SCHUNK

ROTA TB2-LH

Pneumatic power lathe chucks with dual stroke system for bar and pipe machining

Hand in hand for tomorrow

Pneumatic power lathe chucks with dual stroke system for clamping over large interfering contours

The principle of the ROTA TB2-LH power lathe chuck is based on achieving a long, fast jaw stroke in combination with maximum clamping force at low air consumption. The long jaw stroke allows the chuck for clamping around interfering contours of the workpiece. The special thing about it: Despite a long jaw stroke, the ROTA TB2-LH generates a high clamping force over the clamping stroke, allowing pipes to be clamped in a reliable process in the petroleum industry, for example.

Advantages – Your benefits

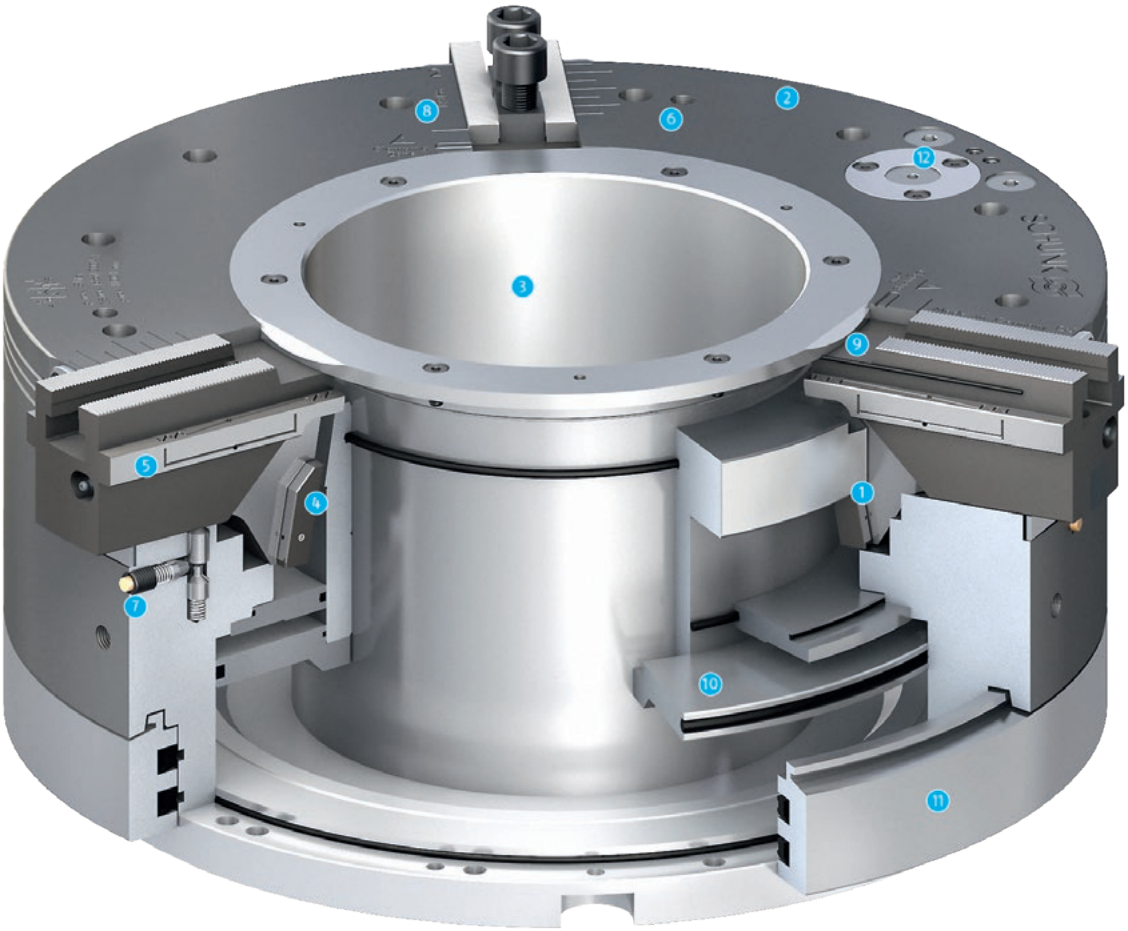
- **Precision wedge hook pneumatic chuck for top quality demands**
  Allows excellent machining results
- **Very large through-hole**
  Machining all standard pipe diameters
- **High efficiency of the wedge hook system**
  Process-reliable clamping due to high clamping forces
- **Visual safety devices**
  Maximum operating safety
- **Optimized lubrication system**
  Consistently high clamping forces ensured
- **Monitoring of the opening and closing process**
  Process reliable operation of the lathe chuck
- **Fast ventilation of the pressure chambers**
  Shorter process times
- **Pneumatic cylinder integrated in the chuck**
  Especially suited to lathes without a hydraulic cylinder
- **Sealed guideways**
  Optimum protection against coolant and chips
- **Air supply via a distributor ring**
  Very simple control of the chuck
- **High clamping forces at system pressure**
  Ensure process reliability during machining
- **All sides of the functional parts are hardened and ground**
  Ensures a long service life

Technical data

Description	Max. rotational speed [min^{-1}]	Max. clamping force (at 6 bar) [kN]	Stroke/jaw [mm]	Through-hole [mm]
ROTA TB2 470-185 LH	1300	115	20	185
ROTA TB2 520-191 LH	1300	115	38.5	191
ROTA TB2 570-230 LH	1300	220	25.4	230
ROTA TB2 600-275 LH	1100	200	25.4	275
ROTA TB2 630-275 LH	1000	200	38.1	275
ROTA TB2 685-325 LH	900	280	25.4	325
ROTA TB2 850-375 LH	750	240	25.4	375
ROTA TB2 1000-560 LH	500	240	25.4	560

Function of ROTA TB2-LH

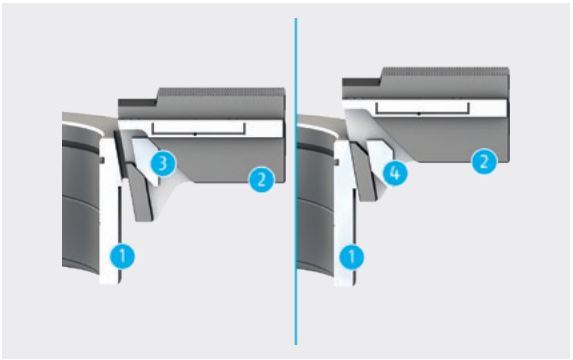
The piston integrated in the chuck is supplied during down-time with compressed air from the distributor ring and thus axially shifted. The wedge hook system converts this axial movement of the chuck piston into a radial movement of the base jaws, synchronous to the rotating axis. The double check valve prevents that after removal of the system pressure the compressed air can again escape.



1. **Wedge hook drive**
   Offers constantly high clamping forces in operation
2. **Hardened and extremely rigid base body**
   Therefore a longer service life at highest precision. Even with maximum clamping force
3. **Very large through-hole**
   For machining of all standard raw material diameters
4. **Dual stroke system**
   Ensures a large jaw stroke in combination with high clamping forces
5. **Optimized lubrication system**
   For a high level of efficiency
6. **Mounting thread**
   For workpiece stops
7. **Indicator pin**
   For visual stroke monitoring of the fast stoke and clamping stoke
8. **Jaw stroke display**
   To verify the jaw stroke
9. **Seal of the base jaw guidance**
   For sealing against coolants and chips
10. **Pneumatic cylinder integrated in the chuck**
    For direct control of the lathe chuck without an additional cylinder
11. **Static distributor ring**
    For air supply of the lathe chuck
12. **Pressure maintenance valve**
    Provides for enduring clamping force during rotation

Dual stroke system

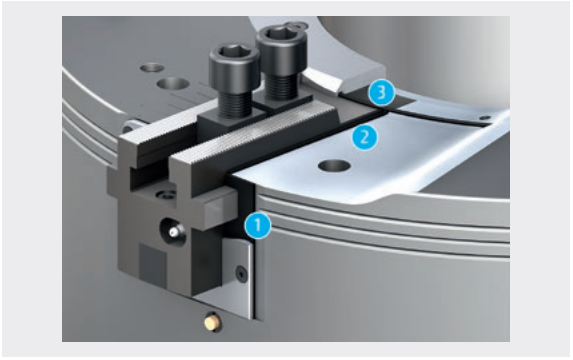
The ROTA TB2 power lathe chuck is available with the dual stroke system (LH) for safe loading and clamping of workpieces with an interfering contour. The fast jaw stroke achieves a long jaw stroke. Clamping is not allowed on the fast stroke, since the high transmission ratio means that only minimal clamping force is available. The maximum chuck clamping force is available on the clamping stroke and the workpiece can be reliably clamped.



1. **Chuck piston**
2. **Base jaw**
3. **Fast stroke**
4. **Clamping stroke**

Seal of the base jaw guidance

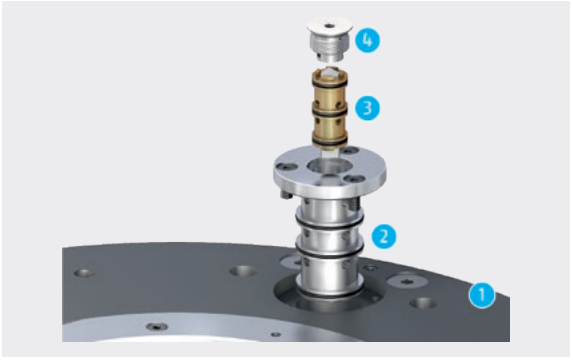
To protect the ROTA TB2-LH against dirt and coolant, the base jaw was equipped with an additional 3-way sealing.



1. **Front-end profile sealing element**
   Between the chuck body and base jaw with additional cover plate for the mounting
2. **Sealing element**
   For protection of the base jaw guidance
3. **O-ring**
   Between base jaw and center sleeve

Exchangeable valve

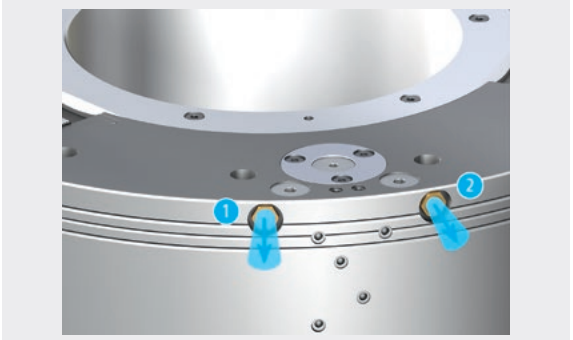
In the new ROTA TB2-LH chuck generation starting from size 570, the pressure maintenance valve is located in an exchangeable valve insert. This allows fast and inexpensive replacement not only of the pressure maintenance valve when needed, but also the valve insert. This ensures prolonged and reliable functioning even of older chucks.



1. **Chuck body**
2. **Valve insert**
3. **Pressure maintenance valve**
4. **Sealing cap**

Fast ventilation

To remove the air from the cylinder via the shortest path, the ROTA TB2-LH features one integrated air duct for opening and one for closing. The escaping air then no longer has to exit via the air seal ring, but instead is released via the shortest path.



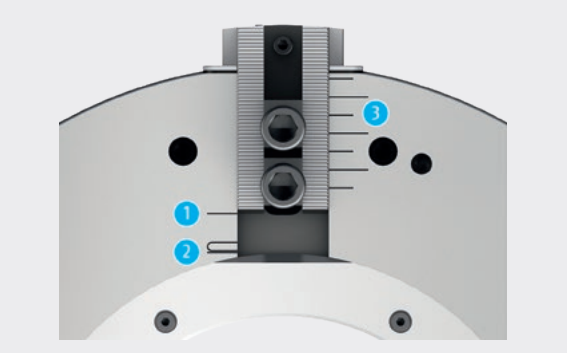
1. **Escaping air**
   During opening of the chuck
2. **Escaping air**
   During closing of the chuck

Optimized lubrication system

Each base jaw is optimally supplied with grease via a lubrication nipple on the front. An intelligent distribution system ensures even distribution of the grease on all sliding planes of the base jaw for consistently high clamping forces.

Jaw stroke display

To make jaw change as easy as possible for the machine operator, the ROTA TB2-LH is equipped with a visual display for the clamping range and the top jaw position. This allows fast and easy fastening of all three top jaws in the identical position. At the same time the operator can check whether the clamping stroke is fully achieved (when the jaws are in contact with the workpiece).



1. **Chuck opened**
   Here machining shouldn't be started
2. **Clamping stroke range**
   Here the workpiece can be clamped
3. **Visual display**
   For the orientation of the jaw serration

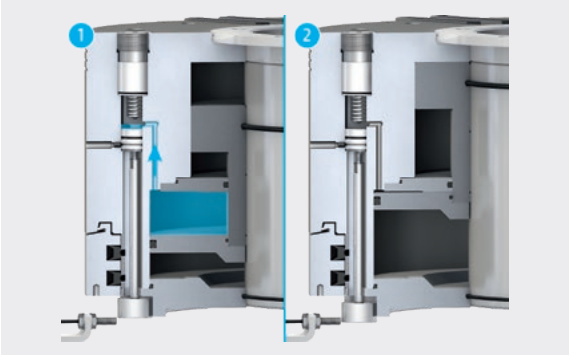
Visual monitoring of the dual stroke system

In addition to the visual indicator on the chuck face, the base jaws of the LH version are also monitored by a radial indicator pin. If the pin is extended out of the chuck, the workpiece must not be clamped, since the base jaw is still in the fast jaw stroke. If the indicator pin is retracted, the workpiece can be reliably clamped with full force on the clamping stroke.

1. **Visual indicator pin LH version**

Pressure monitoring via sensor (optional)

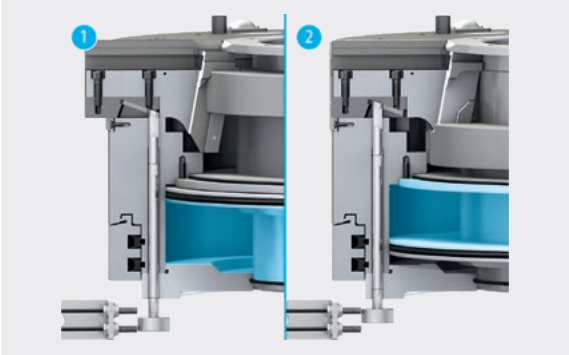
During machining the pneumatic pressure in the lathe chuck is monitored by a spring-loaded switch element. If the pressure drops, the spring pushes the control cam backwards. The inductive proximity switch detects the position and reports it to the machine control system. The corresponding mounting kit and sensors must be ordered separately for this purpose (see Accessories).



1. **Operating pressure**
   Sufficiently available
2. **Pressure loss**
   Is detected by proximity switch

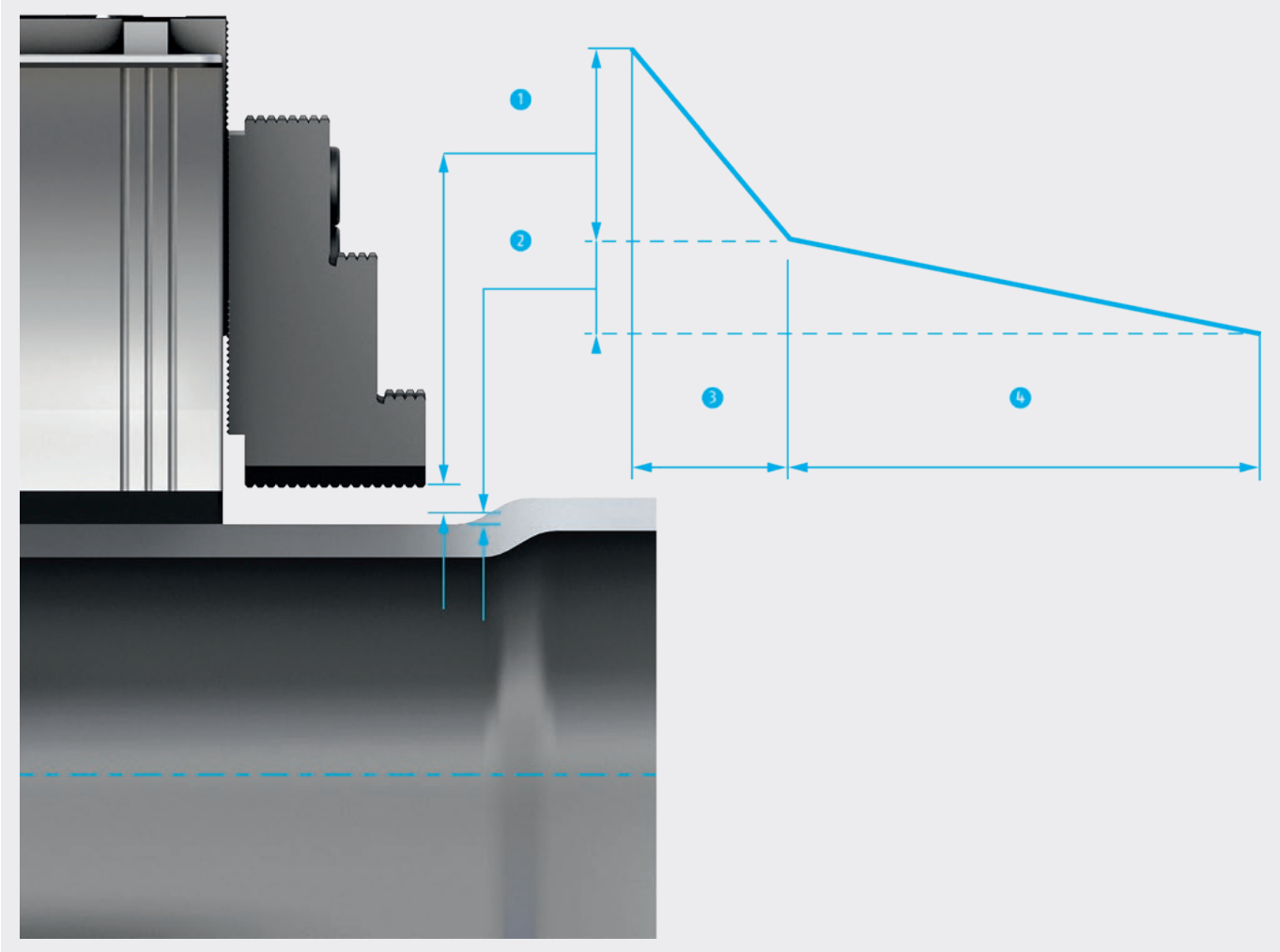
Path control of the chuck jaws (optional)

To ensure reliable clamping of the workpiece on the dual stroke system, the chuck can optionally be equipped with an inductive proximity switch for stroke monitoring. If clamping already takes place on the fast jaw stroke, this is detected and signaled to the machine control system.



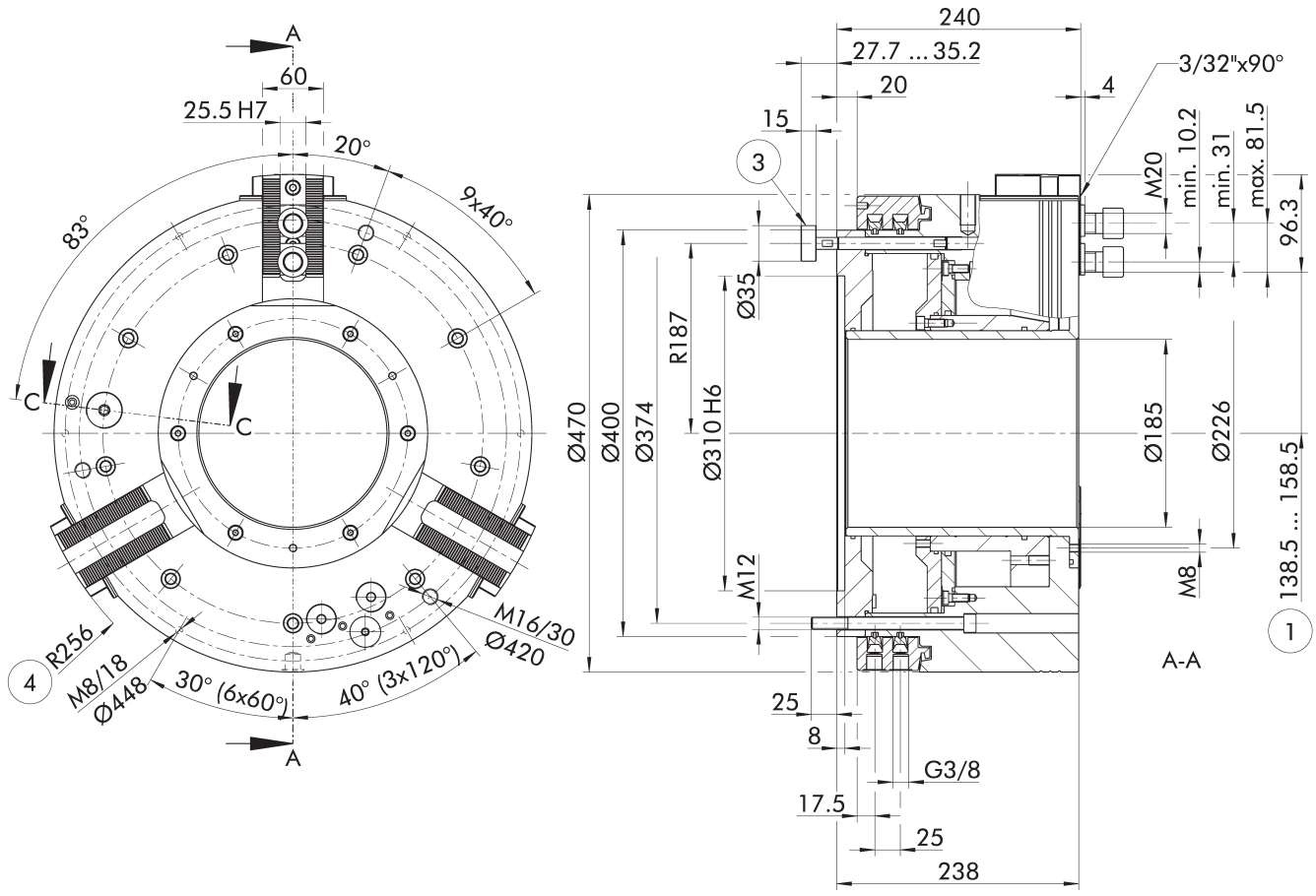
1. **Chuck completely opened**
2. **Chuck in clamping position on the clamping stroke**

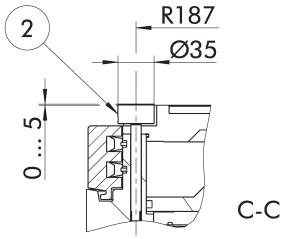
Functional principle of the dual stroke system (fast and clamping stroke)

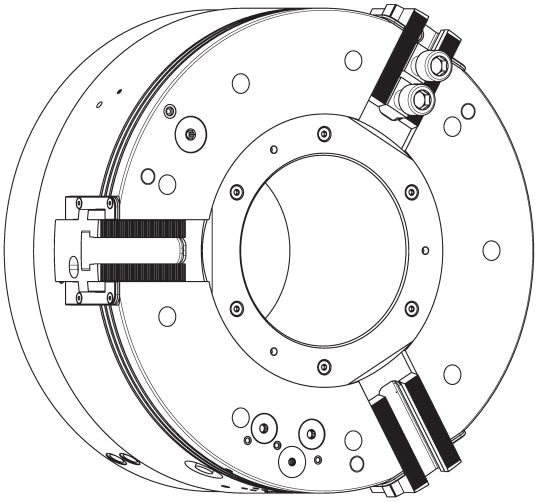


In order to achieve a possibly long jaw stroke, a so-called fast jaw stroke is upstreamed to the actual clamping stroke, and an overall stroke of up to 38 mm per jaw can be achieved. Due to the long jaw stroke, workpieces with interfering contours can be loaded collision-free.
Important: no workpiece should be clamped on the fast jaw stroke, since its clamping force is not sufficiently high. The LH lathe chucks can only be used for O.D. clamping.

1. **Fast stroke**
2. **Clamping stroke**
3. **Fast movement**
4. **Slow movement**







Subject to technical changes.

(1) Distance to center of first tooth
(2) Optional: Mechanical pressure monitoring
(3) Optional: Mechanical path control
(4) Swing diameter radius

Technical data

Spindle size	ID	Max. rotational speed [min⁻¹]	Max. clamping force (at 6 bar) [kN]	Actuation pressure [bar]	Moment of inertia [kgm²]	Weight [kg]
Z310	0818304	1300	115	3 - 8	6.5	195

Scope of delivery

Chuck, T-nuts with screws, chuck mounting bolts, elbow-unions G 3/8 on the distributor ring, couplings for connection to the electric compressed air control unit, eye bolt, operating manual; without distributor ring mounting bracket, without top jaws

Notes

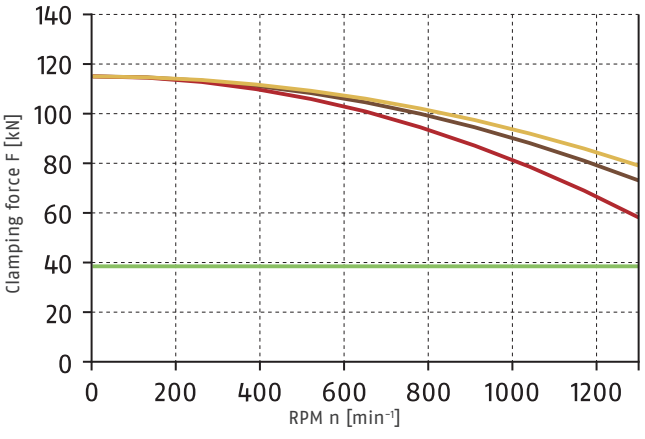
Min. actuation pressure
The minimum actuation pressure is P_{min} = 3 bar.
For lower clamping forces, a clamping force reduction can be offered as an option.

Important note for lathe chucks with dual stroke system
Lathe chucks with dual stoke system (LH series) are not allowed to be used for I.D. clamping.
Moreover, no workpieces are allowed to be clamped on the fast jaw stroke, since due to the long jaw strokes the resulting clamping forces are lower.
Please make sure that the whole fast stroke plus at least 1/3 of the clamping stroke (corresponds to the basic covering) of the TB2-LH lathe chuck is executed during tool clamping.

Further technical data

Chuck type	Through-hole [mm]	Stroke/jaw [mm]	Fast stroke/jaw [mm]	Clamping stroke/jaw [mm]	Air consumption/jaw stroke at 6 bar [l]	Center jaw height [mm]
ROTA TB2 470-185 LH	185	20	13	7	19.7	101

Clamping force-RPM-diagram



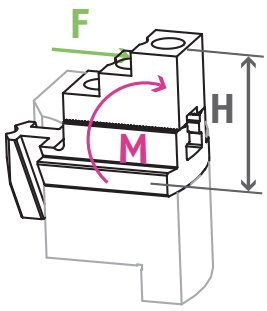
Required minimum clamping force F_{spmin} 33%

SHB 400
7.8 kg

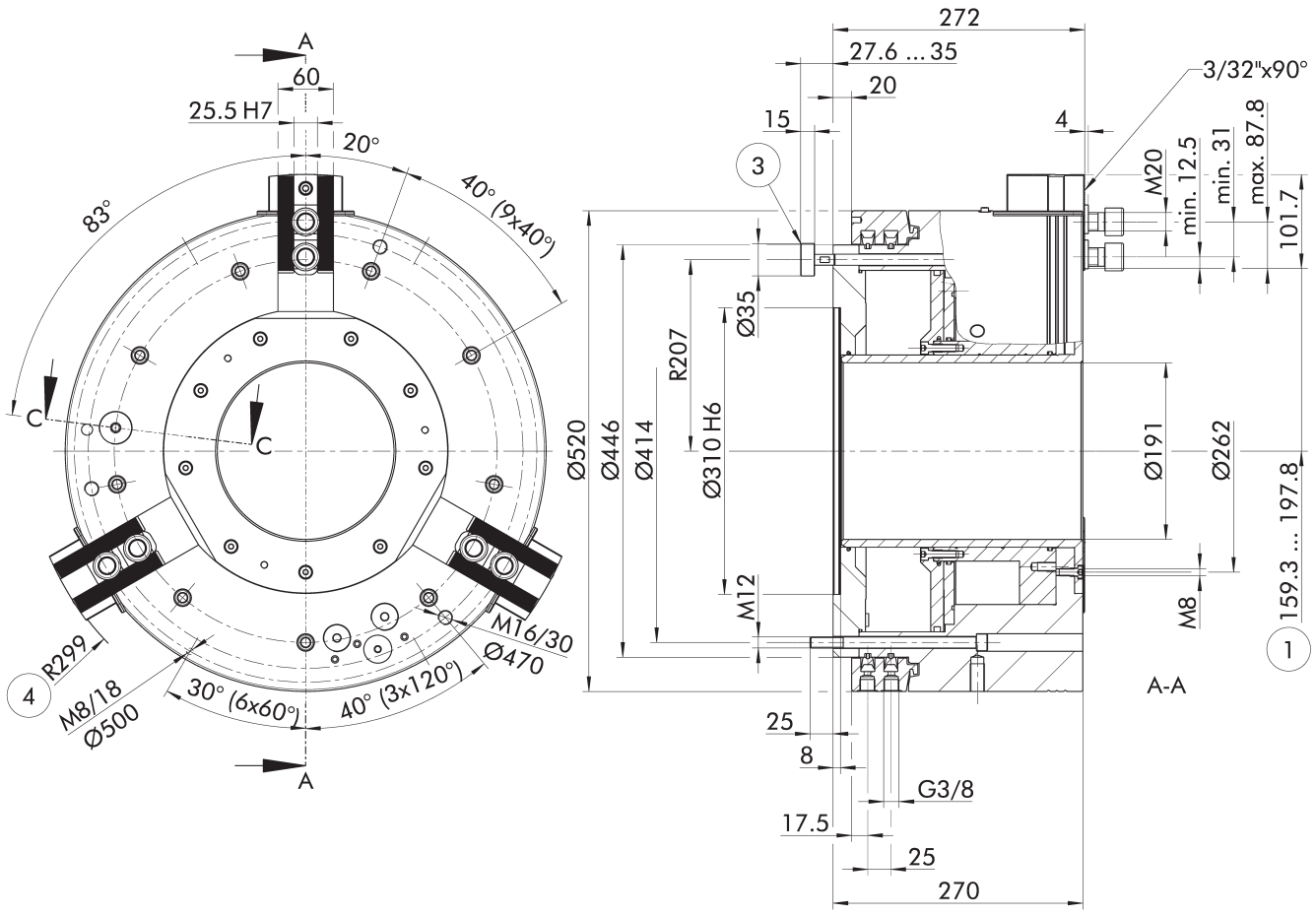
SWB 400
16 kg

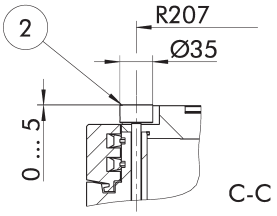
SWB-AL 400
6.4 kg

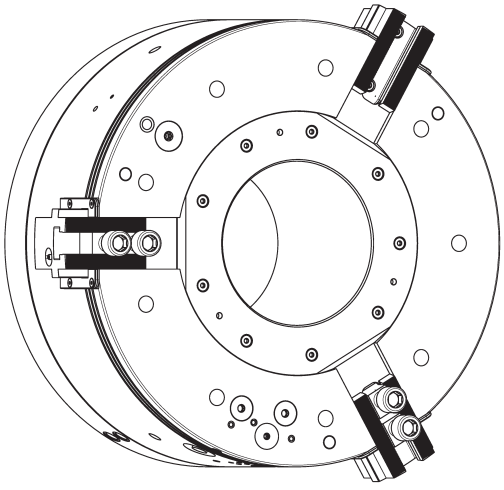
Load of base jaw guidance



M_{max} = 3872 Nm







Subject to technical changes.

(1) Distance to center of first tooth
(2) Optional: Mechanical pressure monitoring
(3) Optional: Mechanical path control
(4) Swing diameter radius

Technical data

Spindle size	ID	Max. rotational speed	Max. clamping force (at 6 bar)	Actuation pressure	Moment of inertia	Weight
		[min⁻¹]	[kN]	[bar]	[kgm²]	[kg]
Z310	1420961	1300	115	3 - 8	11.7	290

Scope of delivery

Chuck, T-nuts with screws, chuck mounting bolts, elbow-unions G 3/8 on the distributor ring, couplings for connection to the electric compressed air control unit, eye bolt, operating manual; without distributor ring mounting bracket, without top jaws

Notes

Min. actuation pressure
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Important note for lathe chucks with dual stroke system
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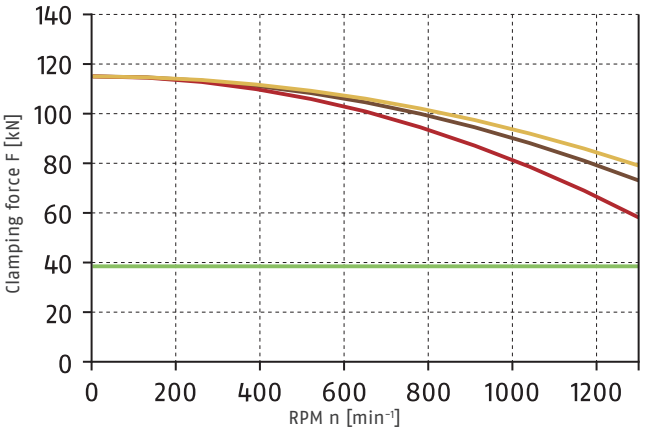
Please make sure that the whole fast stroke plus at least 1/3 of the clamping stroke (corresponds to the basic covering) of the TB2-LH lathe chuck is executed during tool clamping.

Further technical data

Chuck type	Through-hole	Stroke/jaw	Fast stroke/jaw	Clamping stroke/jaw	Air consumption/jaw stroke at 6 bar	Center jaw height
	[mm]	[mm]	[mm]	[mm]	[l]	[mm]
ROTA TB2 520-191 LH	191	38.5	30	8.5	31.2	73

Clamping force-RPM-diagram



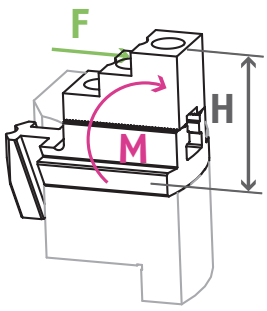
Required minimum clamping force F_{spmin} 33%

SHB 400
7.8 kg

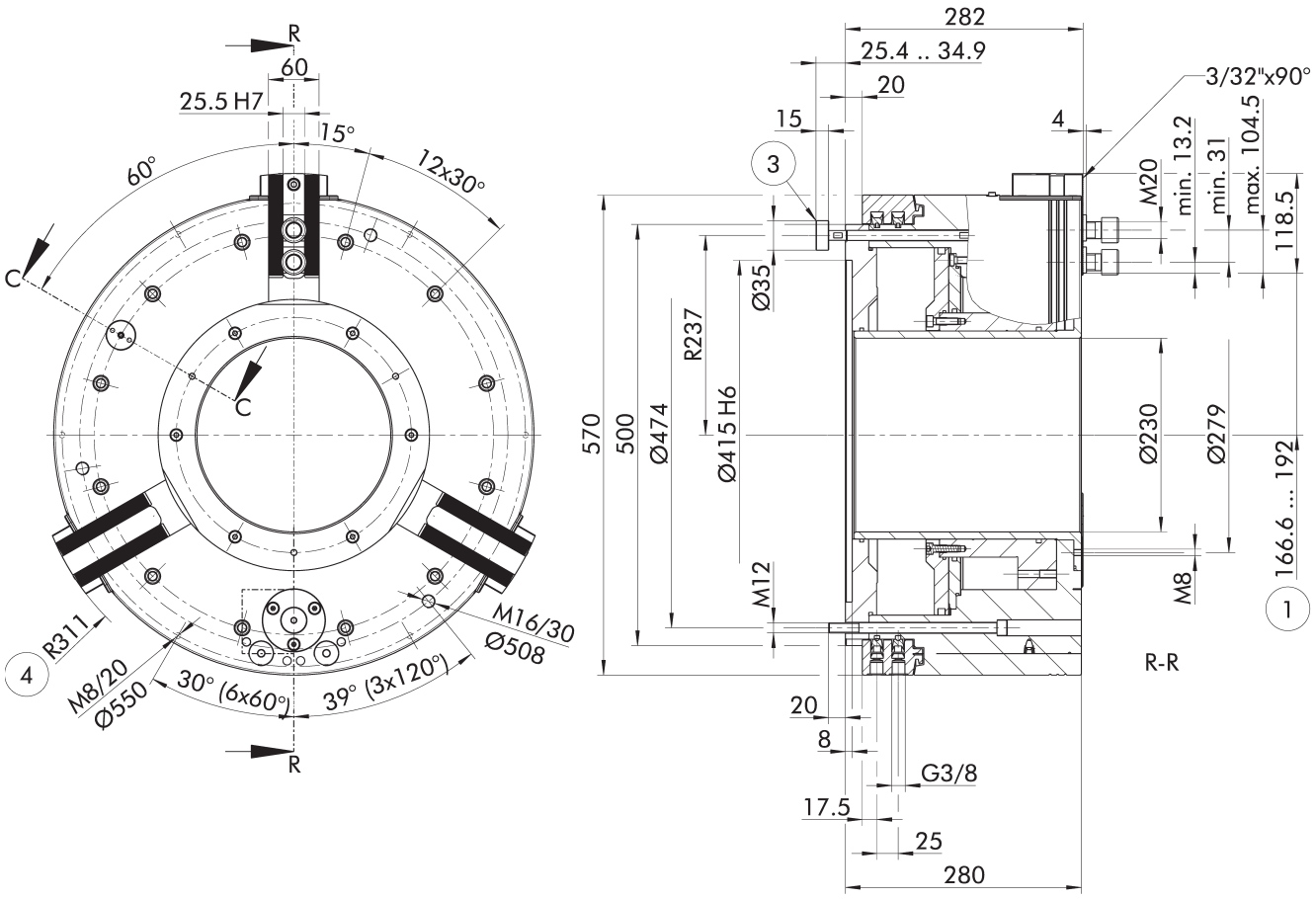
SWB 400
16 kg

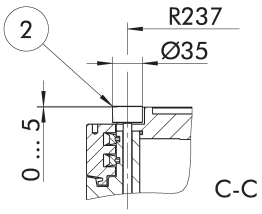
SWB-AL 400
6.4 kg

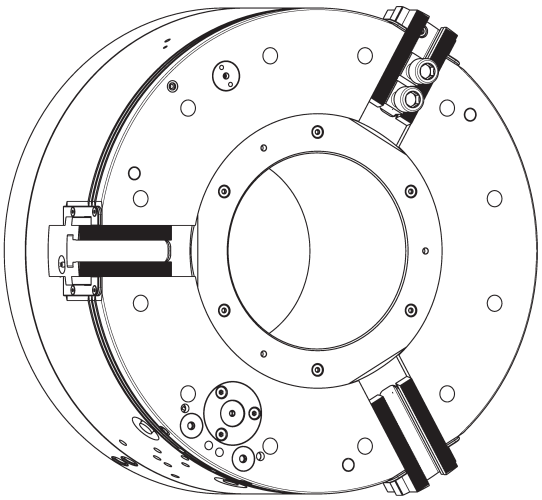
Load of base jaw guidance



M_{max} = 3872 Nm







Subject to technical changes.

(1) Distance to center of first tooth
(2) Optional: Mechanical pressure monitoring
(3) Optional: Mechanical path control
(4) Swing diameter radius

Technical data

Spindle size	ID	Max. rotational speed	Max. clamping force (at 6 bar)	Actuation pressure	Moment of inertia	Weight
		[min⁻¹]	[kN]	[bar]	[kgm²]	[kg]
Z415	0818316	1300	220	3 - 8	16.8	345

Scope of delivery

Chuck, T-nuts with screws, chuck mounting bolts, elbow-unions G 3/8 on the distributor ring, couplings for connection to the electric compressed air control unit, eye bolt, operating manual; without distributor ring mounting bracket, without top jaws

Notes

Min. actuation pressure
The minimum actuation pressure is P_{min} = 3 bar.
For lower clamping forces, a clamping force reduction can be offered as an option.

Important note for lathe chucks with dual stroke system
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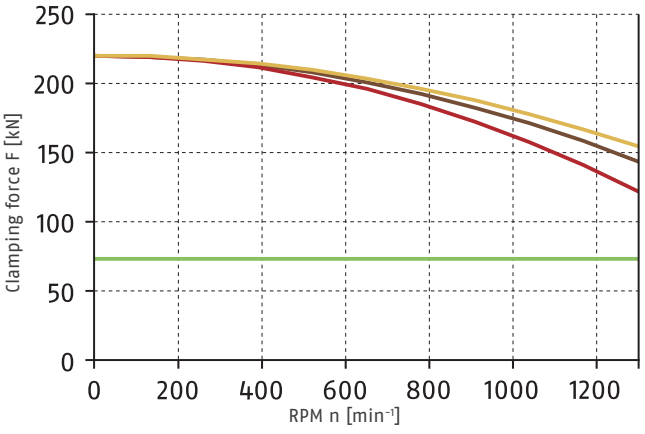
Please make sure that the whole fast stroke plus at least 1/3 of the clamping stroke (corresponds to the basic covering) of the TB2-LH lathe chuck is executed during tool clamping.

Further technical data

Chuck type	Through-hole	Stroke/jaw	Fast stroke/jaw	Clamping stroke/jaw	Air consumption/jaw stroke at 6 bar	Center jaw height
	[mm]	[mm]	[mm]	[mm]	[l]	[mm]
ROTA TB2 570-230 LH	230	25.4	16.9	8.6	39.9	101

Clamping force-RPM-diagram



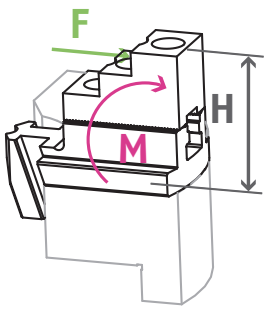
Required minimum clamping force F_{spmin} 33%

SHB 400
7.8 kg

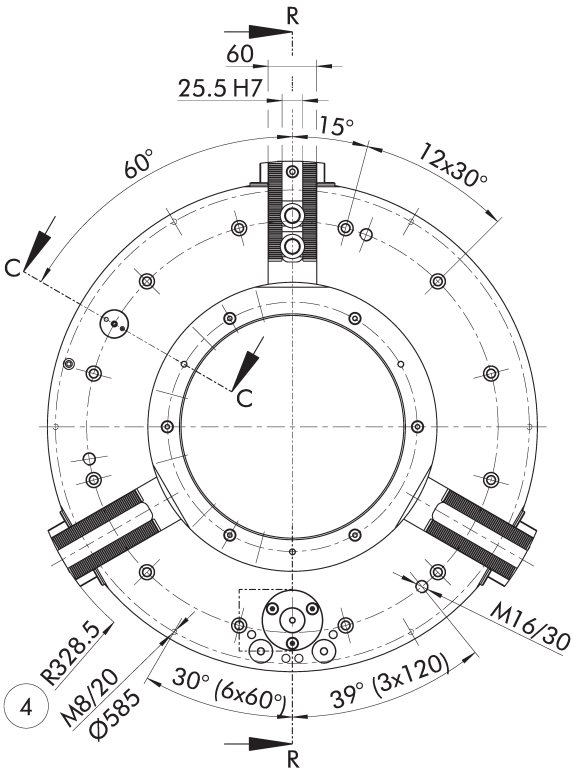
SWB 400
16 kg

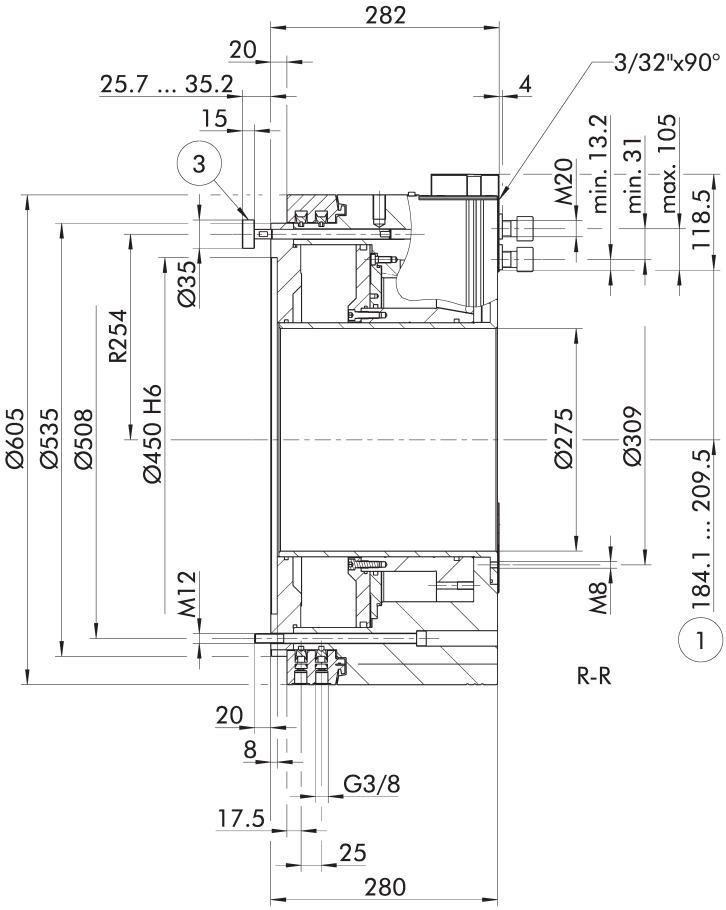
SWB-AL 400
6.4 kg

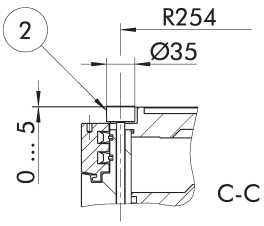
Load of base jaw guidance

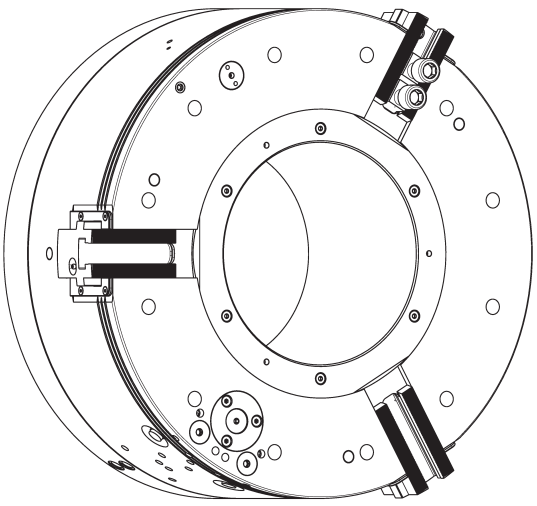


M_{max} = 7407 Nm









Subject to technical changes.

(1) Distance to center of first tooth
(2) Optional: Mechanical pressure monitoring
(3) Optional: Mechanical path control
(4) Swing diameter radius

Technical data

Spindle size	ID	Max. rotational speed [min⁻¹]	Max. clamping force (at 6 bar) [kN]	Actuation pressure [bar]	Moment of inertia [kgm²]	Weight [kg]
Z450	0818351	1100	200	3 - 8	20.4	370

Scope of delivery

Chuck, T-nuts with screws, chuck mounting bolts, elbow-unions G 3/8 on the distributor ring, couplings for connection to the electric compressed air control unit, eye bolt, operating manual; without distributor ring mounting bracket, without top jaws

Notes

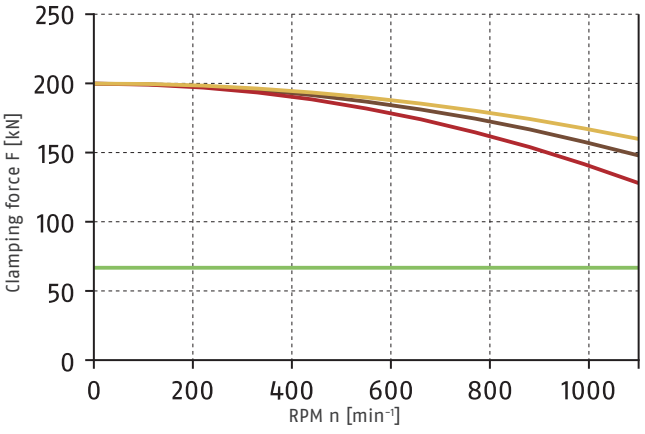
Min. actuation pressure
The minimum actuation pressure is P_{min} = 3 bar.
For lower clamping forces, a clamping force reduction can be offered as an option.

Important note for lathe chucks with dual stroke system
Lathe chucks with dual stoke system (LH series) are not allowed to be used for I.D. clamping.
Moreover, no workpieces are allowed to be clamped on the fast jaw stroke, since due to the long jaw strokes the resulting clamping forces are lower.
Please make sure that the whole fast stroke plus at least 1/3 of the clamping stroke (corresponds to the basic covering) of the TB2-LH lathe chuck is executed during tool clamping.

Further technical data

Chuck type	Through-hole [mm]	Stroke/jaw [mm]	Fast stroke/jaw [mm]	Clamping stroke/jaw [mm]	Air consumption/jaw stroke at 6 bar [l]	Center jaw height [mm]
ROTA TB2 600-275 LH	275	25.4	16.9	8.5	43.8	101

Clamping force-RPM-diagram

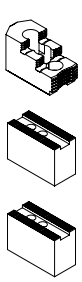


Required minimum clamping force F_{spmin} 33%

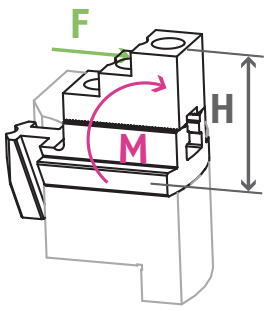
SHB 400
7.8 kg

SWB 400
16 kg

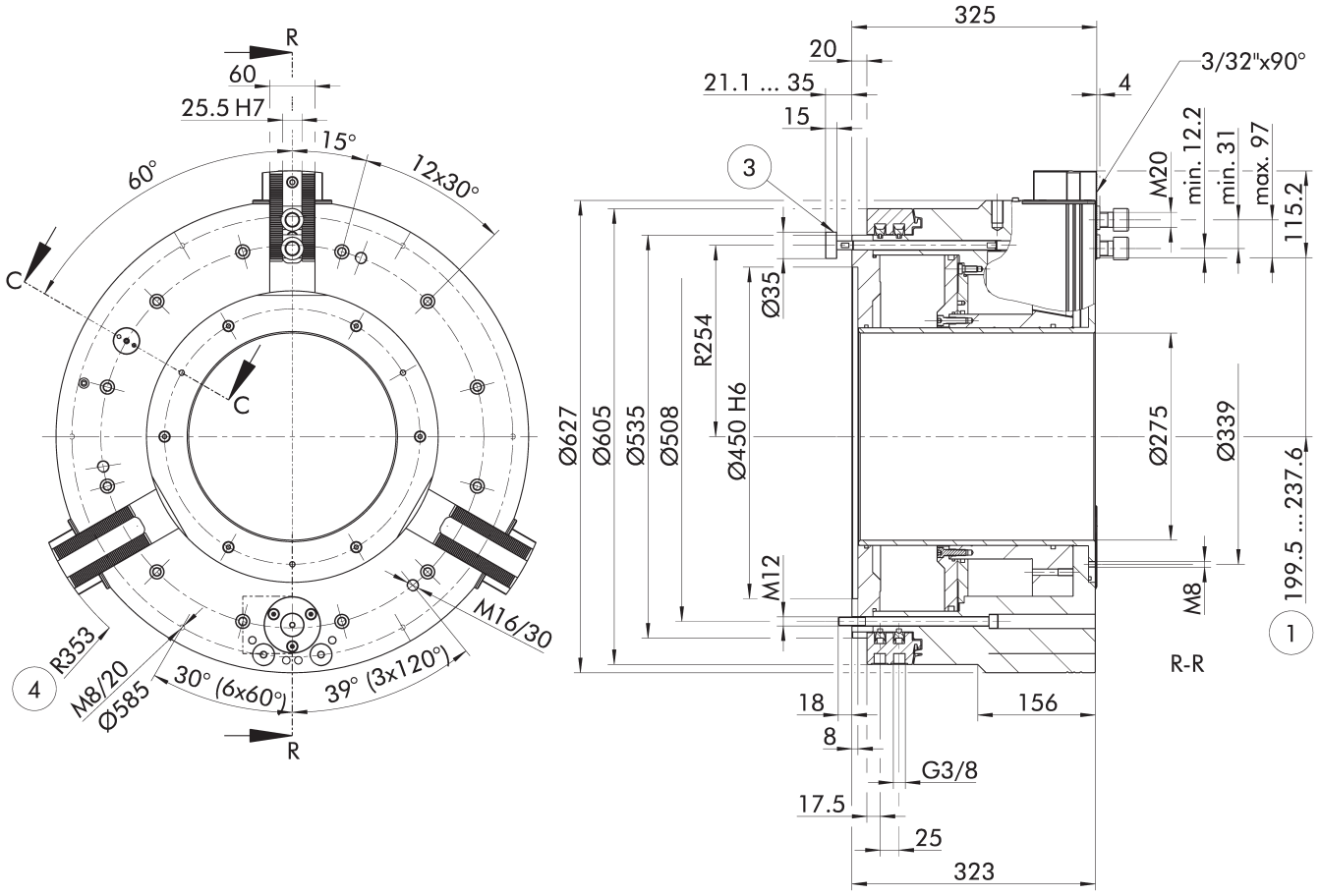
SWB-AL 400
6.4 kg

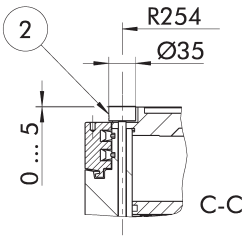


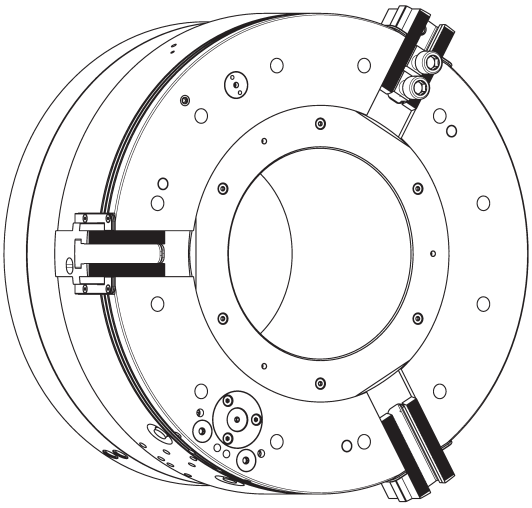
Load of base jaw guidance



M_{max} = 6733 Nm







Subject to technical changes.

(1) Distance to center of first tooth
(2) Optional: Mechanical pressure monitoring
(3) Optional: Mechanical path control
(4) Swing diameter radius

Technical data

Spindle size	ID	Max. rotational speed [min⁻¹]	Max. clamping force (at 6 bar) [kN]	Actuation pressure [bar]	Moment of inertia [kgm²]	Weight [kg]
Z450	0818325	1000	200	3 - 8	25.5	431

Scope of delivery

Chuck, T-nuts with screws, chuck mounting bolts, elbow-unions G 3/8 on the distributor ring, couplings for connection to the electric compressed air control unit, eye bolt, operating manual; without distributor ring mounting bracket, without top jaws

Notes

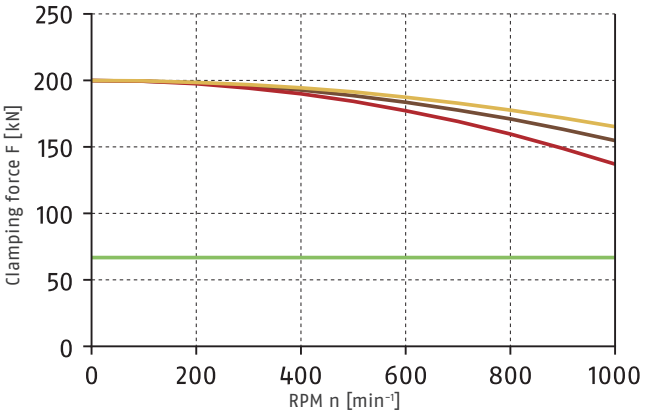
Min. actuation pressure
The minimum actuation pressure is P_{min} = 3 bar.
For lower clamping forces, a clamping force reduction can be offered as an option.

Important note for lathe chucks with dual stroke system
Lathe chucks with dual stoke system (LH series) are not allowed to be used for I.D. clamping.
Moreover, no workpieces are allowed to be clamped on the fast jaw stroke, since due to the long jaw strokes the resulting clamping forces are lower.
Please make sure that the whole fast stroke plus at least 1/3 of the clamping stroke (corresponds to the basic covering) of the TB2-LH lathe chuck is executed during tool clamping.

Further technical data

Chuck type	Through-hole [mm]	Stroke/jaw [mm]	Fast stroke/jaw [mm]	Clamping stroke/jaw [mm]	Air consumption/jaw stroke at 6 bar [l]	Center jaw height [mm]
ROTA TB2 630-275 LH	275	38.1	28.1	10	63.7	101

Clamping force-RPM-diagram



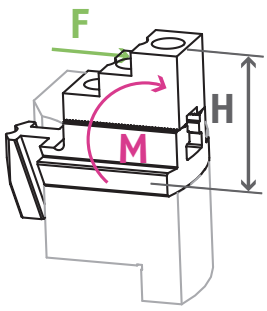
Required minimum clamping force F_{spmin} 33%

SWB-AL 400
6.4 kg

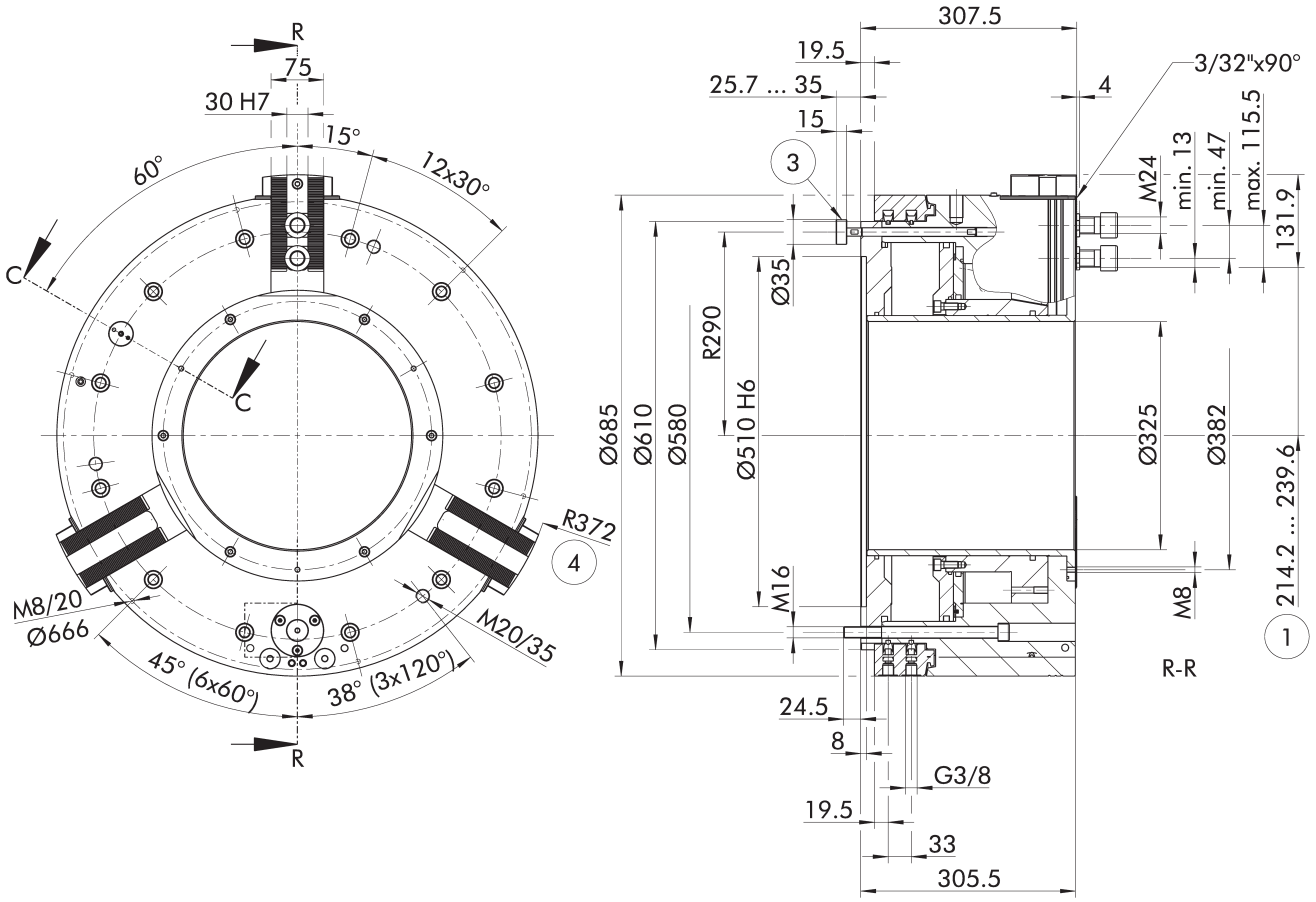
SHB 400
7.8 kg

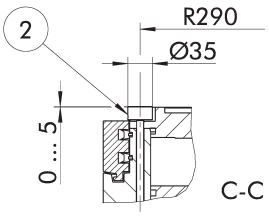
SWB 400
16 kg

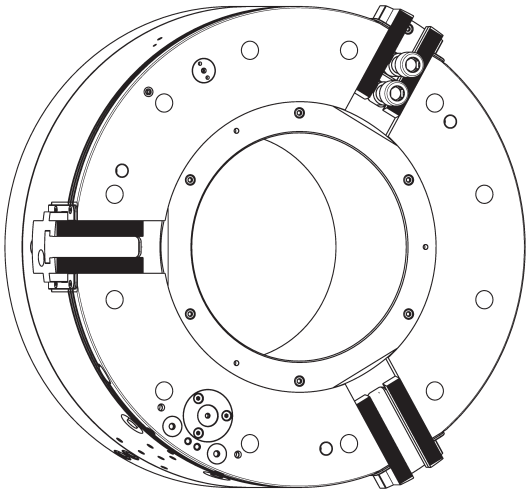
Load of base jaw guidance



M_{max} = 6733 Nm







Subject to technical changes.

(1) Distance to center of first tooth
(2) Optional: Mechanical pressure monitoring
(3) Optional: Mechanical path control
(4) Swing diameter radius

Technical data

Spindle size	ID	Max. rotational speed	Max. clamping force (at 6 bar)	Actuation pressure	Moment of inertia	Weight
		[min⁻¹]	[kN]	[bar]	[kgm²]	[kg]
Z510	*0818326*	900	280	3 - 8	37.3	500

Scope of delivery

Chuck, T-nuts with screws, chuck mounting bolts, elbow-unions G 3/8 on the distributor ring, couplings for connection to the electric compressed air control unit, eye bolt, operating manual; without distributor ring mounting bracket, without top jaws

Notes

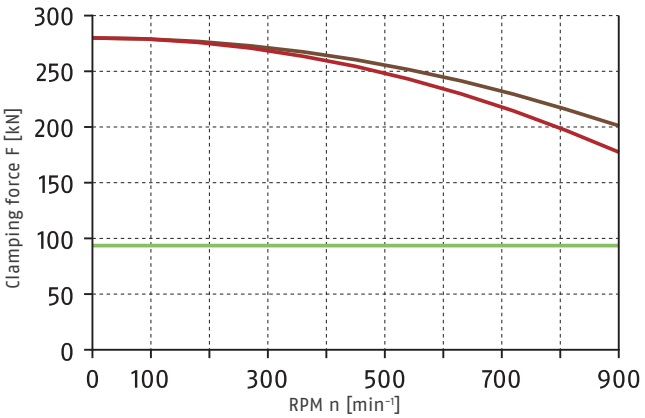
Min. actuation pressure
The minimum actuation pressure is P_{min} = 3 bar.
For lower clamping forces, a clamping force reduction can be offered as an option.

Important note for lathe chucks with dual stroke system
Lathe chucks with dual stoke system (LH series) are not allowed to be used for I.D. clamping.
Moreover, no workpieces are allowed to be clamped on the fast jaw stroke, since due to the long jaw strokes the resulting clamping forces are lower.
Please make sure that the whole fast stroke plus at least 1/3 of the clamping stroke (corresponds to the basic covering) of the TB2-LH lathe chuck is executed during tool clamping.

Further technical data

Chuck type	Through-hole	Stroke/jaw	Fast stroke/jaw	Clamping stroke/jaw	Air consumption/jaw stroke at 6 bar	Center jaw height
	[mm]	[mm]	[mm]	[mm]	[l]	[mm]
ROTA TB2 685-325 LH	325	25.4	16.9	8.5	54.1	124.5

Clamping force-RPM-diagram

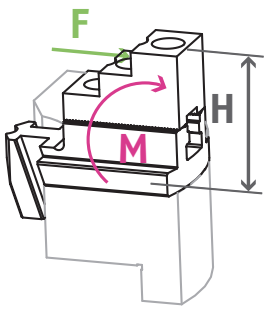


Required minimum clamping force F_{spmin} 33%

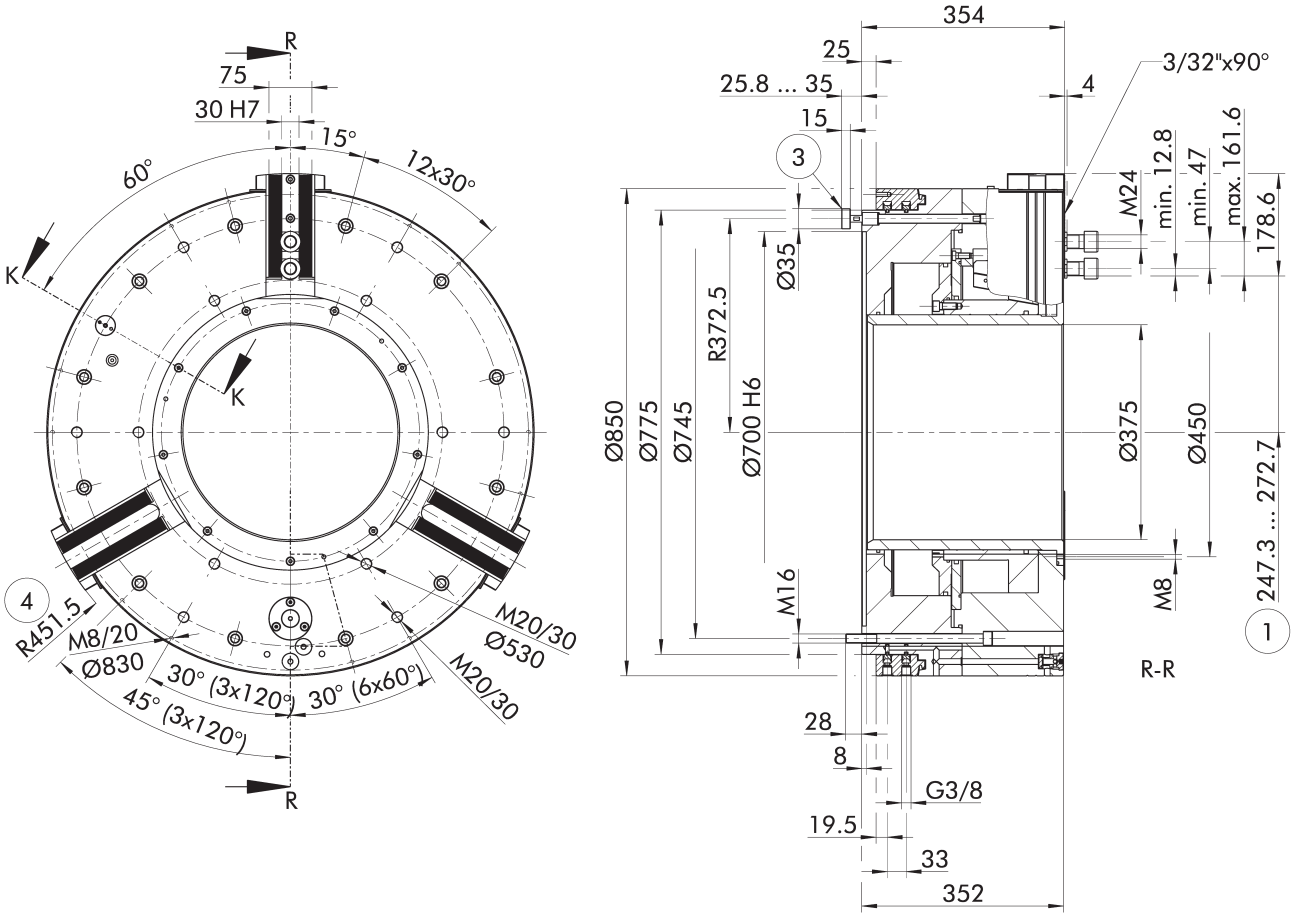
SP-HB 630
15.46 kg

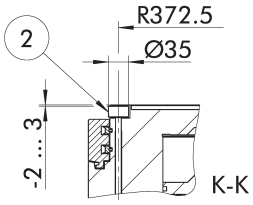
SP-WB 630
32.35 kg

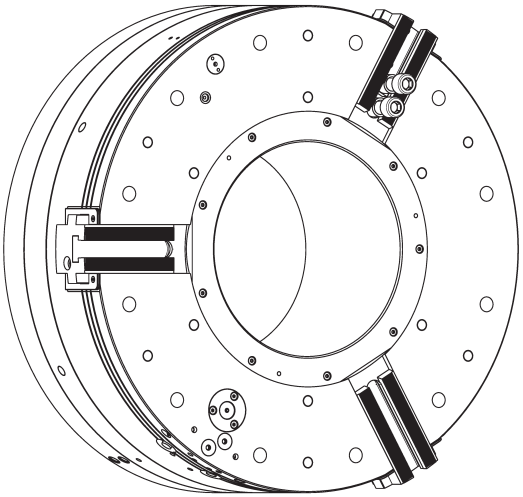
Load of base jaw guidance



M_{max} = 11620 Nm







Subject to technical changes.

(1) Distance to center of first tooth
(2) Optional: Mechanical pressure monitoring
(3) Optional: Mechanical path control
(4) Swing diameter radius

Technical data

Spindle size	ID	Max. rotational speed [min⁻¹]	Max. clamping force (at 6 bar) [kN]	Actuation pressure [bar]	Moment of inertia [kgm²]	Weight [kg]
Z700	*0818335*	750	240	3 - 8	109	1010

Scope of delivery

Chuck, T-nuts with screws, chuck mounting bolts, elbow-unions G 3/8 on the distributor ring, couplings for connection to the electric compressed air control unit, eye bolt, operating manual; without distributor ring mounting bracket, without top jaws

Notes

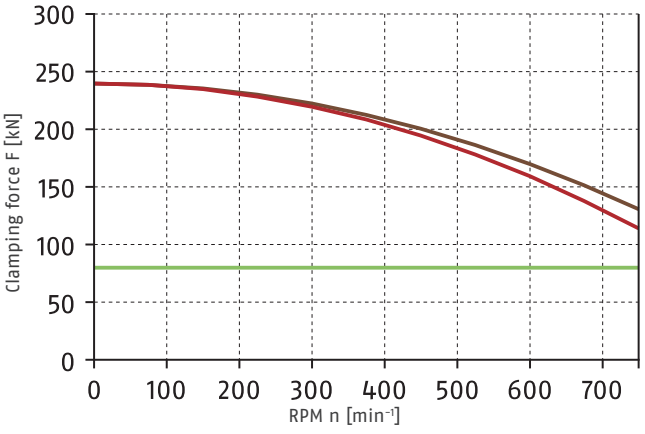
Min. actuation pressure
The minimum actuation pressure is P_{min} = 3 bar.
For lower clamping forces, a clamping force reduction can be offered as an option.

Important note for lathe chucks with dual stroke system
Lathe chucks with dual stoke system (LH series) are not allowed to be used for I.D. clamping.
Moreover, no workpieces are allowed to be clamped on the fast jaw stroke, since due to the long jaw strokes the resulting clamping forces are lower.
Please make sure that the whole fast stroke plus at least 1/3 of the clamping stroke (corresponds to the basic covering) of the TB2-LH lathe chuck is executed during tool clamping.

Further technical data

Chuck type	Through-hole [mm]	Stroke/jaw [mm]	Fast stroke/jaw [mm]	Clamping stroke/jaw [mm]	Air consumption/jaw stroke at 6 bar [l]	Center jaw height [mm]
ROTA TB2 850-375 LH	375	25.4	13.4	12	61.5	148

Clamping force-RPM-diagram

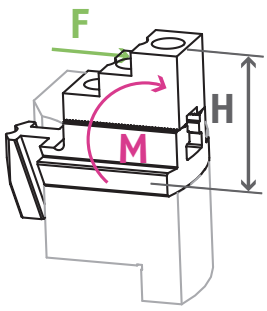


Required minimum clamping force F_{spmin} 33%

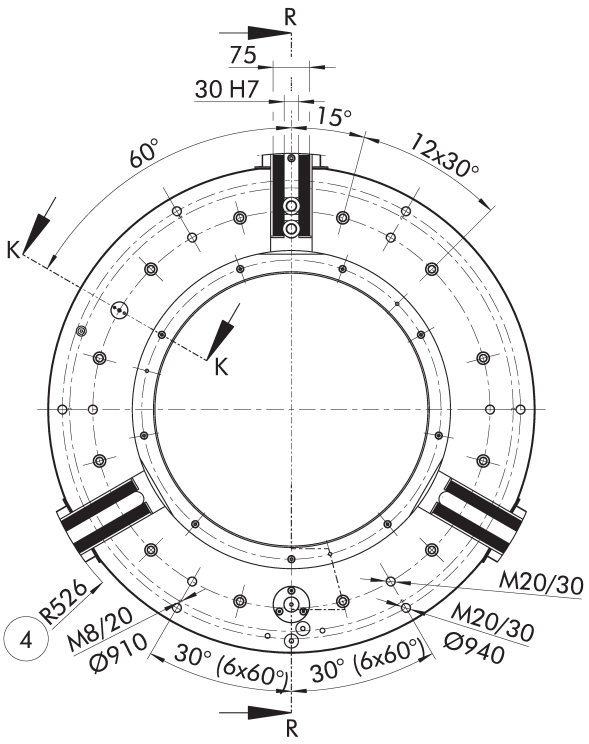
SP-HB 800
29.1 kg

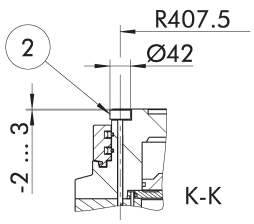
SP-WB 800
41.05 kg

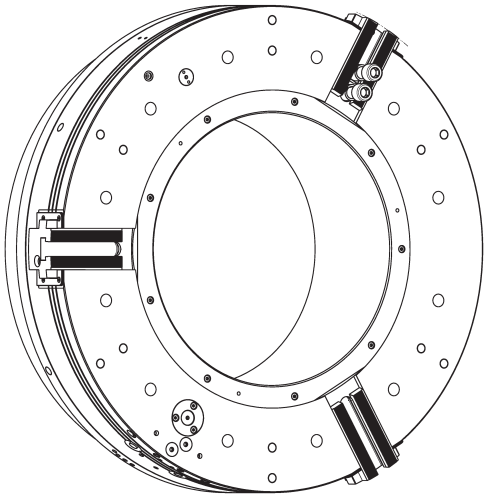
Load of base jaw guidance



M_{max} = 11840 Nm







Subject to technical changes.

(1) Distance to center of first tooth
(2) Optional: Mechanical pressure monitoring
(3) Optional: Mechanical path control
(4) Swing diameter radius

Technical data

Spindle size	ID	Max. rotational speed	Max. clamping force (at 6 bar)	Actuation pressure	Moment of inertia	Weight
		[min⁻¹]	[kN]	[bar]	[kgm²]	[kg]
Z700	0818346	500	240	3 - 8	161	1000

Scope of delivery

Chuck, T-nuts with screws, chuck mounting bolts, elbow-unions G 3/8 on the distributor ring, couplings for connection to the electric compressed air control unit, eye bolt, operating manual; without distributor ring mounting bracket, without top jaws

Notes

Min. actuation pressure
The minimum actuation pressure is P_{min} = 3 bar.
For lower clamping forces, a clamping force reduction can be offered as an option.

Important note for lathe chucks with dual stroke system
Lathe chucks with dual stoke system (LH series) are not allowed to be used for I.D. clamping.
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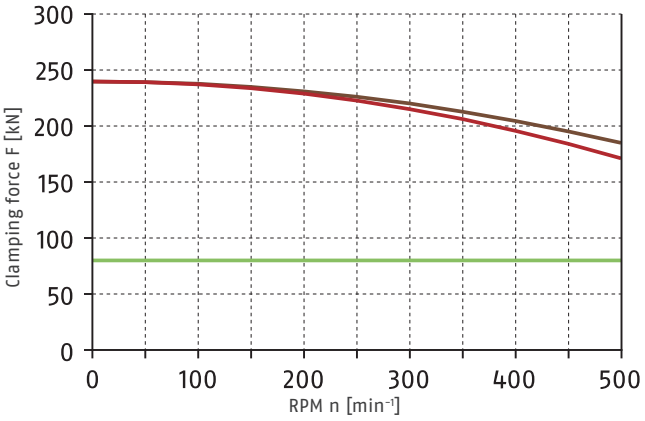
Please make sure that the whole fast stroke plus at least 1/3 of the clamping stroke (corresponds to the basic covering) of the TB2-LH lathe chuck is executed during tool clamping.

Further technical data

Chuck type	Through-hole	Stroke/jaw	Fast stroke/jaw	Clamping stroke/jaw	Air consumption/jaw stroke at 6 bar	Center jaw height
	[mm]	[mm]	[mm]	[mm]	[l]	[mm]
ROTA TB2 1000-560 LH	560	25.4	15	10.4	57.4	137

Clamping force-RPM-diagram

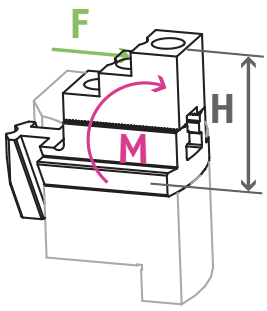


Required minimum clamping force F_{spmin} 33%

SP-HB 800
29.1 kg

SP-WB 800
41.05 kg

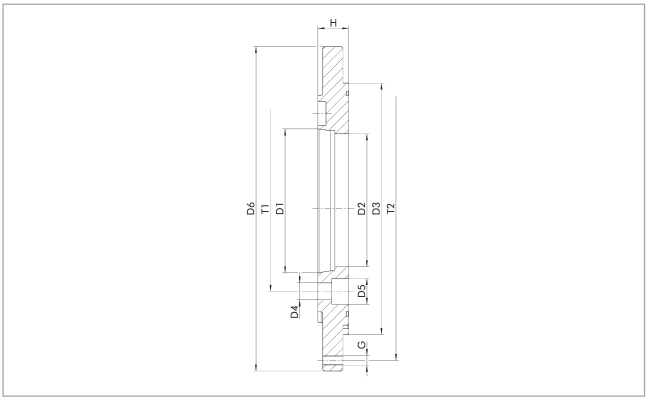
Load of base jaw guidance



M_{max} = 10960 Nm

Adapter plates

Z-mount on short taper ISO 702-1



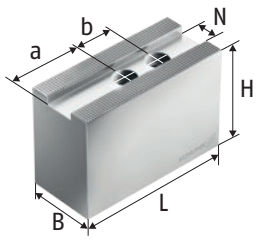
Technical data

Description	ID	Suitable for	D1	D2 [mm]	D3	D4 [mm]	D5 [mm]	D6 [mm]	G	H [mm]	T1 [mm]	T2 [mm]
FFV Z310-A11-2	*0836052*	ROTA TB2 470-185 LH	Nr. 11	185	Z310	21 (6x60°)	32	400	M12 (9 x 40°)	38	235	374
FFV Z310-A15-2	*0836057*	ROTA TB2 470-185 LH	Nr. 15	185	Z310	23 (6x60°)	35	400	M12 (9 x 40°)	50.5	330.2	374
FFV Z415-A11	*0836061*	ROTA TB2 570-230 LH	Nr. 11	193	Z415	21 (6x60°)	33	500	M12 (12 x 30°)	35	235	474
FFV Z415-A15	*0836062*	ROTA TB2 570-230 LH	Nr. 15	230	Z415	23 (6x60°) 26 (6x60°)	35	500	M12 (12 x 30°)	41	330.2	474
FFV Z415-A20	*0836063*	ROTA TB2 570-230 LH	Nr. 20	230	Z415	25 (6x60°)	38	520	M12 (12 x 30°)	59	463.6	474
FFV Z450-A11	*0836074*	ROTA TB2 600-275 LH	Nr. 11	193	Z450	21 (6x60°)	32	535	M12 (12 x 30°)	45	235	508
FFV Z450-A15	*0836075*	ROTA TB2 600-275 LH ROTA TB2 630-275 LH	Nr. 15	275	Z450	23 (6x60°) 26 (6x60°)	35	535	M12 (12 x 30°)	50	330.2	508
FFV Z450-A20	*0836076*	ROTA TB2 600-275 LH ROTA TB2 630-275 LH	Nr. 20	275	Z450	26 (6x60°)	38	535	M12 (12 x 30°)	58	463.3	508
FFV 510-A11	*0836070*	ROTA TB2 685-325 LH	Nr. 11	193	Z510	21 (6x60°)	32	610	M16 (12 x 30°)	42.5	235	580
FFV 510-A15	*0836071*	ROTA TB2 685-325 LH	Nr. 15	265	Z510	26 (6x60°)	38	610	M16 (12 x 30°)	50	330.2	580
FFV 510-A20	*0836072*	ROTA TB2 685-325 LH	Nr. 20	325	Z510	26 (6x60°)	38	610	M16 (12 x 30°)	50	463.6	580
FFV Z700-A15	*0836080*	ROTA TB2 850-375 LH	Nr. 15	270	Z700	26 (12x30°)	38	775	M16 (12 x 30°)	65	330.2	745
FFV Z700-A20-1	*0836081*	ROTA TB2 850-375 LH	Nr. 20	375	Z700	26 (12x30°)	38	775	M16 (12 x 30°)	65	463.6	745

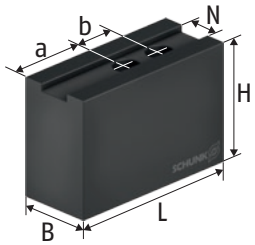
Reduction adapter plates
All flanges on the pneumatic power chuck are designed as reducing flanges.
These are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle.
The adapter plate is first mounted on the spindle and then the lathe chuck is mounted on the adapter plate.

Soft top jaws

with fine serration 90°



SWB-AL
Soft top jaws



SWB
Soft top jaws

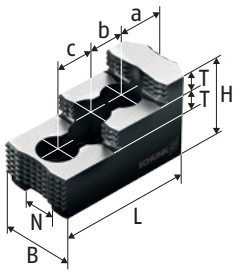
Technical data

Chuck type	Description	ID	N [mm]	B [mm]	H [mm]	L [mm]	a [mm]	b [mm]	Screws	m/SET [kg]
ROTA TB2 470-185 LH	SWB-AL 400	*0168103*	25.5	60	100	155	90	35	M20	6.4
ROTA TB2 470-185 LH	SWB 400	*0120107*	25.5	60	90	155	90	35	M20	16.0
ROTA TB2 470-185 LH	SP-WB 400	*0124105*	25.5	60	100	155	80	40	M18	18.6
ROTA TB2 470-185 LH	SP-WB 500	*0124106*	25.5	60	100	195	118	40	M18	24.0
ROTA TB2 470-185 LH	CWB 400	*0100008*	25.5	60	80	140	75	35	M20	12.6
ROTA TB2 520-191 LH	SWB-AL 400	*0168103*	25.5	60	100	155	90	35	M20	6.4
ROTA TB2 520-191 LH	SWB 400	*0120107*	25.5	60	90	155	90	35	M20	16.0
ROTA TB2 520-191 LH	SP-WB 400	*0124105*	25.5	60	100	155	80	40	M18	18.6
ROTA TB2 520-191 LH	SP-WB 500	*0124106*	25.5	60	100	195	118	40	M18	24.0
ROTA TB2 520-191 LH	CWB 400	*0100008*	25.5	60	80	140	75	35	M20	12.6
ROTA TB2 570-230 LH	SWB-AL 400	*0168103*	25.5	60	100	155	90	35	M20	6.4
ROTA TB2 570-230 LH	SWB 400	*0120107*	25.5	60	90	155	90	35	M20	16.0
ROTA TB2 570-230 LH	SP-WB 400	*0124105*	25.5	60	100	155	80	40	M18	18.6
ROTA TB2 570-230 LH	SP-WB 500	*0124106*	25.5	60	100	195	118	40	M18	24.0
ROTA TB2 570-230 LH	CWB 400	*0100008*	25.5	60	80	140	75	35	M20	12.6
ROTA TB2 600-275 LH	SWB-AL 400	*0168103*	25.5	60	100	155	90	35	M20	6.4
ROTA TB2 600-275 LH	SWB 400	*0120107*	25.5	60	90	155	90	35	M20	16.0
ROTA TB2 600-275 LH	SP-WB 400	*0124105*	25.5	60	100	155	80	40	M18	18.6
ROTA TB2 600-275 LH	SP-WB 500	*0124106*	25.5	60	100	195	118	40	M18	24.0
ROTA TB2 600-275 LH	CWB 400	*0100008*	25.5	60	80	140	75	35	M20	12.6
ROTA TB2 630-275 LH	SP-WB 400	*0124105*	25.5	60	100	155	80	40	M18	18.6
ROTA TB2 630-275 LH	SP-WB 500	*0124106*	25.5	60	100	195	118	40	M18	24.0
ROTA TB2 685-325 LH	SP-WB 630	*0124107*	30	75	90	240	133	65	M24	32.4
ROTA TB2 685-325 LH	SP-WB 800	*0124108*	30	75	90	300	167	65	M24	41.0
ROTA TB2 850-375 LH	SP-WB 630	*0124107*	30	75	90	240	133	65	M24	32.4
ROTA TB2 850-375 LH	SP-WB 800	*0124108*	30	75	90	300	167	65	M24	41.0
ROTA TB2 1000-560 LH	SP-WB 630	*0124107*	30	75	90	240	133	65	M24	32.4
ROTA TB2 1000-560 LH	SP-WB 800	*0124108*	30	75	90	300	167	65	M24	41.0

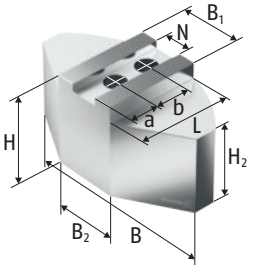
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

Hard stepped top jaws, Full grip jaws

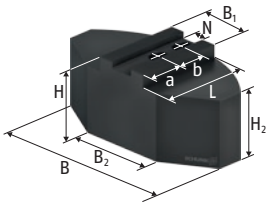
with fine serration 90°



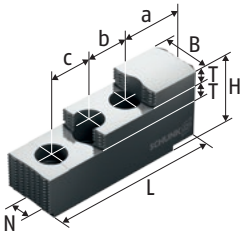
SHB
Hard stepped top jaws



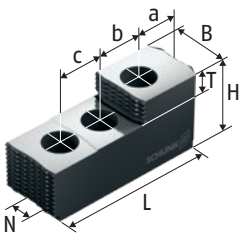
SWB-SA
Full grip jaws



SWB-SM
Full grip jaws



SP-HB
Hard stepped top jaws



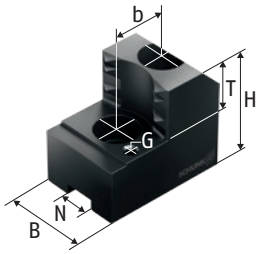
SP-HB
Hard stepped top jaws

Technical data

Chuck type	Description	ID	N [mm]	B [mm]	B1 [mm]	H [mm]	H2 [mm]	L [mm]	T [mm]	a [mm]	b [mm]	c [mm]	Screws	m/SET [kg]
ROTA TB2 470-185 LH	SWB-SA 400	0170105	25.5	330	150	98	68	160		84.5	35		M20	24.4
ROTA TB2 470-185 LH	SWB-SM 400	0169105	25.5	330	60	85	55	155		83.5	35		M20	53.8
ROTA TB2 470-185 LH	SHB 400	0121107	25.5	60		75		140	18	53	31	31	M20	7.8
ROTA TB2 470-185 LH	SP-HB 400-500	0125105	25.5	57.5		73		160	22	43.1	42	42	M18	9.8
ROTA TB2 470-185 LH	SHB 400	0121107	25.5	60		75		140	18	53	31	31	M20	7.8
ROTA TB2 470-185 LH	SP-HB 400-500	0125105	25.5	57.5		73		160	22	43.1	42	42	M18	9.8
ROTA TB2 520-191 LH	SWB-SA 400	0170105	25.5	330	150	98	68	160		84.5	35		M20	24.4
ROTA TB2 520-191 LH	SWB-SM 400	0169105	25.5	330	60	85	55	155		83.5	35		M20	53.8
ROTA TB2 520-191 LH	SHB 400	0121107	25.5	60		75		140	18	53	31	31	M20	7.8
ROTA TB2 520-191 LH	SP-HB 400-500	0125105	25.5	57.5		73		160	22	43.1	42	42	M18	9.8
ROTA TB2 570-230 LH	SWB-SA 400	0170105	25.5	330	150	98	68	160		84.5	35		M20	24.4
ROTA TB2 570-230 LH	SWB-SM 400	0169105	25.5	330	60	85	55	155		83.5	35		M20	53.8
ROTA TB2 570-230 LH	SHB 400	0121107	25.5	60		75		140	18	53	31	31	M20	7.8
ROTA TB2 570-230 LH	SP-HB 400-500	0125105	25.5	57.5		73		160	22	43.1	42	42	M18	9.8
ROTA TB2 600-275 LH	SWB-SA 400	0170105	25.5	330	150	98	68	160		84.5	35		M20	24.4
ROTA TB2 600-275 LH	SWB-SM 400	0169105	25.5	330	60	85	55	155		83.5	35		M20	53.8
ROTA TB2 600-275 LH	SHB 400	0121107	25.5	60		75		140	18	53	31	31	M20	7.8
ROTA TB2 600-275 LH	SP-HB 400-500	0125105	25.5	57.5		73		160	22	43.1	42	42	M18	9.8
ROTA TB2 630-275 LH	SWB-SA 400	0170105	25.5	330	150	98	68	160		84.5	35		M20	24.4
ROTA TB2 630-275 LH	SWB-SM 400	0169105	25.5	330	60	85	55	155		83.5	35		M20	53.8
ROTA TB2 630-275 LH	SHB 400	0121107	25.5	60		75		140	18	53	31	31	M20	7.8
ROTA TB2 630-275 LH	SP-HB 400-500	0125105	25.5	57.5		73		160	22	43.1	42	42	M18	9.8
ROTA TB2 685-325 LH	SP-HB 630	0125106	30	75		88		174.5	30	44.5	50	50	M24	15.5
ROTA TB2 685-325 LH	SP-HB 800	0125108	30	75		105		250	22	91.8	60	60	M24	29.1
ROTA TB2 850-375 LH	SP-HB 630	0125106	30	75		88		174.5	30	44.5	50	50	M24	15.5
ROTA TB2 850-375 LH	SP-HB 800	0125108	30	75		105		250	22	91.8	60	60	M24	29.1
ROTA TB2 1000-560 LH	SP-HB 630	0125106	30	75		88		174.5	30	44.5	50	50	M24	15.5
ROTA TB2 1000-560 LH	SP-HB 800	0125108	30	75		105		250	22	91.8	60	60	M24	29.1

Claw jaws

with fine serration 90°



SZA
Claw jaws

Technical data

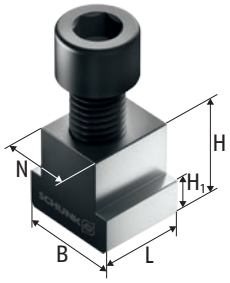
Chuck type	Clamping range ØD [mm]	Swing diameter SDmax [mm]	Description	ID	N [mm]	B [mm]	H [mm]	L [mm]	T [mm]	G	b [mm]	Screws	m/SET [kg]
ROTA TB2 470-185 LH	172 - 274	541	SZA 40-11	0138300	25.5	60	78	149.3	33	M8	35	M20	8.0
ROTA TB2 470-185 LH	147 - 250	595	SZA 40-12	0138301	25.5	60	78	188.3	33	M8	35	M20	11.5
ROTA TB2 470-185 LH	247 - 435	580	SZA 40-13	0138302	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 470-185 LH	332 - 435	559	SZA 40-14	0138303	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 470-185 LH	402 - 506	602	SZA 40-15	0138304	25.5	60	78	150	33	M8	35	M20	9.3
ROTA TB2 470-185 LH	482 - 585	686	SZA 40-16	0138305	25.5	60	78	178.6	33	M8	35	M20	11.0
ROTA TB2 470-185 LH	213 - 310	578	SZA 40-11	0138300	25.5	60	78	149.3	33	M8	35	M20	8.0
ROTA TB2 470-185 LH	213 - 310	578	SZA 40-12	0138301	25.5	60	78	188.3	33	M8	35	M20	11.5
ROTA TB2 470-185 LH	213 - 310	578	SZA 40-13	0138302	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 470-185 LH	213 - 310	578	SZA 40-14	0138303	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 470-185 LH	213 - 310	578	SZA 40-15	0138304	25.5	60	78	150	33	M8	35	M20	9.3
ROTA TB2 470-185 LH	213 - 310	578	SZA 40-16	0138305	25.5	60	78	178.6	33	M8	35	M20	11.0
ROTA TB2 520-191 LH	213 - 310	578	SZA 40-11	0138300	25.5	60	78	149.3	33	M8	35	M20	8.0
ROTA TB2 520-191 LH	188 - 285	633	SZA 40-12	0138301	25.5	60	78	188.3	33	M8	35	M20	11.5
ROTA TB2 520-191 LH	288 - 385	617	SZA 40-13	0138302	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 520-191 LH	373 - 470	596	SZA 40-14	0138303	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 520-191 LH	444 - 541	639	SZA 40-15	0138304	25.5	60	78	150	33	M8	35	M20	9.3
ROTA TB2 520-191 LH	523 - 621	723	SZA 40-16	0138305	25.5	60	78	178.6	33	M8	35	M20	11.0
ROTA TB2 570-230 LH	233 - 354	621	SZA 40-11	0138300	25.5	60	78	149.3	33	M8	35	M20	8.0
ROTA TB2 570-230 LH	209 - 329	675	SZA 40-12	0138301	25.5	60	78	188.3	33	M8	35	M20	11.5
ROTA TB2 570-230 LH	309 - 429	659	SZA 40-13	0138302	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 570-230 LH	394 - 514	638	SZA 40-14	0138303	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 570-230 LH	465 - 585	681	SZA 40-15	0138304	25.5	60	78	150	33	M8	35	M20	9.3
ROTA TB2 570-230 LH	544 - 665	766	SZA 40-16	0138305	25.5	60	78	178.6	33	M8	35	M20	11.0
ROTA TB2 600-275 LH	268 - 423	690	SZA 40-11	0138300	25.5	60	78	149.3	33	M8	35	M20	8.0
ROTA TB2 600-275 LH	243 - 398	744	SZA 40-12	0138301	25.5	60	78	188.3	33	M8	35	M20	11.5
ROTA TB2 600-275 LH	343 - 498	728	SZA 40-13	0138302	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 600-275 LH	428 - 583	707	SZA 40-14	0138303	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 600-275 LH	499 - 654	750	SZA 40-15	0138304	25.5	60	78	150	33	M8	35	M20	9.3
ROTA TB2 600-275 LH	579 - 734	835	SZA 40-16	0138305	25.5	60	78	178.6	33	M8	35	M20	11.0
ROTA TB2 630-275 LH	297 - 463	730	SZA 40-11	0138300	25.5	60	78	149.3	33	M8	35	M20	8.0
ROTA TB2 630-275 LH	272 - 438	451	SZA 40-12	0138301	25.5	60	78	188.3	33	M8	35	M20	11.5
ROTA TB2 630-275 LH	372 - 539	769	SZA 40-13	0138302	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 630-275 LH	457 - 624	748	SZA 40-14	0138303	25.5	60	78	131	33	M8	35	M20	8.0
ROTA TB2 630-275 LH	528 - 695	791	SZA 40-15	0138304	25.5	60	78	150	33	M8	35	M20	9.3
ROTA TB2 630-275 LH	608 - 775	876	SZA 40-16	0138305	25.5	60	78	178.6	33	M8	35	M20	11.0

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

T-nut

with fine serration 90°

NS
T-nut



NKS
T-nut

Chuck type	Description	ID	N	B	H	H1	L	Cyl.-screw	Max. adm. tightening torque
			[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]
ROTA TB2 470-185 LH	NKS 4	*0143109*	25.5	35	34.5	15	30	M20 x 45	220
ROTA TB2 470-185 LH	NS 200	*0140103*	25.5	35.8	29	11	27.8	M20 x 40	220
ROTA TB2 470-185 LH	NS 201	*0142103*	25.5	32.5	33.7	15.5	28	M20 x 45	300
ROTA TB2 470-185 LH	NS 202	*0141102*	25.5	34	35.5	16	30.5	M20 x 50	300
ROTA TB2 470-185 LH	NS 181	*0143105*	25.5	35.8	34.5	14.5	30.8	M18 x 55	220
ROTA TB2 470-185 LH	NS 182	*0140119*	25.5	36	67	14.5	31	M18 x 90	220
ROTA TB2 470-185 LH	NS 205	*0140123*	25.5	36	34.5	14.5	31	M20 x 45	240
ROTA TB2 520-191 LH	NS 181	*0143105*	25.5	35.8	34.5	14.5	30.8	M18 x 55	220
ROTA TB2 520-191 LH	NS 205	*0140123*	25.5	36	34.5	14.5	31	M20 x 45	240
ROTA TB2 570-230 LH	NS 181	*0143105*	25.5	35.8	34.5	14.5	30.8	M18 x 55	220
ROTA TB2 570-230 LH	NS 205	*0140123*	25.5	36	34.5	14.5	31	M20 x 45	240
ROTA TB2 600-275 LH	NS 181	*0143105*	25.5	35.8	34.5	14.5	30.8	M18 x 55	220
ROTA TB2 600-275 LH	NS 205	*0140123*	25.5	36	34.5	14.5	31	M20 x 45	240
ROTA TB2 630-275 LH	NS 181	*0143105*	25.5	35.8	34.5	14.5	30.8	M18 x 55	220
ROTA TB2 630-275 LH	NS 182	*0140119*	25.5	36	67	14.5	31	M18 x 90	220
ROTA TB2 630-275 LH	NS 205	*0140123*	25.5	36	34.5	14.5	31	M20 x 45	240
ROTA TB2 685-325 LH	NS 240-1	*0140114*	30	42	41	15	34	M24 x 70	450
ROTA TB2 850-375 LH	NS 240-1	*0140114*	30	42	41	15	34	M24 x 70	450
ROTA TB2 1000-560 LH	NS 240-1	*0140114*	30	42	41	15	34	M24 x 70	450

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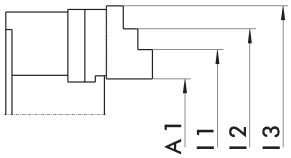
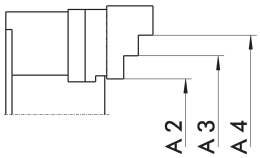
Hard stepped top jaws

with fine serration 90°



Jaw position I



Jaw position II

O.D. clamping

Chuck type	Description	ID	A1 [mm]	A2 [mm]	A3 [mm]	A4 [mm]
ROTA TB2 470-185 LH	SHB 400	*0121107*	120 - 312	173 - 284	275 - 386	377 - 470
ROTA TB2 520-191 LH	SHB 400	*0121107*	246 - 324	262 - 330	362 - 422	466 - 524
ROTA TB2 570-230 LH	SHB 400	*0121107*	216 - 368	269 - 380	371 - 482	473 - 570
ROTA TB2 600-275 LH	SHB 400	*0121107*	225 - 463	278 - 389	380 - 491	482 - 605
ROTA TB2 685-325 LH	SP-HB 630	*0125106*	260 - 534	282 - 494	485 - 685	
ROTA TB2 850-375 LH	SP-HB 800	*0125108*	204 - 573	307 - 491	482 - 656	647 - 850
ROTA TB2 1000-560 LH	SP-HB 800	*0125108*	388 - 718	491 - 675	666 - 840	831 - 1000

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.

Suitable for	Description	ID
ROTA TB2 470-185 LH		
ROTA TB2 520-191 LH		
ROTA TB2 570-230 LH		
ROTA TB2 600-275 LH		
ROTA TB2 630-275 LH		
ROTA TB2 685-325 LH		
ROTA TB2 850-375 LH		
ROTA TB2 1000-560 LH	IFT Set	*1404235*

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.

Suitable for	Description	ID
ROTA TB2 470-185 LH		
ROTA TB2 520-191 LH		
ROTA TB2 570-230 LH		
ROTA TB2 600-275 LH		
ROTA TB2 630-275 LH		
ROTA TB2 685-325 LH		
ROTA TB2 850-375 LH		
ROTA TB2 1000-560 LH	IFT adapter set	*1498512*

Maintenance unit

For processing the required compressed air.

Suitable for	Description	ID
ROTA TB2 470-185 LH		
ROTA TB2 520-191 LH		
ROTA TB2 570-230 LH		
ROTA TB2 600-275 LH		
ROTA TB2 630-275 LH		
ROTA TB2 685-325 LH		
ROTA TB2 850-375 LH		
ROTA TB2 1000-560 LH	WEH 1/4"	*0890021*

Pressure measuring unit

For checking pressure tightness.

Suitable for	Description	ID
ROTA TB2 470-185 LH		
ROTA TB2 520-191 LH		
ROTA TB2 570-230 LH		
ROTA TB2 600-275 LH		
ROTA TB2 630-275 LH		
ROTA TB2 685-325 LH		
ROTA TB2 850-375 LH		
ROTA TB2 1000-560 LH	DMG Ø24-NPT1/4"	*8702680*

Pressure monitoring retrofit kit

Retrofit kit for monitoring pneumatic pressure during machining, consisting of control cam, compression spring and other accessories.
An inductive proximity switch is also required.

Suitable for	Description	ID
ROTA TB2 470-185 LH		
ROTA TB2 520-191 LH		
ROTA TB2 570-230 LH		
ROTA TB2 600-275 LH		
ROTA TB2 630-275 LH		
ROTA TB2 685-325 LH		
ROTA TB2 850-375 LH		
ROTA TB2 1000-560 LH	NRS-PM	*0818205*

Inductive proximity switches

For pneumatic power lathe chucks for permanent pressure and/or path monitoring during processing in two versions. Opener (ID 9987327) and closer (ID 9986713).

Suitable for	Description	ID
ROTA TB2 470-185 LH		
ROTA TB2 520-191 LH		
ROTA TB2 570-230 LH		
ROTA TB2 600-275 LH		
ROTA TB2 630-275 LH		
ROTA TB2 685-325 LH		
ROTA TB2 850-375 LH		
ROTA TB2 1000-560 LH	BES M12MI-POC40B-S04G	*9987327*
ROTA TB2 470-185 LH		
ROTA TB2 520-191 LH		
ROTA TB2 570-230 LH		
ROTA TB2 600-275 LH		
ROTA TB2 630-275 LH		
ROTA TB2 685-325 LH		
ROTA TB2 850-375 LH		
ROTA TB2 1000-560 LH	BES M12MI-PSC40B-S04G	*9986713*

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.

Bundle	Description	ID
Cartridge	LINOMAX plus cartridge	*1342585*
Can	LINOMAX plus can	*1342586*
Bucket	LINOMAX plus bucket	*1342587*

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.

Bundle	Description	ID
Cartridge	Grease gun	*9900543*

H.-D. SCHUNK GmbH & Co.
Spanntechnik KG

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2025-11-14