

Selection Guide for CNC Rotary Tables ...



Bluetooth®

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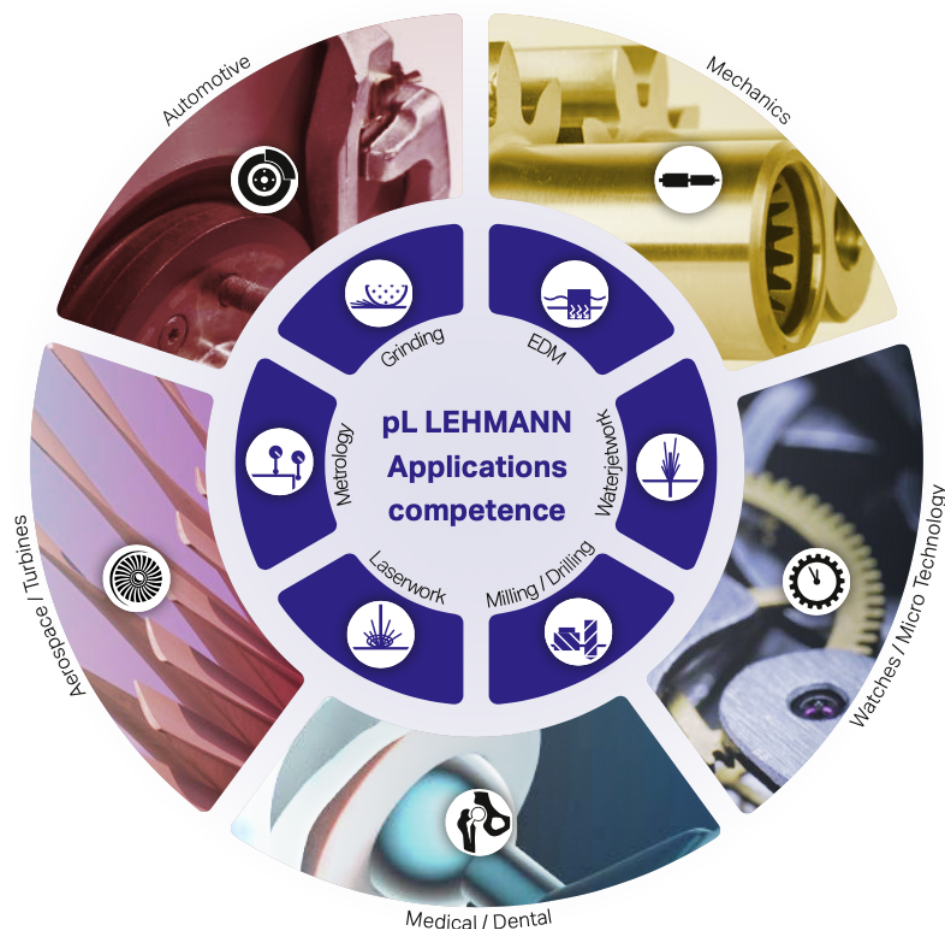
TOYODA

10/2018 | EN

... for FV-series

Applications

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

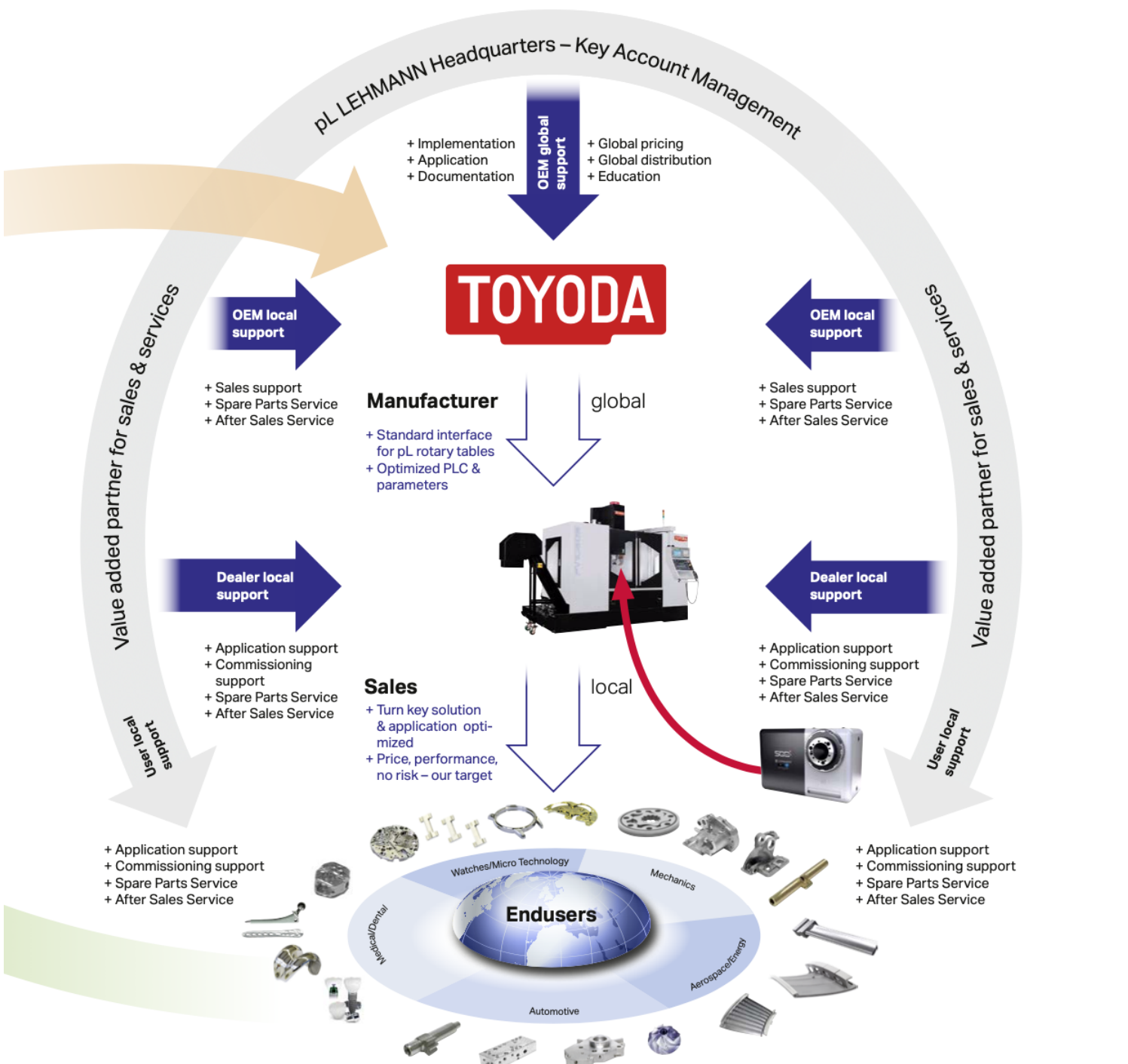


pL rotary tables in use: on over **40** different machine brands
and over **160** different machine models.

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

Organization

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



Overview and Facts

Up to **210 rpm**
up to **0.21 sec / 90°**

NEW
up to +30 %

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**

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 +30 %

Overview and Facts

Pneum. clamping
up to 7,000 Nm

High clamp

NEW
up to +150 %

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**

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



NEW

Connectivity

Wireless monitoring,
for operation & service

No adjust

Load change without
parameter adjustment

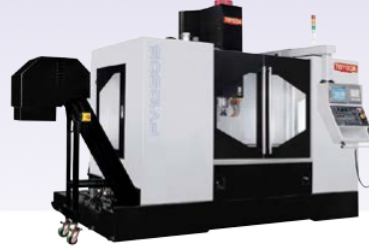
Less cost

No cooling system,
no hydraulics

Machine Overview



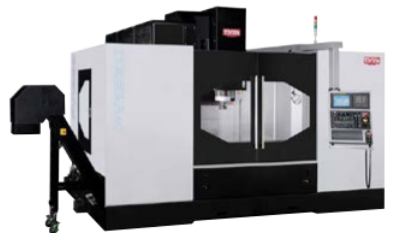
FV965



FV1050S



FV1165



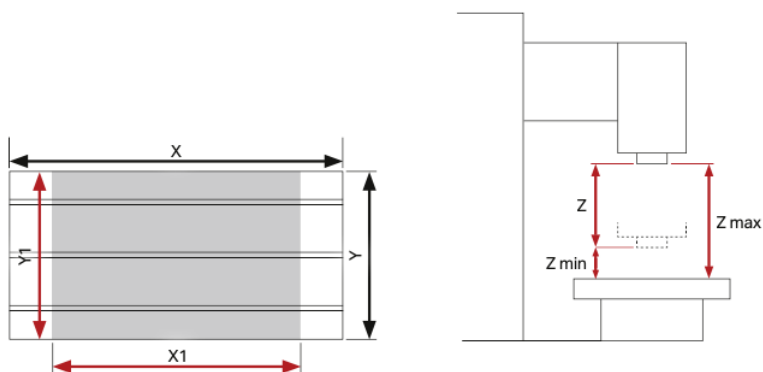
FV1890

A word from TOYODA:

«Toyoda 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. Toyoda 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.»

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

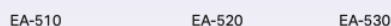
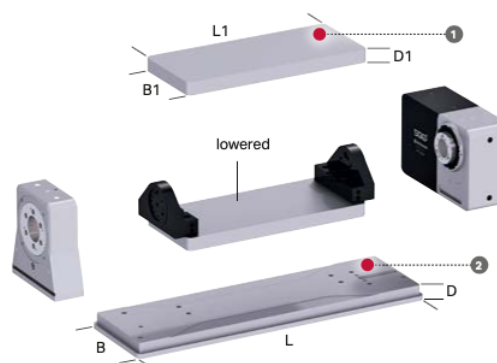
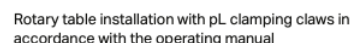
[illegible]

** The recommended rotary tables do not exceed 50 % of the allowed table load.

	EA-507 X2	EA-510 X2	EA-520 X2	EA-530 X2
FV965		817	791	762

<https://www.lehmann-rotary-tables.com/website/static/lib/pdfs/view...ge/selection-guide-toyoda-10.2018-en-dok-0333-1.pdf&zoom=page-fit> Page 7 of 21

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

[illegible]

			EA-507		EA-510		EA-520			EA-530	
1 Clamping yokes	Sph	[mm]	190		180		210			218	
	Length L1	[mm]	350	450	500	600	600	700	800	800	1000
	Width B1	[mm]	165		215		270			270	
	Thickness D1	[mm]	20		35		40			40	
2 Base plates	Length L	[mm]	622	722	785	885	916	1016	1116	1172	1372
	Width B	[mm]	168		248		301			368	
	Thickness D	[mm]	30		30		30			38	
Weights / moments of inertia (without rotary table, without counter bearing)	Weight (Al)	[kg]	10	12	23	28	40	45	52		
	Weight (steel)	[kg]	29	34	66	80	117	130	152		
	Mom. inert. (Al)	[kgm²]	0.02	0.02	0.06	0.07	0.16	0.17	0.21	on request	
	Mom. inert. (steel)	[kgm²]	0.04	0.05	0.17	0.21	0.46	0.50	0.60		

Explanations for pp. 8 to 11

[illegible]

A diagram of a rectangular area with dimensions X , Y , X_1 , X_2 , and Y_1 . A small black and white image of a person is shown in the bottom right corner.

[illegible]

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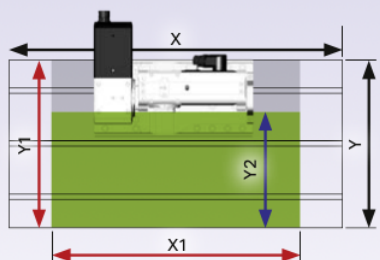
Y-mounting



Rotary table installation using hole pattern in base plate

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X-mounting



Rotary table installation using hole pattern in base plate



TIP1



TAP1



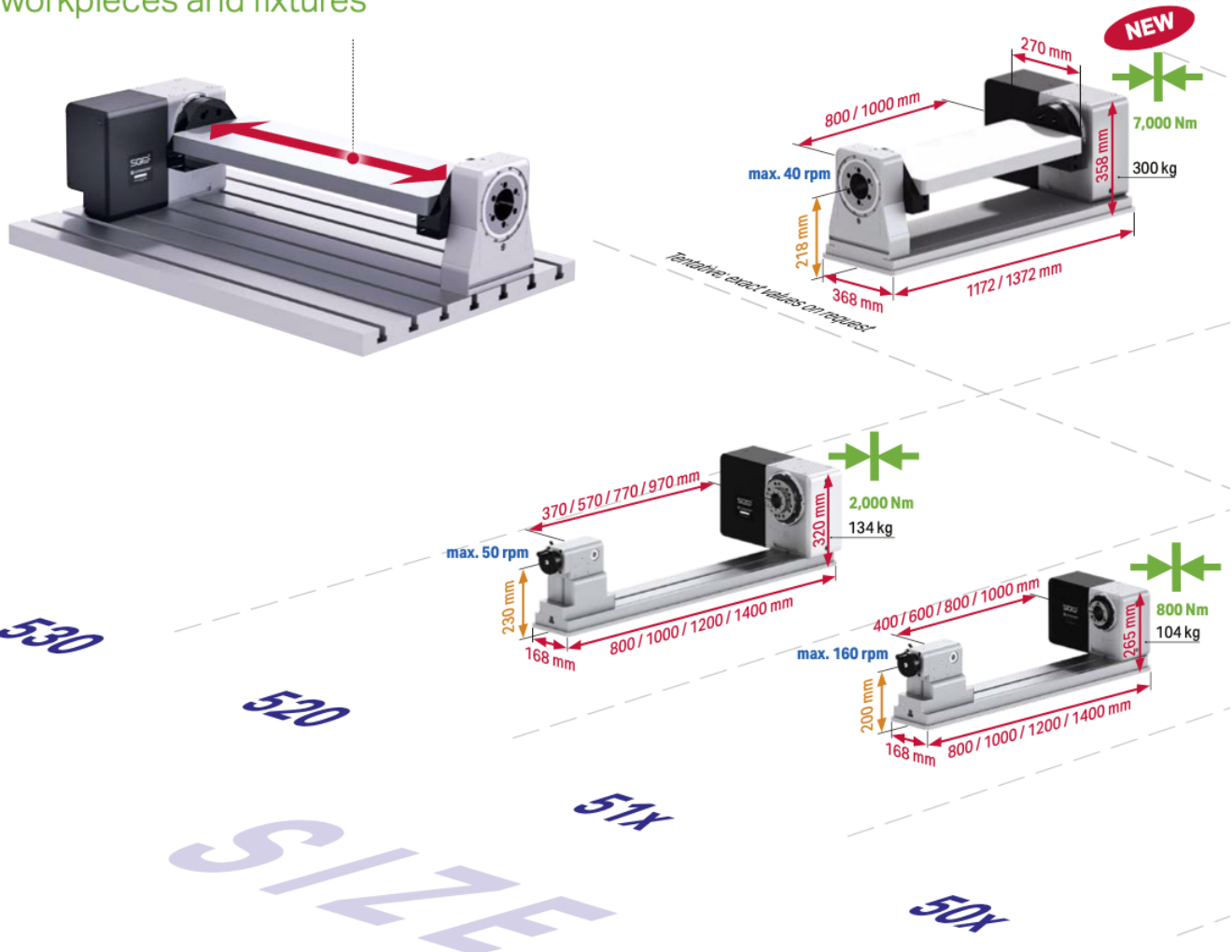
TOP1.2

[illegible][illegible]

Overview of E-Series



More space for workpieces and fixtures



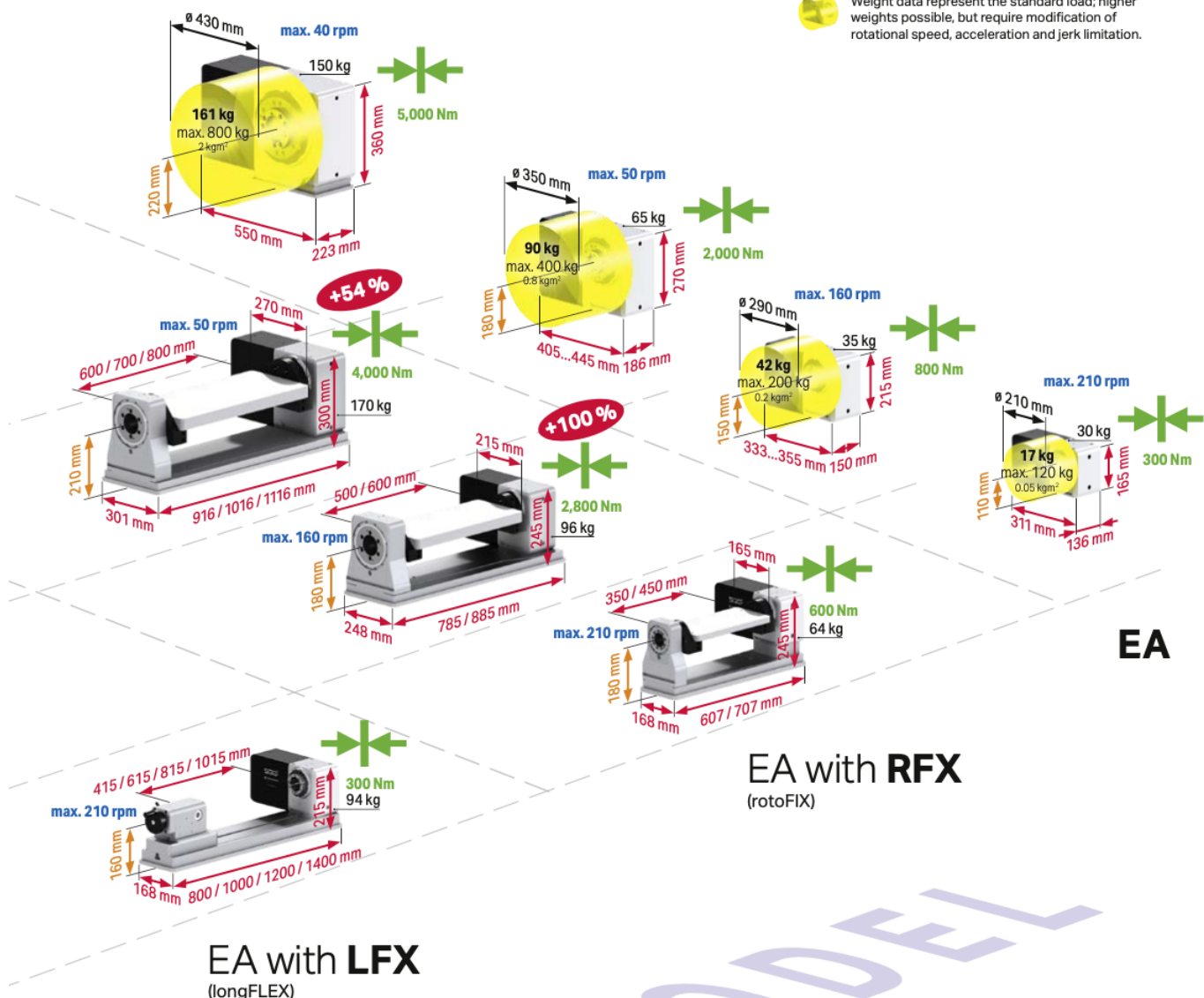
Overview of E-Series

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.

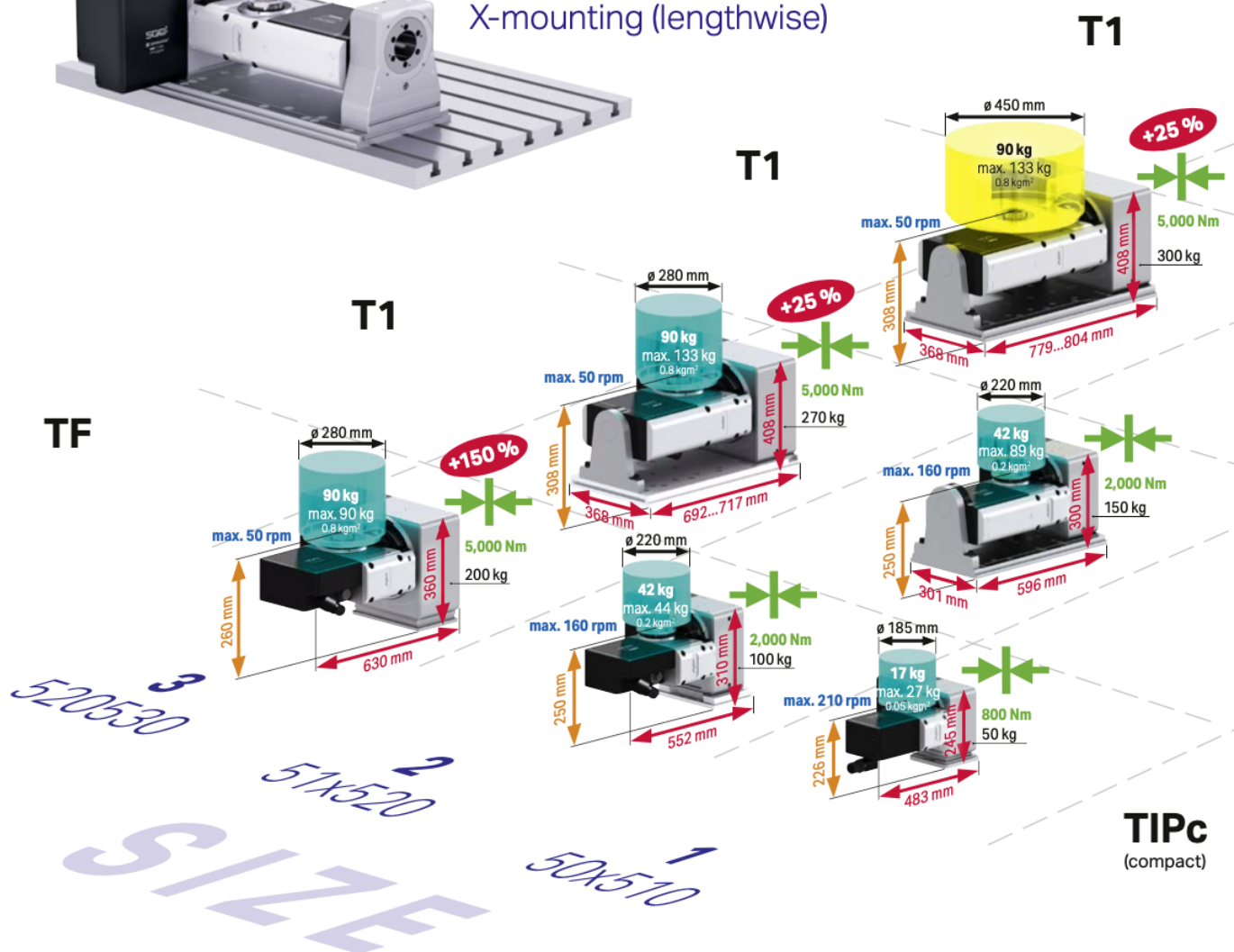


50x	507 (standard) or 508 (high speed)
51x	510 (standard) or 511 (high speed)
EA	single-axis, single-spindle CNC rotary table
rotoFIX	modular clamping yoke system
longFI FX	modular shaft clamping system

Overview of T-Series



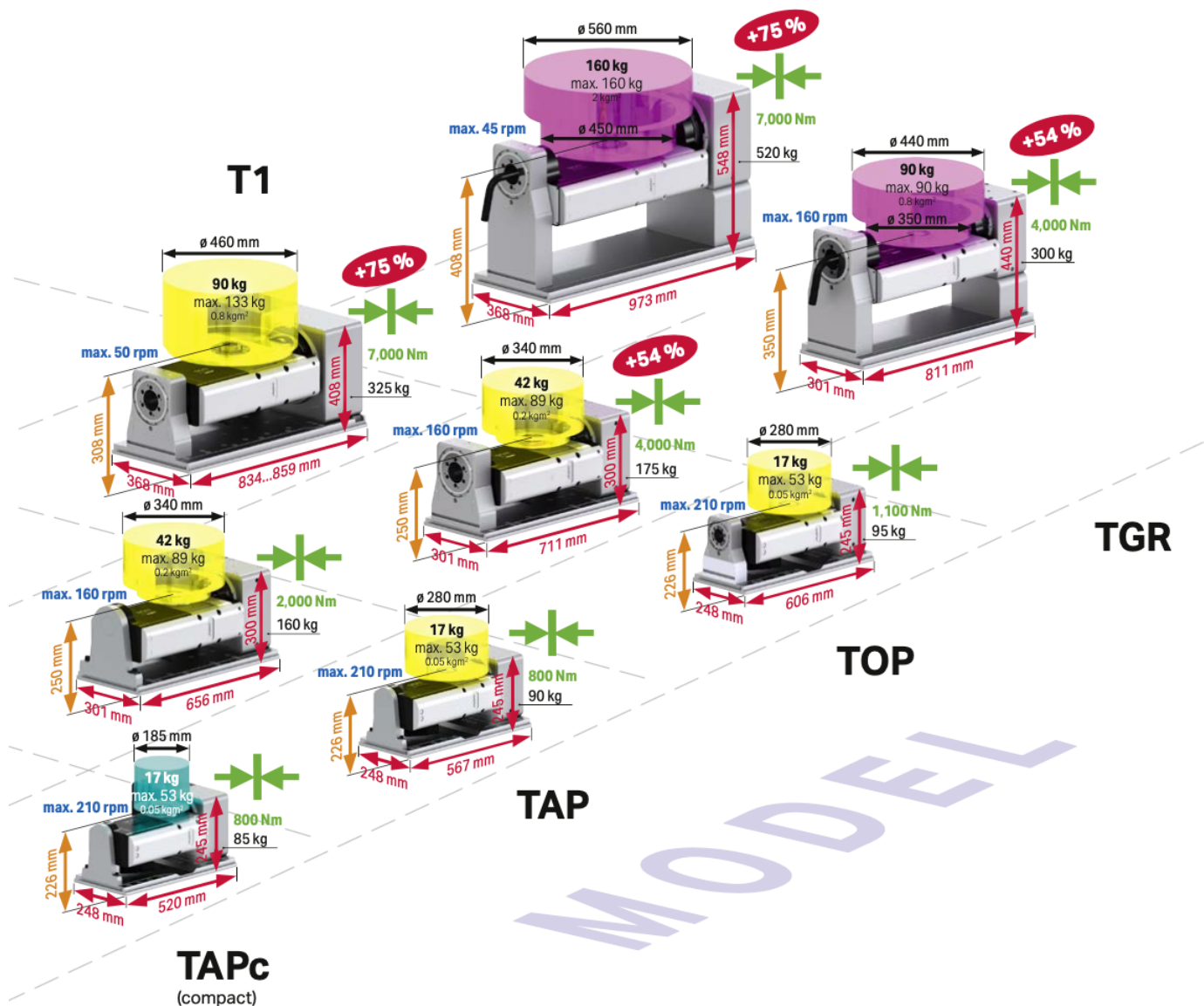
More space for
workpiece and fixtures



Overview of T-Series

News in brief

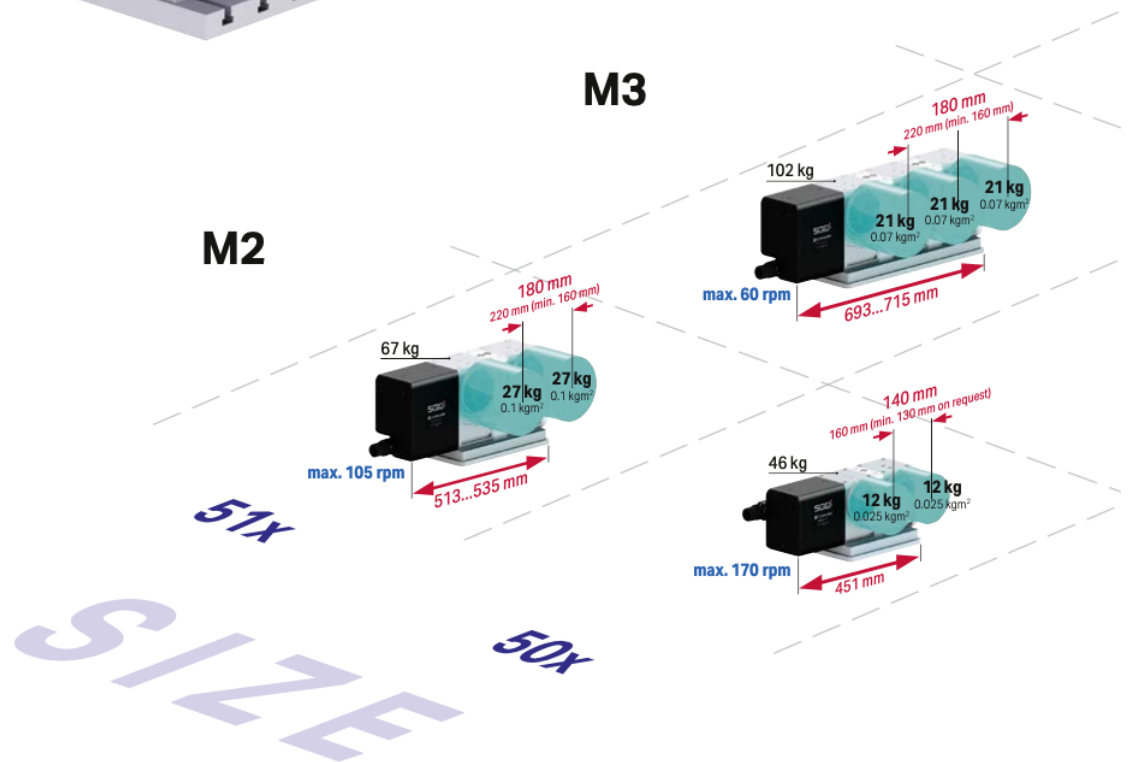
1. Up to **150 %** higher clamping torque in tilting axis
2. Fewer variant – more solution
3. Larger workpiece $\varnothing$ possible
4. Spatially optimized arrangement of the dividing axis



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

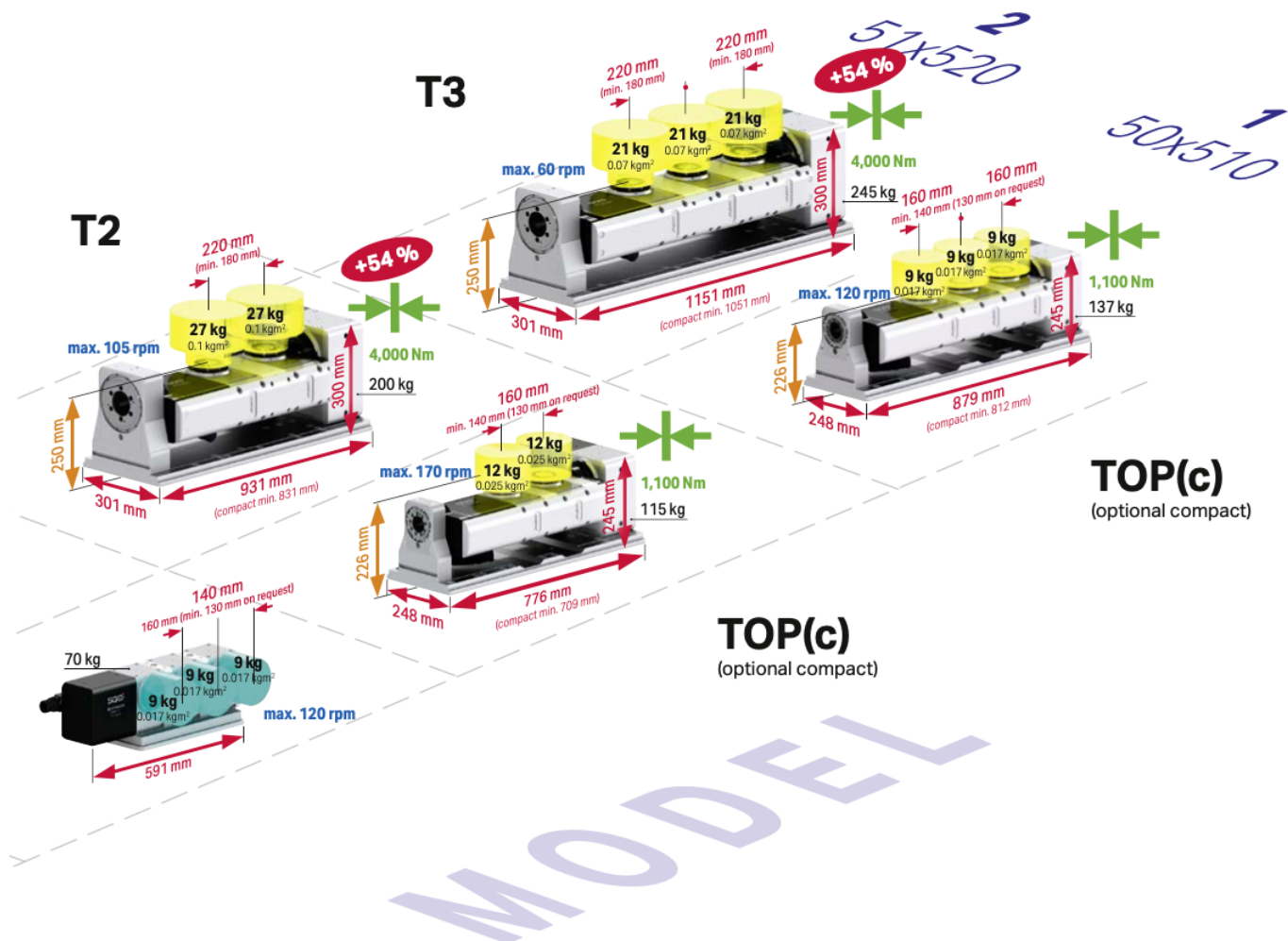
Overview of M-Series



Overview of M-Series

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

Spindle System Accessories

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



FA-507 with ripas auto and ripas adapter

CAPTO clamping (on request)



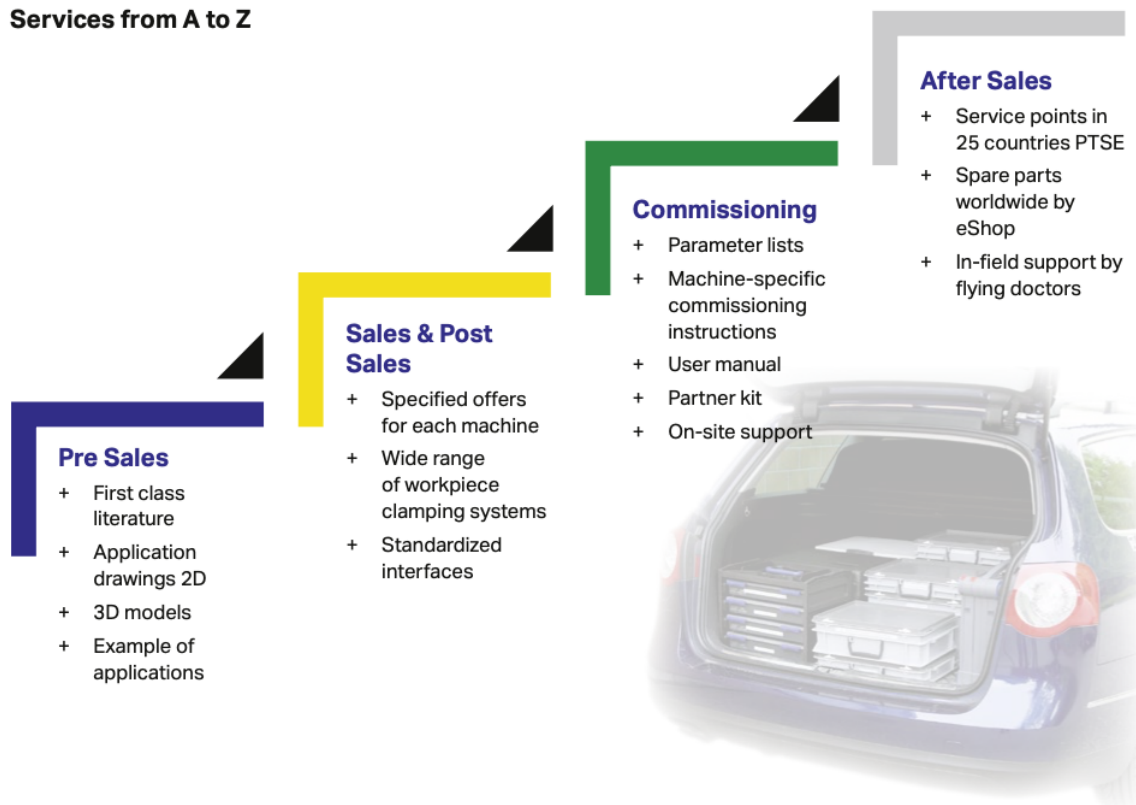
FA-507 with CAPTO retrofit kit

Sales and Service

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

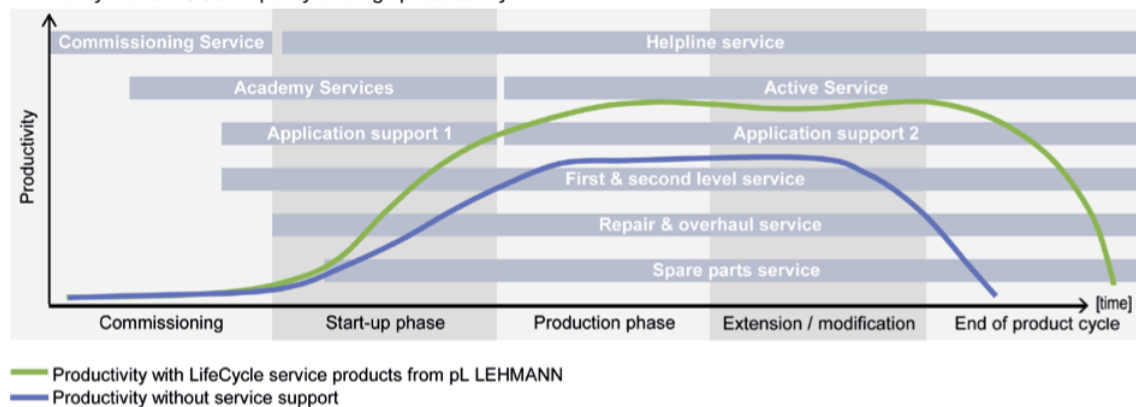


Services from A to Z



Increase productivity – Extend lifecycle

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



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



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- Spain
- Sweden
- Turkey
- UK

America

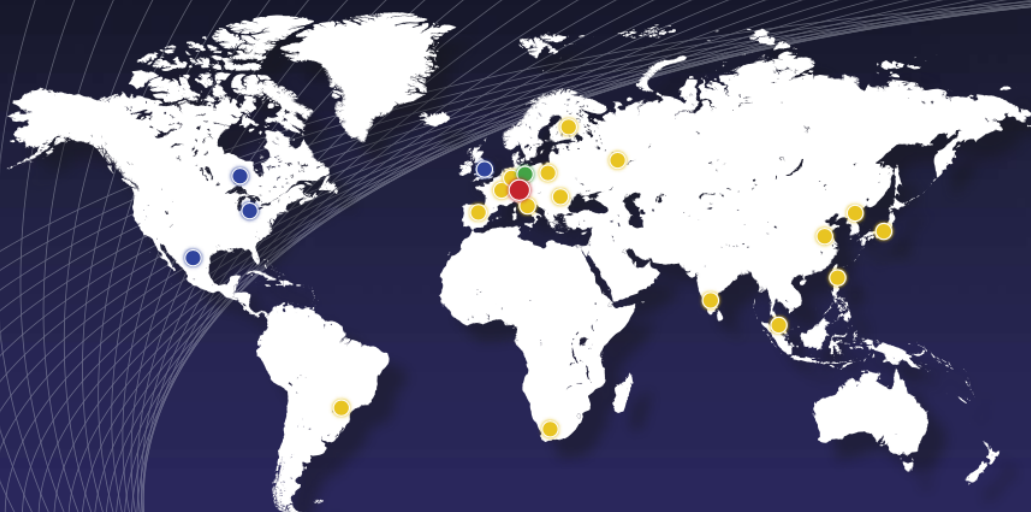
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- Canada
- Mexico
- USA

Asia

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

Africa

- South Africa



● Headquarters
 ● direct sales partner
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