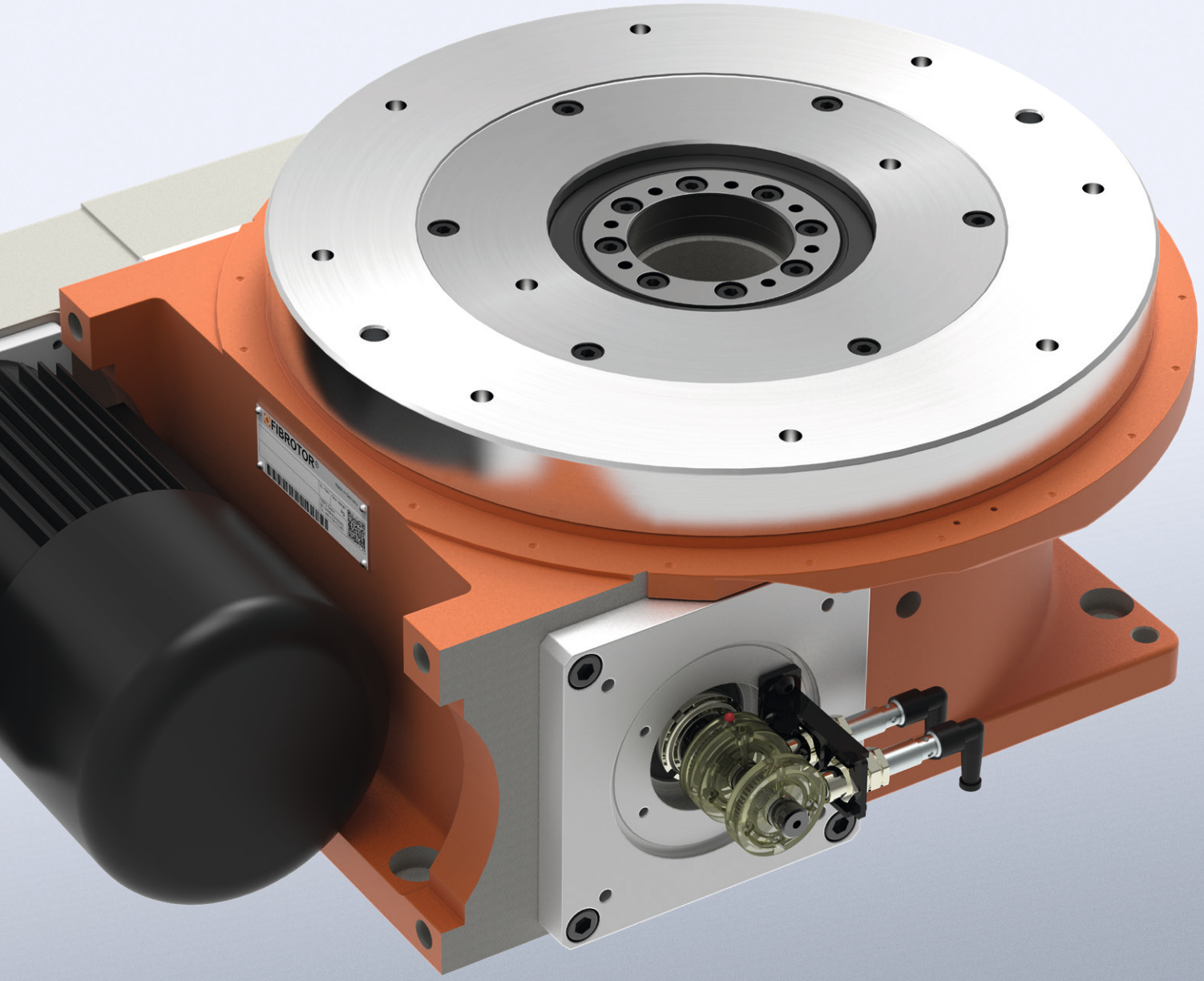
DATA SHEET COLLECTION
FIBROTOR®
EM.NC.



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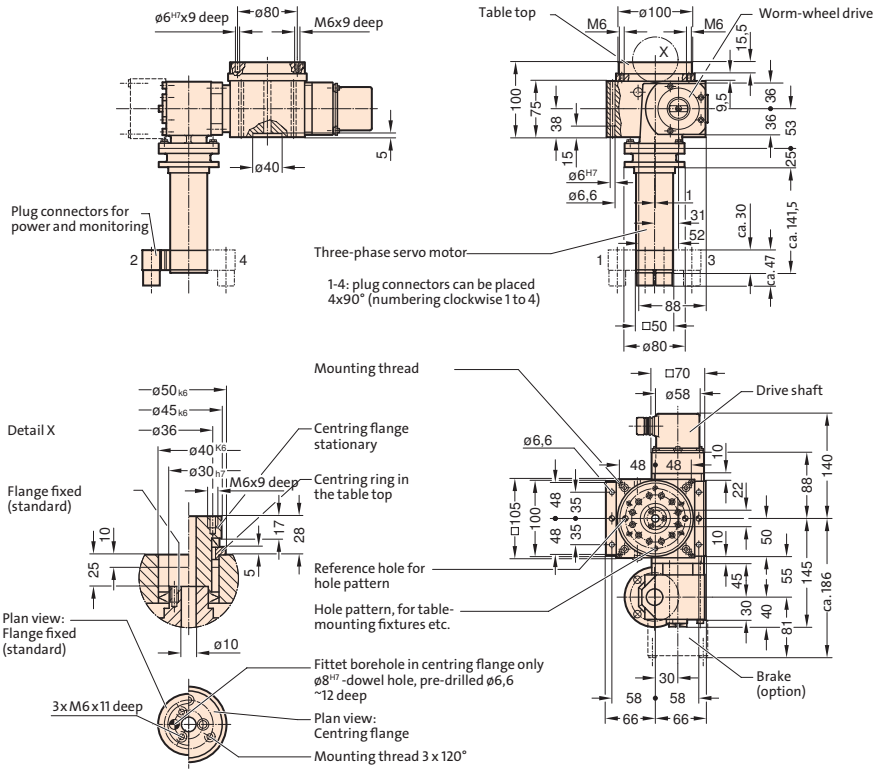
FIBROTOR EM.NC.10.0100.7.162.00.0.0.3

Installed dimensions FIBROTOR® EM.NC.10

(Drive arrangement 162, for other drive arrangements, drawings or CAD data are available)



Technical data FIBROTOR® EM.NC.10

Encoding EM.NC.10 . ② ③ ④ . ⑤ ⑥ ⑦ ⑧

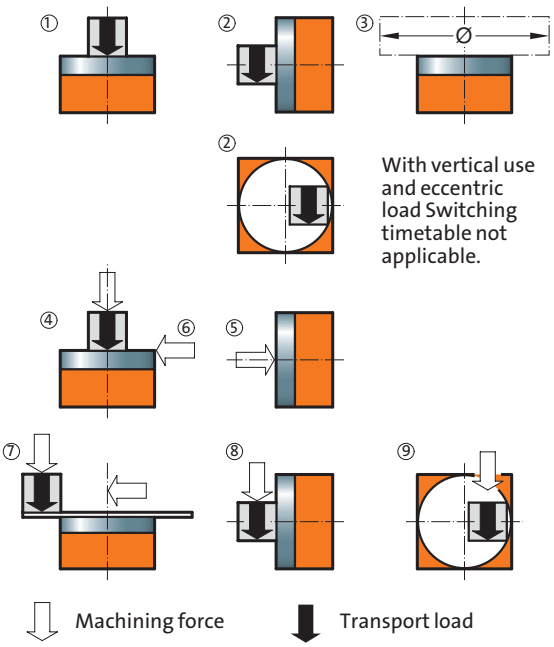
Table top dimensions	Standard dimensions Built-in version	Ø 100 mm Ø 100 mm	.0100 .0100	②
Drive motor	Standard brake motor AC servomotor Special version Without motor		.1 .7 .9 .0	③
Drive arrangement	See planning documents under www.fibrotor.de/downloads		.XXX	④
Division	NC - can be positioned arbitrarily		.00	⑤
Additional assemblies	Without additional modules		.0	⑥
	Built-in version Built-in version with mounting ring Vertical version Vertical version with base plate		.1 .2 .3 .4	⑦
	Centring ring Centring flange Centring ring and centring flange		.1 .2 .3	⑧
Indexing accuracy in arc seconds	Indirect measuring system Measuring system at motor	± 120" ± 300"		
Indexing accuracy in arc length (on Ø 100 mm)	Indirect measuring system Measuring system at motor	± 0,029 mm ± 0,073 mm		
Axial runout of table top	(relates to Ø 100 mm)	0,02 mm		
Concentricity of the centre hole	(relates to Ø 40 mm)	0,02 mm		
Plane parallelism of table top to base on the housing	(relates to Ø 100 mm)	0,04 mm		
Direction of rotation	CW - CCW rotation			
Reduction ratio worm/ roller gearing		i = 12		
RPM at table top		$n_{max.}$ = 50 1/min		
Centre hole		Ø 10 mm		
Working position	Any, standard: Horizontal table top, (please specify other mounting positions when ordering)			
Weight		approx. 12 kg		

Indexing times FIBROTOR® EM.NC.10

Mass moment of inertia J in kgm²		0,5	1,0	1,5	4,0
Max. perm. table top speed ¹/min		40	27	20	8
Acceleration time t_a in s		0,2	0,2	0,3	0,3
Overall gear ratio reduction i		60	84	120	360
Motor speed n in ¹/min		2400	2268	2400	2880
Motor torque required in Nm		0,9	0,9	0,8	0,8
Swivel time t_s in s for	360°	1,9	2,6	3,4	7,9
	180°	1,1	1,5	1,9	4,2
	120°	0,9	1,1	1,5	2,9
	90°	0,75	0,9	1,1	2,3
	60°	0,6	0,75	0,9	1,65
	45°	0,55	0,65	0,8	1,35
	30°	0,5	0,55	0,5	1,05
	20°	0,45	0,5	0,55	0,85
	10°	0,4	0,45	0,45	0,65
	5°	0,4	0,4	0,4	0,5
	2°	0,35	0,4	0,4	0,45

Load data FIBROTOR® EM.NC.10

Perm. transport load Horizontal table top Vertical table top Table top, upside down	 kg kg kg	 100 50 50	 ① ②
Perm. add-on diameter	mm	520	③
Perm. axial loading on the table top Horizontal Vertical	 N N	 4000 1500	 ④ ⑤
Perm. radiale loading on table top	N	1000	⑥
Perm. tilting moment on positioned table top Horizontal Vertical Upside-down	 Nm Nm Nm	 350 200 150	 ⑦ ⑧
Perm. tilting moment on rotating table top Upside-down	Nm Nm	100 50	⑦+⑧
Perm. tangential moment on positioned table top, from machining force and in vertical position additionally from eccentric transport load	Nm	25	⑨



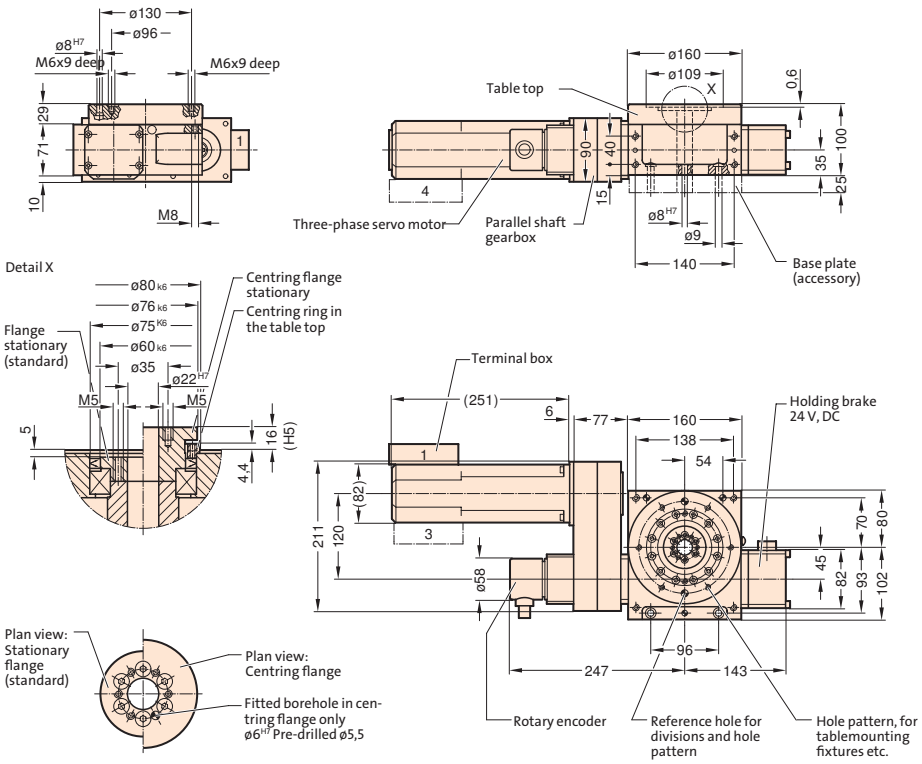
CAD data, technical data and planning documentation can be downloaded from www.fibro.de

FIBROTOR EM.NC.11.0160.7.111.00.0.0.3

FIBROTOR EM.NC.11.0160.7.111.00.0.0.3

Installed dimensions FIBROTOR® EM.NC.11

(Drive arrangement 111, for other drive arrangement, drawings or CAD-datas are available)



Technical data FIBROTOR® EM.NC.11

Encoding EM.NC.11 . ② ③ ④ . ⑤ ⑥ ⑦ ⑧

Table top dimensions	Standard dimensions Strenghtened table top bearing Table top lock Built-in version	Ø 160 mm Ø 118mm Ø 155 mm Ø 160 mm	.0160 .0118 .0155 .0160	②
Drive motor	Standard braking motor AC servomotor Special version Without motor		.1 .7 .9 .0	③
Drive arrangement	See planning documents under www.fibrotor.de/downloads		.XXX	④
Division	NC - can be positioned arbitrarily		.00	⑤
Additional assemblies	Without additional modules Strenghtened table top bearing Hydraulic table top lock		.0 .1 .2	⑥
	Built-in version Built-in version with mounting ring Vertical version Vertical version with base plate		.1 .2 .3 .4	⑦
	Centring ring Centring flange Centring ring and centring flange		.1 .2 .3	⑧
Indexing accuracy in arc seconds	Direct measuring system Indirect measuring system Measuring system at motor	± 30“ ± 60" ± 210"		
Indexing accuracy in arc length (on Ø 160 mm)	Direct measuring system Indirect measuring system Measuring system at motor	± 0,008 mm ± 0,024 mm ± 0,120 mm		
Axial runout of Table top	(relates to Ø 160 mm)	0,01 mm		
Concentricity of the centre hole	(relates to Ø 75 mm)	0,01 mm		
Plane parallelism of table top to base on the housing	(relates to Ø 160 mm)	0,02 mm		
Direction of rotation	CW - CCW rotation			
Reduction ratio worm /roller gearing		i = 12		

Technical Data FIBROTOR® EM.NC.11

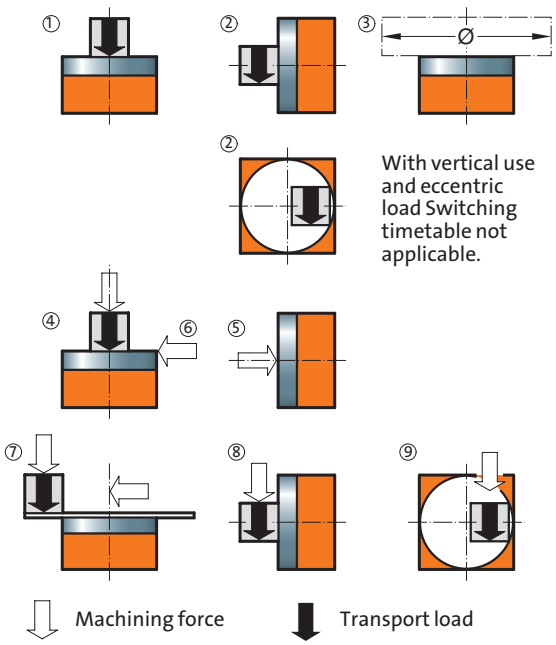
RPM at table top		$n_{max.}$ = 30¹/min
Centre hole		Ø 22 mm
Working position	Any, standard: Horizontal table top, (please specify other mounting positions when ordering)	
Weight		approx. 20 kg

Indexing times FIBROTOR® EM.NC.11

Mass moment of inertia J in kgm²		1	2	4	8	12
Max. perm. table top speed ¹/min		30	25	15	10	6
Acceleration time t_a in s		0,2	0,2	0,2	0,2	0,2
Overall gear ratio reduction i		96,000	120,000	179,052	215,208	312,000
Motor speed n in ¹/min		2880	3000	2686	2152	1872
Motor torque required in Nm		1,0	1,0	1,0	1,0	1,0
Swivel time t_s in s for	360°	2,30	2,70	4,30	6,30	10,30
	180°	1,30	1,50	2,30	3,30	5,30
	90°	0,80	0,90	1,30	1,80	2,80
	60°	0,63	0,70	0,97	1,30	1,97
	45°	0,55	0,60	0,80	1,05	1,55
	30°	0,47	0,50	0,63	0,80	1,13
	20°	0,41	0,43	0,52	0,63	0,86
	10°	0,36	0,37	0,41	0,47	0,58
	5°	0,33	0,33	0,36	0,38	0,44
	2°	0,31	0,31	0,32	0,33	0,36

Load data FIBROTOR® EM.NC.11

Perm. transport load			
Horizontal table top	kg	500	①
Vertical table top	kg	200	②
Table top, upside down	kg	200	
Perm. add-on diameter	mm	800	③
Perm. axial loading on the table top			
Horizontal	N	8000	④
Vertical	N	3500	⑤
Perm. radial loading on table top	N	3500	⑥
Perm. tilting moment on positioned table top			
Horizontal	Nm	750	⑦
With strenghtened table top bearing	Nm	2250	⑦
Vertical	Nm	450	⑧
With strenghtened table top bearing	Nm	1350	⑦
Upside-down	Nm	250	
Perm. tilting moment on rotating table top	Nm	200	⑦+⑧
With strenghtened table top bearing	Nm	600	
Upside-down	Nm	100	
Perm. tangential moment on positioned table top, from machining force and in vertical position additionally from eccentric trabsport load	Nm	125	⑨
With hydraulic table top lock	Nm	450	⑨



CAD data, technical data and planing documentation can be downloaded from www.fibrotor.de..

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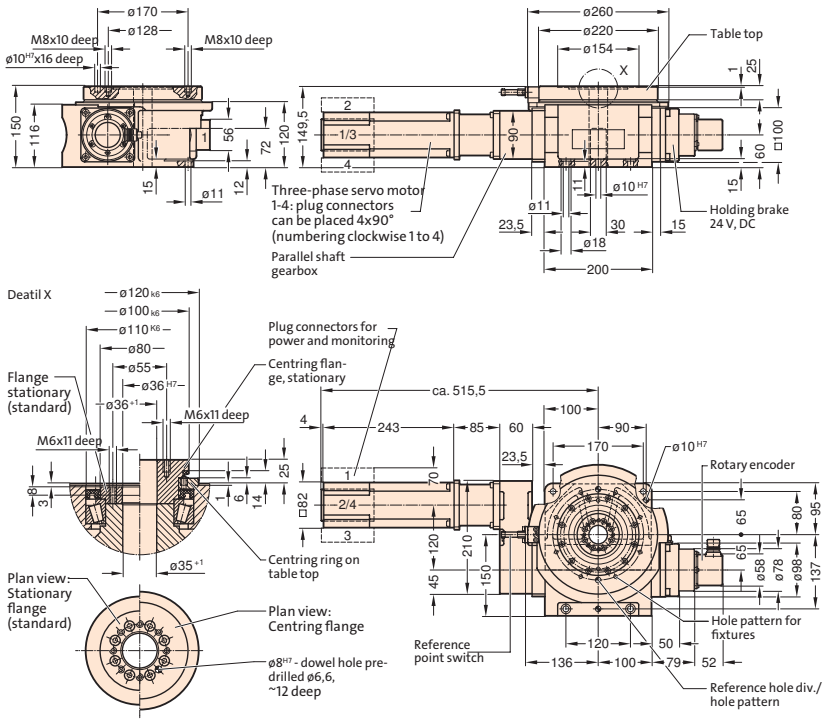
FIBROTOR EM.NC.12.0220.7.111.00.0.0.3

Installed dimensions FIBROTOR® EM.NC.12

(Drive arrangement 111, for other drive arrangement, drawings or CAD-datas are available)



Technical data FIBROTOR® EM.NC.12

Encoding EM.NC.12 . ② ③ ④ . ⑤ . ⑥ ⑦ ⑧

Table top dimensions	Standard dimensions Strenghtened table top bearing Table top lock Built-in version	Ø 220 mm Ø 190 mm Ø 220 mm Ø 220 mm	.0220 .0190 .0220 .0220	②
Drive motor	Standard braking motor AC servomotor Special version Without motor		.1 .7 .9 .0	③
Drive arrangement	See planning documents under www.fibrotor.de/downloads		.XXX	④
Division	NC - can be positioned arbitrarily		.00	⑤
Additional assemblies	Without additional modules Strenghtened table top bearing Hydraulic table top lock		.0 .1 .2	⑥
	Built-in version Built-in version with mounting ring Vertical version Vertical version with base plate		.1 .2 .3 .4	⑦
	Centring ring Centring flange Centring ring and centring flange		.1 .2 .3	⑧
Indexing accuracy in arc seconds	Indirect measuring system Direct measuring system Measuring system at motor	± 45" ± 10" ± 150"		
Indexing accuracy in arc length (on Ø 220 mm)	Indirect measuring system Direct measuring system Measuring system at motor	± 0,024 mm ± 0,006 mm ± 0,080 mm		
Axial runout of Table top	(relates to Ø 220 mm)	0,01 mm		
Concentricity of the centre hole	(relates to Ø 110 mm)	0,01 mm		
Plane parallelism of table top to base on the housing	(relates to Ø 220 mm)	0,03 mm		
Direction of ratation	CW - CCW rotation			
Reduction ratio worm /roller gearing		i = 12		

Technical data FIBROTOR® EM.NC.12

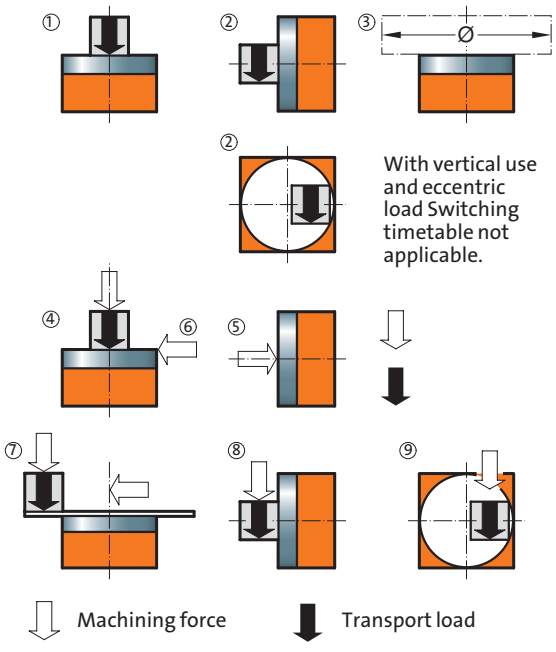
RPM at table top		$n_{max.}$ = 30¹/min
Centre hole	with lateral opening in the housing	Ø 35 mm
Working position	Any, standard: Horizontal table top, (please specify other mounting positions when ordering)	
Weight		approx. 35 kg

Indexing times FIBROTOR® EM.NC.12

Mass moment of inertia J in kgm²	2	6	8	12	16	20	24
Max. perm. table top speed ¹/min	30	25	23	18	15	12	9
Acceleration time t_a in s	0,1	0,2	0,2	0,2	0,3	0,3	0,3
Overall gear ratio reduction i	96,000	120,000	120,000	148,908	179,052	215,208	312,000
Motor speed n in ¹/min	2880	3000	2760	2680	2686	2582	2808
Motor torque required in Nm	2,5	2,2	2,2	2,2	2,2	2,2	2,2
Swivel time t_s in s for 360°	2,20	2,70	2,91	3,63	4,40	5,40	7,07
180°	1,20	1,50	1,60	1,97	2,40	2,90	3,73
90°	0,70	0,90	0,95	1,13	1,40	1,65	2,07
60°	0,53	0,70	0,73	0,86	1,07	1,23	1,51
45°	0,45	0,60	0,63	0,72	0,90	1,03	1,23
30°	0,37	0,50	0,52	0,58	0,73	0,82	0,96
20°	0,31	0,43	0,44	0,49	0,62	0,68	0,77
10°	0,26	0,37	0,37	0,39	0,51	0,54	0,59
5°	0,23	0,33	0,34	0,35	0,46	0,47	0,49
2°	0,21	0,31	0,31	0,32	0,42	0,43	0,44

Load data FIBROTOR® EM.NC.12

Perm. transport load Horizontal table top Vertical table top Table top, upside down	 kg kg kg	 800 300 300	 ① ②
Perm. add-on diameter	mm	1000	③
Perm. axial loading on the table top Horizontal Vertical	 N N	 12000 5000	 ④ ⑤
Perm. radial loading on table top	N	8000	⑥
Perm. tilting moment on positioned table top Vorizontal With strenghtened table top bearing Vertical With strenghtened table top bearing Upside-down	 Nm Nm Nm Nm Nm	 2000 6000 1500 4500 600	 ⑦ ⑦ ⑧ ⑦
Perm. tilting moment on rotating table top With strenghtened table top bearing Upside-down	Nm Nm Nm	600 1800 300	⑦+⑧
Perm. tangential moment on positioned table top, from machining force and in vertical position additionally from eccentric trabsport load With hydraulic table top lock	 Nm Nm	 200 800	 ⑨ ⑨



CAD data, technical data and planing documentation can be downloaded from www.fibrotor.de.

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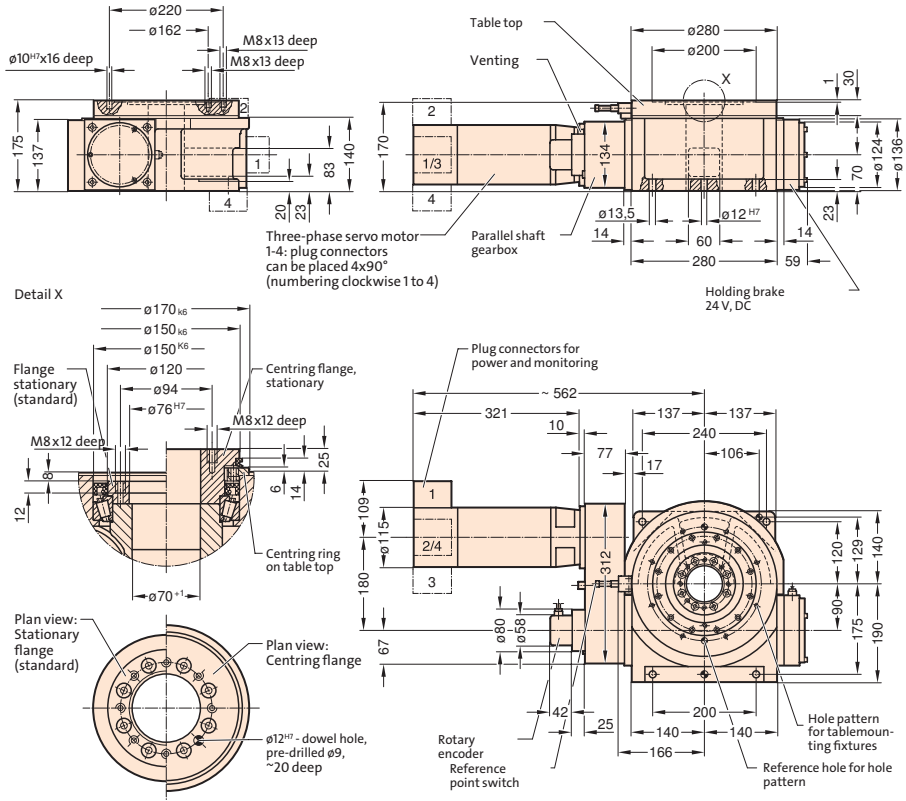
FIBROTOR EM.NC.13.0280.7.111.00.0.0.3

Installed dimensions FIBROTOR® EM.NC.13

(Drive arrangement 111, for other drive arrangement, drawings or CAD-datas are available)



Technical data FIBROTOR® EM.NC.13

Encoding EM.NC.13 . ② . ③ . ④ . ⑤ . ⑥ . ⑦ . ⑧

Table top dimensions	Standard dimensions Strenghtened table top bearing Table top lock Built-in version	Ø 280 mm Ø 250 mm Ø 280 mm Ø 280 mm	.0280 .0250 .0280 .0280	②
Drive motor	Standard brake motor AC servomotor Special version Without motor		.1 .7 .9 .0	③
Drive arrangement	See planning documents under www.fibrotor.de/downloads		.XXX	④
Division	NC - can be positioned arbitrarily		.00	⑤
Additional assemblies	Without additional modules Strenghtened table top bearing Hydraulic table top lock		.0 .1 .2	⑥
	Built-in version Built-in version with mounting ring Vertical version Vertical version with base plate		.1 .2 .3 .4	⑦
	Centring ring Centring flange Centring ring and centring flange		.1 .2 .3	⑧
Indexing accuracy in arc seconds	Indirect measuring system Direct measuring system Measuring system at motor	± 45" ± 10" ± 120"		
Indexing accuracy in arc length (on Ø 280 mm)	Indirect measuring system Direct measuring system Measuring system at motor	± 0,031 mm ± 0,007 mm ± 0,082 mm		
Axial runout of Table top	(relates to Ø 280 mm)	0,01 mm		
Concentricity of the centre hole	(relates to Ø 150 mm)	0,01 mm		
Plane parallelism of table top to base on the housing	(relates to Ø 280 mm)	0,03 mm		
Direction of ratation	CW - CCW rotation			
Reduction ratio worm /roller gearing		i = 12		

Technical data FIBROTOR® EM.NC.13

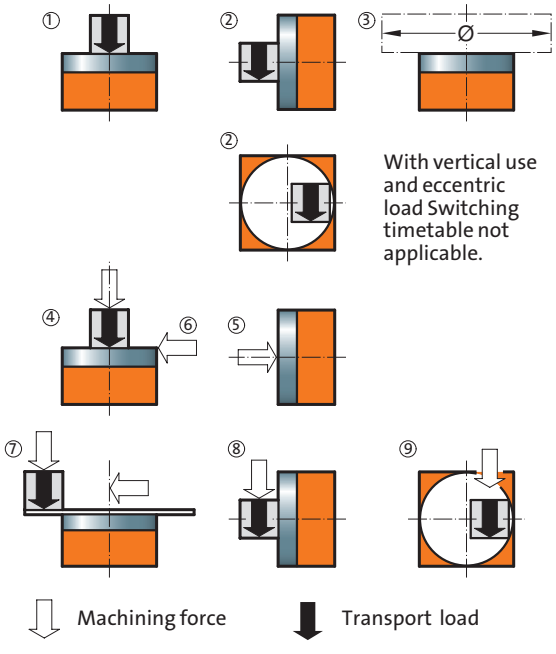
RPM at table top		$n_{max.}$ = 30¹/min
Centre hole	With lateral opening in the housing	Ø 35 mm
Working position	Any, standard: Horizontal table top, (please specify other mounting positions when ordering)	
Weight		approx. 70 kg

Indexing times FIBROTOR® EM.NC.13

Mass moment of inertia J in kgm²		4	8	16	24	32
Max. perm. table top speed ¹/min		30	25	23	18	15
Acceleration time t_a in s		0,2	0,2	0,3	0,4	0,5
Overall gear ratio reduction i		96,000	120,000	120,000	155,784	182,064
Motor speed n in ¹/min		2880	3000	2760	2804	2731
Motor torque required in Nm		3,4	3,4	3,4	3,4	3,4
Swivel time t_s in s for	360°	2,30	2,70	3,01	3,83	4,60
	180°	1,30	1,50	1,70	2,17	2,60
	90°	0,80	0,90	1,05	1,33	1,60
	60°	0,63	0,70	0,83	1,06	1,27
	45°	0,55	0,60	0,73	0,92	1,10
	30°	0,47	0,50	0,62	0,78	0,93
	20°	0,41	0,43	0,54	0,69	0,82
	10°	0,36	0,37	0,47	0,59	0,71
	5°	0,33	0,33	0,44	0,55	0,66
	2°	0,31	0,31	0,41	0,52	0,62

Load data FIBROTOR® EM.NC.13

Perm. transport load Horizontal table top Vertical table top Table top, upside down	 kg kg kg	 1500 400 400	 ① ②
Perm. add-on diameter	mm	1400	③
Perm. axial loading on the table top Horizontal Vertical	 N N	 16000 6000	 ④ ⑤
Perm. radial loading on table top	N	10000	⑥
Perm. tilting moment on positioned table top Horizontal With strenghtened table top bearing Vertical With strenghtened table top bearing Upside-down	 Nm Nm Nm Nm Nm	 3000 9000 1500 4500 800	 ⑦ ⑦ ⑧ ⑦
Perm. tilting moment on rotating table top With strenghtened table top bearing Upside-down	Nm Nm Nm	1000 3000 400	⑦+⑧
Perm. tangential moment on positioned table top, from machining force and in vertical position additionally from eccentric trabsport load With hydraulic table top lock	 Nm Nm	 250 900	 ⑨ ⑨

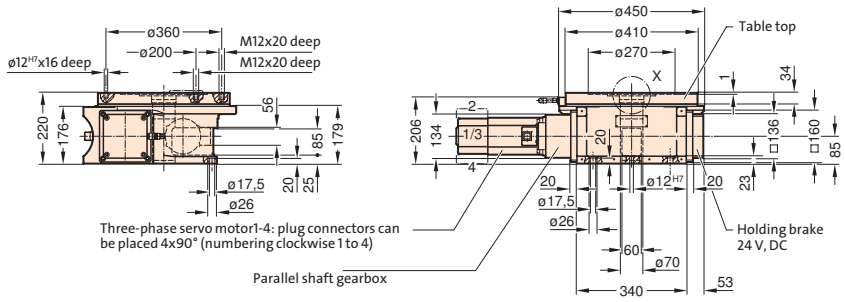


CAD data, technical data and planing documentation can be downloaded from www.fibrotor.de.

FIBROTOR EM.NC.15.0410.7.111.00.0.0.3

Installed dimensions FIBROTOR® EM.NC.15

(Drive arrangement 111, for other drive arrangement, drawings or CAD-datas are available)



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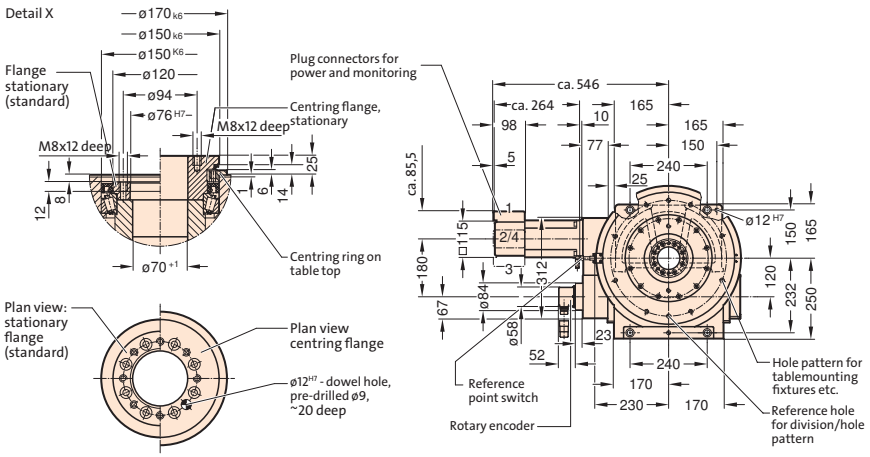


Technical data FIBROTOR® EM.NC.15

Encoding EM.NC.15 . ② ③ ④ . ⑤ ⑥ ⑦ ⑧

Table top dimensions	Standard dimensions Strenghtened table top bearing Table top lock Built-in version	Ø 0410 mm Ø 0380 mm Ø 0410 mm Ø 0410 mm	.0410 .0380 .0410 .0410	②
Drive motor	Standard brake motor AC servomotor Special version Without motor		.1 .7 .9 .0	③
Drive arrangement	See planning documents under www.fibrotor.de/downloads		.XXX	④
Division	NC - can be positioned arbitrarily		.00	⑤
Additional assemblies	Without additional modules Strenghtened table top bearing Hydraulic table top lock		.0 .1 .2	⑥
	Built-in version Built-in version with mounting ring Vertical version Vertical version with base plate		.1 .2 .3 .4	⑦
	Centring ring Centring flange Centring ring and centring flange		.1 .2 .3	⑧
Indexing accuracy in arc seconds	Indirect measuring system Direct measuring system Measuring system at motor	± 45" ± 10" ± 80"		
Indexing accuracy in arc length (on Ø 410 mm)	Indirect measuring system Direct measuring system Measuring system at motor	± 0,045 mm ± 0,010 mm ± 0,080 mm		
Axial runout of Table top	(relates to Ø 410 mm)	0,015 mm		
Concentricity of the centre hole	(relates to Ø 150 mm)	0,015 mm		
Plane parallelism of table top to base on the housing	(relates to Ø 410 mm)	0,040 mm		
Direction of ratation	CW - CCW rotation			
Reduction ratio worm /roller gearing		i = 12		

Technical data FIBROTOR® EM.NC.15

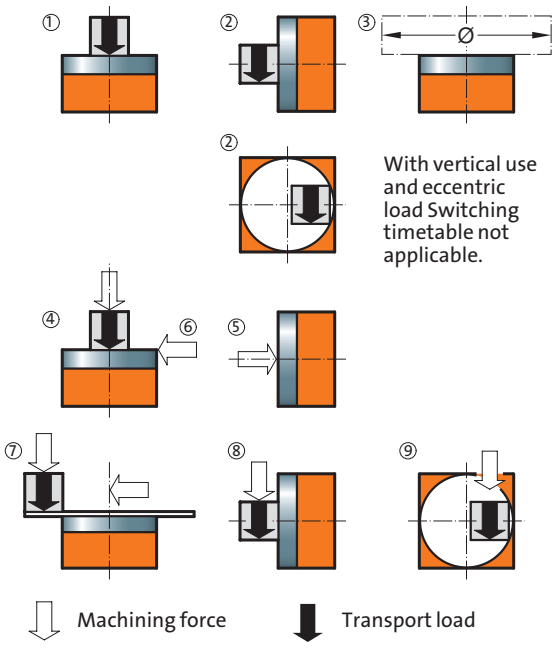
RPM at table top		$n_{max.}$ = 30¹/min
Centre hole	With lateral opening in the housing	Ø 70 mm
Working position	Any, standard: Horizontal table top, (please specify other mounting positions when ordering)	
Weight		approx. 150 kg

Indexing times FIBROTOR® EM.NC.15

Mass moment of inertia J in kgm²		4	25	50	100	150	200	300	400
Max. perm. table top speed ¹/min		30	30	20	15	12	10	8	6
Acceleration time t_a in s		0,1	0,2	0,2	0,3	0,4	0,4	0,5	0,5
Overall gear ratio reduction i		96,000	96,000	120,000	120,000	213,684	213,684	213,684	256,980
Motor speed n in ¹/min		2880	2880	2400	1800	2564	2137	1710	1542
Motor torque required in Nm		8	8	8	8	6	5	5	4
Swivel time t_s in s for	360°	2,20	2,30	3,30	4,40	5,50	6,50	8,10	10,6
	180°	1,20	1,30	1,80	2,40	3,00	3,50	4,35	5,60
	90°	0,70	0,80	1,05	1,40	1,75	2,00	2,48	3,10
	60°	0,53	0,63	0,80	1,07	1,33	1,50	1,85	2,27
	45°	0,45	0,55	0,68	0,90	1,13	1,25	1,54	1,85
	30°	0,37	0,47	0,55	0,73	0,92	1,00	1,23	1,43
	20°	0,31	0,41	0,47	0,62	0,78	0,83	1,02	1,16
	10°	0,26	0,36	0,38	0,51	0,64	0,70	0,85	0,88
	5°	0,23	0,33	0,34	0,46	0,57	0,58	0,70	0,74

Load data FIBROTOR® EM.NC.15

Perm. transport load Horizontal table top Vertical table top Table top, upside down	 kg kg kg	 2500 600 600	 ① ②
Perm. add-on diameter	mm	2000	③
Perm. axial loading on the table top Horizontal Vertical	 N N	 25000 9000	 ④ ⑤
Perm. radial loading on table top	N	15000	⑥
Perm. tilting moment on positioned table top Horizontal With strenghtened table top bearing Vertical With strenghtened table top bearing Upside-down	 Nm Nm Nm Nm Nm	 6000 18000 3000 10000 1500	 ⑦ ⑦ ⑧ ⑦
Perm. tilting moment on rotating table top With strenghtened table top bearing Upside-down	Nm Nm Nm	2000 6000 700	⑦+⑧
Perm. tangential moment on positioned table top, from Machining force and in vertical position additionally from eccentric transport load With hydraulic table top lock	 Nm Nm	 320 1800	 ⑨ ⑨

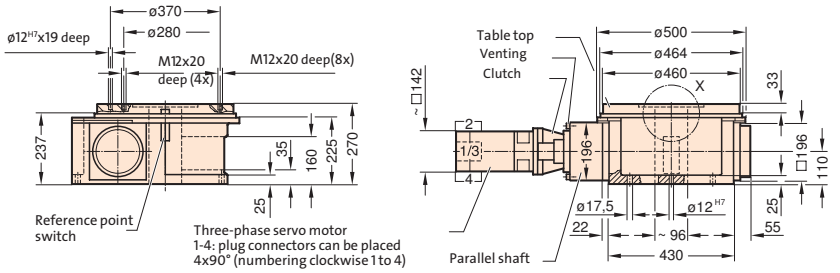


CAD data, technical data and planing documentation can be downloaded from www.fibrotor.de.

FIBROTOR EM.NC.16.0460.7.111.00.0.0.3

Installed dimensions FIBROTOR® EM.NC.16

(Drive arrangement 111, for other drive arrangement, drawings or CAD-datas are available)



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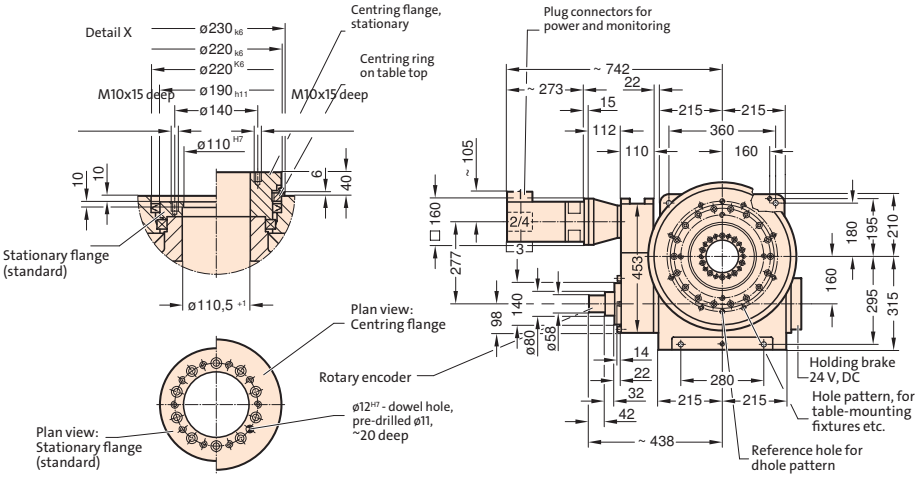


Technical data FIBROTOR® EM.NC.16

Encoding EM.NC.16 . ② ③ ④ . ⑤ ⑥ ⑦ ⑧

Table top dimensions	Standard dimensions Strenghtened table top bearing Table top lock Built-in version	Ø 460 mm Ø 394 mm Ø 440 mm Ø 460 mm	.0460 .0394 .0440 .0460	②
Drive motor	Standard brake motor AC servomotor Special version Without motor		.1 .7 .9 .0	③
Drive arrangement	See planning documents under www.fibrotor.de/downloads		.XXX	④
Division	NC - can be positioned arbitrarily		.00	⑤
Additional assemblies	Without additional modules Strenghtened table top bearing Hydraulic table top lock		.0 .1 .2	⑥
	Built-in version Built-in version with mounting ring Vertical version Vertical version with base plate		.1 .2 .3 .4	⑦
	Centring ring Centring flange Centring ring and centring flange		.1 .2 .3	⑧
Indexing accuracy in arc seconds	Indirect measuring system Direct measuring system Measuring system at motor	± 30" ± 10" ± 60"		
Indexing accuracy in arc length (on Ø 460 mm)	Indirect measuring system Direct measuring system Measuring system at motor	± 0,033 mm ± 0,011 mm ± 0,067 mm		
Axial runout of Table top	(relates to Ø 460 mm)	0,015 mm		
Concentricity of the centre hole	(relates to Ø 220 mm)	0,015 mm		
Plane parallelism of table top to base on the housing	(relates to Ø 460 mm)	0,040 mm		
Direction of ratation	CW - CCW rotation			
Reduction ratio worm /roller gearing		i = 12		

Technical data FIBROTOR® EM.NC.16

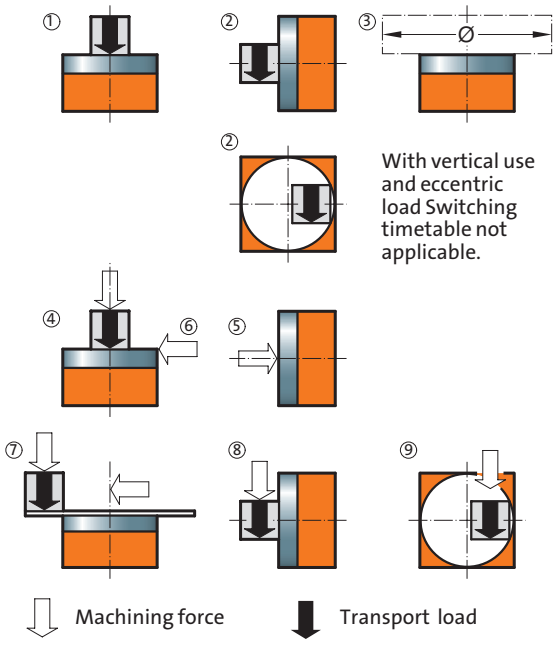
RPM at table top		$n_{max.}$ = 20¹/min
Centre hole	With lateral opening in the housing	Ø 110 mm
Working position	Any, standard: Horizontal table top, (please specify other mounting positions when ordering)	
Weight		approx. 220 kg

Indexing times FIBROTOR® EM.NC.16

Mass moment of inertia J in kgm²		60	100	150	225	300	600
Max. perm. table top speed ¹/min		20	16	12	10	9	8
Acceleration time t_a in s		0,2	0,2	0,3	0,4	0,5	0,6
Overall gear ratio reduction i		120,000	120,000	162,000	252,571	315,556	342,804
Motor speed n in ¹/min		2400	1920	1944	2526	2840	2742
Motor torque required in Nm		20	20	12	10	8	6
Swivel time t_s in s for	360°	3,30	4,05	5,40	6,50	7,27	8,20
	180°	1,80	2,18	2,90	3,50	3,93	4,45
	90°	1,05	1,24	1,65	2,00	2,27	2,58
	60°	0,80	0,93	1,23	1,50	1,71	1,95
	45°	0,68	0,77	1,03	1,25	1,43	1,64
	30°	0,55	0,61	0,82	1,00	1,16	1,33
	20°	0,47	0,51	0,68	0,83	0,97	1,12
	10°	0,38	0,40	0,54	0,67	0,79	0,91
	5°	0,34	0,35	0,47	0,58	0,69	0,80

Load data FIBROTOR® EM.NC.16

Perm. transport load Horizontal table top Vertical table top Table top, upside down	 kg kg kg	 4000 800 800	 ① ②
Perm. add-on diameter	mm	2400	③
Perm. axial loading on the table top Horizontal Vertical	 N N	 32000 11000	 ④ ⑤
Perm. radial loading on table top	N	20000	⑥
Perm. tilting moment on positioned table top Horizontal With strenghtened table top bearing Vertical With strenghtened table top bearing Upside-down	 Nm Nm Nm Nm Nm	 9000 27000 4200 12600 2300	 ⑦ ⑦ ⑧ ⑦
Perm. tilting moment on rotating table top With strenghtened table top bearing Upside-down	Nm Nm Nm	3000 9000 900	⑦+⑧
Perm. tangential moment on positioned table top, from machining force and in vertical position additionally from eccentric transport load With hydraulic table top lock	Nm Nm	500 1900	⑨ ⑨



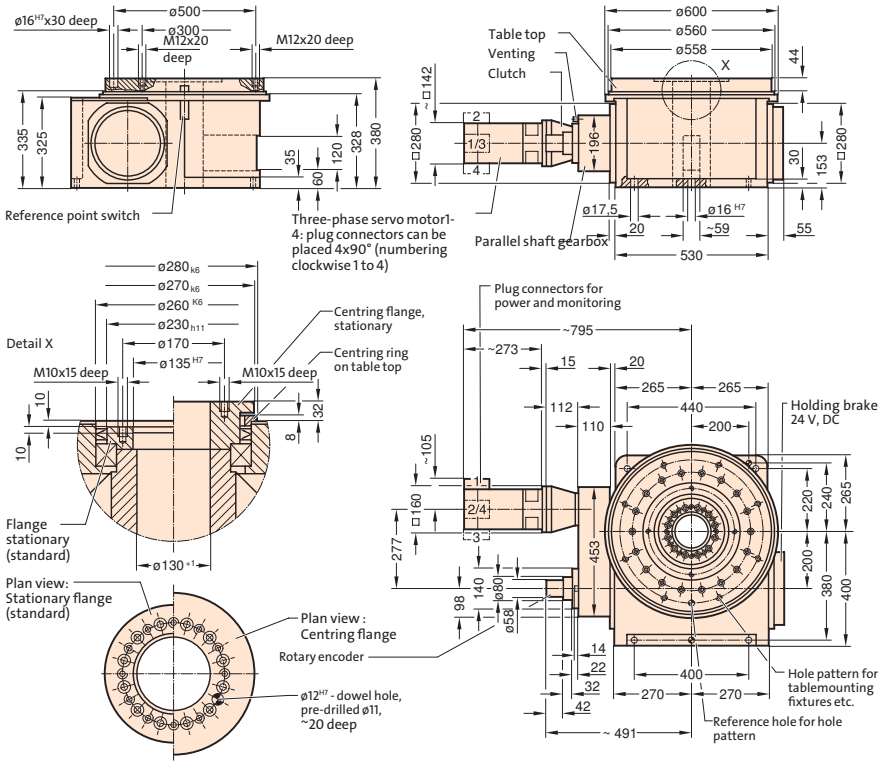
CAD data, technical data and planing documentation can be downloaded from www.fibrotor.de.

FIBROTOR EM.NC.17.0558.7.111.00.0.0.3

FIBROTOR EM.NC.17.0558.7.111.00.0.0.3

Installed dimensions FIBROTOR® EM.NC.17

(Drive arrangement 111, for other drive arrangement, drawings or CAD-datas are available)



Technical data FIBROTOR® EM.NC.17

Encoding EM.NC.17 . ② ③ ④ . ⑤ ⑥ ⑦ ⑧

Table top dimensions	Standard dimensions Strenghtened table top bearing Table top lock Built-in version	Ø 558 mm Ø 480 mm Ø 548 mm Ø 558 mm	.0558 .0480 .0548 .0558	②
Drive motor	Standard brake motor AC servomotor Special version Without motor		.1 .7 .9 .0	③
Drive arrangement	See planning documents under www.fibrotor.de/downloads		.XXX	④
Division	NC - can be positioned arbitrarily		.00	⑤
Additional assemblies	Without additional modules Strenghtened table top bearing Hydraulic table top lock		.0 .1 .2	⑥
	Built-in version Built-in version with mounting ring Vertical version Vertical version with base plate		.1 .2 .3 .4	⑦
	Centring ring Centring flange Centring ring and centring flange		.1 .2 .3	⑧
Indexing accuracy in arc seconds	Indirect measuring system Direct measuring system Measuring system at motor	± 30" ± 10" ± 50"		
Indexing accuracy in arc length (on Ø 558 mm)	Indirect measuring system Direct measuring system Measuring system at motor	± 0,040 mm ± 0,014 mm ± 0,067 mm		
Axial runout of Table top	(relates to Ø 558 mm)	0,02 mm		
Concentricity of the centre hole	(relates to Ø 260 mm)	0,02 mm		
Plane parallelism of table top to base on the housing	(relates to Ø 558 mm)	0,04 mm		
Direction of ratation	CW - CCW rotation			
Reduction ratio worm /roller gearing		i = 12		

Technical data FIBROTOR® EM.NC.17

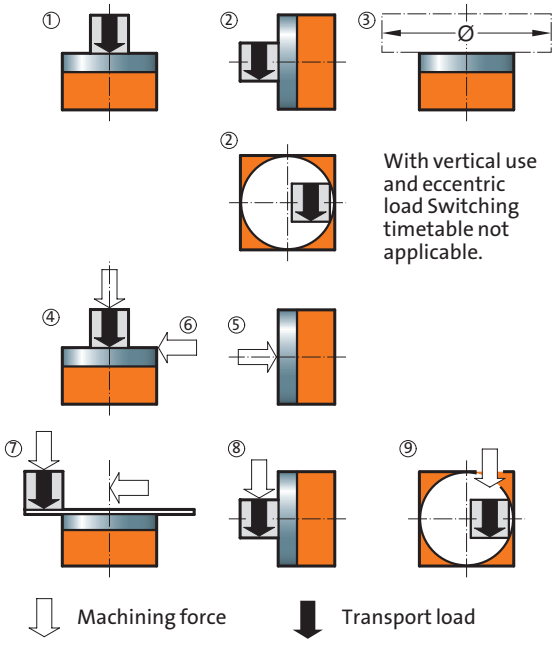
RPM at table top		$n_{max.}$ = 15 1/min
Centre hole	With lateral opening in the housing	Ø 130 mm
Working position	Any, standard: Horizontal table top, (please specify other mounting positions when ordering)	
Weight		approx. 450 kg

Indexing times FIBROTOR® EM.NC.17

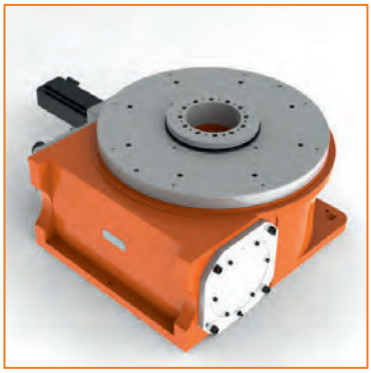
Mass moment of inertia J in kgm²		150	225	300	600	1000	1500
Max. perm. table top speed 1/min		16	14	12	10	9	8
Acceleration time t_a in s		0,3	0,3	0,4	0,4	0,5	0,6
Overall gear ratio reduction i		120,000	120,000	162,000	252,571	315,556	342,804
Motor speed n in 1/min		1920	1680	1944	2526	2840	2742
Motor torque required in Nm		22	22	18	18	14	12
Swivel time t_s in s for	360°	4,15	4,69	5,50	6,50	7,27	8,20
	180°	2,28	2,54	3,00	3,50	3,93	4,45
	90°	1,34	1,47	1,75	2,00	2,27	2,58
	60°	1,03	1,11	1,33	1,50	1,71	1,95
	45°	0,87	0,94	1,13	1,25	1,43	1,64
	30°	0,71	0,76	0,92	1,00	1,16	1,33
	20°	0,61	0,64	0,78	0,83	0,97	1,12
	10°	0,50	0,52	0,64	0,67	0,79	0,91
	5°	0,45	0,46	0,57	0,58	0,69	0,80

Load data FIBROTOR® EM.NC.17

Perm. transport load Horizontal table top Vertical table top Table top, upside down	 kg kg kg	 5500 1000 1000	 ① ②
Perm. add-on diameter	mm	2800	③
Perm. axial loading on the table top Horizontal Vertical	 N N	 70000 12000	 ④ ⑤
Perm. radial loading on table top	N	25000	⑥
Perm. tilting moment on positioned table top Horizontal With strenghtened table top bearing Vertical With strenghtened table top bearing Upside-down	 Nm Nm Nm Nm Nm	 12000 36000 5000 15000 3000	 ⑦ ⑦ ⑧ ⑦
Perm. tilting moment on rotating table top With strenghtened table top bearing Upside-down	Nm Nm Nm	4000 12000 1100	⑦+⑧
Perm. tangential moment on positioned table top, from machining force and in vertical position additionally from eccentric transport load With hydraulic table top lock	 Nm Nm	 700 2500	 ⑨ ⑨



CAD data, technical data and planing documentation can be downloaded from www.fibrotor.de.

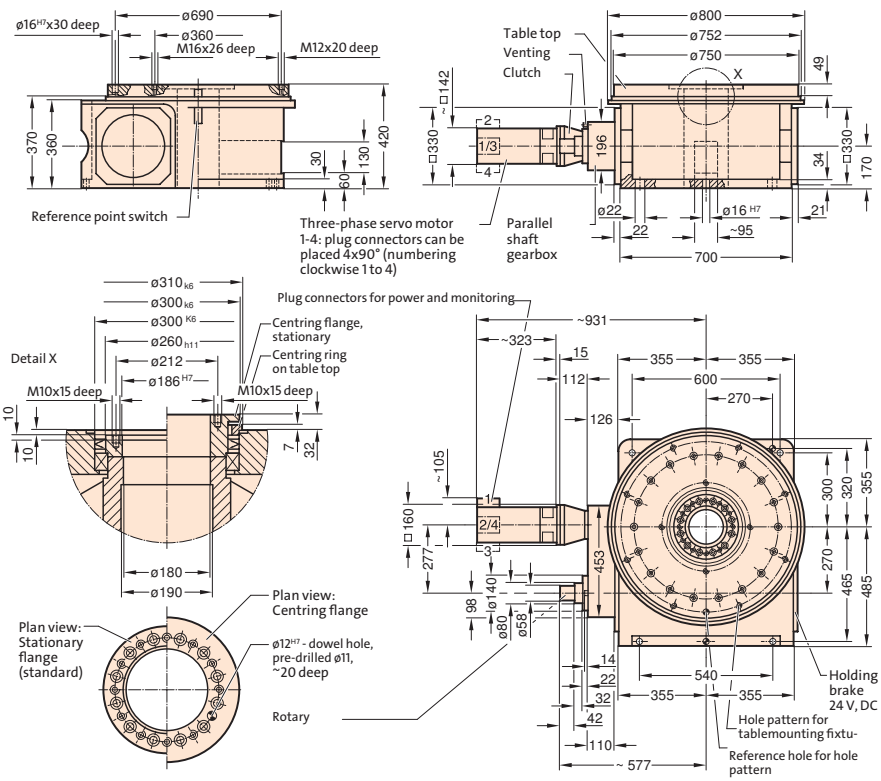


FIBROTOR EM.NC.18.0750.7.111.00.0.0.3

FIBROTOR EM.NC.18.0750.7.111.00.0.0.3

Installed dimensions FIBROTOR® EM.NC.18

(Drive arrangement 111, for other drive arrangement, drawings or CAD-datas are available)



Technical data FIBROTOR® EM.NC.18

Encoding EM.NC.18 . ② ③ ④ . ⑤ ⑥ ⑦ ⑧

Table top dimensions	Standard dimensions Strenghtened table top bearing Table top lock Built-in version	Ø 750 mm Ø 660 mm Ø 735 mm Ø 750 mm	.0750 .0660 .0735 .0750	②
Drive motor	Standard brake motor AC servomotor Special version Without motor		.1 .7 .9 .0	③
Drive arrangement	See planning documents under www.fibrotor.de/downloads		.XXX	④
Division	NC - can be positioned arbitrarily		.00	⑤
Additional assemblies	Without additional modules Strenghtened table top bearing Hydraulic table top lock		.0 .1 .2	⑥
	Built-in version Built-in version with mounting ring Vertical version Vertical version with base plate		.1 .2 .3 .4	⑦
	Centring ring Centring flange Centring ring and centring flange		.1 .2 .3	⑧
Indexing accuracy in arc seconds	Indirect measuring system Direct measuring system Measuring system at motor	± 30" ± 10" ± 40"		
Indexing accuracy in arc length (on Ø 750 mm)	Indirect measuring system Direct measuring system Measuring system at motor	± 0,055 mm ± 0,018 mm ± 0,073 mm		
Axial runout of Table top	(relates to Ø 750 mm)	0,02 mm		
Concentricity of the centre hole	(relates to Ø 300 mm)	0,02 mm		
Plane parallelism of table top to base on the housing	(relates to Ø 750 mm)	0,04 mm		
Direction of ratation	CW - CCW rotation			
Reduction ratio worm /roller gearing		i = 12		

Technical data FIBROTOR® EM.NC.18

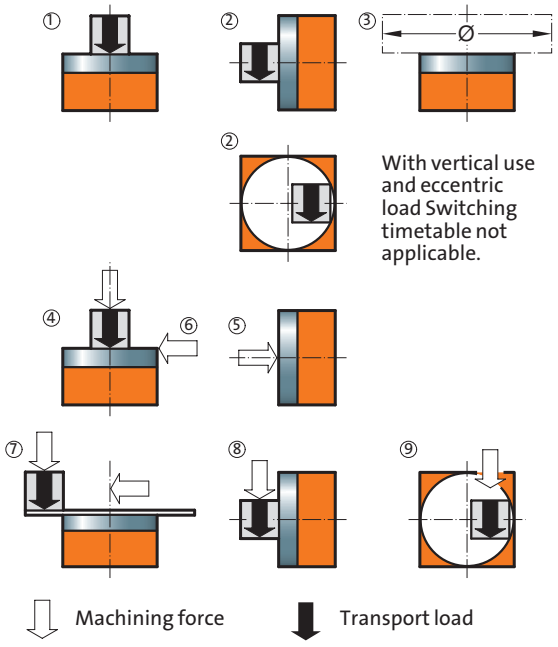
RPM at table top		$n_{max.}$ = 15¹/min
Centre hole	With lateral opening in the housing	Ø 180 mm
Working position	Any, standard: Horizontal table top, (please specify other mounting positions when ordering)	
Weight		approx. 850 kg

Indexing times FIBROTOR® EM.NC.18

Mass moment of inertia J in kgm²		200	300	500	800	1200	2000
Max. perm. table top speed ¹/min		16	14	12	10	9	8
Acceleration time t_a in s		0,3	0,3	0,4	0,4	0,5	0,6
Overall gear ratio reduction i		120,000	120,000	162,000	252,571	315,556	342,804
Motor speed n in ¹/min		1920	1680	1944	2526	2840	2742
Motor torque required in Nm		30	30	25	28	25	22
Swivel time t_s in s for	360°	4,15	4,69	5,50	6,50	7,27	8,20
	180°	2,28	2,54	3,00	3,50	3,93	4,45
	90°	1,34	1,47	1,75	2,00	2,27	2,58
	60°	1,03	1,11	1,33	1,50	1,71	1,95
	45°	0,87	0,94	1,13	1,25	1,43	1,64
	30°	0,71	0,76	0,92	1,00	1,16	1,33
	20°	0,61	0,64	0,78	0,83	0,97	1,12
	10°	0,50	0,52	0,64	0,67	0,79	0,91
	5°	0,45	0,46	0,57	0,58	0,69	0,80

Load data FIBROTOR® EM.NC.18

Perm. transport load Horizontal table top Vertical table top Table top, upside down	 kg kg kg	 6400 1200 1200	 ① ②
Perm. add-on diameter	mm	3500	③
Perm. axial loading on the table top Horizontal Vertical	 N N	 100000 16000	 ④ ⑤
Perm. radial loading on table top	N	36000	⑥
Perm. tilting moment on positioned table top Horizontal With strenghtened table top bearing Vertical With strenghtened table top bearing Upside-down	 Nm Nm Nm Nm Nm	 18000 54000 7000 21000 4000	 ⑦ ⑦ ⑧ ⑦
Perm. tilting moment on rotating table top With strenghtened table top bearing Upside-down	Nm Nm Nm	6000 18000 1250	⑦+⑧
Perm. tangential moment on positioned table top, from machining force and in vertical position additionally from eccentric transport load With hydraulic table top lock	Nm Nm	800 4000	⑨ ⑨



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