

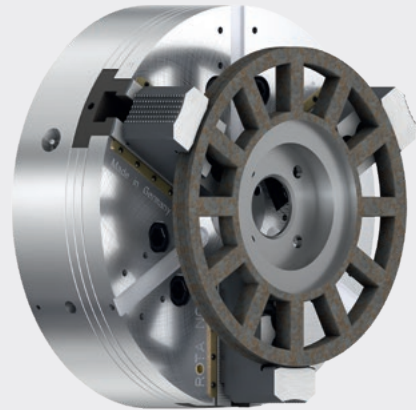


ROTA NCO

**Precision power lathe chuck
with long jaw stroke**

A true problem solver with both the longest jaw stroke and the highest jaw clamping force

The ROTA NCO is considered to be a problem solver par excellence on horizontal as well as vertical lathes. The long jaw stroke enables the lathe chuck to clamp over interfering contours of the workpiece. The special feature: Despite a long jaw stroke, the ROTA NCO generates a high clamping force, which means that clamping of these components is also process reliable.



Advantages – Your benefits

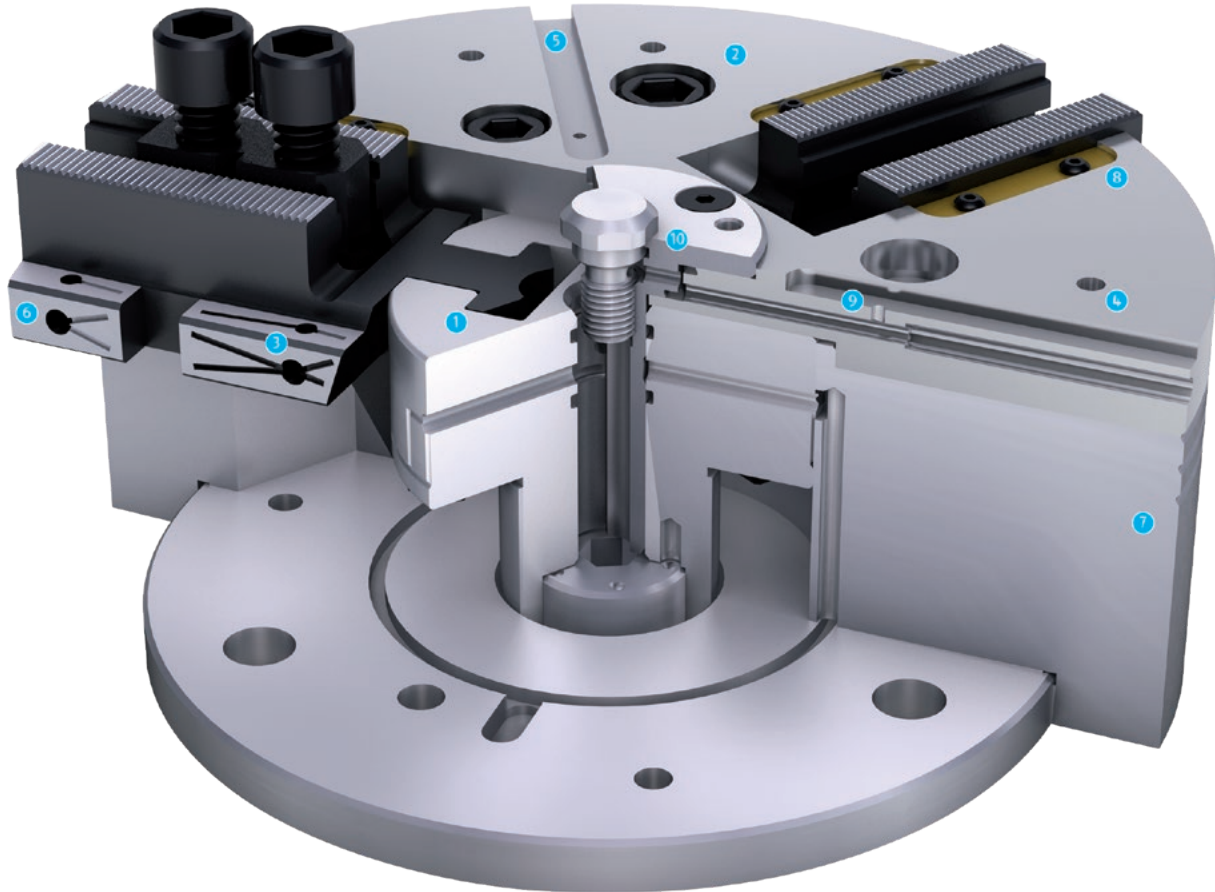
- + Precision wedge-hook power lathe chuck for highest quality requirements**
Allows excellent machining results
- + High efficiency of the wedge hook system**
Process-reliable clamping due to high clamping forces
- + Optimum jaw support for O.D. and I.D. clamping due to a very long base jaw guidance**
Allows high clamping forces at a long service life
- + Optimized lubrication system**
Consistently high clamping forces ensured
- + Longest jaw stroke at high jaw clamping force**
Reliable and variable clamping of workpieces over interfering contours
- + Sealed against coolant and chips as standard via wiper strips, seals and sealed through-hole**
Excellently suitable for the use on vertical lathes
- + Media feed-through (coolant or air) as standard option integrated in the chuck body**
Flexibility depending on the application
- + Low height design**
Maximum use of the machine room and maximum rigidity of the system
- + Base jaws with fine serration 1.5 mm x 60° and 1/16" x 90° as standard**
High flexibility in the range of top jaws
- + 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 [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke [mm]
ROTA NCO 165	6000	72	30	6.4	24
ROTA NCO 210	5000	95	42	9	27
ROTA NCO 260	4500	150	62	10	30
ROTA NCO 315	3600	190	90	13	40
ROTA NCO 400	2500	270	120	15	45
ROTA NCO 500	2000	330	140	15	45
ROTA NCO 630	1600	330	140	15	45

Function of ROTA NCO

The axially movable piston transfers the force to the base jaw and generates a radial jaw movement synchronized with the rotational axis.

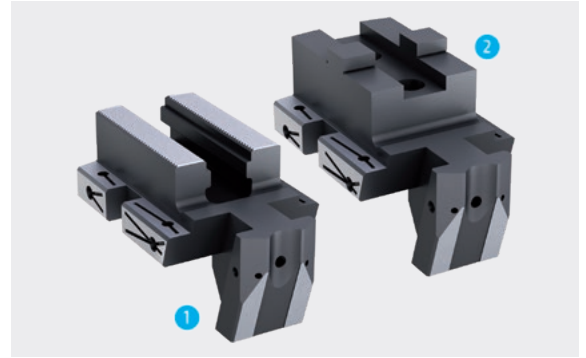


- | | |
|---|---|
| <ul style="list-style-type: none"> 1 Wedge hook drive
Offers constantly high clamping forces in operation 2 Hardened and extremely rigid base body
Therefore a longer service life at highest precision.
Even with maximum clamping force 3 Optimized lubrication system
For consistently high clamping forces 4 Mounting thread
For workpiece stops or cover plates 5 Additional slot guidance on the chuck face
For workpiece stops or cover plates | <ul style="list-style-type: none"> 6 Long jaw guidance
Offers optimal support for O.D.- and I.D. clamping 7 Low height design
Expands your machine's workspace 8 Wiper strips
Seal the base jaw guidances and offer a good protection against coolant and chips 9 Integrated air supply with mounting holes
For mounting an air monitoring system 10 Central media supply
Available on request for air control or coolant |
|---|---|

Three standardized jaw interfaces available

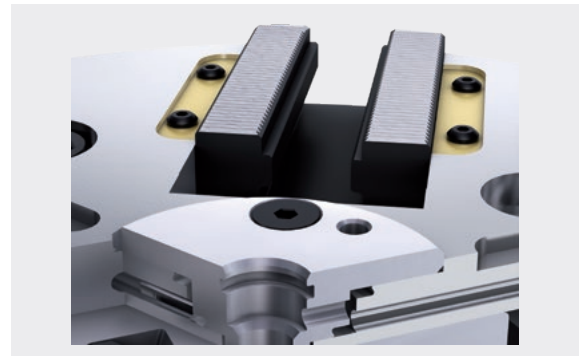
Select one standardized jaw interface from the 3 standardized versions and benefit from the fact that existing top jaws can also be used on the new SCHUNK lathe chuck.

- ① **Fine serration**
 - 1/16" x 90°
 - 3/32" x 90°
- ② **Metric tongue and groove**



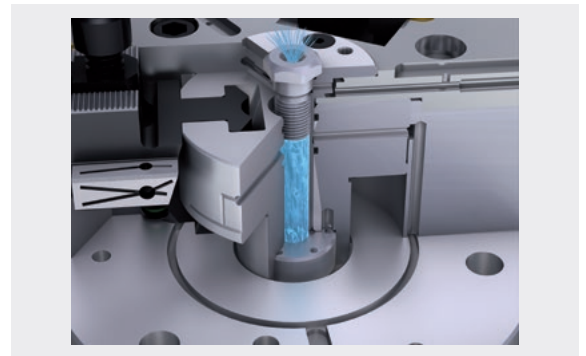
Adjustable brass wiper bars

Adjustable brass wiper bars seal the base jaws to give protection against coolant and chips.



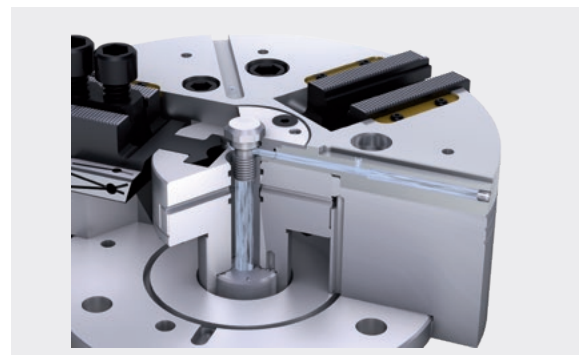
Modification coolant supply

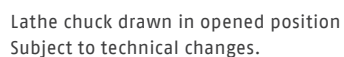
The lathes with integrated coolant supply via the spindle can be directly fed to the workpiece through the lathe chuck.



Modification air control

In automated series production, air control can be used to check whether the workpiece is in contact and can be clamped securely.





- 6

Technical data

Spindle type	Spindle size	ID	Serration	Max. rotational speed [min ⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Moment of inertia [kgm ²]	Weight [kg]
ISO 702-4	Nr. 15 (Z380)	0856060	3/32" x 90°	1600	330	140	13.8	263

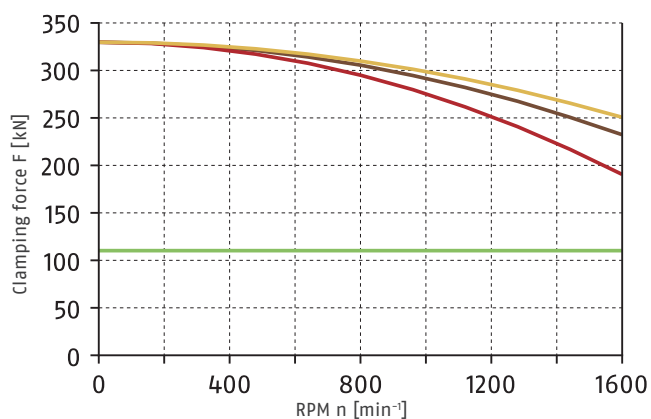
Scope of delivery

Chuck, T-nuts or mounting screws for top jaws, chuck mounting screws, eye bolt, and operating manual

Further technical data

Chuck type	Stroke/jaw [mm]	Piston stroke (H) [mm]	Center jaw height [mm]
ROTA NCO 630	15	45	110

Clamping force-RPM-diagram



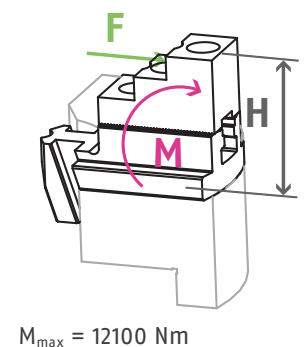
Required minimum clamping force F_{spmin} 33%

SHB 400
7.8 kg

SWB 400
16 kg

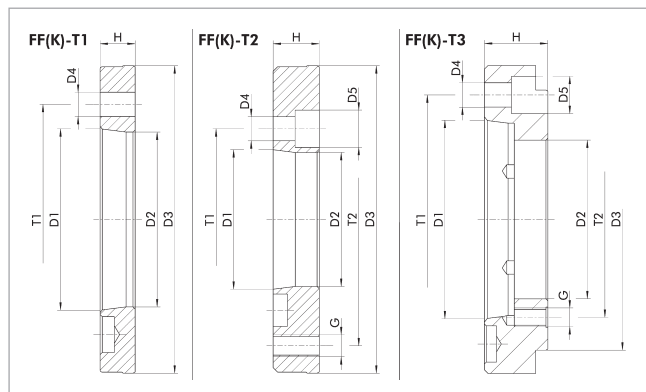
SWB-AL 400
6.4 kg

Load of base jaw guidance



Adapter plates

Z-mount on short taper ISO 702-1



Technical data

Description	Adapter plate type	ID	Suitable for	D1	D2	D3	D4	D5	G	H	T1	T2
					[mm]		[mm]	[mm]		[mm]	[mm]	[mm]
FF-T2 Z380-A8	FF-T2	0805010	ROTA NCO 630	Nr. 8	136.2	Z380	17 (6x60°)	26	M24 (12 x 30°) M24 (6x60°)	38	171.4	330.2
FF-T2 Z380-A11	FF-T2	0803006	ROTA NCO 630	Nr. 11	192.9	Z380	21 (6x60°)	32	M24 (3x120°)	38	235	330.2
FF-T1 Z380-A15-1	FF-T1	0803023	ROTA NCO 630	Nr. 15	281.5	Z380	26 (6x60°)			47	330.2	

Direct adapter plates

Direct adapter plates are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle. The adapter plate has to be mounted on to the spindle together with the lathe chuck. The adapter plate is preassembled on the lathe chuck.

Reduction adapter plates FF-T2

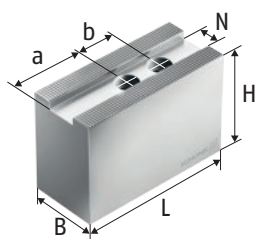
Reduction adapter plates are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle. The adapter plate is first mounted on the spindle and then the lathe chuck is mounted on the adapter plate.

Expansion adapter plates FF-T3

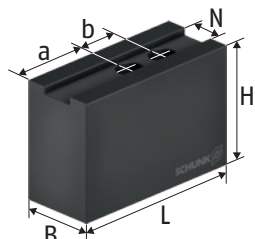
Expansion adapter plates are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle. The adapter plate is first mounted on the spindle and then the lathe chuck is mounted on the adapter plate.

Soft top jaws

with fine serration 90°



SWB-AL
Soft top jaws



SWB
Soft top jaws

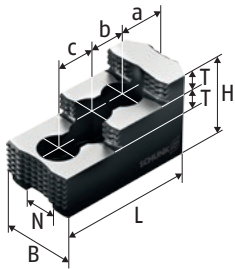
Technical data

Chuck type	Description	ID	N [mm]	B [mm]	H [mm]	L [mm]	a [mm]	b [mm]	Screws	m/SET [kg]
ROTA NCO 630	SWB-AL 400	0168103	25.5	60	100	155	90	35	M20	6.4
ROTA NCO 630	SWB 400	0120107	25.5	60	90	155	90	35	M20	16.0
ROTA NCO 630	SP-WB 400	0124105	25.5	60	100	155	80	40	M18	18.6
ROTA NCO 630	SP-WB 500	0124106	25.5	60	100	195	118	40	M18	24.0
ROTA NCO 630	CWB 400	0100008	25.5	60	80	140	75	35	M20	12.6

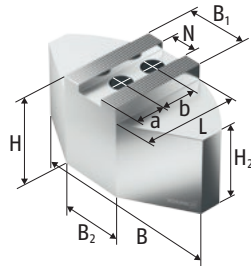
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

Hard stepped top jaws, Full grip jaws

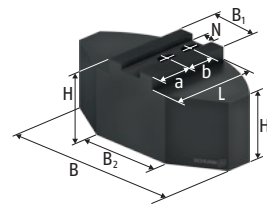
with fine serration 90°



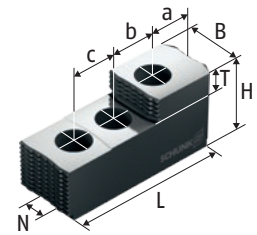
SHB
Hard stepped top jaws



SWB-SA
Full grip jaws



SWB-SM
Full grip jaws



SP-HB
Hard stepped top jaws

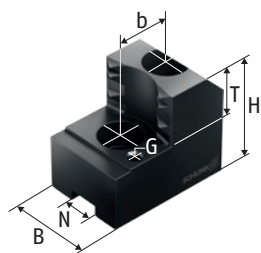
Technical data

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 NCO 630	SWB-SA 400	0170105	25.5	330	150	98	68	160		84.5	35		M20	24.4
ROTA NCO 630	SWB-SM 400	0169105	25.5	330	60	85	55	155		83.5	35		M20	53.8
ROTA NCO 630	SHB 400	0121107	25.5	60		75		140	18	53	31	31	M20	7.8
ROTA NCO 630	SP-HB 400-500	0125105	25.5	57.5		73		160	22	43.1	42	42	M18	9.8

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.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 NCO 630	74 – 383	718	SZA 40-12	0138301	25.5	60	78	188.3	33	M8	35	M20	11.5
ROTA NCO 630	136 – 502	732	SZA 40-13	0138302	25.5	60	78	131	33	M8	35	M20	8.0
ROTA NCO 630	222 – 585	711	SZA 40-14	0138303	25.5	60	78	131	33	M8	35	M20	8.0
ROTA NCO 630	292 – 657	754	SZA 40-15	0138304	25.5	60	78	150	33	M8	35	M20	9.3
ROTA NCO 630	345 – 666	766	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](https://www.schunk.com)

T-nut

with fine serration 90°



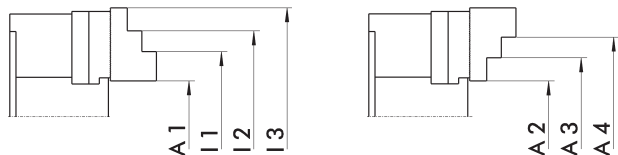
NS
T-nut

Chuck type	Description	ID	N	B	H	H1	L	Cyl.-screw	Max. adm. tightening torque
			[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]
ROTA NCO 630	NS 201	0142103	25.5	32.5	33.7	15.5	28	M20 x 45	300

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 NCO 630	SHB 400	0121107	22 - 457	49 - 165	151 - 267	253 - 630

I.D. clamping

Chuck type	Description	ID	I1 [mm]	I2 [mm]	I3 [mm]
ROTA NCO 630	SHB 400	0121107	97 - 213	199 - 314	300 - 730

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 NCO 630	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 NCO 630	IFT adapter set	1498512

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**

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