Selection Guide for CNC Rotary Tables ... (((*)))







10/2018 | EN

... for Robodrill-serie



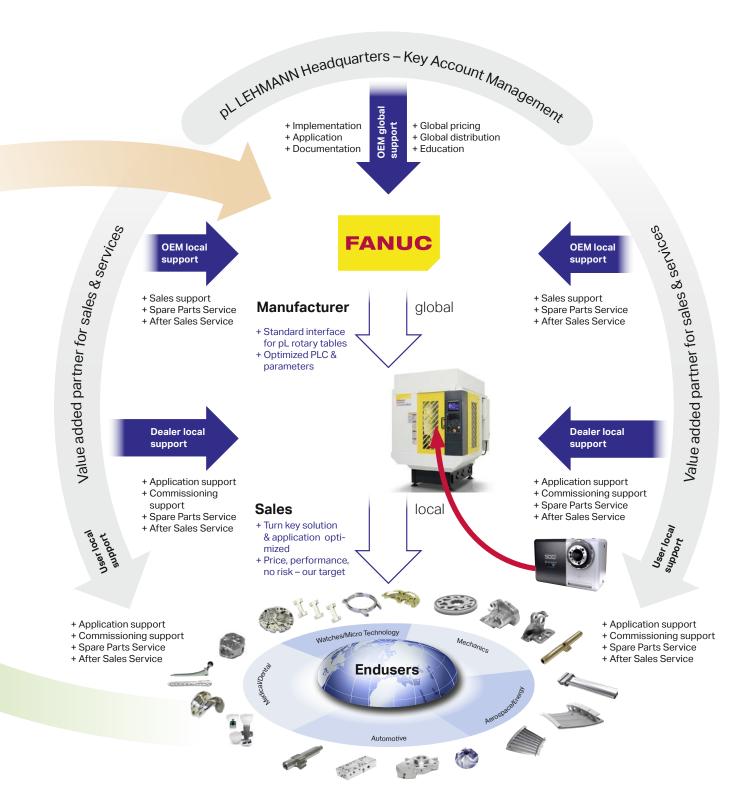
CNC rotary tables for economical manufacturing: pL LEHMANN has suitable and rational solutions for nearly every industry



pL rotary tables in use: on over **40** different machine brands and over **160** different machine models.

pL competence: Integration in **all known** CNC control systems (Fanuc, Siemens, Heidenhain, Haas, Winmax, Mitsubishi, Brother, Mazatrol, Okuma ...), for new machines as well as for retrofits

Professional products from professional partners: FANUC and pL LEHMANN provide first-class service to common customers





Up to 210 rpm up to 0.21 sec / 90°

High speed

Extended travel in Z- and X-direction

More space

High spindle load, heavy-duty bearing

Heavy duty

E-Series



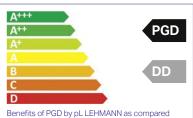








Save energy



to Direct Drive: small servo, low power draw, no cooling system, and a significantly reduced energy consumption when machining with unclamped

Energy label at the left

An intuitive rating as consumption greatly depends on usage, and without any liability assumed, following the directives on energy labelling

See main catalog for more features



Feed torque up to 850 Nm (provisional)

Adaptability

Multifunctional spindle HSK

Precision

On the workpiece, as precise as 2 µm / 100 mm





Pneum. clamping up to 7,000 Nm

High clamp

Large parts up to ø 500

Big size

PGD backlash-free long-life gear unit

No backlash



T-Series







All base plates made of steel



with integrated hole pattern for slot spacing of 100 and 125 mm, integrated alignment system lineFIX for lengthwise or crosswise clamping.

M-Series







Connectivity

Wireless monitoring, for operation & service

No adjust

Load change without parameter adjustment

Less cost

No cooling system, no hydraulics





D21LiB5



D21MiB5



A word from FANUC:

«Some call it a job; we call it a passion!

FANUC is the only company in its sector which develops and manufactures every single major component, both hardware and software, inhouse. The benefit for you: superior functional reliability – and highest productivity guaranteed.»

Passionate about innovation

«We don't just innovate for the sake of innovation.»

«Sure, it feels good to sell products which I can believe in 100 %.»

«We identify solutions. The simpler, the better.»

«What's different about FANUC? We always have our sleeves rolled up.»

The right machine/rotary table combination for economical production: this Selection Guide helps you make the right selection

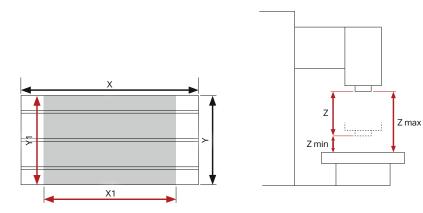


	Table diam	neter [mm]	Permissible		Tra	verse stroke [m	nm]		Table load **
	X	Υ	overhang *	X1	Y1	z	Zmin	Zmax	max [kg]
D21LiB5	850	410	50%	700	400	330	250	580	300
D21MiB5	650	400	50%	500	400	330	250	580	300
D21MiB5 ADV	650	400	50%	500	400	400	250	650	300
D21SiB5	630	330	50%	300	300	330	250	580	300
									oncion V or V by

^{*} The recommended rotary tables can overhang the machine table by so many % (e.g. 10 % means: the rotary table length can be greater than dimension Y or X by max. 10 % of the machine width Y with Y-clamping or 10 % of the table length X with X-clamping.)

Table explanation for pp. 8-11

	EA-507	EA-510	EA-520	EA-530
	X2	X2	X2	X2
D21LiB5	608	592	566	

Wherever values are listed, the combination is recommended. Empty cells mean that a combination is not possible, because the rotary table is too large, or is not recommended, because the rotary table is disproportionately small or heavier than 50% of the table load.

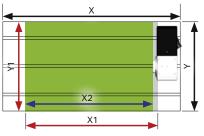


^{10 %} of the machine width Y with Y-clamping or 10 % of the table length X with X-clamping.)
** The recommended rotary tables do not exceed 50 % of the allowed table load.

For further details about the rotary tables, see p. 12 and higher or refer to the main catalog



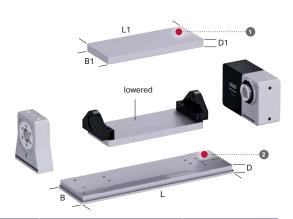
	EA-507	EA-510	EA-520	EA-530
	X2	X2	X2	X2
D21LiB5	608	592	566	
D21MiB5	408	392	366	
D21MiB5 ADV	408	392	366	
D21SiB5	298	282	256	



Rotary table installation with pL clamping claws in accordance with the operating manual

Clamping yokes for EA-type rotary tables





			EA-507		EA-	EA-510		EA-520			EA-530	
	Sph	[mm]	190		180		210			218		
Clamping	Length L1	[mm]	350	450	500	600	600	700	800	800	1000	
yokes	Width B1	[mm]	165		215		270			270		
	Thickness D1	[mm]	20		35		40			40		
2 Base	Length L	[mm]	622	722	785	885	916	1016	1116	1172	1372	
plates	Width B	[mm]	168		248		301			368		
	Thickness D	[mm]	3	0	30		30			38		
Weights /	Weight (AI)	[kg]	10	12	23	28	40	45	52			
moments of	Weight (steel)	[kg]	29	34	66	80	117	130	152			
inertia (without rotary table, without	Mom. inert. (AI)	[kgm ²]	0.02	0.02	0.06	0.07	0.16	0.17	0.21	on red	quest	
counter bearing)	Mom. inert. (steel)	[kgm ²]	0.04	0.05	0.17	0.21	0.46	0.50	0.60			

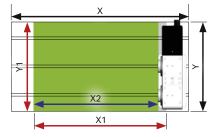
Explanations for pp. 8 to 11

The recommendations are for information purposes only. We recommend that you verify the effective dimensions prior to ordering. Modifications on the machine can lead to collisions and affect the dimensions X2 and Y2.



	M2-507	M2-510	M3-507	M3-510
		X	2	
D21LiB5	549	539	549	
D21MiB5	349	339	349	
D21MiB5 ADV	349	339	349	
D21SiB5	239			

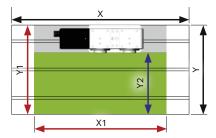
Y-mounting



Rotary table installation with pL clamping claws in accordance with the operating manual

	M2-507	M2-510	M3-507	M3-510
		Y	2	
D21LiB5				169
D21MiB5				164
D21MiB5 ADV				164
D21SiB5		79	89	79

X-mounting



Rotary table installation with pL clamping claws in accordance with the operating manual $\,$

Machine combinations with T-type rotary tables

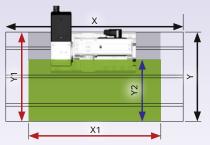
Y-mounting

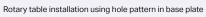


	TIP1c TF-507510	TIP2c TF-510520	TIP3c TF-520530	TAP1c T1-507510	TAP2c T1-510520	TAP3c T1-520530	TAP1 T1-507510	TAP2 T1-510520	TAP3 T1-520530	TOP1 T1-507510
	X2	X2	X2	X2	X2	X2	X2	X2	X2	X2
D21LiB5	645	601		605	585		605			605
D21MiB5	445	401		405	385		405			
D21MiB5 ADV	445	401		405	385		405			
D21SiB5	335									

			TAP1c.2 T1-507510				TAP2.2 T1-510520		TOP1.2 T2-507510		TOP3.2 T2-520530
	X2	X2	X2	X2	X2	X2	X2	X2	X2	X2	X2
D21LiB5											
D21MiB5											
D21MiB5 ADV											
D21SiB5											

X-mounting

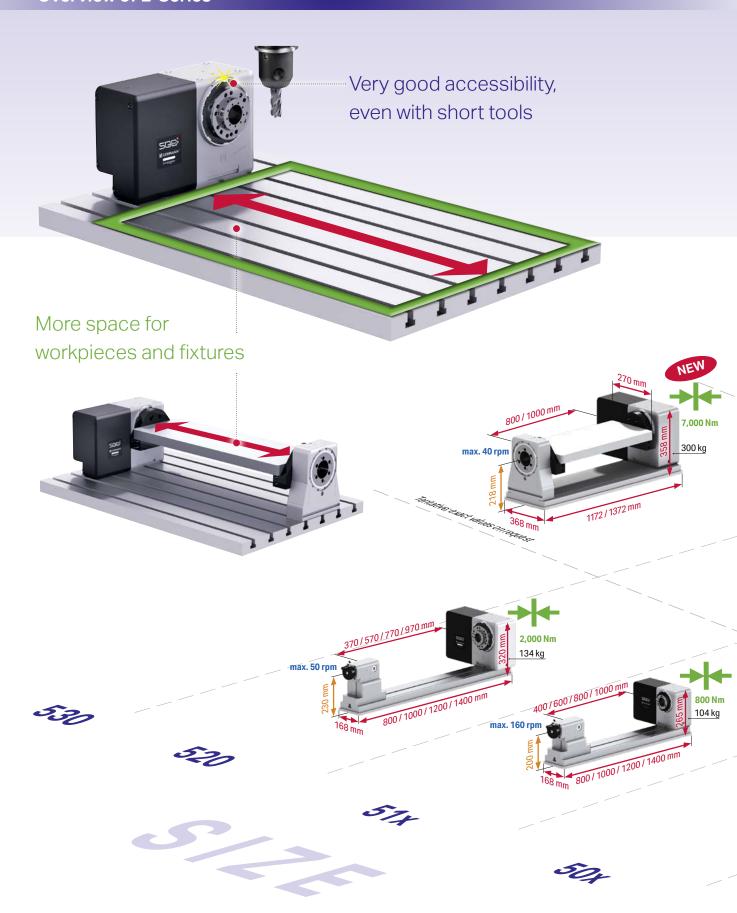






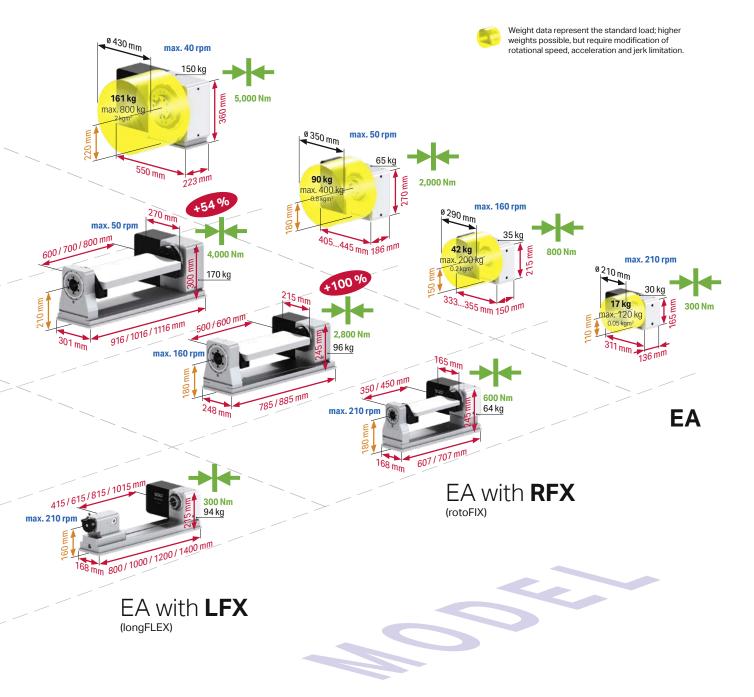
	TIP1c TF-507510	TIP2c TF-510520	TIP3c TF-520530	TAP1c T1-507510	TAP2c T1-510520	TAP3c T1-520530	TAP1 T1-507510	TAP2 T1-510520	TAP3 T1-520530	TOP1 T1-507510
	Y2	Y2	Y2	Y2	Y2	Y2	Y2	Y2	Y2	Y2
D21LiB5										
D21MiB5										230
D21MiB5 ADV										230
D21SiB5		141		145	125		145			145

	TOP2 T1-510520	TOP3 T1-520530	TAP1c.2 T1-507510	TAP2c.2 T1-510520	TAP3c.2 T1-520530	TAP1.2 T1-507510	TAP2.2 T1-510520	TAP3.2 T1-520530	TOP1.2 T2-507510	TOP2.2 T2-510520	TOP3.2 T2-520530
	Y2	Y2	Y2	Y2	Y2	Y2	Y2	Y2	Y2	Y2	Y2
D21LiB5			235	215		235			235		
D21MiB5			230			230					
D21MiB5 ADV			230			230					
D21SiB5			145								



News in brief

- 1. High speed up to 210 rpm
- 2. Feed torque up to 850 Nm (tentative)
- 3. Steel base plates with hole pattern (suitable for slot spacing of 100 and 125 mm)
- 4. Cycle time 90° as fast as 0.21 sec.

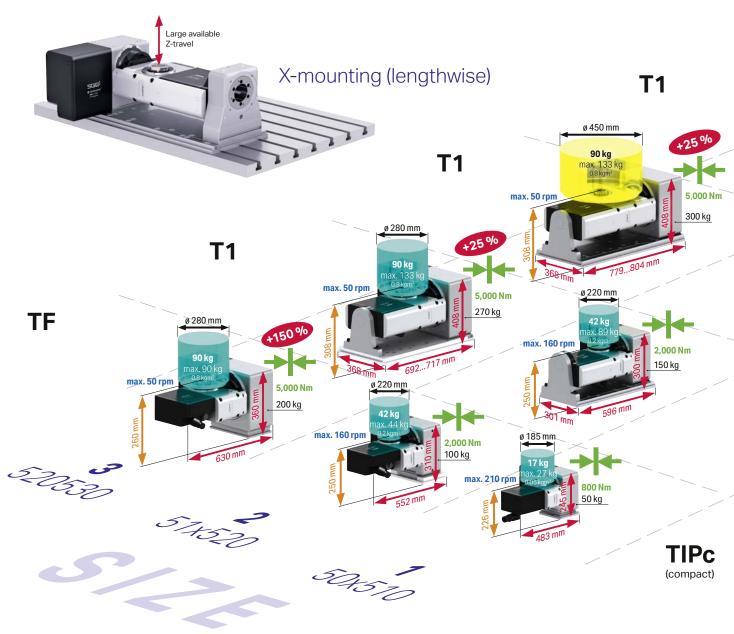


50x
 507 (standard) or 508 (high speed)
 51x
 510 (standard) or 511 (high speed)
 EA single-axis, single-spindle CNC rotary table

rotoFIX modular clamping yoke system longFLEX modular shaft clamping system

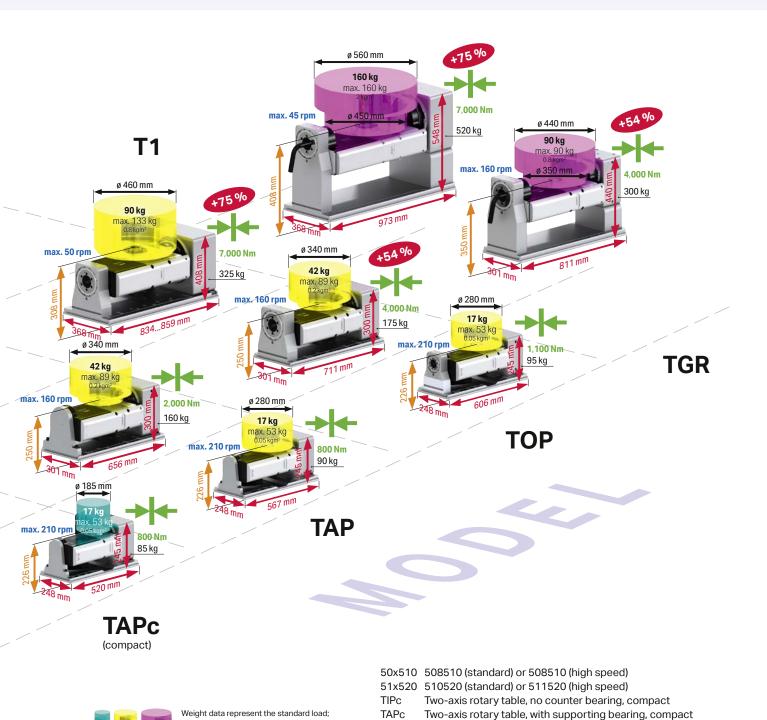






News in brief

- 1. Up to 150 % higher clamping torque in tilting axis
- 2. Fewer variant more solution
- 3. Larger workpiece ø possible
- 4. Spatially optimized arrangement of the dividing axis



PI LEHMANN®

TAP

TOP

TGR

Two-axis rotary table, with supporting bearing

specifically for grinding applications

Two-axis rotary table, with clamped counter bearing

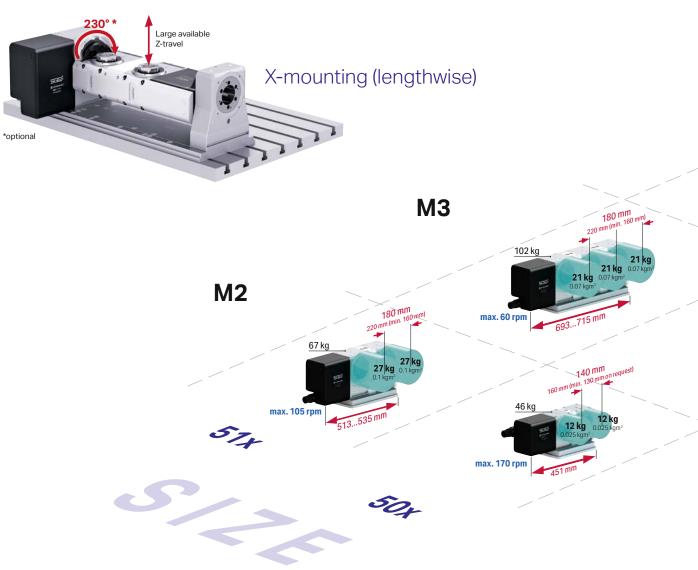
Two-axis rotary table, with clamped counter bearing,

higher weights possible, but require

modification of rotational speed,

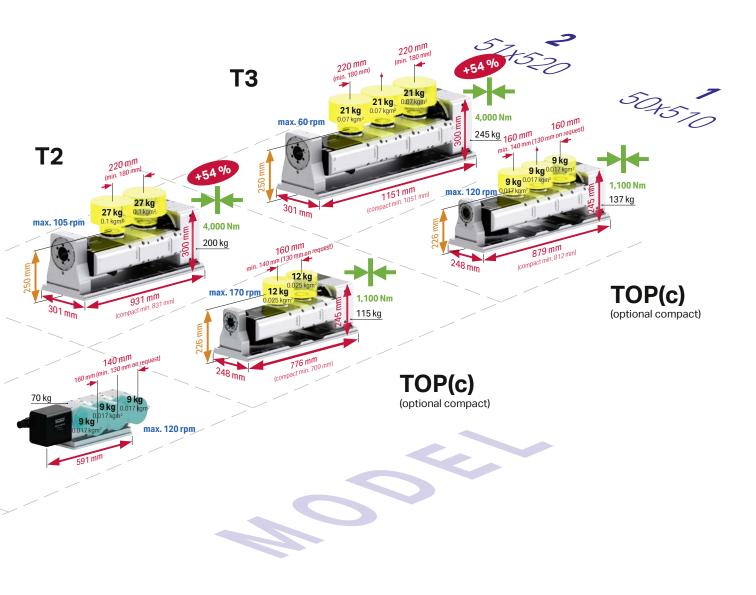
acceleration and jerk limitation.





News in brief

- 1. Up to 54 % higher clamping torque in tilting axis
- 2. Fewer variant more solution
- 3. Spindle distance min. 130 mm
- 4. Spatially optimized arrangement of the dividing axis





Weight data represent the standard load; higher weights possible, but require modification of rotational speed, acceleration and jerk limitation.

50x 507 (standard) or 508 (high speed)

51x 510 (standard) or 511 (high speed)

M2 Single-axis, multi-spindle rotary table, 2-position

M3 Single-axis, multi-spindle rotary table, 3-position

T2 Two-axis multi-spindle rotary table, 2-position

T3 Two-axis multi-spindle rotary table, 3-position

Extremely wide assortment for workpiece clamping. Standardized interface in front and rear: maximum universality

Spindle accessories in rear

- + Rotary unions up to 250 bar
- Clamping cylinder 23 kN at 120 bar
- Angular position measuring systems as precise as ± 1 arcsec



Spindle accessories in front



Tailstock and counter bearing



ripas zero point clamping system



CAPTO clamping (on request)



EA-507 with CAPTO retrofit kit



Present in over 20 countries: from sales consultation to the final service



After Sales

eShop

Service points in 25 countries PTSE Spare parts worldwide by

In-field support by

flying doctors

Services from A to Z

Sales & Post **Sales**

- Specified offers for each machine
- Wide range of workpiece clamping systems
- Standardized interfaces

Commissioning

- Parameter lists
- Machine-specific commissioning instructions
- User manual
- Partner kit
- On-site support



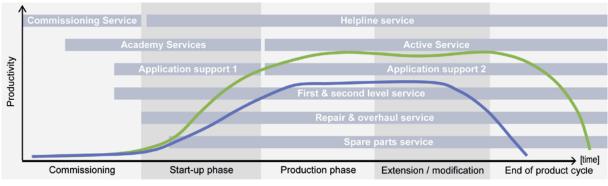
Pre Sales

- First class literature
- Application drawings 2D
- 3D models
- Example of applications



Increase productivity - Extend lifecycle

Comprehensive and professional services throughout the product life cycle - maximum availability with consistent quality and high productivity.



Productivity with LifeCycle service products from pL LEHMANN Productivity without service support

For more information please see www.lehmann-rotary-tables.com.





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O direct sales partner

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