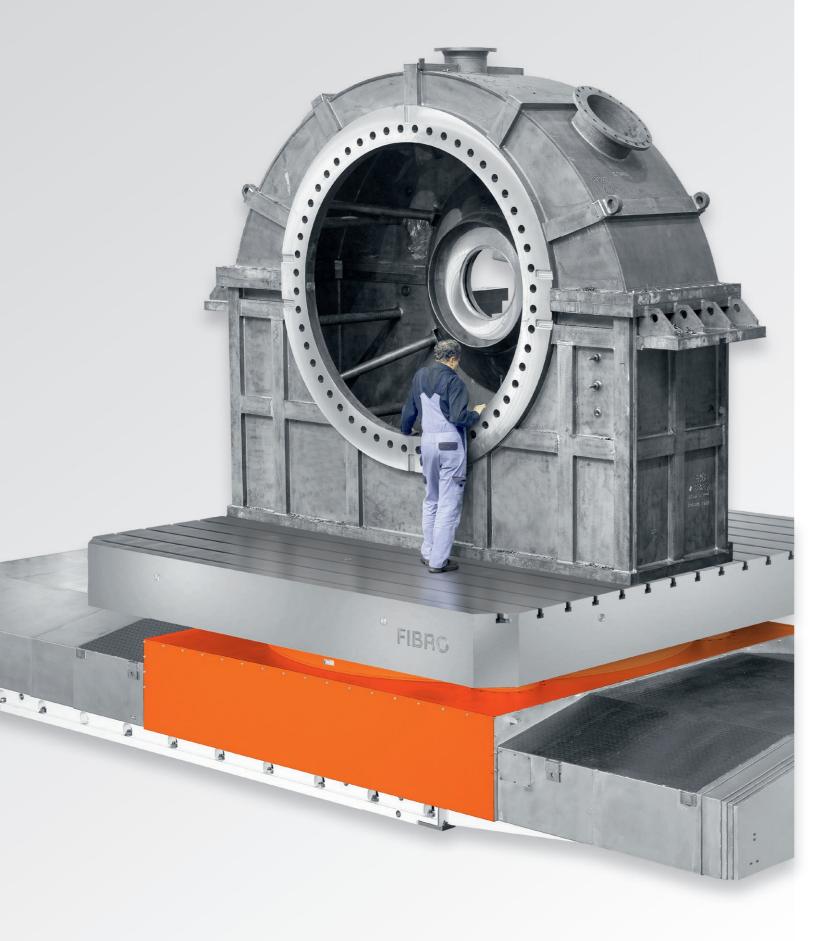
± 2 arc seconds. The axial run-out and radial concentricity are in a range of a few hundredths of a millimetre. In addition, with the FIBROMAX® series, a very large-dimensioned and highly precise roller bearing provides for maximum rigidity and thus highest precision during processing.

When in a positioned state, a hydraulic table top clamp increases the tangential torque and relieves the gear. The preloaded bearing and a play-free twin drive also provide ideal conditions for circular milling and simultaneous machining. FIBROMAX® provides maximum process stability at minimum maintenance effort.

3

# **FIBROMAX®**

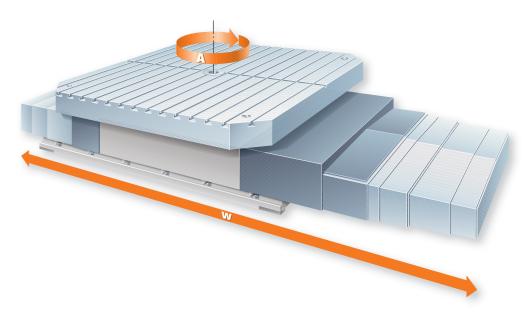
# OUR TECHNICAL HIGHLIGHTS YOUR COMPETITIVE EDGE



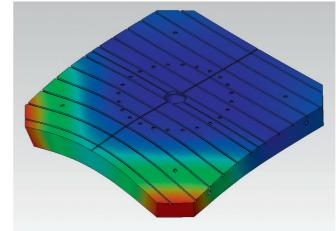
#### TECHNICAL HIGHLIGHTS

- Flexible positioning with an accuracy of ± 2 arc seconds
- High repeatability in terms of radial and axial concentricity in the µm range
- Absorption of radial and axial forces by preloaded, heavy-duty axial-radial bearing combination
- Increased tangential forces and reduced loads on gears through hydraulic table top clamping
- Perfectly equipped for rotary milling and simultaneous machining thanks to preloaded bearings and electrically clamped drive (twin drive)
- Different types, configuration levels and variants based on a modular design for greater flexibility

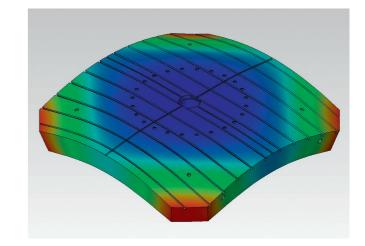
- Greater profitability from tested reliability, reduced maintenance expenses, longer service life and low energy consumption
- Axial load up to 600 kN, torque up to 27.9 kNm
- High-precision roller bearings in the rotary table and optimised ways for the linear axis
- Absolutely backlash-free operation thanks to the FIBRO twin drive
- Hydraulic clamping for high tangential force
- Mechanical roller bearings save time and energy when traversing and pivoting



### OPTIMISED DESIGN DUE TO FEM



Deflection with asymmetric load



Deflection with symmetric load

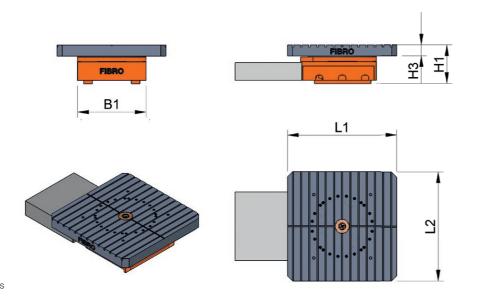
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depending on control and measuring systems: ± 2

5.6

# CONSTRUCTION TYPE THE MOST IMPORTANT DATA

			SLR.1250	SLR.1800
Transport load, without weight of table top		t	25	55
Main dimensions				
Table top, round, from	D1	mm	1,250	1,800
Table top, rectangular, from	L1	mm	1,250	1,800
Table top, rectangular, from	L2	mm	1,250	1,800
Thickness of table top	H3		approx. 10% of D resp. approx. 10% of (L1+L2)/2	
Rotary table with smallest table top	H1	mm	630	695
Bearing O.D.		mm	1,130	1,630
Housing width	B1	mm	1,250	1,800
Capacities Axial load, table top Tilting moment		kNm kNm	300 129	600
3 3 1 1				180
Torque, table top S1		kNm	20.4	180 27.9
Torque, table top S1  Tangential moment at hydraulic clamp pressure 75 bar		kNm kNm		
			20.4	27.9
Tangential moment at hydraulic clamp pressure 75 bar			20.4	27.9 110
Tangential moment at hydraulic clamp pressure 75 bar  Accuracies			20.4	27.9 110
Tangential moment at hydraulic clamp pressure 75 bar  Accuracies  Positioning accuracy (in arc seconds)		kNm	20.4 51 depending on control and measuring s	27.9 110 systems: ± 2
Tangential moment at hydraulic clamp pressure 75 bar  Accuracies  Positioning accuracy (in arc seconds)  Radial concentricity		kNm	20.4 51 depending on control and measuring s	27.9 110 systems: ± 2 0.01



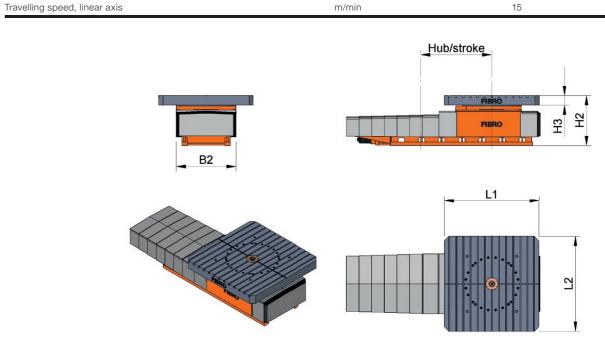
		SLR.DV.1250	SLR.DV.1800
	t	25	55
D1	mm	1,250	1,80
L1	mm	1,250	1,80
L2	mm	1,250	1,80
НЗ		approx. 10% of D resp. approx. 10% of (L1+L2)/2	
H2	mm	975	1,060
	mm	1,130	1,65
B2	mm	1,250	1,80
	kN	300	60
	kNm	129	18
	kNm	20.4	27.
	kNm	51	11
	kN	25	2
	kN	348	44.
	L1 L2 H3 H2	D1 mm  L1 mm  L2 mm  H3  H2 mm  mm  B2 mm  kN  kNm  kNm  kNm	t 25  D1 mm 1,250 L1 mm 1,250 L2 mm 1,250 H3 approx. 10% of D resp. approx. 10' H2 mm 975 mm 1,130 B2 mm 1,250  kN 300 kNm 129 kNm 20.4 kNm 51 kN 25

Accuracies

**Drive data**Table top speed

Positioning accuracy (in arc seconds)

Positioning accuracy linear axis



rpm

0.02

3.6



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