



*optional

Overview

Rotary tables

Applications
System & Facts

SPZ, DDF, WMS,
indexing accuracy

MOT, KAB, CNC

Aligning,
GLA, RST

Workpiece
clamping system

Technology
& service

				TF-507510 TIP1c	TF-508510 TIP1cs	TF-510520 TIP2c	TF-511520 TIP2cs	TF-520530 TIP3c
Dimensions	Swivel ø		mm	180		220		280
	Swiveling range		degrees	90° +5°/-25° (optional 180° ±25°)				
	Center height		mm	180		210		220
	Total weight	with motor	kg	50		100		200
	Center bore	Standard / increased	mm	30		34		46 / 64
Bearing / Clamping	Max. clamping torque	4th axis 	Nm	300	250	800	600	2,000
		5th axis 	Nm	800		2,000		5,000
	Max. spindle load	0°–30° 	kg	40		66		135
		30°–90° 	kg	27		44		90
		Standard load ¹⁾	kg	17	12	42	21	90
	Max. axial force	4th axis 	kN	6		10		40
	Max. pull-out torque	4th axis 	Nm	1,200		2,000		3,900
5th axis		Nm	2,000		3,900		10,400	
Gear unit	Max. moment of inertia	Standard load ¹⁾ 	kgm ²	0.05	0.025	0.2	0.07	0.8
		J max	kgm ²	0.5	0.25	2	0.7	8
	Feed torque max ³⁾	4th axis 	Nm	120	70	250	150	440
		5th axis 	Nm	230		440		650 opt. 850
	Gear unit loading 5th axis	without load	Nm	-12		-22		-5
		with standard load	Nm	15	10	30	5	130
		M max	Nm	250		440		650
	Indexing accuracy Pa	4th axis ²⁾ 	± arc sec	20/12		17/10		12/8
		5th axis (90°) ⁴⁾ 	± arc sec	35/20	35/22	21/22	21/13	11/38
	Repeat accuracy Ps average	4th axis 	± arc sec	2				
5th axis 		± arc sec	2					
Max speed at standard load	4th axis ¹⁾ 	rpm	111	210	80	160	50	
	5th axis ¹⁾ 	rpm	70		40		25	
Precision	Radial run-out ²⁾	on spindle ø	µm	6 / 3				
	Axial run-out ²⁾	at spindle end face	µm	6 / 3				
	Parallelism ²⁾	Spindle to base	µm/100mm	10 / 5				

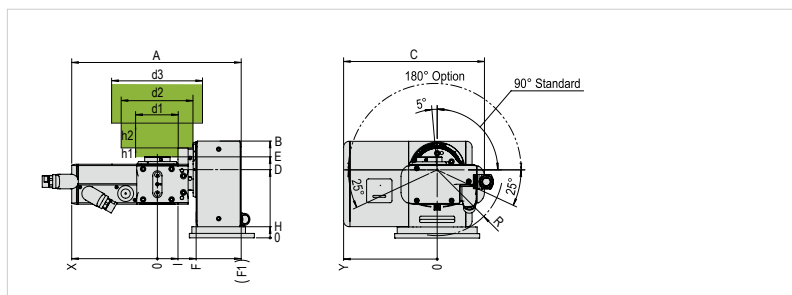
¹⁾ Mutually dependent; for individual drive motor data, see right side

²⁾ Standard / increased; for measuring method and validity of the values, please refer to **p. 50**; for optional angular position measuring system please refer to **p. 51**

³⁾ Limit value for gear unit, at 1 rpm

⁴⁾ Without load / with standard load 0°-90°

Dimensions



	A	A*	B	C	D	E	F	F1	H	I	R	X	Y	Y*	d1	d2	d3	h1	h2
TIP1c	484		245	248	180	226	104	230	30	55	147	236	248	270	186	186	350	55	55
TIP2c	534		310	444	220	260	122	264	40	65	173	248	295	320	128	220	226	34	69
TIP3c	630	655	360	554	220	260	154	335	40	90	168	295	390		180	286	326	6	80

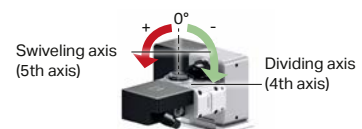
Dimensions with 508 or 511 identical to 507510 and 510520.

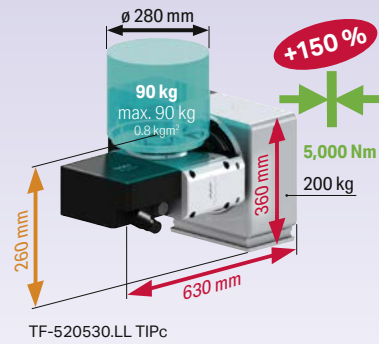
*With large motor (option)

Important information

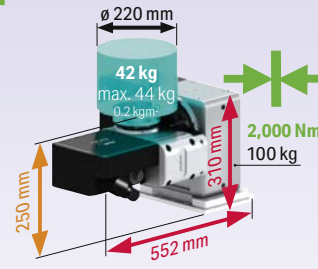
Center height increase (option)

Depending on the accessories involved (clamping cylinder, rotary union, angular position measuring system...), a center height increase (dimension D) is required. (See page for respective accessory)

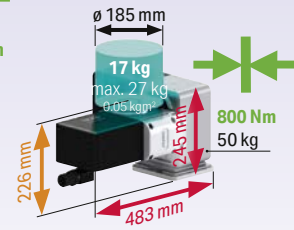




TF-520530.LL TIPc



TF-510520.LL TIPc



TF-507510.LL TIPc

Drive data

(based on standard load cube shown on pp. 102/103)

		Motors 4th/5th	Feed* [Nm]		Speed [rpm]		Cycle time*** [sec]			
			4.	5.	4.	5.	4.	5.	4.	5.
MAVILOR / MOVINOR**	TF-507510 TIP1c	BLS-072/BLS-072	120	230	111	70	0.26	0.43	0.39	0.64
	TF-508510 TIP1c	BLS-072/BLS-072	70	230	210	70	0.23	0.43	0.29	0.64
	TF-510520 TIP2c	BLS-072/BLS-073	250	425	80	45	0.30	0.50	0.49	0.83
	TF-510520 TIP2c	BLS-072/LN-098	250	440	80	40	0.30	0.50	0.49	0.87
	TF-511520 TIP2c	BLS-072/BLS-073	150	425	160	45	0.23	0.50	0.31	0.83
	TF-511520 TIP2c	BLS-072/LN-098	150	440	160	40	0.23	0.50	0.31	0.87
FANUC	TF-520530 TIP3c	BLS-073/LN-098	440	650	50	25	0.41	0.89	0.71	1.49
	TF-507510 TIP1c	β1 is/α2 (HV)is	80	110	66.7	45	0.30	0.49	0.53	0.83
	TF-508510 TIP1c	β1 is/α2 (HV)is	55	110	130	45	0.25	0.49	0.36	0.83
	TF-510520 TIP2c	α2 (HV)is/α4 (HV)is	120	195	55	29	0.36	0.66	0.63	1.18
	TF-510520 TIP2c	α2 (HV)is/α4 (HV)is	120	335	55	30	0.36	0.64	0.63	1.14
	TF-511520 TIP2c	α2 (HV)is/α2 (HV)is	85	195	100	29	0.24	0.66	0.39	1.18
YASKAWA SGM7J	TF-511520 TIP2c	α2 (HV)is/α4 (HV)is	85	335	100	30	0.24	0.64	0.39	1.14
	TF-520530 TIP3c	α2 (HV)is/α4 (HV)is	210	395	33	20	0.54	0.94	0.99	1.69
	TF-520530 TIP3c	α4 (HV)is/α8 (HV)is****	355	650	33	25	0.56	0.89	1.01	1.49
	TF-507510 TIP1c	SGM7J 06/08	120	180	66	60	0.30	0.44	0.53	0.69
	TF-508510 TIP1c	SGM7J 06/08	70	180	133	60	0.22	0.44	0.33	0.69
	TF-510520 TIP2c	SGM7J 08/08	195	315	66.6	38	0.32	0.54	0.55	0.94
YASKAWA SGMJV	TF-511520 TIP2c	SGM7J 08/08	135	315	133	38	0.22	0.54	0.33	0.94
	TF-520530 TIP3c	on request								
	TF-507510 TIP1c	SGMJV 04/08	115	180	66.7	60	0.30	0.44	0.53	0.69
	TF-508510 TIP1c	SGMJV 04/08	70	180	130	60	0.22	0.44	0.33	0.69
	TF-510520 TIP2c	SGMJV 08/08	195	315	66.7	38	0.32	0.54	0.55	0.94
	TF-511520 TIP2c	SGMJV 08/08	140	315	133	38	0.21	0.54	0.32	0.94
MITSUBISHI 200V	TF-520530 TIP3c	SGMJV/EV 08/15	335	650	40	25	0.46	0.89	0.84	1.49
	TF-507510 TIP1c	HG56/75	120	170	60	45	0.32	0.49	0.57	0.83
	TF-508510 TIP1c	HG56/75	70	170	110	45	0.22	0.49	0.36	0.83
	TF-510520 TIP2c	HG75/105	185	430	50	30	0.37	0.59	0.67	1.09
	TF-511520 TIP2c	HG75/105	130	430	100	30	0.24	0.59	0.39	1.09
	TF-520530 TIP3c	HG105/104	440	650	32	20	0.54	0.94	1.01	1.69
MITSUB. 400 V	TF-510520 TIP2c	HG-H75/H105	185	430	50	30	0.37	0.59	0.67	1.09
	TF-511520 TIP2c	HG-H75/H105	130	430	100	30	0.24	0.59	0.39	1.09
	TF-520530 TIP3c	HG-H105/H104	440	650	32	20	0.54	0.94	1.01	1.69
	TF-507510 TIP1c	R2Ax 06040/08075	120	185	66.7	60	0.30	0.44	0.52	0.69
	TF-508510 TIP1c	R2Ax 06040/08075	70	185	130	60	0.22	0.44	0.33	0.69
	TF-510520 TIP2c	R2Ax 08075/08075	210	245	66.7	40	0.32	0.54	0.55	0.92
SANYO	TF-511520 TIP2c	R2Ax 08075/08075	145	245	130	40	0.22	0.54	0.34	0.92
	TF-520530 TIP3c	BL-ME24J-50SN/ BL-ME80J-40SN	300	650	27.5	25	0.61	0.89	1.15	1.49
OKU- MA	TF-520530 TIP3c	1FK7042/ 1FK7062	435	650	50	25	0.44	0.89	0.74	1.49
	TF-520530 TIP3c	1FK7042/ 1FK7062	435	650	50	25	0.44	0.89	0.74	1.49
	TF-520530 TIP3c	1FK7042/ 1FK7062	435	650	50	25	0.44	0.89	0.74	1.49
	TF-520530 TIP3c	1FK7042/ 1FK7062	435	650	50	25	0.44	0.89	0.74	1.49
	TF-520530 TIP3c	1FK7042/ 1FK7062	435	650	50	25	0.44	0.89	0.74	1.49
	TF-520530 TIP3c	1FK7042/ 1FK7062	435	650	50	25	0.44	0.89	0.74	1.49

* At 1 rpm; for more, please refer to p. 108

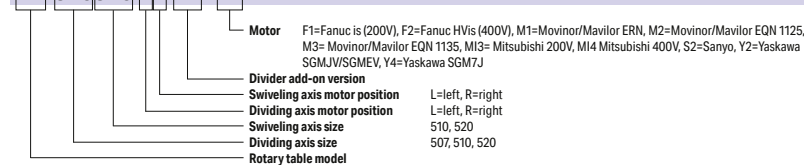
*** Without clamping; for times, please refer to p. 118

** for Siemens / Heidenhain

**** not with 35iB

Item no.

TF-510520.LL TIP-F1



For calculation of load, forces and torques, please see p. 104

Important information

- The limit values as set out in the corresponding parameter list take precedence over the data and information provided in the main catalog (due to motor, drive enhancement and the respective machine CNC)
- Motor-dependent data are optimum values at operating temperature
- Further details are available at www.lehmann-rotary-tables.com, under Download / Commissioning



Labyrinth seal
(cutaway view)

Recommended for:
+ grinding operations
+ high coolant pressures
+ extremely fine abrasive particles

Accessories

Motor, cable, angular position measuring system and pL CNC starting at p. 52.
Accessories starting at p. 44

Options

Item no.	Description
GET.5xx-GEN	Increased gear precision ¹⁾
GEO.5xx-GEN	Incr. geometric precision, 1/2 standard tolerance
SPI.5xx-Lab ²⁾	Spindle seal with labyrinth, integrated sealing air pressure control
MOT.520-LNG	long motor housing
SWB.510-180	Tilting range max. 230°; set to 180°
SWB.520-180	
SWB.530-180	

- 1) incl. reduced radial and axial run-out 0.003 mm
2) for 507/510: HSK and ripas clamping not possible manually, GET.5xx-GEN and GEO.5xx-GEN only partly possible (increased radial and axial run-out cannot always be reached)

Suitable alignment elements

Item no.	Designation	Slot width
AUR.St-12		12g6
AUR.St-14	Alignment T-slot nuts, 1 pair	14g6
AUR.St-16		16g6
AUR.St-18		18g6