SCHUNK


# ROTA THW3

## Sealed jaw quick-change chuck with straight serrated base jaw interface

Hand in hand for tomorrow

# Jaw quick-change chuck with patented sealing system for permanent lubrication and constantly high clamping forces

Constant clamping forces, minimal maintenance costs and increased energy efficiency – all in a power chuck with jaw quick-change system – that's exactly what the new ROTA THW3 promises. Thanks to the jaw quick-change system, the chucks are suitable for flexible production starting from batch size 1. Furthermore, the patented seal allows for use in applications with fine chips and dirty environments.

## Advantages – Your benefits

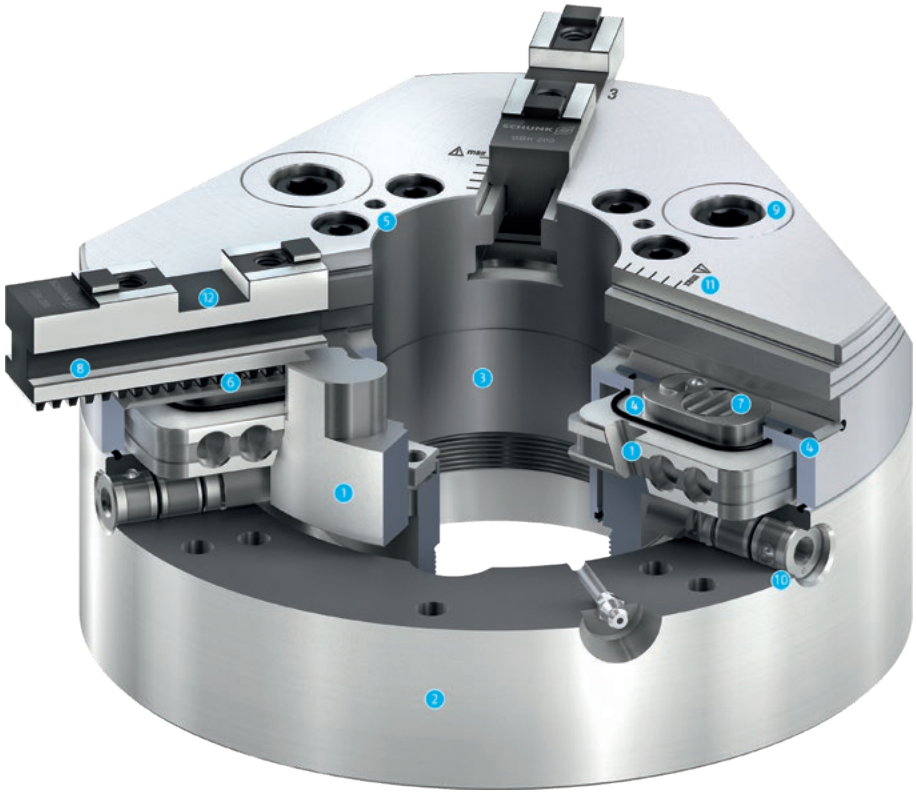
- **Sealed power lathe chuck**
  For significantly longer maintenance intervals
- **Permanent grease lubrication**
  For consistently high clamping forces
- **Convenient jaw quick-change system**
  Minimizing set-up times and costs
- **Large through-hole**
  Machining all standard pipe diameters
- **High degree of efficiency of the ring piston system**
  Process-reliable clamping due to high clamping forces
- **High jaw quick-change repeat accuracy**
  No reboring of already machined jaws necessary
- **Modular center sleeve system**
  Optimal adjustment to new clamping tasks thanks to the exchangeable center sleeves
- **Straight serrated base jaws GBK**
  Compatible to ROTA THW plus, ROTA-G and system "R" (Reishauer)
- **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] | Through-hole [mm] |
|---|---|---|---|---|---|---|
| ROTA THW3 200-52 | 6000 | 64 | 38 | 6.7 | 17.5 | 52 |
| ROTA THW3 225-66 | 5400 | 82 | 41 | 7.4 | 21 | 66 |
| ROTA THW3 265-81 | 4000 | 115 | 59 | 8.2 | 24 | 81 |
| ROTA THW3 315-104 | 3600 | 150 | 80 | 8.6 | 25 | 104 |
| ROTA THW3 400-128 | 3000 | 240 | 128 | 8.6 | 25 | 128 |
| ROTA THW3 500-165 | 2200 | 240 | 128 | 10.5 | 30 | 165 |
| ROTA THW3 630-165 | 1700 | 240 | 128 | 10.5 | 30 | 165 |

# Function of ROTA THW3

The axially movable piston transfers the force to the thrust jaws and generates a radial jaw movement synchronized with the rotational axis. The innovative sealing system located on the pusher jaws prevents grease from being rinsed out, and the clamping force from being lost gradually.



1. **Wedge hook drive in ring piston design**
   It offers high run-out accuracies even at high speeds
2. **Hardened and extremely rigid base body**
   Therefore a longer service life at highest precision. Even with maximum clamping force
3. **Large through-hole**
   For machining of all standard raw material diameters
4. **Patented sealing system**
   For consistently high clamping forces
5. **Mounting thread**
   For workpiece stops or modular center sleeves
6. **Jaw quick-change system**
   Shortest set-up times due to individual unlocking of jaws
7. **Locking mechanism**
   The pusher jaw enables a safe base jaw position, ensuring safe engagement of the base jaw serration with the chuck body serration
8. **Base jaws with straight serration (GBK)**
   Compatible with ROTA THW plus, ROTA THW, ROTA-G and the "R" (Reishauer) system
9. **Inlays at the mounting holes**
   To increase the tightness and rigidity of the chuck
10. **Admissible jaw locking**
    The jaw change wrench can only be pulled off if the driver is properly engaged in the base jaw
11. **Display of maximum jaw position**
    To prevent incorrect operation and associated overloading of the guideways
12. **Standard jaw interface**
    For the use of standard top jaws from SCHUNK

## Quick jaw change

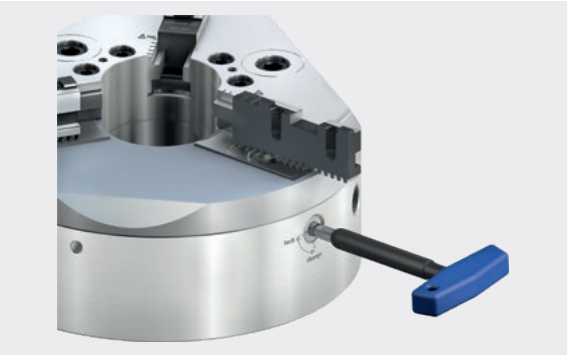
Turning the jaw change wrench by 90° pulls the driver out of the base jaw serration. The jaw change wrench does not have to be held during the change process, allowing quick and easy replacment of the base jaw with one-hand operation. The complete jaw set can be exchanged in less than a minute.


## Removal of the chuck jaws

In opened position the jaws can be adjusted or removed in seconds with the jaw change wrench.

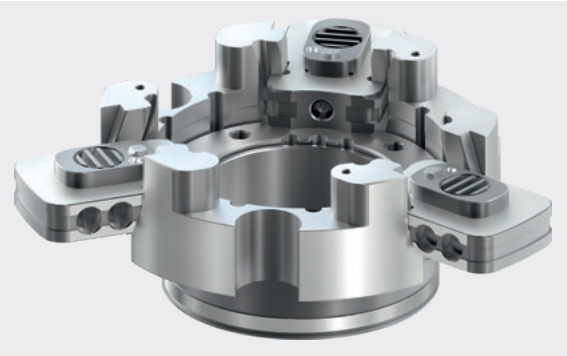
## Insertion of the chuck jaws

Simply insert the new chuck jaws into the guidance. The plunger pin pre-positions the serration. Detaching the jaw change wrench safely locks the jaw in its position.



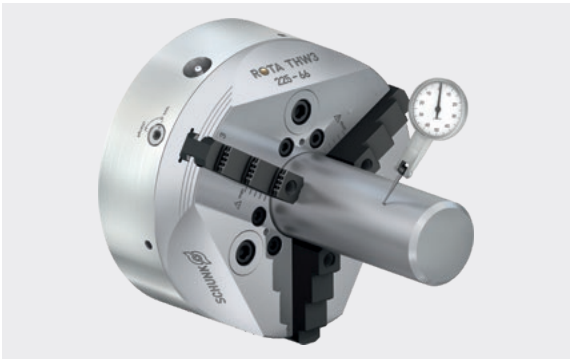
## High repeat accuracy after changing jaws

The dual-guided piston, the direct power transmission and the system consisting of the pusher jaw and integrated driver result in an extremely rigid system. This is evidenced by the extremely high repeat accuracy of the chuck.



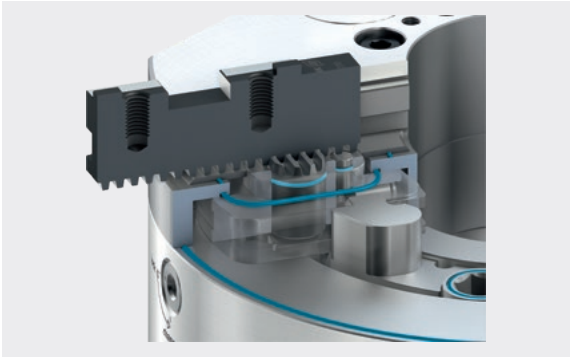
## High run-out accuracy after a jaw change

Chuck jaws only have to be turned once. The repeat accuracy of < 0.02 mm ensures permanently high concentricitoes on the workpiece.



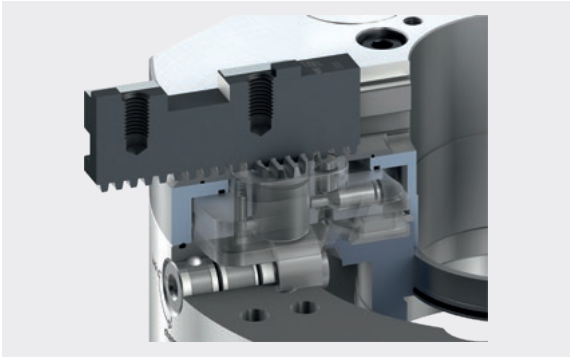

## Patented sealing system

A patented sealing system – consisting of a specially manufactured seal on the pusher jaws of the chuck and on the driver – prevents dirt and fine chips from entering the chuck and thus the chuck mechanism.
Advantage: The jaw quick-change chuck can now also be used for applications such as cast machining.



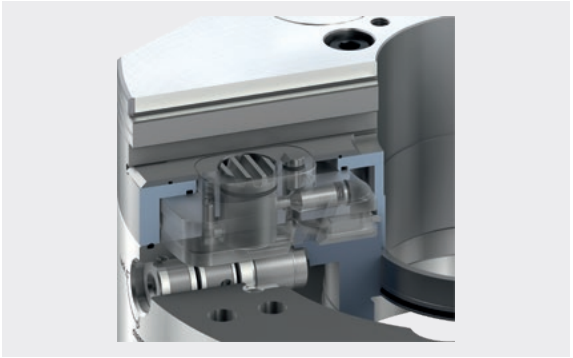
## Consistent clamping forces

The patented sealing system also prevents grease escaping from the chuck during machining. This makes it possible to achieve unprecedented consistent clamping forces for jaw quick-change chucks. The maintenance costs for the ROTA THW3 are also significantly reduced compared to the previous version.



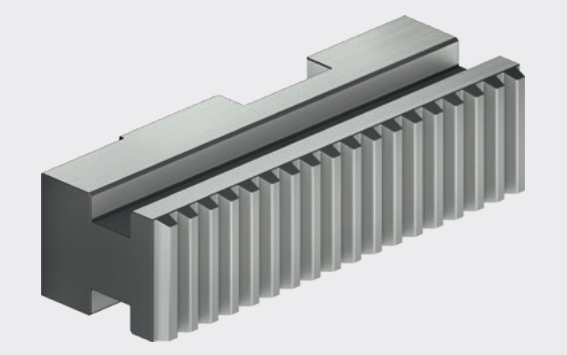
## Patented jaw locking

The base jaw of the ROTA THW3 is locked in the chuck by a driver. Pulling the driver back into the pusher jaw releases the base jaw for the jaw change. This patented system also completely seals the release mechanism of the jaw quick-change system.



## Jaws 100% compatible with ROTA THW plus and ROTA THW

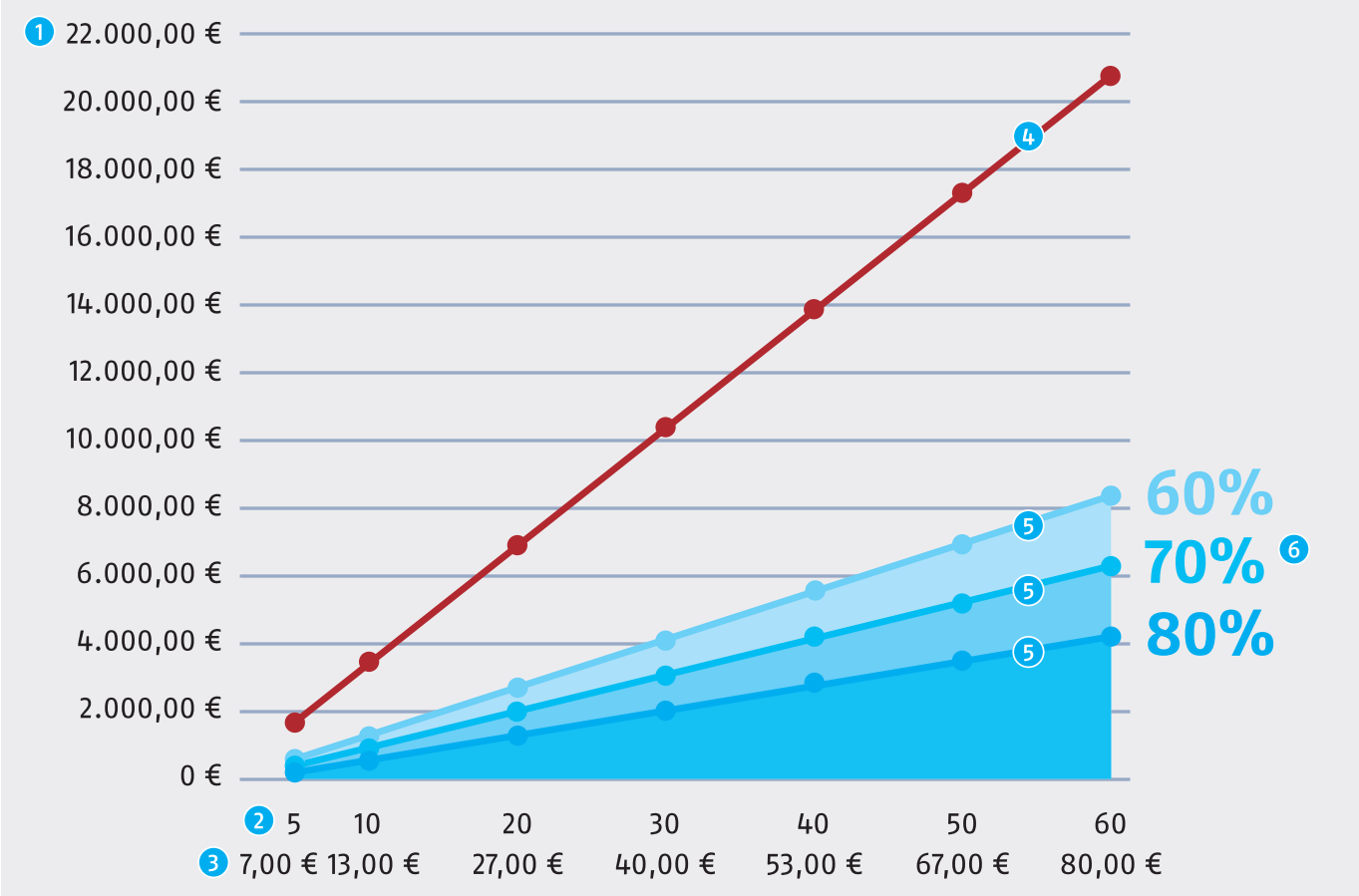
The base and top jaws of the ROTA THW3 are 100% compatible with the predecessors ROTA THW plus and ROTA THW. This means that existing chucks can be exchanged for new generation chucks with little effort.



## Weight optimized chuck

Weight-reducing bore holes and bevels on the chuck body achieve optimum inertia behavior. This makes it possible to achieve faster acceleration and braking operations. In addition, the accessibility of the tool to the workpiece is significantly improved.

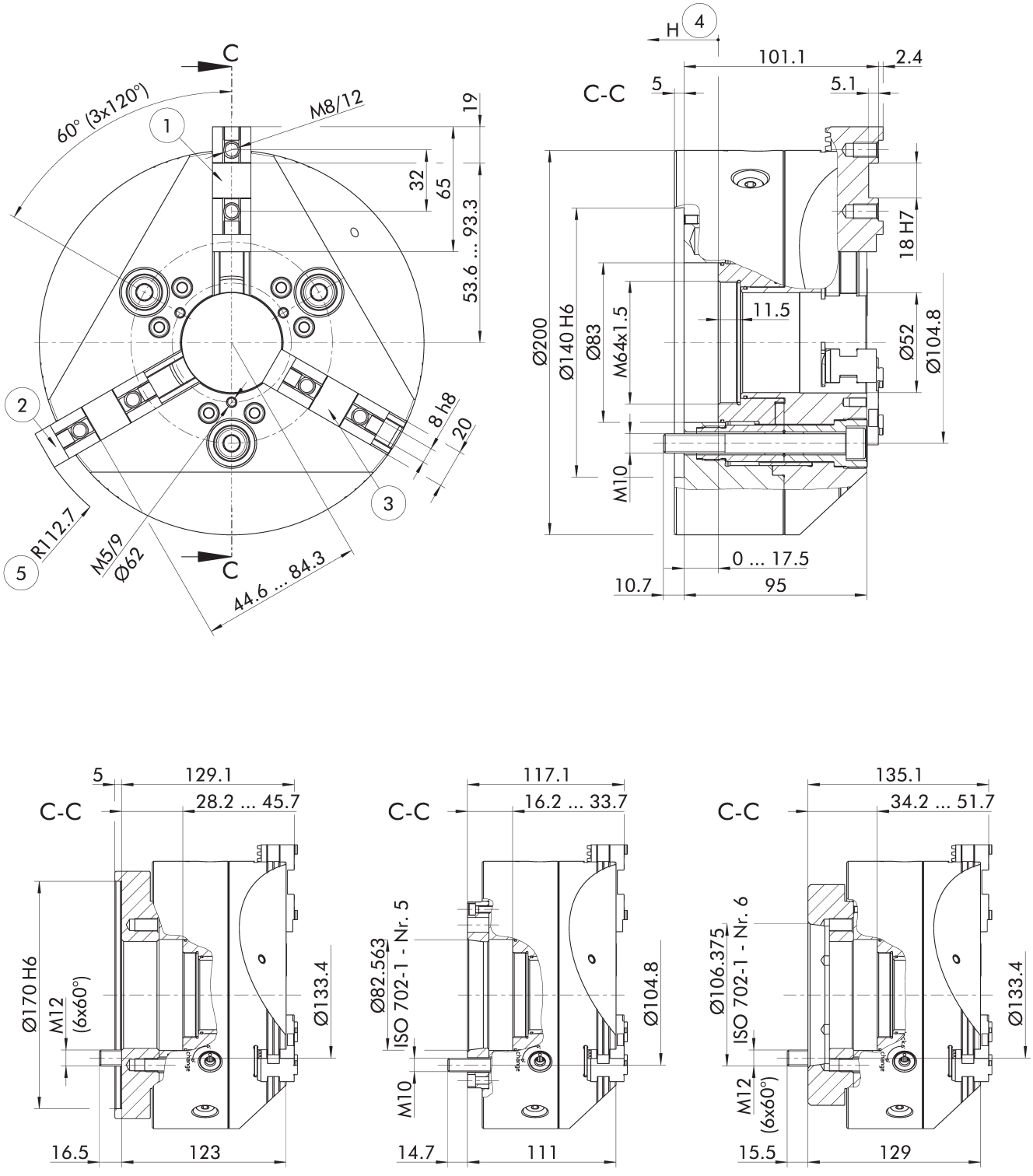
# Savings in set-up costs due to jaw quick-change chuck




The jaw quick-change system is the ideal clamping tool for clamping tasks even up from batch size 1. Ideally the set-up times can be reduced – depending on the number of jaw changes – by up to 80% in comparison to power lathe chucks with fine serration.

1. **Set-up costs***
   In EURO per year
2. **Set-up time**
   In minutes per day
3. **Set-up costs***
   In EURO per day
4. **Set-up costs**
   Per year without jaw quick-change
5. **Set-up costs**
   Per year with jaws quick-change
6. **Savings potential**
   Depending on the set-up rate

ⓘ * Set-up costs per minute 1.33 € (80 € per hour) at 260 business days




Chuck for shaft clamping drawn in open position.
Subject to technical changes.

(1) Position of base jaws I outermost position
(2) Position of base jaws II outermost position
(3) Position of base jaws I innermost position
(4) Piston stroke direction
(5) Swing diameter radius

## Technical data

| Spindle type | Spindle size | ID | Max. rotational speed [min⁻¹] | Max. clamping force [kN] | Max. actuating force [kN] | Moment of inertia [kgm²] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| ISO 702-4 | Nr. 5 (Z140) | *1366679* | 6000 | 64 | 38 | 0.11 | 18.6 |
| ISO 702-4 | Nr. 6 (Z170) | *1366680* | 6000 | 64 | 38 | 0.13 | 22.8 |
| ISO 702-1 | Nr. 5 | *1366681* | 6000 | 64 | 38 | 0.11 | 20 |
| ISO 702-1 | Nr. 6 | *1366682* | 6000 | 64 | 38 | 0.12 | 22 |

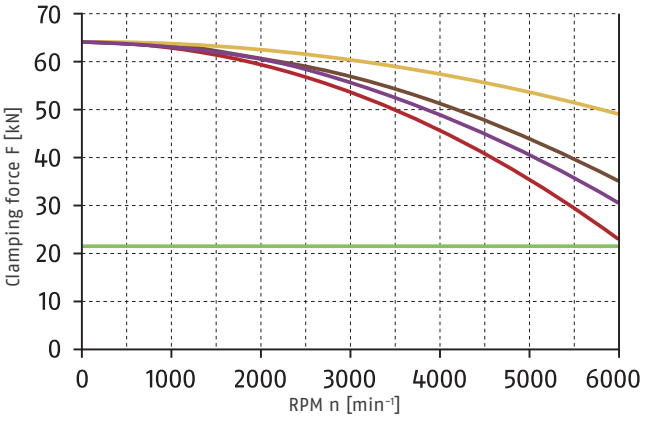
## Scope of delivery

Chuck, 1 set of base jaws with screws, jaw change wrench, chuck mounting screws and operating manual

## Further technical data

| Chuck type | Through-hole [mm] | Stroke/jaw [mm] | Tooth pitch [mm] | Piston stroke (H) [mm] | Center jaw height [mm] |
|---|---|---|---|---|---|
| ROTA THW3 200-52 | 52 | 6.7 | 4.712 | 17.5 | 43 |

## Clamping force-RPM-diagram




Required minimum clamping force $F_{spmin}$ 33%

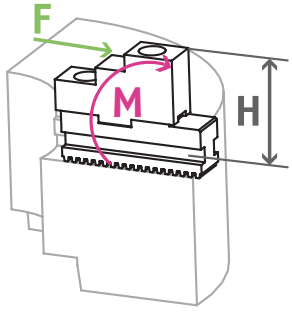
SHF 160
0.6 kg

SFA 160
1.2 kg

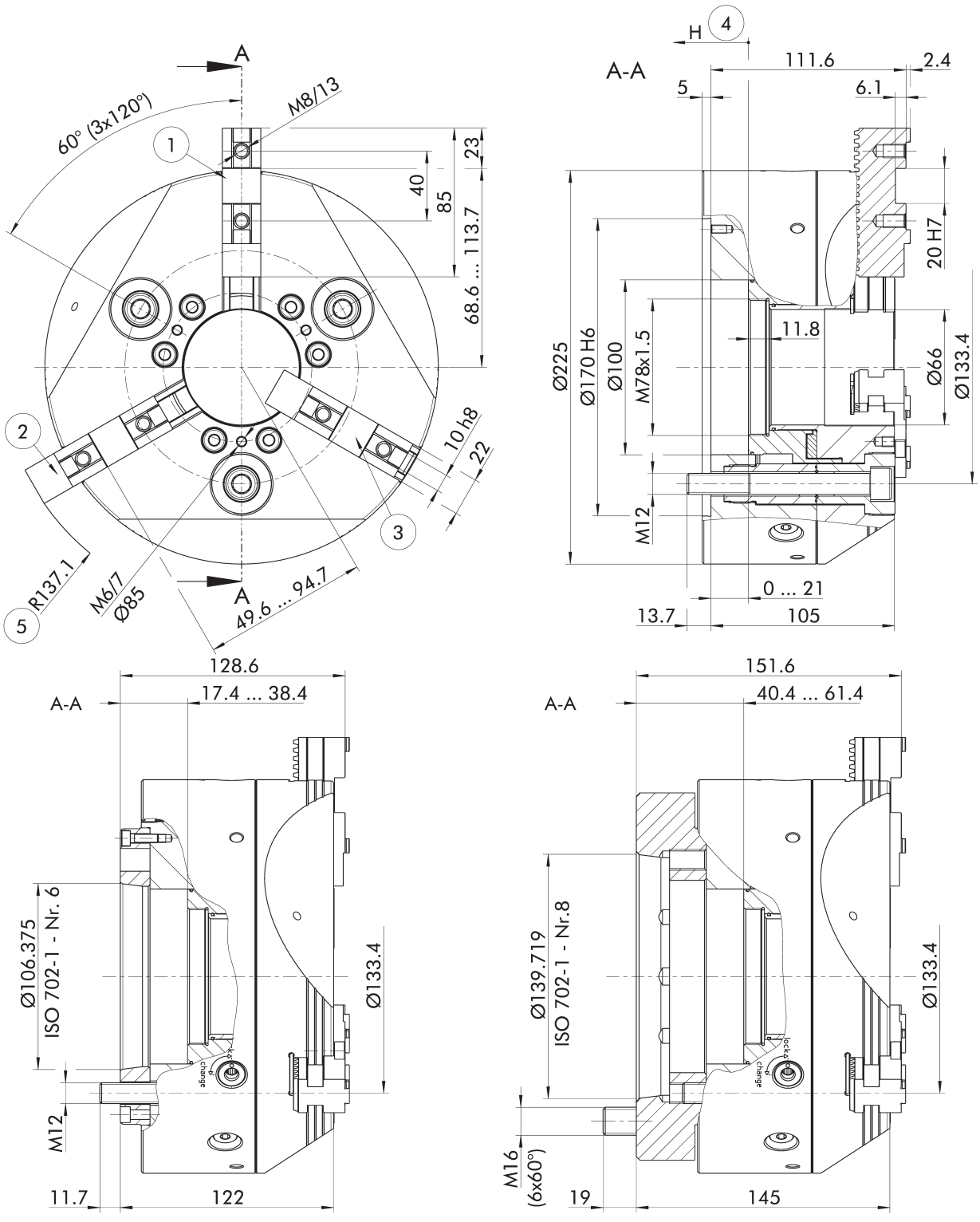
GST 140-160 I
0.7 kg

UVB 160
1.6 kg

## Load of base jaw guidance




$M_{max}$ = 917 Nm




Chuck for shaft clamping drawn in open position.
Subject to technical changes.

(1) Position of base jaws I outermost position
(2) Position of base jaws II outermost position
(3) Position of base jaws I innermost position
(4) Piston stroke direction
(5) Swing diameter radius

## Technical data

| Spindle type | Spindle size | ID | Max. rotational speed [min⁻¹] | Max. clamping force [kN] | Max. actuating force [kN] | Moment of inertia [kgm²] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| ISO 702-4 | Nr. 6 (Z170) | *1366706* | 5400 | 82 | 41 | 0.19 | 25.1 |
| ISO 702-1 | Nr. 6 | *1366707* | 5400 | 82 | 41 | 0.19 | 26.8 |
| ISO 702-1 | Nr. 8 | *1366708* | 5400 | 82 | 41 | 0.23 | 31 |

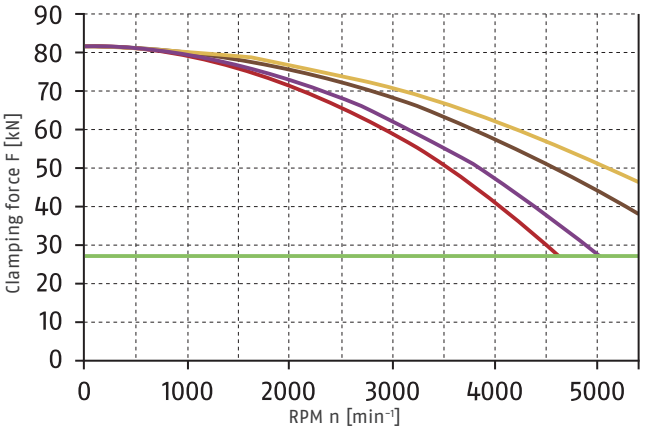
## Scope of delivery

Chuck, 1 set of base jaws with screws, jaw change wrench, chuck mounting screws and operating manual

## Further technical data

| Chuck type | Through-hole [mm] | Stroke/jaw [mm] | Tooth pitch [mm] | Piston stroke (H) [mm] | Center jaw height [mm] |
|---|---|---|---|---|---|
| ROTA THW3 225-66 | 66 | 7.4 | 4.712 | 21 | 50 |

## Clamping force-RPM-diagram



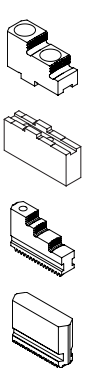

Required minimum clamping force $F_{spmin}$ 33%

SHF 200
0.82 kg

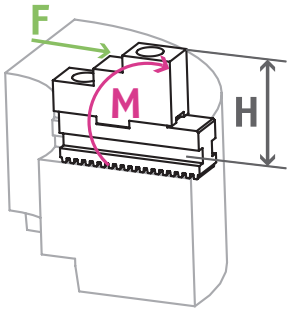
SFA 200
2 kg

GST 201
1.6 kg

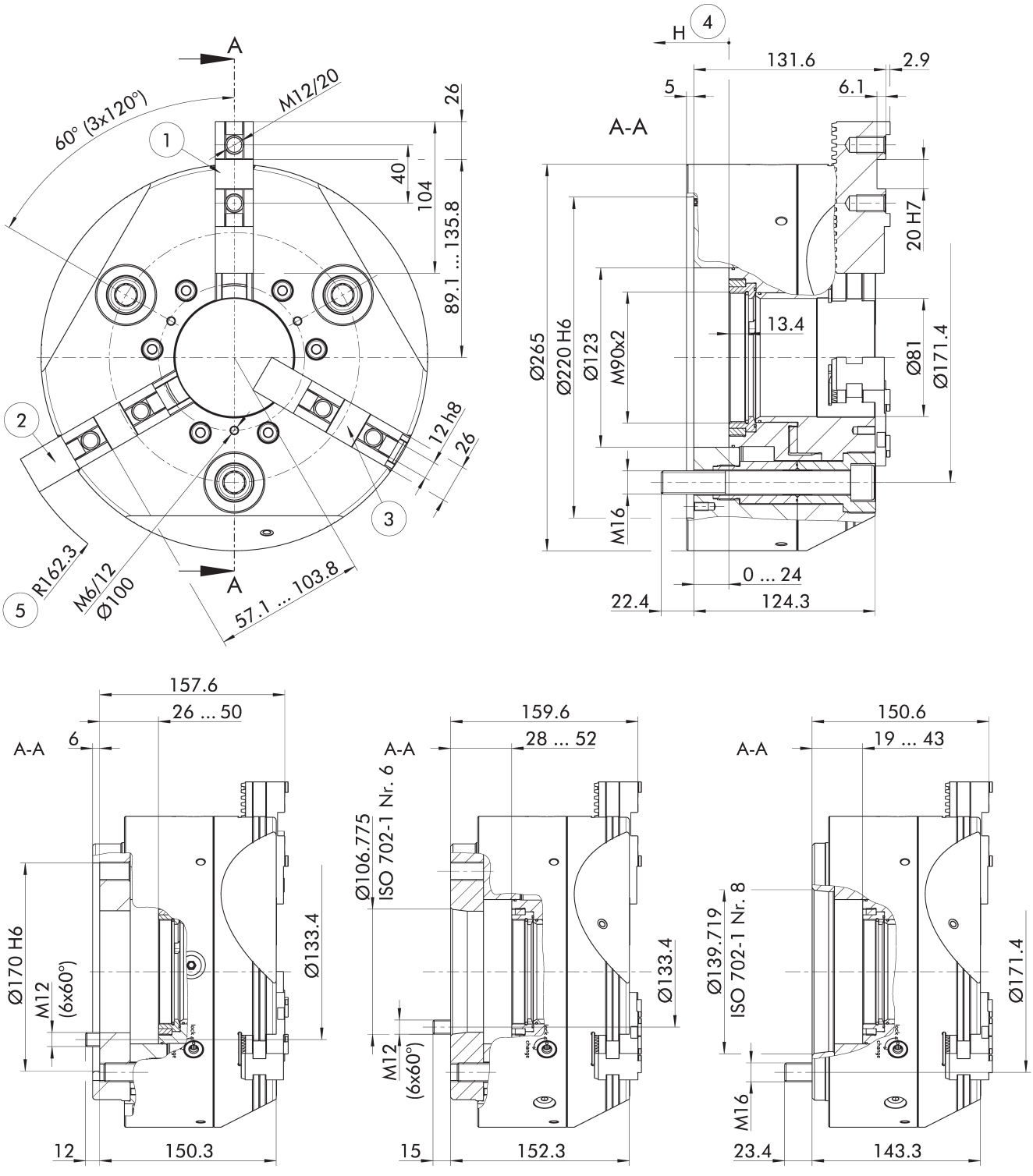
UVB 200
2.7 kg



## Load of base jaw guidance




$M_{max}$ = 1367 Nm




Chuck for shaft clamping drawn in open position.
Subject to technical changes.

(1) Position of base jaws I outermost position
(2) Position of base jaws II outermost position
(3) Position of base jaws I innermost position
(4) Piston stroke direction
(5) Swing diameter radius

## Technical data

| Spindle type | Spindle size | ID | Max. rotational speed [min⁻¹] | Max. clamping force [kN] | Max. actuating force [kN] | Moment of inertia [kgm²] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| ISO 702-4 | Nr. 6 (Z170) | *1366710* | 4000 | 115 | 59 | 0.48 | 49.3 |
| ISO 702-4 | Nr. 8 (Z220) | *1366711* | 4000 | 115 | 59 | 0.44 | 43.3 |
| ISO 702-1 | Nr. 6 | *1366712* | 4000 | 115 | 59 | 0.48 | 49.3 |
| ISO 702-1 | Nr. 8 | *1366713* | 4000 | 115 | 59 | 0.47 | 47.1 |

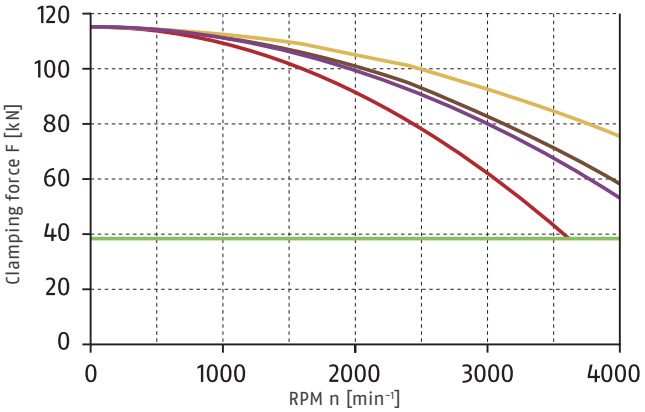
## Scope of delivery

Chuck, 1 set of base jaws with screws, jaw change wrench, chuck mounting screws, mounting wrench for turnable threaded ring, eye bolt, and operating manual

## Further technical data

| Chuck type | Through-hole [mm] | Stroke/jaw [mm] | Tooth pitch [mm] | Piston stroke (H) [mm] | Center jaw height [mm] |
|---|---|---|---|---|---|
| ROTA THW3 265-81 | 81 | 8.2 | 5.498 | 24 | 66.5 |

## Clamping force-RPM-diagram



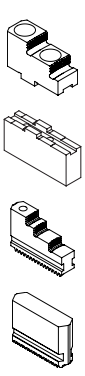

Required minimum clamping force $F_{spmin}$ 33%

SHF 250
1.9 kg

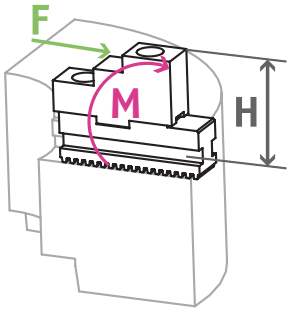
SFA 250
3.7 kg

GST 251
2.8 kg

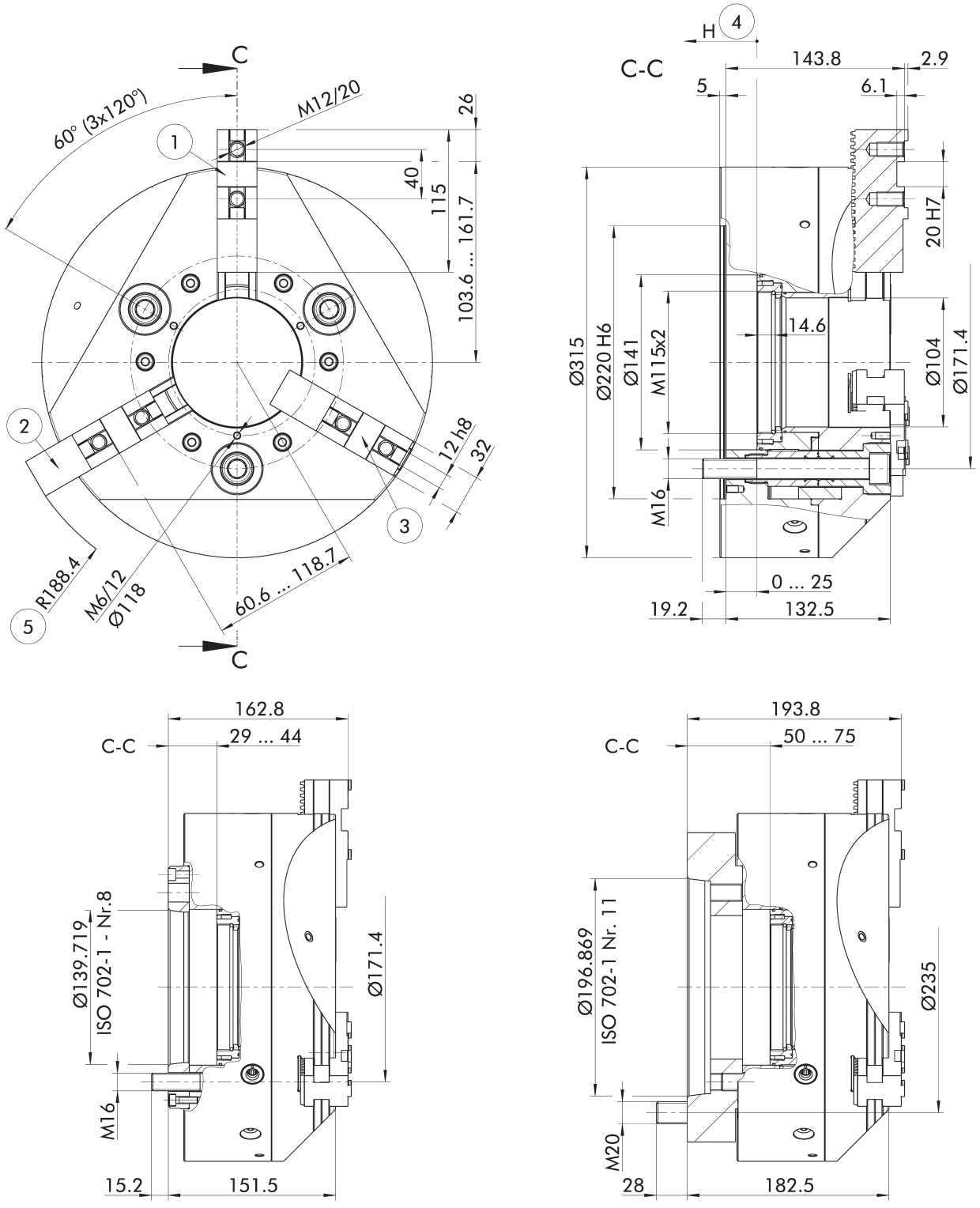
UVB 250
4.8 kg



## Load of base jaw guidance




$M_{max}$ = 2549 Nm




Chuck for shaft clamping drawn in open position.
Subject to technical changes.

① Position of base jaws I outermost position
② Position of base jaws II outermost position
③ Position of base jaws I innermost position
④ Piston stroke direction
⑤ Swing diameter radius

## Technical data

| Spindle type | Spindle size | ID | Max. rotational speed [min⁻¹] | Max. clamping force [kN] | Max. actuating force [kN] | Moment of inertia [kgm²] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| ISO 702-4 | Nr. 8 (Z220) | *1366715* | 3600 | 150 | 80 | 0.83 | 58.1 |
| ISO 702-1 | Nr. 8 | *1366716* | 3600 | 150 | 80 | 0.86 | 61.8 |
| ISO 702-1 | Nr. 11 | *1366717* | 3600 | 150 | 80 | 1 | 72.7 |

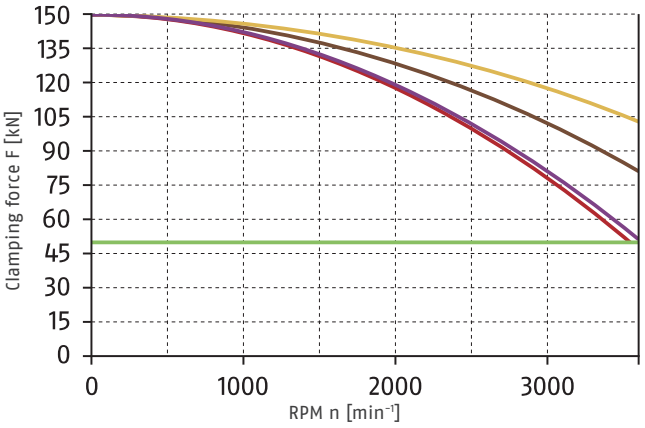
## Scope of delivery

Chuck, 1 set of base jaws with screws, jaw change wrench, chuck mounting screws, mounting wrench for turnable threaded ring, eye bolt, and operating manual

## Further technical data

| Chuck type | Through-hole [mm] | Stroke/jaw [mm] | Tooth pitch [mm] | Piston stroke (H) [mm] | Center jaw height [mm] |
|---|---|---|---|---|---|
| ROTA THW3 315-104 | 104 | 8.6 | 5.498 | 25 | 80 |

## Clamping force-RPM-diagram



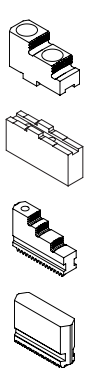

Required minimum clamping force $F_{spmin}$ 33%

SHF 250
1.9 kg

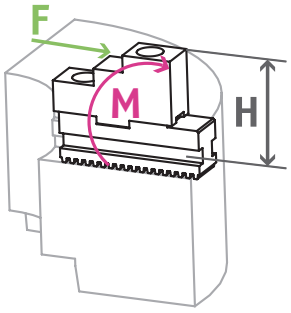
SFA 250
3.7 kg

GST 315
3.5 kg

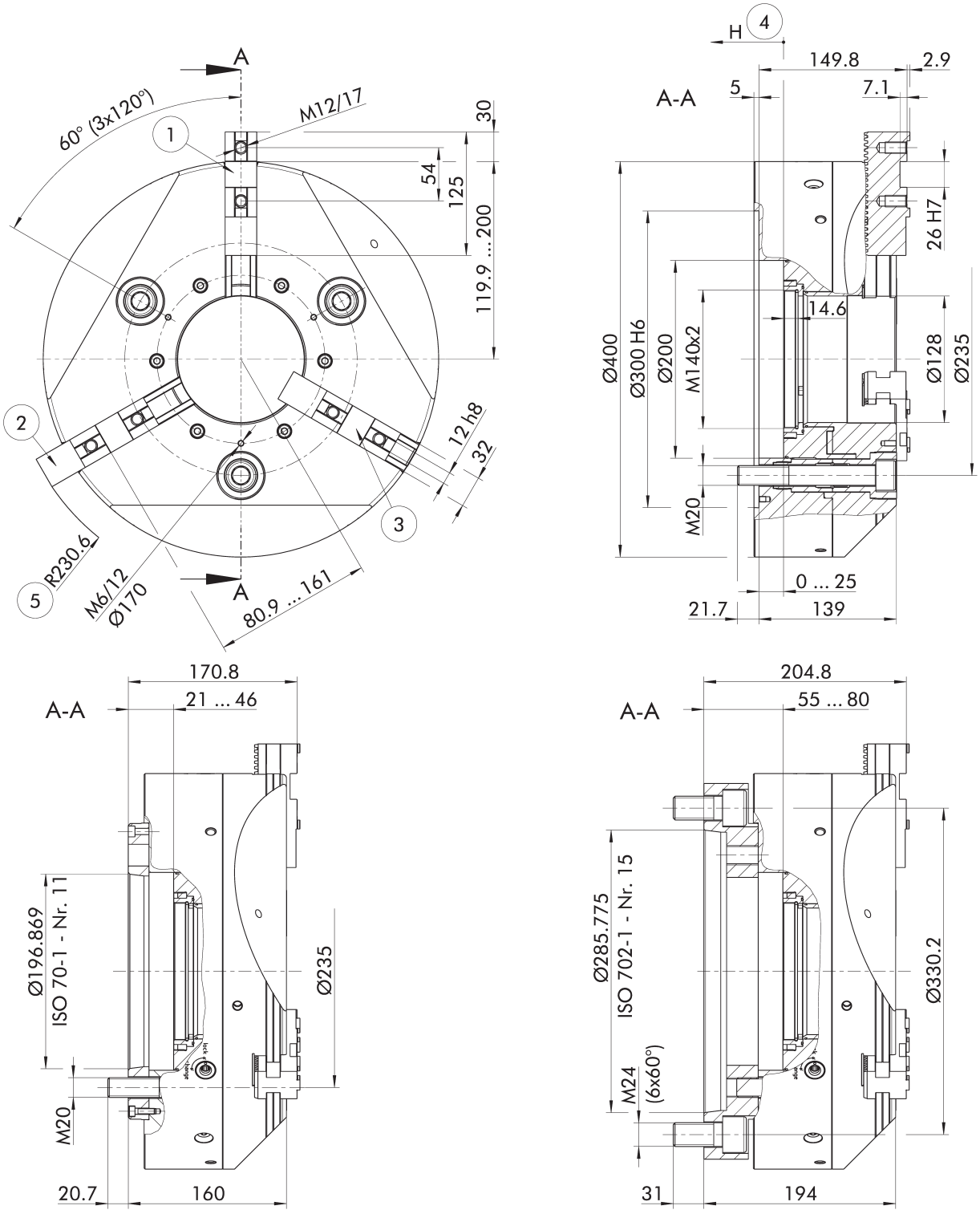
UVB 315
7.6 kg



## Load of base jaw guidance




$M_{max}$ = 4000 Nm




Chuck for shaft clamping drawn in open position.
Subject to technical changes.

1. Position of base jaws I outermost position
2. Position of base jaws II outermost position
3. Position of base jaws I innermost position
4. Piston stroke direction
5. Swing diameter radius

## Technical data

| Spindle type | Spindle size | ID | Max. rotational speed [min⁻¹] | Max. clamping force [kN] | Max. actuating force [kN] | Moment of inertia [kgm²] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| ISO 702-4 | Nr. 11 (Z300) | *1366718* | 3000 | 240 | 128 | 2.35 | 103.2 |
| ISO 702-1 | Nr. 11 | *1366719* | 3000 | 240 | 128 | 2.46 | 110.3 |
| ISO 702-1 | Nr. 15 | *1366720* | 3000 | 240 | 128 | 2.95 | 129.2 |

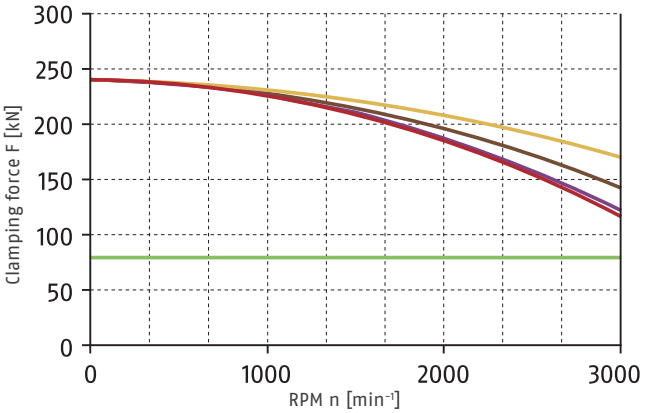
## Scope of delivery

Chuck, 1 set of base jaws with screws, jaw change wrench, chuck mounting screws, mounting wrench for turnable threaded ring, eye bolt, and operating manual

## Further technical data

| Chuck type | Through-hole [mm] | Stroke/jaw [mm] | Tooth pitch [mm] | Piston stroke (H) [mm] | Center jaw height [mm] |
|---|---|---|---|---|---|
| ROTA THW3 400-128 | 128 | 8.6 | 5.498 | 25 | 75 |

## Clamping force-RPM-diagram



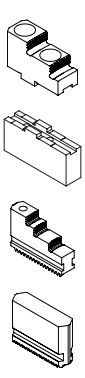

Required minimum clamping force $F_{spmin}$ 33%

SHF 315
3.3 kg

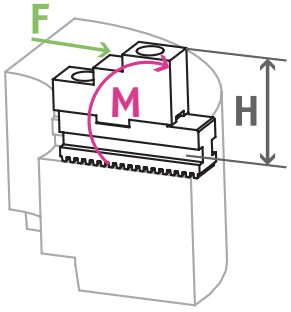
SFA 315
5.6 kg

GST 400
4.6 kg

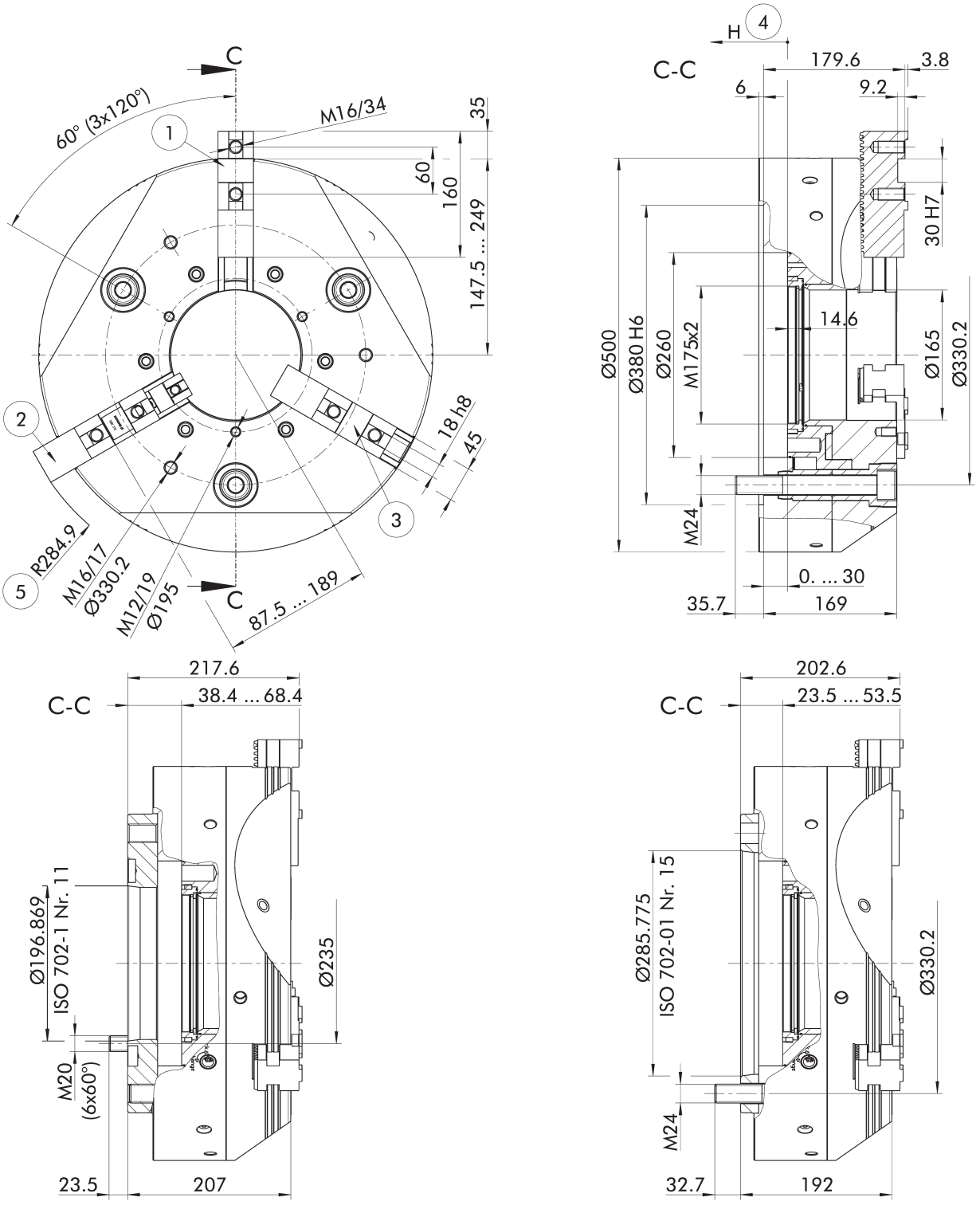
UVB 400
10.26 kg



## Load of base jaw guidance




$M_{max}$ = 6000 Nm




Chuck for shaft clamping drawn in open position.
Subject to technical changes.

① Position of base jaws I outermost position
② Position of base jaws II outermost position
③ Position of base jaws I innermost position
④ Piston stroke direction
⑤ Swing diameter radius

## Technical data

| Spindle type | Spindle size | ID | Max. rotational speed [min⁻¹] | Max. clamping force [kN] | Max. actuating force [kN] | Moment of inertia [kgm²] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| ISO 702-4 | Nr. 15 (Z380) | *1366721* | 2200 | 240 | 128 | 7.23 | 199.1 |
| ISO 702-1 | Nr. 11 | *1366722* | 2200 | 240 | 128 | 7.83 | 225.1 |
| ISO 702-1 | Nr. 15 | *1366723* | 2200 | 240 | 128 | 7.52 | 209.3 |

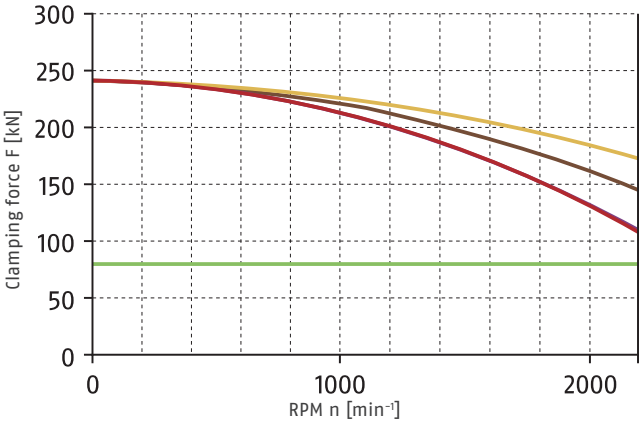
## Scope of delivery

Chuck, 1 set of base jaws with screws, jaw change wrench, chuck mounting screws, mounting wrench for turnable threaded ring, eye bolt, and operating manual

## Further technical data

| Chuck type | Through-hole [mm] | Stroke/jaw [mm] | Tooth pitch [mm] | Piston stroke (H) [mm] | Center jaw height [mm] |
|---|---|---|---|---|---|
| ROTA THW3 500-165 | 165 | 10.5 | 7 | 30 | 103 |

## Clamping force-RPM-diagram




Required minimum clamping force $F_{spmin}$ 33%

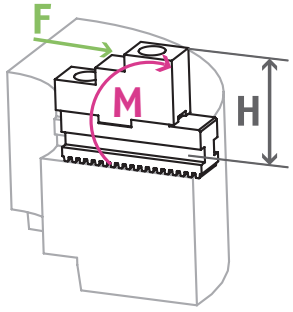
SHF 400
6.8 kg

SFA 400
13.7 kg

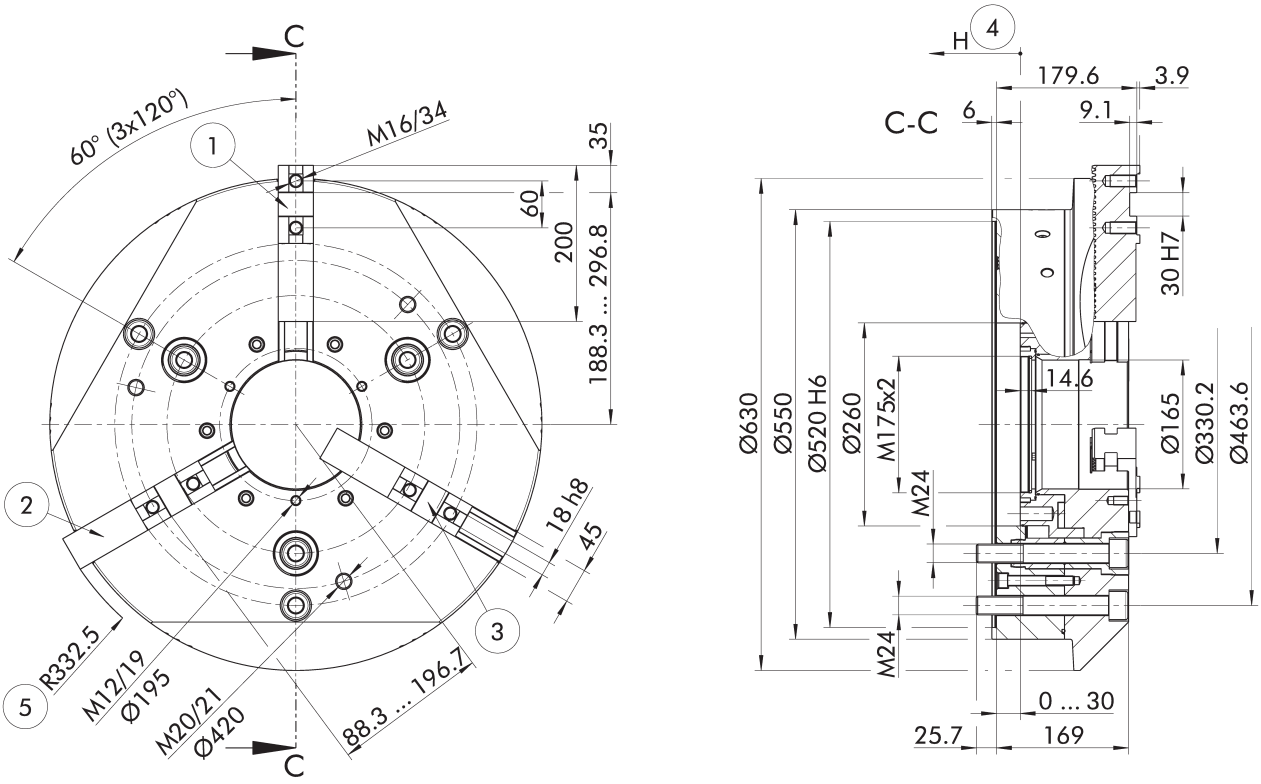
GST 500-630
13.99 kg

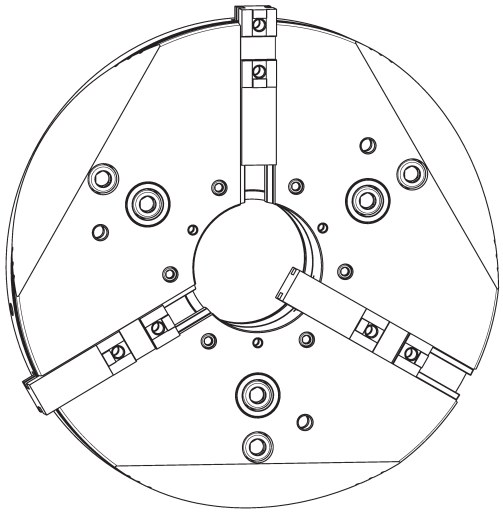
UVB 500
21.41 kg

## Load of base jaw guidance




$M_{max}$ = 8240 Nm



Chuck for shaft clamping drawn in open position.
Subject to technical changes.

(1) Position of base jaws I outermost position
(2) Position of base jaws II outermost position
(3) Position of base jaws I innermost position
(4) Piston stroke direction
(5) Swing diameter radius

## Technical data

| Spindle type | Spindle size | ID | Max. rotational speed [min⁻¹] | Max. clamping force [kN] | Max. actuating force [kN] | Moment of inertia [kgm²] | Weight [kg] |
|---|---|---|---|---|---|---|---|
| ISO 702-4 | Nr. 20 (Z520) | *1366724* | 1700 | 240 | 128 | 14.2 | 292 |

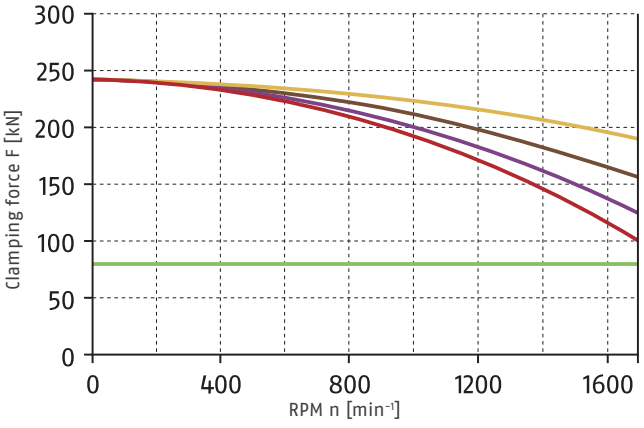
## Scope of delivery

Chuck, 1 set of base jaws with screws, jaw change wrench, chuck mounting screws, mounting wrench for turnable threaded ring, eye bolt, and operating manual

## Further technical data

| Chuck type | Through-hole [mm] | Stroke/jaw [mm] | Tooth pitch [mm] | Piston stroke (H) [mm] | Center jaw height [mm] |
|---|---|---|---|---|---|
| ROTA THW3 630-165 | 165 | 10.5 | 7 | 30 | 103 |

## Clamping force-RPM-diagram




Required minimum clamping force $F_{spmin}$ 33%

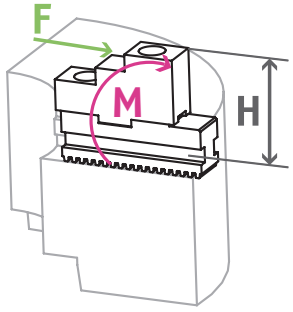
SHF 400
6.8 kg

SFA 400
13.7 kg

GST 500-630
13.99 kg

UVB 630
30.58 kg

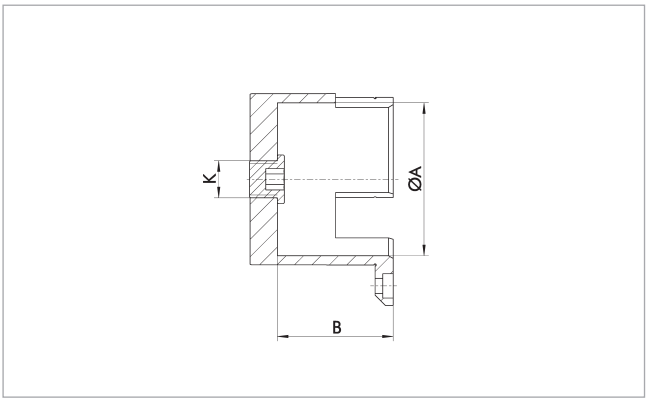
## Load of base jaw guidance




$M_{max}$ = 8240 Nm

# Center sleeves

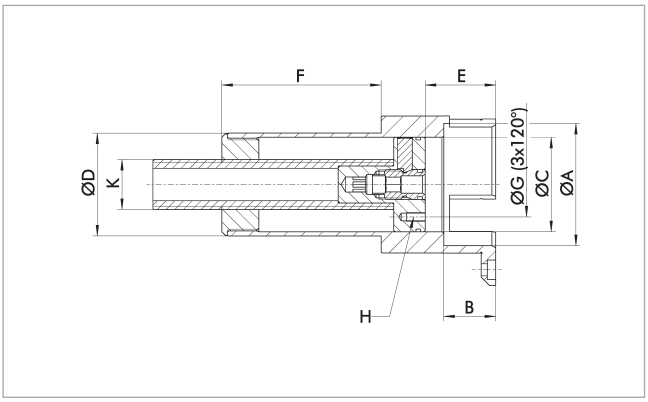
## Center sleeve closed

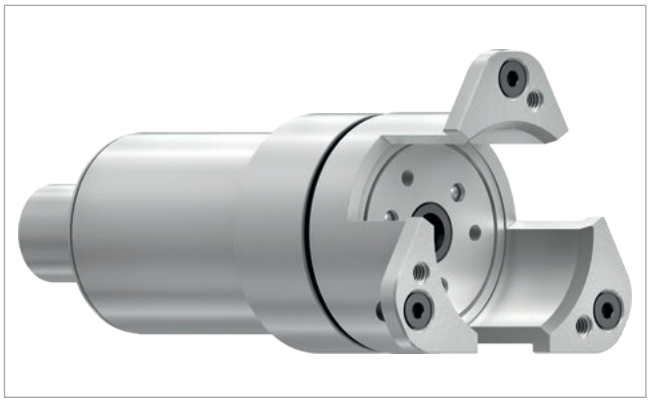



## Technical data

| Description | ID | Suitable for | ØA [mm] | B [mm] | K | Weight [kg] |
|---|---|---|---|---|---|---|
| SBS-G-W3 200 | *1442935* | ROTA THW3 200-52 | 46 | 39 | - | 0.3 |
| SBS-G-W3 225 | *1442937* | ROTA THW3 225-66 | 58 | 46 | - | 0.6 |
| SBS-G-W3 265 | *1442951* | ROTA THW3 265-81 | 71 | 45 | - | 0.8 |
| SBS-G-W3 315 | *1442955* | ROTA THW3 315-104 | 94 | 56 | - | 1.4 |
| SBS-G-W3 400 | *1447526* | ROTA THW3 400-128 | 118 | 56 | - | 2.1 |
| SBS-G-W3 500/630 | *1447529* | ROTA THW3 500-165<br>ROTA THW3 630-165 | 155 | 75 | - | 3.6 |

## Center sleeve with adjustable stop



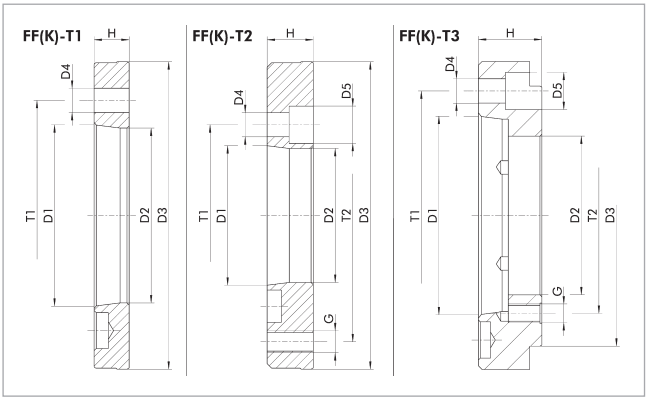
## Technical data

| Description | ID | Suitable for | ØA [mm] | B [mm] | ØC [mm] | ØD [mm] | E [mm] | F [mm] | ØG [mm] | H | K | Weight [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SBS-T-W3 200 | *1444933* | ROTA THW3 200-52 | 46 | 30.5 | 42 | 46.5 | 30.5 - 111 | 142.5 | 30 | M4x8 | M27 | 1.2 |
| SBS-T-W3 225 | *1444951* | ROTA THW3 225-66 | 58 | 32.5 | 51 | 55.5 | 32.5 - 111 | 141.8 | 35 | M5x10 | M27 | 1.8 |
| SBS-T-W3 265 | *1444958* | ROTA THW3 265-81 | 71 | 39.5 | 61 | 65.5 | 39.5 - 111 | 141.8 | 40 | M5x10 | M27 | 2.5 |
| SBS-T-W3 315 | *1444960* | ROTA THW3 315-104 | 91 | 41.5 | 75 | 80.5 | 41.5 - 111 | 155.8 | 50 | M6x12 | M27 | 4.1 |

- Important: Check the spindle/draw tube through-hole
- The spindle through-hole must be at least Ø D + 0.5 mm

# Adapter plates

## Z-mount on short taper ISO 702-1



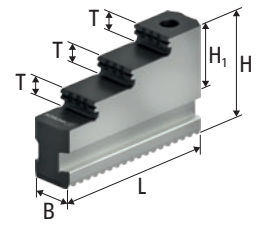

## Technical data

| 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 THW3 200-52 | Nr. 4 | 61 | Z140 | 11 (6x60°) | 17 | M10 (6x60°) | 21 | 82.6 | 104.8 |
| FF-T1 Z140-A5 | FF-T1 | 0803000 | ROTA THW3 200-52 | Nr. 5 | 79.6 | Z140 | 11 (6x60°) | | | 16 | 104.8 | |
| FF-T3 Z140-A6 | FF-T3 | 0801000 | ROTA THW3 200-52 | Nr. 6 | 85 | Z140 | 13 (6 x 60°) | 20 | M10 (6x60°) | 34 | 133.4 | 104.8 |
| FF-T2 Z170-A5 | FF-T2 | 0805001 | ROTA THW3 225-66 | 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 THW3 225-66 | Nr. 6 | 103.2 | Z170 | 13 (6 x 60°) | | | 17 | 133.4 | |
| FF-T3 Z170-A8 | FF-T3 | 0801001 | ROTA THW3 225-66 | Nr. 8 | 113 | Z170 | 17 (6x60°) | 26 | M12 (6x60°)<br>M12 (2x180°) | 40 | 171.4 | 133.4 |
| FF-T2 Z220-A5 | FF-T2 | 0805002 | ROTA THW3 265-81<br>ROTA THW3 315-104 | Nr. 5 | 79.6 | Z220 | 11 (6x60°) | 17 | M16 (6x60°)<br>M16 (2x180°) | 28 | 104.8 | 171.4 |
| FF-T2 Z220-A6 | FF-T2 | 0805003 | ROTA THW3 265-81<br>ROTA THW3 315-104 | Nr. 6 | 103.2 | Z220 | 13 (6 x 60°) | 20 | M16 (6x60°)<br>M16 (2x180°) | 28 | 133.4 | 171.4 |
| FF-T1 Z220-A8 | FF-T1 | 0803002 | ROTA THW3 265-81<br>ROTA THW3 315-104 | Nr. 8 | 136.2 | Z220 | 17 (6x60°)<br>17 (2x180°) | | | 19 | 171.4 | |
| FF-T3 Z220-A11 | FF-T3 | 0803003 | ROTA THW3 265-81<br>ROTA THW3 315-104 | Nr. 11 | 130 | Z220 | 21 (6x60°) | 32 | M16 (12 x 30°) | 50 | 235 | 171.4 |
| FF-T3 Z220-A15-1 | FF-T3 | 0803020 | ROTA THW3 265-81<br>ROTA THW3 315-104 | Nr. 15 | 145 | Z220 | 26 (6x60°) | 38 | M16 (6x60°) | 55 | 330.2 | 171.4 |
| FF-T3 Z220-A15-2 | FF-T3 | 0803021 | ROTA THW3 265-81<br>ROTA THW3 315-104 | Nr. 15 | 145 | Z220 | 23 (6x60°) | 35 | M16 (6x60°) | 55 | 330.2 | 171.4 |
| FF-T2 Z300-A6 | FF-T2 | 0805004 | ROTA THW3 400-128 | Nr. 6 | 103.2 | Z300 | 14 (6x60°) | 20 | M20 (6x60°)<br>M20 (3x120°) | 30 | 133.4 | 235 |
| FF-T2 Z300-A8 | FF-T2 | 0805005 | ROTA THW3 400-128 | Nr. 8 | 136.2 | Z300 | 17 (6x60°) | 26 | M20 (6x60°)<br>M20 (3x120°) | 30 | 171.4 | 235 |
| FF-T1 Z300-A11 | FF-T1 | 0803004 | ROTA THW3 400-128 | Nr. 11 | 192.9 | Z300 | 22 (6x60°)<br>22 (3x120°) | | | 21 | 235 | |
| FF-T3 Z300-A15-1 | FF-T3 | 0803005 | ROTA THW3 400-128 | Nr. 15 | 190 | Z300 | 26 (6x60°) | 38 | M20 (6 x 60°) | 55 | 330.2 | 235 |
| FF-T3 Z300-A15-2 | FF-T3 | 0803022 | ROTA THW3 400-128 | Nr. 15 | 190 | Z300 | 23 (6x60°) | 35 | M20 (6 x 60°) | 55 | 330.2 | 235 |
| FF-T2 Z380-A8 | FF-T2 | 0805010 | ROTA THW3 500-165 | Nr. 8 | 136.2 | Z380 | 17 (6x60°) | 26 | M24 (12 x 30°) | 38 | 171.4 | 330.2 |
| FF-T2 Z380-A11 | FF-T2 | 0803006 | ROTA THW3 500-165 | Nr. 11 | 192.9 | Z380 | 21 (6x60°) | 32 | M24 (6x60°)<br>M24 (3x120°) | 38 | 235 | 330.2 |
| FF-T1 Z380-A15-1 | FF-T1 | 0803023 | ROTA THW3 500-165 | Nr. 15 | 281.5 | Z380 | 26 (6x60°) | | | 47 | 330.2 | |
| FF-T2 Z520-A20 | FF-T2 | 0805008 | ROTA THW3 630-165 | Nr. 20 | 290 | Z520 | 26 (6x60°) | 40 | M24 (12 x 30°) | 62 | 330.2 | 463.6 |

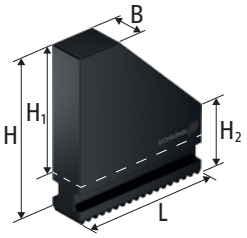
**Direct adapter plates**
Direct adapter plates are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle. The adapter plate has to be mounted on to the spindle together with the lathe chuck. The adapter plate is preassembled on the lathe chuck.
**Reduction 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.

# Base jaws, Hard stepped block jaws, Soft monoblock jaws

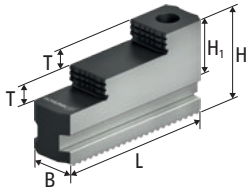
## with straight serration



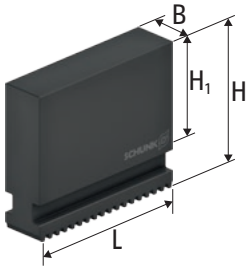

GST
Hard stepped block jaws



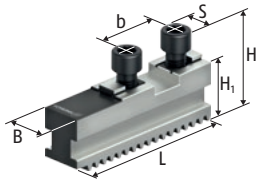

UVB-HS
Soft monoblock jaws



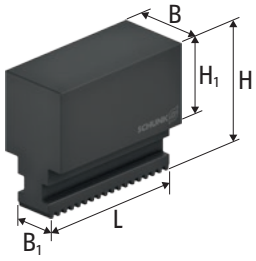

GST
Hard stepped block jaws



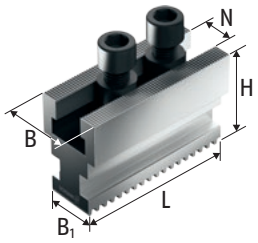

UVB
Soft monoblock jaws



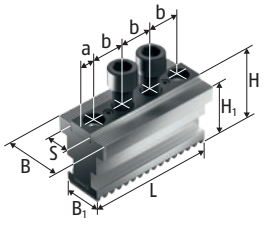

GBK
Base jaws




UVB-B
Soft monoblock jaws




STB-G
Base jaws




STNJ
Base jaws

## Technical data

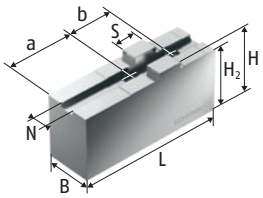
| Chuck type | Description | ID | N [mm] | S [mm] | B [mm] | B1 [mm] | H [mm] | H1 [mm] | H2 [mm] | L [mm] | T [mm] | a [mm] | b [mm] | Screws | m/SET [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROTA THW3 200-52 | UVB 160 | *0164106* | | | 20 | | 55.5 | 35 | | 65 | | | | | 1.6 |
| ROTA THW3 200-52 | GBK 160 | *0159106* | 18 | 8 | 20 | | 30 | 27.5 | | 65 | | | 32 | M8 | 0.6 |
| ROTA THW3 200-52 | GBK-V 160 | *0159156* | 18 | 8 | 20 | | 30 | 27.5 | | 65 | | | 32 | M8 | 0.6 |
| ROTA THW3 200-52 | GST 140-160 I | *0162097* | | | 20 | | 43.5 | 22 | | 58.1 | 7 | | | | 0.7 |
| ROTA THW3 200-52 | GST 140-160 II | *0162098* | | | 20 | | 43.5 | 22 | | 58.1 | 7 | | | | 0.7 |
| ROTA THW3 225-66 | UVB 200 | *0164100* | | | 22 | | 65 | 40 | | 84 | | | | | 2.7 |
| ROTA THW3 225-66 | UVB-B 200 | *0164113* | | | 40 | 22 | 65 | 38 | | 84 | | | | | 3.9 |
| ROTA THW3 225-66 | UVB-H 200 | *0164116* | | | 22 | | 85 | 60 | | 84 | | | | | 3.5 |
| ROTA THW3 225-66 | UVB-HS 200 | *0164119* | | | 22 | | 85 | 60 | 29 | 84 | | | | | 2.7 |
| ROTA THW3 225-66 | GBK 200 | *0159100* | 20 | 10 | 22 | | 32 | 29.5 | | 85 | | | 40 | M8 | 1.0 |
| ROTA THW3 225-66 | GBKL 200 | *0159120* | 20 | 10 | 22 | | 32 | 29.5 | | 105 | | | 40 | M8 | 1.2 |
| ROTA THW3 225-66 | GBK-V 200 | *0159150* | 20 | 10 | 22 | | 32 | 29.5 | | 85 | | | 40 | M8 | 1.0 |
| ROTA THW3 225-66 | STB-G 200-1 | *0160655* | 17 | | 45 | 22 | 59 | | | 85 | | | | M12 | 3.0 |
| ROTA THW3 225-66 | STNJ 200-5 | *0160650* | | 14 | 40 | 22 | 49.5 | 47 | | 95 | | 10 | 25 | M12 | 2.6 |
| ROTA THW3 225-66 | GST 201 | *0162106* | | | 22 | | 54 | 29 | | 84.9 | 8 | | | | 1.6 |
| ROTA THW3 265-81 | UVB 250 | *0164101* | | | 26 | | 84 | 55 | | 99 | | | | | 4.8 |
| ROTA THW3 265-81 | UVB-B 250 | *0164114* | | | 46 | 26 | 84 | 52 | | 99 | | | | | 7.2 |
| ROTA THW3 265-81 | UVB-H 250 | *0164117* | | | 26 | | 115 | 86 | | 99 | | | | | 6.6 |
| ROTA THW3 265-81 | UVB-HS 250 | *0164120* | | | 26 | | 115 | 86 | 48 | 99 | | | | | 5.2 |
| ROTA THW3 265-81 | GBK 250 | *0159101* | 20 | 12 | 26 | | 40 | 37 | | 104 | | | 40 | M12 | 1.8 |
| ROTA THW3 265-81 | GBKL 250 | *0159121* | 20 | 12 | 26 | | 40 | 37 | | 125 | | | 40 | M12 | 2.2 |
| ROTA THW3 265-81 | GBK-V 250 | *0159151* | 20 | 12 | 26 | | 40 | 37 | | 104 | | | 40 | M12 | 1.8 |
| ROTA THW3 265-81 | STB-G 250-2 | *0160657* | 21 | | 50 | 26 | 71 | | | 104 | | | | M16 | 5.2 |
| ROTA THW3 265-81 | STN 250-5 | *0160600* | | 17 | 40 | 26 | 50.5 | 48 | | 86 | | 10 | 22 | M12 | 2.6 |
| ROTA THW3 265-81 | STN 250-6 | *0160601* | | 21 | 45 | 26 | 54.5 | 52 | | 110 | | 13 | 28 | M16 | 4.0 |
| ROTA THW3 265-81 | STNJ 250-5 | *0160651* | | 16 | 40 | 26 | 52.5 | 49 | | 110 | | 10 | 30 | M12 | 2.9 |
| ROTA THW3 265-81 | GST 251 | *0162105* | | | 26 | | 65 | 36 | | 107.5 | 10 | | | | 2.8 |
| ROTA THW3 315-104 | UVB 315 | *0164102* | | | 32 | | 90 | 56 | | 121 | | | | | 7.6 |

| Chuck type | Description | ID | N [mm] | S [mm] | B [mm] | B1 [mm] | H [mm] | H1 [mm] | H2 [mm] | L [mm] | T [mm] | a [mm] | b [mm] | Screws | m/SET [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROTA THW3 315-104 | UVB-B 315 | *0164115* | | | 46 | 32 | 90 | 52 | | 121 | | | | | 9.6 |
| ROTA THW3 315-104 | UVB-H 315 | *0164118* | | | 32 | | 135 | 101 | | 121 | | | | | 11.6 |
| ROTA THW3 315-104 | UVB-HS 315 | *0164121* | | | 32 | | 135 | 101 | 52 | 121 | | | | | 9.0 |
| ROTA THW3 315-104 | GBK 315 | *0159102* | 20 | 12 | 32 | | 46 | 43 | | 115 | | | 40 | M12 | 3.0 |
| ROTA THW3 315-104 | GBKL 315 | *0159122* | 20 | 12 | 32 | | 46 | 43 | | 137 | | | 40 | M12 | 3.5 |
| ROTA THW3 315-104 | GBK-V 315 | *0159152* | 20 | 12 | 32 | | 46 | 43 | | 115 | | | 40 | M12 | 3.0 |
| ROTA THW3 315-104 | STB-G 315-2 | *0160659* | 21 | | 54 | 32 | 76 | | | 115 | | | | M16 | 7.5 |
| ROTA THW3 315-104 | STN 315-6 | *0160603* | | 21 | 45 | 32 | 58.5 | 56 | | 110 | | 13 | 28 | M16 | 4.5 |
| ROTA THW3 315-104 | STNJ 315-5 | *0160652* | | 18 | 50 | 32 | 56 | 54 | | 120 | | 15 | 30 | M14 | 4.9 |
| ROTA THW3 315-104 | STNJ 315-6 | *0160665* | | 21 | 50 | 32 | 60 | 58 | | 125 | | 17.5 | 30 | M16 | 5.5 |
| ROTA THW3 315-104 | GST 315 | *0162102* | | | 32 | | 66 | 32 | | 116.3 | 10 | | | | 3.5 |
| ROTA THW3 400-128 | UVB 400 | *0164103* | | | 32 | | 100 | 66 | | 148 | | | | | 10.3 |
| ROTA THW3 400-128 | GBK 400 | *0159103* | 26 | 12 | 32 | | 46 | 43 | | 125 | | | 54 | M12 | 3.0 |
| ROTA THW3 400-128 | GBK-V 400 | *0159158* | 26 | 12 | 32 | | 46 | 43 | | 125 | | | 54 | M12 | 3.0 |
| ROTA THW3 400-128 | STN 315-6 | *0160603* | | 21 | 45 | 32 | 58.5 | 56 | | 110 | | 13 | 28 | M16 | 4.5 |
| ROTA THW3 400-128 | STNJ 315-5 | *0160652* | | 18 | 50 | 32 | 56 | 54 | | 120 | | 15 | 30 | M14 | 4.9 |
| ROTA THW3 400-128 | STNJ 315-6 | *0160665* | | 21 | 50 | 32 | 60 | 58 | | 125 | | 17.5 | 30 | M16 | 5.5 |
| ROTA THW3 400-128 | STB-G 400-2 | *0160661* | 25.5 | | 60 | 32 | 76 | | | 125 | | | | M20 | 8.4 |
| ROTA THW3 400-128 | GST 400 | *0162103* | | | 32 | | 70 | 36 | | 136.4 | 11 | | | | 4.6 |
| ROTA THW3 500-165 | UVB 500 | *0164104* | | | 45 | | 124 | 77 | | 175 | | | | | 21.4 |
| ROTA THW3 500-165 | GBK 500 | *0159104* | 30 | 18 | 45 | | 61 | 57 | | 160 | | | 60 | M16 | 7.6 |
| ROTA THW3 500-165 | GST 500-630 | *0162104* | | | 45 | | 93 | 46 | | 167.1 | 20 | | | | 14.0 |
| ROTA THW3 630-165 | UVB 630 | *0164105* | | | 45 | | 134 | 87 | | 230 | | | | | 30.6 |
| ROTA THW3 630-165 | GBK 630 | *0159105* | 30 | 18 | 45 | | 61 | 57 | | 200 | | | 60 | M16 | 9.6 |
| ROTA THW3 630-165 | GST 500-630 | *0162104* | | | 45 | | 93 | 46 | | 167.1 | 20 | | | | 14.0 |

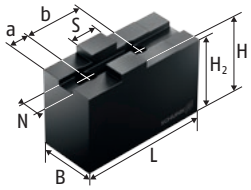
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

# Soft top jaws

## with tongue and groove




SFA-AL
Soft top jaws




SFA
Soft top jaws

## Technical data

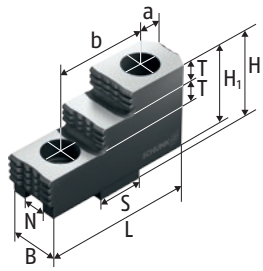
| Chuck type | Description | ID | N [mm] | S [mm] | B [mm] | H [mm] | H2 [mm] | L [mm] | a [mm] | b [mm] | Screws | m/SET [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROTA THW3 200-52 | SFA 160 | 0153100 | 8 | 18 | 20 | 40 | 36 | 85 | 35 | 32 | M8 | 1.2 |
| ROTA THW3 200-52 | SFA-AL 160 | 0172100 | 8 | 18 | 25 | 50 | 46 | 85 | 35 | 32 | M8 | 0.7 |
| ROTA THW3 200-52 | SFA 160-C1 | 0154121 | 8 | 18 | 30 | 55.5 | 51.5 | 85 | 41 | 32 | M8 | 2.7 |
| ROTA THW3 200-52 | SFA 160-C2 | 0154127 | 8 | 18 | 35 | 40 | 36 | 63 | 19 | 32 | M8 | 1.6 |
| ROTA THW3 200-52 | SFA 160-C3 | 0154131 | 8 | 18 | 40 | 60 | 56 | 70 | 26 | 32 | M8 | 3.3 |
| ROTA THW3 200-52 | SFA 160-C4 | 0154133 | 8 | 18 | 40 | 80 | 76 | 85 | 41 | 32 | M8 | 5.6 |
| ROTA THW3 225-66 | SFA 200 | 0153101 | 10 | 20 | 22 | 47 | 43 | 105 | 40 | 40 | M8 | 2.0 |
| ROTA THW3 225-66 | SFA-AL 200 | 0172102 | 10 | 20 | 25 | 50 | 46 | 105 | 40 | 40 | M8 | 0.9 |
| ROTA THW3 225-66 | SFA 200-C1 | 0154100 | 10 | 20 | 30 | 55.5 | 51.5 | 100 | 47 | 40 | M8 | 3.2 |
| ROTA THW3 225-66 | SFA 200-C2 | 0154124 | 10 | 20 | 22 | 55.5 | 51.5 | 100 | 47 | 40 | M8 | 2.2 |
| ROTA THW3 225-66 | SFA 200-C3 | 0154128 | 10 | 20 | 40 | 40 | 36 | 70 | 17 | 40 | M8 | 2.1 |
| ROTA THW3 225-66 | SFA 200-C4 | 0154130 | 10 | 20 | 40 | 60 | 56 | 85 | 32 | 40 | M8 | 4.0 |
| ROTA THW3 225-66 | SFA 200-C5 | 0154132 | 10 | 20 | 40 | 80 | 76 | 95 | 42 | 40 | M8 | 6.1 |
| ROTA THW3 265-81 | SFA 250 | 0153102 | 12 | 20 | 30 | 55.5 | 50.5 | 125 | 60 | 40 | M12 | 3.7 |
| ROTA THW3 265-81 | SFA-AL 250 | 0172103 | 12 | 20 | 40 | 60 | 55 | 125 | 60 | 40 | M12 | 2.1 |
| ROTA THW3 265-81 | SFA 250-C1 | 0154101 | 12 | 20 | 40 | 60 | 55 | 90 | 34 | 40 | M12 | 3.9 |
| ROTA THW3 265-81 | SFA 250-C2 | 0154102 | 12 | 20 | 40 | 60 | 55 | 125 | 69 | 40 | M12 | 5.6 |
| ROTA THW3 265-81 | SFA 250-C3 | 0154103 | 12 | 20 | 40 | 80 | 75 | 125 | 69 | 40 | M12 | 7.7 |
| ROTA THW3 265-81 | SFA 250-C4 | 0154104 | 12 | 20 | 40 | 100 | 95 | 125 | 69 | 40 | M12 | 9.8 |
| ROTA THW3 265-81 | SFA 250-C5 | 0154105 | 12 | 20 | 40 | 120 | 115 | 125 | 69 | 40 | M12 | 11.8 |
| ROTA THW3 265-81 | SFA 250-C6 | 0154106 | 12 | 20 | 60 | 60 | 55 | 90 | 34 | 40 | M12 | 6.0 |
| ROTA THW3 265-81 | SFA 250-C7 | 0154107 | 12 | 20 | 80 | 60 | 55 | 90 | 34 | 40 | M12 | 8.5 |
| ROTA THW3 265-81 | SFA 250-C8 | 0154134 | 12 | 20 | 80 | 100 | 95 | 125 | 69 | 40 | M12 | 20.6 |
| ROTA THW3 315-104 | SFA 250 | 0153102 | 12 | 20 | 30 | 55.5 | 50.5 | 125 | 60 | 40 | M12 | 3.7 |
| ROTA THW3 315-104 | SFA-AL 250 | 0172103 | 12 | 20 | 40 | 60 | 55 | 125 | 60 | 40 | M12 | 2.1 |
| ROTA THW3 315-104 | SFA 250-C1 | 0154101 | 12 | 20 | 40 | 60 | 55 | 90 | 34 | 40 | M12 | 3.9 |
| ROTA THW3 315-104 | SFA 250-C2 | 0154102 | 12 | 20 | 40 | 60 | 55 | 125 | 69 | 40 | M12 | 5.6 |
| ROTA THW3 315-104 | SFA 250-C3 | 0154103 | 12 | 20 | 40 | 80 | 75 | 125 | 69 | 40 | M12 | 7.7 |
| ROTA THW3 315-104 | SFA 250-C4 | 0154104 | 12 | 20 | 40 | 100 | 95 | 125 | 69 | 40 | M12 | 9.8 |
| ROTA THW3 315-104 | SFA 250-C5 | 0154105 | 12 | 20 | 40 | 120 | 115 | 125 | 69 | 40 | M12 | 11.8 |
| ROTA THW3 315-104 | SFA 250-C6 | 0154106 | 12 | 20 | 60 | 60 | 55 | 90 | 34 | 40 | M12 | 6.0 |
| ROTA THW3 315-104 | SFA 250-C7 | 0154107 | 12 | 20 | 80 | 60 | 55 | 90 | 34 | 40 | M12 | 8.5 |
| ROTA THW3 315-104 | SFA 250-C8 | 0154134 | 12 | 20 | 80 | 100 | 95 | 125 | 69 | 40 | M12 | 20.6 |
| ROTA THW3 400-128 | SFA 315 | 0153103 | 12 | 26 | 35 | 60 | 54 | 145 | 60 | 54 | M12 | 5.6 |
| ROTA THW3 400-128 | SFA-AL 315 | 0172104 | 12 | 26 | 40 | 60 | 54 | 145 | 60 | 54 | M12 | 2.4 |
| ROTA THW3 400-128 | SFA 315-C1 | 0154108 | 12 | 26 | 40 | 60 | 54 | 110 | 40 | 54 | M12 | 4.9 |
| ROTA THW3 400-128 | SFA 315-C2 | 0154109 | 12 | 26 | 40 | 60 | 54 | 145 | 75 | 54 | M12 | 6.6 |
| ROTA THW3 400-128 | SFA 315-C3 | 0154110 | 12 | 26 | 40 | 100 | 94 | 145 | 75 | 54 | M12 | 11.4 |
| ROTA THW3 400-128 | SFA 315-C4 | 0154111 | 12 | 26 | 40 | 120 | 114 | 145 | 75 | 54 | M12 | 13.8 |
| ROTA THW3 400-128 | SFA 315-C5 | 0154112 | 12 | 26 | 40 | 150 | 144 | 145 | 75 | 54 | M12 | 17.5 |
| ROTA THW3 400-128 | SFA 315-C51 | 0154123 | 12 | 26 | 50 | 80 | 74 | 145 | 75 | 54 | M12 | 11.4 |

| Chuck type | Description | ID | N [mm] | S [mm] | B [mm] | H [mm] | H2 [mm] | L [mm] | a [mm] | b [mm] | Screws | m/SET [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROTA THW3 400-128 | SFA 315-C6 | *0154113* | 12 | 26 | 60 | 60 | 54 | 110 | 40 | 54 | M12 | 7.6 |
| ROTA THW3 400-128 | SFA 315-C7 | *0154114* | 12 | 26 | 80 | 60 | 54 | 110 | 40 | 54 | M12 | 10.3 |
| ROTA THW3 400-128 | SFA 315-C8 | *0154115* | 12 | 26 | 80 | 80 | 74 | 110 | 40 | 54 | M12 | 14.0 |
| ROTA THW3 500-165 | SFA 400 | *0153104* | 18 | 30 | 50 | 80 | 73 | 180 | 85 | 60 | M16 | 13.7 |
| ROTA THW3 500-165 | SFA-AL 400 | *0172105* | 18 | 30 | 50 | 80 | 73 | 180 | 85 | 60 | M16 | 6.3 |
| ROTA THW3 500-165 | SFA 400-C1 | *0154116* | 18 | 30 | 60 | 80 | 73 | 130 | 50 | 60 | M16 | 11.8 |
| ROTA THW3 500-165 | SFA 400-C3 | *0154118* | 18 | 30 | 60 | 100 | 93 | 155 | 75 | 60 | M16 | 18.2 |
| ROTA THW3 500-165 | SFA 400-C4 | *0154119* | 18 | 30 | 60 | 120 | 113 | 155 | 75 | 60 | M16 | 22.1 |
| ROTA THW3 500-165 | SFA 400-C5 | *0154120* | 18 | 30 | 80 | 80 | 73 | 130 | 50 | 60 | M16 | 16.0 |
| ROTA THW3 500-165 | SFA 400-C6 | *0154125* | 18 | 30 | 58 | 180 | 173 | 160 | 80 | 60 | M16 | 33.6 |
| ROTA THW3 500-165 | SFA 400-C7 | *0154135* | 18 | 30 | 96 | 115 | 108 | 115 | 35 | 60 | M16 | 25.2 |
| ROTA THW3 630-165 | SFA 400 | *0153104* | 18 | 30 | 50 | 80 | 73 | 180 | 85 | 60 | M16 | 13.7 |
| ROTA THW3 630-165 | SFA-AL 400 | *0172105* | 18 | 30 | 50 | 80 | 73 | 180 | 85 | 60 | M16 | 6.3 |
| ROTA THW3 630-165 | SFA 400-C1 | *0154116* | 18 | 30 | 60 | 80 | 73 | 130 | 50 | 60 | M16 | 11.8 |
| ROTA THW3 630-165 | SFA 400-C3 | *0154118* | 18 | 30 | 60 | 100 | 93 | 155 | 75 | 60 | M16 | 18.2 |
| ROTA THW3 630-165 | SFA 400-C4 | *0154119* | 18 | 30 | 60 | 120 | 113 | 155 | 75 | 60 | M16 | 22.1 |
| ROTA THW3 630-165 | SFA 400-C5 | *0154120* | 18 | 30 | 80 | 80 | 73 | 130 | 50 | 60 | M16 | 16.0 |
| ROTA THW3 630-165 | SFA 400-C6 | *0154125* | 18 | 30 | 58 | 180 | 173 | 160 | 80 | 60 | M16 | 33.6 |
| ROTA THW3 630-165 | SFA 400-C7 | *0154135* | 18 | 30 | 96 | 115 | 108 | 115 | 35 | 60 | M16 | 25.2 |

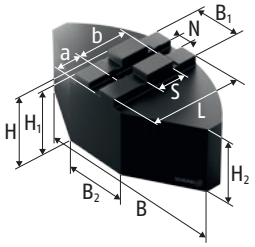
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

# Hard stepped top jaws, Full grip jaws

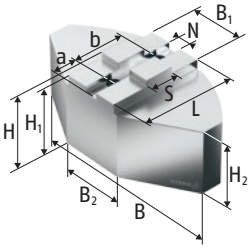
## with tongue and groove



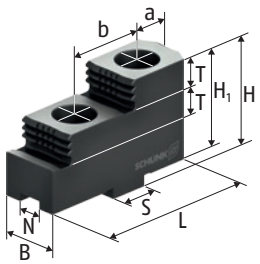

SHF
Hard stepped top jaws




SFA-SM
Full grip jaws




SFA-SA
Full grip jaws




SHF
Hard stepped top jaws

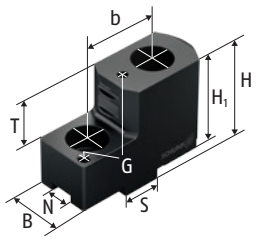
## Technical data

| Chuck type | Description | ID | N [mm] | S [mm] | B [mm] | B1 [mm] | H [mm] | H1 [mm] | H2 [mm] | L [mm] | T [mm] | a [mm] | b [mm] | Screws | m/SET [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROTA THW3 200-52 | SFA-SA 160 | *0174100* | 8 | 18 | 120 | 35 | 50 | 46 | 40 | 59.5 | | 15.75 | 32 | M8 | 1.4 |
| ROTA THW3 200-52 | SFA-SM 160 | *0173100* | 8 | 18 | 120 | 30 | 50 | 46 | 40 | 60 | | 16.5 | 32 | M8 | 4.8 |
| ROTA THW3 200-52 | SHF 160 | *0155100* | 8 | 18 | 20 | | 36.5 | 32.5 | | 63 | 7.5 | 16.8 | 32 | M8 | 0.6 |
| ROTA THW3 225-66 | SFA-SA 200 | *0174101* | 10 | 20 | 140 | 35 | 58 | 54 | 48 | 72.5 | | 21.75 | 40 | M8 | 2.4 |
| ROTA THW3 225-66 | SFA-SA 201 | *0174105* | 10 | 20 | 140 | 35 | 80 | 76 | 70 | 72.5 | | 21.75 | 40 | M8 | 3.5 |
| ROTA THW3 225-66 | SFA-SM 200 | *0173101* | 10 | 20 | 140 | 35 | 60 | 56 | 50 | 70 | | 18 | 40 | M8 | 9.0 |
| ROTA THW3 225-66 | SFA-SM 201 | *0173105* | 10 | 20 | 140 | 35 | 80 | 76 | 70 | 70 | | 18 | 40 | M8 | 12.5 |
| ROTA THW3 225-66 | SHF 200 | *0155101* | 10 | 20 | 22 | | 42 | 38 | | 71.7 | 10 | 16 | 40 | M8 | 0.8 |
| ROTA THW3 265-81 | SFA-SA 250 | *0174102* | 12 | 20 | 180 | 40 | 58 | 53 | 43 | 87.5 | | 33.75 | 40 | M12 | 3.4 |
| ROTA THW3 265-81 | SFA-SA 251 | *0174106* | 12 | 20 | 180 | 40 | 80 | 75 | 65 | 87.5 | | 33.75 | 40 | M12 | 5.0 |
| ROTA THW3 265-81 | SFA-SM 250 | *0173102* | 12 | 20 | 180 | 40 | 60 | 55 | 45 | 90 | | 34.5 | 40 | M12 | 12.8 |
| ROTA THW3 265-81 | SFA-SM 251 | *0173106* | 12 | 20 | 180 | 40 | 80 | 75 | 65 | 90 | | 35 | 40 | M12 | 18.9 |
| ROTA THW3 265-81 | SHF 250 | *0155102* | 12 | 20 | 30 | | 55 | 50 | | 90 | 14 | 21.1 | 40 | M12 | 1.9 |
| ROTA THW3 315-104 | SFA-SA 250 | *0174102* | 12 | 20 | 180 | 40 | 58 | 53 | 43 | 87.5 | | 33.75 | 40 | M12 | 3.4 |
| ROTA THW3 315-104 | SFA-SA 251 | *0174106* | 12 | 20 | 180 | 40 | 80 | 75 | 65 | 87.5 | | 33.75 | 40 | M12 | 5.0 |
| ROTA THW3 315-104 | SFA-SM 250 | *0173102* | 12 | 20 | 180 | 40 | 60 | 55 | 45 | 90 | | 34.5 | 40 | M12 | 12.8 |
| ROTA THW3 315-104 | SFA-SM 251 | *0173106* | 12 | 20 | 180 | 40 | 80 | 75 | 65 | 90 | | 35 | 40 | M12 | 18.9 |
| ROTA THW3 315-104 | SHF 250 | *0155102* | 12 | 20 | 30 | | 55 | 50 | | 90 | 14 | 21.1 | 40 | M12 | 1.9 |
| ROTA THW3 400-128 | SFA-SA 315 | *0174103* | 12 | 26 | 240 | 45 | 75 | 69 | 60 | 117 | | 49.75 | 54 | M12 | 8.0 |
| ROTA THW3 400-128 | SFA-SM 315 | *0173103* | 12 | 26 | 240 | 45 | 75 | 69 | 60 | 110 | | 41 | 54 | M12 | 29.2 |
| ROTA THW3 400-128 | SHF 315 | *0155103* | 12 | 26 | 36 | | 62 | 56 | | 105 | 15 | 22.3 | 54 | M12 | 3.3 |
| ROTA THW3 500-165 | SFA-SA 400 | *0174104* | 18 | 30 | 330 | 60 | 90 | 83 | 60 | 160 | | 81 | 60 | M16 | 16.3 |
| ROTA THW3 500-165 | SFA-SM 400 | *0173104* | 18 | 30 | 330 | 45 | 85 | 78 | 55 | 160 | | 81 | 60 | M16 | 55.2 |
| ROTA THW3 500-165 | SHF 400 | *0155104* | 18 | 30 | 45 | | 82 | 75 | | 130 | 20 | 27.05 | 60 | M16 | 6.8 |
| ROTA THW3 630-165 | SFA-SA 400 | *0174104* | 18 | 30 | 330 | 60 | 90 | 83 | 60 | 160 | | 81 | 60 | M16 | 16.3 |
| ROTA THW3 630-165 | SFA-SM 400 | *0173104* | 18 | 30 | 330 | 45 | 85 | 78 | 55 | 160 | | 81 | 60 | M16 | 55.2 |
| ROTA THW3 630-165 | SHF 400 | *0155104* | 18 | 30 | 45 | | 82 | 75 | | 130 | 20 | 27.05 | 60 | M16 | 6.8 |

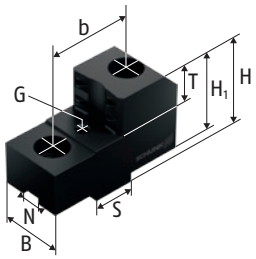
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

# Claw jaws, Universal claw jaws

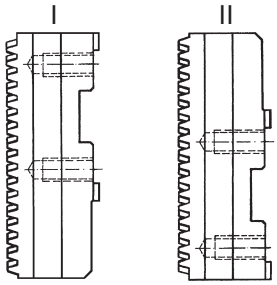
## with tongue and groove




SZKU
Universal claw jaws




SZKA
Claw jaws




Position of base jaws

## Technical data

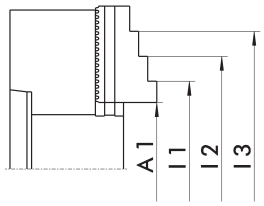
| Chuck type | Clamping range ØD [mm] | Swing diameter SDmax [mm] | Position of base jaws | Description | ID | N [mm] | S [mm] | B [mm] | H [mm] | H1 [mm] | L [mm] | T [mm] | G | b [mm] | Screws | m/SET [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROTA THW3 200-52 | 73.5 - 152 | 236 | I | SZKA 163 | 0165146 | 8 | 18 | 40 | 44 | 40 | 60 | 20 | M6 | 32 | M8 | 1.5 |
| ROTA THW3 200-52 | 135 - 203 | 262 | I | SZKA 168 | 0165151 | 8 | 18 | 30 | 44 | 40 | 76 | 20 | M6 | 32 | M8 | 1.3 |
| ROTA THW3 200-52 | 26 - 104 | 226 | I | SZKA 169 | 0165174 | 8 | 18 | 26 | 44 | 40 | 71 | 20 | M6 | 32 | M8 | 1.0 |
| ROTA THW3 200-52 | 26 - 106 | 232 | I | SZKU 160 | 0139300 | 8 | 18 | 22 | 42 | 38 | 60.5 | 20 | M6 | 32 | M8 | 0.7 |
| ROTA THW3 200-52 | 56 - 134 | 236 | II | SZKA 163 | 0165146 | 8 | 18 | 40 | 44 | 40 | 60 | 20 | M6 | 32 | M8 | 1.5 |
| ROTA THW3 200-52 | 117 - 185 | 245 | II | SZKA 168 | 0165151 | 8 | 18 | 30 | 44 | 40 | 76 | 20 | M6 | 32 | M8 | 1.3 |
| ROTA THW3 200-52 | 31 - 86 | 226 | II | SZKA 169 | 0165174 | 8 | 18 | 26 | 44 | 40 | 71 | 20 | M6 | 32 | M8 | 1.0 |
| ROTA THW3 200-52 | 8 - 88 | 232 | II | SZKU 160 | 0139300 | 8 | 18 | 22 | 42 | 38 | 60.5 | 20 | M6 | 32 | M8 | 0.7 |
| ROTA THW3 225-66 | 33 - 107 | 274 | I | SZKA 212 | 0139153 | 10 | 20 | 26 | 49 | 45 | 93 | 25 | M6 | 40 | M8 | 1.4 |
| ROTA THW3 225-66 | 93 - 182 | 275 | I | SZKA 213 | 0139154 | 10 | 20 | 30 | 49 | 45 | 67 | 25 | M6 | 40 | M8 | 1.3 |
| ROTA THW3 225-66 | 127 - 217 | 281 | I | SZKA 216 | 0139159 | 10 | 20 | 30 | 49 | 45 | 70 | 25 | M6 | 40 | M8 | 1.2 |
| ROTA THW3 225-66 | 43 - 133 | 282 | I | SZKU 200 | 0139301 | 10 | 20 | 24 | 47 | 43 | 70.1 | 25 | M6 | 40 | M8 | 0.9 |
| ROTA THW3 225-66 | 24 - 69 | 274 | II | SZKA 212 | 0139153 | 10 | 20 | 26 | 49 | 45 | 93 | 25 | M6 | 40 | M8 | 1.4 |
| ROTA THW3 225-66 | 56 - 144 | 275 | II | SZKA 213 | 0139154 | 10 | 20 | 30 | 49 | 45 | 67 | 25 | M6 | 40 | M8 | 1.3 |
| ROTA THW3 225-66 | 90 - 179 | 281 | II | SZKA 216 | 0139159 | 10 | 20 | 30 | 49 | 45 | 70 | 25 | M6 | 40 | M8 | 1.2 |
| ROTA THW3 225-66 | 5 - 95 | 282 | II | SZKU 200 | 0139301 | 10 | 20 | 24 | 47 | 43 | 70.1 | 25 | M6 | 40 | M8 | 0.9 |
| ROTA THW3 265-81 | 84 - 177 | 329 | I | SZKA 263 | 0139160 | 12 | 20 | 30 | 55 | 50 | 85 | 25 | M6 | 40 | M12 | 1.5 |
| ROTA THW3 265-81 | 141 - 233 | 330 | I | SZKA 266 | 0139163 | 12 | 20 | 40 | 55 | 50 | 74 | 25 | M6 | 40 | M12 | 1.9 |
| ROTA THW3 265-81 | 180 - 261 | 340 | I | SZKA 268 | 0139165 | 12 | 20 | 40 | 55 | 50 | 83 | 25 | M6 | 40 | M12 | 2.2 |
| ROTA THW3 265-81 | 74 - 168 | 336 | I | SZKU 250 | 0139302 | 12 | 20 | 30 | 55 | 50 | 78 | 25 | M6 | 40 | M12 | 1.6 |
| ROTA THW3 265-81 | 28 - 113 | 324 | II | SZKA 263 | 0139160 | 12 | 20 | 30 | 55 | 50 | 85 | 25 | M6 | 40 | M12 | 1.5 |
| ROTA THW3 265-81 | 79 - 170 | 330 | II | SZKA 266 | 0139163 | 12 | 20 | 40 | 55 | 50 | 74 | 25 | M6 | 40 | M12 | 1.9 |
| ROTA THW3 265-81 | 118 - 198 | 340 | II | SZKA 268 | 0139165 | 12 | 20 | 40 | 55 | 50 | 83 | 25 | M6 | 40 | M12 | 2.2 |
| ROTA THW3 265-81 | 10 - 104 | 336 | II | SZKU 250 | 0139302 | 12 | 20 | 30 | 55 | 50 | 78 | 25 | M6 | 40 | M12 | 1.6 |
| ROTA THW3 315-104 | 114 - 229 | 381 | I | SZKA 263 | 0139160 | 12 | 20 | 30 | 55 | 50 | 85 | 25 | M6 | 40 | M12 | 1.5 |
| ROTA THW3 315-104 | 90 - 279 | 376 | I | SZKA 266 | 0139163 | 12 | 20 | 40 | 55 | 50 | 74 | 25 | M6 | 40 | M12 | 1.9 |
| ROTA THW3 315-104 | 203 - 319 | 395 | I | SZKA 268 | 0139165 | 12 | 20 | 40 | 55 | 50 | 83 | 25 | M6 | 40 | M12 | 2.2 |
| ROTA THW3 315-104 | 103 - 219 | 387 | I | SZKU 250 | 0139302 | 12 | 20 | 30 | 55 | 50 | 78 | 25 | M6 | 40 | M12 | 1.6 |
| ROTA THW3 315-104 | 27 - 143 | 377 | II | SZKA 263 | 0139160 | 12 | 20 | 30 | 55 | 50 | 85 | 25 | M6 | 40 | M12 | 1.5 |
| ROTA THW3 315-104 | 118 - 233 | 395 | II | SZKA 268 | 0139165 | 12 | 20 | 40 | 55 | 50 | 83 | 25 | M6 | 40 | M12 | 2.2 |
| ROTA THW3 315-104 | 17 - 134 | 387 | II | SZKU 250 | 0139302 | 12 | 20 | 30 | 55 | 50 | 78 | 25 | M6 | 40 | M12 | 1.6 |
| ROTA THW3 400-128 | 112 - 272 | 461 | I | SZKA 321 | 0139166 | 12 | 26 | 40 | 59 | 53 | 108 | 25 | M8 | 54 | M12 | 3.1 |
| ROTA THW3 400-128 | 220 - 379 | 470 | I | SZKA 324 | 0139169 | 12 | 26 | 40 | 59 | 53 | 90 | 25 | M8 | 54 | M12 | 2.8 |
| ROTA THW3 400-128 | 38 - 194 | 461 | II | SZKA 321 | 0139166 | 12 | 26 | 40 | 59 | 53 | 108 | 25 | M8 | 54 | M12 | 3.1 |
| ROTA THW3 400-128 | 142 - 302 | 470 | II | SZKA 324 | 0139169 | 12 | 26 | 40 | 59 | 53 | 90 | 25 | M8 | 54 | M12 | 2.8 |
| ROTA THW3 500-165 | 150 - 352 | 570 | I | SZKA 409 | 0139170 | 18 | 30 | 50 | 78 | 71 | 126 | 33 | M8 | 60 | M16 | 6.0 |
| ROTA THW3 500-165 | 248 - 450 | 570 | I | SZKA 412 | 0139173 | 18 | 30 | 50 | 78 | 71 | 103 | 33 | M8 | 60 | M16 | 5.1 |
| ROTA THW3 500-165 | 43 - 232 | 570 | II | SZKA 409 | 0139170 | 18 | 30 | 50 | 78 | 71 | 126 | 33 | M8 | 60 | M16 | 6.0 |
| ROTA THW3 500-165 | 130 - 331 | 570 | II | SZKA 412 | 0139173 | 18 | 30 | 50 | 78 | 71 | 103 | 33 | M8 | 60 | M16 | 5.1 |

| Chuck type | Clamping range ØD [mm] | Swing diameter SDmax [mm] | Position of base jaws | Description | ID | N [mm] | S [mm] | B [mm] | H [mm] | H1 [mm] | L [mm] | T [mm] | G | b [mm] | Screws | m/SET [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROTA THW3 630-165 | 232 - 447 | 665 | I | SZKA 409 | *0139170* | 18 | 30 | 50 | 78 | 71 | 126 | 33 | M8 | 60 | M16 | 6.0 |
| ROTA THW3 630-165 | 329 - 545 | 665 | I | SZKA 412 | *0139173* | 18 | 30 | 50 | 78 | 71 | 103 | 33 | M8 | 60 | M16 | 5.1 |
| ROTA THW3 630-165 | 44 - 247 | 665 | II | SZKA 409 | *0139170* | 18 | 30 | 50 | 78 | 71 | 126 | 33 | M8 | 60 | M16 | 6.0 |
| ROTA THW3 630-165 | 132 - 346 | 665 | II | SZKA 412 | *0139173* | 18 | 30 | 50 | 78 | 71 | 103 | 33 | M8 | 60 | M16 | 5.1 |

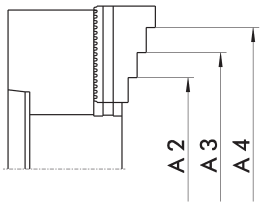
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

# Hard stepped block jaws

with tongue and groove




Jaw position I




Jaw position II

## O.D. clamping

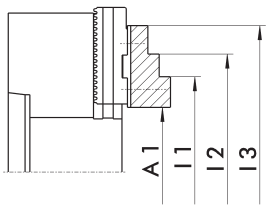
| Chuck type | Description | ID | A1 [mm] | A2 [mm] | A3 [mm] | A4 [mm] |
|---|---|---|---|---|---|---|
| ROTA THW3 200-52 | GST 140-160 I | *0162097* | 35 - 83 | 65 - 113 | 96 - 144 | 127 - 175 |
| ROTA THW3 200-52 | GST 140-160 II | *0162098* | 39 - 88 | 59 - 109 | 90 - 140 | 121 - 171 |
| ROTA THW3 225-66 | GST 201 | *0162106* | 9 - 94 | 45 - 130 | 93 - 178 | 141 - 226 |
| ROTA THW3 265-81 | GST 251 | *0162105* | 9 - 109 | 59 - 159 | 114 - 214 | 169 - 269 |
| ROTA THW3 315-104 | GST 315 | *0162102* | 18 - 130 | 84 - 196 | 140 - 252 | 196 - 308 |
| ROTA THW3 400-128 | GST 400 | *0162103* | 41 - 197 | 110 - 267 | 178 - 335 | 246 - 403 |
| ROTA THW3 500-165 | GST 500-630 | *0162104* | 35 - 249 | 125 - 339 | 275 - 489 | |
| ROTA THW3 630-165 | GST 500-630 | *0162104* | 28 - 241 | 132 - 346 | 282 - 495 | |

## I.D. clamping

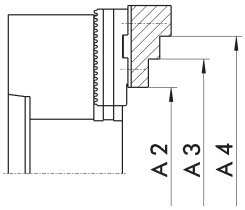
| Chuck type | Description | ID | I1 [mm] | I2 [mm] | I3 [mm] |
|---|---|---|---|---|---|
| ROTA THW3 200-52 | GST 140-160 I | *0162097* | 66 - 114 | 97 - 145 | 128 - 176 |
| ROTA THW3 200-52 | GST 140-160 II | *0162098* | 70 - 120 | 101 - 151 | 132 - 182 |
| ROTA THW3 225-66 | GST 201 | *0162106* | 54 - 139 | 102 - 187 | 150 - 235 |
| ROTA THW3 265-81 | GST 251 | *0162105* | 69 - 169 | 124 - 224 | 179 - 279 |
| ROTA THW3 315-104 | GST 315 | *0162102* | 75 - 187 | 132 - 244 | 188 - 300 |
| ROTA THW3 400-128 | GST 400 | *0162103* | 109 - 265 | 177 - 333 | 245 - 401 |
| ROTA THW3 500-165 | GST 500-630 | *0162104* | | 138 - 352 | 288 - 502 |
| ROTA THW3 630-165 | GST 500-630 | *0162104* | | 138 - 352 | 288 - 502 |

# Hard stepped top jaws

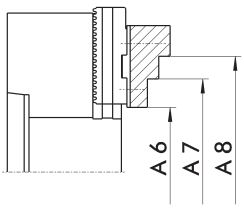
## with tongue and groove



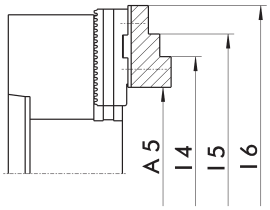

Position of base jaws II




Position of base jaws I




Position of base jaws II




Position of base jaws I

## O.D. clamping

| Chuck type | Description | ID | A1 [mm] | A2 [mm] | A3 [mm] | A4 [mm] | A5 [mm] | A6 [mm] | A7 [mm] | A8 [mm] |
|---|---|---|---|---|---|---|---|---|---|---|
| ROTA THW3 200-52 | SHF 160 | *0155100* | 8 - 85 | 32 - 109 | 78 - 154 | 102 - 179 | 26 - 103 | 14 - 91 | 59 - 136 | 84 - 161 |
| ROTA THW3 225-66 | SHF 200 | *0155101* | 10 - 97 | 49 - 136 | 101 - 188 | 128 - 215 | 48 - 135 | 14 - 98 | 66 - 150 | 93 - 177 |
| ROTA THW3 265-81 | SHF 250 | *0155102* | 15 - 105 | | 83 - 173 | 163 - 253 | 79 - 169 | | 40 - 109 | 120 - 189 |
| ROTA THW3 315-104 | SHF 250 | *0155102* | 22 - 135 | | 112 - 225 | 192 - 305 | 108 - 221 | | 40 - 139 | 120 - 219 |
| ROTA THW3 400-128 | SHF 315 | *0155103* | 51 - 208 | | 126 - 283 | 235 - 392 | 129 - 286 | | 48 - 205 | 157 - 314 |
| ROTA THW3 500-165 | SHF 400 | *0155104* | 35 - 235 | | 151 - 351 | 271 - 471 | 155 - 355 | | 59 - 231 | 179 - 351 |
| ROTA THW3 630-165 | SHF 400 | *0155104* | 35 - 235 | | 231 - 431 | 351 - 551 | 235 - 435 | | 59 - 231 | 179 - 351 |

## I.D. clamping

| Chuck type | Description | ID | I1 [mm] | I2 [mm] | I3 [mm] | I4 [mm] | I5 [mm] | I6 [mm] |
|---|---|---|---|---|---|---|---|---|
| ROTA THW3 200-52 | SHF 160 | *0155100* | 63 - 139 | 88 - 164 | 133 - 210 | 81 - 157 | 106 - 182 | 151 - 228 |
| ROTA THW3 225-66 | SHF 200 | *0155101* | 74 - 160 | 101 - 187 | 152 - 239 | 111 - 198 | 138 - 225 | 190 - 277 |
| ROTA THW3 265-81 | SHF 250 | *0155102* | 95 - 185 | 175 - 265 | | 159 - 250 | 239 - 330 | |
| ROTA THW3 315-104 | SHF 250 | *0155102* | 102 - 215 | 182 - 295 | | 188 - 301 | 268 - 381 | |
| ROTA THW3 400-128 | SHF 315 | *0155103* | 121 - 278 | 230 - 387 | | 199 - 356 | 308 - 465 | |
| ROTA THW3 500-165 | SHF 400 | *0155104* | 146 - 346 | 267 - 467 | | 266 - 466 | 387 - 587 | |
| ROTA THW3 630-165 | SHF 400 | *0155104* | 146 - 346 | 267 - 467 | | 346 - 546 | 468 - 667 | |

# 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 THW3 200-52<br>ROTA THW3 225-66<br>ROTA THW3 265-81<br>ROTA THW3 315-104<br>ROTA THW3 400-128<br>ROTA THW3 500-165<br>ROTA THW3 630-165 | IFT Set | 1404235 |

### Jaw change wrench

Wrench for fast change of the jaws for power lathe chucks with jaw quick-change system.

| Suitable for | Description | ID |
|---|---|---|
| ROTA THW3 200-52<br>ROTA THW3 225-66<br>ROTA THW3 265-81 | SSH-A SW6-128 | 8705452 |
| ROTA THW3 315-104<br>ROTA THW3 400-128<br>ROTA THW3 500-165<br>ROTA THW3 630-165 | SSH-A SW8-148 | 8703298 |

### Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.

| Suitable for | Description | ID |
|---|---|---|
| ROTA THW3 400-128<br>ROTA THW3 500-165<br>ROTA THW3 630-165 | IFT adapter set | 1498512 |

### Mounting wrench

For power lathe chucks with turnable threaded rings as wrench design with driving pins that snap into the threaded ring.

| Suitable for | Description | ID |
|---|---|---|
| ROTA THW3 265-81 | SSH-MN Ø81-228 | 1383213 |
| ROTA THW3 315-104 | SSH-MN Ø104-228 | 1375097 |
| ROTA THW3 400-128 | SSH-MN Ø128-228 | 1461383 |
| ROTA THW3 500-165<br>ROTA THW3 630-165 | SSH-MN Ø165-228 | 1446103 |

# 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

2025-11-06