

# ROTA NC plus 2 | NCF plus 2

Power Lathe Chucks with 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

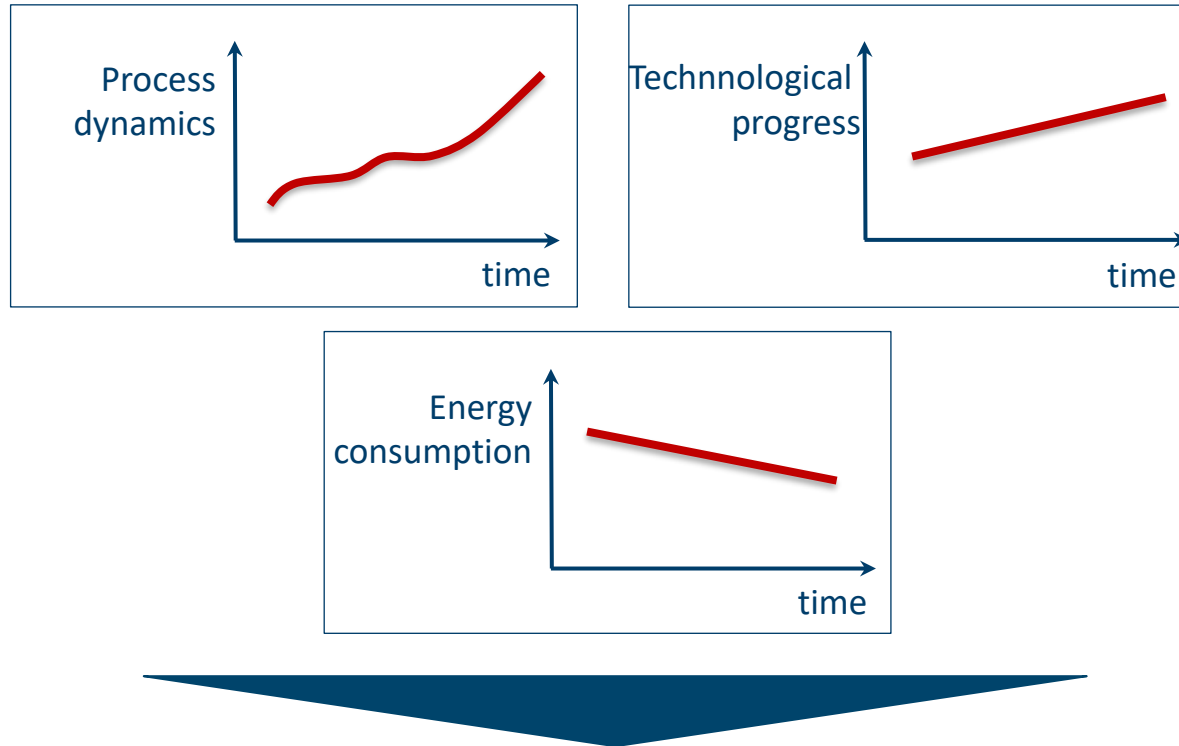


Quick-change Systems



Customized Solutions

# Challenges



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

# ROTA Overview

## Power Lathe Chucks with Through-hole

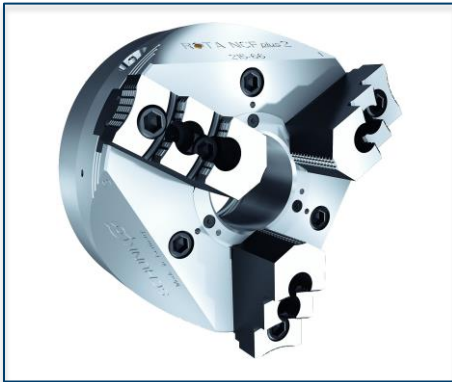
ROTA NCE



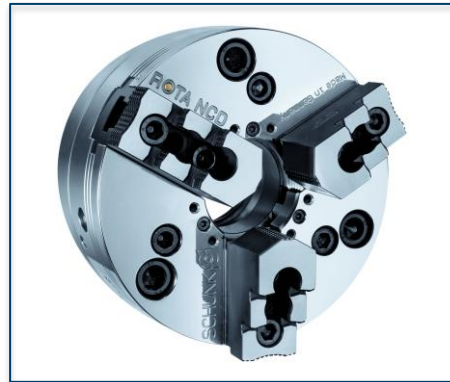
ROTA NCA



ROTA NC plus 2/NCF plus 2



ROTA NCD



ROTA NCK plus



# ROTA NC plus 2 / NCF plus 2

## Example of application



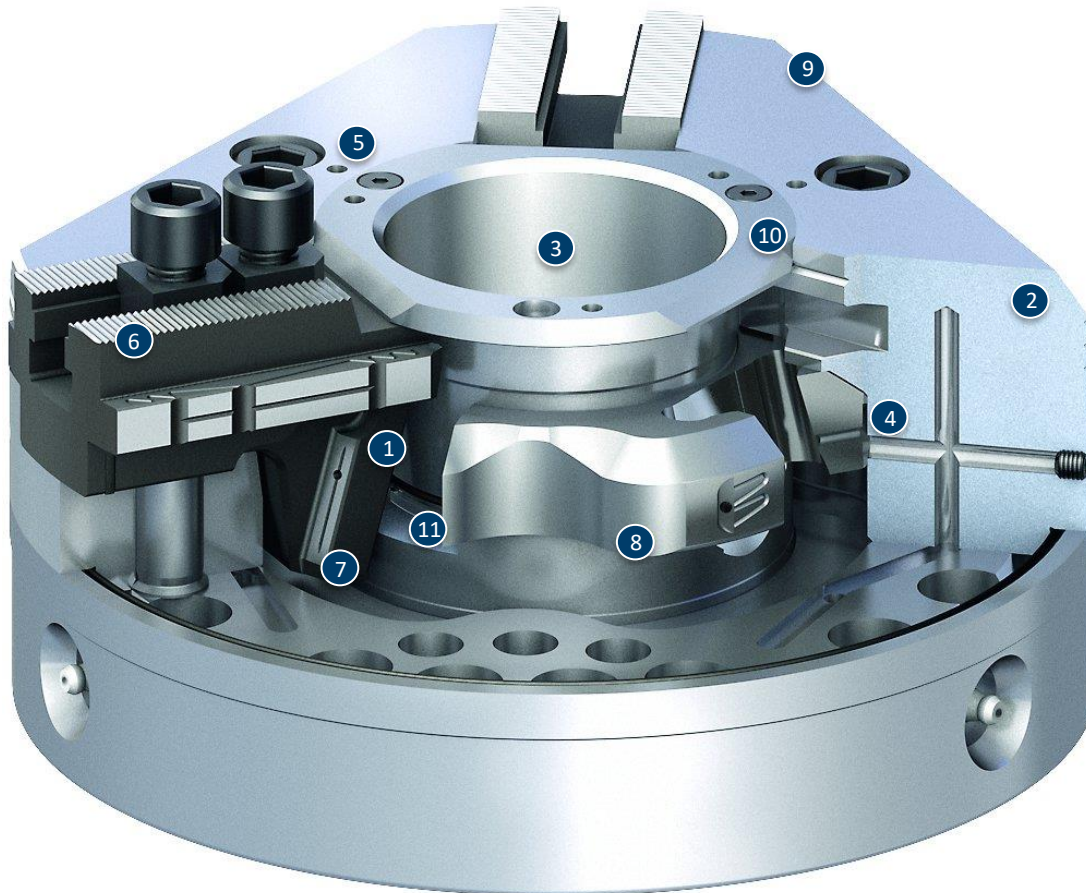
### Clamping device:

ROTA NCF plus 2 185 with hard stepped jaws.

### Features/Application:

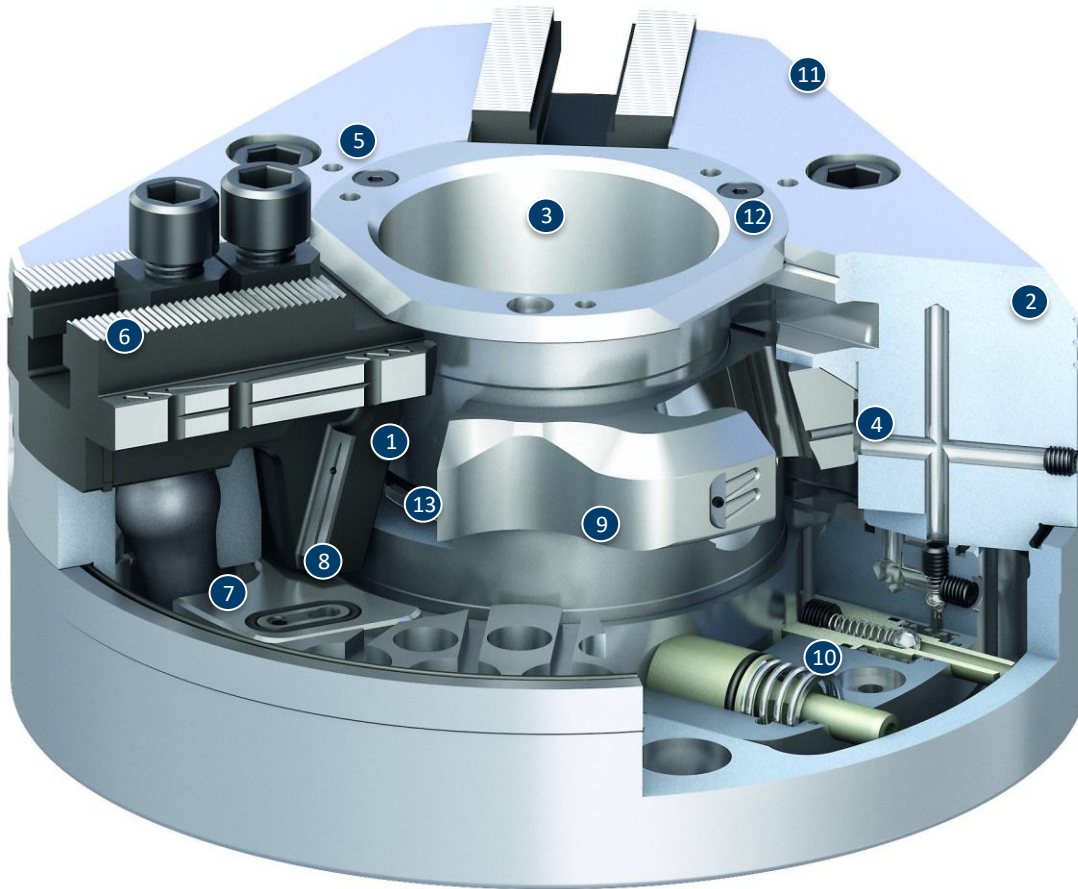
O.T. clamping of bars in the through-hole with hard stepped jaws. Precise clamping with automated loading via bar loader. Highest dynamics thanks to integrated centrifugal force compensation.

# ROTA NC plus 2



- ① Wedge hook drive
- ② Hardened and extremely rigid base body
- ③ Large through-hole
- ④ Optimized lubrication system
- ⑤ Mounting threads
- ⑥ Base jaw serration
- ⑦ Robust and advanced wedge hook
- ⑧ Innovative piston guidance
- ⑨ Weight-optimized design
- ⑩ Modular center sleeve system
- ⑪ Additional seals

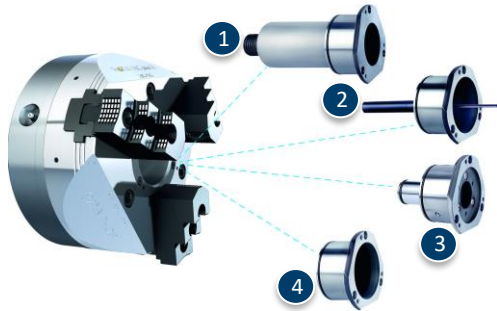
# ROTA NCF plus 2



- ① Wedge hook drive
- ② Hardened and extremely rigid base body
- ③ Large through-hole
- ④ Optimized lubrication system
- ⑤ Mounting threads
- ⑥ Base jaw serration
- ⑦ Integrated centrifugal force compensation
- ⑧ Robust and advanced wedge hook
- ⑨ Innovative piston guidance
- ⑩ Integrated, patented grease-pump system
- ⑪ Weight-optimized design
- ⑫ Modular center sleeve system
- ⑬ Additional seals

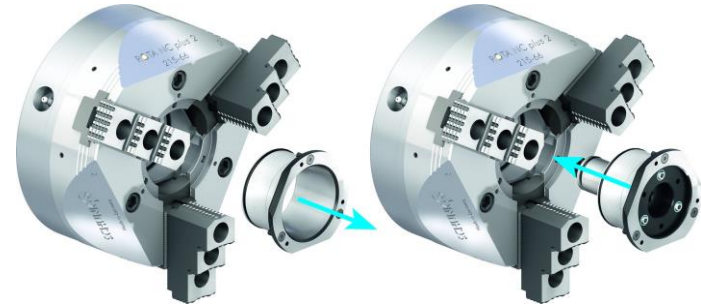
# ROTA NC plus 2 / NCF plus 2

## Modular Center Sleeve System



- 1 Adjustable stop in the center sleeve
- 2 Part ejector in the center sleeve
- 3 Coolant nozzles in the center sleeve
- 4 Closed center sleeve

## Changing the center sleeve



## Optimized wedge hook and precision jaw guidance



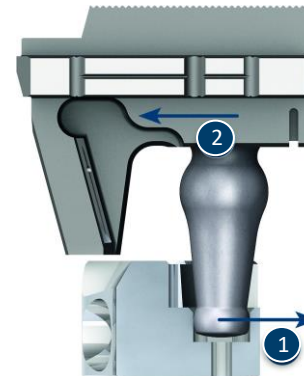
- 1 Trapezoidal angle
- 2 Precision flat guidance

# ROTA NCF plus 2

**Integrated, patented grease-pump system in the centrifugal force compensation**



**Integrated centrifugal force compensation**



- 1 Centrifugal force via compensation weight
- 2 Clamping force support for O. D. clamping

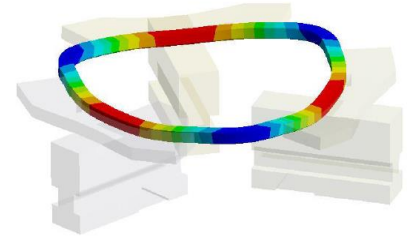
# Variants ROTA NC plus 2/NCF plus 2

Technical data	Max. RPM [min <sup>-1</sup> ]	Max. clamping force [kN]	Max. Actuating force [kN]	stroke/jaw [mm]	Through- hole [mm]	Piston stroke [mm]
ROTA NC plus 2 185-52	5000	72	30	5.3	52	20
ROTA NC plus 2 215-66	5000	100	42	5.3	66	20
ROTA NC plus 2 260-86	4000	140	60	5.3	86	20
ROTA NC plus 2 315-104	3500	160	70	5.3	104	20
ROTA NC 400-120	2500	187.5	77	8	120	30
ROTA NC 500-160	2000	200	75	8	160	30
ROTA NC 630-180	1800	300	122	11.2	180	42
ROTA NC 800-230	1200	370	120	11.2	230	42
ROTA NC 1000-350	700	410	180	16	350	50
ROTA NCF plus 2 185-52	6000	72	30	5.3	52	20
ROTA NCF plus 2 215-66	6000	100	42	5.3	66	20
ROTA NCF plus 2 260-86	4500	140	60	5.3	86	20
ROTA NCF plus 2 315-104	4000	160	70	5.3	104	20
ROTA NCF 400-120	3300	187.5	77	8	120	30
ROTA NCF 500-160	2200	200	75	8	160	30
ROTA NCF 630-180	1800	300	122	11.2	180	42

# 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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