



*optional

			TF-507510 TIP1c	TF-508510 TIP1cs	TF-510520 TIP2c	TF-511520 TIP2cs	TF-520530 TIP3c	TF-521530 TIP3cs
Dimensions	Swivel ø	mm	180		220		195	
	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	4 th axis 5 th axis Nm	300	250	800	600	2000	
	Max. spindle load	0°-30° kg	40		66		135	
		30°-90° kg	27		44		90	
		Standard load ¹⁾ kg	17	12	42	21	90	61
	Max. axial force	4 th axis kN	6		10		40	
Max. pull-out torque	4 th axis Nm	1200		2000		3900		
	5 th axis Nm	2000		3900		10400		
Gear unit	Max. moment of inertia	Standard load ¹⁾ kgm ²	0.05	0.025	0.2	0.07	0.8	0.4
		J max kgm ²	0.5	0.25	2	0.7	8	4
	Feed torque max ³⁾	4 th axis Nm	120	70	250	150	440	220
		5 th axis Nm	230		440		650	
	Limited torques due to eccentric loads (acting on the tilting axis) ⁵⁾	Nm	40		110		280	
Swivel	Gear unit loading 5 th axis	without load Nm	-12		-22		-44	
		with standard load Nm	15	10	30	5	100	45
	Indexing accuracy Pa	M max Nm	250		440		650	
		4 th axis ²⁾ ± arc sec	20/15		17/10		12/8	
		5 th axis (90°) ⁴⁾ ± arc sec	35/20	35/22	21/22	21/13	11/38	11/20
Repeat accuracy Ps average	4 th axis ± arc sec			2				
	5 th axis ± arc sec			2				
Max speed at standard load	4 th axis ¹⁾ min ⁻¹	111	210	80	160	50	100	
	5 th axis ¹⁾ min ⁻¹	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/100 mm			10 / 5			

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

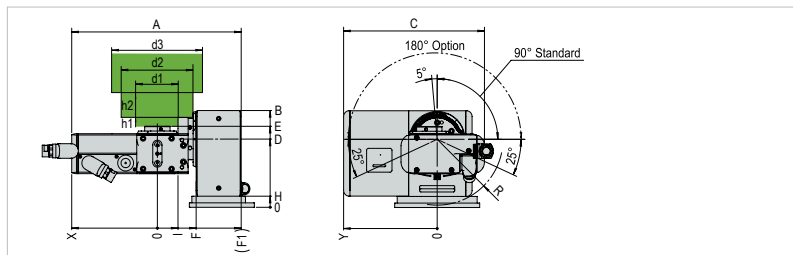
²⁾ Standard / increased; for measuring method and validity of the values, please refer to **p. 60**, for optional angular position measuring systems, please refer to **p. 61**

³⁾ Limit value for gear unit, at 1 rpm

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

⁵⁾ For torque calculation, see **p. 94**

Dimensions



	A	A*	B	C	C*	D	E	F	F1	H	I	R	X	Y	Y*	d1	d2	d3	h1	h2
TIP1c	466		245	382	404	180	226	104	230	30	55	147	236	248	270	186	350		55	
TIP2c	512	534	310	444	469	220	260	122	264	40	65	173	248	295	320	128	220	226	30	95
TIP3c	630	655	360	554		220	260	155	335	40	90	195	295	390		178	282	326	66	166

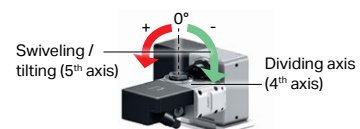
Dimensions with 508, 511 or 521 identical to 507510, 510520 and 520530.

*With large motor (option)

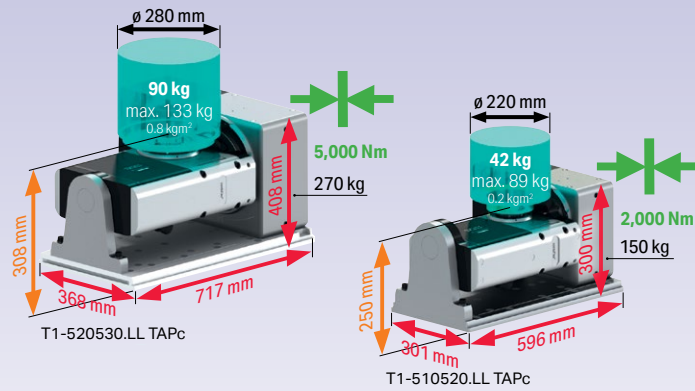
Important information

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)



T1-Type Rotary Tables TAP (unclamped supporting bearing)



*optional

			T1-507510 TAP1(c)	T1-508510 TAP1(c)s	T1-510520 TAP2(c)	T1-511520 TAP2(c)s	T1-520530 TAP3(c)	T1-521530 TAP3(c)s
Dimensions	Swivel ø	mm	180		220		195	
	Swiveling range	degrees	90° +5°/-25° (optional 180° ±25°)					
	Center height	mm	180		210 (235 ³⁾)		268 / 308	
	Total weight	with motor kg	90 (85)		160 (150)		300 (270)	
Center bore	Standard / increased	mm	30		34		46 / 64	
Bearing / Clamping	Max. clamping torque	4 th axis	300	250	800	600	2000	
		5 th axis	800		2000		5000	
	Max. spindle load	0°-30°	79		133		200	
		30°-90°	53		89		133	
		Standard load ¹⁾	17	12	42	21	90	61
	Max. axial force	4 th axis	6		10		40	
Max. pull-out torque	4 th axis	1200		2000		3900		
	5 th axis	2000		3900		10400		
Gear unit	Max. moment of inertia	Standard load ¹⁾	0.05	0.025	0.2	0.07	0.8	0.4
		J max	0.5	0.25	2	0.7	8	4
	Feed torque max ****	4 th axis	120	70	250	150	440	220
		5 th axis	250		440		650	
Limited torques due to eccentric loads ⁶⁾		Nm	40		110		280	
Precision	Gear unit loading 5 th Axis	without load	-12		-22		-44	
		with standard load	15	10	30	5	100	45
	Indexing accuracy Pa	M max	250		440		650	
		4 th axis ²⁾	± arc sec		20/15		17/10	
	Repeat accuracy Ps average	5 th axis (90°) ⁵⁾	35/20	35/22	21/22	21/13	11/38	11/20
4 th axis		± arc sec						2
5 th axis		± arc sec						2
Max speed at standard load	4 th axis ¹⁾	111	210	80	160	50	100	
	5 th axis ¹⁾	60		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/100 mm		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. 60, for optional angular position measuring systems, please refer to p. 61

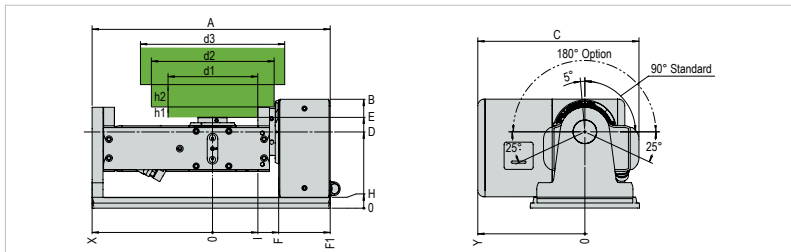
³⁾ In relation to dividing axis when in the horizontal position

⁴⁾ Limit value for gear unit, at 1 rpm

⁵⁾ Without load / with standard load 0°-90°

⁶⁾ For torque calculation, see p. 94

Dimensions



	A	B	C	C*	D	E	F	F1	H	I	R	X	Y	Y*	d1	d2	d3	h1	h2
TAP1	567	245	382	404	180	226	151	277	30	102	149	290	248	270	280	350		55	
TAP1c	520	245	382	404	180	226	104	230	30	55	149	290	248	270	186	350		55	
TAP2	656	300	444	469	210	250	182	324	30	125	173	332	295	320	248	340	400	30	95
TAP2c	596	300	444	469	210	250	122	264	30	65	173	332	295	320	128	220	400	30	95
TAP3	804	408	554		268	308	242	422	38	177	195	382	390		352	456	500	66	166
TAP3c	717	408	554		268	308	155	335	38	90	195	382	390		178	182	500	66	166

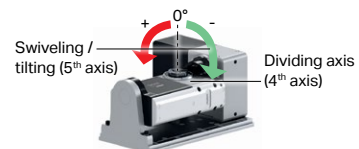
Dimensions with 508, 511 or 521 identical to 507510, 510520 and 520530.

*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)



T1-Type Rotary Tables TOP (clamped counter bearing)



*optional

			T1-507510 TOP1	T1-508510 TOP1s	T1-510520 TOP2	T1-511520 TOP2s	T1-520530 TOP3	T1-521530 TOP3s
Dimensions	Swivel ø	mm	180		220		195	
	Swiveling range	degrees	90° +5°/-25° (optional 180° ±25°)					
	Center height	mm	180		210 (235 ³⁾)		268 / 308	
	Total weight	with motor kg	95		175		325	
	Center bore	Standard / increased mm	30		34		46 / 64	
Bearing / Clamping	Max. clamping torque	4 th axis	300	250	800	600	2000	
		5 th axis	1,100		4000		7000	
	Max. spindle load	0°-30°	79		133		200	
		30°-90°	53		89		133	
		Standard load ¹⁾	17	12	42	21	90	61
	Max. axial force	4 th axis	6		10		40	
Max. pull-out torque	4 th axis	1200		2000		3900		
	5 th axis	2000		3900		10400		
Gear unit	Max. moment of inertia	Standard load ¹⁾	0.05	0.025	0.2	0.07	0.8	0.4
		J max	0.5	0.25	2	0.7	8	4
	Feed torque max ⁴⁾	4 th axis	120	70	250	150	440	220
		5 th axis	250		440		650	
	Limited torques due to eccentric loads ⁶⁾		40		110		280	
	Gear unit loading 5 th axis	without load	-12		-22		-44	
with standard load		15	10	30	5	100	45	
Indexing accuracy Pa	M max	250		440		650		
	4 th axis ²⁾	20/15		17/10		12/8		
Repeat accuracy Ps average	5 th axis (90°) ⁵⁾	± arc sec	35/20	35/22	21/22	21/13	11/38	11/20
	4 th axis	± arc sec	2					
Max speed at standard load	5 th axis	± arc sec	2					
	4 th axis ¹⁾	min ⁻¹	111	210	80	160	50	100
Precision	5 th axis ¹⁾	min ⁻¹	60		40		25	
	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/100 mm		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. 60, for optional angular position measuring systems, please refer to p. 61

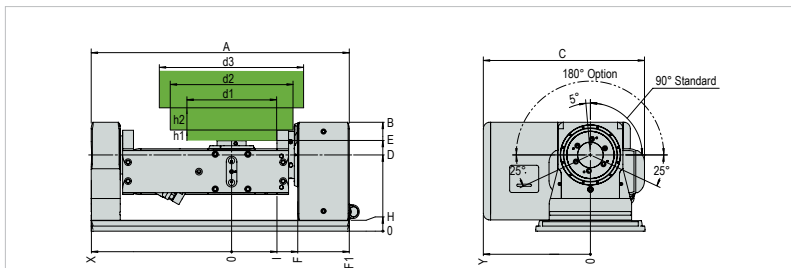
³⁾ In relation to dividing axis when in the horizontal position

⁴⁾ Limit value for gear unit, at 1 rpm

⁵⁾ Without load / with standard load 0°-90°

⁶⁾ For torque calculation, see p. 94

Dimensions



	A	B	C	C*	D	E	F	F1	H	I	R	X	Y	Y*	d1	d2	d3	h1	h2
TOP1	606	245	382	404	180	226	151	277	30	102	149	328	248	270	280	350	55		
TOP2	711	300	444	469	210	250	182	324	30	125	173	387	295	320	248	340	400	30	95
TOP3	859	408	554		268	308	242	422	38	177	195	437	390		352	456	500	66	166

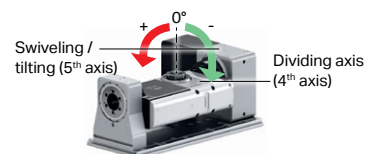
Dimensions with 508, 511 or 521 identical to 507510, 510520 and 520530.

*With large motor (option)

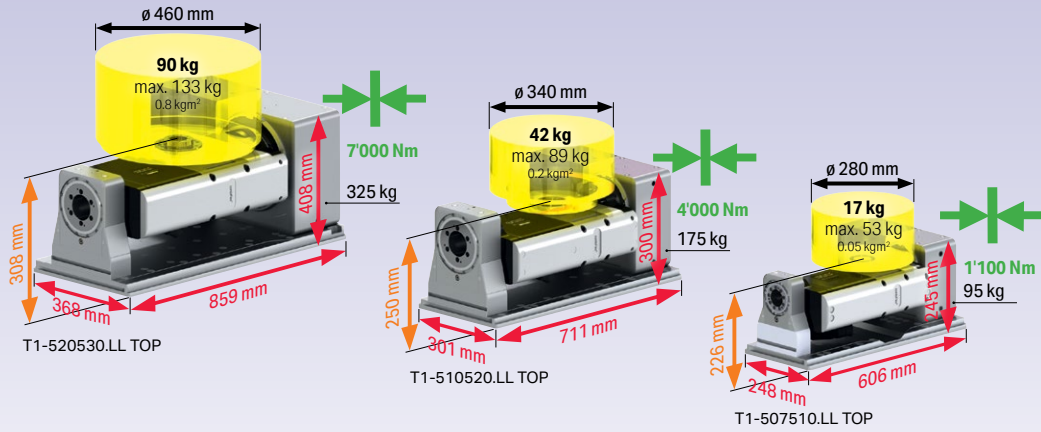
Important information

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)



T1-Type Rotary Tables TOP (clamped counter bearing)



Drive data

(based on standard load cube shown on pp. 92/93)

	Motors 4 th /5 th	Feed* [Nm]		Speed [rpm]		Cycle time*** [sec]		
		4 th	5 th	4 th	5 th	4 th	5 th	5 th
MAVLOR/ MOVINOR**	T1-507510 TOP1	BLS-072/BLS-072	120 230	111 70	0.26 0.43	0.39 0.64		
	T1-508510 TOP1	BLS-072/BLS-072	70 230	210 70	0.23 0.43	0.29 0.64		
	T1-510520 TOP2	BLS-072/BLS-073	250 425	80 45	0.30 0.50	0.49 0.83		
	T1-510520 TOP2	BLS-072/LN-098	250 440	80 40	0.30 0.50	0.49 0.87		
	T1-511520 TOP2	BLS-072/BLS-073	150 425	160 45	0.23 0.50	0.31 0.83		
	T1-511520 TOP2	BLS-072/LN-098	150 440	160 40	0.23 0.50	0.31 0.87		
	T1-520530 TOP3	BLS-073/LN-098	440 650	50 25	0.41 0.89	0.71 1.49		
FANUC	T1-521530 TOP3	LN-098/LN-098	220 650	90 25	0.27 0.74	0.43 1.34		
	T1-507510 TOP1	β1 is/α2 (HV)is	80 110	66.7 45	0.30 0.49	0.53 0.83		
	T1-508510 TOP1	β1 is/α2 (HV)is	55 110	130 45	0.25 0.49	0.36 0.83		
	T1-510520 TOP2	α2 (HV)is/α2 (HV)is	120 195	55 29	0.36 0.66	0.63 1.18		
	T1-510520 TOP2	α2 (HV)is/α4 (HV)is	120 335	55 30	0.36 0.64	0.63 1.14		
	T1-511520 TOP2	α2 (HV)is/α2 (HV)is	85 195	100 29	0.24 0.66	0.39 1.18		
	T1-511520 TOP2	α2 (HV)is/α4 (HV)is	85 335	100 30	0.24 0.64	0.39 1.14		
YASKAWA SGM7J	T1-520530 TOP3	α2 (HV)is/α4 (HV)is	210 395	33 20	0.54 0.94	0.99 1.69		
	T1-520530 TOP3	α4 (HV)is/α8 (HV)is****	355 650	33 25	0.56 0.89	1.01 1.49		
	T1-521530 TOP3	α4 (HV)is/ α4 (HV)is	220 355	60 22	0.37 0.84	0.62 1.52		
	T1-507510 TOP1	SGM7J 06/08	120 180	66 60	0.30 0.44	0.53 0.69		
	T1-508510 TOP1	SGM7J 06/08	70 180	133 60	0.22 0.44	0.33 0.69		
	T1-510520 TOP2	SGM7J 08/08	195 315	66.6 38	0.32 0.54	0.55 0.94		
	T1-520530 TOP3	SGM7J 08/08	135 315	133 38	0.22 0.54	0.33 0.94		
YASKAWA SGMJV	T1-521530 TOP3			on request				
	T1-507510 TOP1	SGMJV 04/08	115 180	66.7 60	0.30 0.44	0.53 0.69		
	T1-508510 TOP1	SGMJV 04/08	70 180	130 60	0.22 0.44	0.33 0.69		
	T1-510520 TOP2	SGMJV 08/08	195 315	66.7 38	0.32 0.54	0.55 0.94		
	T1-511520 TOP2	SGMJV 08/08	140 315	133 38	0.21 0.54	0.32 0.94		
	T1-520530 TOP3	SGMJV/08/15	335 650	40 25	0.46 0.89	0.84 1.49		
	T1-521530 TOP3	SGMJV/08/15	220 650	80 25	0.28 0.34	0.46 1.34		
MITSUBISHI	T1-507510 TOP1	HG56/75	120 170	60 45	0.32 0.49	0.57 0.83		
	T1-508510 TOP1	HG56/75	70 170	110 45	0.22 0.49	0.36 0.83		
	T1-510520 TOP2	HG-(H)75/(H)105	185 430	50 30	0.37 0.59	0.67 1.09		
	T1-511520 TOP2	HG-(H)75/(H) 105	130 430	100 30	0.24 0.59	0.39 1.09		
	T1-520530 TOP3	HG-(H)105/(H) 104	440 650	32 20	0.54 0.94	1.01 1.69		
	T1-521530 TOP3	HG-(H) 105/(H) 104	220 650	60 22	0.34 0.82	0.59 1.50		
	SANYO	T1-507510 TOP1	R2Ax 06040/08075	120 185	66.7 60	0.30 0.44	0.52 0.69	
T1-508510 TOP1		R2Ax 06040/08075	70 185	130 60	0.22 0.44	0.33 0.69		
T1-510520 TOP2		R2Ax 08075/08075	210 245	66.7 40	0.32 0.54	0.55 0.92		
T1-511520 TOP2		R2Ax 08075/08075	145 245	130 40	0.22 0.54	0.34 0.92		
OKU- MA	T1-520530 TOP3	BL-ME24J-50SN/ BL-ME80J-40SN	300 650	27.5 25	0.61 0.89	1.15 1.49		
	T1-521530 TOP3	BL-ME80J-40SN	220 650	55 25	0.34 0.74	0.61 1.34		
SIEMENS	T1-510520 TOP2	1FK2204/1FK2205	150 425	65 30	0.33 0.59	0.56 1.09		
	T1-511520 TOP2	1FK2204/1FK2205	105 425	130 30	0.22 0.59	0.33 1.09		
	T1-520530 TOP3	1FK2205/1FK2206	425 650	33 25	0.53 0.74	0.98 1.34		
	T1-520530 TOP3	1FK7042/1FK7062	435 650	50 25	0.44 0.89	0.74 1.49		
	T1-521530 TOP3	1FK2205/1FK2206	220 650	65 25	0.30 0.74	0.53 1.34		
	T1-521530 TOP3	1FK7042/1FK7062	220 650	90 25	0.27 0.74	0.43 1.34		

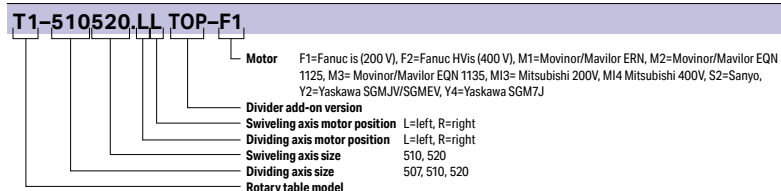
* At 1 rpm; for more, please refer to **p. 98**

** for Siemens / Heidenhain

*** Without clamping; for times, please refer to **p. 110**

**** not with 35iB

Item no.



For calculation of load, forces and torques, please see **p. 94**

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-independent 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. 62**. Accessories starting at **p. 54**

Options

Item no.	Description
GET.5xx-GEN	Increased gear precision ¹⁾
GEO.5xx-GEN	Incr. geometric precision, ½ standard tolerance
SPL.5xx-Lab ²⁾	Spindle seal with labyrinth, integrated sealing air pressure control
SWB.510-180	Tilting range increase from 90° to 180° (with overshoot to max. 230°)

¹⁾ incl. lower radial and axial run-out of 0.003 mm

²⁾ for 507/510: HSK and ripas clamping not possible manually, GET.5xx-GEN and GEO.5xx-GEN only partly possible (lower radial and axial run-out cannot always be achieved)

Suitable alignment elements

Item no.	Designation	Slot width	Weight [kg]
AUR.iX-12	lineFIX alignment pin, 1 pair	12g6	
AUR.iX-14		14g6	0.03
AUR.iX-16		16g6	0.03
AUR.iX-18		18g6	0.03

For **lineFIX**, refer to **p. 74**