

# ROTA NCE

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

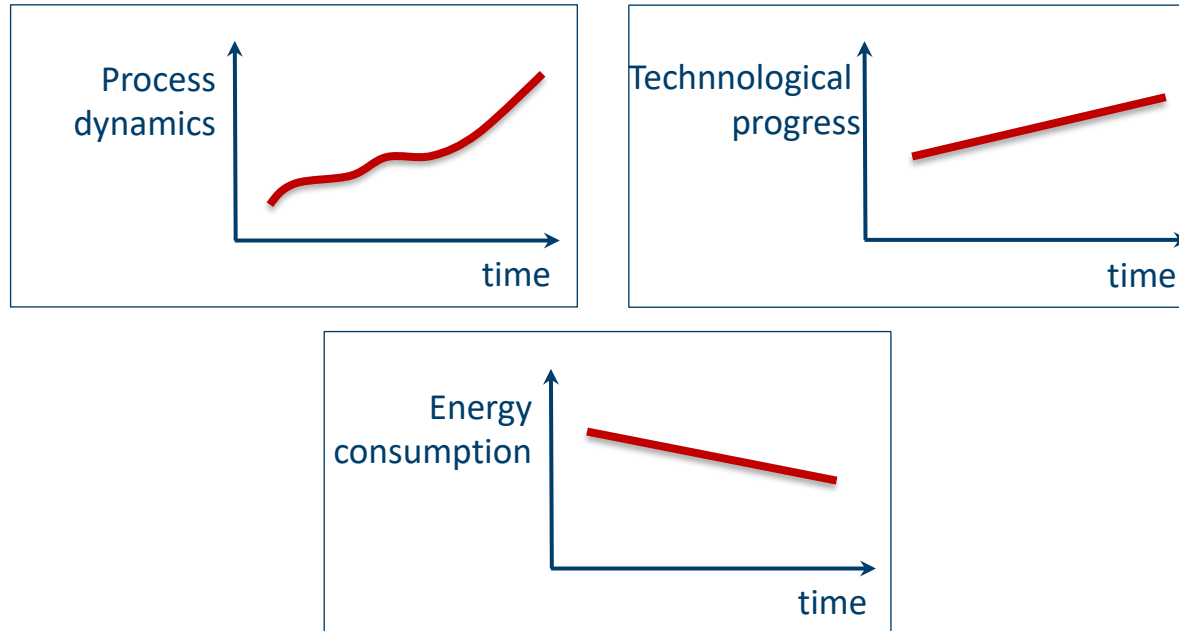


Quick-change Systems



Customized Solutions

# Challenges



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

# ROTA overview

## Power Lathe Chucks with Through-hole

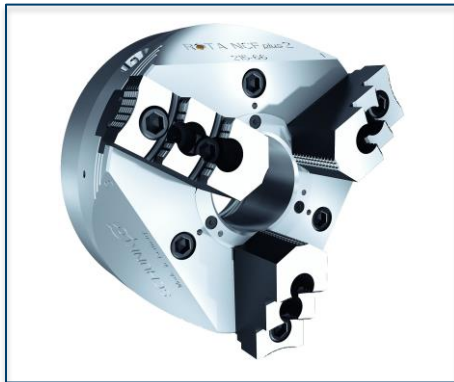
ROTA NCE



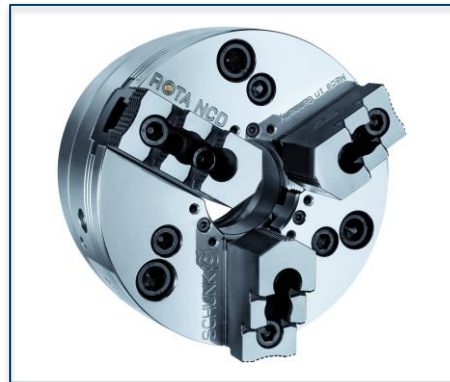
ROTA NCA



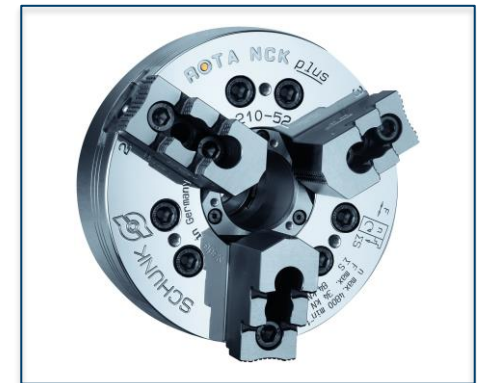
ROTA NC plus 2/NCF plus 2



ROTA NCD

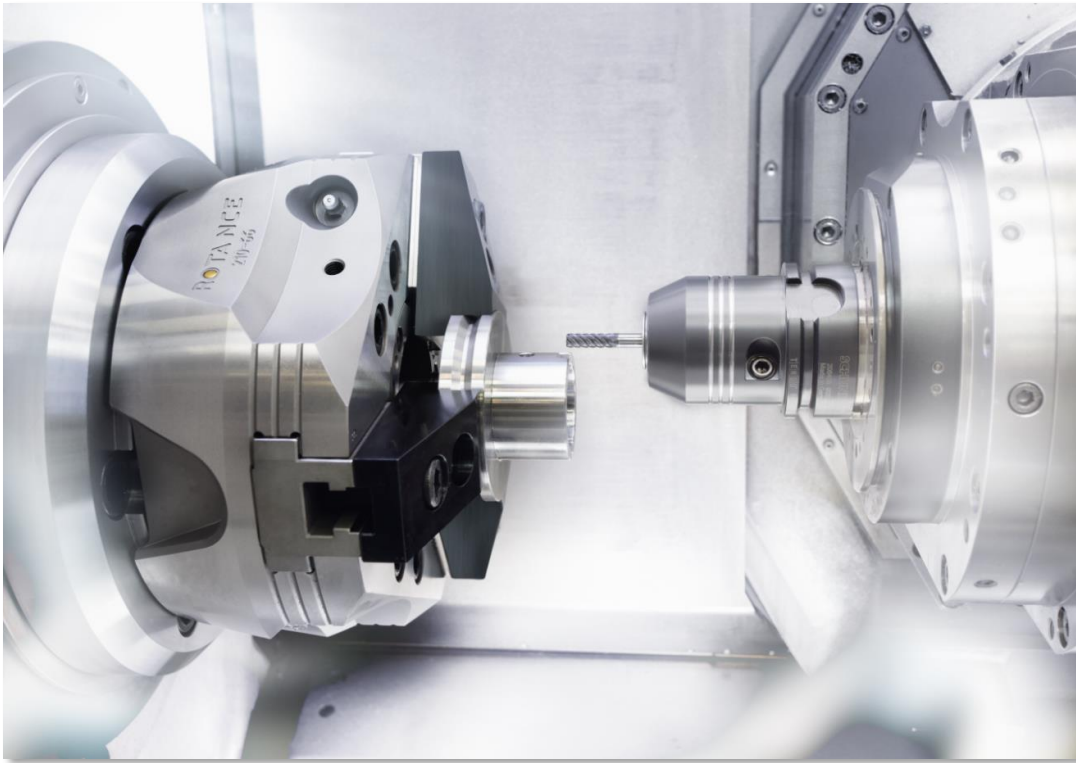


ROTA NCK plus



# ROTA NCE

## Example of application



### Clamping device:

ROTA NCE 210 with soft jaws.

### Features/Application:

Precise O.T. clamping of aluminium parts with weight-optimized chucks and jaws for highly dynamic metal cutting and reduction of cycle times.

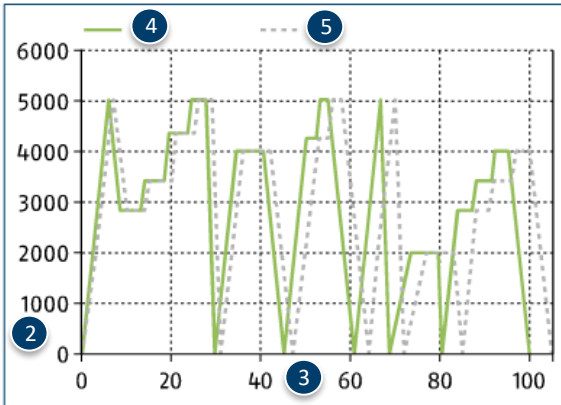
# ROTA NCE



- 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 Jaw stroke display
- 8 Blank draw nut
- 9 Weight-optimized design

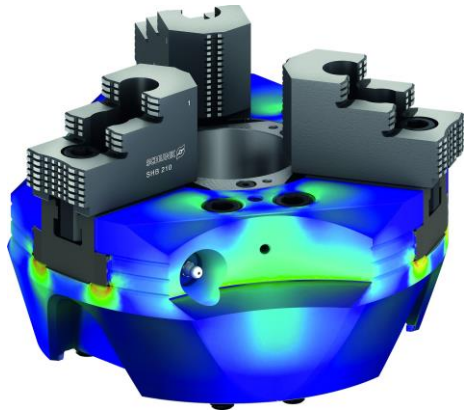
# ROTA NCE

## Cycle time and energy-efficient processing - toolholder

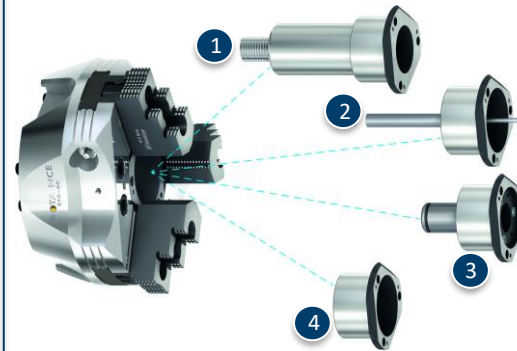


- 1 Toolholder
- 2 RPM in  $\text{min}^{-1}$
- 3 Processing time in %
- 4 Speed collective and savings due to the use of a ROTA NCE
- 5 Speed collective of a conventional lathe chuck

## Weight-optimized Power Lathe Chuck



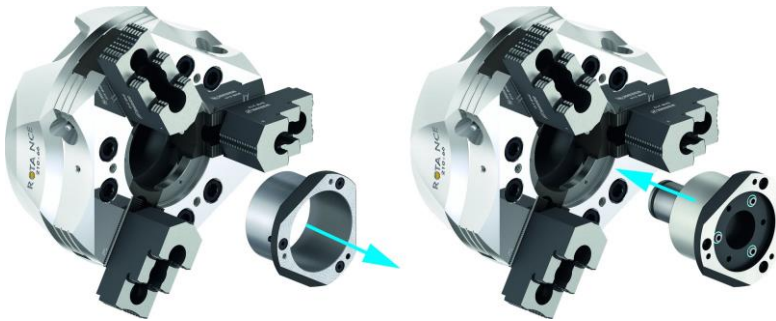
## Modular Center Sleeve System



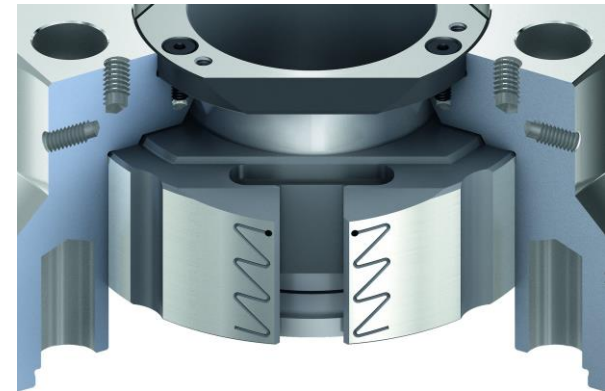
- 1 Adjustable stop in the center sleeve
- 2 Part ejector in the center sleeve
- 3 Coolant nozzles in the center sleeve
- 4 Closed center sleeve

# ROTA NCE

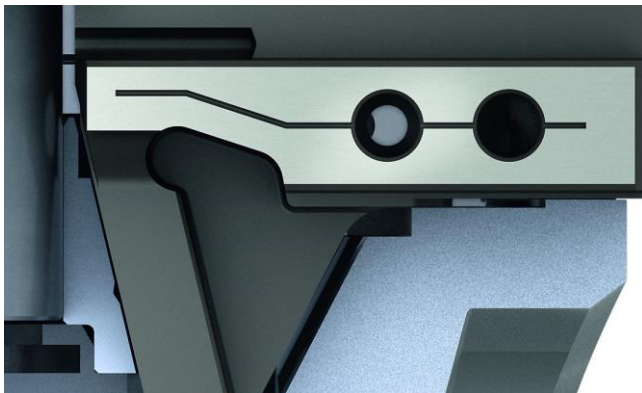
## Changing the center sleeve



## Optimized greasing system



## Base jaw safety feature



## Jaw stroke display



# ROTA NCE

**Absolute flexibility – blank draw nut**



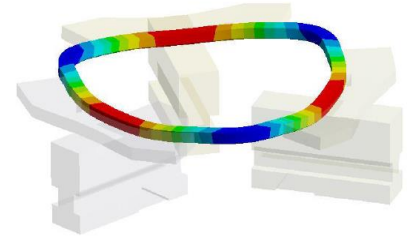
# Variants ROTA NCE

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 NCE 130-38	7500	45	19	3.2	38	14
ROTA NCE 165-53	6000	65	26	3.3	53	14
ROTA NCE 210-66	5000	100	38	4.2	66	18
ROTA NCE 260-81	4500	130	45	4.9	81	21
ROTA NCE 315-106	3500	155	58	5.8	106	25

# 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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