

RS 3000-A

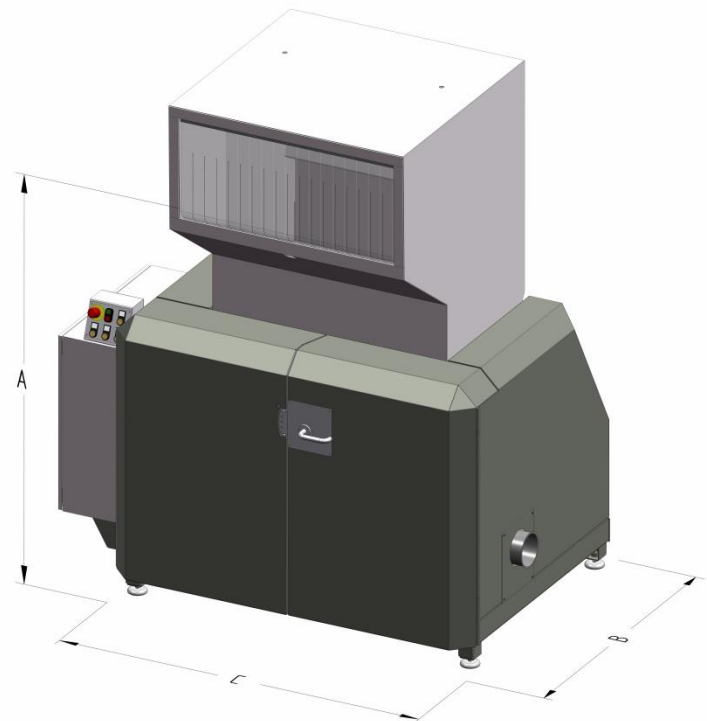
Highly productive,
aggressive intake

RS 3000-A

Sizes

	RS 3004	RS 3006	RS 3009
Cutting diameter (mm)	300	300	300
No. of rotory blades (pieces)	3	3 x 2	3 x 3
No. of stationary blades (pieces)	2	2	2
Cutting length (mm)	410	630	945
Throughput (kg/h)	200 – 360*	270 – 450*	340 – 540*
Motor power (kW)	11	15	22
	A	1.620 mm	1.620 mm
	B	1.300 mm	1.300 mm
	C	1.290 mm	1.495 mm

* depending on screen size and material



RS 3000-A

High productivity

- Throughput up to 500 kg/h in continuous operation
- Pre-adjustable blades
- Short cleaning time
- Easy maintenance



RS 3000-A

Fast, economical cleaning

- Easy to open hopper and cutting chamber



Rotor runs



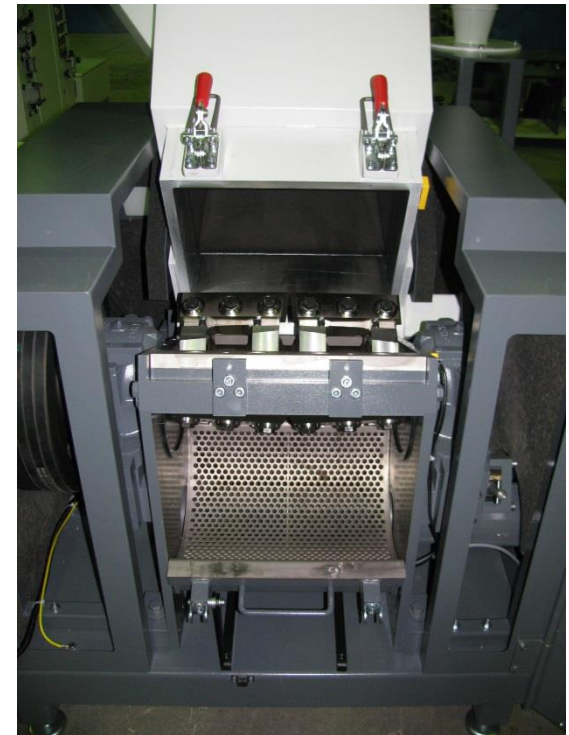
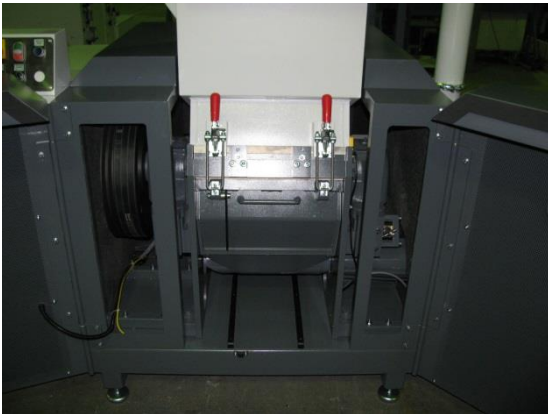
Rotor off



RS 3000-A

Fast, economical cleaning

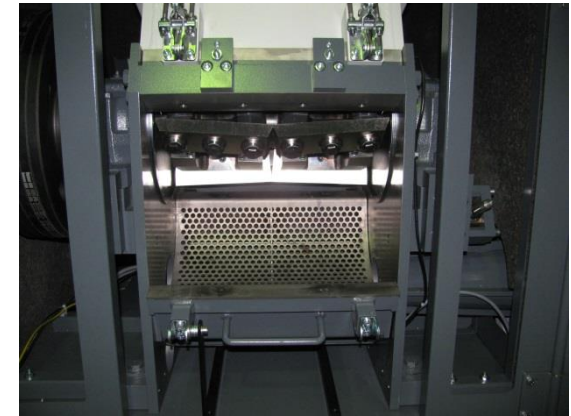
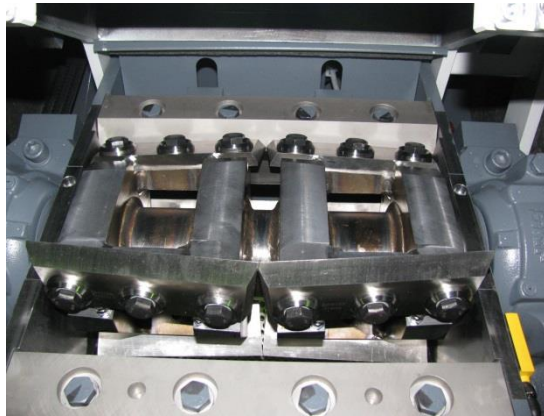
- Lock with quick release
- Good accessibility of components
- Toolless remove of the screen



RS 3000-A

Fast, economical cleaning

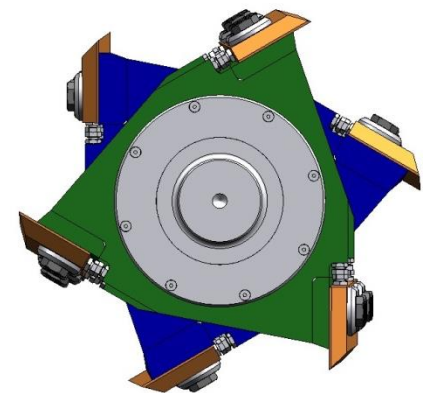
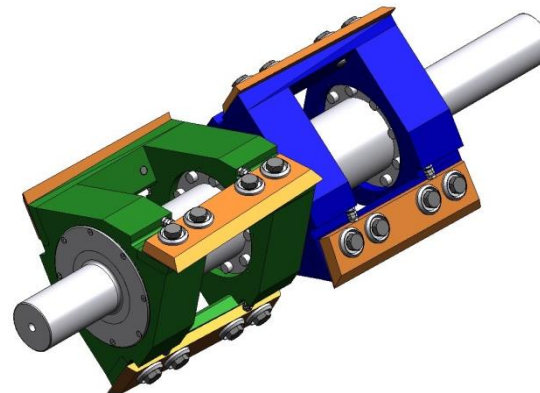
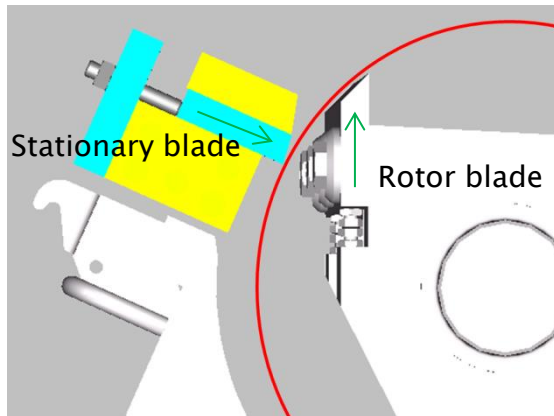
- Fully machined, smooth surfaces
- Pre-adjustable blades



RS 3000-A

Reliable in operation

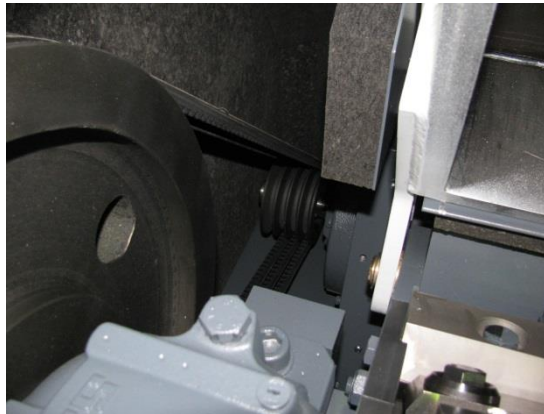
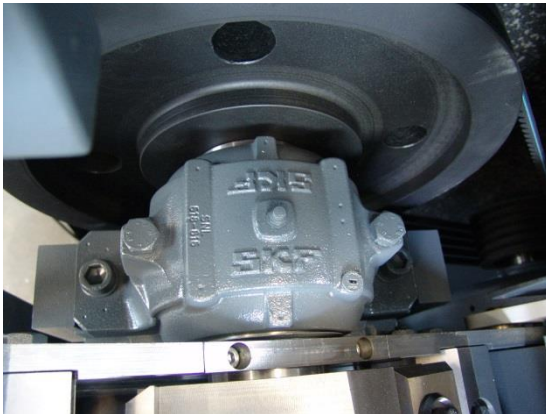
- Constant cutting circle guarantees uniform regrind
- Optimum cutting force distribution due segmented rotor design



RS 3000-A

Reliable in operation

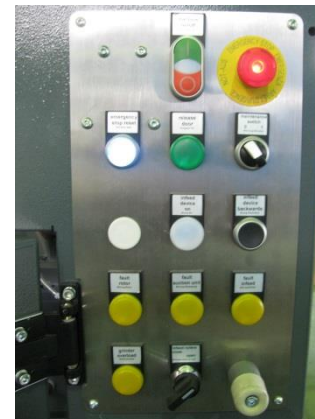
- External rotor bearing with high safety factor
(see slide 18-19)
- Massive pulley for additional flywheel mass



RS 3000-A

Individually applicable

- Different rotor types (see slide 13-17) and wear protection packages available
- Visual indication of the operating status
- Compact modular design
- Additional equipment for almost any application



RS 3000-A

Sound insulation as standard

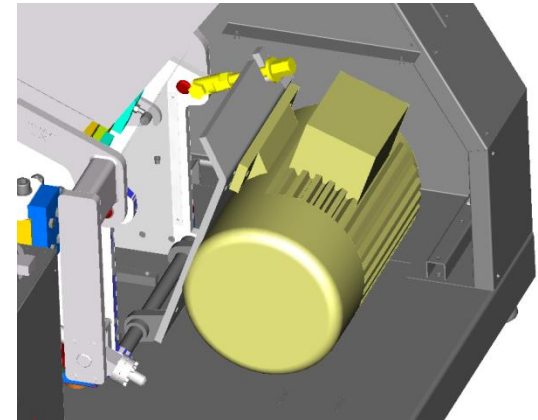
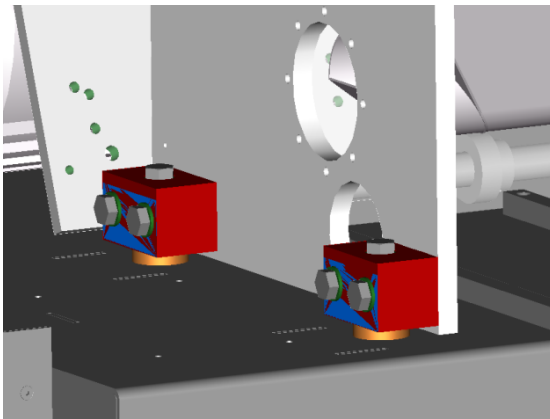
- Integrated sound insulation housing with double-walled hopper



RS 3000-A

Sound insulation as standard

- Anti-Vibration elements (decoupling of the grinder housing and sound insulation housing)
- Motor plate mounted on a swing arm directly on grinder housing



RS 3000-A

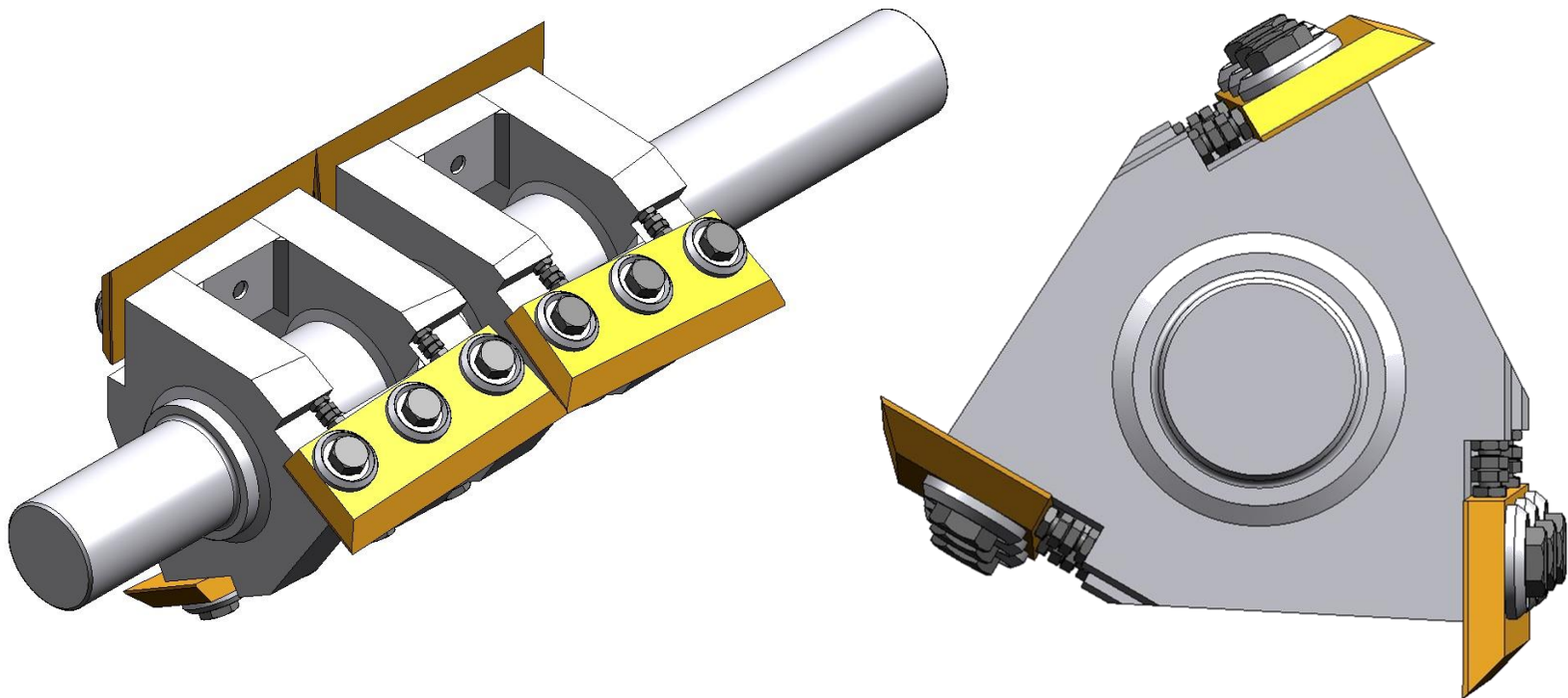
SECURITY is a top priority

- A safety limit switch in the door guarantees opening of the hopper and screen tray only when the rotor is at a standstill
- A switch on of the grinder is only possible if screen tray and hopper are completely closed
- A structured visualization if safety limit switch is open or closed



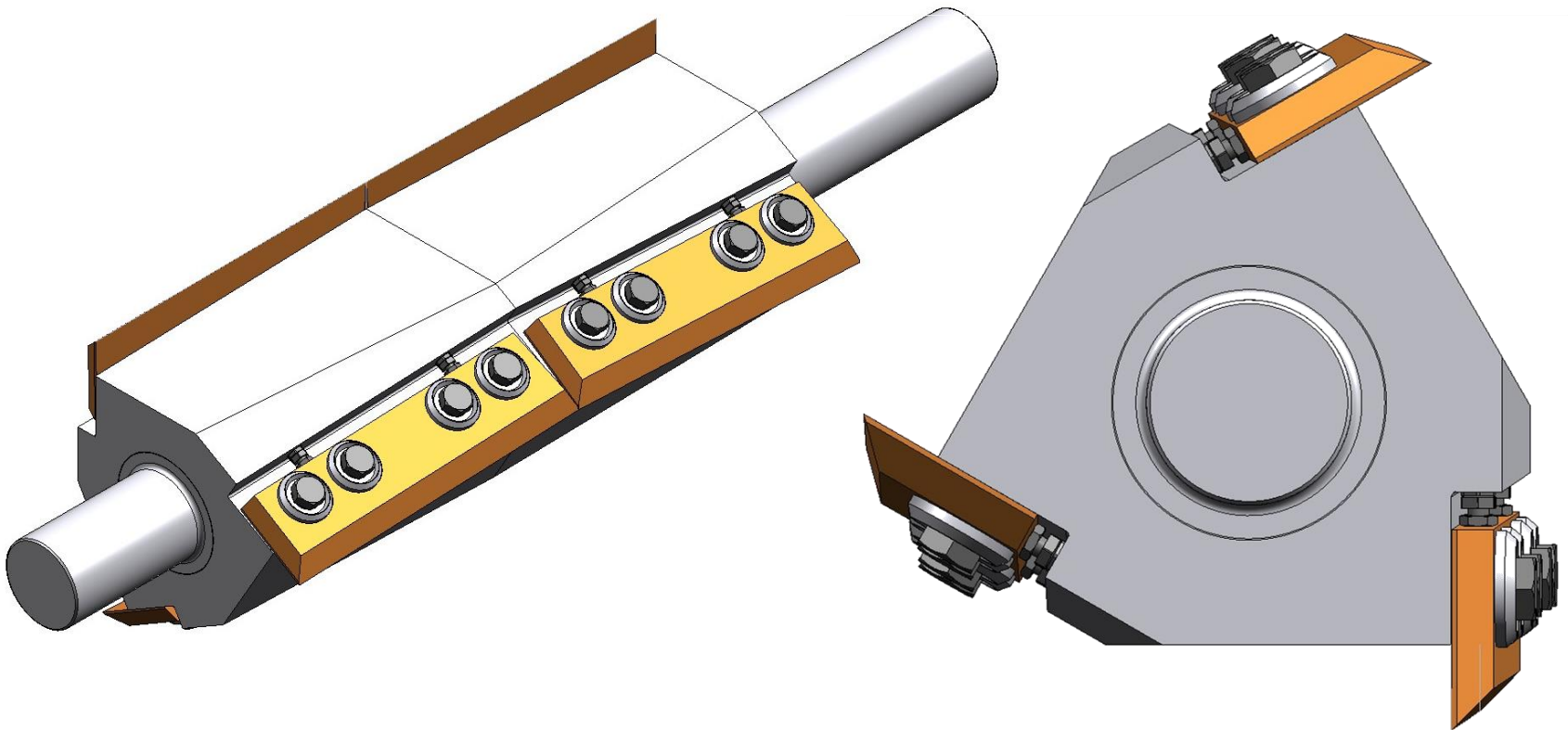
RS 3000-A

3-blade open segment-rotor



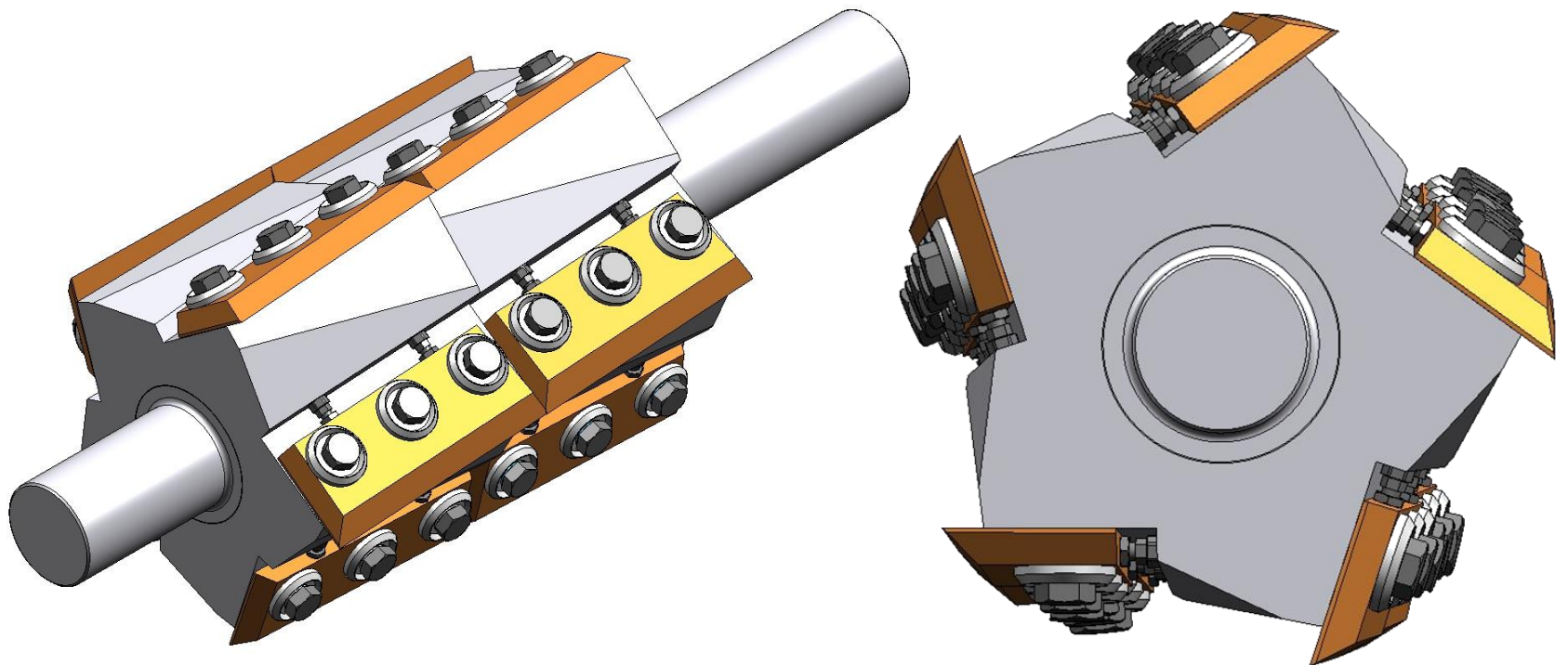
RS 3000-A

3-blade casting segment-rotor



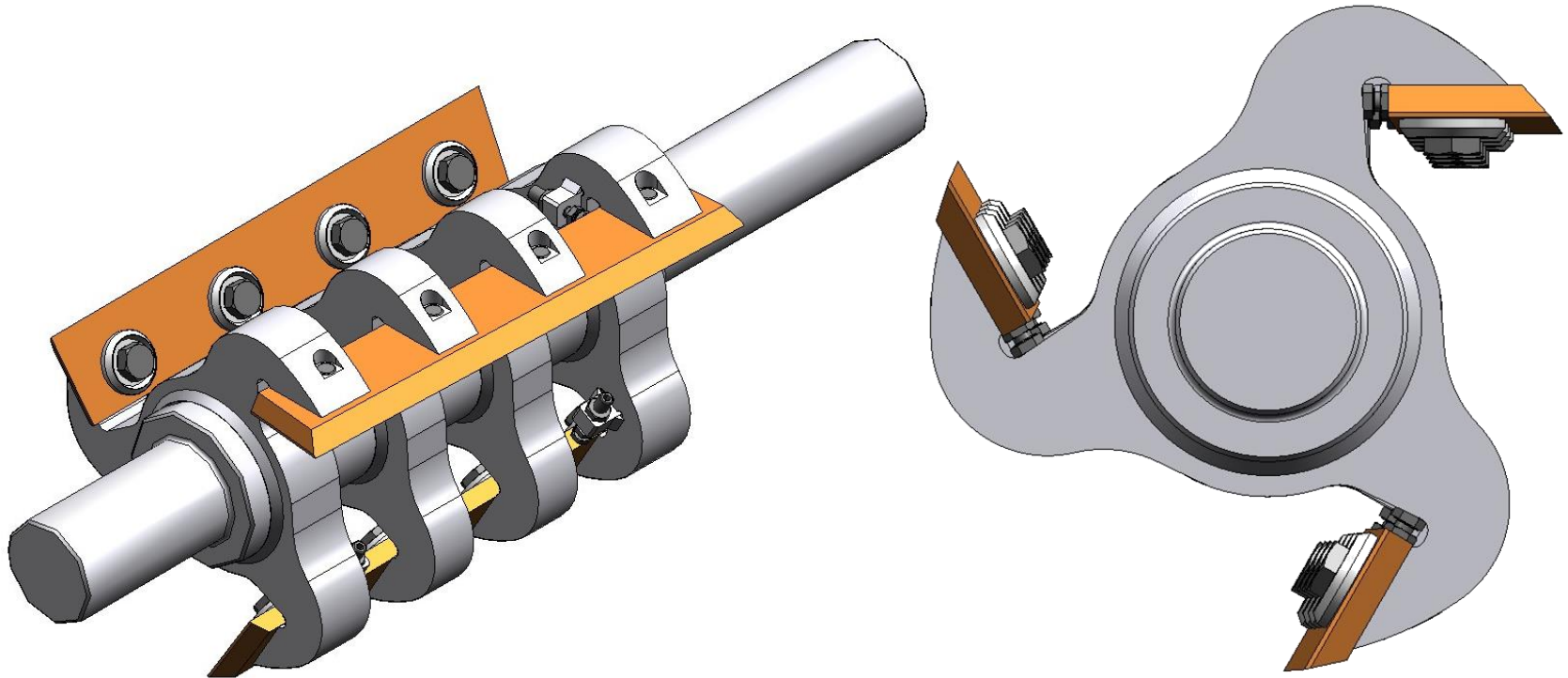
RS 3000-A

5-blade casting segment-rotor



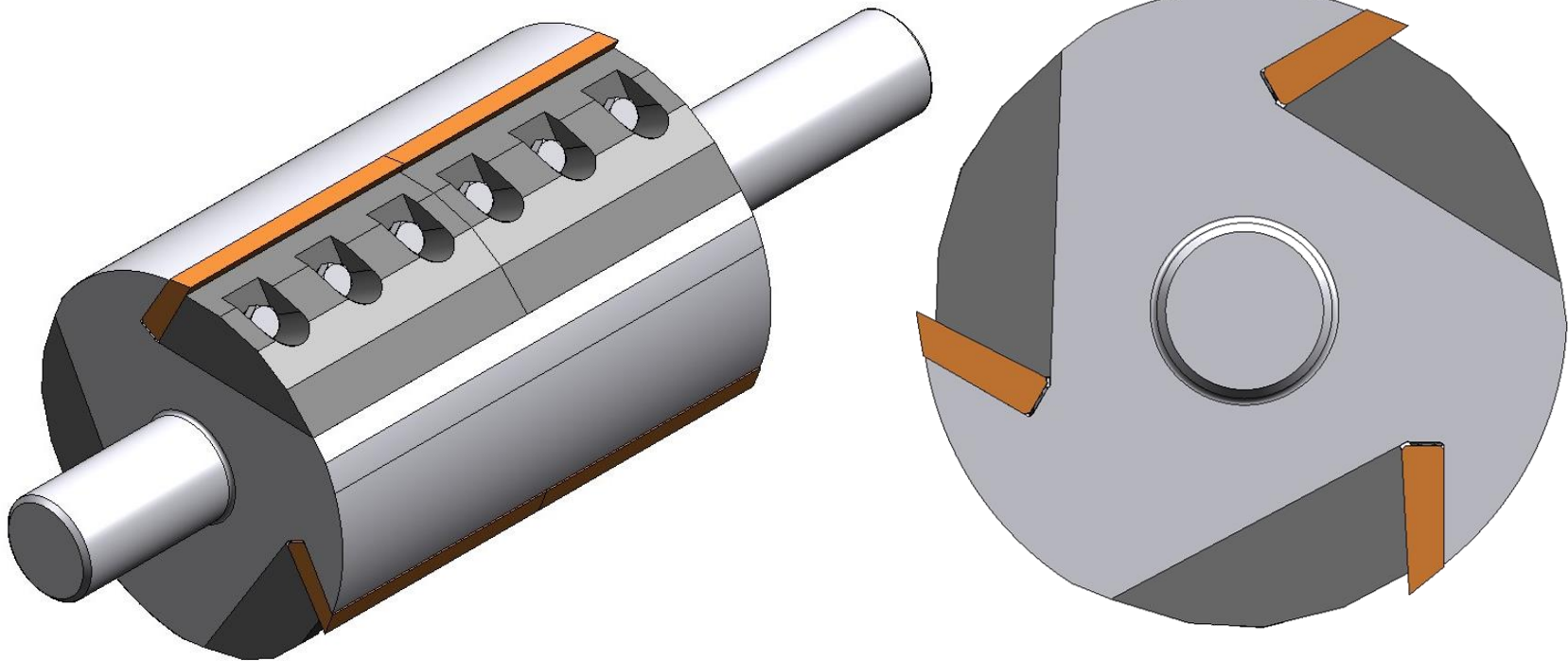
RS 3000-A

3-blade hook-rotor



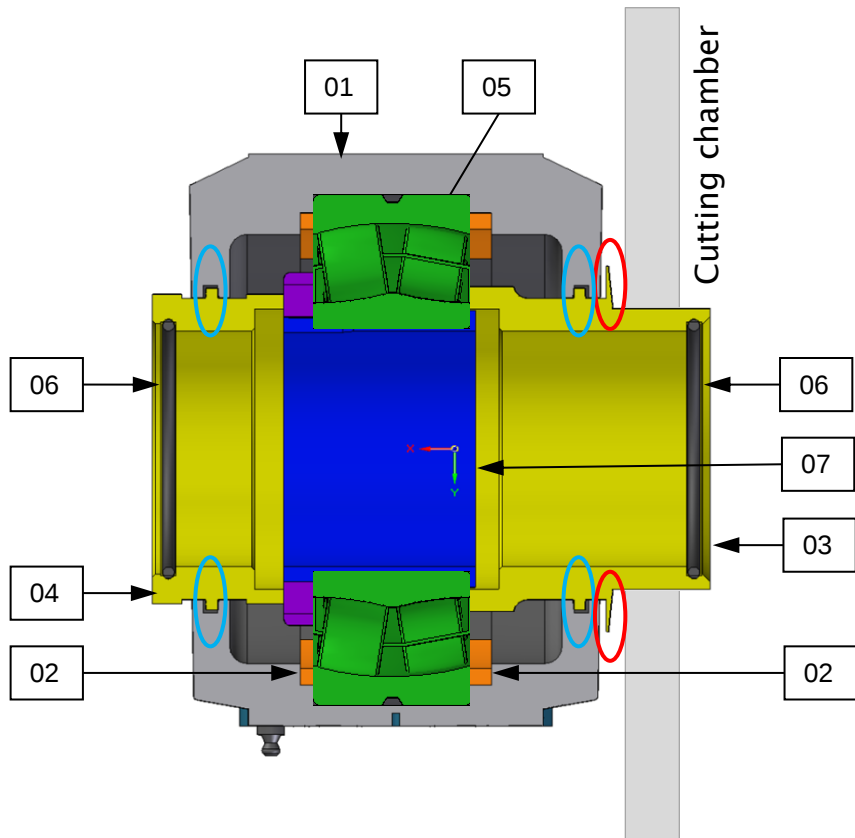
RS 3000-A

closed 3-blade-rotor



RS 3000-A

Pillow block bearing (fixed bearing)

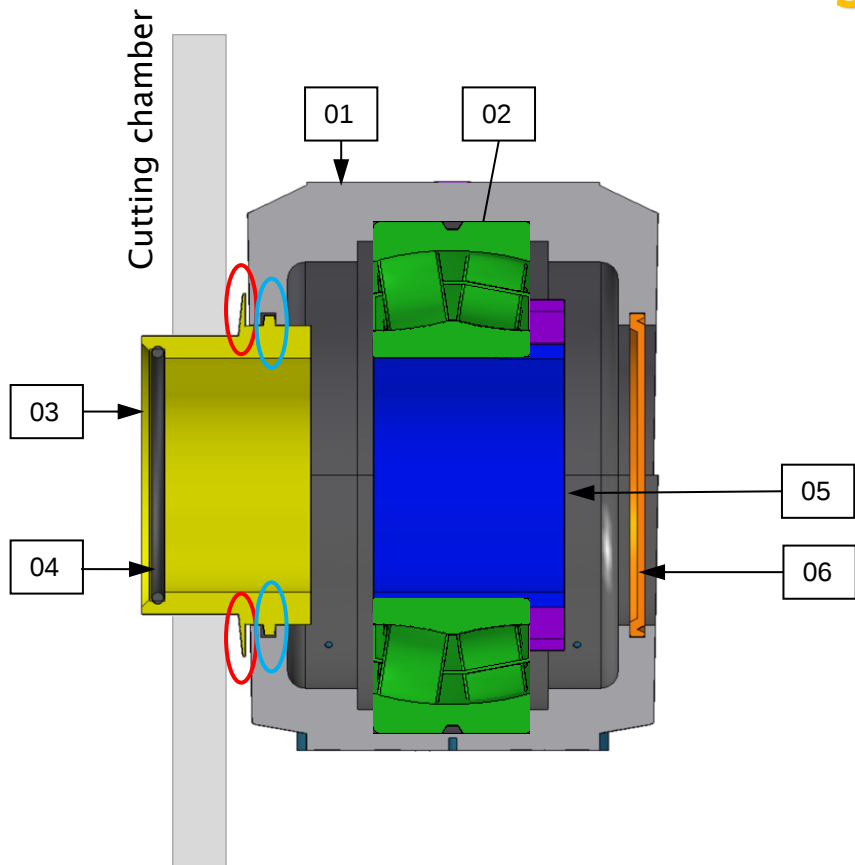


- Double-row cylindrical roller bearings
- Sealing (labyrinth sealing) and free space for cutting chamber with centrifugal disc
- Fixed bearing on the drive side

Pos.	Anzahl	Benennung
01	1	Pillow block bearing
02	2	Distance ring
03	1	Fixed ring-bearing-rotor
04	1	Fixed ring-bearing-v-belt pulley
05	1	Ball joint bearing
06	2	O-ring
07	1	Clamping sleeve

RS 3000-A

Pillow block bearing (movable bearing)

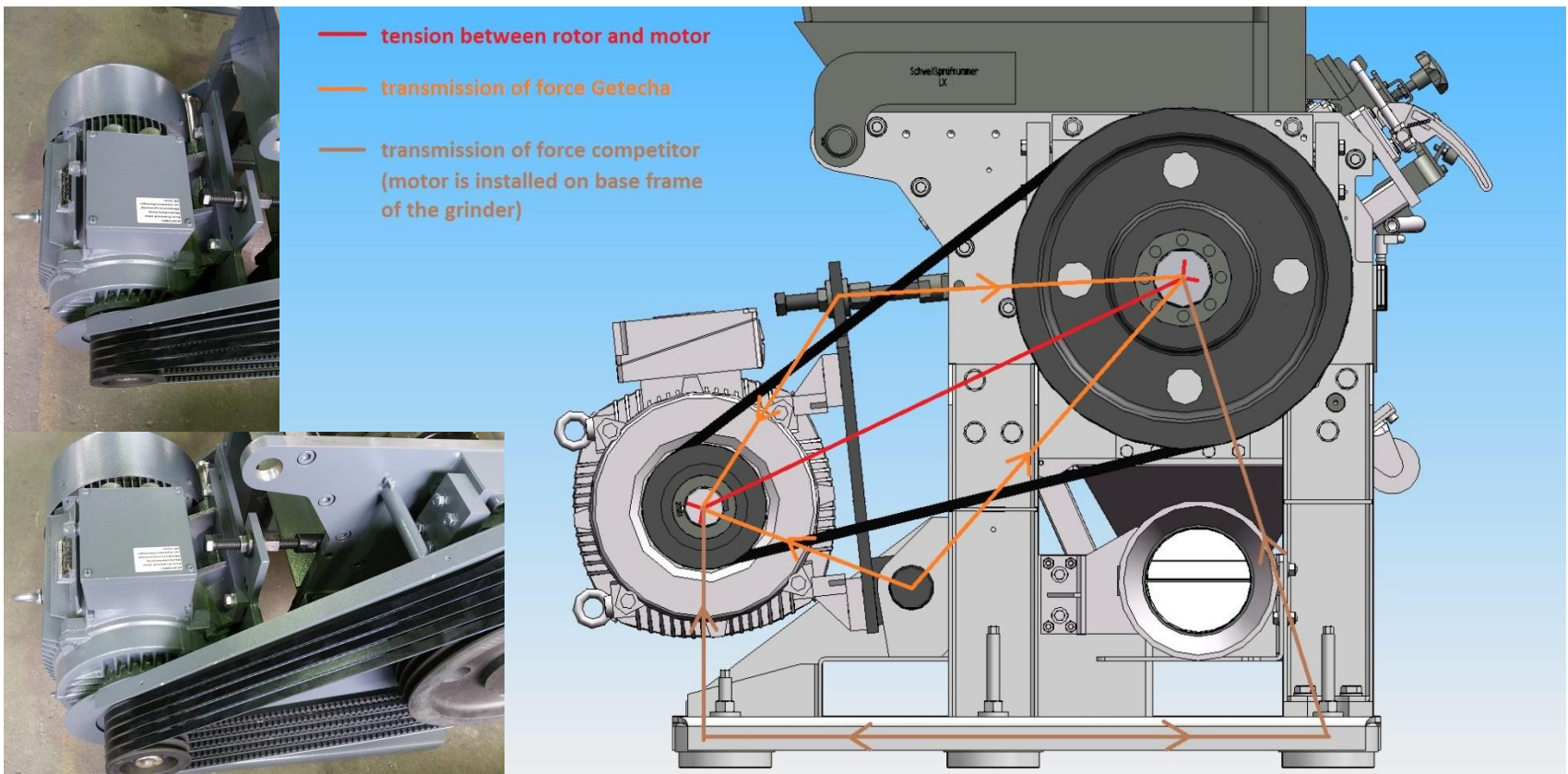


- Double-row cylindrical roller bearings
- Sealing (labyrinth sealing) and free space for cutting chamber with centrifugal disc
- Fixed bearing on the drive side

Pos.	Anzahl	Benennung
01	1	Pillow block bearing
02	1	Ball joint bearing
03	1	Thrower ring
04	1	O-Ring
05	1	Clamping sleeve
06	1	Bearing cover

RS 3000-A

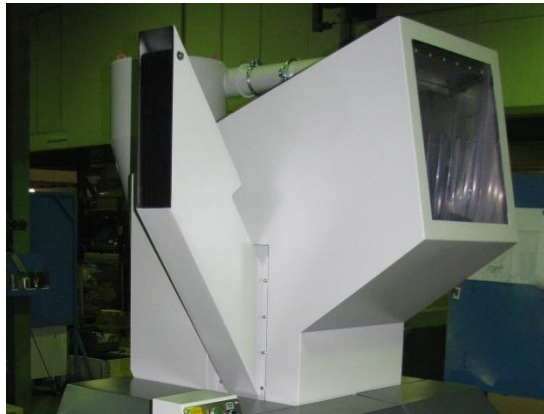
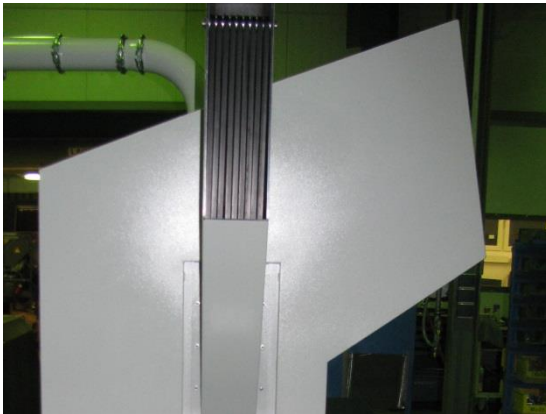
Power transmission of motor



RS 3000-A

Various hoppers

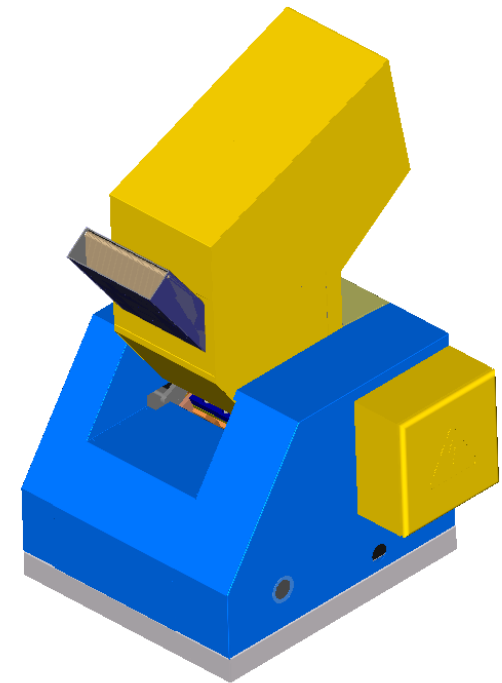
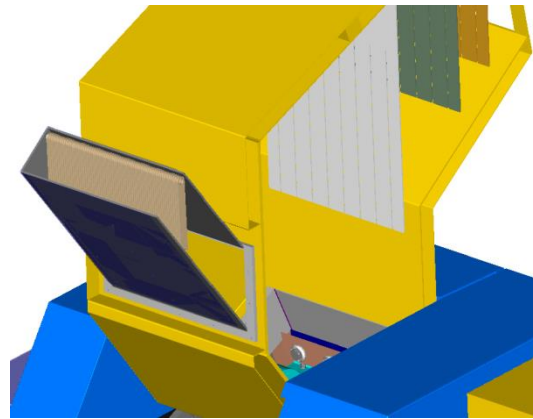
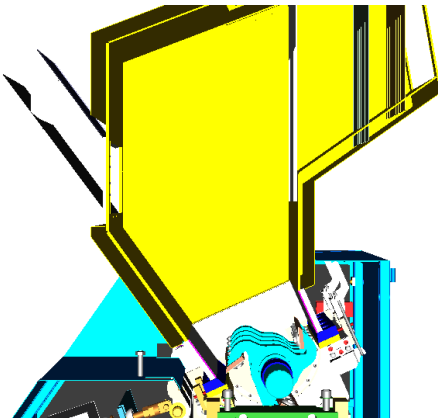
- Lateral bypass hopper for tubes and profiles



RS 3000-A

Various hoppers

- Rear bypass hopper for plates



RS 3000-A

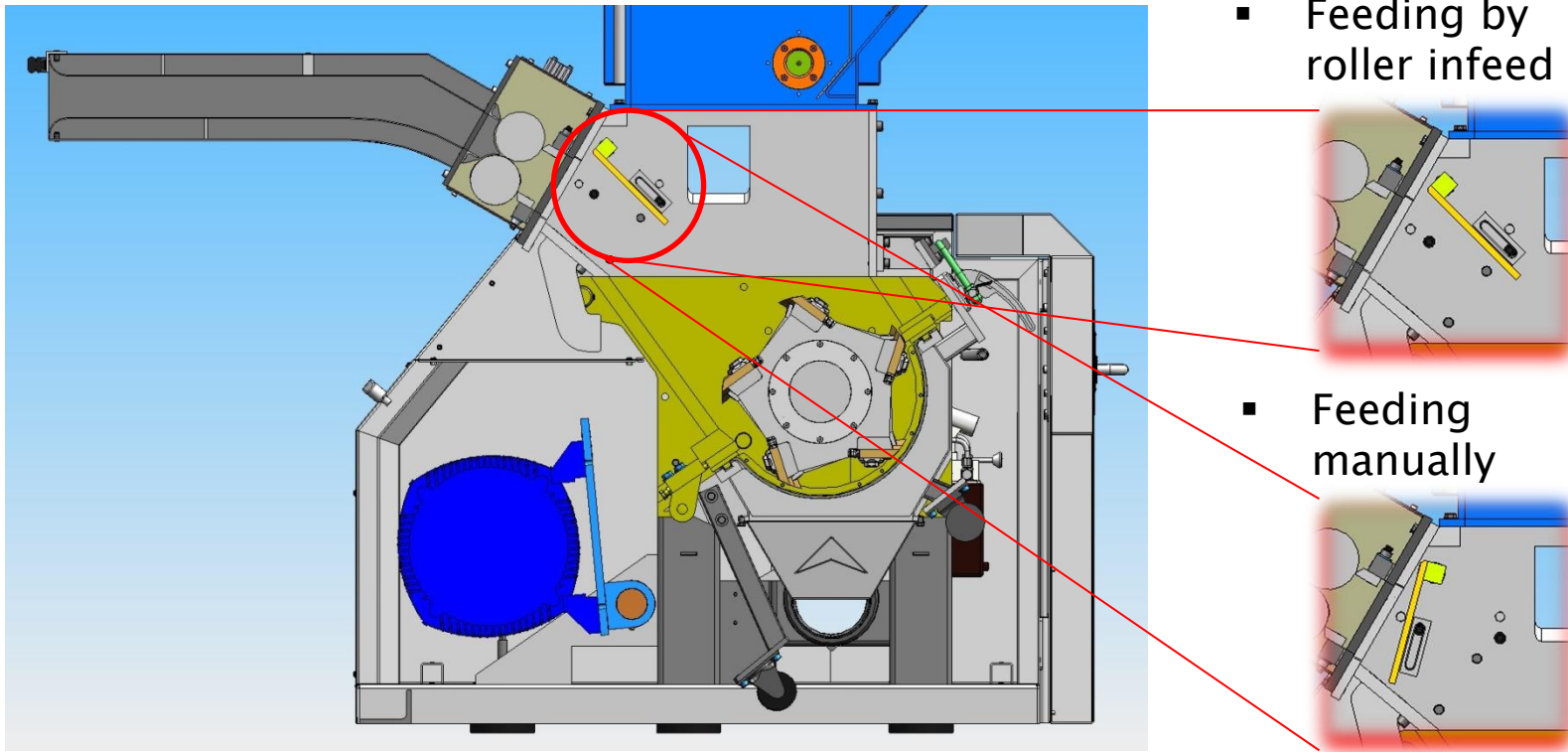
Various hoppers

- Rear roller infeed



RS 3000-A

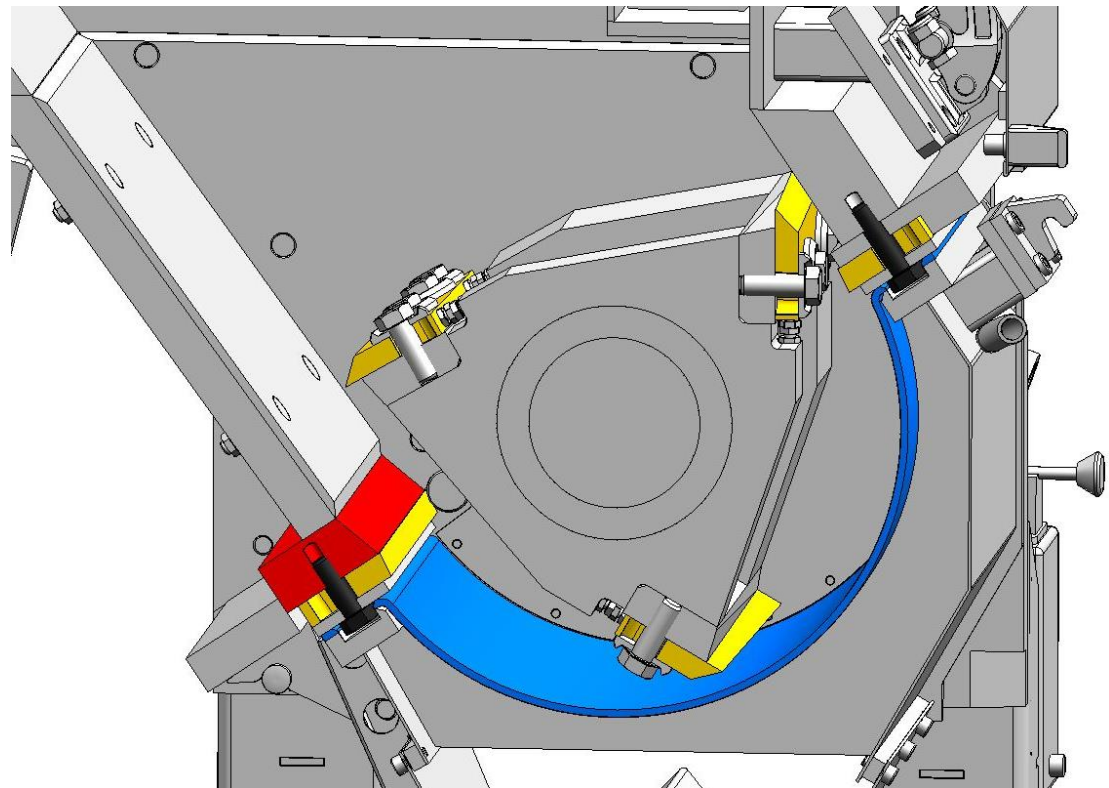
Switchover flap for rear roller infeed



RS 3000-A

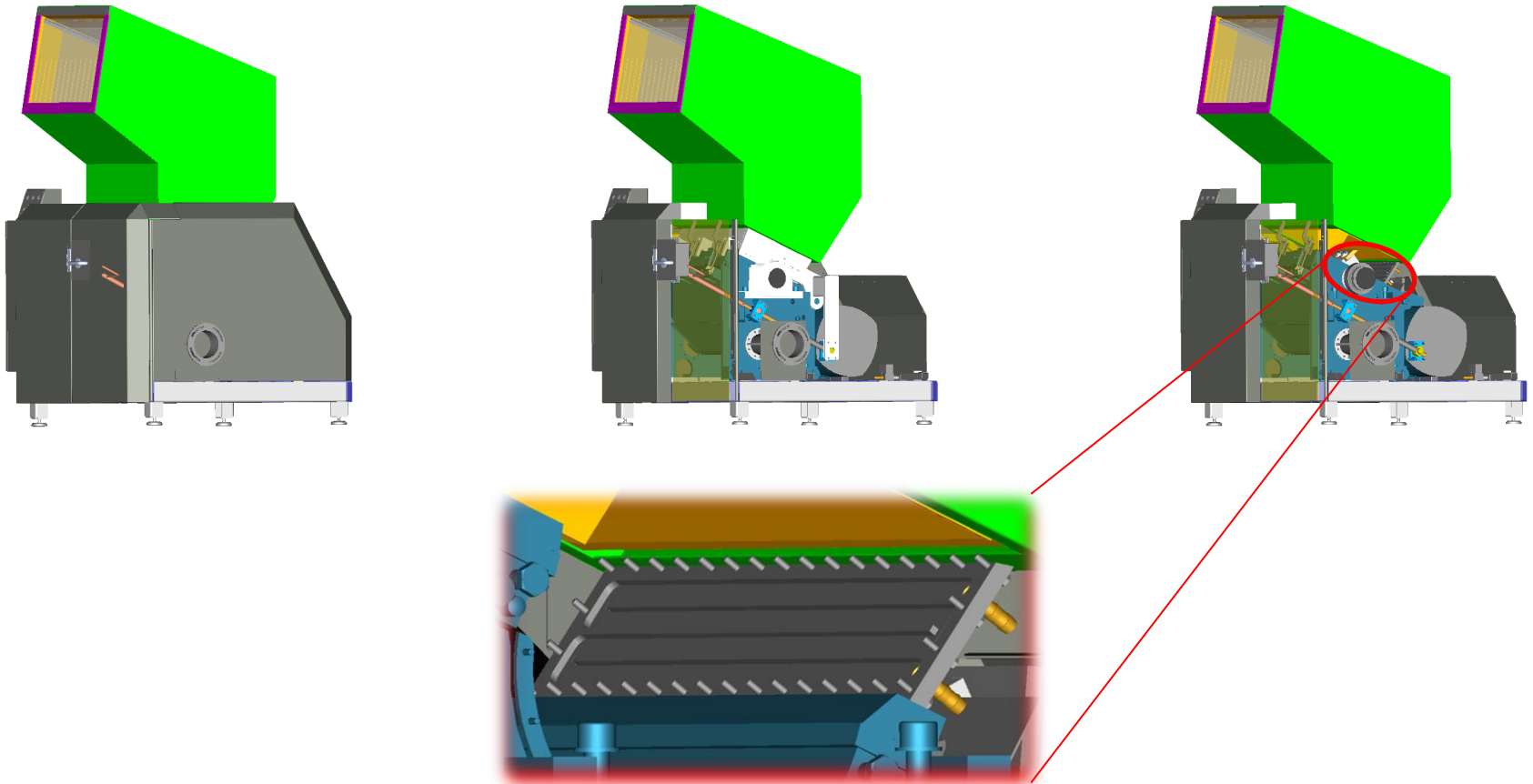
Wear and tear package

- Rotory blades and statornary blades HSS
- Screen nitrocarburated
- Hinterer Messerträger gehärtet



RS 3000-A

Water cooling



RS 3000-A

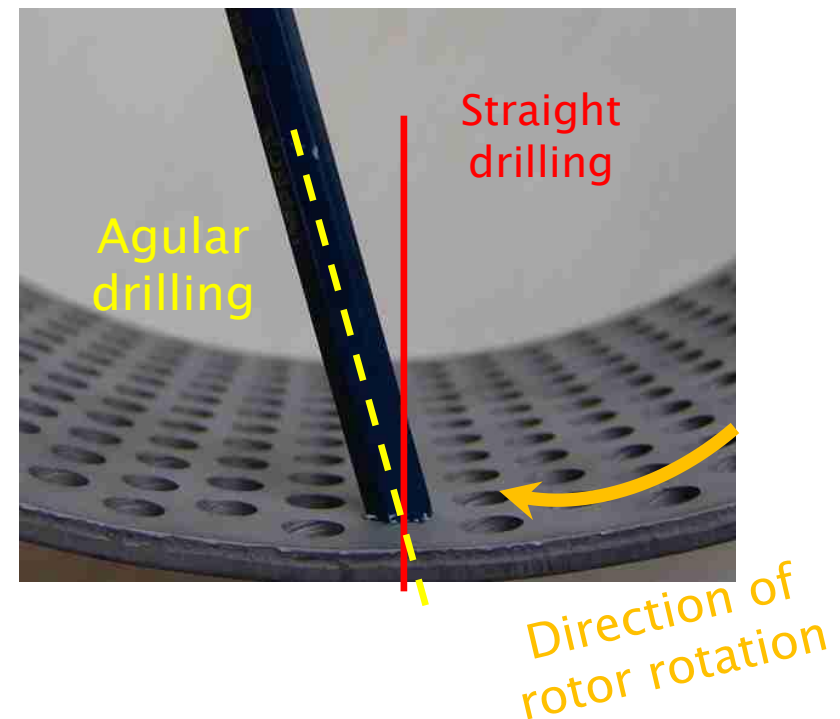
Problem: Long parts in regrind

- When granulating sprues or other applications where long parts are thinner than the screen holes, they can fall through the screen before they are gathered and cutted by the rotor blades. So long parts can occur in the regrind.
- This "long parts" may lead to disturbances in the further processing of the material in dosing or at the screw entrance of the extruder.

RS 3000-A

Solution: Angular drilled screen

- The „long part“ is supported on the angular drilling and is braked. This is sufficient until the next rotor blade comes and cut the long part again.



RS 3000-A

Solution: Angular drilled screen

- 6 mm standard screen
- 6 mm angular drilled screen



RS 3000-A

Problem: Too low throughput

- In one of the application actually matching grinder, the throughput of the grinder is too low. There must be found a way to increase the throughput of the grinder a little to satisfy the requirement.

RS 3000-A

Solution: Increase the number of cuts at the same rotor speed

- The 3-blades rotor is replaced with a 5 blades rotor. Thus, when using 2 stator blades, the number of cuts increased from 6 cuts to 10 cuts per revolution. It is expected a higher rate of approx. 25–30%.
- The use of a third stator blade increases the number of cuts by half and the throughput by about 10–12%.

RS 3000-A

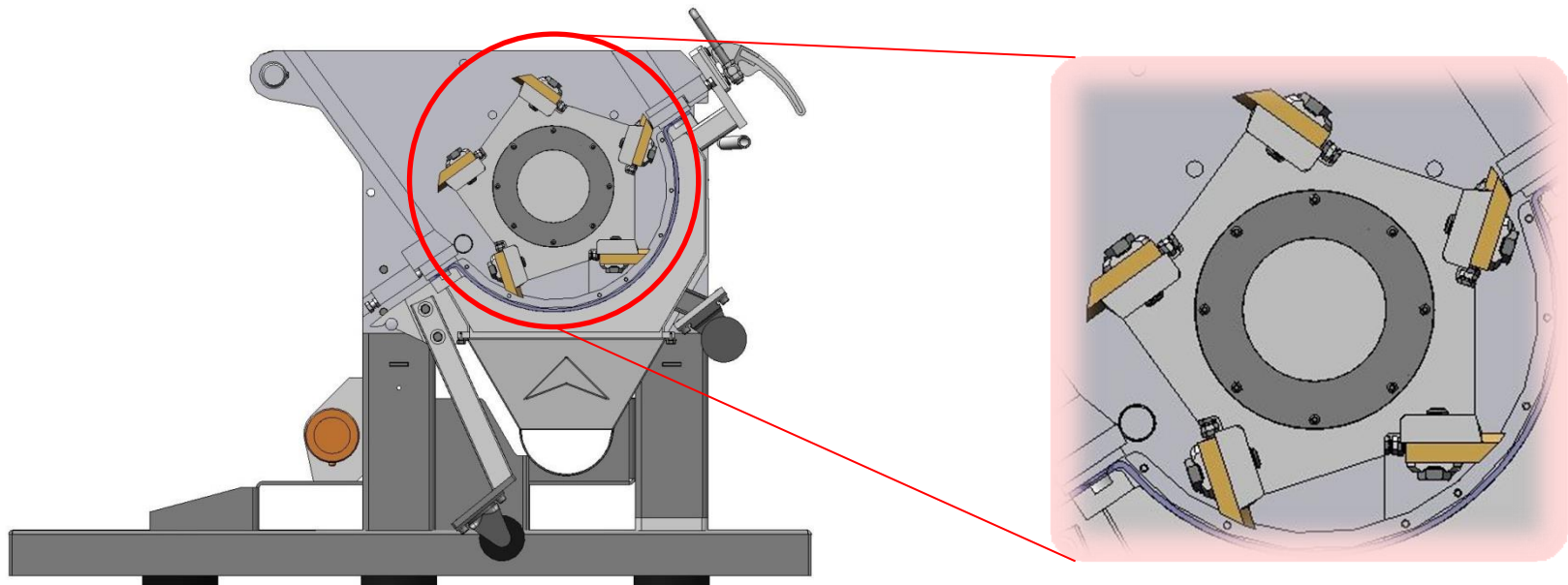
Problem: Very massiv material

- At thick lumps or plates a very long cut results from the tangential cutting path of the rotor blade through the material. This increases the force needed to pass through the material.
- In case of very thick lumps, the material penetrates too deeply into the rotor. Thereby the cutting can't be done by the grinder. There is a risk that the granulator stops.

RS 3000-A

Solution: 5-blade rotor

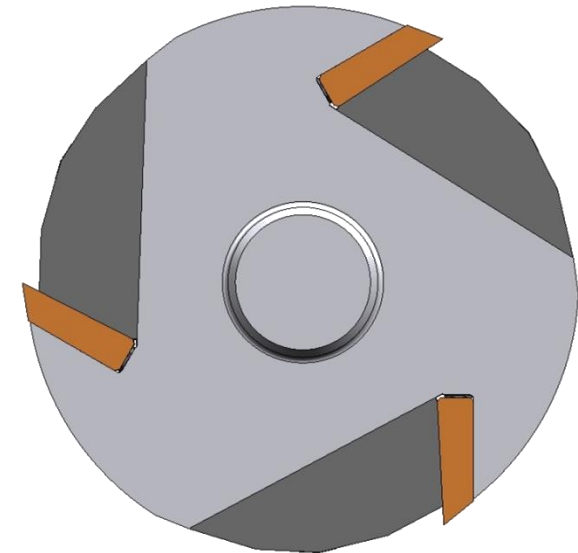
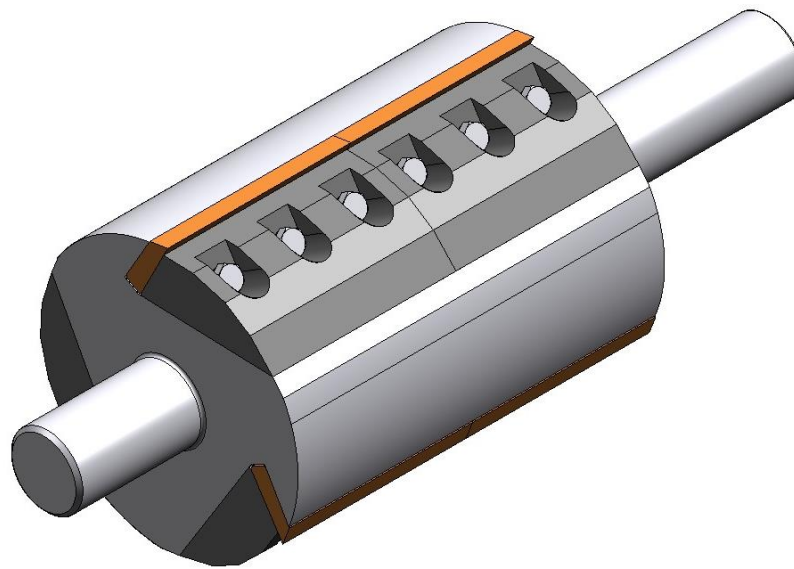
- By using a 5-blade rotor, the lump cannot penetrate as deeply into the rotor, because the space between the blades is smaller. Thus, the lump will be cutting at the edge and not in the center where the lump is usually more massive.



RS 3000-A

Solution: 5-blade rotor or variation rotor

- At extremely massive lumps, deeper penetration of the material can be prevented by a closed variation rotor. The rotor nibbling off piece by piece of the lump.



**Many thanks
for your attention**



Getecha GmbH