

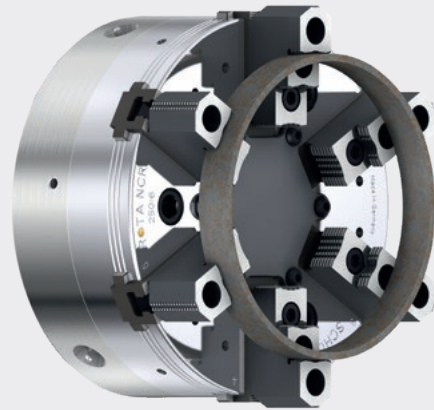


ROTA NCR

**6-jaw compensation chuck
with pendular compensation**

6-jaw compensation chuck for deformation-sensitive clamping of thin-walled workpieces

The 6-jaw compensation chuck is based on the principle of chuck jaws that oscillate in pairs. As a result, particularly deformation-sensitive workpieces, such as thin-walled rings, can be clamped with little deformation. The ROTA NCR chucks are only available in sizes Ø 165 mm and Ø 200 mm. All larger sizes are covered by the sealed version ROTA NCR-A.



Advantages – Your benefits

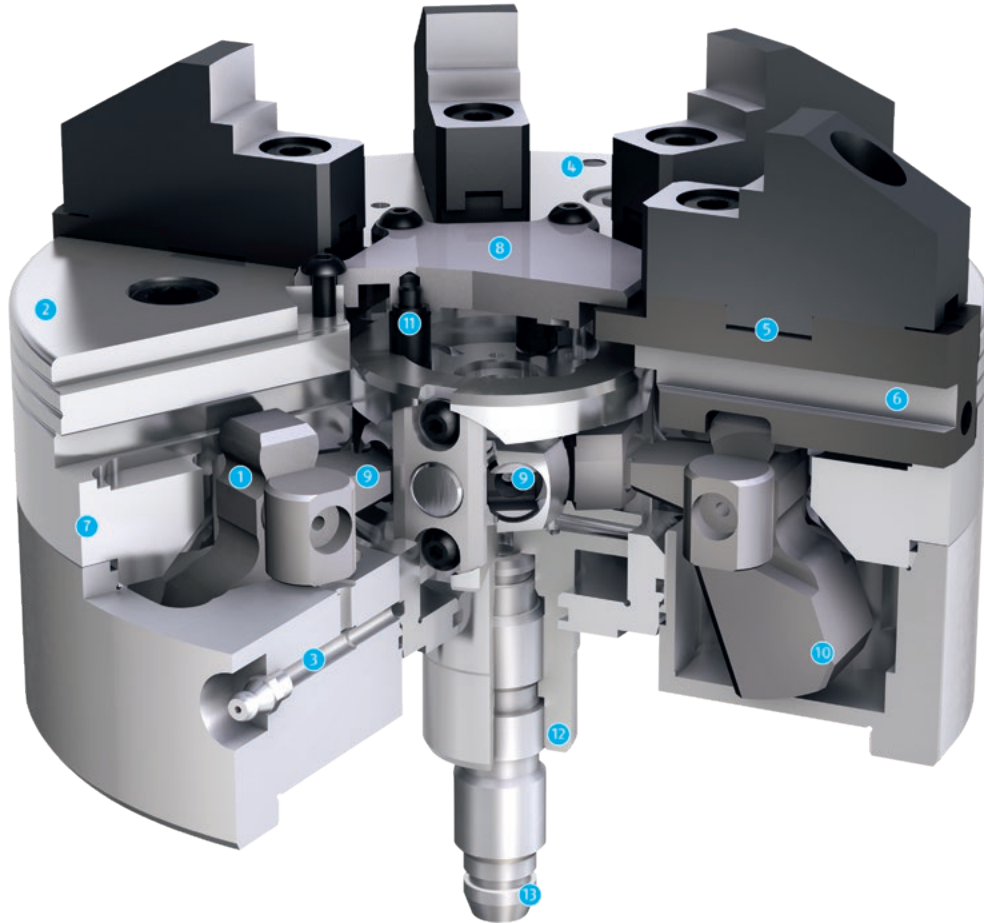
- + Precision angle lever power lathe chuck for top quality demands**
Allows excellent machining results
- + High efficiency of the angle lever system**
Process-reliable clamping due to high clamping forces
- + Optimum jaw support for O.D. and I.D. clamping due to a very long base jaw guidance**
Allows high clamping forces at a long service life
- + Optimized lubrication system**
Consistently high clamping forces ensured
- + 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
- + Optionally available with centrifugal force compensation**
Less clamping force loss at high RPM
- + Deformation sensitive clamping of thin-walled workpieces**
High degree of roundness of the workpieces
- + Very accurate clamping of non-circular components**
Perfect for castings
- + Turning ring simplifies and optimizes top jaw boring/ machining**
Quick and easy adaptation of the top jaws to new clamping tasks
- + All sides of the functional parts are hardened and ground**
Ensures a long service life

Technical data

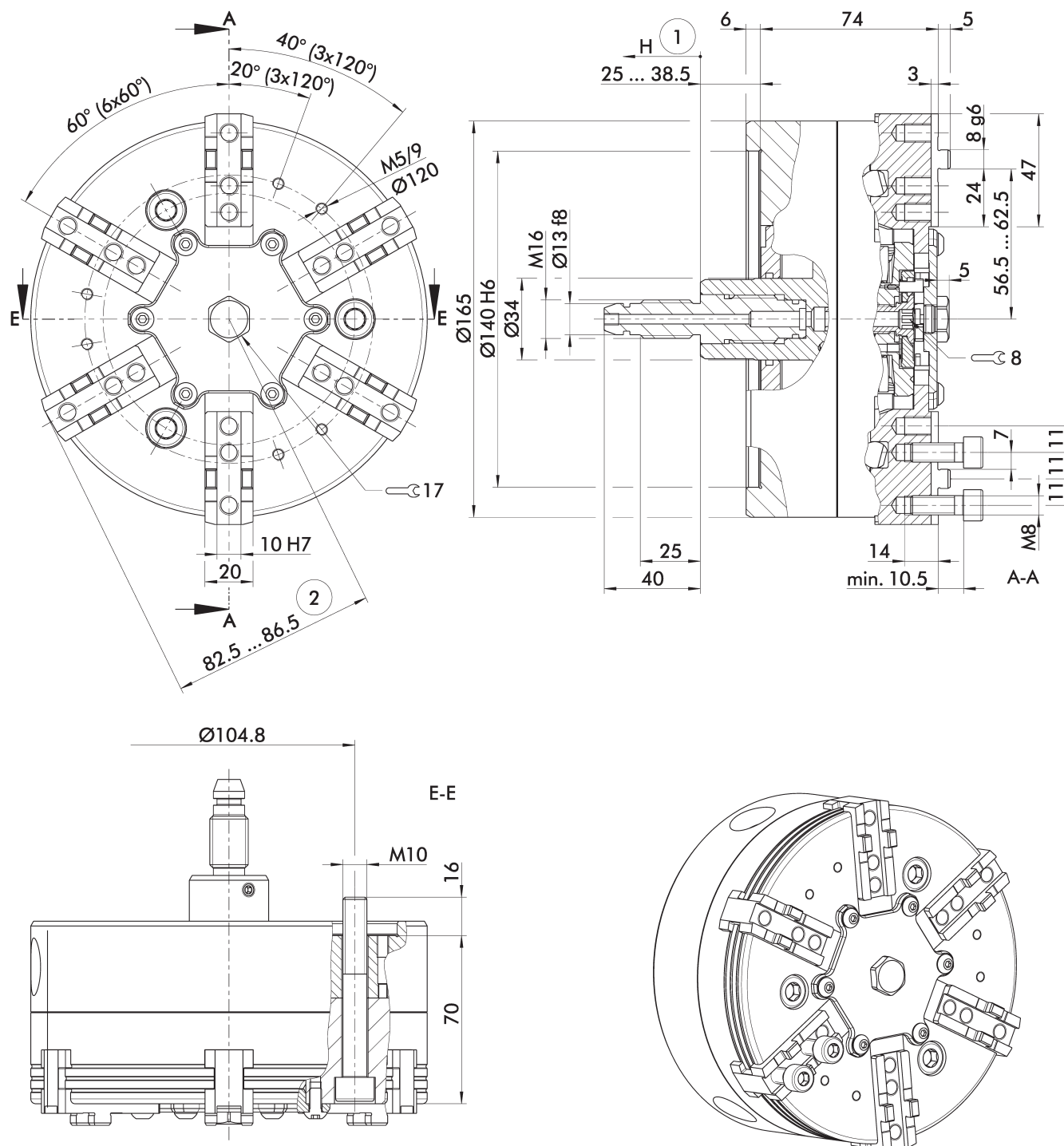
Description	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/jaw	Piston stroke	Pendulum compensation
	[min ⁻¹]	[kN]	[kN]	[mm]	[mm]	[mm]
ROTA NCR 165	4000	36	22	6	13.5	±1
ROTA NCR 200	3500	50	28	6	15	±1

Function of ROTA NCR

The axially movable piston transfers the force to the base jaws via angle levers mounted in the base body, and generates a radial jaw movement synchronized with the rotation axis.



- 1 Angle lever 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 a high level of efficiency
- 4 Mounting thread**
For workpiece stops or cover plates
- 5 Standard jaw interface**
For the use of standard jaws from SCHUNK
- 6 Long jaw guidance**
Offers optimal support for O.D.- and I.D. clamping
- 7 Low height design**
Expands your machine's workspace
- 8 Improved design which is insensitive to dirt**
By means of targeted sealing
- 9 Internal pendulum body**
Connection with one each base jaw pair
- 10 Integrated centrifugal force compensation as an option**
For constant clamping force even at top speeds
- 11 Simple conversion**
From compensating to centric clamping by locking the pendulum mechanism
- 12 Optimized piston mount**
For easy and fast chuck assembly
- 13 Central media supply**
Available on request for air control or coolant



Chuck for shaft clamping drawn in open position.
Pendulum compensation shown in center position.
Subject to technical changes.

① Piston stroke direction

② Swing diameter radius

Technical data

Spindle type	Spindle size	ID	Serration	Max. rotational speed [min ⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Weight [kg]
ISO 702-4	Nr. 5 (Z140)	0860010	Tongue and groove	4000	36	22	11.5

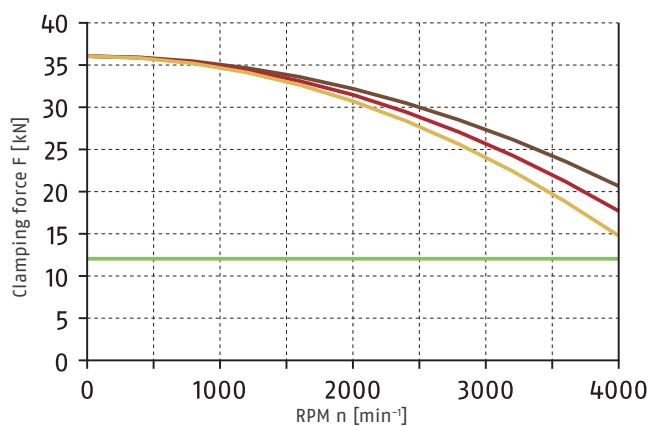
Scope of delivery

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

Further technical data

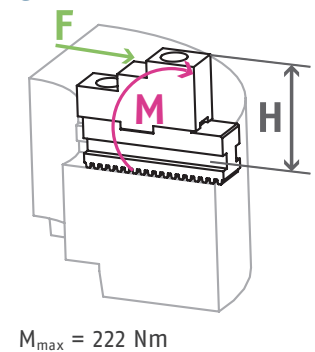
Chuck type	Stroke/jaw [mm]	Pendulum compensation [mm]	Piston stroke (H) [mm]	Center jaw height [mm]
ROTA NCR 165	6	±1	13.5	37

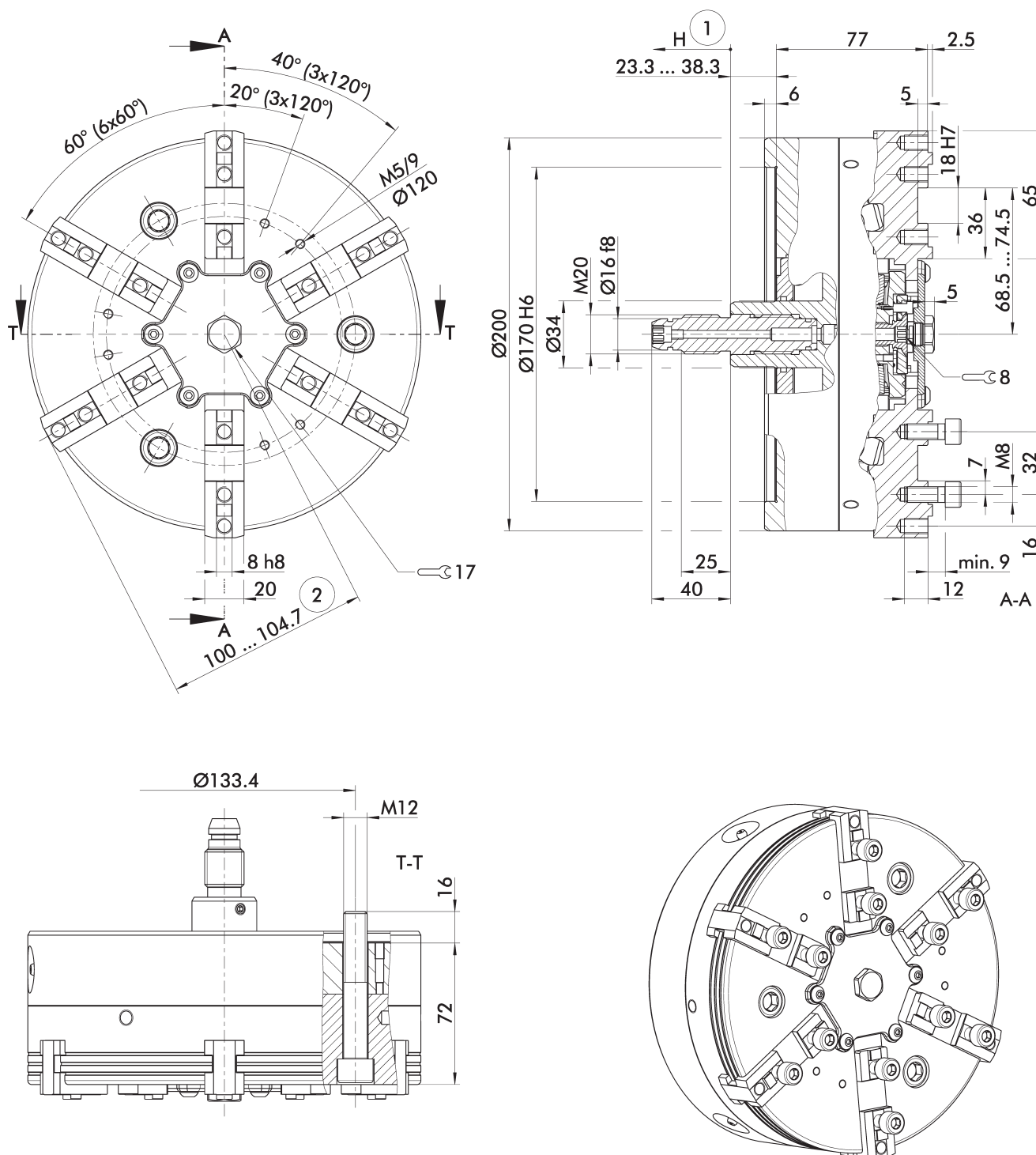
Clamping force-RPM-diagram



- Required minimum clamping force F_{spmin} 33%
- SRK 132 1.5 kg
- SRK 132 1.2 kg
- SRK 132 0.9 kg

Load of base jaw guidance





Chuck for shaft clamping drawn in open position.
Pendulum compensation shown in center position.
Subject to technical changes.

① Piston stroke direction

② Swing diameter radius

Technical data

Spindle type	Spindle size	ID	Serration	Centrifugal force compensation	Max. rotational speed [min ⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Weight [kg]
ISO 702-4	Nr. 6 (Z170)	0860020	Tongue and groove		3500	50	28	17.5
ISO 702-4	Nr. 6 (Z170)	0860025	Tongue and groove	●	3500	50	28	17.5

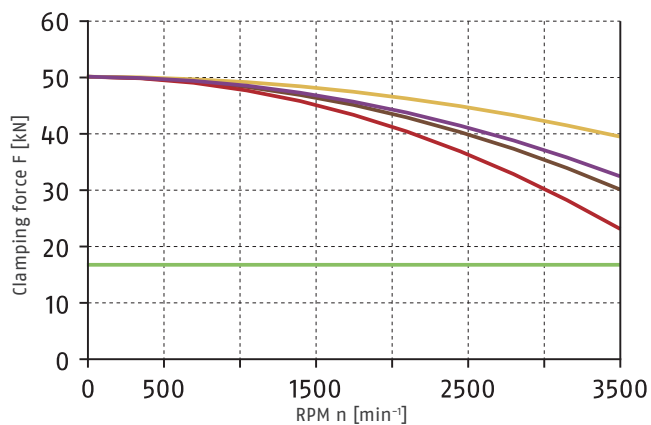
Scope of delivery

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

Further technical data

Chuck type	Stroke/jaw [mm]	Pendulum compensation [mm]	Piston stroke (H) [mm]	Center jaw height [mm]
ROTA NCR 200	6	±1	15	43

Clamping force-RPM-diagram



Required minimum clamping force F_{spmin} 33%

SHF 160
0.6 kg



SFA 160
1.2 kg



SHF 160*
0.6 kg

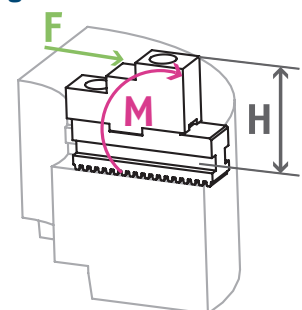


SFA 160*
1.2 kg



*with centrifugal force compensation

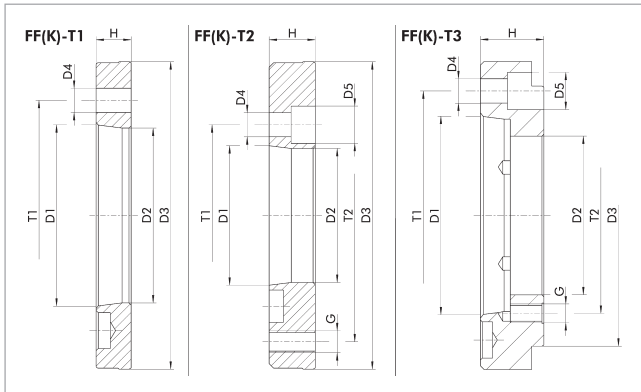
Load of base jaw guidance



M_{max} = 358 Nm

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 Z140-A4	FF-T2	0805000	ROTA NCR 165	Nr. 4	61	Z140	11 (6x60°)	17	M10 (6x60°)	21	82.6	104.8
FF-T1 Z140-A5	FF-T1	0803000	ROTA NCR 165	Nr. 5	79.6	Z140	11 (6x60°)			16	104.8	
FF-T3 Z140-A6	FF-T3	0801000	ROTA NCR 165	Nr. 6	85	Z140	13 (6 x 60°)	20	M10 (6x60°)	34	133.4	104.8
FF-T2 Z170-A5	FF-T2	0805001	ROTA NCR 200	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 NCR 200	Nr. 6	103.2	Z170	13 (6 x 60°)			17	133.4	
FF-T3 Z170-A8	FF-T3	0801001	ROTA NCR 200	Nr. 8	113	Z170	17 (6x60°)	26	M12 (6x60°) 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

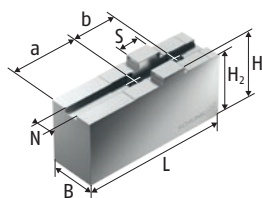
Reduction adapter plates are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle. The adapter plate is first mounted on the spindle and then the lathe chuck is mounted on the adapter plate.

Expansion adapter plates FF-T3

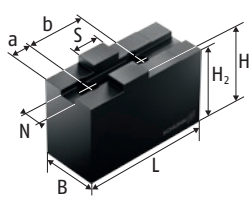
Expansion adapter plates are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle. The adapter plate is first mounted on the spindle and then the lathe chuck is mounted on the adapter plate.

Soft top jaws

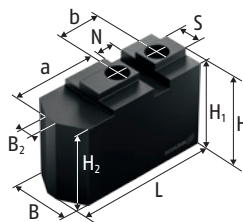
with tongue and groove



SFA-AL
Soft top jaws



SFA
Soft top jaws



SRK
Soft top jaws

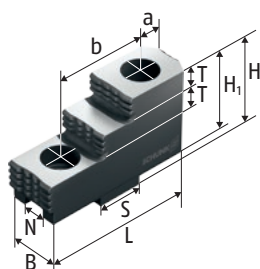
Technical data

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 NCR 165	SRK 132	0136112	8	10	25	30	27.5	26	60	29	22	M8	0.8
ROTA NCR 200	SFA 160	0153100	8	18	20	40		36	85	35	32	M8	1.2
ROTA NCR 200	SFA-AL 160	0172100	8	18	25	50		46	85	35	32	M8	0.7
ROTA NCR 200	SFA 160-C1	0154121	8	18	30	55.5		51.5	85	41	32	M8	2.7
ROTA NCR 200	SFA 160-C2	0154127	8	18	35	40		36	63	19	32	M8	1.6
ROTA NCR 200	SFA 160-C3	0154131	8	18	40	60		56	70	26	32	M8	3.3
ROTA NCR 200	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

with tongue and groove



SHF
Hard stepped top jaws

Technical data

Chuck type	Description	ID	N [mm]	S [mm]	B [mm]	H [mm]	H1 [mm]	L [mm]	T [mm]	a [mm]	b [mm]	Screws	m/SET [kg]
ROTA NCR 200	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](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 NCR 165 ROTA NCR 200	IFT Set	1404235

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



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