



ROTA TPS

**Pneumatic power lathe
chucks for stationary
applications**

Pneumatically actuated power lathe chucks with integrated pneumatic cylinder for powerful clamping at 6 bar

ROTA TPS stands for precise clamping of round workpieces on stationary machine tools. Particularly, if there are no hydraulic systems, these lathe chucks are suitable as an adequate replacement. The power lathe chucks can be adapted quickly and easily to any machine table by using a console plate. The special feature is the integrated pneumatic cylinder, which allows the chucks to be built very low and thus enables maximum utilization of the machine room. From an air pressure of only 6 bar it is already possible to achieve high clamping forces, which can easily be adapted to the particular task and enable workpiece clamping in a reliable process.



Advantages – Your benefits

- + Precision wedge-hook power lathe chuck for highest quality requirements**
Allows excellent machining results
- + High efficiency of the wedge hook system**
Process-reliable clamping due to high clamping forces
- + Optimized lubrication system**
Consistently high clamping forces ensured
- + Pneumatic cylinder integrated in the chuck**
No additional backside cylinder is necessary
- + Mounting via console plate**
Adapts quickly and easily to any machine table
- + 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. clamping force (at 6 bar) [kN]	Operating pressure [bar]	Stroke/jaw [mm]
ROTA TPS 125-26	22	3 - 8	3
ROTA TPS 160-38	39	3 - 8	4.2
ROTA TPS 200-52	68	3 - 8	4.2
ROTA TPS 250-68	105	3 - 8	5
ROTA TPS 315-90	140	3 - 8	5
ROTA TPS 315-105	100	3 - 8	5

Function ROTA TPS

The piston that is positively guided in to the chuck is shifted by feeding in compressed air. The wedge hook system converts this axial movement of the chuck piston into a radial movement of the base jaws. Due to the use of a double-acting cylinder, the workpieces can be clamped externally and internally.



- ❶ **Wedge hook drive**
Offers constantly high clamping forces in operation
- ❷ **Hardened and extremely rigid base body**
Therefore a longer service life at highest precision.
Even with maximum clamping force
- ❸ **Large through-hole**
For machining of all standard raw material diameters
- ❹ **Optimized lubrication system**
For a high level of efficiency
- ❺ **Low height design**
Expands your machine's workspace
- ❻ **Standard jaw interface**
Large selection of standardized top jaws from SCHUNK
- ❼ **Adaptation to the machine table**
Either via a console plate or straight recess mount
- ❽ **Improved design which is insensitive to dirt**
By means of targeted sealing
- ❾ **Integrated pneumatic cylinder**
No additional backside cylinder is necessary
- ❿ **Pneumatic system**
Actuation with up to 6 bar

Stationary 3-jaw chuck, pneumatically actuated

With base plate "K" or with straight recess mount "Z"

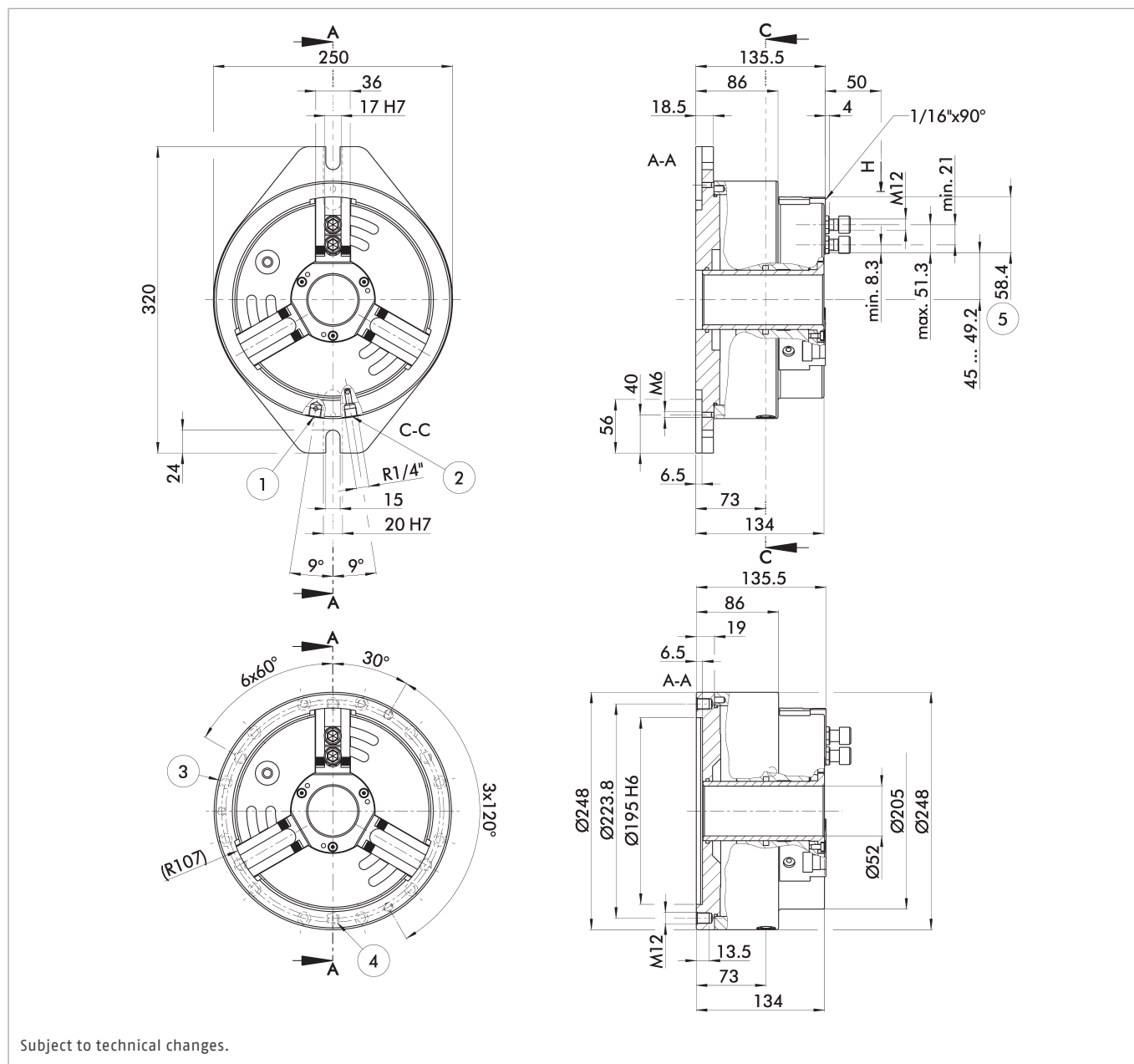
Scope of delivery

Power lathe chuck, studs, T-nuts, straight fitting, elbow-union, assembly tool, operating manual; without top jaws

Technical data

Description	ID	Mounting	Max. clamping force (at 6 bar) [kN]	Actuation pressure [bar]	Stroke per jaw [mm]	Weight [kg]
ROTA TPS 200-52 Z-SV90°	0816146	Centering recess	68	3 - 8	4.2	34
ROTA TPS 200-52 K-SV90°	0816147	Consol plate	68	3 - 8	4.2	34

$P_{min} = 3$ bar (for lower clamping forces, a clamping force reduction can be offered as an option)

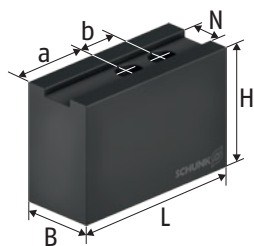


- ① Air connection R1/4 for opening the chuck
- ② Air connection R1/4 for closing the chuck
- ③ Disassembly thread M8

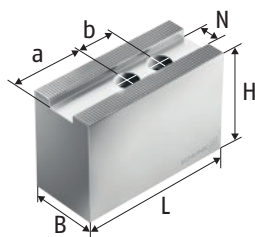
- ④ Mounting thread M12
- ⑤ Distance to center of first tooth

Soft top jaws

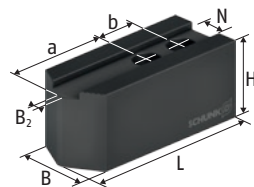
with fine serration 90°



CWB
Soft top jaws



SWB-AL
Soft top jaws



SWBL
Soft top jaws

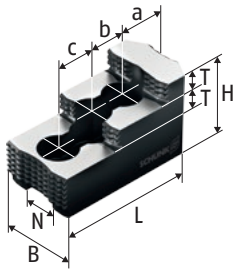
Technical data

Chuck type	Description	ID	N [mm]	B [mm]	H [mm]	L [mm]	a [mm]	b [mm]	Screws	m/SET [kg]
ROTA TPS 200-52	SWBL 200	0120153	17	35	40	98	61	22	M12	2.6
ROTA TPS 200-52	CWB 200	0100006	17	40	40	90	43	22	M12	2.7
ROTA TPS 200-52	SWB 200	0120104	17	40	60	90	43	22	M12	4.1
ROTA TPS 200-52	SWB-AL 200	0168101	17	40	60	90	43	22	M12	1.5

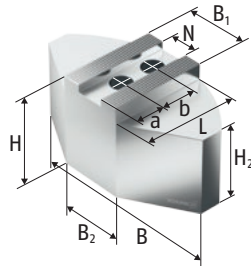
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

Hard stepped top jaws, Full grip jaws

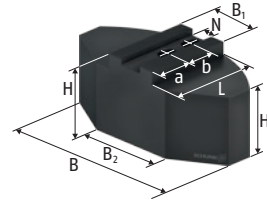
with fine serration 90°



SHB
Hard stepped top jaws



SWB-SA
Full grip jaws



SWB-SM
Full grip jaws

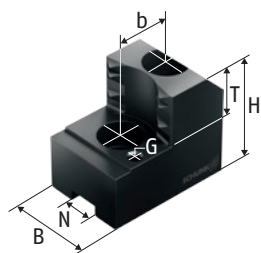
Technical data

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 TPS 200-52	SWB-SA 200	0170101	17	140	40	58	48	72.5		35	22		M12	3.1
ROTA TPS 200-52	SWB-SA 201	0170106	17	140	40	75	65	72.5		35	22		M12	4.2
ROTA TPS 200-52	SWB-SM 200	0169101	17	140	40	60	50	69.5		35	22		M12	8.6
ROTA TPS 200-52	SWB-SM 201	0169106	17	140	40	75	65	69.5		35	22		M12	11.5
ROTA TPS 200-52	SHB 210	0121102	17	40		49		84.3	12	28.7	19	19	M12	2.0

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

Claw jaws

with fine serration 90°



SZA
Claw jaws

Technical data

Chuck type	Clamping range ØD	Swing diameter SDmax	Description	ID	N	B	H	L	T	G	b	Screws	m/SET
	[mm]	[mm]			[mm]	[mm]	[mm]	[mm]	[mm]		[mm]		[kg]
ROTA TPS 200-52	33 - 76	225	SZA 20-14	0138195	17	35	50	85	25	M6	22	M12	1.8
ROTA TPS 200-52	60 - 104	225	SZA 20-15	0138196	17	35	50	72.9	25	M6	22	M12	1.5
ROTA TPS 200-52	89 - 134	225	SZA 20-16	0138197	17	40	50	65.1	25	M6	22	M12	1.5
ROTA TPS 200-52	116 - 161	227	SZA 20-17	0138198	17	40	50	66.7	25	M6	22	M12	1.6
ROTA TPS 200-52	146 - 191	251	SZA 20-18	0138199	17	40	50	71.4	25	M6	22	M12	1.8

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

T-nut

with fine serration 90°



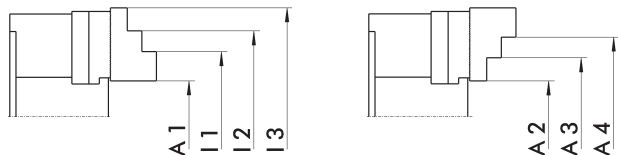
NS
T-nut

Chuck type	Description	ID	N	B	H	H1	L	Cyl.-screw	Max. adm. tightening torque
			[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]
ROTA TPS 200-52	NS 126	0143102	17	22.4	27	9	19.3	M12 x 35	70

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

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 TPS 200-52	SHB 210	0121102	14 - 102	40 - 94	90 - 140	136 - 198

I.D. clamping

Chuck type	Description	ID	I1 [mm]	I2 [mm]	I3 [mm]
ROTA TPS 200-52	SHB 210	0121102	87 - 137	133 - 185	181 - 265

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 TPS 200-52	IFT Set	1404235

Maintenance unit

For processing the required compressed air.



Suitable for	Description	ID
ROTA TPS 200-52	WEH 1/4"	0890021

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

Pressure measuring unit

For checking pressure tightness.



Suitable for	Description	ID
ROTA TPS 200-52	DMG Ø20-NPT1/4"	8702679

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

Lothringer Str. 23
D-88512 Mengen
Tel. +49-7572-7614-1300
Fax +49-7572-7614-1039
CMM@de.schunk.com
schunk.com