



ROTA NCR | ROTA NCR-A

Power Lathe Chucks without Through-hole

Superior Clamping and Gripping



Product overview



Gripping Systems

Clamping Technology



Chuck Jaws



Stationary Workholding



Lathe Chucks



Toolholders



Hydraulic Expansion Technology



Manual Lathe Chucks



Power Lathe Chucks with Jaw Quick-change System



Power Lathe Chucks with Through-hole



Power Lathe Chucks without Through-hole



Pneumatic Power Chucks



Steady Rests

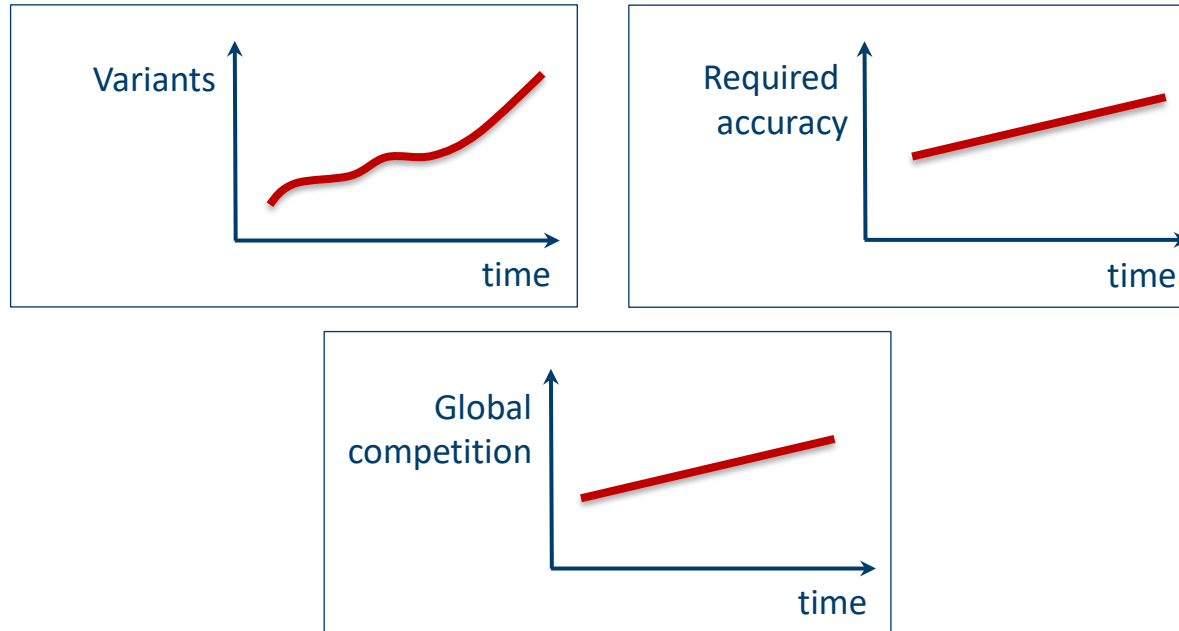


Quick-change Systems



Customized Solutions

Challenges

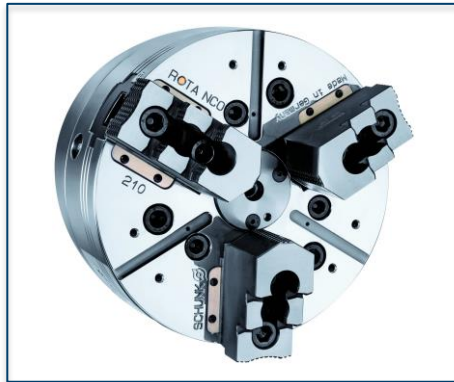


Requirements on the clamping fixture: efficiency, flexibility and...

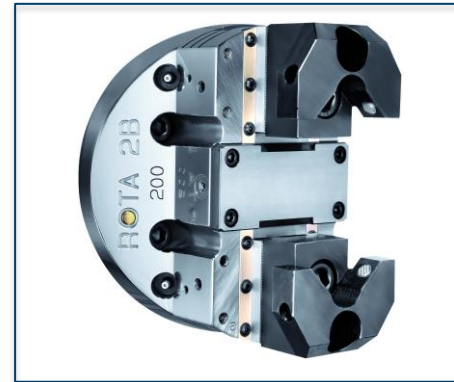
ROTA overview

Power Lathe Chucks without Through-hole

ROTA NCO



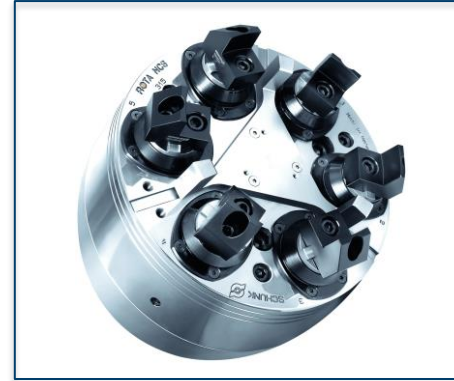
ROTA 2B



ROTA NCR/ NCR-A

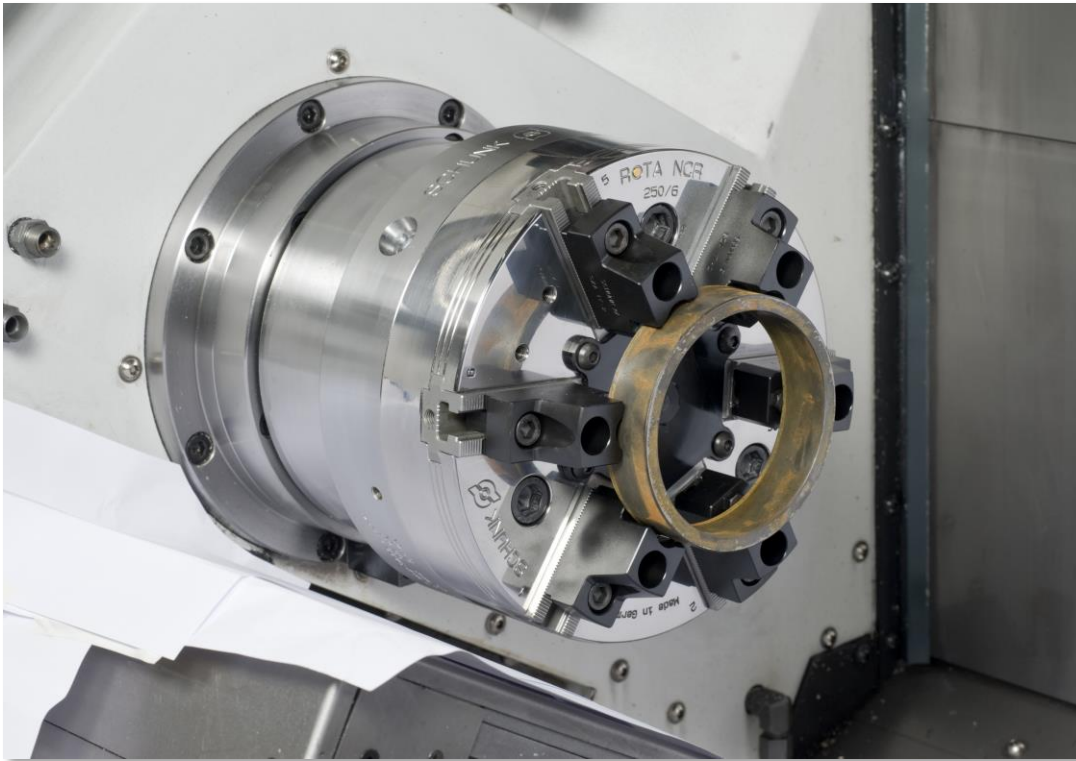


ROTA NCS 3/ NCS 6



ROTA NCR

Example of application



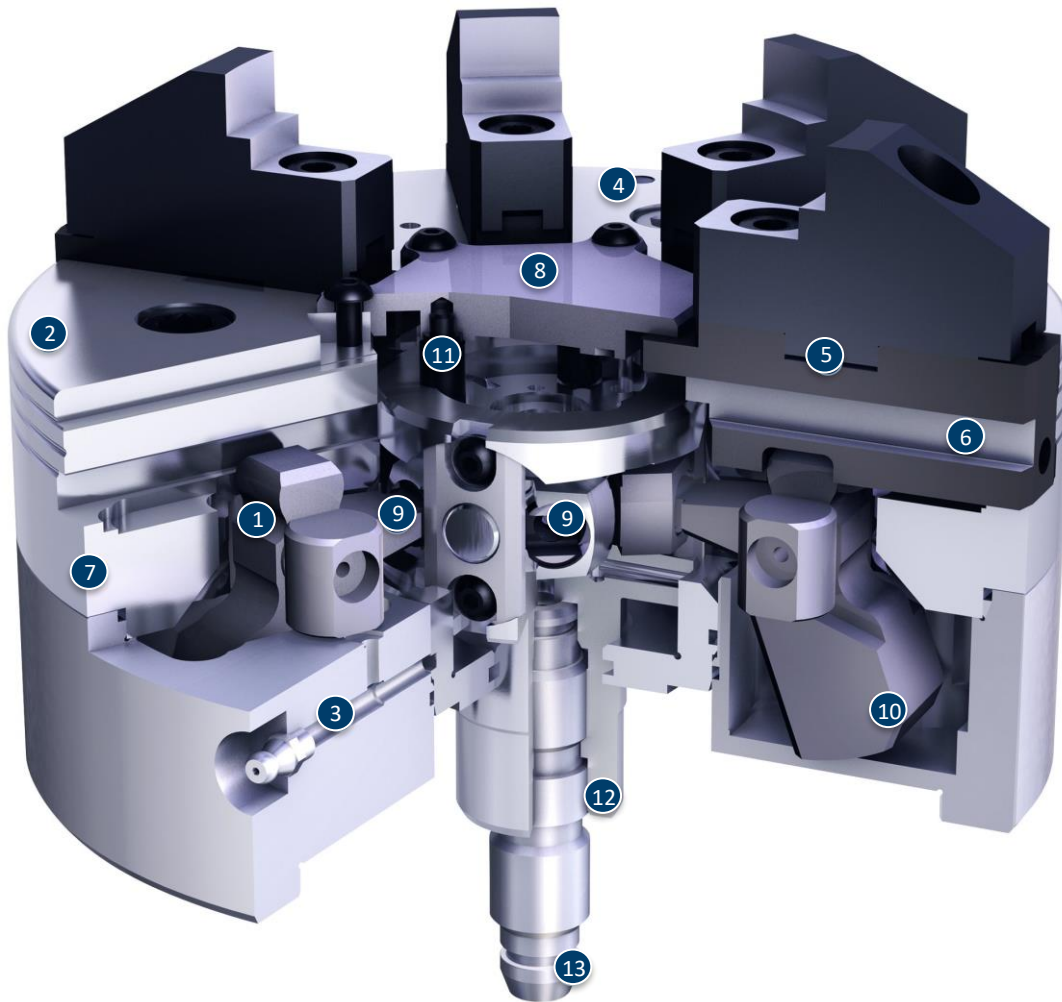
Clamping device:

ROTA NCR 250 with claw jaws.

Features/Application:

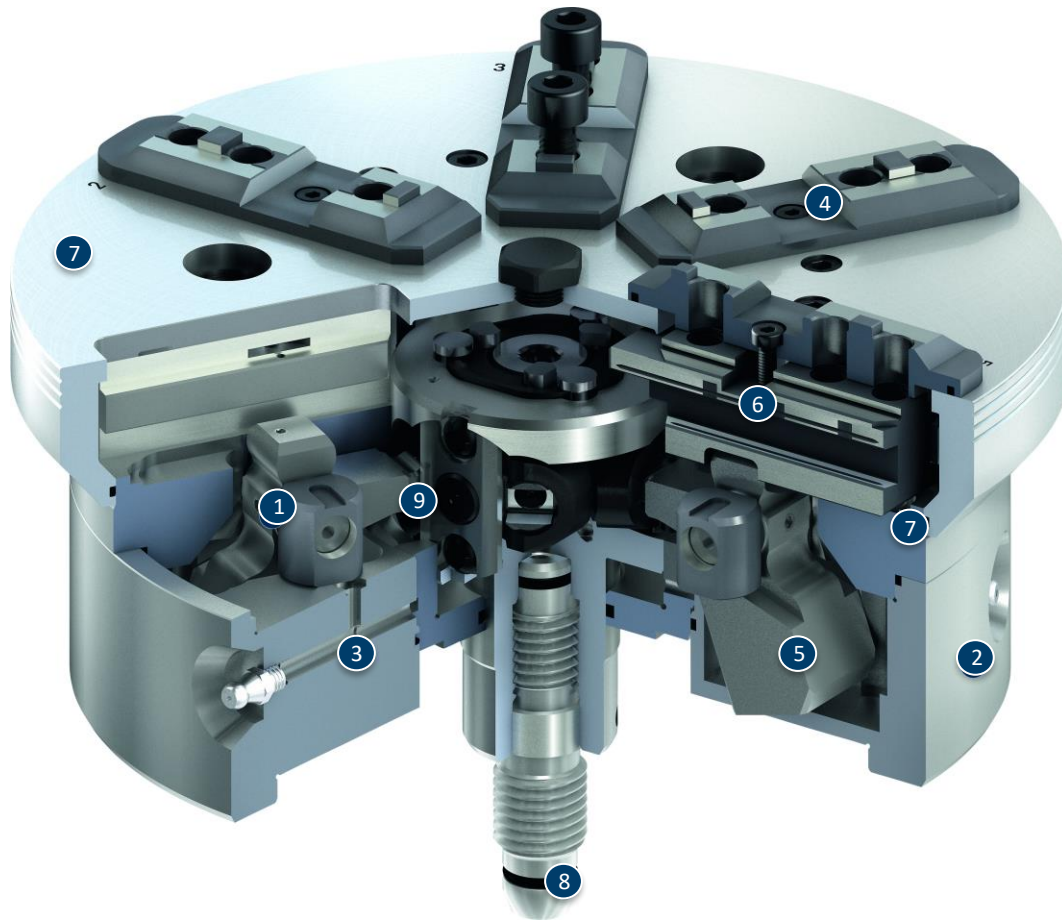
Low-deformation ring clamping in 2+2+2 pendulum compensation chuck. Less deformation in OP10 and OP20 for best values of roundness.

ROTA NCR



- ① Angle lever drive
- ② Hardened and extremely rigid base body
- ③ Optimized lubrication system
- ④ Mounting threads
- ⑤ Standard chuck jaw interface
- ⑥ Long jaw guidance
- ⑦ Low height
- ⑧ Dirt-resistant design
- ⑨ Inside located pendulum body
- ⑩ Integrated centrifugal force compensation as an option
- ⑪ Simple conversion
- ⑫ Optimized piston mount
- ⑬ Central media feed-through

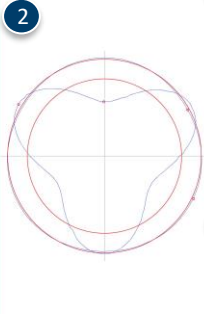
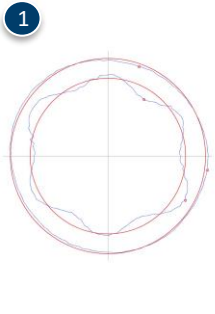
ROTA NCR-A



- ① Angled lever drive
- ② Hardened and extremely rigid base body
- ③ Optimized lubrication system
- ④ Mounting threads
- ⑤ Standard jaw interface
- ⑥ Inner laying pendulum bridge
- ⑦ Sealing for longer maintenance intervals
- ⑧ Wiper stripes at the base jaw guidance

ROTA NCR

Advantages of the 6-point clamping over 3-point clamping



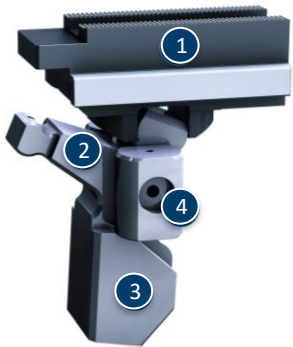
- 1 Clamping of a ring in the 6-jaw pendulum compensating chuck ROTA NCR with a total clamping force of 20 kN
- 2 Clamping of a ring in the 3-jaw power chuck with a total clamping force of 20 kN

Easy actuation



- 1 Pendulum bodies
- 2 Angle lever
- 3 Chuck piston

Force transmission



- 1 Base jaw
- 2 Angle lever
- 3 Optional with centrifugal force compensation
- 4 Lever bearing

Compensating workpiece clamping



- 1 Pendulum body loose
- 2 Adjusting screw
- 3 Pendulum locking open

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Compensating workpiece clamping



- 1 Pendulum body loose
- 2 Adjusting screw
- 3 Pendulum locking open

Centric workpiece clamping



- 1 Pendulum body locked
- 2 Adjusting screw
- 3 Pendulum clamping locked

Variants ROTA NCR/NCR-A

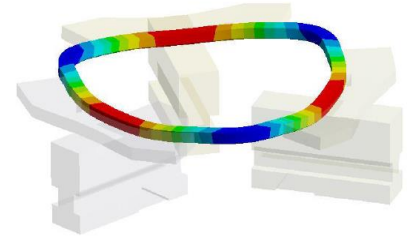
Technical Data	Max. RPM [min ⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke [mm]	Pendular compensation [mm]
ROTA NCR 165	4000	36	20	6	13.5	± 1
ROTA NCR 200	3500	50	25	6	15	± 1
ROTA NCR 250	3000	64	38	8	18.8	± 2
ROTA NCR 315	2500	80	40	8	20	± 2
ROTA NCR 400	1400	100	54	12	30	± 2.5
ROTA NCR 500	1200	125	65	12	30	± 2.5
ROTA NCR 630	1000	160	80	16	40	± 3.5
ROTA NCR 800	700	160	80	16	40	± 3.5
ROTA NCR 1000	600	300	150	25	60	± 6
ROTA NCR 1250	450	300	150	25	60	± 6
ROTA NCR 1600	300	300	150	25	60	± 6

Technical Data	Max. RPM [min ⁻¹]	Max. clamping force [kN]
ROTA NCR-A 190	4000	36
ROTA NCR-A 225	3500	50
ROTA NCR-A 250	3000	64
ROTA NCR-A 315	2500	80

SCHUNK Services

Engineering

- Dimensioning of special plates designed to the manufacturing specifications
- Development of special solutions together with the customer
- FEM analysis for critical components



Testing

- Endurance tests with all new developments
- Abrasion checking
- Measurement of accuracy



Service

- Initial operation of customer's solution
- Inspection and maintenance
- Repairs



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