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









... for CNC and HSM series

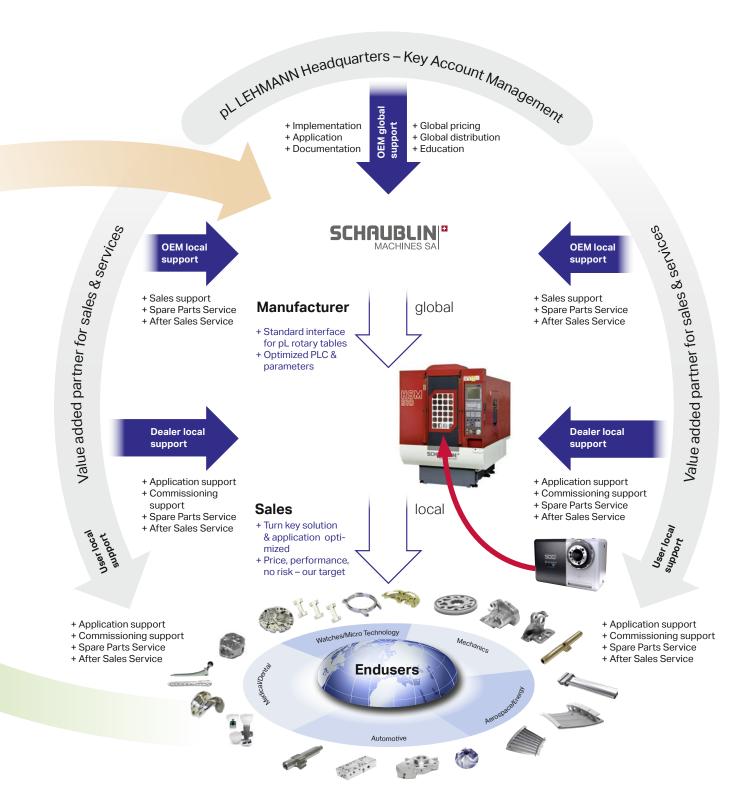
CNC rotary tables for economical manufacturing: pL LEHMANN has suitable and rational solutions for nearly every industry



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: SCHAUBLIN 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



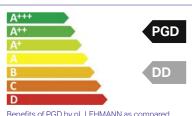








Save energy



Benefits of PGD by pL LEHMANN as compared to Direct Drive: small servo, low power draw, no cooling system, and a significantly reduced energy consumption when machining with unclamped rotary table

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 $2 \mu m / 100 mm$





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





HSM 510



60-CNC



100-CNC



A word from SCHAUBLIN:

«Longlife High Precision

We make it a point of honor to equip our CNC lathes and machining centers with the precision which has always been the special merit of the products of Schaublin Machines SA. For this purpose, we are continuously striving to improve our products by implementing newly developed technologies. The strong point of these machines and of their auxiliary devices is their high precision.

You will easily find customers who are working with machines from Schaublin Machines SA being more than 60 years old and who are still very satisfied with them. And that makes us proud.»

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

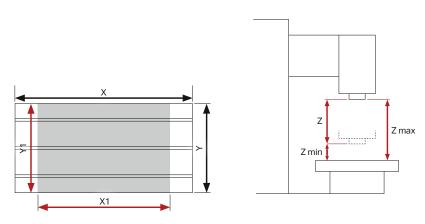


	Table diam	eter [mm]	Permissible		Tra	iverse stroke [m	erse stroke [mm]			
	x	Υ	overhang *	X1	Y1	z	Zmin	Zmax	max [kg]	
0-CNC	750	540	10%	600	540	540	155	695	700	
00-CNC	1'120	540	10%	1'020	540	540	155	695	700	
60-CNC	1'700	700	10%	1'600	700	635	155	790	1'500	
ISM 330	650	410	10%	330	410	330	150	480	300	
HSM 510	650	410	10%	510	410	330	150	480	300	

^{*} 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
160-CNC			1'441	1'412

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.

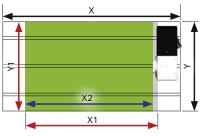


^{10 %} of the machine width Y with Y-clamping or 10 % of the table length X with X-clamping.)
** The recommended rotary tables do not exceed 50 % of the allowed table load.

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



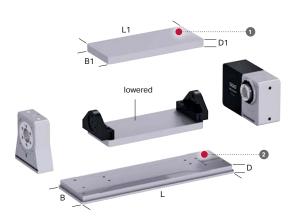
	EA-507	EA-510	EA-520	EA-530
	X2	X2	X2	X2
60-CNC	508	492	466	437
100-CNC	903	887	861	832
160-CNC			1'441	1'412
HSM 330	323	307	281	
HSM 510	413	397	371	



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

Clamping yokes for EA-type rotary tables





			EA-	507	EA-	510	EA-520			EA-	530	
	Sph	[mm]	19	90	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]	2	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]	30		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			

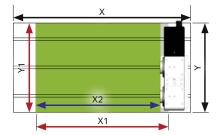
Explanations for pp. 8 to 11

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
		[']	(2	'
60-CNC	449	439	449	
100-CNC	844	834	844	
160-CNC	1'424	1'414	1'424	1'414
HSM 330	264			
HSM 510	354			

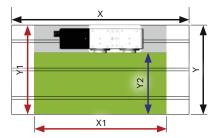
Y-mounting



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

	M2-507	M2-510	M3-507	M3-510
		Υ	2	
60-CNC				304
100-CNC				304
160-CNC				
HSM 330		174	184	174
HSM 510		174	184	174

X-mounting



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

Machine combinations with T-type rotary tables

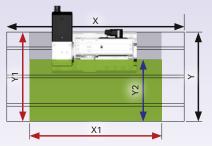
Y-mounting

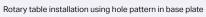


	TIP1c TF-507510	TIP2c TF-510520	TIP3c TF-520530	TAP1c T1-507510	TAP2c T1-510520	TAP3c T1-520530	TAP1 T1-507510	TAP2 T1-510520	TAP3 T1-520530	TOP1 T1-507510
	X2	X2	X2	X2	X2	X2	X2	X2	X2	X2
60-CNC	545	501		505			505			
100-CNC	940	896		900			900			
160-CNC	1'520	1'476	1'456	1'480	1'460	1'426	1'480	1'460		1'480
HSM 330										
HSM 510										

	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
	X2	X2	X2	X2	X2	X2	X2	X2	X2	X2	X2
60-CNC											
100-CNC											
160-CNC	1'460		1'480			1'480			1'480		
HSM 330											
HSM 510											

X-mounting

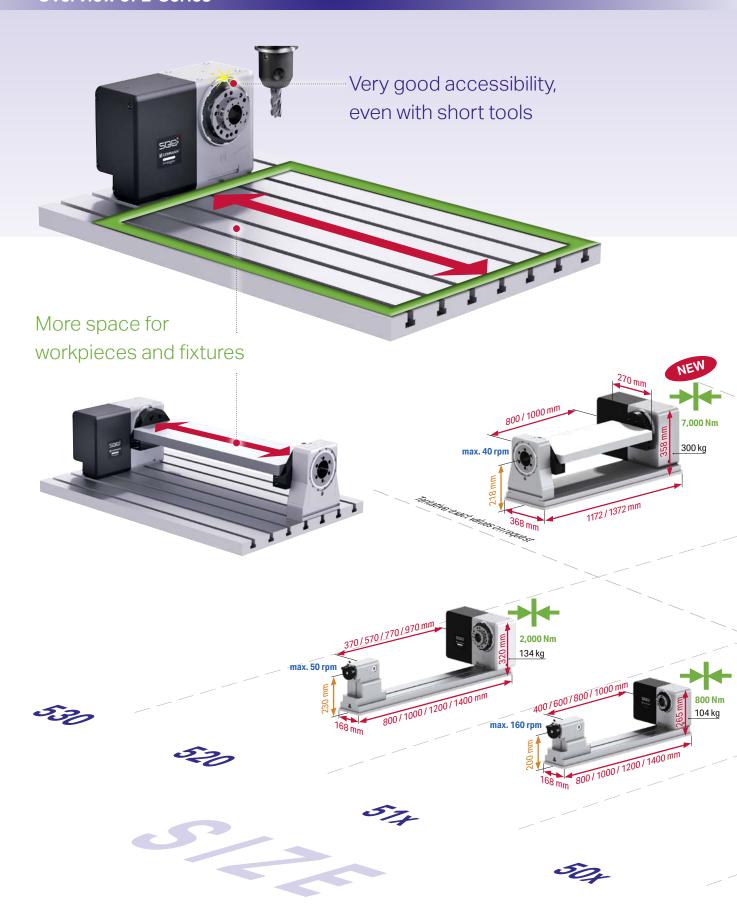






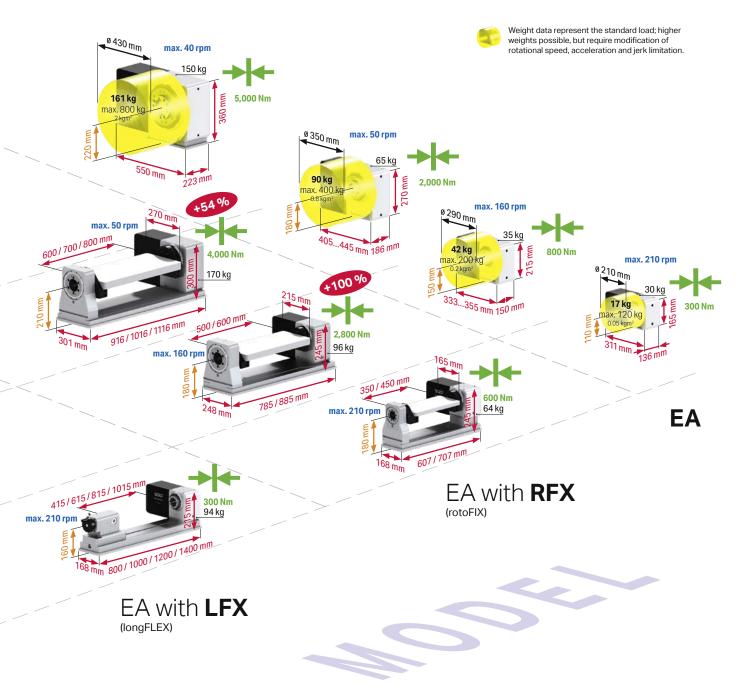
Y2 Y2<		TIP1c TF-507510	TIP2c TF-510520	TIP3c TF-520530	TAP1c T1-507510	TAP2c T1-510520	TAP3c T1-520530	TAP1 T1-507510	TAP2 T1-510520	TAP3 T1-520530	TOP1 T1-507510
100-CNC 346 350 316 350 316 370 160-CNC HSM 330 280 236 240 220 240 240 240											l
160-CNC HSM 330 280 236 240 220 240 240 240	60-CNC			346		350	316		350	316	370
HSM 330 280 236 240 220 240 240	100-CNC			346		350	316		350	316	370
	160-CNC										
HSM 510 280 236 240 220 240 240 240	HSM 330	280	236		240	220		240			240
	HSM 510	280	236		240	220		240			240

	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
60-CNC	350		370	350		370			370		
100-CNC	350	316	370	350	316	370	350	316	370	350	
160-CNC					476		510	476		510	476
HSM 330			240			240					
HSM 510			240			240					



News in brief

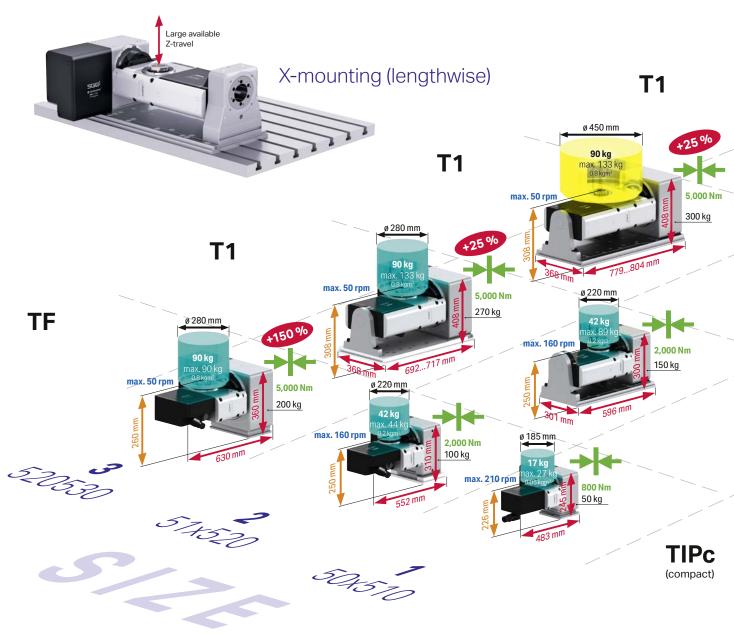
- 1. High speed up to 210 rpm
- 2. Feed torque up to 850 Nm (tentative)
- 3. Steel base plates with hole pattern (suitable for slot spacing of 100 and 125 mm)
- 4. Cycle time 90° as fast as 0.21 sec.



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

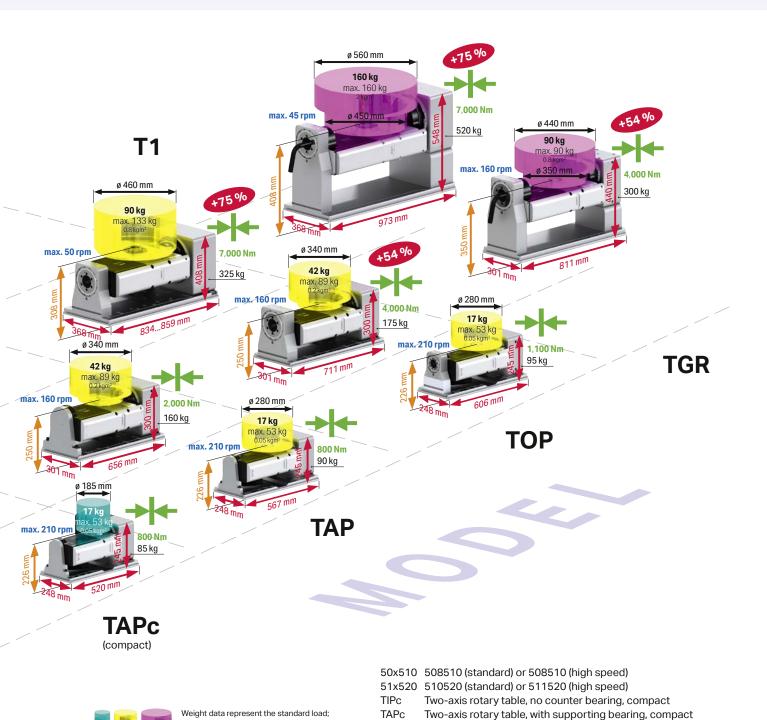
- 1. Up to 150 % higher clamping torque in tilting axis
- 2. Fewer variant more solution
- 3. Larger workpiece ø possible

higher weights possible, but require

modification of rotational speed,

acceleration and jerk limitation.

4. Spatially optimized arrangement of the dividing axis



□ LEHMANN®

TAP

TOP

TGR

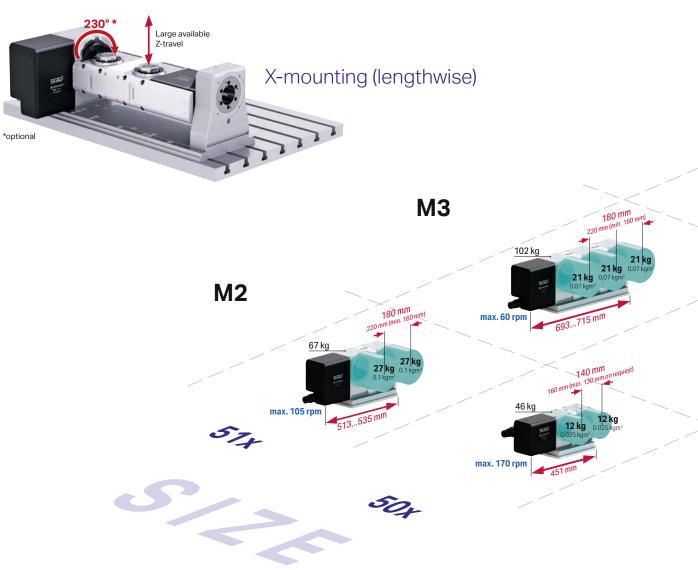
Two-axis rotary table, with supporting bearing

specifically for grinding applications

Two-axis rotary table, with clamped counter bearing

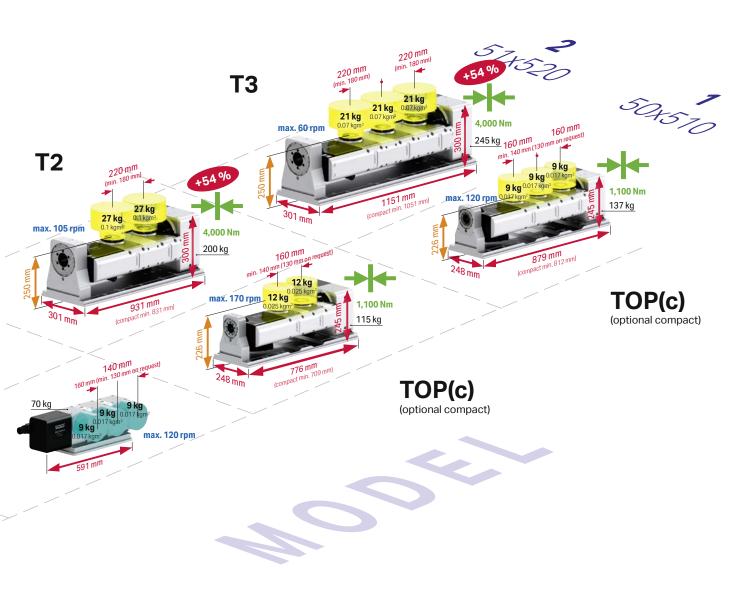
Two-axis rotary table, with clamped counter bearing,

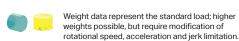




News in brief

- 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





- 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-positionT3 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



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



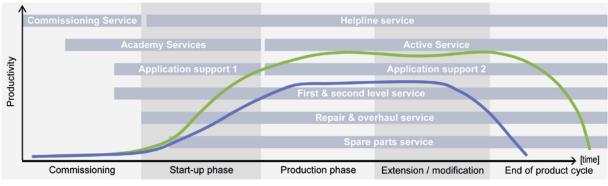
Pre Sales

- 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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Africa – South Africa



- Headquarters
- O direct sales partner
- OpL Solutions® partner
- o value added reseller & partner
- More information (address, telephone number...) at www.lehmann-rotary-tables.com