

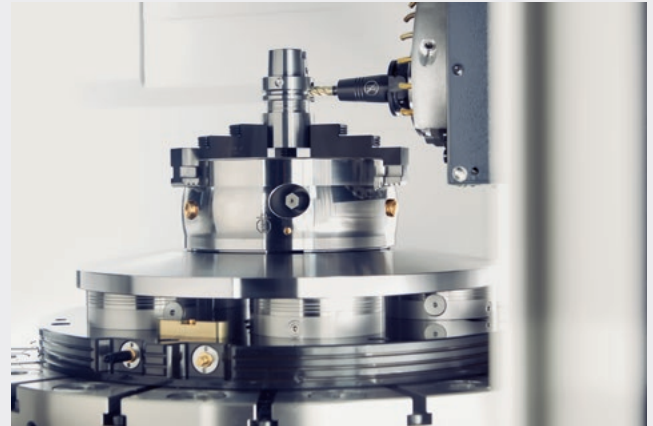


ROTA-S *plus* 2.0

**Jaw quick-change chuck for
stationary use**

Universally applicable manual lathe chucks for stationary applications with jaw quick-change system for jaw change within 60 seconds

The ROTA-S plus 2.0 manual lathe chuck is specifically designed for storage solutions and conventional lathes without hydraulic or pneumatic cylinders. The jaw quick-change system makes the lathe chucks suitable for flexible manufacturing from batch size 1. The manual lathe chucks can be quickly and easily attached to the machine table using a base plate or, in combination with VERO-S, can also be automatically inserted and removed using a robot.



Advantages – Your benefits

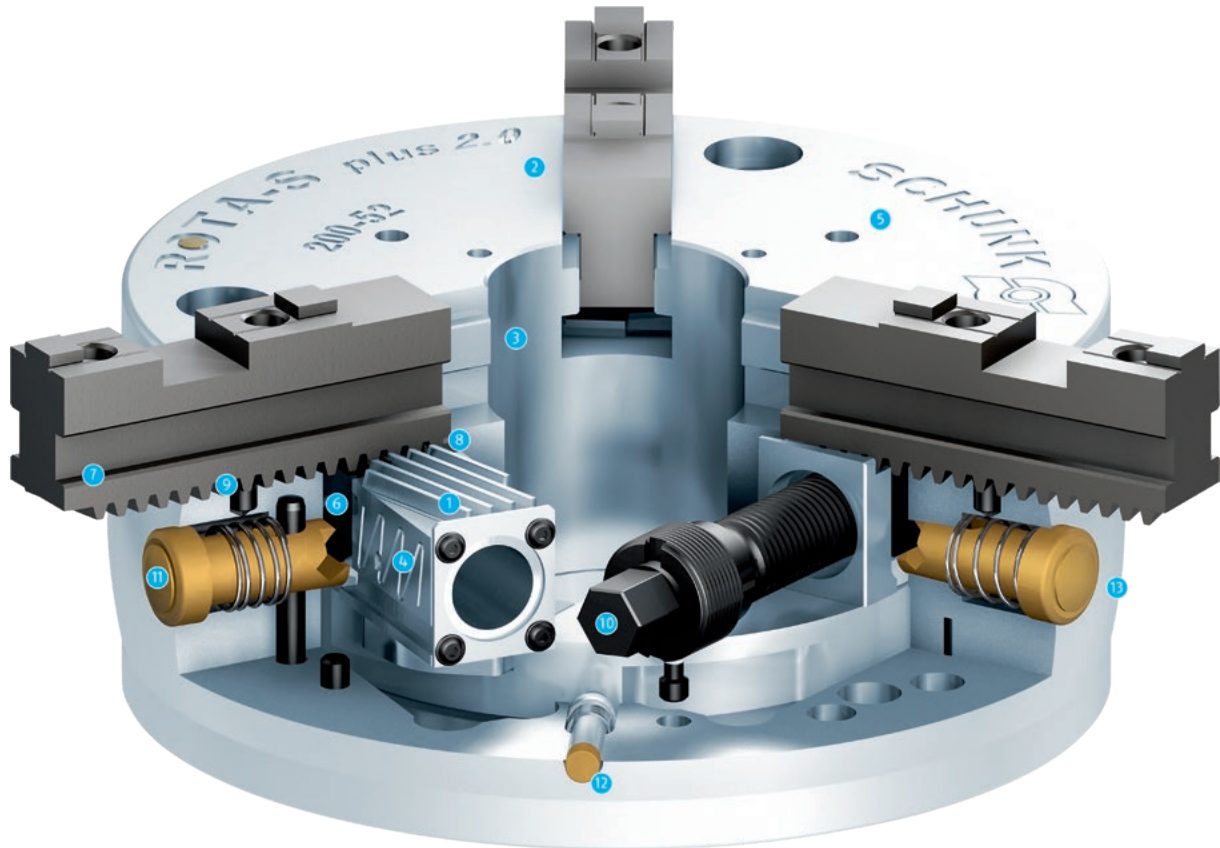
- + Convenient jaw quick-change system**
Minimizing set-up times and costs
- + High efficiency of the wedge bar system**
Process-reliable clamping due to high clamping forces
- + High jaw quick-change repeat accuracy**
No reboring of already machined jaws necessary
- + Visual safety devices**
Maximum operating safety
- + Optimized lubrication system**
Consistently high clamping forces ensured
- + Angled serrated base jaws SFG**
Compatible with the ROTA-S plus and "F" system (Forkardt)
- + All sides of the functional parts are hardened and ground**
Ensures a long service life

Technical data

Description	Max. clamping force [kN]	Max. torque [Nm]	Stroke/jaw [mm]
ROTA-S plus 2.0 160	65	80	6.5
ROTA-S plus 2.0 200	100	120	7
ROTA-S plus 2.0 250	160	210	7.7
ROTA-S plus 2.0 315	180	220	9.9
ROTA-S plus 400	230	280	12
ROTA-S plus 500	270	320	12

Function ROTA-S plus 2.0

The tangentially movable wedge bars in the chuck are driven by turning the thread spindle. The wedge bars transmit the force to the base jaws, generating a jaw movement that is synchronous and radial to the axis of rotation.



- | | |
|---|--|
| <p>1 Wedge bar actuation system
It offers high run-out accuracies even at high speeds</p> <p>2 Hardened and extremely rigid base body
Therefore a longer service life at highest precision.
Even with maximum clamping force</p> <p>3 Large through-hole
For machining all conventional bar diameters (optionally: with enlarged through-hole)</p> <p>4 Optimized lubrication system
For a high level of efficiency</p> <p>5 Mounting thread
For workpiece stops or cover plates</p> <p>6 Jaw quick-change system
Shortest set-up times due to individual unlocking of jaws</p> <p>7 Base jaws with diagonal serration (SFG)
Compatible with the ROTA-S plus and "F" system (Forkardt)</p> | <p>8 Locking mechanism
Ensures secure intermeshing of the base jaw serration with the wedge bar serration</p> <p>9 Plunger pin
For pre-positioning the base jaw</p> <p>10 Actuation via hexagon connection
This ensures easy operation</p> <p>11 Push button for jaw change
For shortest set-up times</p> <p>12 Indicator pin
For visual stroke monitoring of the manual lathe chuck</p> <p>13 Special shaping with "edge profile for coolant run-off"
Therefore less coolant is in the spindle bearing or machine spindle</p> |
|---|--|

Spindel with hexagon connection

The vise can be easily actuated via a standard hexagon connection using either conventional socket wrenches, extensions or torque wrenches.



Wedge bar system with wiper

Wipers at the end of the wedge bars prevent dirt and fine chips from penetrating into the lathe chuck and the chuck mechanism.



Central lubrication system

Two lubrication nipples positioned on the chuck body facilitate lubrication of all functional surfaces. The special shape of the grease grooves ensures constant lubrication of the friction surfaces. This improves the clamping behavior during operation.



Maximum operating safety

To ensure safe working, an indicator pin shows when the chuck mechanism is close to the stroke end position. As soon as the indicator pin moves outwards, the workpiece is no longer clamped correctly and machining must not be started.

1 Indicator pin



Correct jaw change

When the base jaw is fully inserted into the guideway, the slide positions the base jaw serration for the wedge bar. The base jaw holds the locking slide in the release position. The chuck can now be actuated.

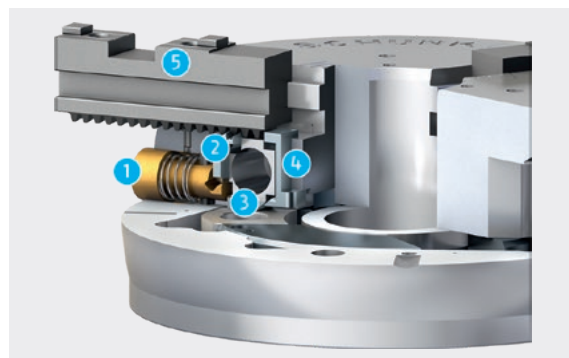
- ① Push button
- ② Slide
- ③ Traverse slide
- ④ Locking slide
- ⑤ Base jaw



Incorrect jaw change

If the base jaw is not fully inserted into the guideway, the locking slide prevents the chuck being clamped.

- ① Push button
- ② Slide
- ③ Traverse slide
- ④ Locking slide
- ⑤ Base jaw

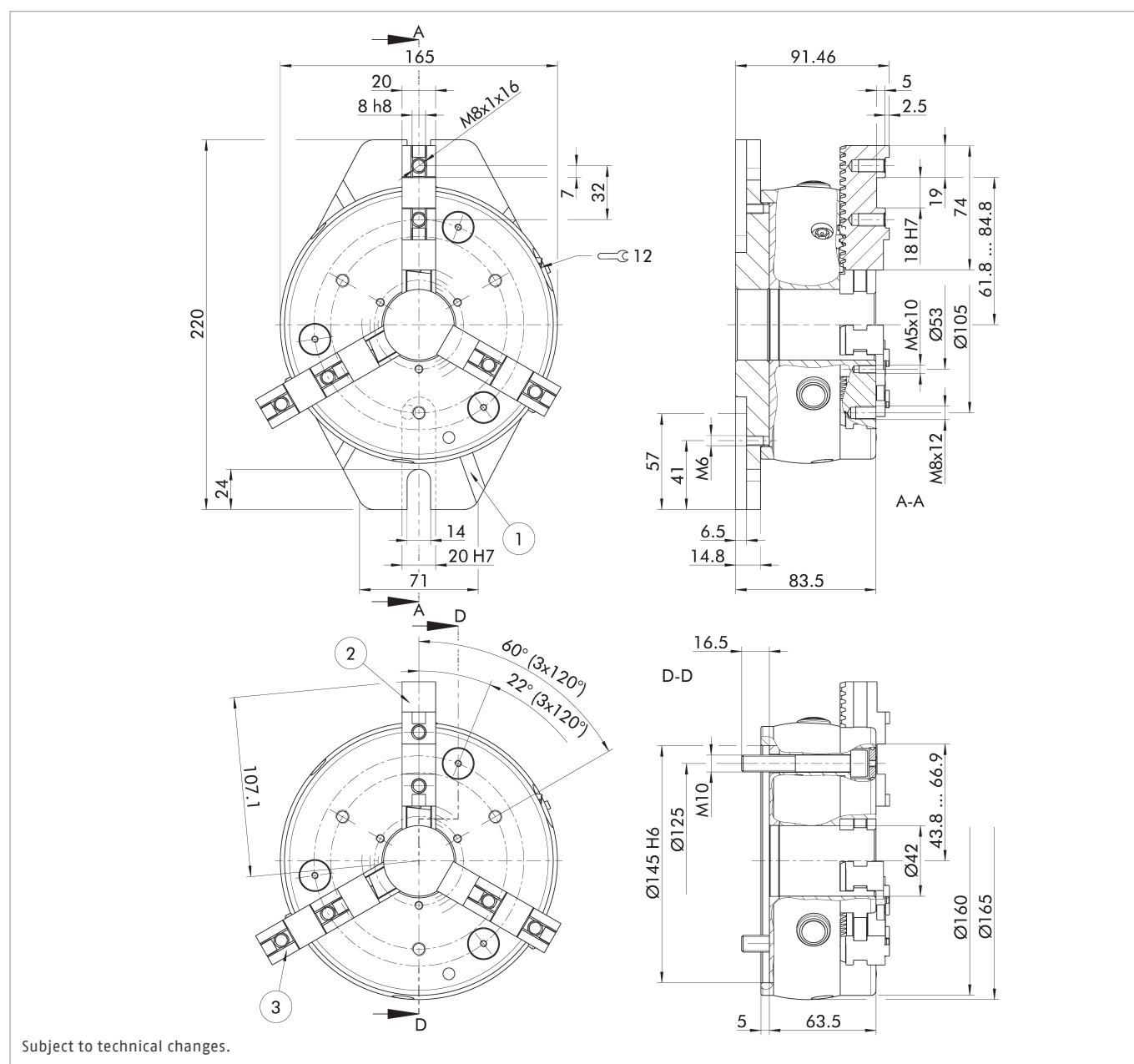


With base plate "K" or with straight recess mount "Z"

Manual lathe chuck, base jaws with tongue and groove, mounting screws, spanner wrench, SCHUNK magnets, quick guide, operating manual; without top jaws

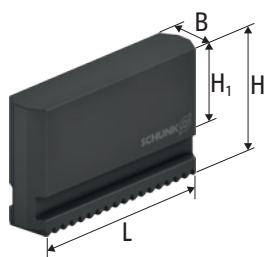
Description	ID	Mounting	Max. clamping force [kN]	Max. torque [Nm]	Stroke per jaw [mm]	Tooth pitch [mm]	Weight [kg]
ROTA-S plus 2.0 160 Z145-SFG	0819911	Centering recess	65	80	6.5	4.8	7.9
ROTA-S plus 2.0 160 K-SFG	0819921	Consol plate	65	80	6.5	4.8	12

2-jaw chuck available upon request

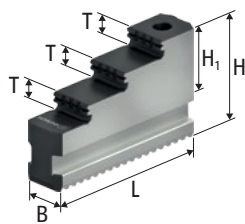


- ① Water drainage grooves
② Position of base jaws I
③ Position of base jaws II

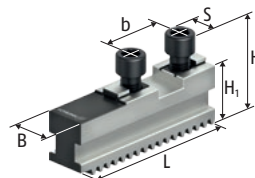
Base jaws, Hard stepped block jaws, Soft monoblock jaws with angled serration



SMB
Soft monoblock jaws



STF
Hard stepped block jaws



SFG
Base jaws

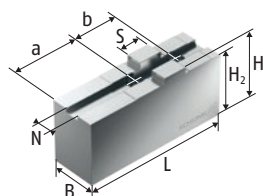
Technical data

Chuck type	Description	ID	N [mm]	S [mm]	B [mm]	H [mm]	H1 [mm]	L [mm]	T [mm]	b [mm]	Screws	m/SET [kg]
ROTA-S plus 2.0 160	SMB 160	0163100			20	45	24	79				1.5
ROTA-S plus 2.0 160	SMB-H 160	0163200			20	60	39	79				2.0
ROTA-S plus 2.0 160	SFG 160	0157100	18	8	20	29.5	27	74		32	M8x1	0.8
ROTA-S plus 2.0 160	SFGK 160	0157500	18	8	20	29.5	27	64		32	M8x1	0.7
ROTA-S plus 2.0 160	STF 160	0161100			20	45	24	79.1	7.5			1.1

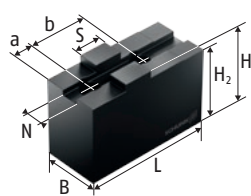
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

Soft top jaws

with tongue and groove



SFA-AL
Soft top jaws



SFA
Soft top jaws

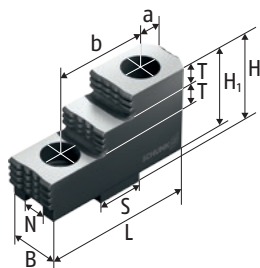
Technical data

Chuck type	Description	ID	N [mm]	S [mm]	B [mm]	H [mm]	H2 [mm]	L [mm]	a [mm]	b [mm]	Screws	m/SET
ROTA-S plus 2.0 160	SFA 160	0153100	8	18	20	40	36	85	35	32	M8	1.2
ROTA-S plus 2.0 160	SFA-AL 160	0172100	8	18	25	50	46	85	35	32	M8	0.7
ROTA-S plus 2.0 160	SFA 160-C1	0154121	8	18	30	55.5	51.5	85	41	32	M8	2.7
ROTA-S plus 2.0 160	SFA 160-C2	0154127	8	18	35	40	36	63	19	32	M8	1.6
ROTA-S plus 2.0 160	SFA 160-C3	0154131	8	18	40	60	56	70	26	32	M8	3.3
ROTA-S plus 2.0 160	SFA 160-C4	0154133	8	18	40	80	76	85	41	32	M8	5.6

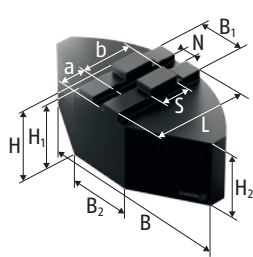
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

Hard stepped top jaws, Full grip jaws

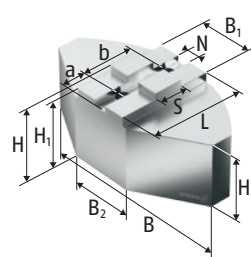
with tongue and groove



SHF
Hard stepped top jaws



SFA-SM
Full grip jaws



SFA-SA
Full grip jaws

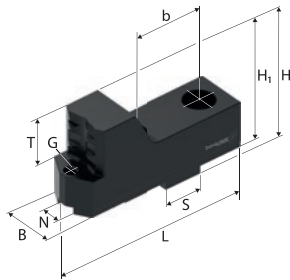
Technical data

Chuck type	Description	ID	N [mm]	S [mm]	B [mm]	B1 [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	T [mm]	a [mm]	b [mm]	Screws	m/SET [kg]
ROTA-S plus 2.0 160	SFA-SA 160	0174100	8	18	120	35	50	46	40	59.5		15.75	32	M8	1.4
ROTA-S plus 2.0 160	SFA-SM 160	0173100	8	18	120	30	50	46	40	60		16.5	32	M8	4.8
ROTA-S plus 2.0 160	SHF 160	0155100	8	18	20		36.5	32.5		63	7.5	16.8	32	M8	0.6

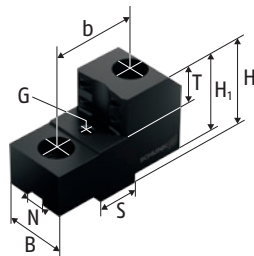
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

Claw jaws

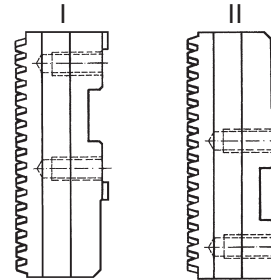
with tongue and groove



SZKA
Claw jaws



SZKA
Claw jaws



Position of base jaws

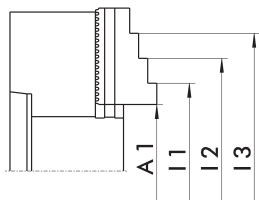
Technical data

Chuck type	Clamping range ØD	Swing diameter SDmax	Position of base jaws	Description	ID	N	S	B	H	H1	L	T	G	b	Screws	m/SET
	[mm]	[mm]				[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[kg]
ROTA-S plus 2.0 160	89 – 135	220	I	SZKA 163	0165146	8	18	40	44	40	60	20	M6	32	M8	1.5
ROTA-S plus 2.0 160	140 – 186	250	I	SZKA 167	0165150	8	18	30	44	40	76	20	M6	32	M8	1.3
ROTA-S plus 2.0 160	42 – 87	210	I	SZKA 169	0165174	8	18	26	44	40	71	20	M6	32	M8	1.0
ROTA-S plus 2.0 160	54 – 99	209	II	SZKA 163	0165146	8	18	40	44	40	60	20	M6	32	M8	1.5
ROTA-S plus 2.0 160	104 – 150	215	II	SZKA 167	0165150	8	18	30	44	40	76	20	M6	32	M8	1.3
ROTA-S plus 2.0 160	26 – 52	209	II	SZKA 169	0165174	8	18	26	44	40	71	20	M6	32	M8	1.0

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

Hard stepped block jaws

with tongue and groove



Jaw position I

O.D. clamping

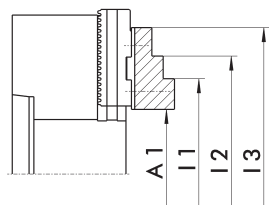
Chuck type	Description	ID	A1 [mm]	A2 [mm]	A3 [mm]	A4 [mm]
ROTA-S plus 2.0 160	STF 160	0161100	7 - 49	47 - 93	92 - 138	117 - 163

I.D. clamping

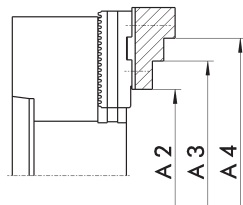
Chuck type	Description	ID	I1 [mm]	I2 [mm]	I3 [mm]
ROTA-S plus 2.0 160	STF 160	0161100	62 - 104	87 - 129	132 - 174

Hard stepped top jaws

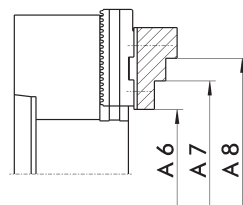
with tongue and groove



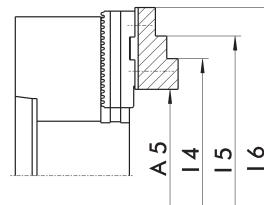
Position of base jaws II



Position of base jaws I



Position of base jaws II



Position of base jaws I

O.D. clamping

Chuck type	Description	ID	A1 [mm]	A2 [mm]	A3 [mm]	A4 [mm]	A5 [mm]	A6 [mm]	A7 [mm]	A8 [mm]
ROTA-S plus 2.0 160	SHF 160	0155100	7 - 50	47 - 92	92 - 137	117 - 162	41 - 86	15 - 56	60 - 101	85 - 126

I.D. clamping

Chuck type	Description	ID	I1 [mm]	I2 [mm]	I3 [mm]	I4 [mm]	I5 [mm]
ROTA-S plus 2.0 160	SHF 160	0155100	63 - 104	87 - 129	132 - 175	96 - 140	120 - 165

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-S plus 2.0 160	IFT Set	1404235

Maintenance kit

Consisting of a grease gun, LINOMAX plus grease cartridge, chip protection, and sealing plug.



Suitable for	Description	ID
ROTA-S plus 2.0 160	WTS-S 160	0899014

Torque wrench

Torque wrench for actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-S plus 2.0 160	SSH-D-1/2" 40-200	9938065

Ratchets

Ratchet for fast actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-S plus 2.0 160	SSH-K 1/2"-350	1151118

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

Hexagon spanner wrench adapter with ejector

For use as an attachment for a torque wrench and ratchet for actuating SCHUNK manual lathe chucks with hexagonal connection.



Suitable for	Description	ID
ROTA-S plus 2.0 160	SAS-I 1/2"-SW12	8705487

Consol plate

Standard version for conversion of all ROTA-S plus 2.0 manual lathe chucks for stationary applications. The sizes 400 to 630 are available on request.



Suitable for	Description	ID
ROTA-S plus 2.0 160	KSL 160	0814270

Sealing plug

For closing the through-hole on manual lathe chucks ROTA-S plus 2.0, ROTA-S plus and ROTA-G.



Suitable for	Description	ID
ROTA-S plus 2.0 160	VST Ø42	8702833

Chip protection

For better protection against the penetration of chips for the manual lathe chucks ROTA-S plus 2.0, ROTA-S plus and ROTA-G.



Suitable for	Description	ID
ROTA-S plus 2.0 160	SPS 160/200	9966639

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK tools 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