



Selection Guide for CNC Rotary Tables ...

**Smart
Solution**

We will
support you

2025

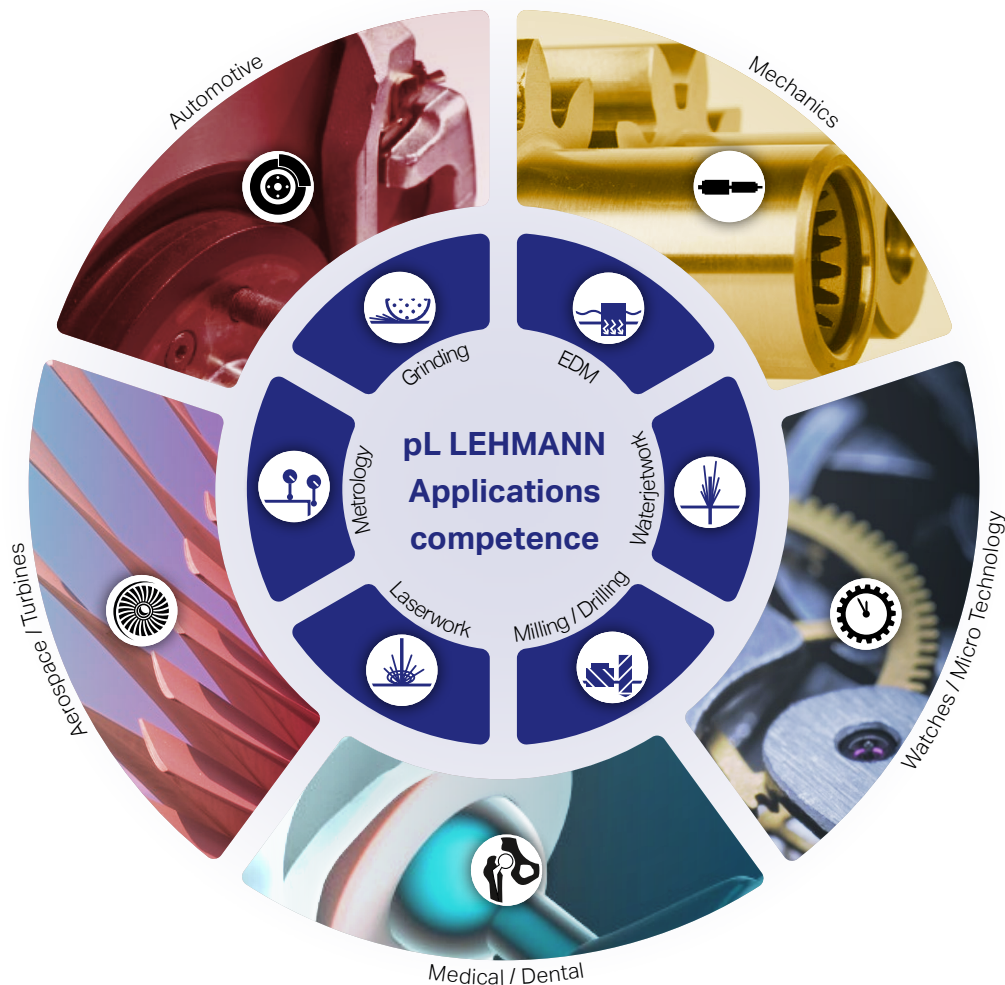
brother

04/2025 | EN



... for vertical machining centers

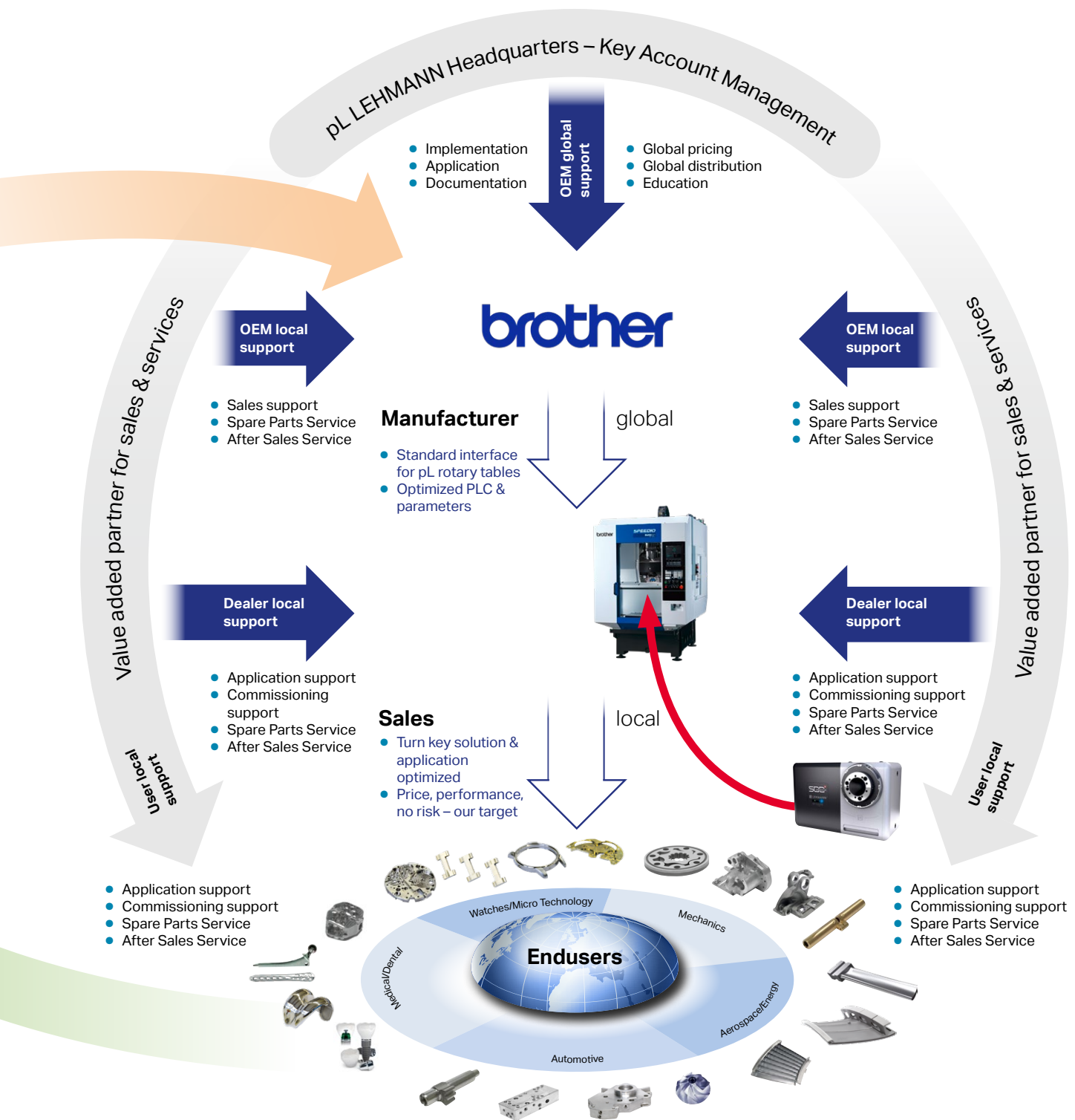
CNC rotary tables for economical manufacturing:
pL LEHMANN has suitable and rational solutions for
nearly every industry



pL rotary tables in use on over **200** different machine brands and
over **1,000** different machine models.

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

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



Up to 210 rpm
up to 0.21 sec / 90°

High speed GD

Extended travel in
Z- and X-direction

More space

High spindle load,
heavy-duty bearing

Heavy duty

E-Series



EA-50x light only 12 kg



EA-510

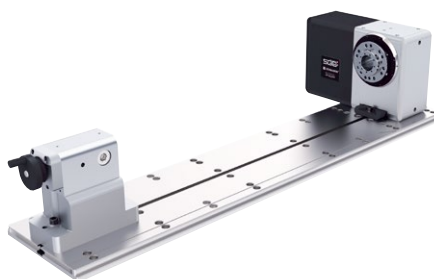


EA-520



EA-530

rotoFIX & longFlex



High torque

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 $\varnothing$ 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 cross-
wise clamping.

M-Series



Connectivity

Monitoring for
operation & service

No adjust

Load change without
parameter adjustment

Less cost

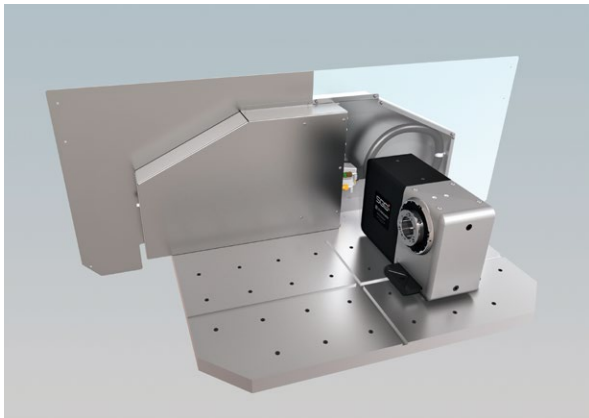
No cooling system,
no hydraulics

Simple assembly by customers

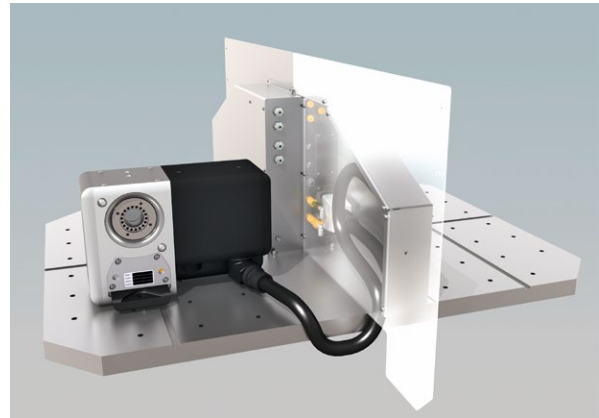
Suitable for Quicktable: SPEEDIO R450Xd1, SPEEDIO R650Xd1
(no adaptation of machines required!)

Important information (applies to all machines): Per axis, 3 (divider) and 5 (swiveller / tilter) digital inputs as well as 1 digital output per axis are required so that the spindle clamping signals «clamped/released» can be queried properly.

EA and M rotary tables (4 axes)

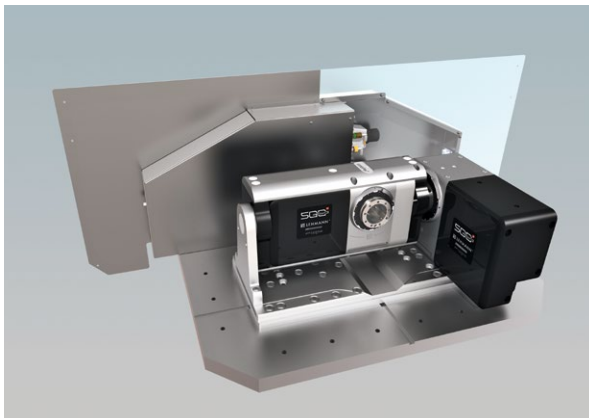


Front view

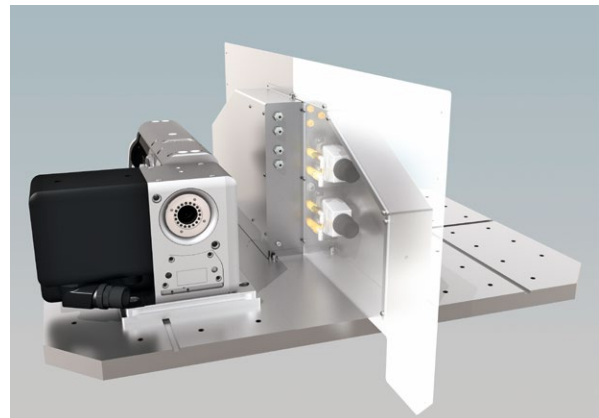


Rear view

T rotary tables (4/5 axes)



Front view



Rear view

Terminal box for Quicktable machines



Assembly kit for Fixtable machines



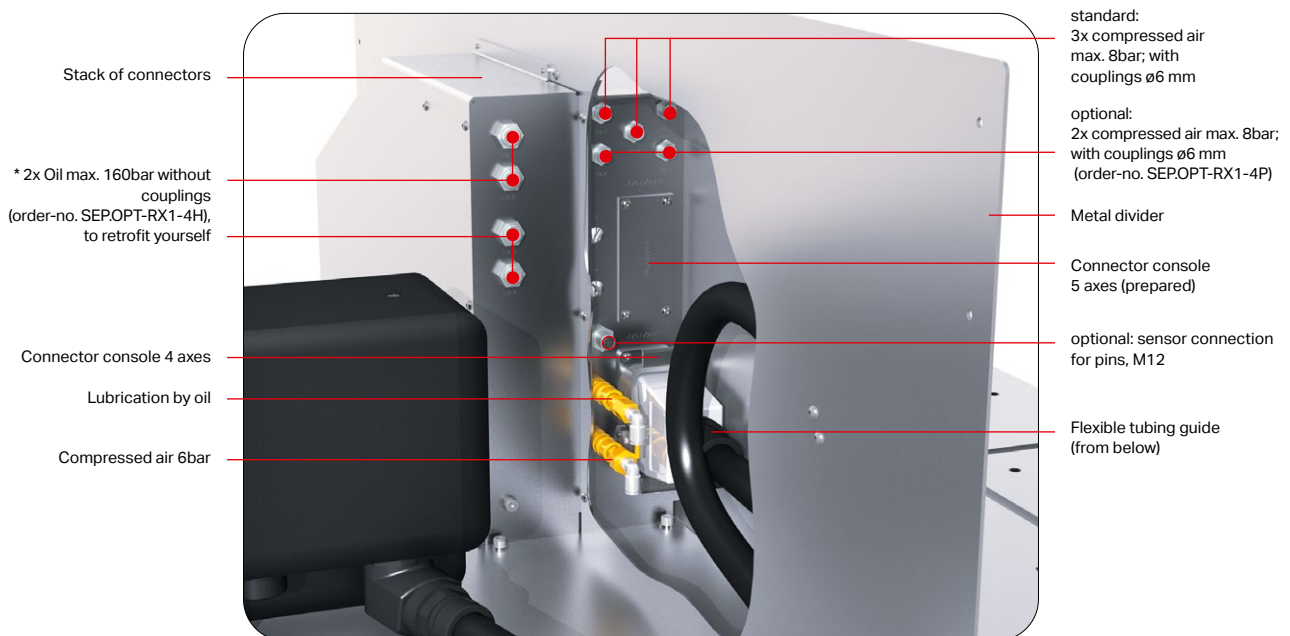
Practical additional benefits and assembly details

Delivery servoPACK:

- Servos, cables, plates, adapter, etc.
- Parameter lists

Important information (applies to all machines): Per axis, 3 (divider) and 5 (swiveller / tilter) digital inputs as well as 1 digital output per axis are required so that the spindle clamping signals «clamped/released» can be queried properly.

Relay unit



* Remarks

- air pressure and oil pressure can be combined, if 4th axis are mounted on both sides only
- dependence on other combinations, 4x oil per side pressure as option available (on demand)

Assembly process (Example: SPEEDIO R650X2; for details see Commissioning Instructions)





SPEEDIO F600X1



SPEEDIO R450Xd1



SPEEDIO R650Xd1

A word from Brother:

«At your side

The Brother Group's mission is to place our customers first everywhere, every time, and provide them with superior value, by quickly creating and delivering high quality products and services. We offer products and services with our distinctive expertise in a wide range of fields.»



SPEEDIO S300Xd2



SPEEDIO S500Xd2



SPEEDIO S700Xd2



SPEEDIO W1000Xd2

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

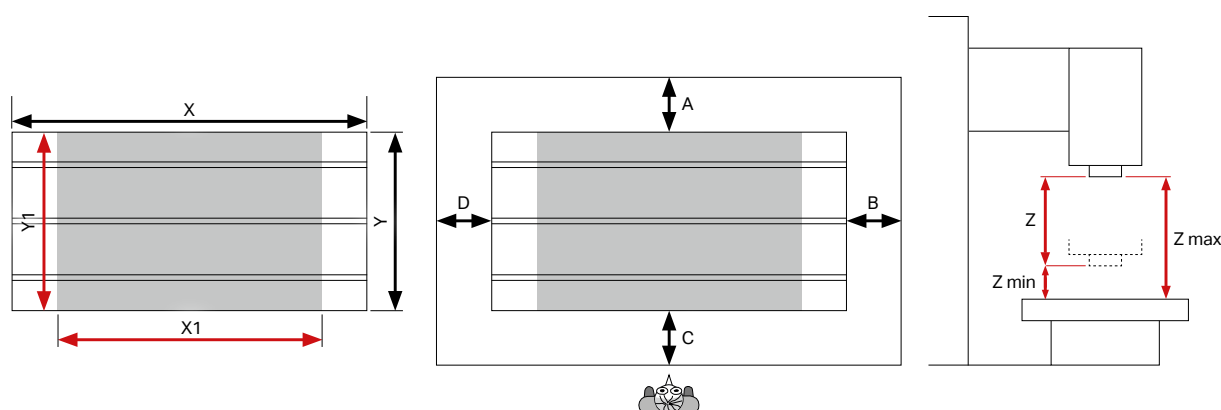


	Table diameter [mm]		Permissible overhang *	Traverse stroke [mm]					Minimum distance [mm]				Table load ** max [kg]
	X	Y		X1	Y1	Z	Zmin	Zmax	A	B	C	D	
SPEEDIO F600X1	800	400	30%	600	400	350	200	550					400
SPEEDIO R450Xd1	600	300	10%	450	320	305	200	505					120
SPEEDIO R650Xd1	800	400	10%	650	400	305	250	555					200 ***
SPEEDIO S300Xd2	600	450	30%	300	450	300	180	480					250
SPEEDIO S500Xd2	600	450	30%	500	450	300	180	480					250
SPEEDIO S500Xd2	600	450	30%	500	450	380	150	530					250
SPEEDIO S700Xd2	800	450	30%	700	450	300	180	480					250
SPEEDIO S700Xd2	800	450	30%	700	450	380	150	530					250
SPEEDIO W1000Xd2	1'100	500	30%	1'000	500	380	150	530					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.)

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

*** possible to increase by changing parameter

Attention: SPEEDIO R650 has a hole pattern instead of T-slots

SANYO drive system

Criterion	SPEEDIO S300Xd2	SPEEDIO S500Xd2	SPEEDIO F600X1	SPEEDIO S700Xd2	SPEEDIO W1000Xd2	SPEEDIO R450Xd1	SPEEDIO R650Xd1
Machine table slot distance [mm]	100	100	100	100	125	100	
Number of slots / groove width	3/14	3/14	3/14	3/14	3/14	3/12	
Slot distance over alignment tenon blocks [mm]	—	—	—	—	—	—	100

Quicktable machines

Table explanation for pp. 12–15

	EA-507	EA-510	EA-520	EA-530
	X2			
SPEEDIO F600X1	533	517	491	

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.

Cable lengths (if supplied together with pL servoPACK)

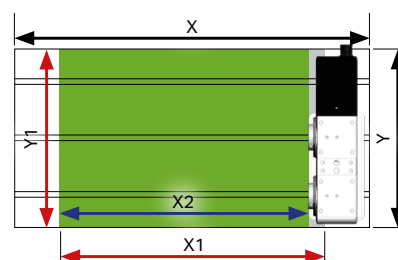
	Dividing	Tilting
R450/R650	1.3 m (if supplied as 4 th axis and 4 th /5 th axis)	0.8 m
S500/S700/ S1000	5.0 m (if supplied as 4 th axis) 6.0 m (if supplied as 4 th /5 th axis)	5.0 m

Explanations for pp. 10 to 13

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.

[illegible]

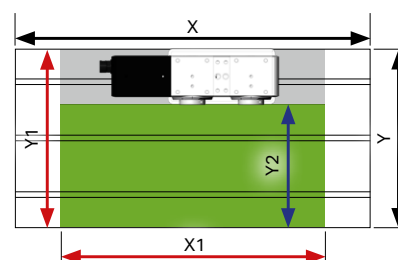
Y-mounting



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

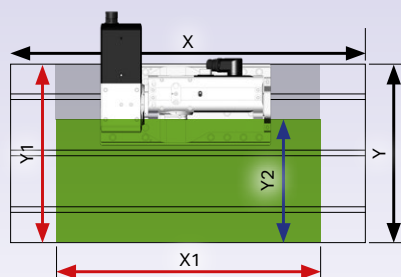
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X-mounting



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

X-mounting



Rotary table installation using hole pattern in base plate



TIP1

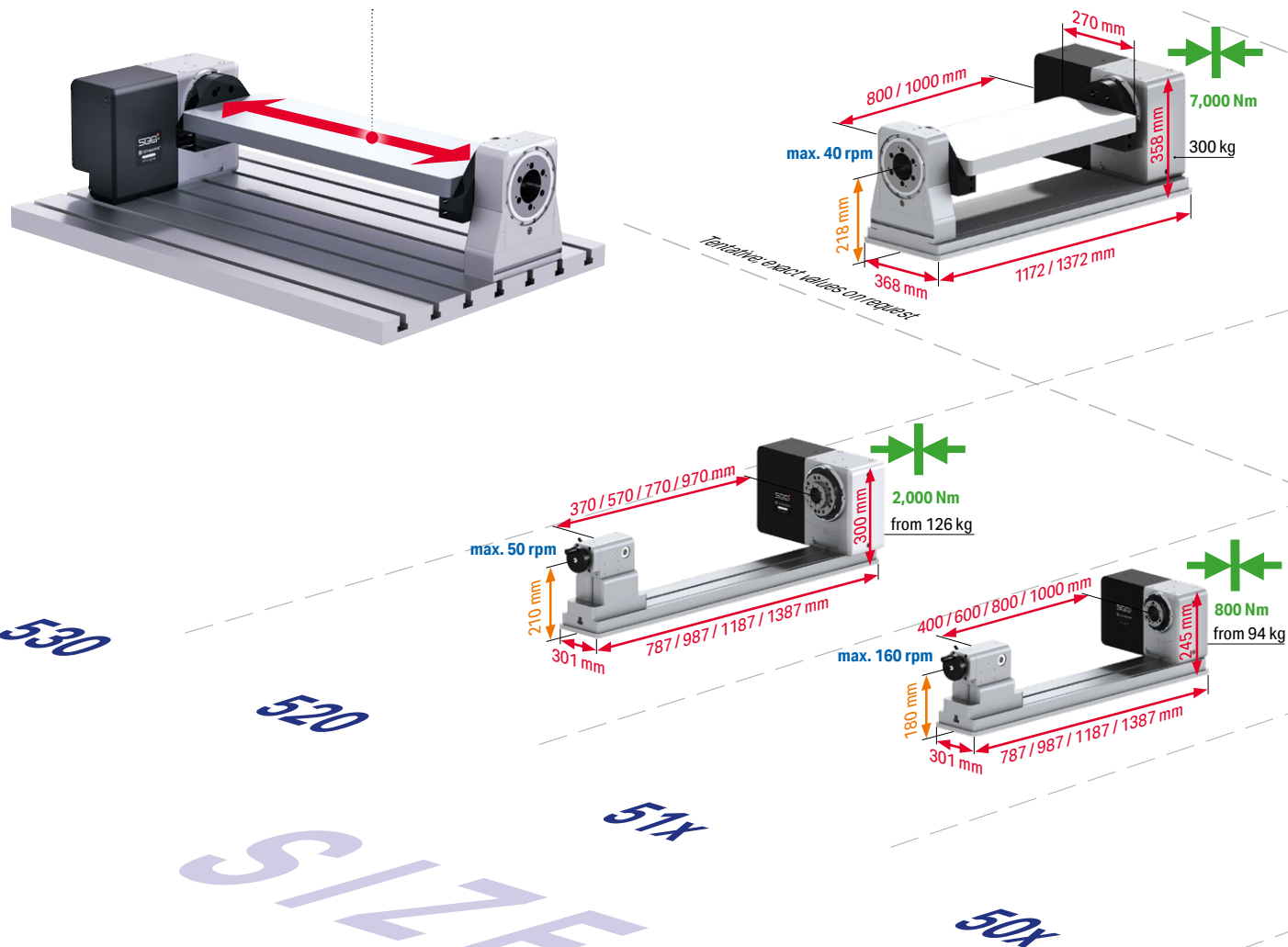
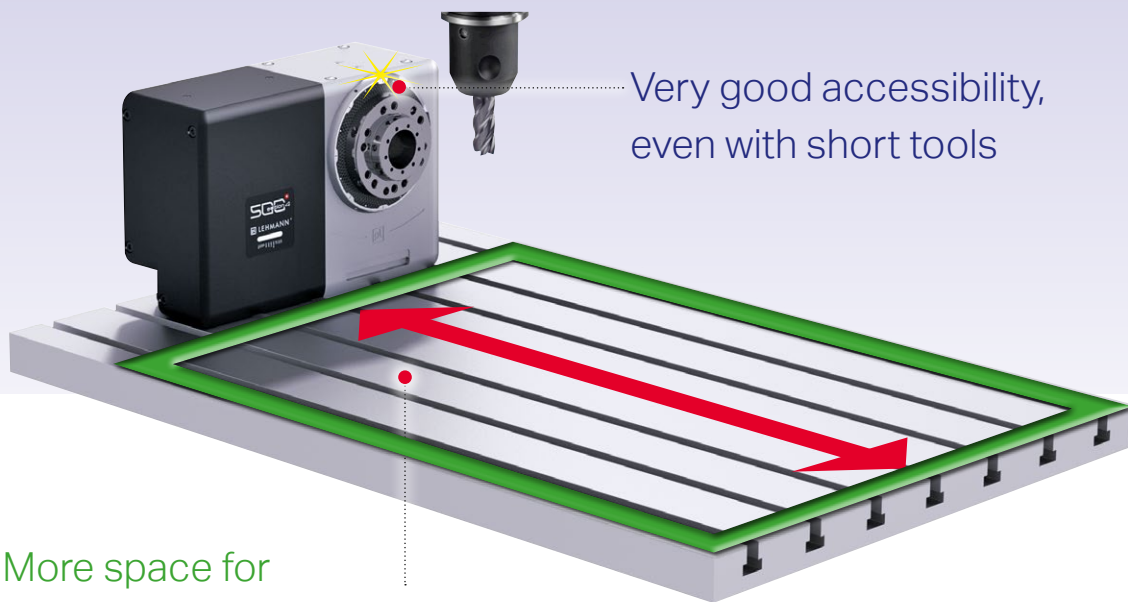


TAP1



TOP1.2

[illegible][illegible]

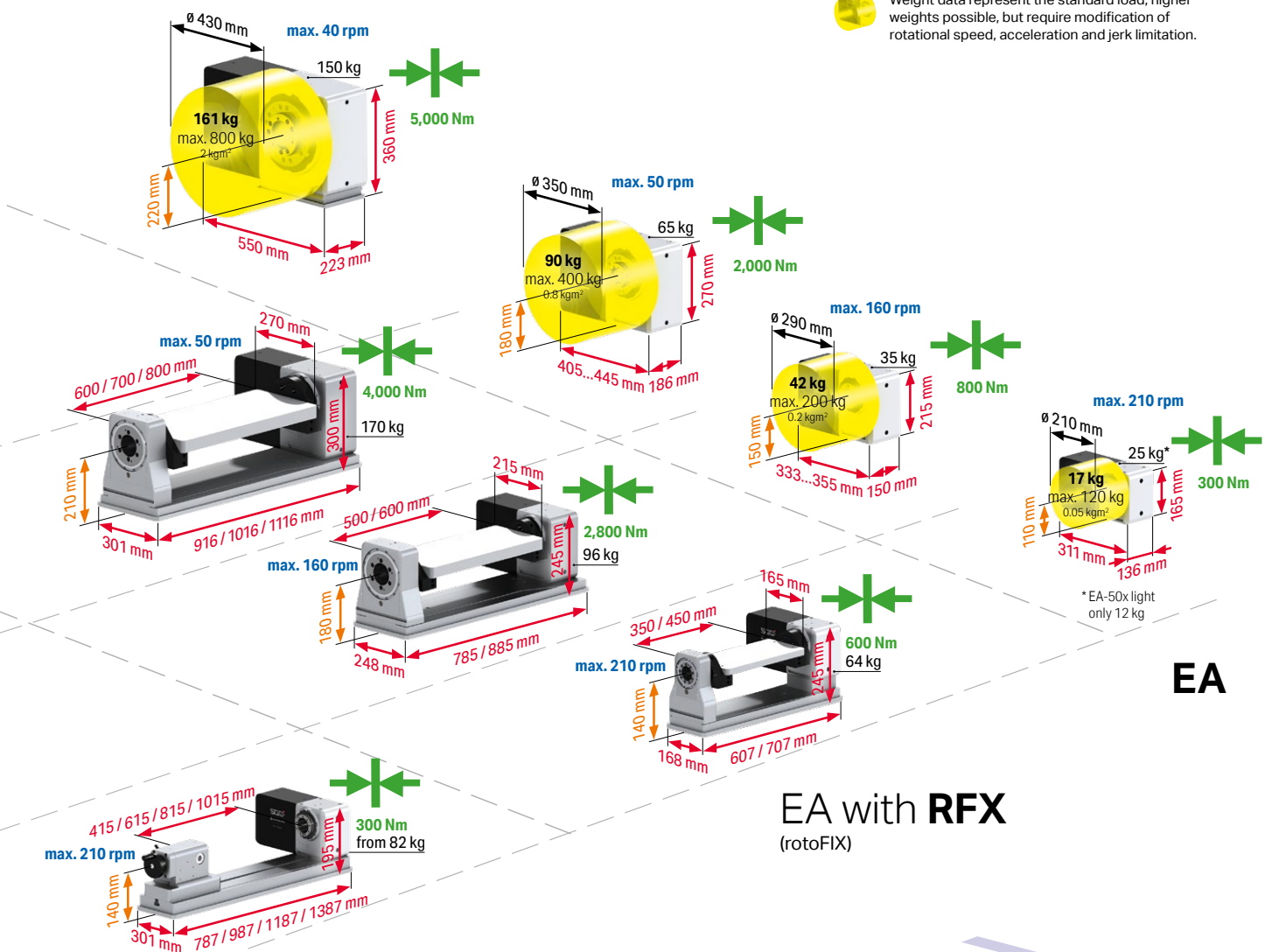


Facts

- High speed up to 210 rpm
- Feed torque up to 850 Nm (tentative)
- Steel base plates with hole pattern (suitable for slot spacing of 100 and 125 mm)
- 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.

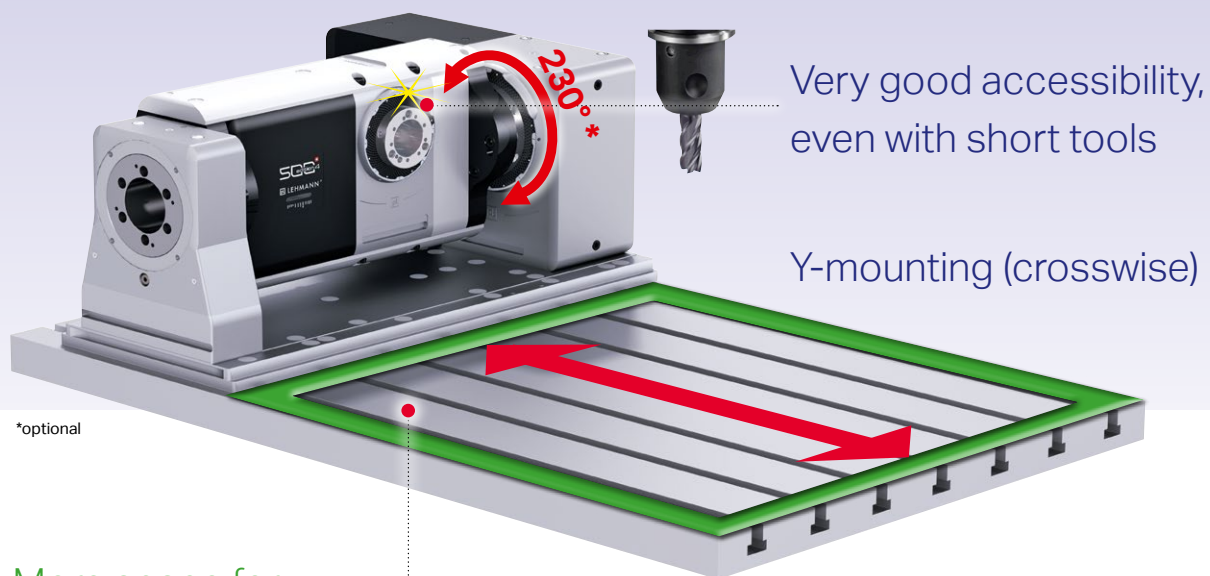


EA

EA with **RFX**
(rotoFIX)

EA with **LFX**
(longFLEX)

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



*optional

More space for
workpiece and fixtures



T1

T1

T1

TF

3
520530

51x520²

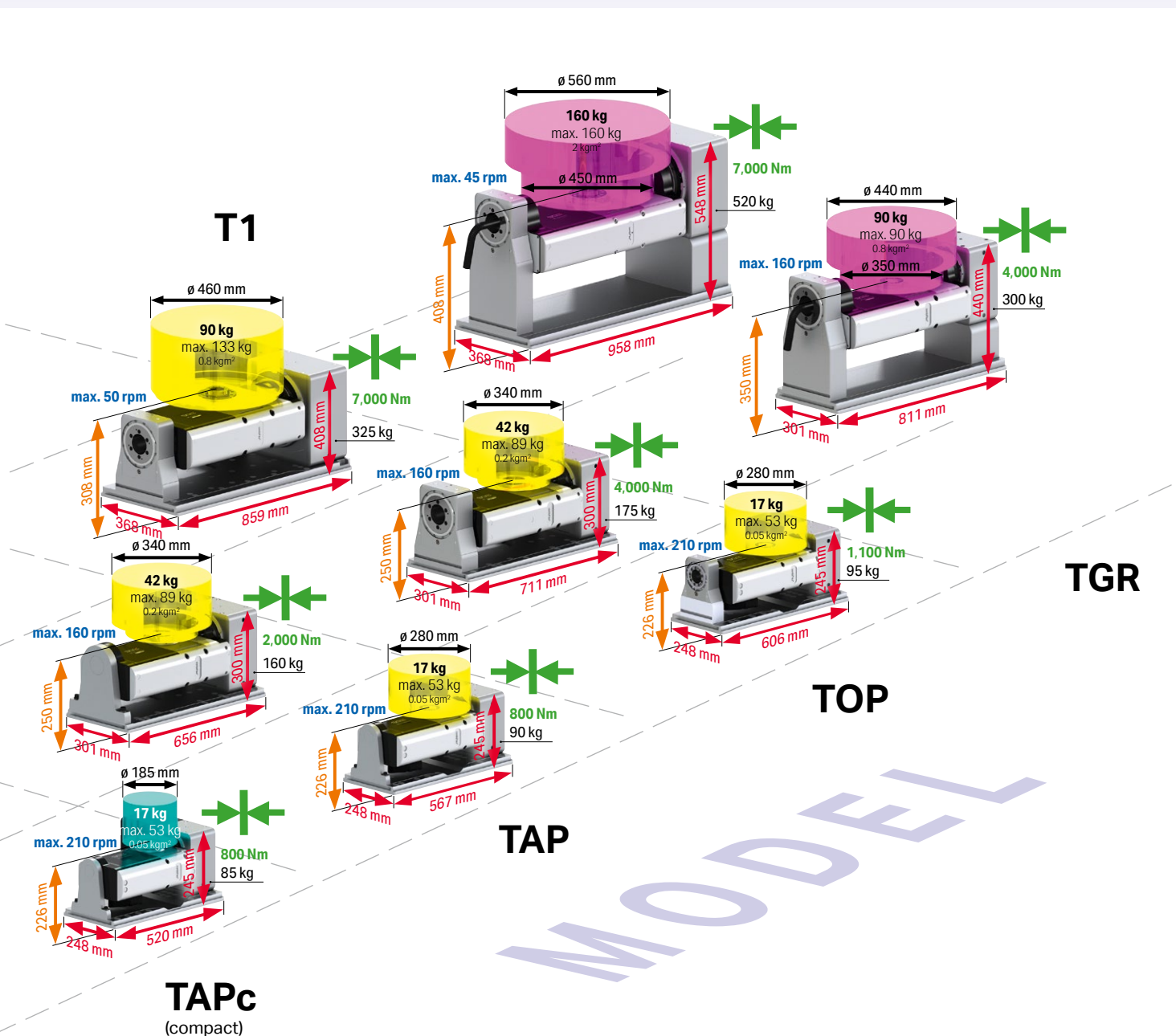
SIZE

50x510

TIPc
(compact)

Facts

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



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



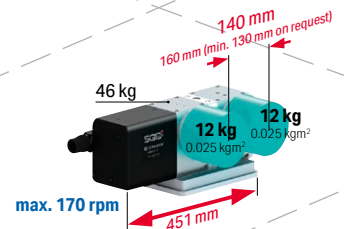
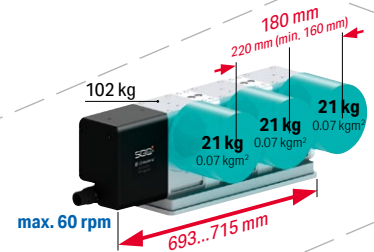
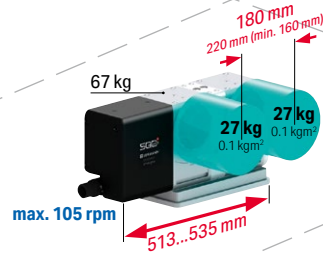
M2

M3

SIZE

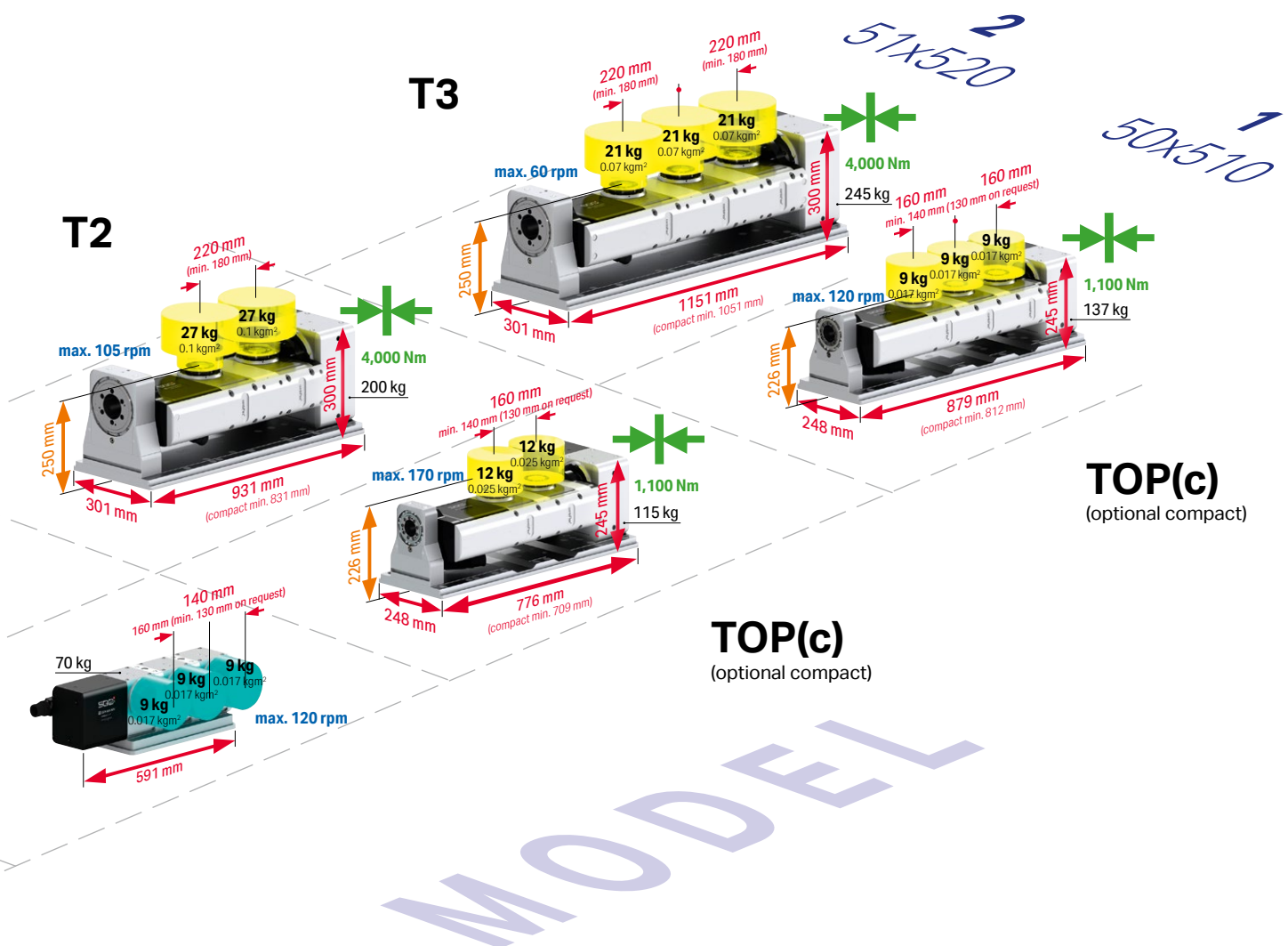
51x

50x



Facts

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



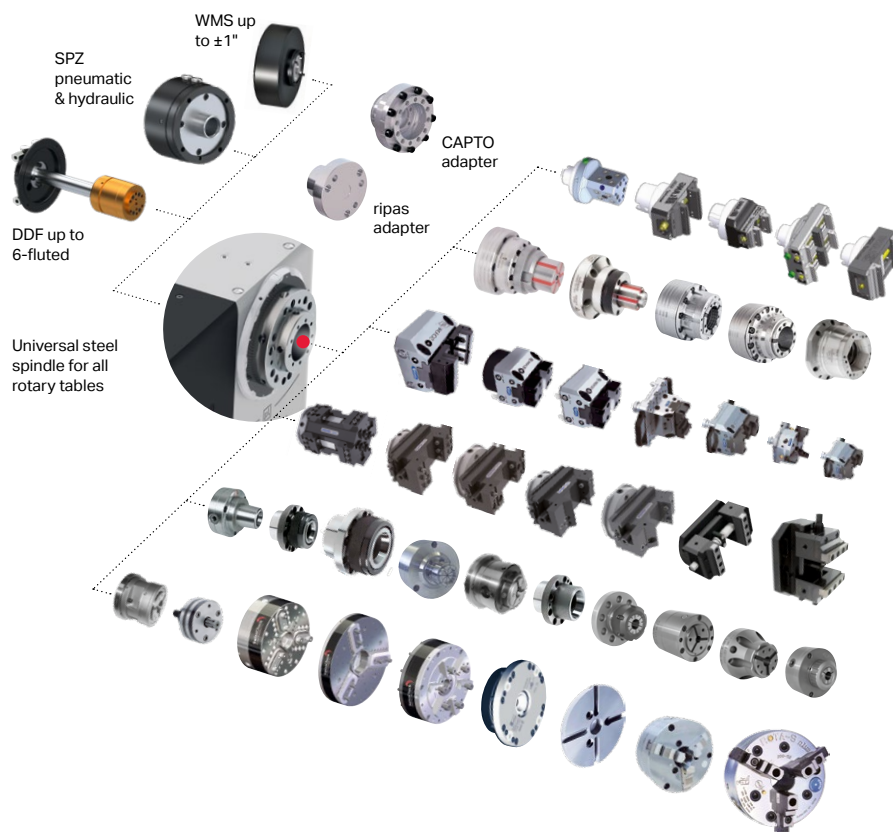
Weight data represent the standard load; higher weights possible, but require modification of rotational speed, acceleration and jerk limitation.

- 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, rear

- Rotary unions **up to 250 bar**
- Hydraulic clamping cylinder **23 kN at 120 bar**
- Pneumatic clamping cylinder **11 kN at 10 bar**
- Angular position measuring systems **as precise as ± 1 arcsec**



Spindle accessories in front



unique

Tailstocks and counter bearings



ripas zero point clamping system



EA-507 with ripas auto and ripas adapter

CAPTO clamping



EA-507 with CAPTO retrofit kit

Present in over 30 countries:
from sales consultation to the final service



Get an offer

Please send us your request with the following information:

1. Do you need a 4th or 4th/5th axis?
2. On which machine should the rotary table get installed?
(Name and exact type; e.g. DMG MORI 850V)
3. Which controller is on the machine?
(Name and exact type; e.g. Heidenhain TNC 640)
4. What do you want to process on your machine?
 - Workpiece size
 - Weight
 - Material
 - Size of the series (number of pieces/year)
 - Loading and unloading (automatic or manual)
5. Is the machine completely prepared for the 4th or 4th/5th axis
(PLC, software activation, hardware interface)?



ROTARY SOLUTIONS › MACHINE TOOLS & METROLOGY

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- Norway
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- Portugal
- Romania
- Russia
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Turkey
- UK

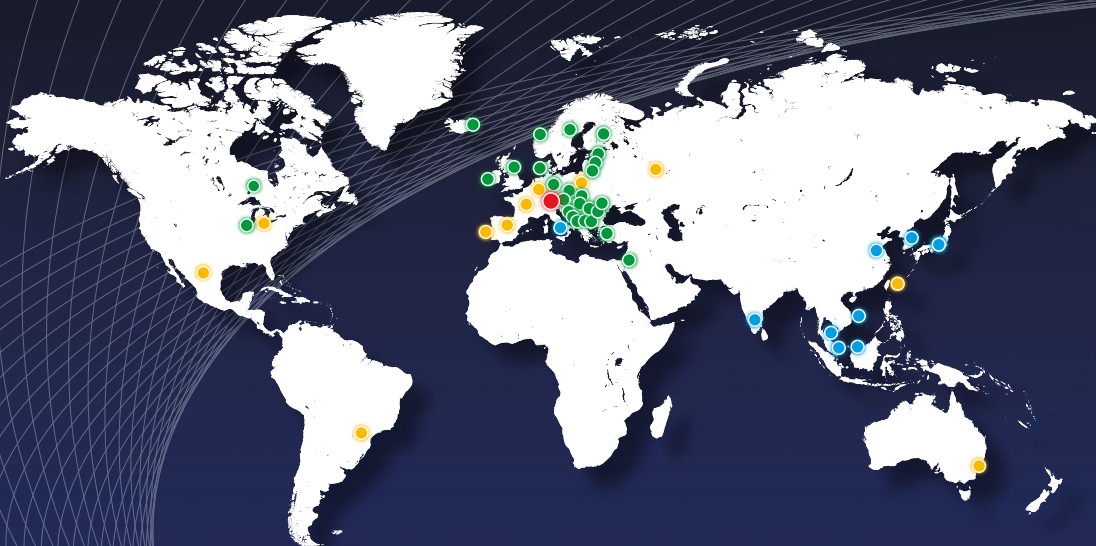
America

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● Headquarters

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● value added reseller & partner

More information (address, telephone number...) at www.lehmann-rotary-tables.com