

# Selection Guide for CNC Rotary Tables ...



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**FEHLMANN**

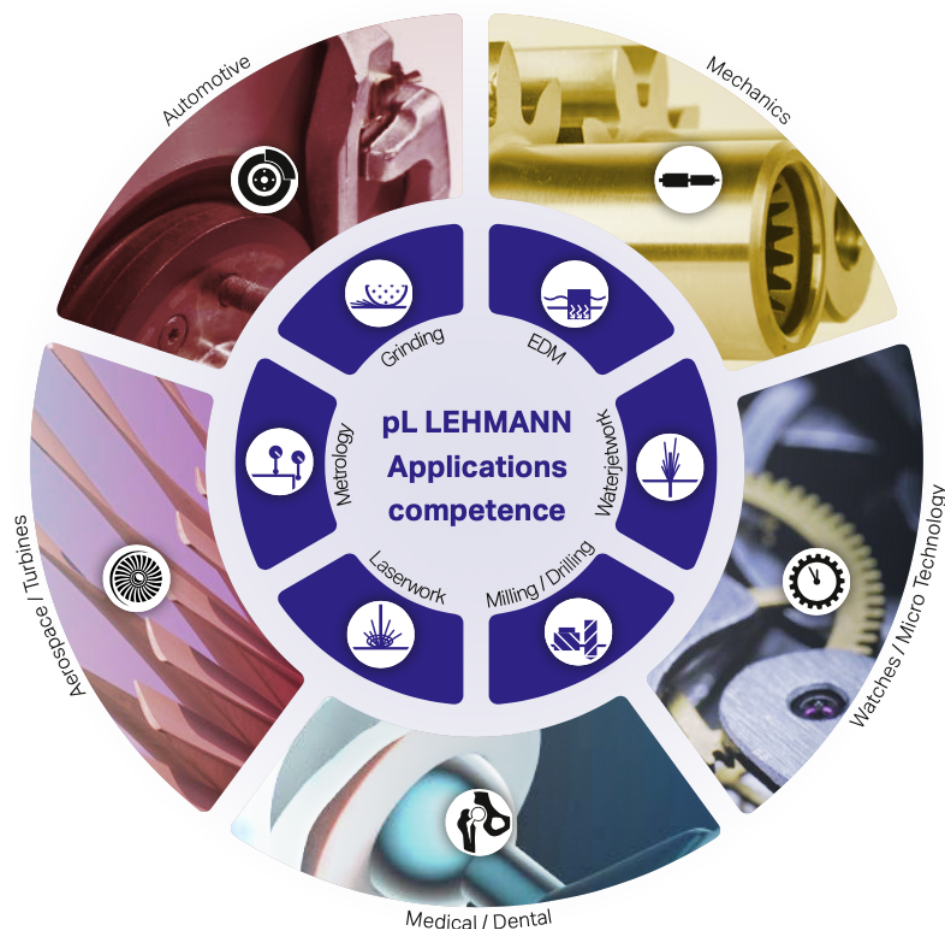
10/2018 | EN



... for Picomax- and Versa-series

## Applications

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

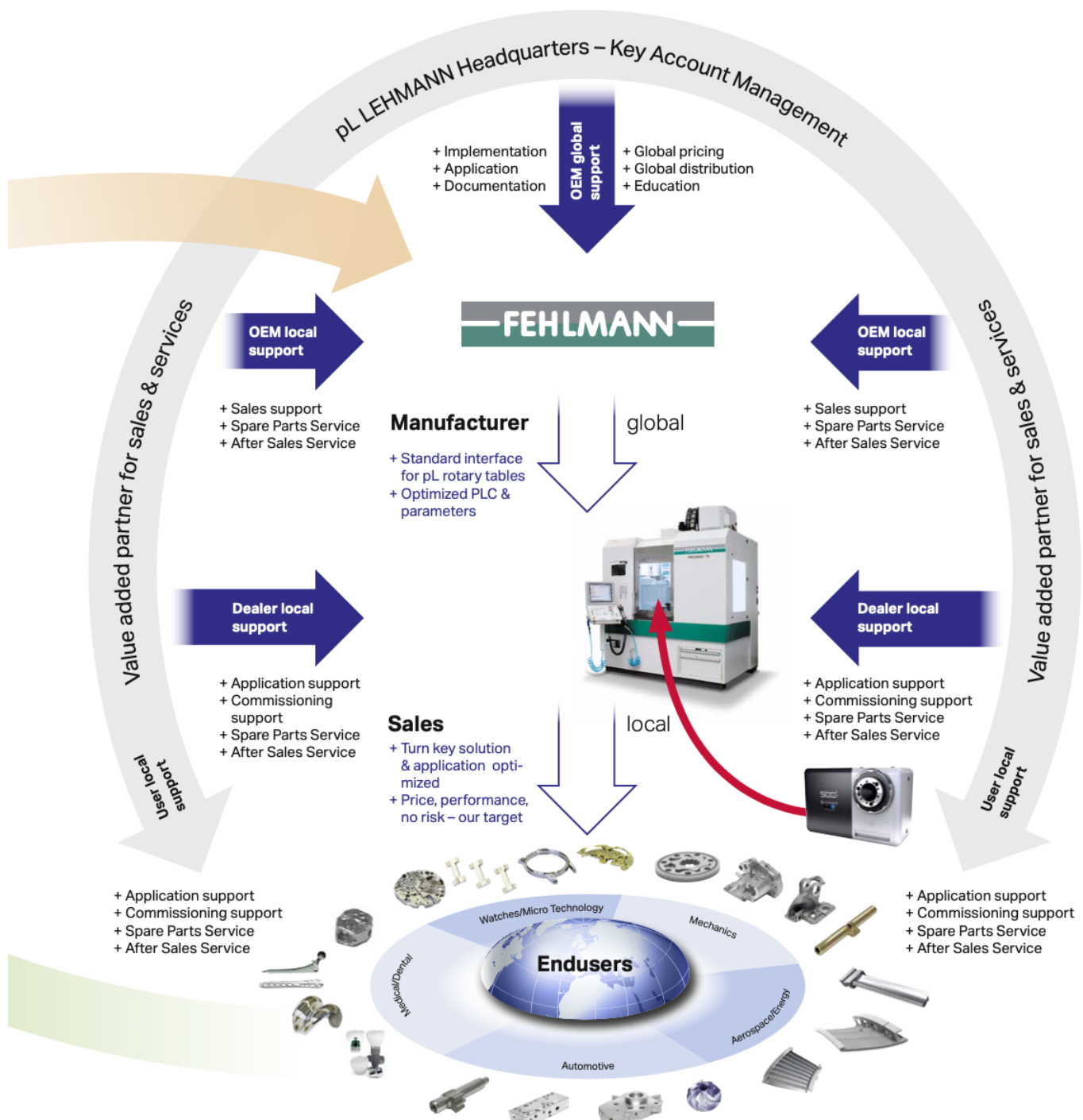


pL rotary tables in use: on over **40** different machine brands  
and over **160** different machine models.

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:  
FEHLMANN 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



**Rotary tables suitable for  
simultaneous operation!**

### 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  $\varnothing$  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



**NEW**

**Connectivity**

Wireless monitoring,  
for operation & service

**No adjust**

Load change without  
parameter adjustment

**Less cost**

No cooling system,  
no hydraulics

## Machine Overview



Picomax 56



Picomax 56L



Picomax 75



Picomax 95



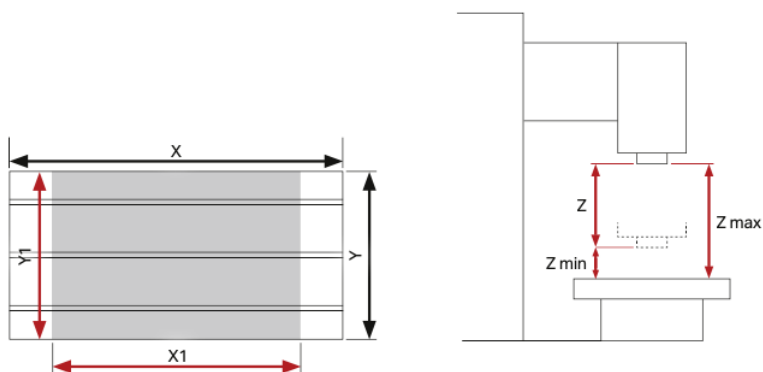
Versa 823

### A word from FEHLMANN:

#### «Productivity comes first!

Highest precision, reliability, efficiency and productivity are quality features of the FEHLMANN milling machines, as well as the FEHLMANN manufacturing processes. Our quality management ensures continuous development and optimization of our processes and structures. This ensures that you, the FEHLMANN customer, always enjoys the highest levels of satisfaction and quality. Come see for yourself: premium products, innovative technologies and a business culture based on fairness and team spirit is what Fehlmann AG is all about!»

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

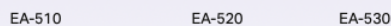
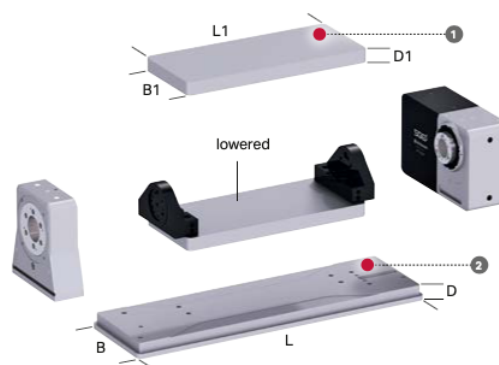
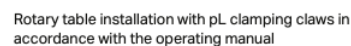
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\*\* The recommended rotary tables do not exceed 50 % of the allowed table load.

|            | EA-507<br>X2 | EA-510<br>X2 | EA-520<br>X2 | EA-530<br>X2 |
|------------|--------------|--------------|--------------|--------------|
| Picomax 56 | 537          | 521          | 495          |              |

<https://www.lehmann-rotary-tables.com/website/static/lib/pdfjs/view.../selection-guide-fehlmann-10.2018-en-dok-0328-1.pdf&zoom=page-fit>

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   | on request |      |
|                                                                              | 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 |            |      |
|                                                                              | Mom. inert. (steel) | [kgm²] | 0.04   | 0.05 | 0.17   | 0.21 | 0.46   | 0.50 | 0.60 |            |      |

## Explanations for pp. 8 to 11

M2-507  
M2-510

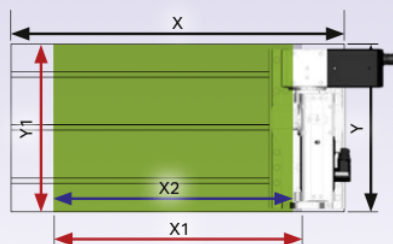
M3-507  
M3-510

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A diagram showing a robot on a green rectangular area. The robot is positioned at the top left of the green area. The green area is defined by dimensions  $X$  (width) and  $Y$  (height). The robot's footprint is defined by dimensions  $X1$  (width) and  $Y1$  (height). The distance from the robot's bottom edge to the bottom edge of the green area is labeled  $Y2$ .

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## Y-mounting



**TIP1**



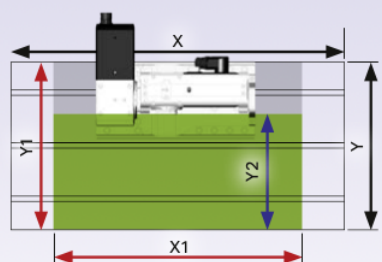
TAP1



TOP1.2

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## X-mounting



### Rotary table installation using hole pattern in base plate



**TIP1**



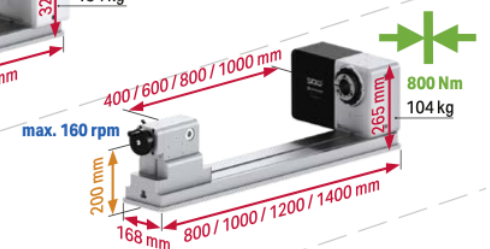
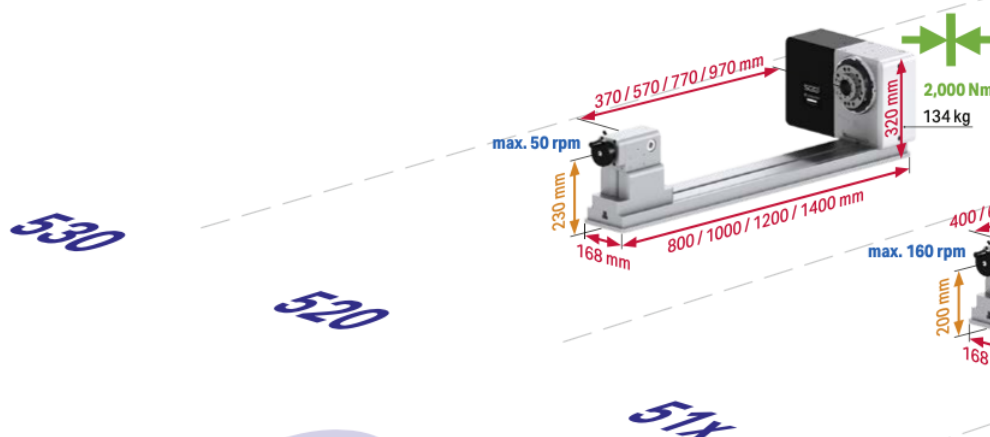
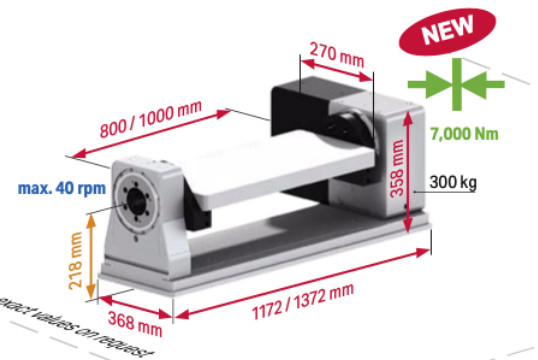
TAP1



TOP1.2

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## Overview of E-Series



SIZE

50x

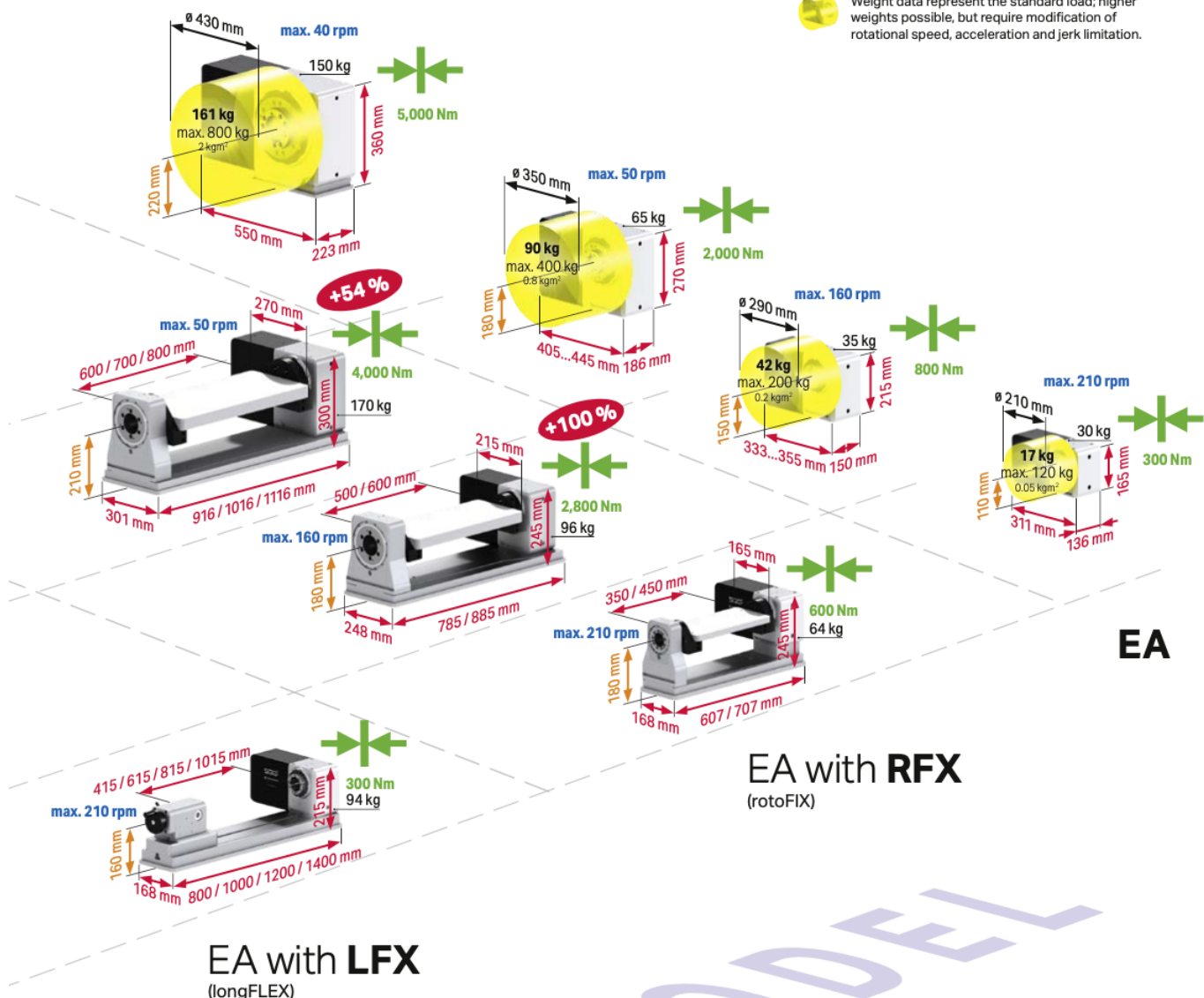
## Overview of E-Series

### 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.**

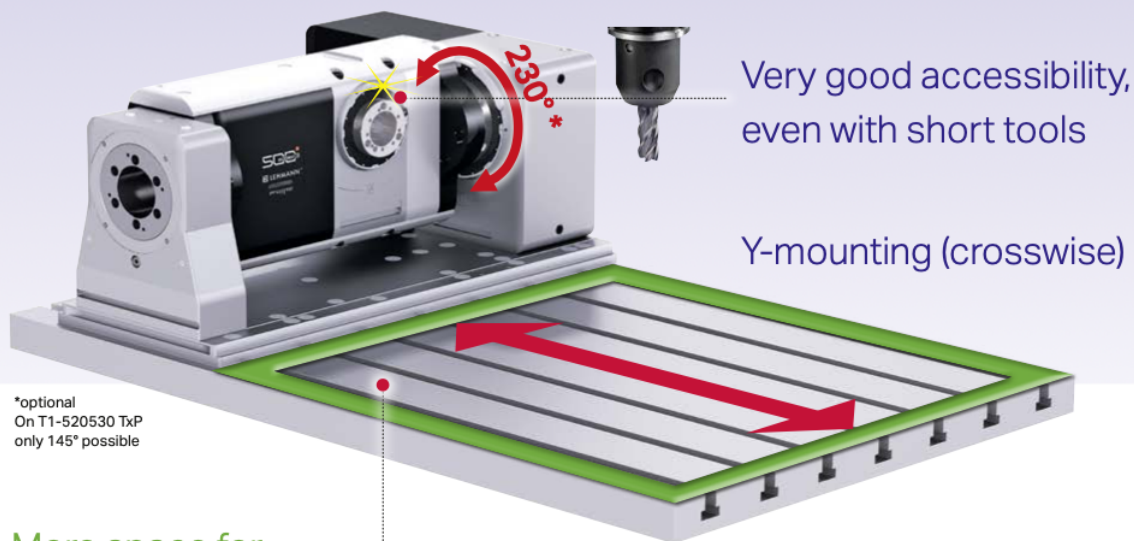


Weight data represent the standard load; higher weights possible, but require modification of rotational speed, acceleration and jerk limitation.

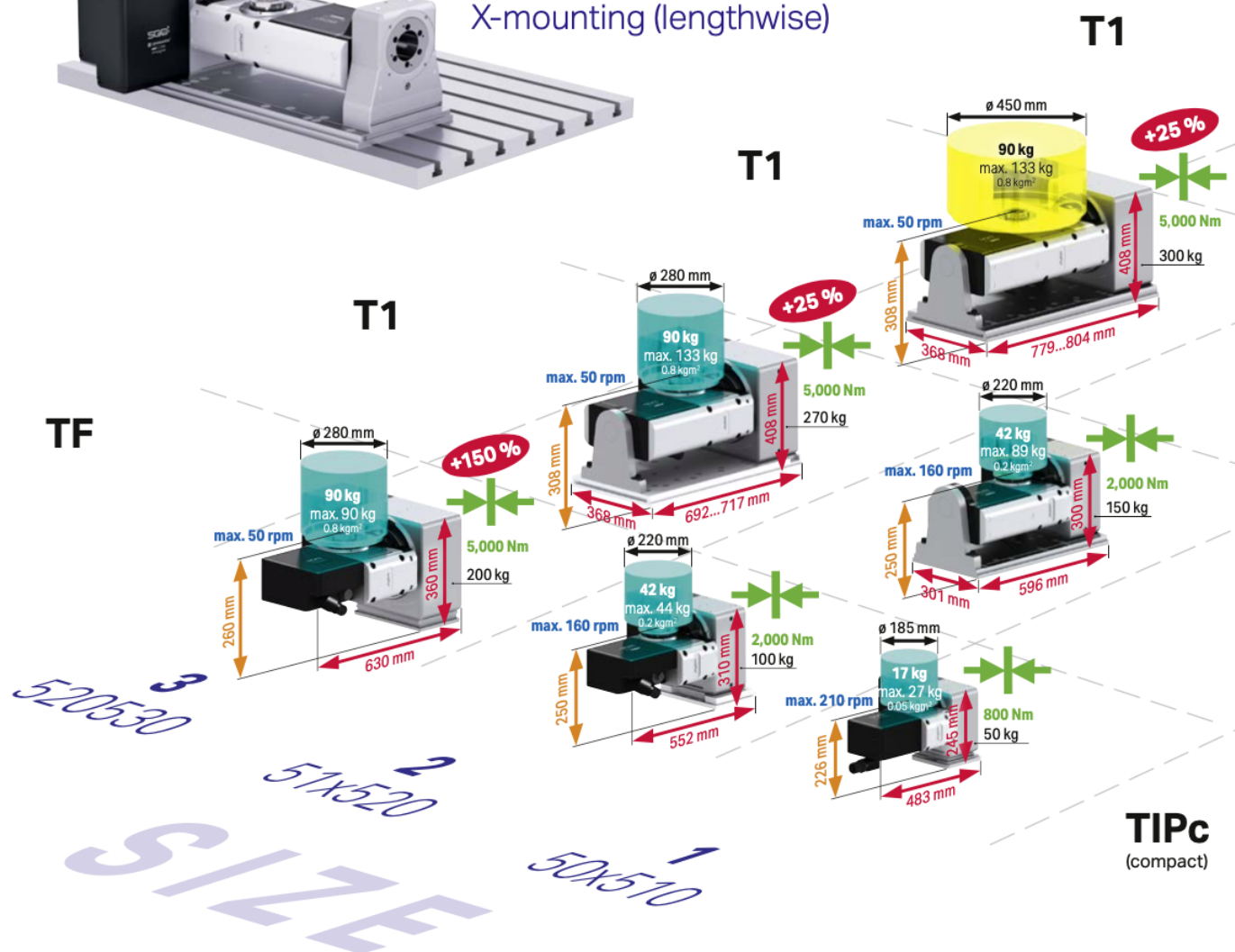


|          |                                              |
|----------|----------------------------------------------|
| 50x      | 507 (standard) or 508 (high speed)           |
| 51x      | 510 (standard) or 511 (high speed)           |
| EA       | single-axis, single-spindle CNC rotary table |
|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

## Overview of T-Series



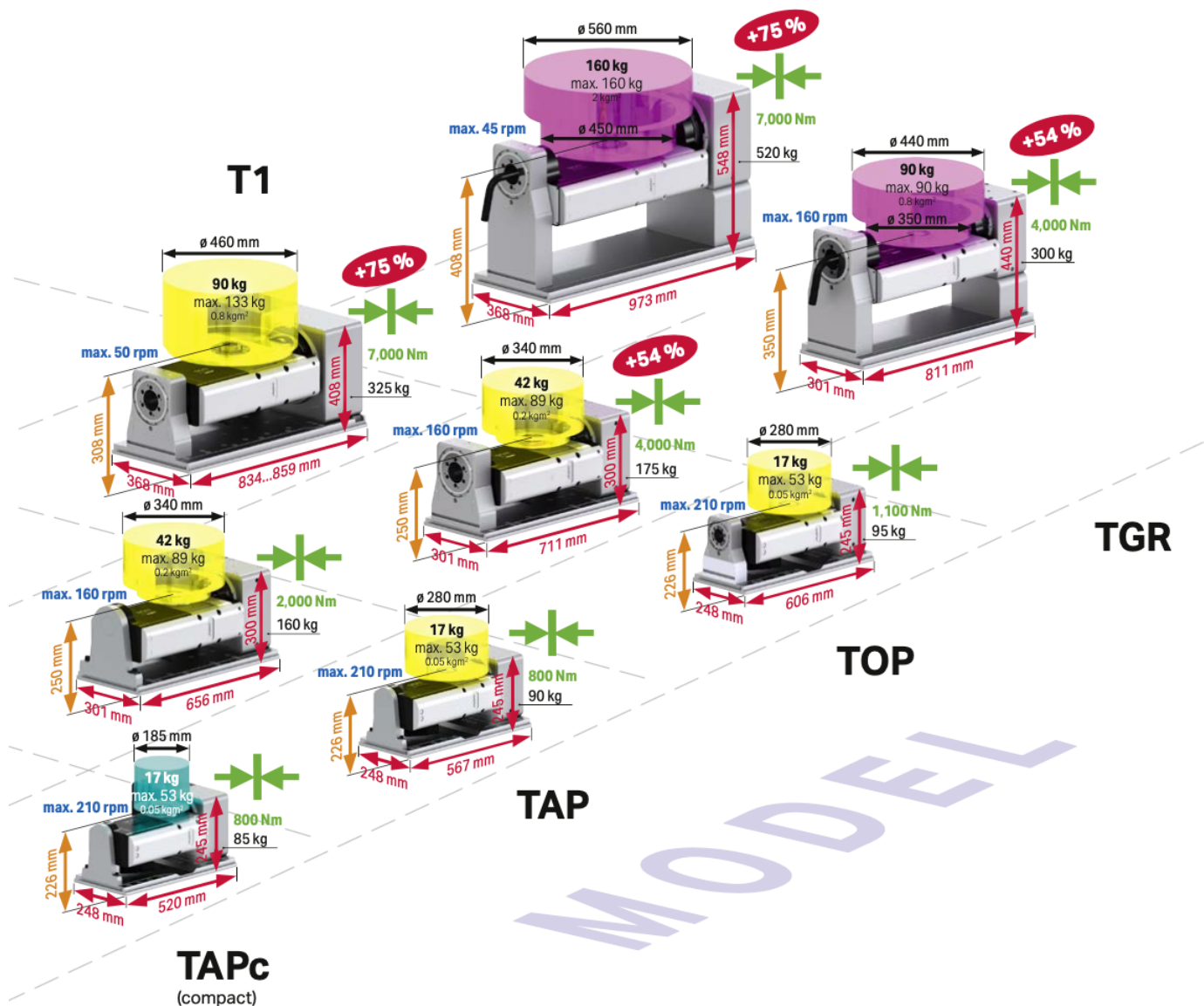
More space for  
workpiece and fixtures



## Overview of T-Series

### News in brief

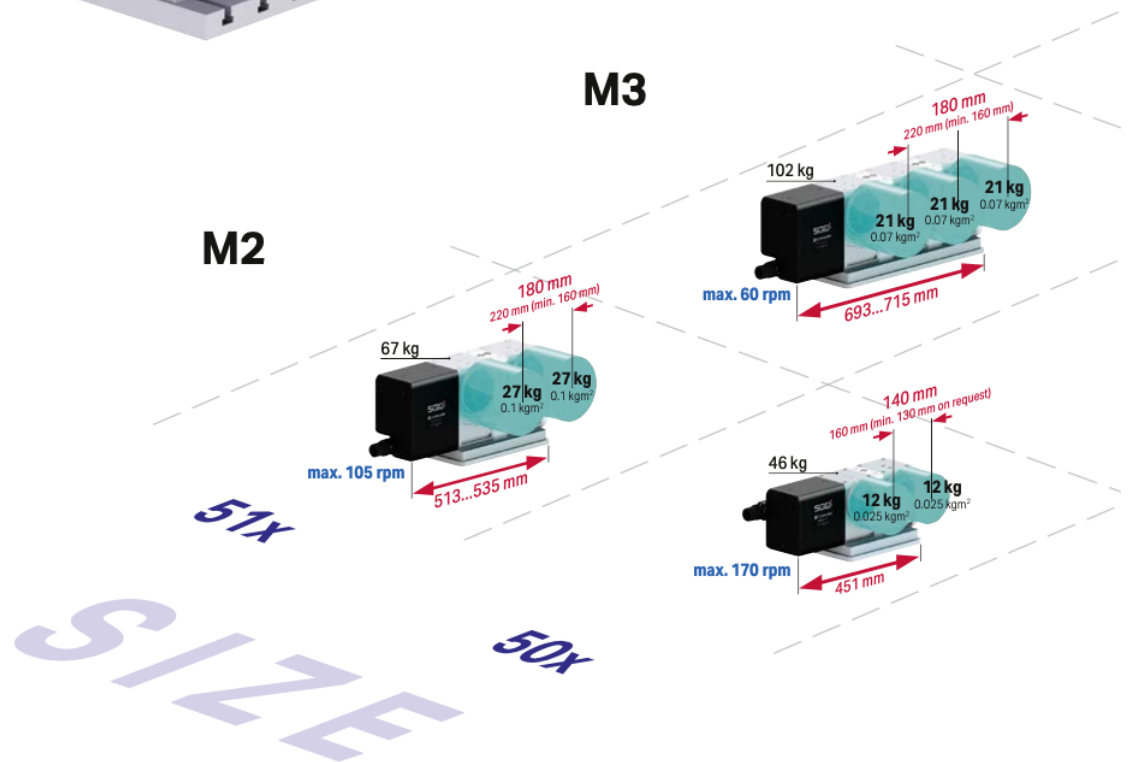
1. Up to **150 %** higher clamping torque in tilting axis
2. Fewer variant – more solution
3. Larger workpiece  $\varnothing$  possible
4. Spatially optimized arrangement of the dividing axis



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 |

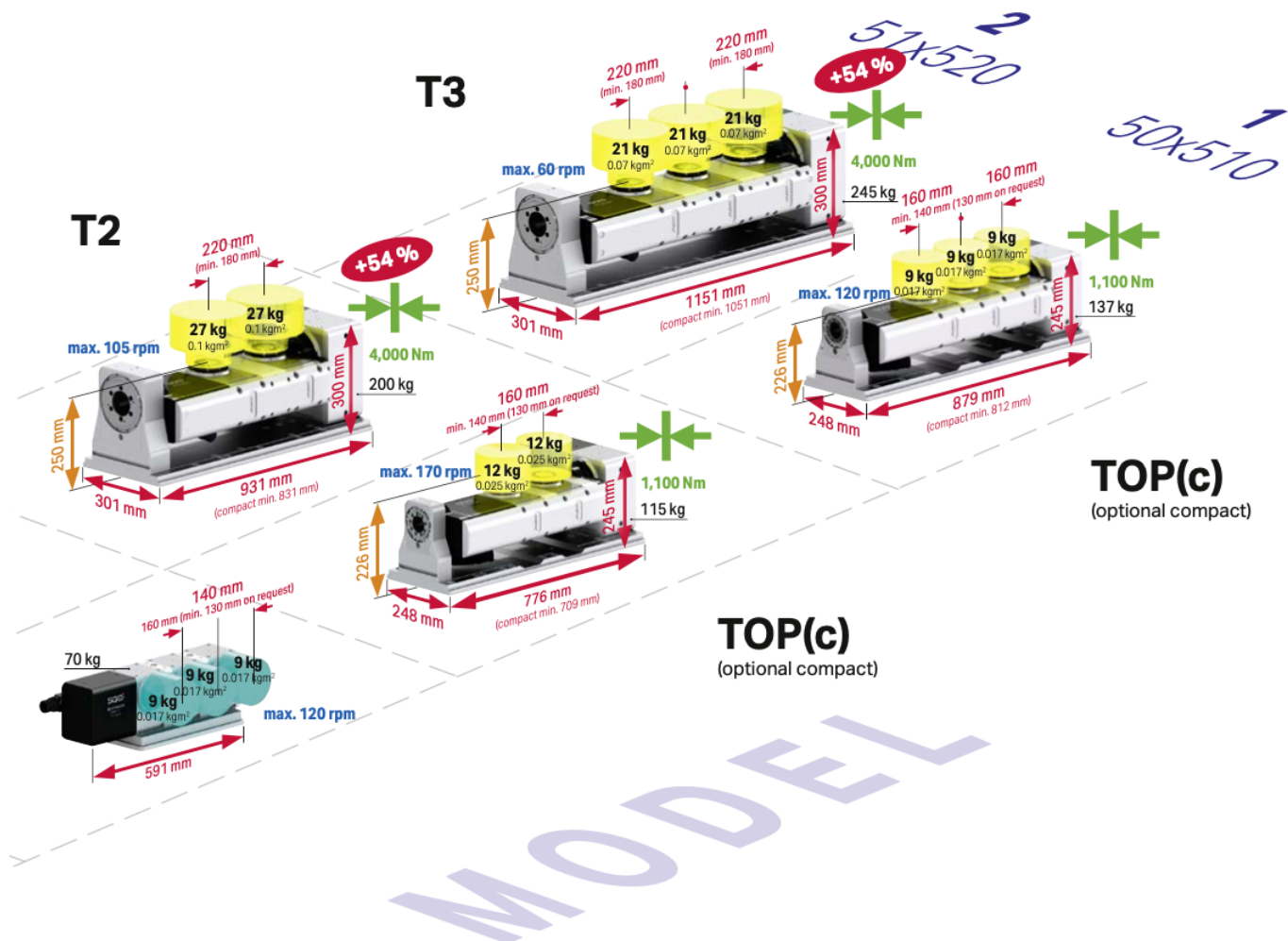
## Overview of M-Series



## 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  $\pm 1$  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)



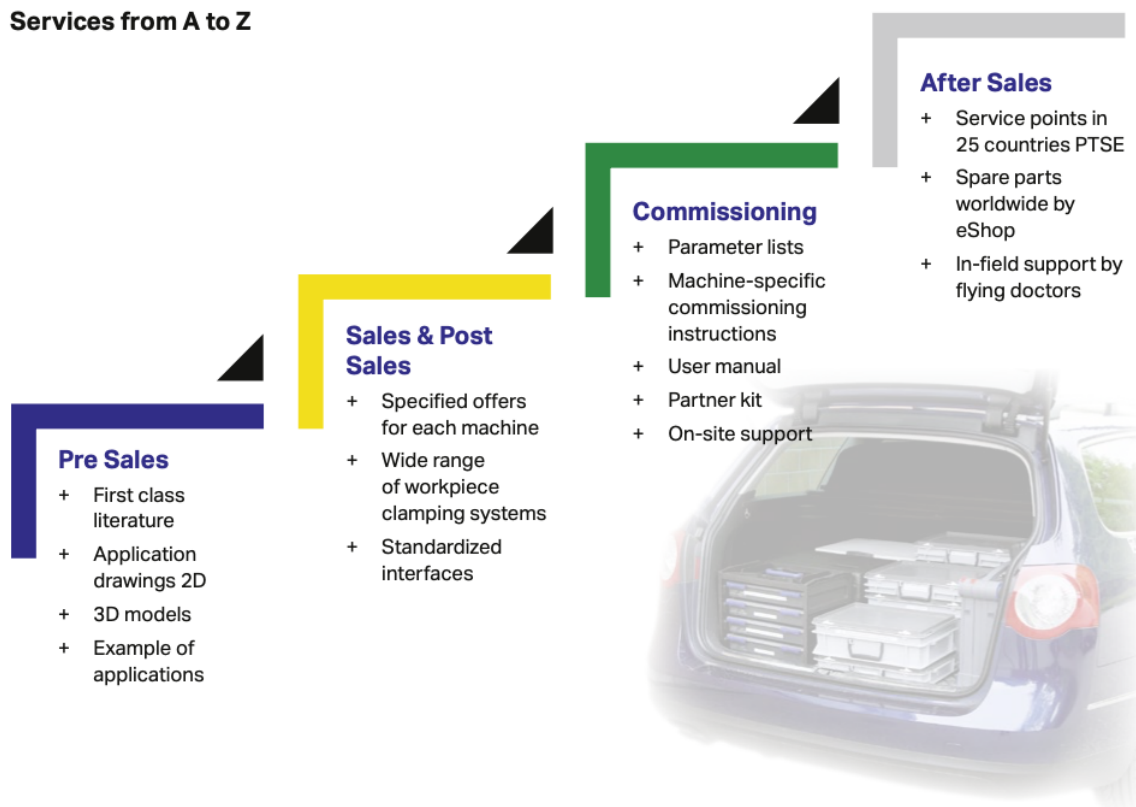
FA-507 with CAPTO retrofit kit

## Sales and Service

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

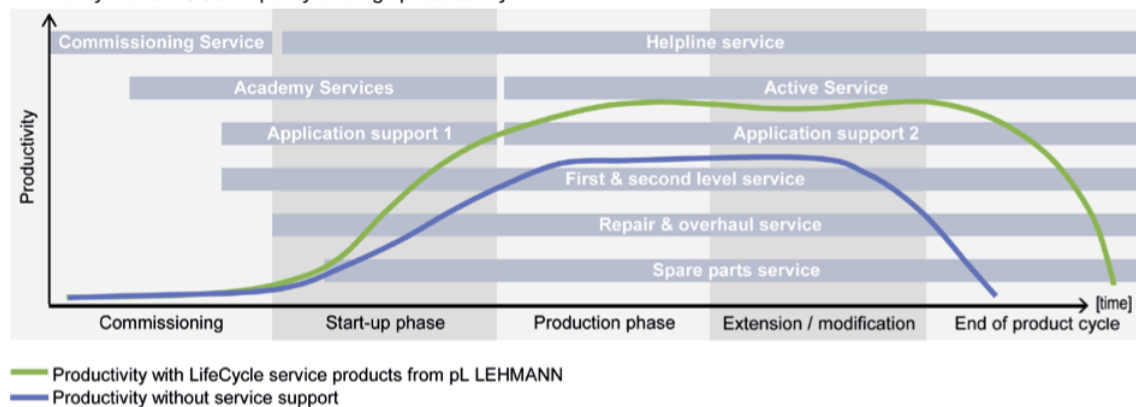


### Services from A to Z



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



ROTARY TABLES · PRECISION TECHNOLOGY · SOFTWARE

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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

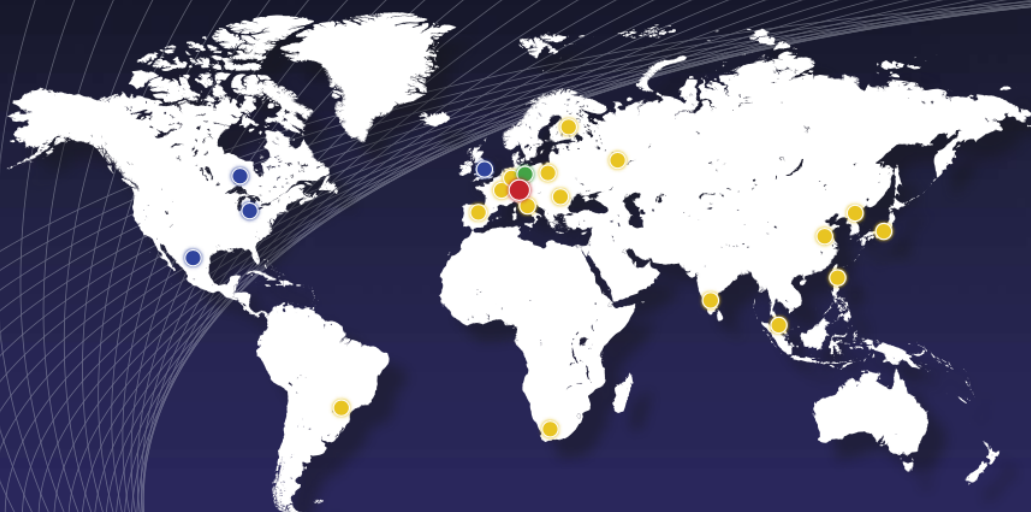
- Brazil
- Canada
- Mexico
- USA

##### Asia

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

##### Africa

- South Africa



● Headquarters    
 ● direct sales partner    
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 More information (address, telephone number...) at [www.lehmann-rotary-tables.com](http://www.lehmann-rotary-tables.com)

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