

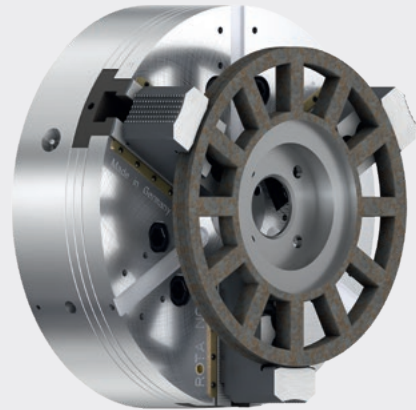


ROTA NCO

**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

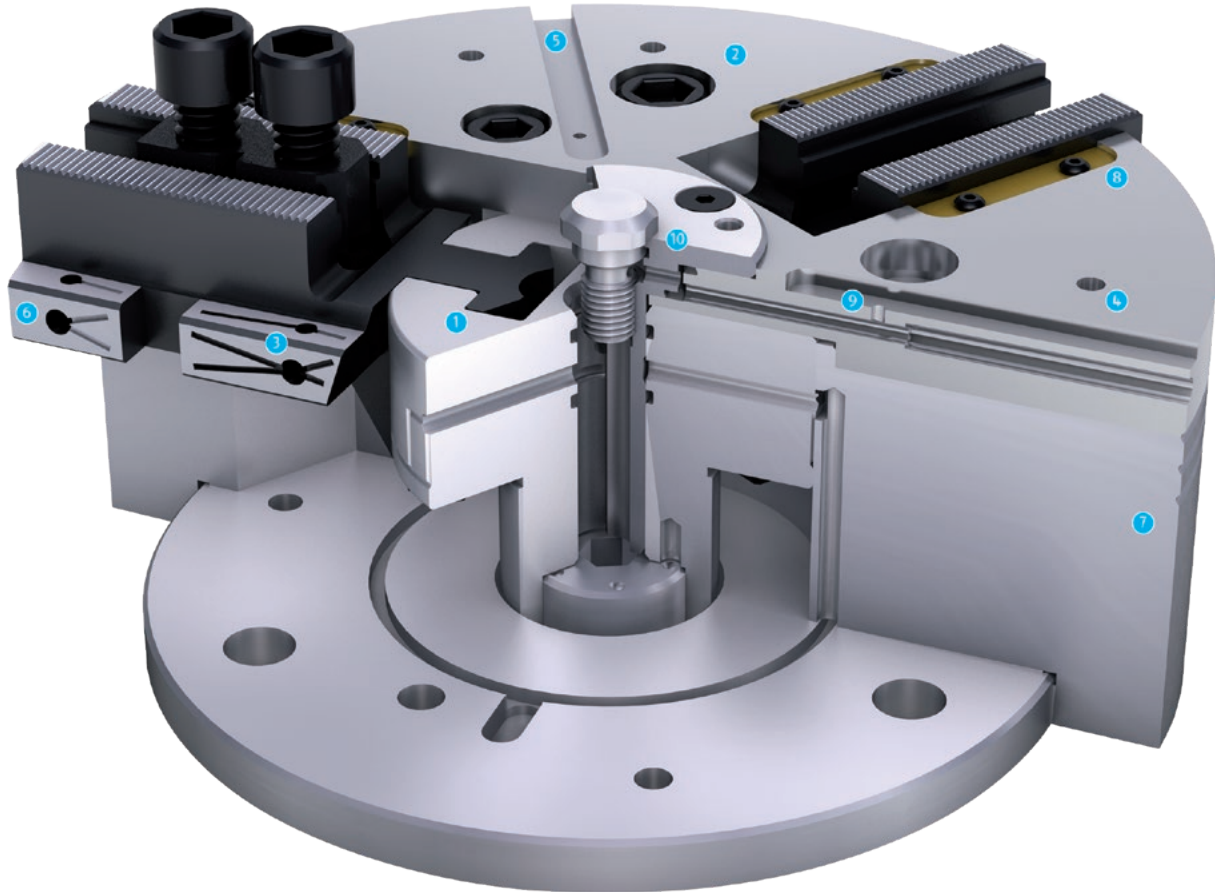
- + Precision wedge-hook power lathe chuck for highest quality requirements**
Allows excellent machining results
- + High efficiency of the wedge hook system**
Process-reliable clamping due to high clamping forces
- + Optimum jaw support for O.D. and I.D. clamping due to a very long base jaw guidance**
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.

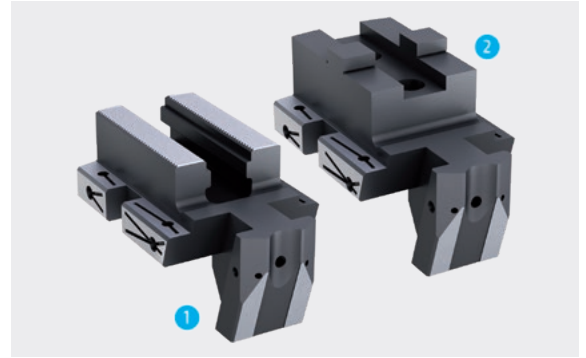


- | | |
|---|--|
| <ul style="list-style-type: none"> ❶ Wedge hook drive
Offers constantly high clamping forces in operation ❷ Hardened and extremely rigid base body
Therefore a longer service life at highest precision.
Even with maximum clamping force ❸ Optimized lubrication system
For consistently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

Three standardized jaw interfaces available

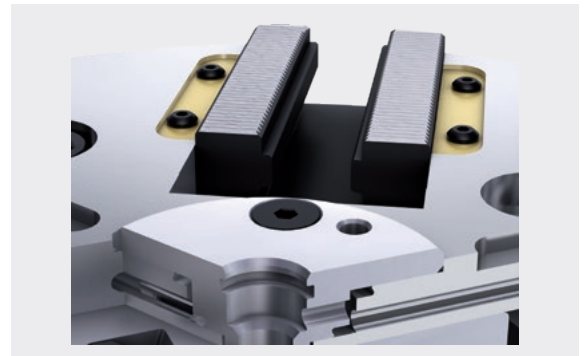
Select one standardized jaw interface from the 3 standardized versions and benefit from the fact that existing top jaws can also be used on the new SCHUNK lathe chuck.

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



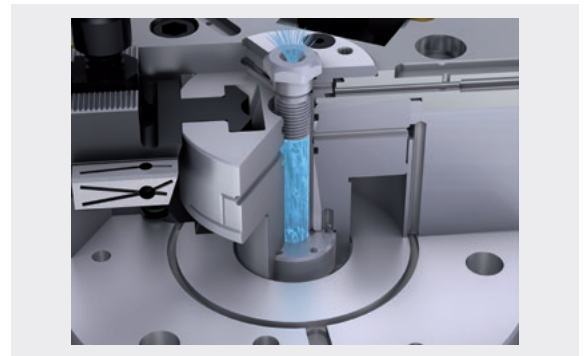
Adjustable brass wiper bars

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



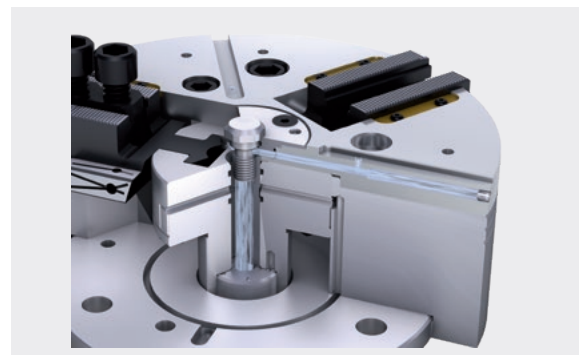
Modification coolant supply

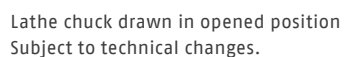
The lathes with integrated coolant supply via the spindle can be directly fed to the workpiece through the lathe chuck.



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. 6 (Z170)	0856010	1/16" x 90°	5000	95	42	0.11	21
ISO 702-1	Nr. 5	0856011	1/16" x 90°	5000	95	42	0.12	23
ISO 702-1	Nr. 6	0856012	1/16" x 90°	5000	95	42	0.12	23
ISO 702-4	Nr. 6 (Z170)	0856013	Tongue and groove	5000	95	42	0.11	21
ISO 702-1	Nr. 5	0856014	Tongue and groove	5000	95	42	0.12	23
ISO 702-1	Nr. 6	0856015	Tongue and groove	5000	95	42	0.12	23

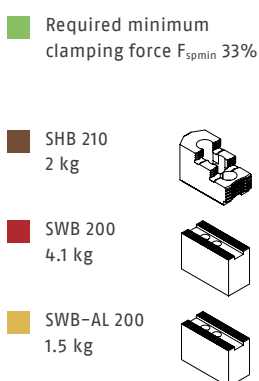
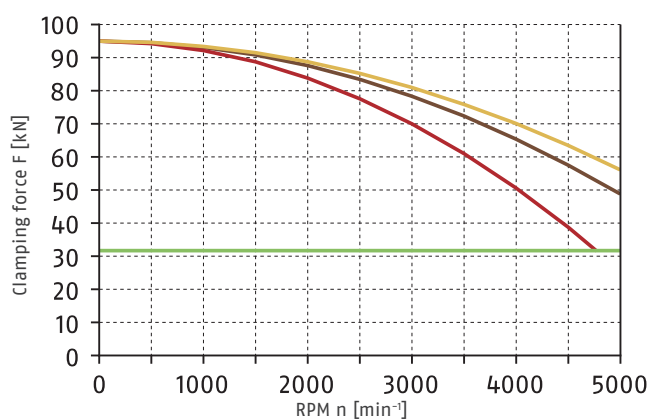
Scope of delivery

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

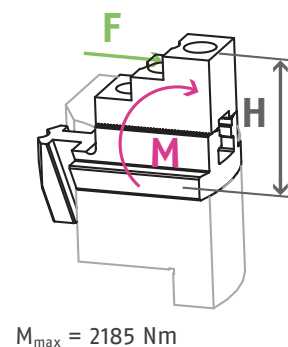
Further technical data

Chuck type	Stroke/jaw [mm]	Piston stroke (H) [mm]	Center jaw height [mm]
ROTA NCO 210	9	27	69

Clamping force-RPM-diagram

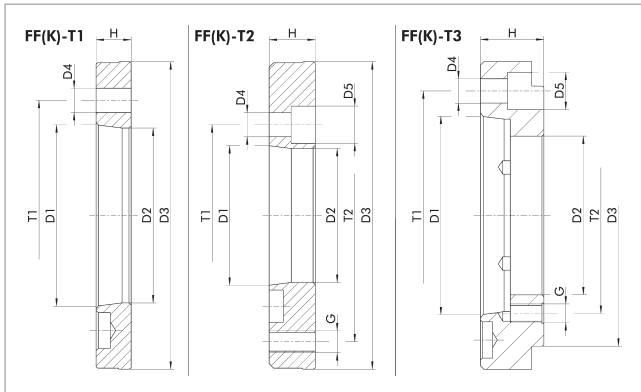


Load of base jaw guidance



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 Z170-A5	FF-T2	0805001	ROTA NCO 210	Nr. 5	79.6	Z170	11 (6x60°)	18	M12 (12 x 30°)	25	104.8	133.4
FF-T1 Z170-A6	FF-T1	0803001	ROTA NCO 210	Nr. 6	103.2	Z170	13 (6 x 60°)			17	133.4	
									M12 (6x60°)			
FF-T3 Z170-A8	FF-T3	0801001	ROTA NCO 210	Nr. 8	113	Z170	17 (6x60°)	26	M12 (2x180°)	40	171.4	133.4

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

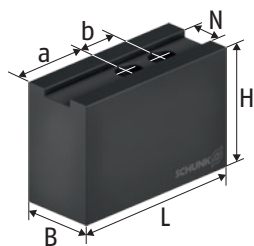
Reduction adapter plates are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle. The adapter plate is first mounted on the spindle and then the lathe chuck is mounted on the adapter plate.

Expansion adapter plates FF-T3

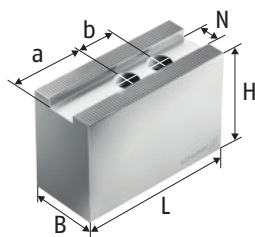
Expansion adapter plates are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle. The adapter plate is first mounted on the spindle and then the lathe chuck is mounted on the adapter plate.

Soft top jaws

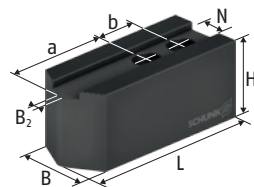
with fine serration 90°



CWB
Soft top jaws



FR-AL
Soft top jaws



SWBL
Soft top jaws

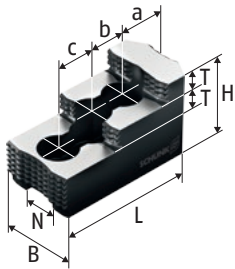
Technical data

Chuck type	Description	ID	N [mm]	B [mm]	H [mm]	L [mm]	a [mm]	b [mm]	Screws	m/SET [kg]
ROTA NCO 210	SWBL 200	0120153	17	35	40	98	61	22	M12	2.6
ROTA NCO 210	CWB 200	0100006	17	40	40	90	43	22	M12	2.7
ROTA NCO 210	SWB 200	0120104	17	40	60	90	43	22	M12	4.1
ROTA NCO 210	FR-AL 200	0120602	17	40	60	90	59	19	M12	1.6
ROTA NCO 210	SWB-AL 200	0168101	17	40	60	90	43	22	M12	1.5

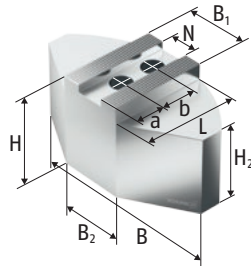
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

Hard stepped top jaws, Full grip jaws

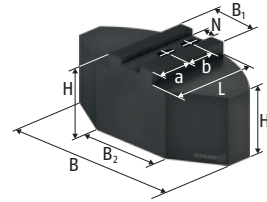
with fine serration 90°



SHB
Hard stepped top jaws



SWB-SA
Full grip jaws



SWB-SM
Full grip jaws

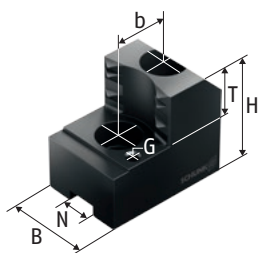
Technical data

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 NCO 210	SWB-SA 200	0170101	17	140	40	58	48	72.5		35	22		M12	3.1
ROTA NCO 210	SWB-SA 201	0170106	17	140	40	75	65	72.5		35	22		M12	4.2
ROTA NCO 210	SWB-SM 200	0169101	17	140	40	60	50	69.5		35	22		M12	8.6
ROTA NCO 210	SWB-SM 201	0169106	17	140	40	75	65	69.5		35	22		M12	11.5
ROTA NCO 210	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

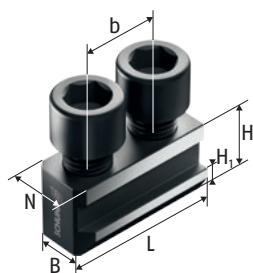
Technical data

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 NCO 210	30 – 82	231	SZA 20-14	0138195	17	35	50	85	25	M6	22	M12	1.8
ROTA NCO 210	54 – 110	231	SZA 20-15	0138196	17	35	50	72.9	25	M6	22	M12	1.5
ROTA NCO 210	83 – 140	231	SZA 20-16	0138197	17	40	50	65.1	25	M6	22	M12	1.5
ROTA NCO 210	110 – 167	233	SZA 20-17	0138198	17	40	50	66.7	25	M6	22	M12	1.6
ROTA NCO 210	140 – 197	257	SZA 20-18	0138199	17	40	50	71.4	25	M6	22	M12	1.8

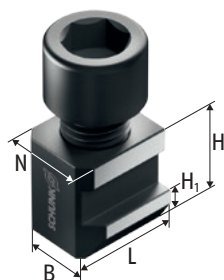
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

T-nut

with fine serration 90°



NKA
T-nut



NKS
T-nut

Chuck type	Description	ID	N	B	H	H1	L	b	Cyl.-screw	Max. adm. tightening torque
			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]
ROTA NCO 210	NKA 2	0145104	17	19	20.5	7.5	42	22	M12 x 25	70
ROTA NCO 210	NKS 2	0143106	17	19	20.5	7.5	19		M12 x 25	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

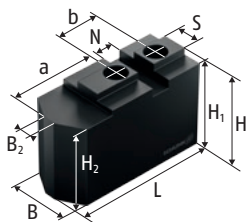
Chuck type	Description	ID	A1 [mm]	A2 [mm]	A3 [mm]	A4 [mm]
ROTA NCO 210	SHB 210	0121102	5 - 108	31 - 89	81 - 135	127 - 199

I.D. clamping

Chuck type	Description	ID	I1 [mm]	I2 [mm]	I3 [mm]
ROTA NCO 210	SHB 210	0121102	80 - 134	126 - 183	174 - 265

Soft top jaws

with tongue and groove



SRK
Soft top jaws

Technical data

Chuck type	Description	ID	N [mm]	S [mm]	B [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	a [mm]	b [mm]	Screws	m/SET [kg]
ROTA NCO 210	SRK 200	0136106	12	16	40	60	55.5	54	94	49	30	M12	3.9

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

Accessories

Clamping force tester

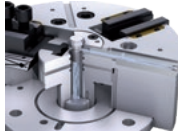
For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NCO 210	IFT Set	1404235

Modification air control

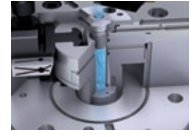
Transfer of the medium via threaded holes at the face of the groove which is integrated in the chuck body.



Suitable for	Description	ID
ROTA NCO 210	ROTA NCO-L 210	0856211

Modification coolant supply

Coolant through feeding with integrated non-return valve and spray nozzle.



Suitable for	Description	ID
ROTA NCO 210	ROTA NCO-K 210	0856212

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