



# Selection Guide for CNC Rotary Tables ...

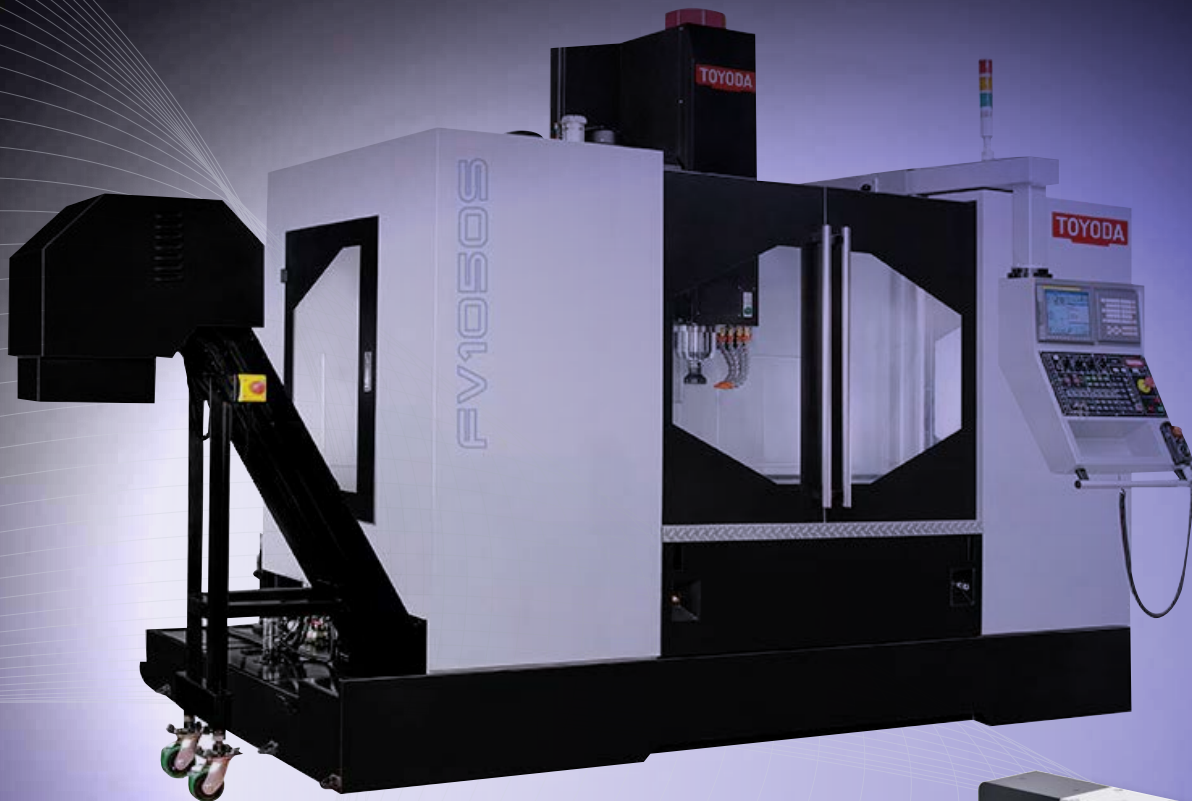


Bluetooth®

pl

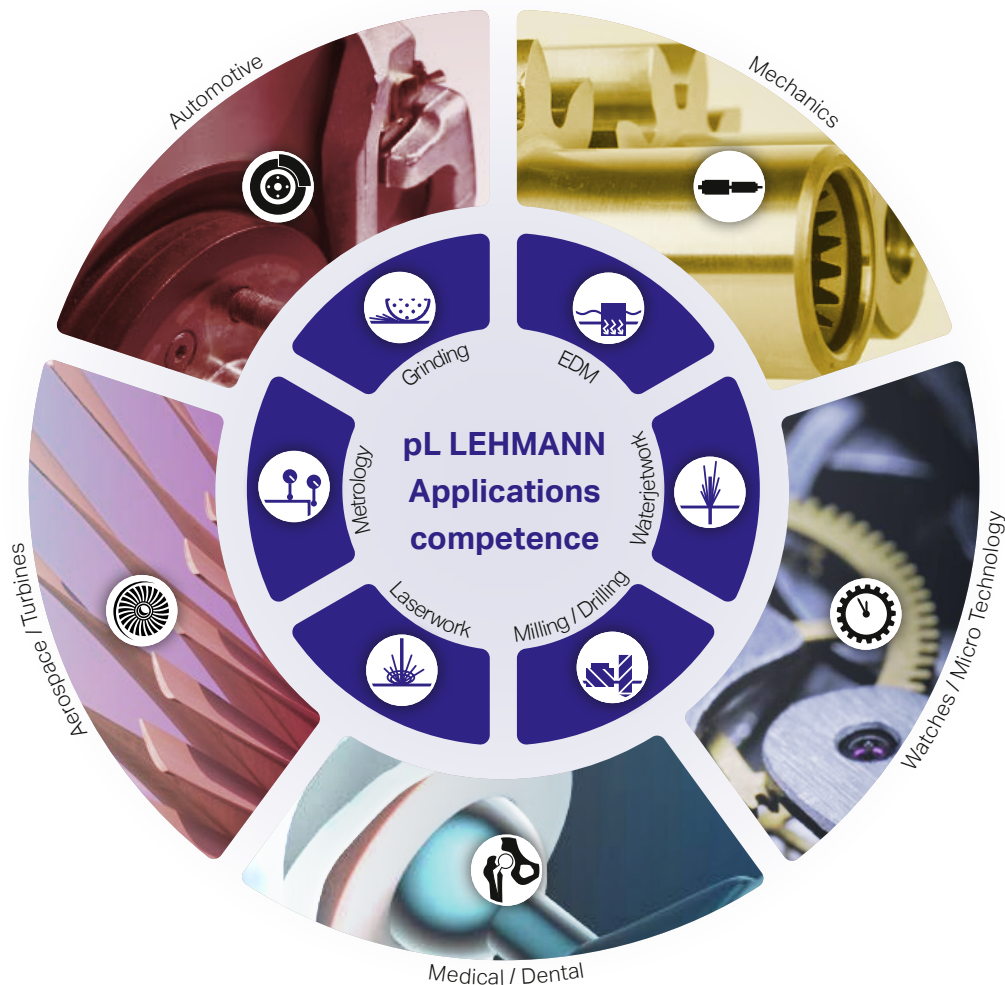
**TOYODA**

10/2018 | EN



... for FV-series

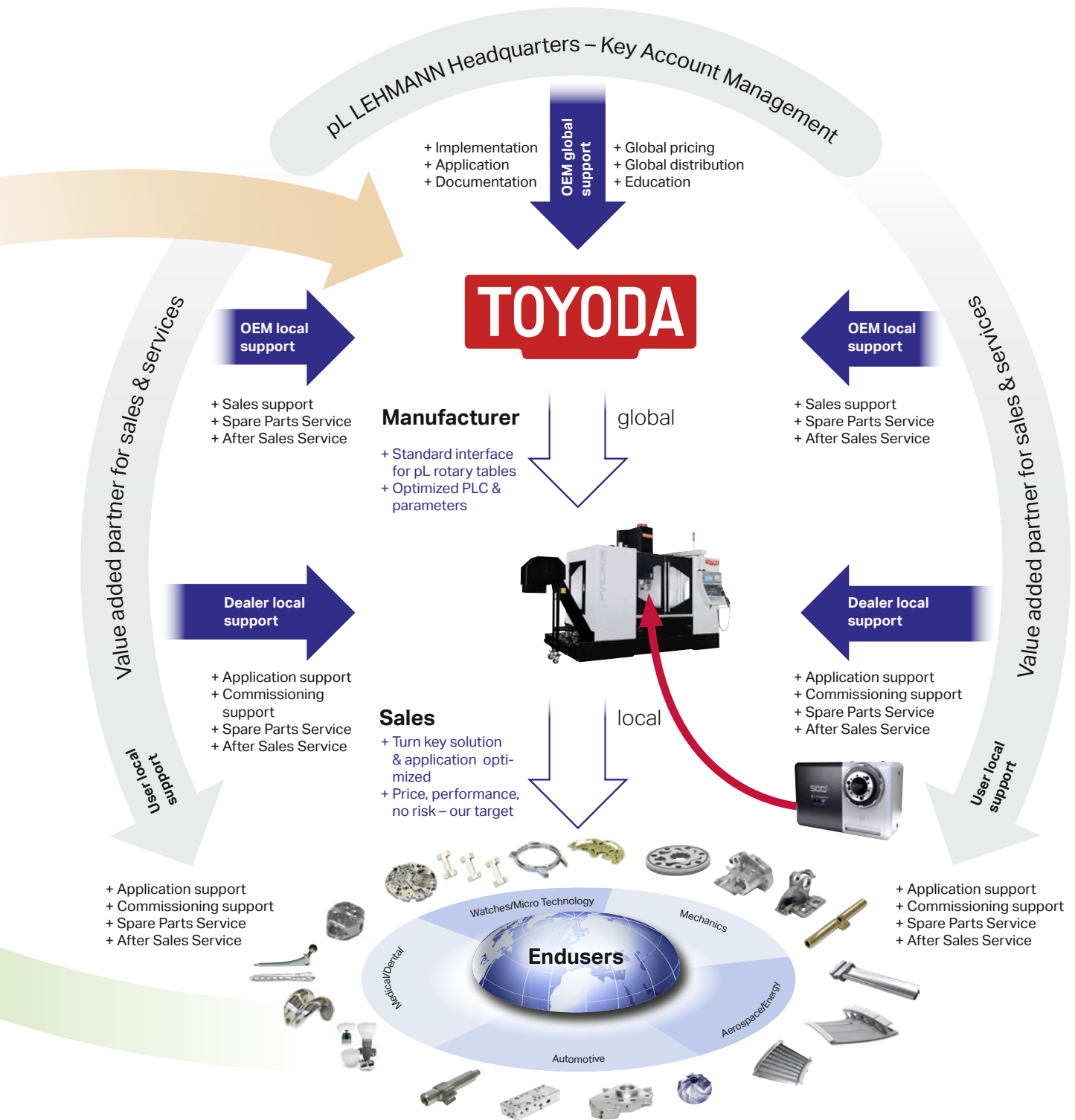
CNC rotary tables for economical manufacturing:  
pL LEHMANN has suitable and rational solutions for  
nearly every industry



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:  
 TOYODA and pL LEHMANN provide  
 first-class service to common customers



**NEW**  
up to +30 %

Up to 210 rpm  
up to 0.21 sec / 90°

Extended travel in  
Z- and X-direction

High spindle load,  
heavy-duty bearing

**High speed**

**More space**

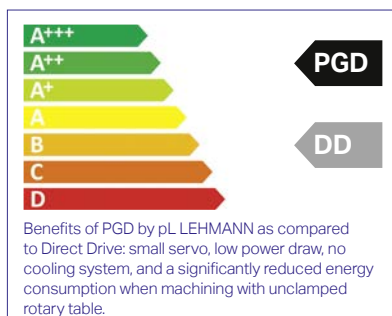
**Heavy duty**

## E-Series



Rotary tables suitable for simultaneous operation!

### Save energy



**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**

**NEW**  
up to +30 %

**High torque**

Feed torque up to  
**850 Nm** (provisional)

**Adaptability**

Multifunctional  
spindle HSK

**Precision**

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

**NEW**  
up to +150%

Pneum. clamping  
up to 7,000 Nm

**High clamp**

Large parts  
up to  $\varnothing$  500

**Big size**

PGD backlash-free  
long-life gear unit

**No backlash**

## T-Series



**All base plates  
made of steel**

**NEW**

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

## M-Series



**Connectivity**

Wireless monitoring,  
for operation & service

**No adjust**

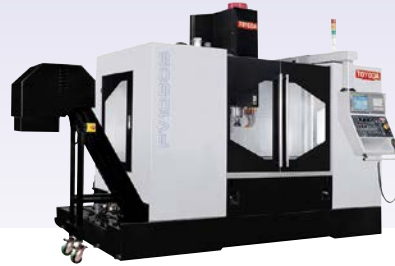
Load change without  
parameter adjustment

**Less cost**

No cooling system,  
no hydraulics



FV965



FV1050S



FV1165



FV1890

## A word from TOYODA:

### «Toyota exceeds your quality and precision expectations»

We understand tight tolerances, superior speed, and peak performance. Every detail is carefully considered – from the solid cast iron bases to the operator-friendly ergonomic design – to help maximize production across metalcutting industries. Toyota machines are engineered for innovators, and built with the speed, strength, and capacity to get you there. From job shop applications to high-volume production.»

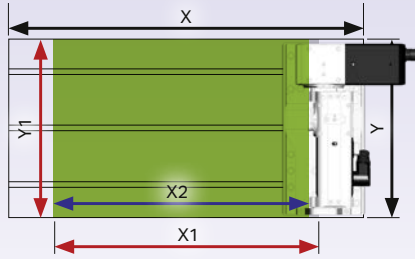








## Y-mounting



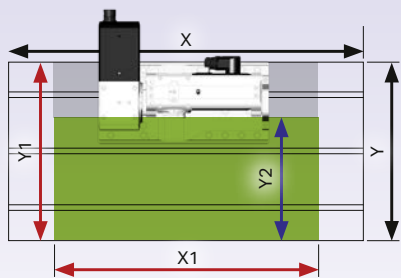
Rotary table installation using hole pattern in base plate



	TIP1c TF-507510 X2	TIP2c TF-510520 X2	TIP3c TF-520530 X2	TAP1c T1-507510 X2	TAP2c T1-510520 X2	TAP3c T1-520530 X2	TAP1 T1-507510 X2	TAP2 T1-510520 X2	TAP3 T1-520530 X2	TOP1 T1-507510 X2
<b>FV850S</b>	770	726		730						
<b>FV965</b>	870	826	806	830	810	776	830	810		830
<b>FV1050S</b>	980	936		940						
<b>FV1165</b>	1'070	1'026	1'006	1'030	1'010	976	1'030	1'010		1'030
<b>FV1265S</b>	1'080	1'036	1'016	1'040	1'020	986	1'040	1'020		1'040
<b>FV1365</b>	1'245	1'201	1'181	1'205	1'185	1'151	1'205	1'185		1'205
<b>FV1480</b>	1'445	1'401	1'381	1'405	1'385	1'351	1'405	1'385	1'351	1'405
<b>FV1565</b>	1'445	1'401	1'381	1'405	1'385	1'351	1'405	1'385		1'405
<b>FV1680</b>	1'545	1'501	1'481	1'505	1'485	1'451	1'505	1'485	1'451	1'505
<b>FV1890</b>	1'320	1'276	1'256	1'280	1'260	1'226	1'280	1'260		1'280

	TOP2 T1-510520 X2	TOP3 T1-520530 X2	TAP1c.2 T1-507510 X2	TAP2c.2 T1-510520 X2	TAP3c.2 T1-520530 X2	TAP1.2 T1-507510 X2	TAP2.2 T1-510520 X2	TAP3.2 T1-520530 X2	TOP1.2 T2-507510 X2	TOP2.2 T2-510520 X2	TOP3.2 T2-520530 X2
<b>FV850S</b>											
<b>FV965</b>	810		830			830					
<b>FV1050S</b>											
<b>FV1165</b>	1'010		1'030			1'030					
<b>FV1265S</b>	1'020		1'040			1'040					
<b>FV1365</b>	1'185		1'205			1'205					
<b>FV1480</b>	1'385	1'351	1'405	1'385		1'405	1'385		1'405		
<b>FV1565</b>	1'385		1'405			1'405					
<b>FV1680</b>	1'485	1'451	1'505	1'485		1'505	1'485		1'505		
<b>FV1890</b>	1'260		1'280			1'280					

## X-mounting



Rotary table installation using hole pattern in base plate



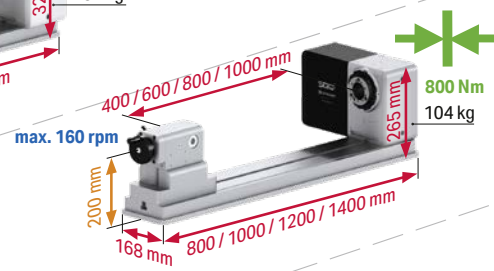
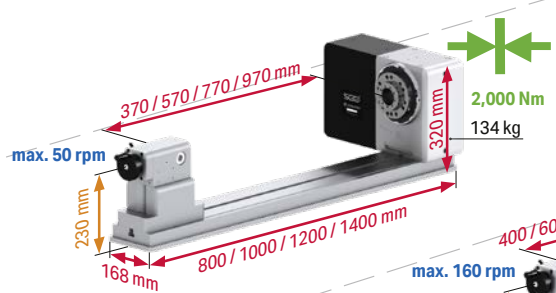
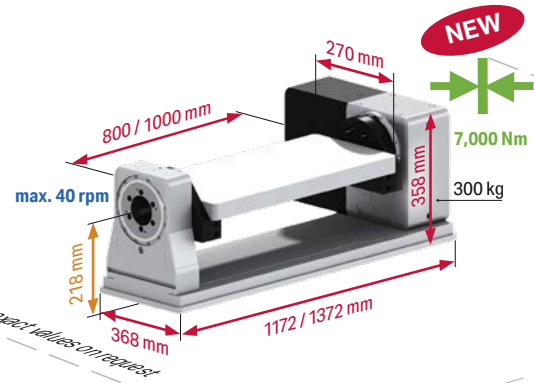
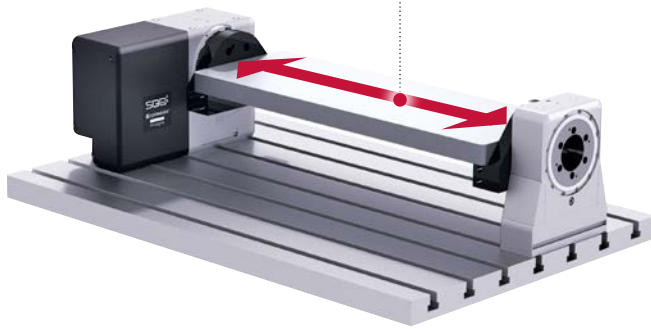
	TIP1c TF-507510 Y2	TIP2c TF-510520 Y2	TIP3c TF-520530 Y2	TAP1c T1-507510 Y2	TAP2c T1-510520 Y2	TAP3c T1-520530 Y2	TAP1 T1-507510 Y2	TAP2 T1-510520 Y2	TAP3 T1-520530 Y2	TOP1 T1-507510 Y2
FV850S			316		320	286	340	320	286	340
FV965									426	
FV1050S			316			286		320	286	340
FV1165									426	
FV1265S									356	
FV1365									426	
FV1480										
FV1565										
FV1680										
FV1890									551	

	TOP2 T1-510520 Y2	TOP3 T1-520530 Y2	TAP1c.2 T1-507510 Y2	TAP2c.2 T1-510520 Y2	TAP3c.2 T1-520530 Y2	TAP1.2 T1-507510 Y2	TAP2.2 T1-510520 Y2	TAP3.2 T1-520530 Y2	TOP1.2 T2-507510 Y2	TOP2.2 T2-510520 Y2	TOP3.2 T2-520530 Y2
FV850S	320	286	340	320		340	320		340	320	
FV965		426		460	426		460		480	460	
FV1050S	320		340	320	286	340	320	286	340	320	
FV1165		426		460	426		460	426	480	460	426
FV1265S		356		390	356		390	356	410	390	356
FV1365		426		460	426		460	426	480	460	426
FV1480					576			576		610	576
FV1565		426			426		460	426		460	426
FV1680					576			576		610	576
FV1890		551		585	551		585		605	585	



Very good accessibility, even with short tools

More space for workpieces and fixtures



530

520


51x

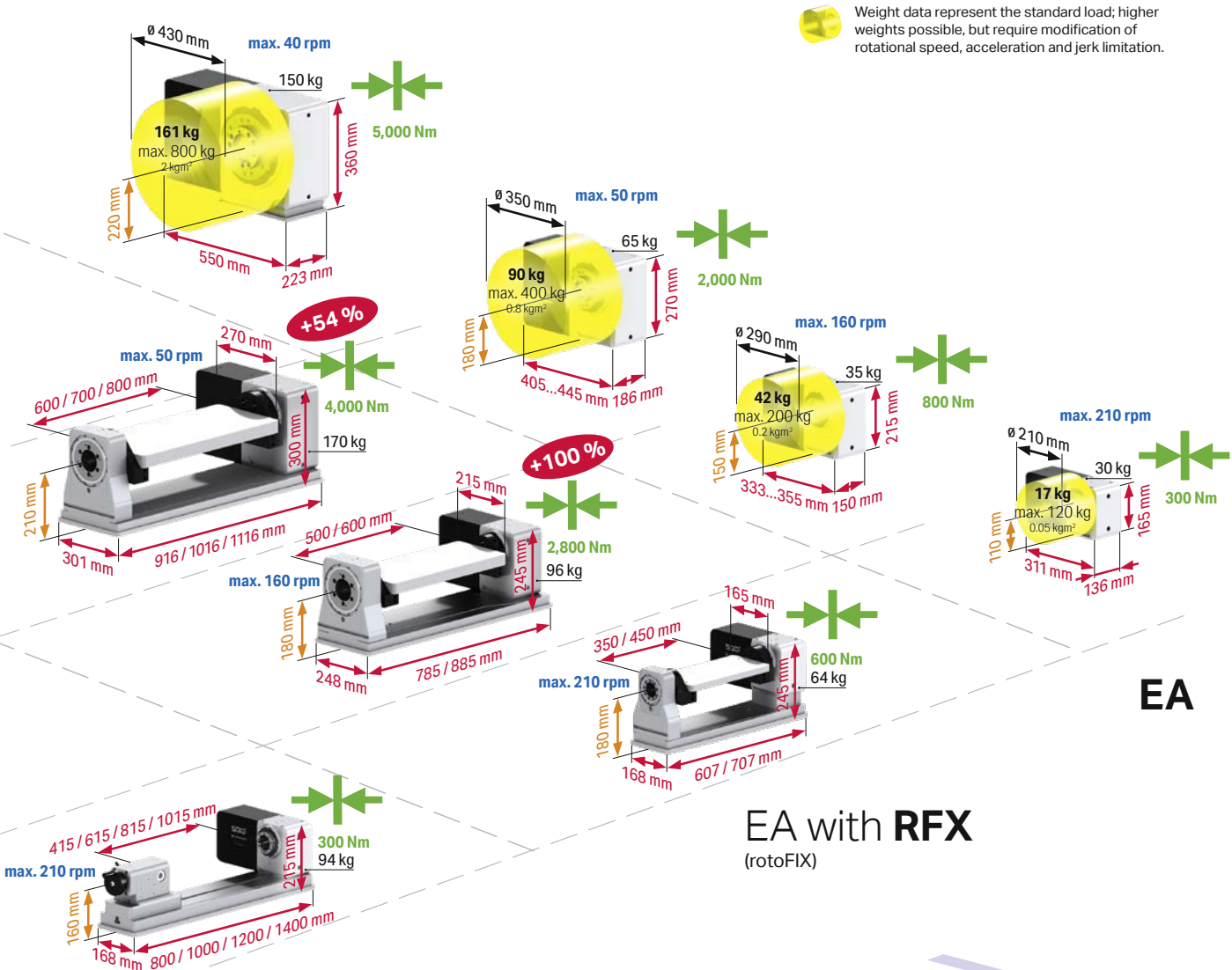
50x

SIZE

### 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.

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

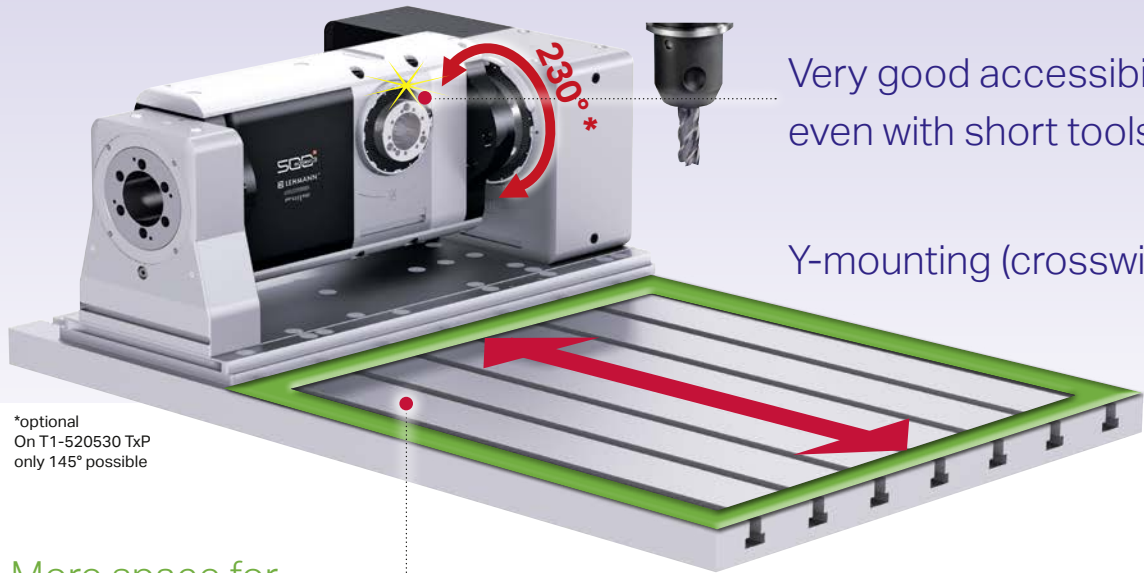


EA with **LFX**  
(longFLEX)

EA with **RFX**  
(rotoFIX)

MODEL

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

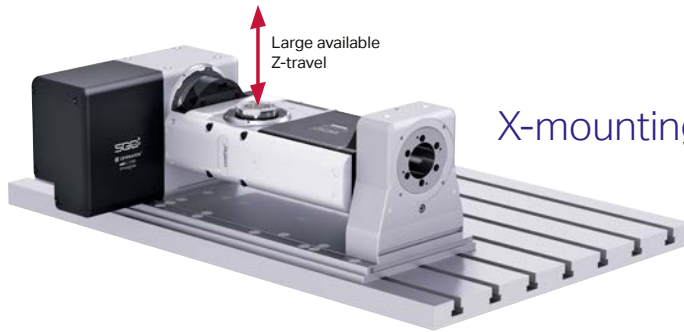


Very good accessibility, even with short tools

Y-mounting (crosswise)

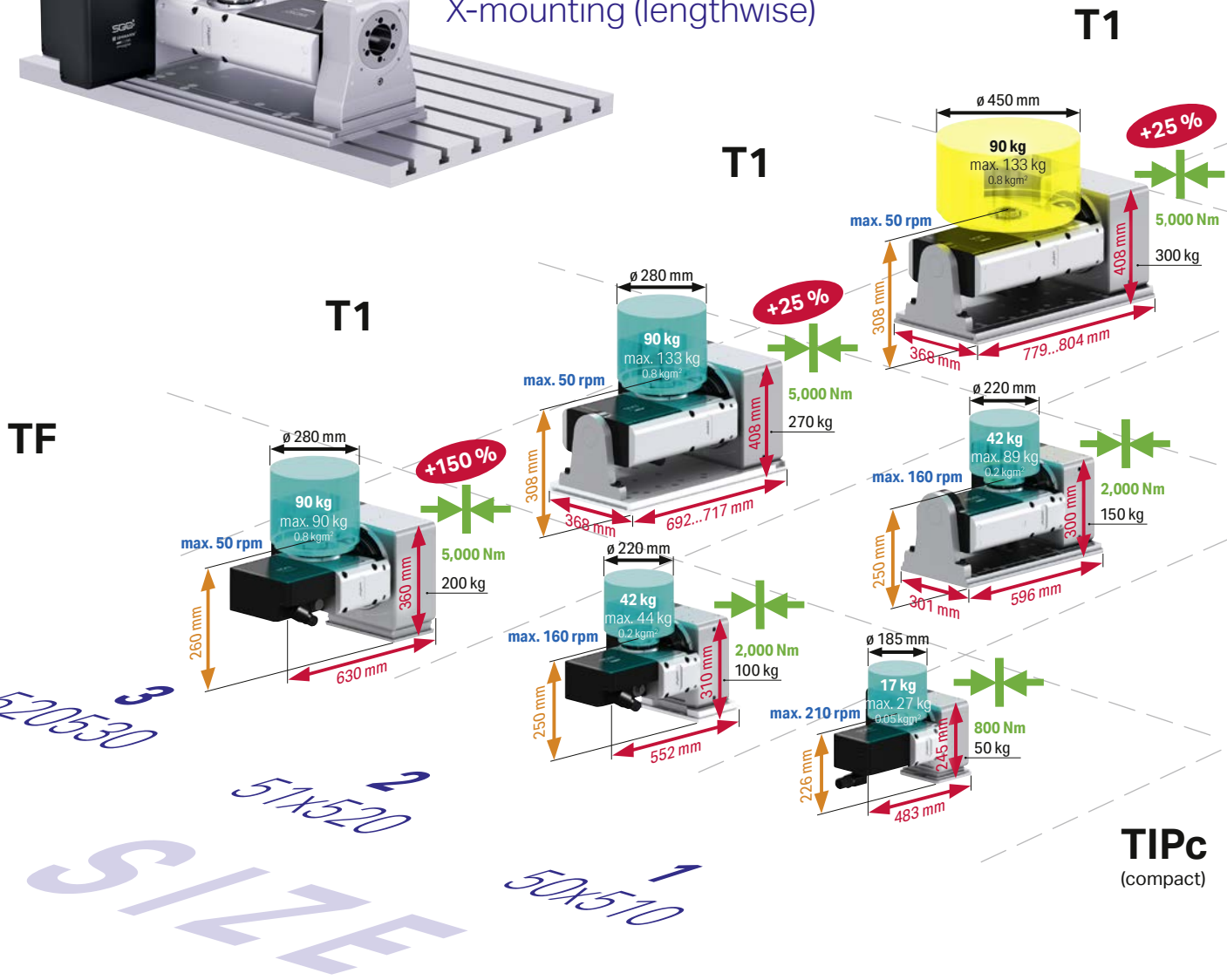
\*optional  
On T1-520530 TxP  
only 145° possible

More space for workpiece and fixtures



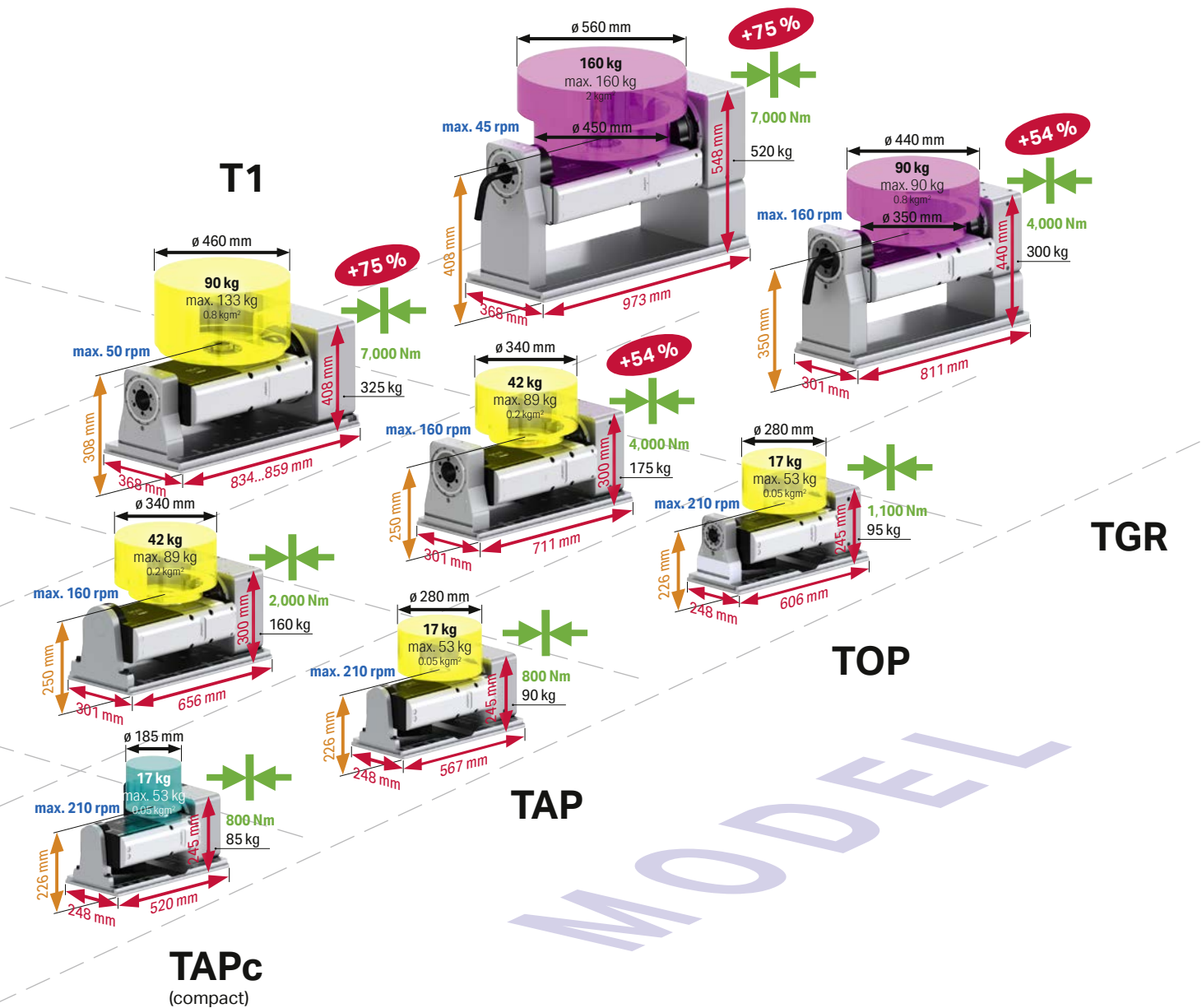
X-mounting (lengthwise)

T1



### News in brief

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

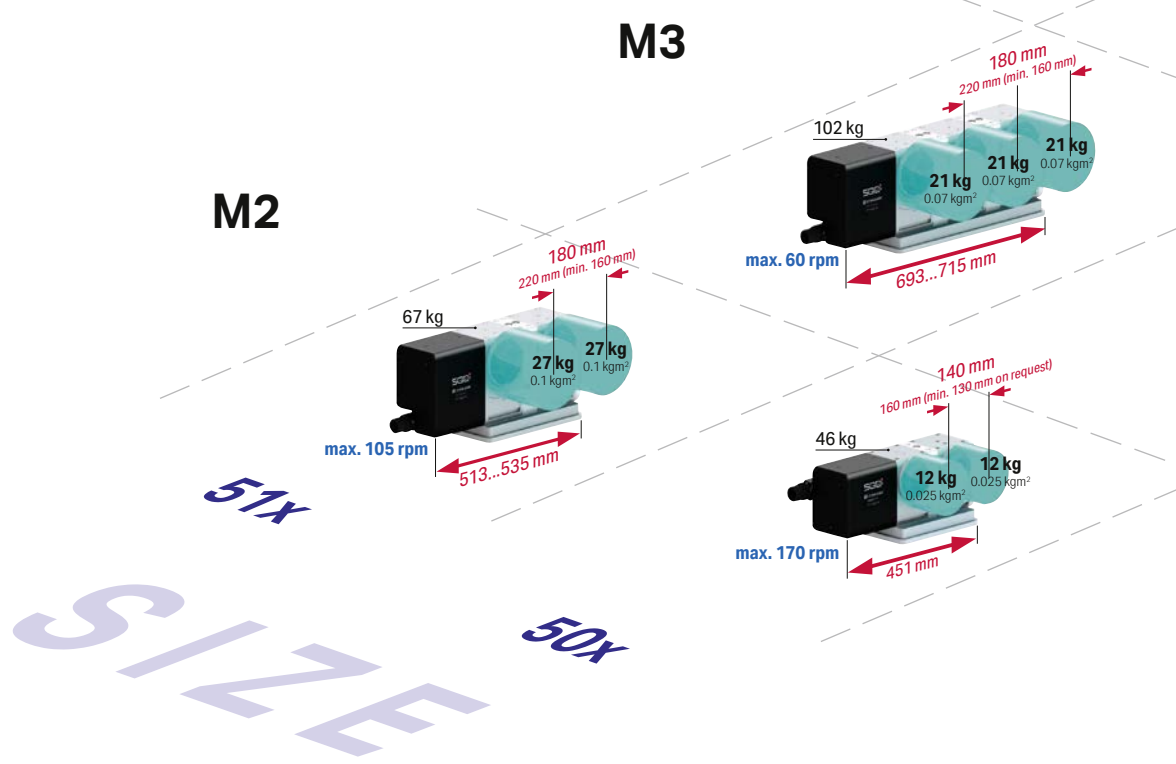


Weight data represent the standard load; higher weights possible, but require modification of rotational speed, acceleration and jerk limitation.

- 50x510 508510 (standard) or 508510 (high speed)
- 51x520 510520 (standard) or 511520 (high speed)
- TIPc Two-axis rotary table, no counter bearing, compact
- TAPc Two-axis rotary table, with supporting bearing, compact
- TAP Two-axis rotary table, with supporting bearing
- TOP Two-axis rotary table, with clamped counter bearing
- TGR Two-axis rotary table, with clamped counter bearing, specifically for grinding applications



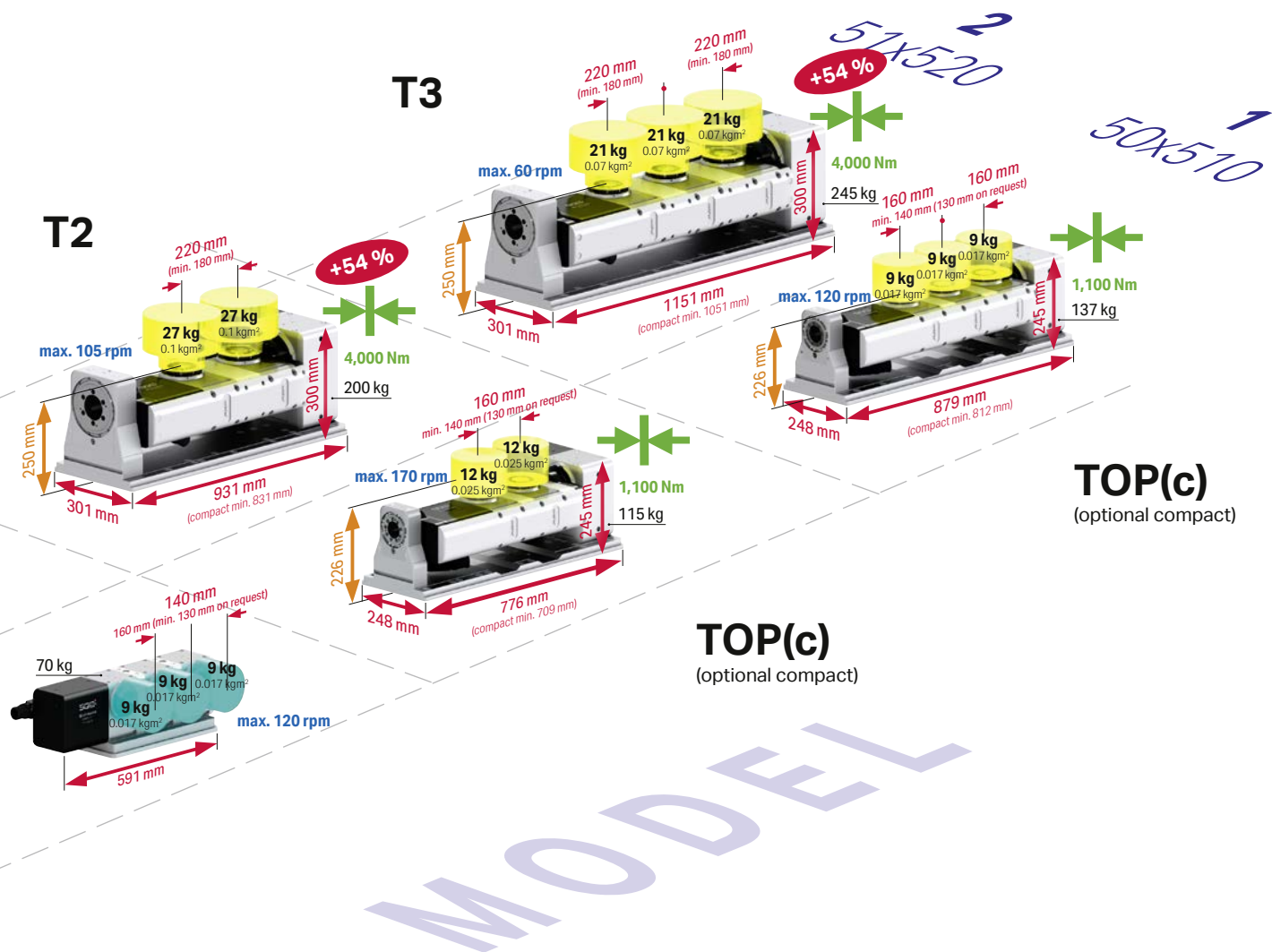
More space for workpiece and fixtures





## 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  $\pm 1$  arcsec**



## Spindle accessories in front



### Tailstock and counter bearing



### ripas zero point clamping system



EA-507 with ripas auto and ripas adapter

### CAPTO clamping (on request)

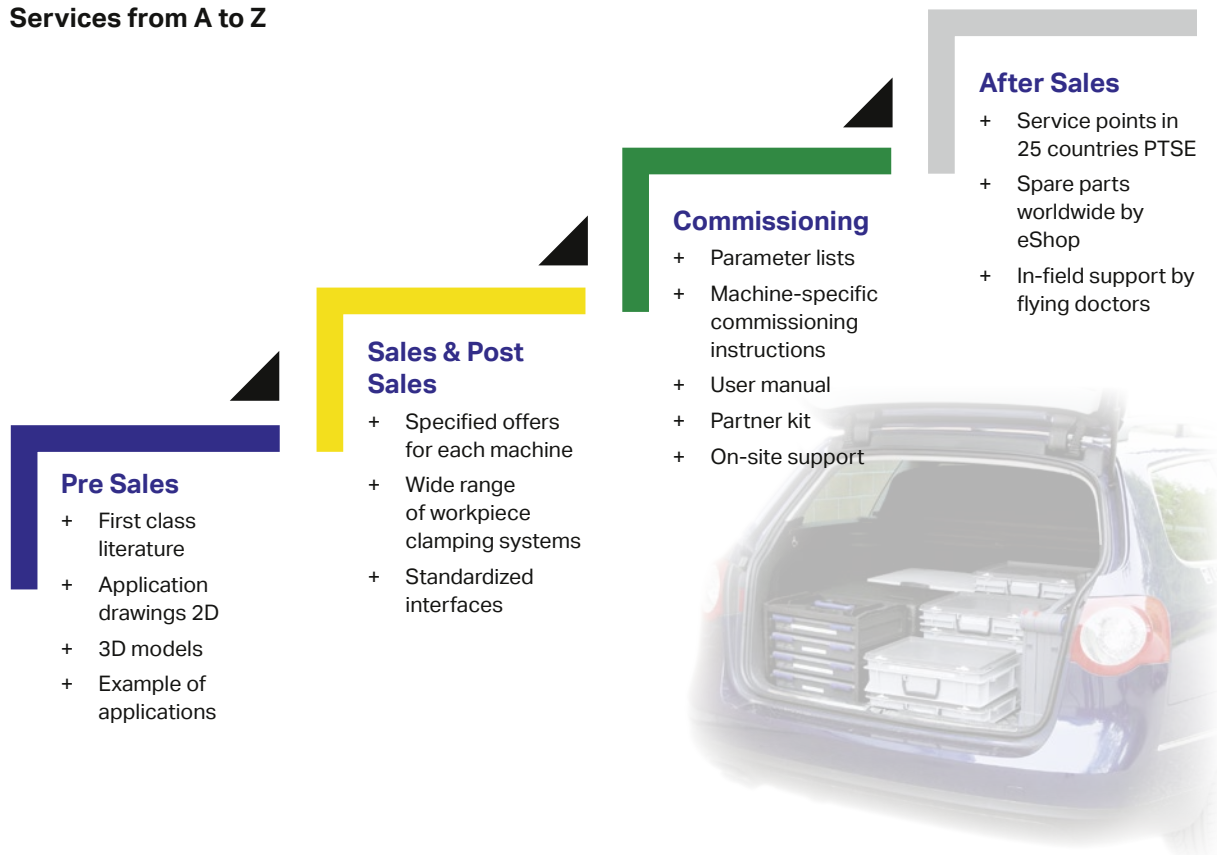


EA-507 with CAPTO retrofit kit

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

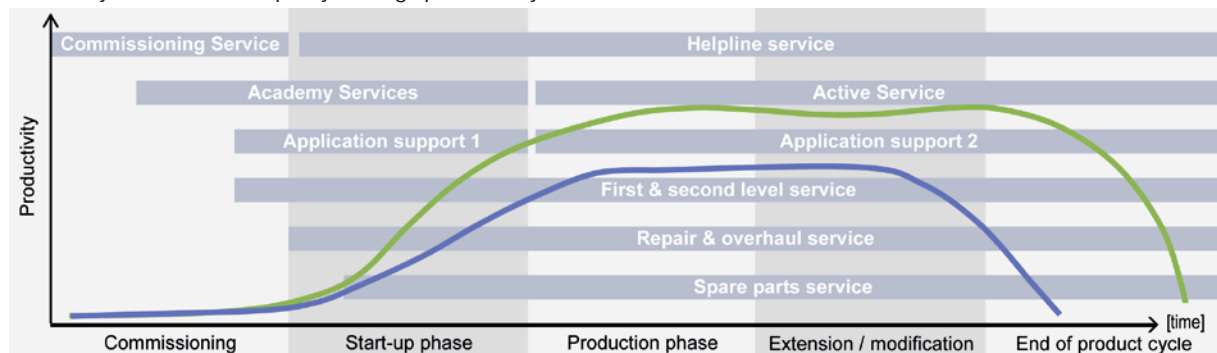


**Services from A to Z**



**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](http://www.lehmann-rotary-tables.com).



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#### Representatives / Agencies

##### Europe

- Austria
- Benelux
- Czech Republic (vacant)
- Finland
- France
- Germany
- Hungary (vacant)
- Italy
- Norway
- Poland
- Portugal
- Russia
- Slovenia
- Spain
- Sweden
- Turkey
- UK

##### America

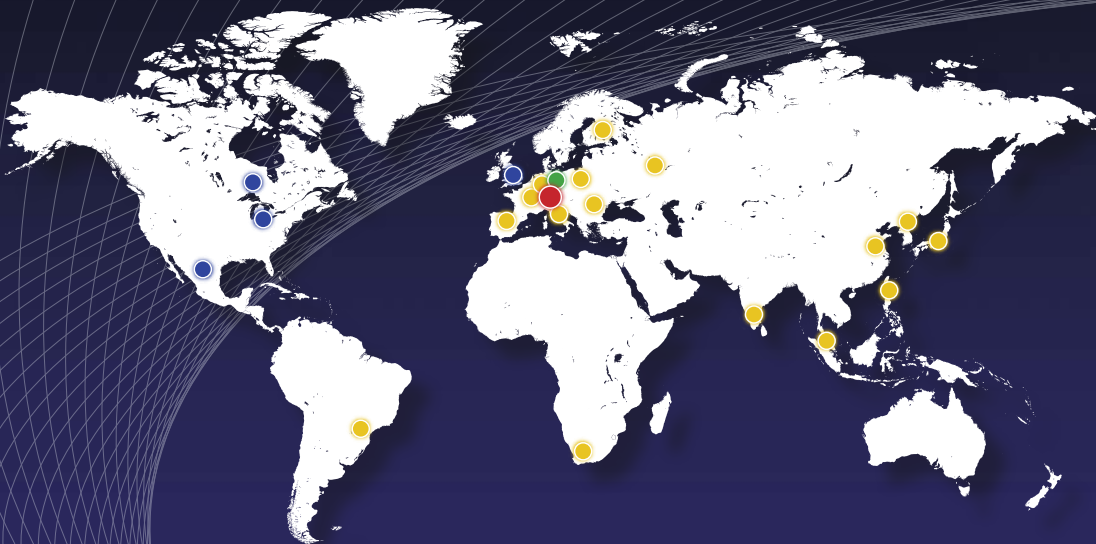
- Brazil
- Canada
- Mexico
- USA

##### Asia

- China
- India
- Japan
- Malaysia
- Singapore
- South Korea
- Taiwan
- Thailand
- Vietnam

##### Africa

- South Africa



● Headquarters    ● direct sales partner    ● pL Solutions® partner    ● value added reseller & partner

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