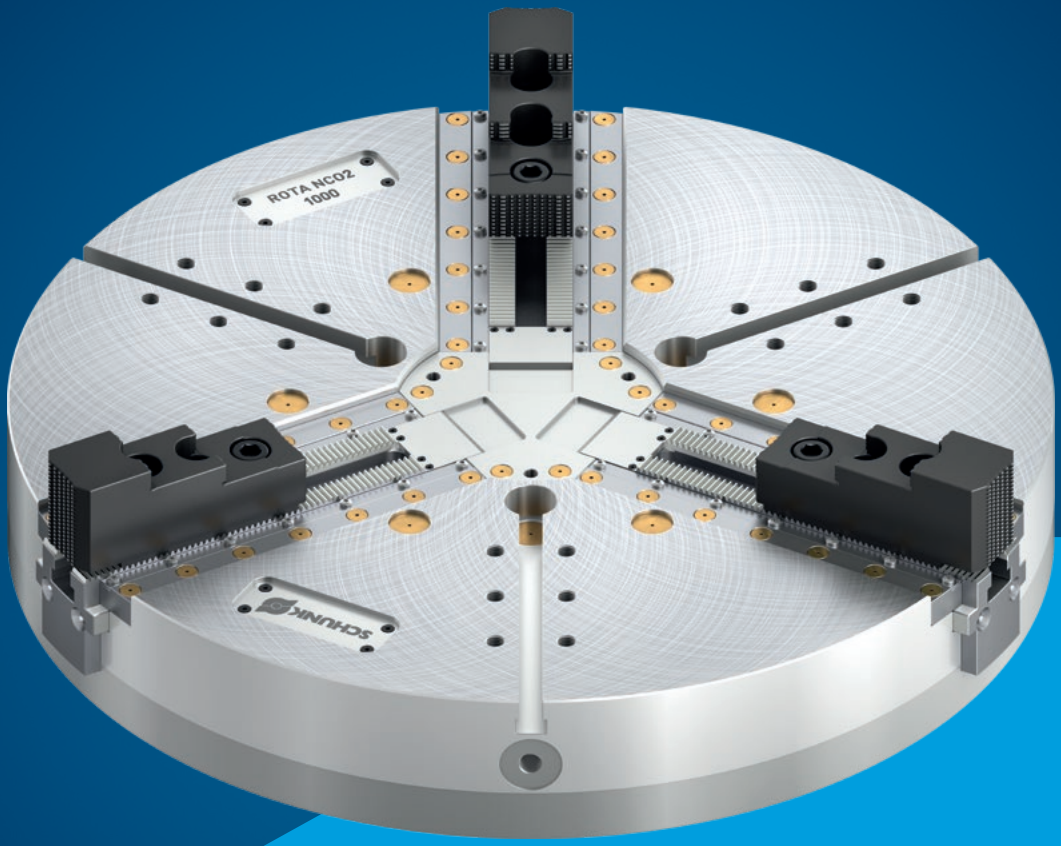
SCHUNK



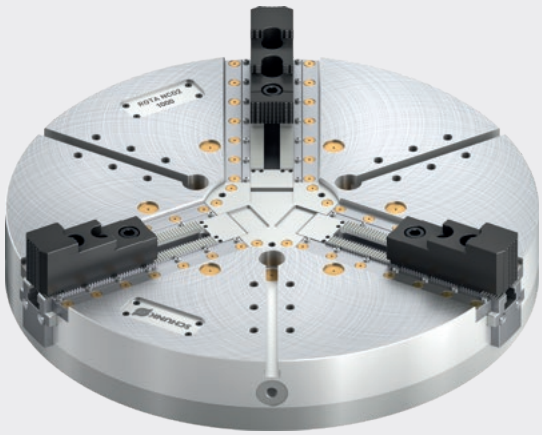
ROTA NC02

Large 3-jaw power lathe chucks for vertical lathes

Hand in hand for tomorrow

Weight-optimized large chucks with long jaw stroke. Optionally available with centrifugal force compensation or individual jaw adjustment

The ROTA NC02 has been specially developed for vertical lathes. Higher workpiece weights can be clamped thanks to the weight-optimized chuck body. The long jaw strokes combined with high clamping forces enable workpieces with a large interfering contour to be clamped in a reliable process. As an option, the chucks can be equipped with centrifugal force compensation and individual jaw adjustment in order to run at higher speeds or to optimally align complicated workpieces to the clamping center.



Advantages – Your benefits

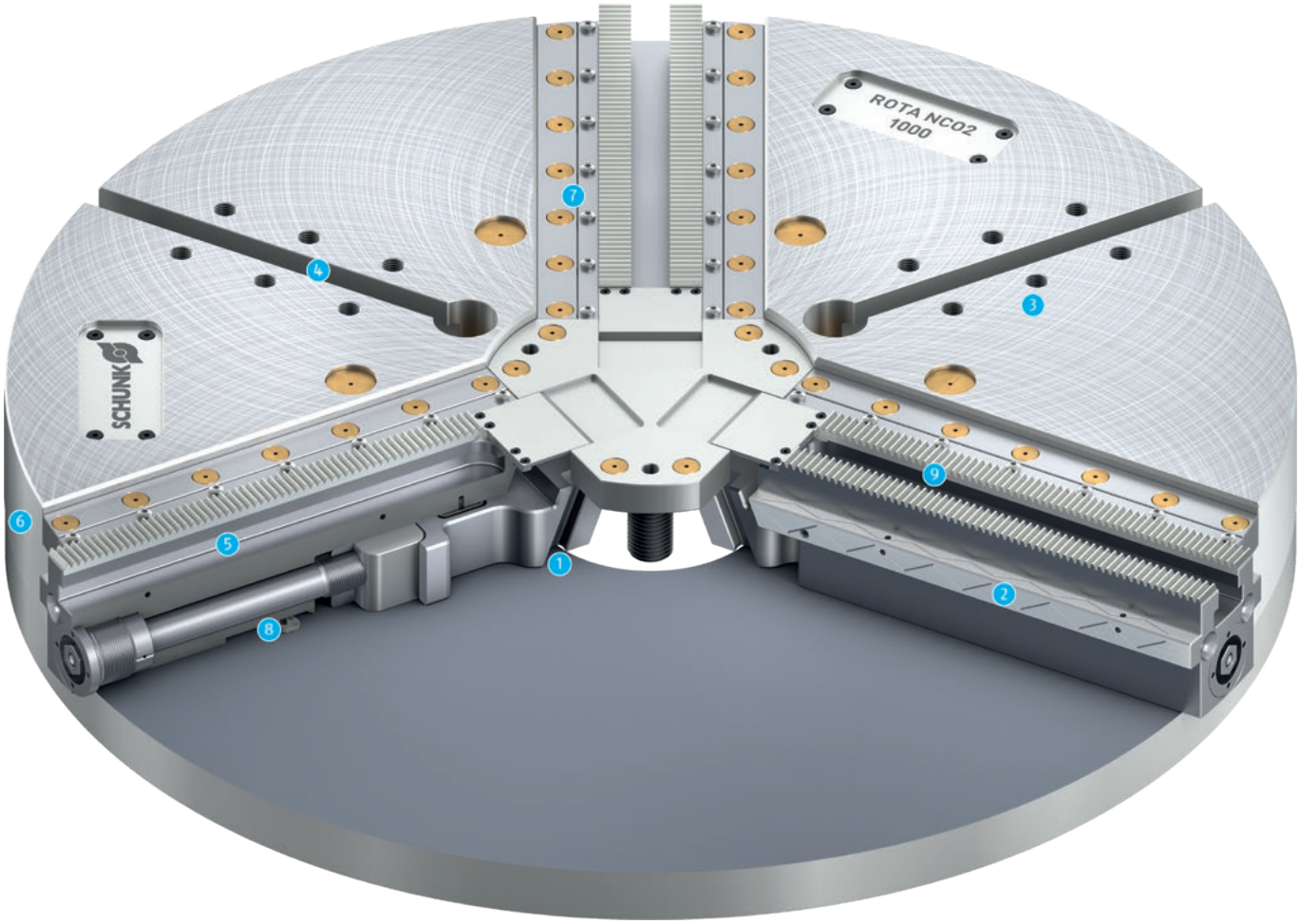
- **Precision wedge-hook power lathe chuck for highest quality requirements**
  Allows excellent machining results
- **High efficiency of the wedge hook system**
  Process-reliable clamping due to high clamping forces
- **Optimum jaw support for O.D. and I.D. clamping due to a very long base jaw guidance**
  Allows high clamping forces at a long service life
- **Optimized lubrication system**
  Consistently high clamping forces ensured
- **Longest jaw stroke at high jaw clamping force**
  Reliable and variable clamping of workpieces over interfering contours
- **Sealed against coolant and chips as standard via wiper strips, seals and sealed through-hole**
  Excellently suitable for the use on vertical lathes
- **Low height design**
  Maximum use of the machine room and maximum rigidity of the system
- **Weight-optimized cast body**
  Reduced energy consumption and higher workpiece weights possible
- **Optionally available with centrifugal force compensation**
  Less clamping force loss at high RPM
- **Optionally available with individual jaw adjustment**
  Workpieces can be optionally aligned to the rotation center

Technical data

Description	Max. rotational speed [min^{-1}]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke [mm]
ROTA NC02 800	900	300	170	23	57
ROTA NC02 1000	700	300	170	23	57
ROTA NC02 1200	600	300	170	23	57
ROTA NC02 1400	500	300	170	23	57

Function of ROTA NC02

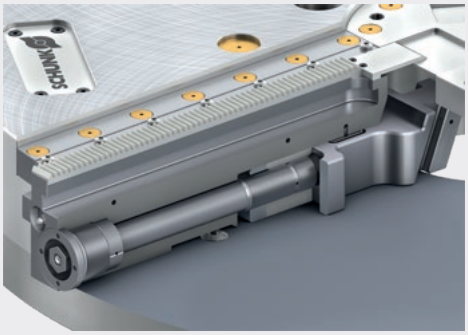
The axially movable piston transfers the force to the base jaw and generates a radial jaw movement synchronized with the rotational axis.



1. **Wedge hook drive**
   Offers constantly high clamping forces in operation
2. **Optimized lubrication system**
   For consistently high clamping forces
3. **Mounting thread**
   For workpiece stops or cover plates
4. **Additional slot guidance on the chuck face**
   For workpiece stops or cover plates
5. **Long jaw guidance**
   Offers optimal support for O.D.- and I.D. clamping
6. **Low height design**
   Expands your machine's workspace
7. **Combined sealing strips**
   Seal the base jaw guidances and offer a good protection against coolant and chips
8. **Individual jaw adjustment as option**
   Workpieces can be optionally aligned to the rotation center
9. **Module 2 serration**
   For easy setting up and cleaning

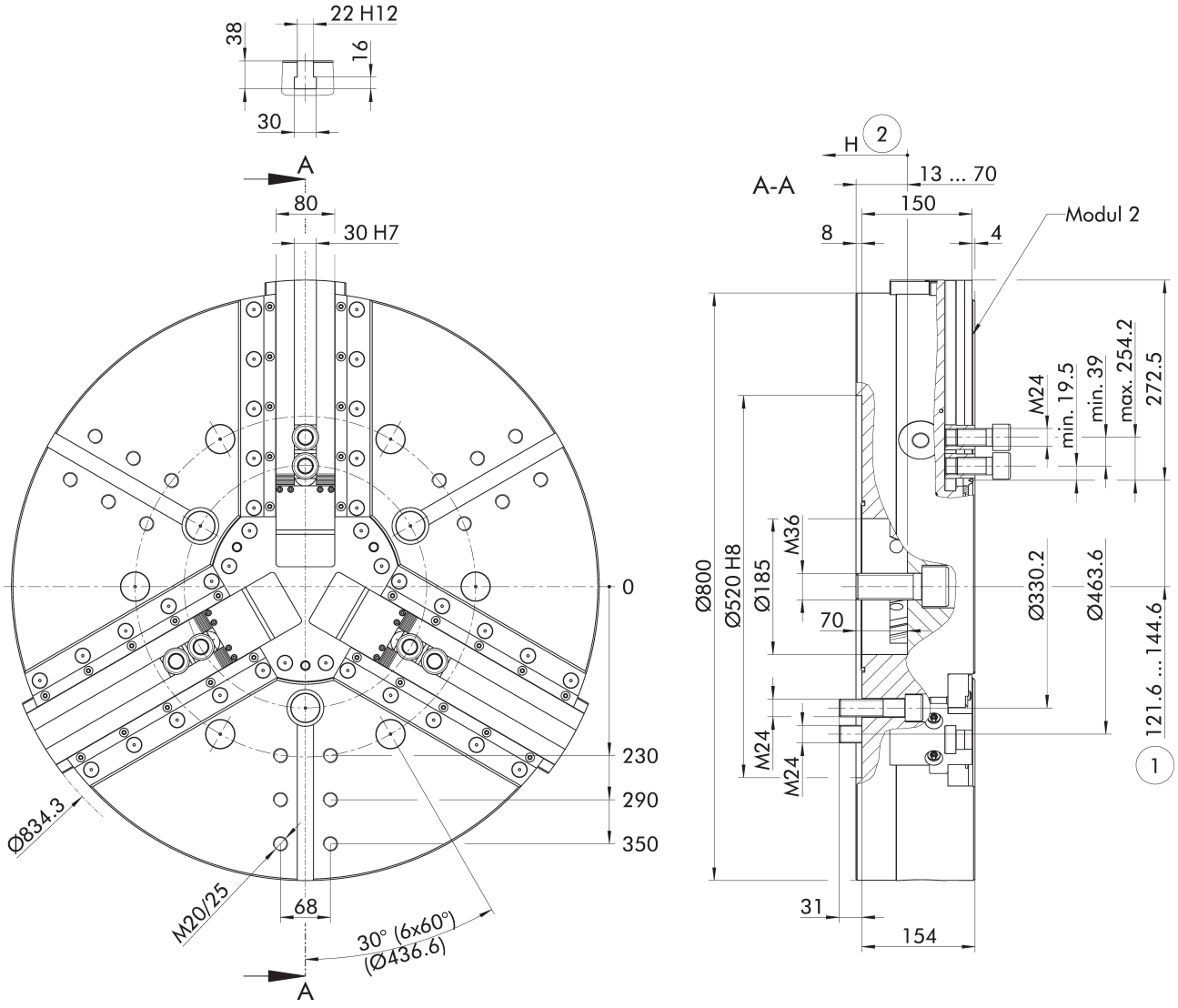
Individual jaw adjustment (optional)

Due to individual jaw adjustment, the jaws can be adjusted individually and independently of each other. This ensures reliable clamping of both, angular and asymmetrical or rotationally symmetric workpieces.



Combined sealing strips

The combination of the scraper bar and the scraper plate resting against the base jaw provides excellent protection against penetration of chips and coolant.



Subject to technical changes.

(1) Distance to center of first tooth

(2) Piston stroke direction

Technical data

Spindle type	Spindle size	ID	Serration	Centrifugal force compensation	individual jaw adjustment	individual jaw adjustment [mm]	Moment of inertia [kgm²]	Weight [kg]
-	Z520	*1481247*	Modul 2				32	391
-	Z520	*1486021*	Modul 2	●			32	391
-	Z520	*1481248*	Modul 2		●	30	32	399

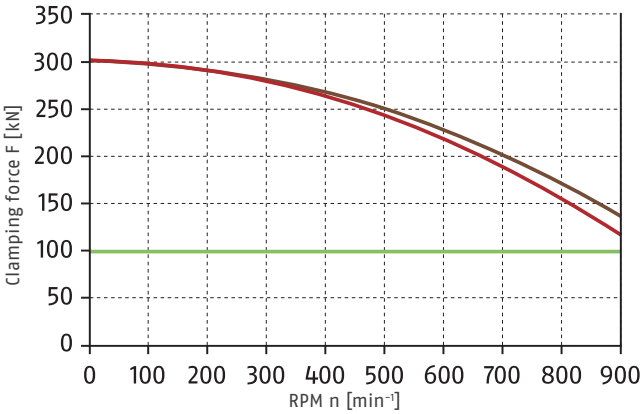
Scope of delivery

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

Further technical data

Chuck type	Max. rotational speed [min⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke (H) [mm]
ROTA NC02 800	900	300	170	23	57

Clamping force-RPM-diagram

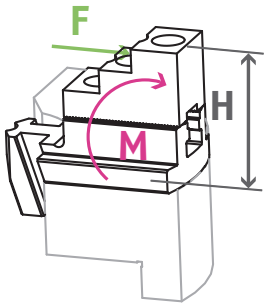


Required minimum clamping force F_{spmin} 33%

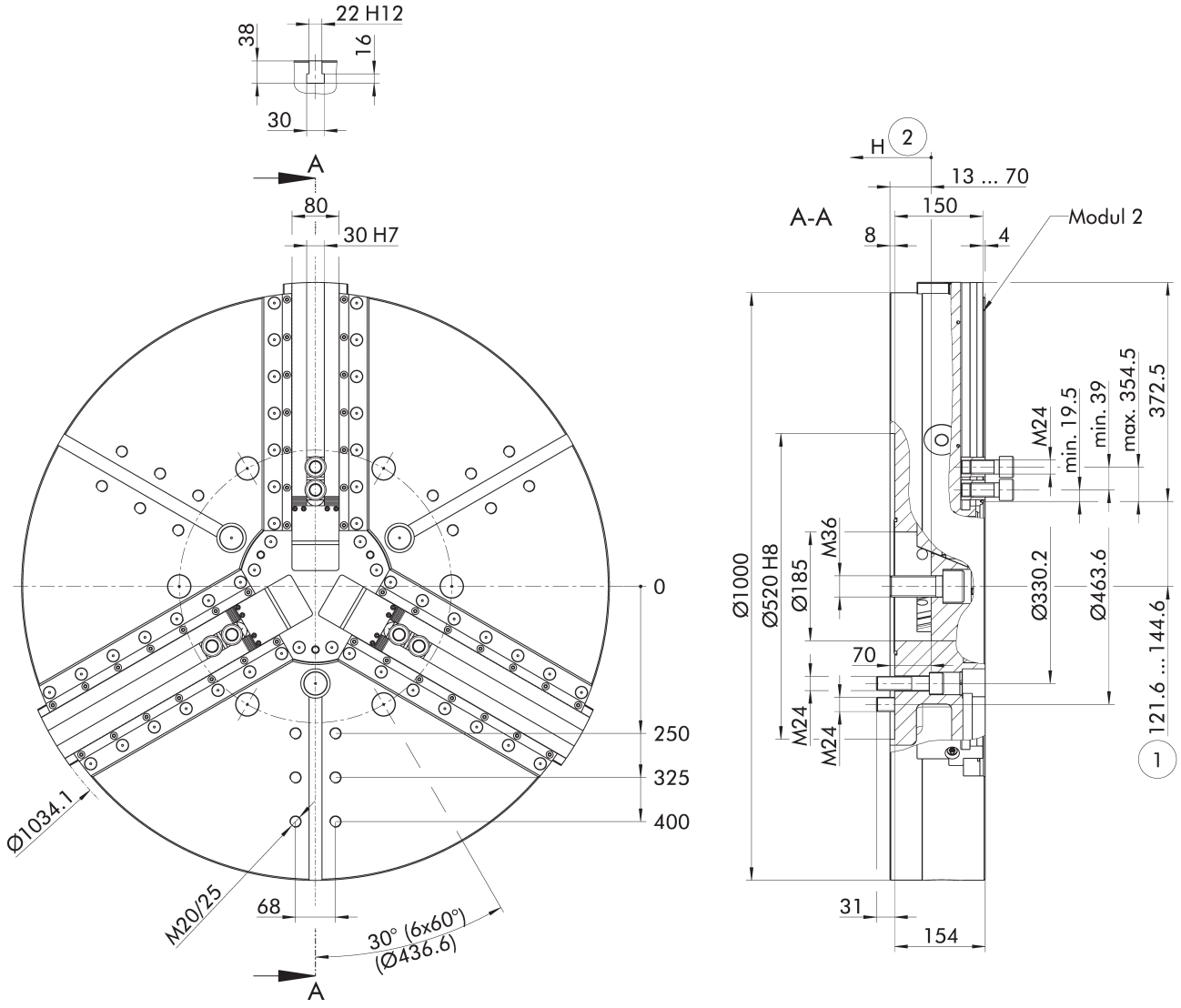
SP-HB-M 1000
30.45 kg

SWB-M 1000
31.8 kg

Load of base jaw guidance



M_{max} = 16800 Nm



Subject to technical changes.

(1) Distance to center of first tooth

(2) Piston stroke direction

Technical data

Spindle type	Spindle size	ID	Serration	Centrifugal force compensation	individual jaw adjustment	individual jaw adjustment [mm]	Moment of inertia [kgm²]	Weight [kg]
-	Z520	*1481305*	Modul 2				65	519
-	Z520	*1486022*	Modul 2	●			65	519
-	Z520	*1481306*	Modul 2		●	30	66	531.5

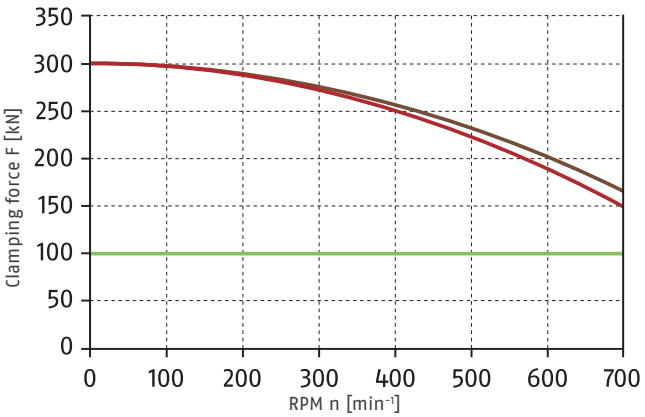
Scope of delivery

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

Further technical data

Chuck type	Max. rotational speed [min⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke (H) [mm]
ROTA NC02 1000	700	300	170	23	57

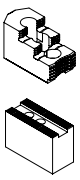
Clamping force-RPM-diagram



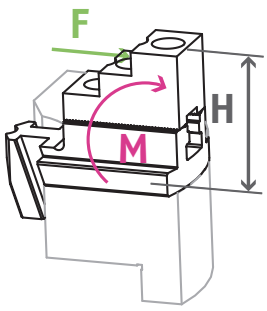
Required minimum clamping force F_{spmin} 33%

SP-HB-M 1000 30.45 kg

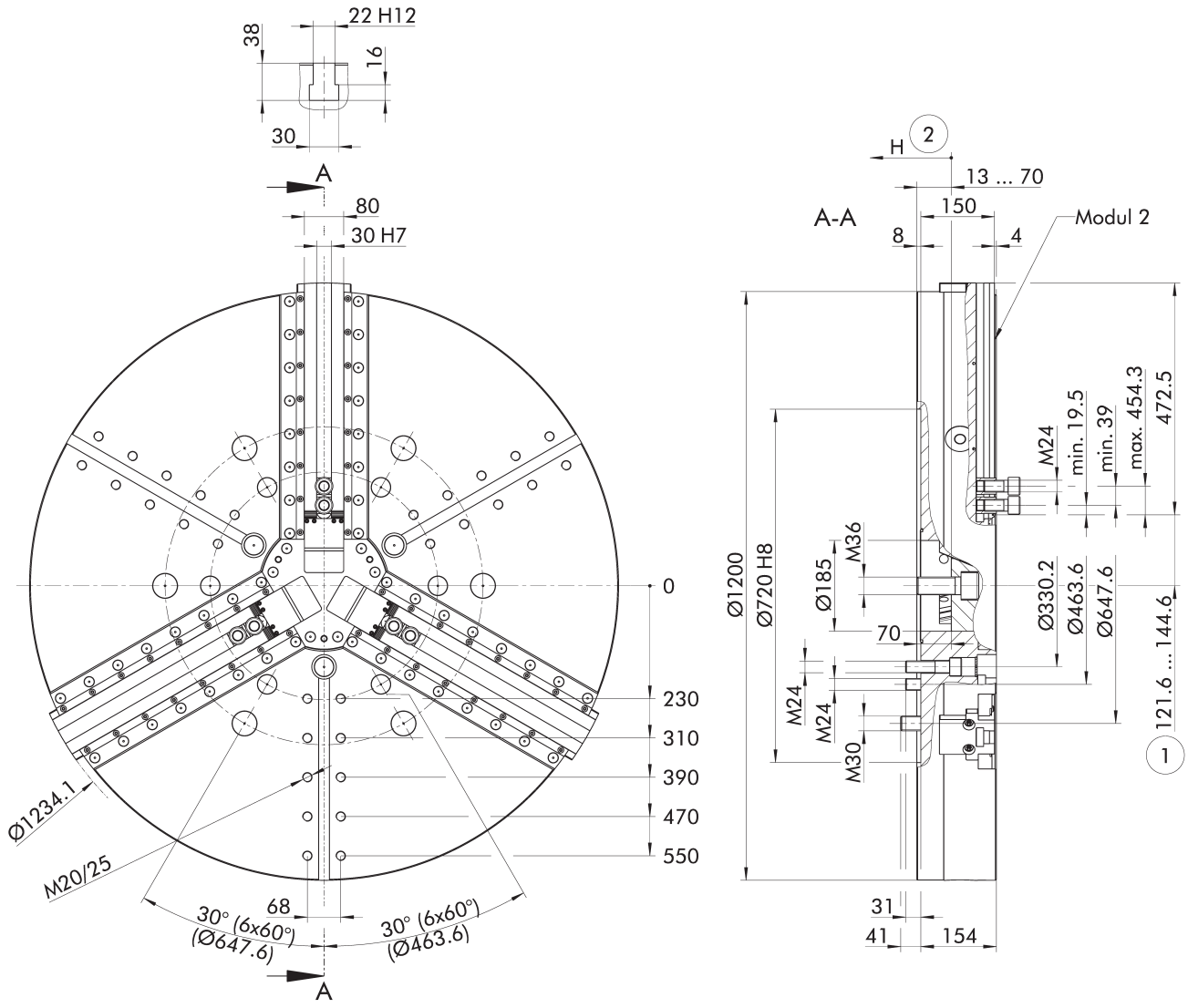
SWB-M 1000 31.8 kg



Load of base jaw guidance



M_{max} = 16800 Nm



Subject to technical changes.

(1) Distance to center of first tooth

(2) Piston stroke direction

Technical data

Spindle type	Spindle size	ID	Serration	Centrifugal force compensation	individual jaw adjustment	individual jaw adjustment [mm]	Moment of inertia [kgm²]	Weight [kg]
-	Nr. 28 (Z720)	*1481309*	Modul 2				122	671
-	Nr. 28 (Z720)	*1486023*	Modul 2	●			122	671
-	Nr. 28 (Z720)	*1481310*	Modul 2		●	30	124	690

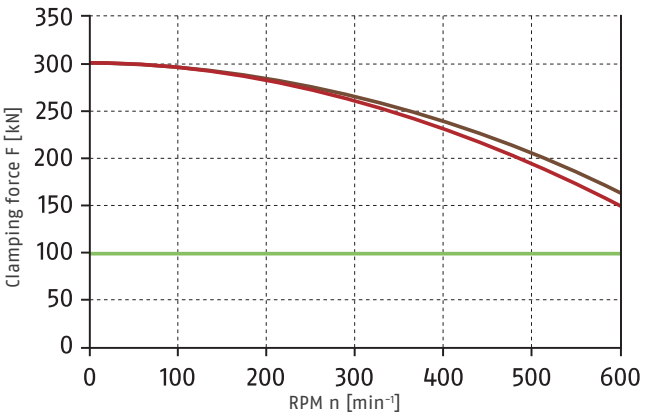
Scope of delivery

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

Further technical data

Chuck type	Max. rotational speed [min⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke (H) [mm]
ROTA NC02 1200	600	300	170	23	57

Clamping force-RPM-diagram

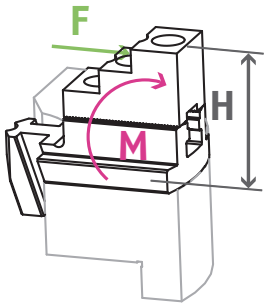


Required minimum clamping force F_{spmin} 33%

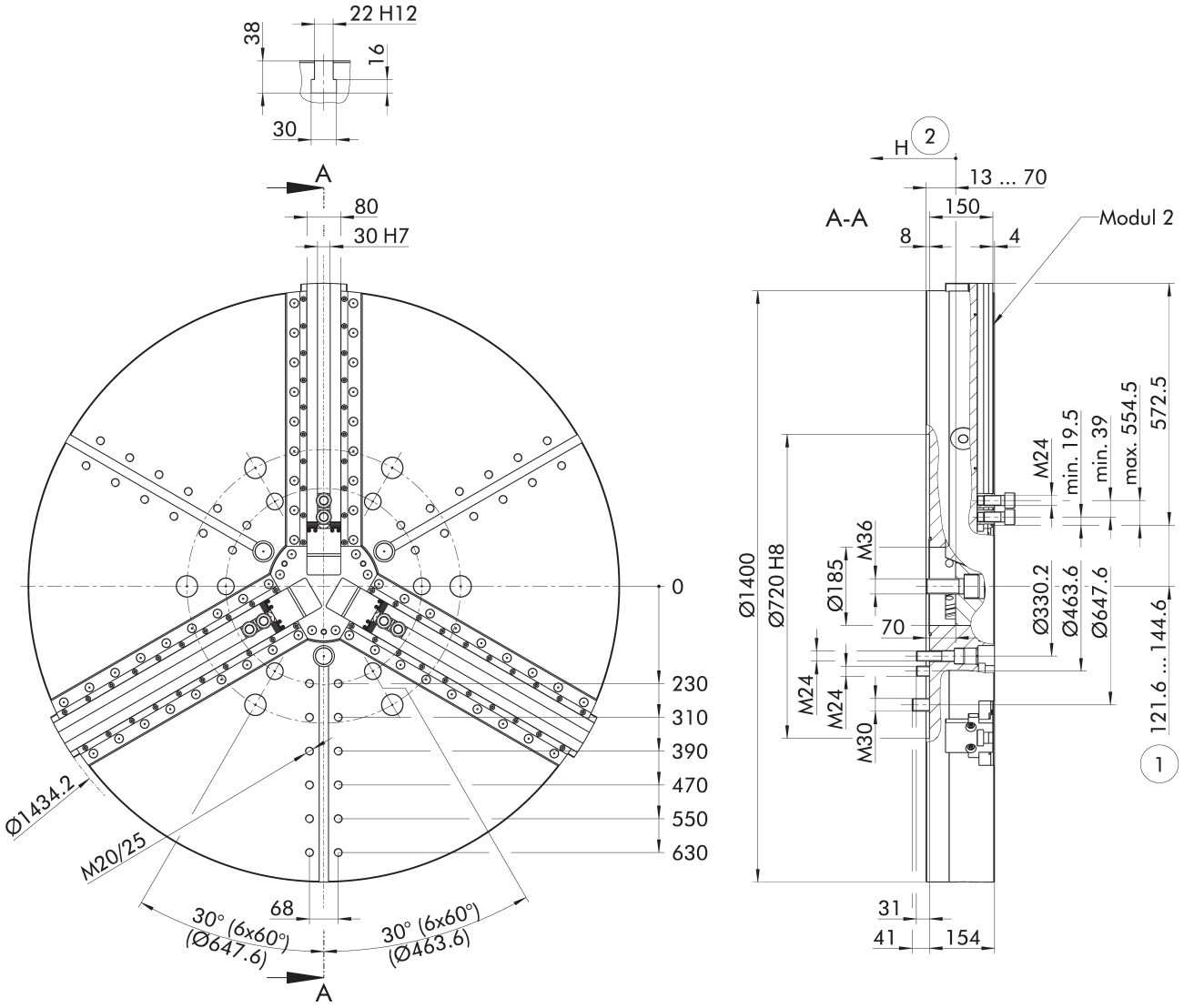
SP-HB-M 1000
30.45 kg

SWB-M 1000
31.8 kg

Load of base jaw guidance



M_{max} = 16800 Nm



Subject to technical changes.

(1) Distance to center of first tooth

(2) Piston stroke direction

Technical data

Spindle type	Spindle size	ID	Serration	Centrifugal force compensation	individual jaw adjustment	individual jaw adjustment [mm]	Moment of inertia [kgm²]	Weight [kg]
-	Nr. 28 (Z720)	*1481323*	Modul 2				200	824
-	Nr. 28 (Z720)	*1486024*	Modul 2	●			200	824
-	Nr. 28 (Z720)	*1481324*	Modul 2		●	30	205	849

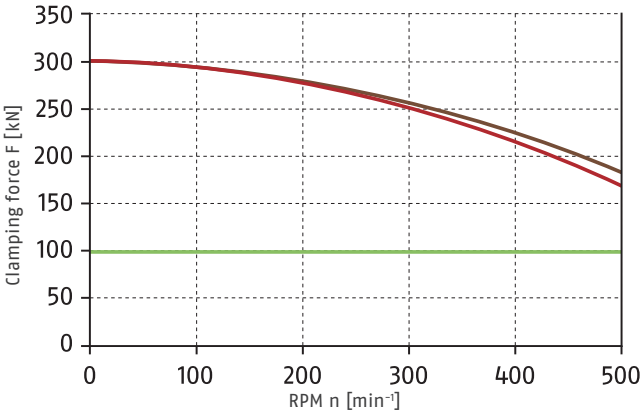
Scope of delivery

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

Further technical data

Chuck type	Max. rotational speed [min⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke (H) [mm]
ROTA NC02 1400	500	300	170	23	57

Clamping force-RPM-diagram

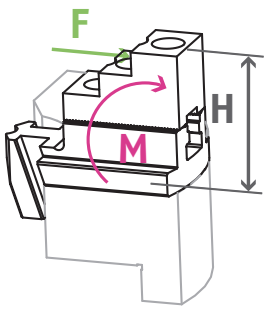


Required minimum clamping force F_{spmin} 33%

SP-HB-M 1000
30.45 kg

SWB-M 1000
31.8 kg

Load of base jaw guidance



M_{max} = 16800 Nm

T-nut

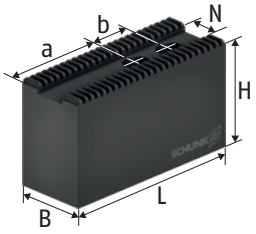
NS
T-nut

Chuck type	Description	ID	N [mm]	B [mm]	H [mm]	H1 [mm]	L [mm]	Cyl.-screw	Max. adm. tightening torque [Nm]
ROTA NCO2 800	NS 240-2	*0140124*	30	42	41	15	34	M24 x 60	450
ROTA NCO2 1000	NS 240-2	*0140124*	30	42	41	15	34	M24 x 60	450
ROTA NCO2 1200	NS 240-2	*0140124*	30	42	41	15	34	M24 x 60	450
ROTA NCO2 1400	NS 240-2	*0140124*	30	42	41	15	34	M24 x 60	450

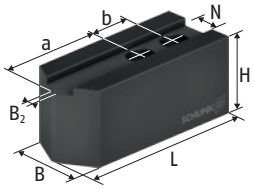
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

Soft top jaws

Modul 2



SWB-M
Soft top jaws



SWBL-M
Soft top jaws

Technical data

Chuck type	Description	ID	N [mm]	B [mm]	H [mm]	L [mm]	a [mm]	b [mm]	m/SET [kg]
ROTA NC02 800	SWB-M 1000	*1506279*	30	80	105	195	100	60	31.8
ROTA NC02 800	SWBL-M 1000	*1506303*	30	80	105	258	148	60	40.3
ROTA NC02 1000	SWB-M 1000	*1506279*	30	80	105	195	100	60	31.8
ROTA NC02 1000	SWBL-M 1000	*1506303*	30	80	105	258	148	60	40.3
ROTA NC02 1200	SWB-M 1000	*1506279*	30	80	105	195	100	60	31.8
ROTA NC02 1200	SWBL-M 1000	*1506303*	30	80	105	258	148	60	40.3
ROTA NC02 1400	SWB-M 1000	*1506279*	30	80	105	195	100	60	31.8
ROTA NC02 1400	SWBL-M 1000	*1506303*	30	80	105	258	148	60	40.3

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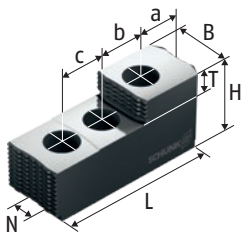
Hard stepped top jaws

Modul 2



SP-HB-M
Hard stepped top jaws

Technical data

Chuck type	Description	ID	N [mm]	B [mm]	H [mm]	L [mm]	T [mm]	a [mm]	b [mm]	c [mm]	m/SET [kg]
ROTA NC02 800	SP-HB-M 1000	*1506315*	30	80	105	250	22	89.2	60	60	30.4
ROTA NC02 1000	SP-HB-M 1000	*1506315*	30	80	105	250	22	89.2	60	60	30.4
ROTA NC02 1200	SP-HB-M 1000	*1506315*	30	80	105	250	22	89.2	60	60	30.4
ROTA NC02 1400	SP-HB-M 1000	*1506315*	30	80	105	250	22	89.2	60	60	30.4

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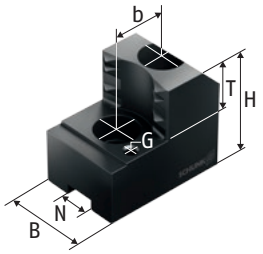
Claw jaws

Modul 2



SZA-M
Claw jaws

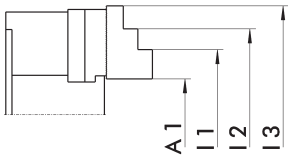
Technical data

Chuck type	Clamping range ØD [mm]	Swing diameter SDmax [mm]	Description	ID	N [mm]	B [mm]	H [mm]	L [mm]	T [mm]	G	b [mm]	Screws	m/SET [kg]
ROTA NC02 800	119 - 485	861	SZA-M 80-1	1563497	30	80	105	204	42	M10	60	M24	23.4
ROTA NC02 800	450 - 768	885	SZA-M 80-2	1563516	30	80	105	163	42	M10	60	M24	18.3
ROTA NC02 1000	119 - 685	1062	SZA-M 80-1	1563497	30	80	105	204	42	M10	60	M24	23.4
ROTA NC02 1000	450 - 956	1072	SZA-M 80-2	1563516	30	80	105	163	42	M10	60	M24	18.3
ROTA NC02 1200	119 - 885	1262	SZA-M 80-1	1563497	30	80	105	204	42	M10	60	M24	23.4
ROTA NC02 1200	450 - 1145	1261	SZA-M 80-2	1563516	30	80	105	163	42	M10	60	M24	18.3
ROTA NC02 1400	119 - 1087	1463	SZA-M 80-1	1563497	30	80	105	204	42	M10	60	M24	23.4
ROTA NC02 1400	450 - 1333	1449	SZA-M 80-2	1563516	30	80	105	163	42	M10	60	M24	18.3

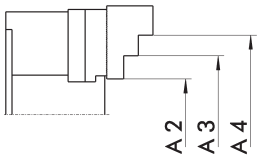
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

Hard stepped top jaws

Modul 2



Jaw position I



Jaw position II

O.D. clamping

Chuck type	Description	ID	A1 [mm]	A2 [mm]	A3 [mm]	A4 [mm]
ROTA NC02 800	SP-HB-M 1000	*1506315*	45 - 267	100 - 422	276 - 596	440 - 762
ROTA NC02 1000	SP-HB-M 1000	*1506315*	45 - 455	100 - 610	276 - 785	440 - 950
ROTA NC02 1200	SP-HB-M 1000	*1506315*	45 - 643	100 - 797	276 - 973	440 - 1137
ROTA NC02 1400	SP-HB-M 1000	*1506315*	45 - 831	100 - 986	276 - 1161	440 - 1326

I.D. clamping

Chuck type	Description	ID	I1 [mm]	I2 [mm]	I3 [mm]
ROTA NC02 800	SP-HB-M 1000	*1506315*	212 - 427	372 - 591	545 - 766
ROTA NC02 1000	SP-HB-M 1000	*1506315*	212 - 614	372 - 779	545 - 954
ROTA NC02 1200	SP-HB-M 1000	*1506315*	212 - 801	372 - 967	545 - 1142
ROTA NC02 1400	SP-HB-M 1000	*1506315*	212 - 989	372 - 1155	545 - 1330

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 NC02 800 ROTA NC02 1000 ROTA NC02 1200 ROTA NC02 1400	IFT Set	*1404235*

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 NC02 800 ROTA NC02 1000 ROTA NC02 1200 ROTA NC02 1400	IFT adapter set	*1498512*

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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