GETECHA

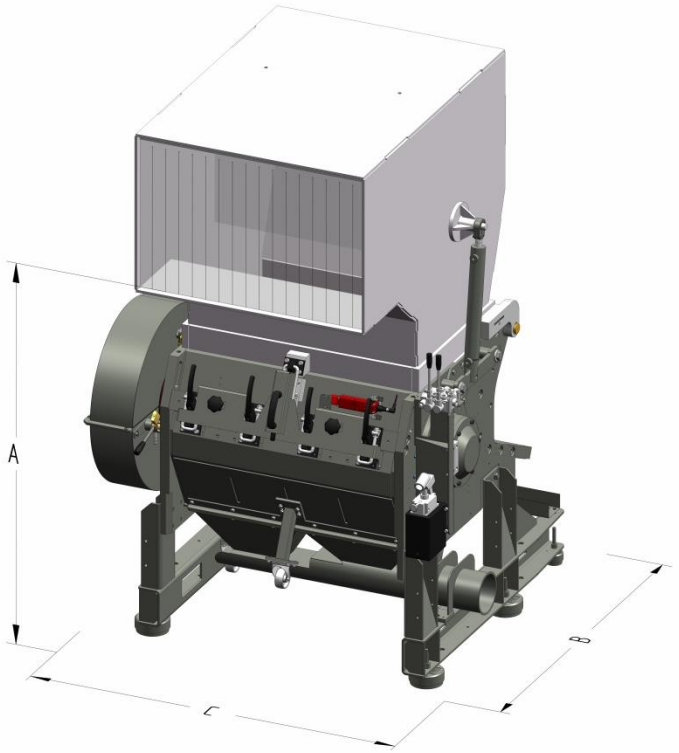
RS 4500-A

Devours large volumes quietly

RS 45000-A

Sizes

		RS 45060	RS 45090	RS 45120
Cutting diameter (mm)		450	450	450
No. of rotory blades (pieces)		3 x 2	3 x 3	3 x 4
No. of stationary blades (pieces)		2	2	2
Cutting length (mm)		600	900	1200
Throughput (kg/h)		700*	900*	1200*
Motor power (kW)		30	37	45
	A	1.560 mm	1.560 mm	1.560 mm
	B	1.680 mm	1.680 mm	1.680 mm
	C	1.190 mm	1.490 mm	1.790 mm



* Depending on screen size and material

RS 45000-A

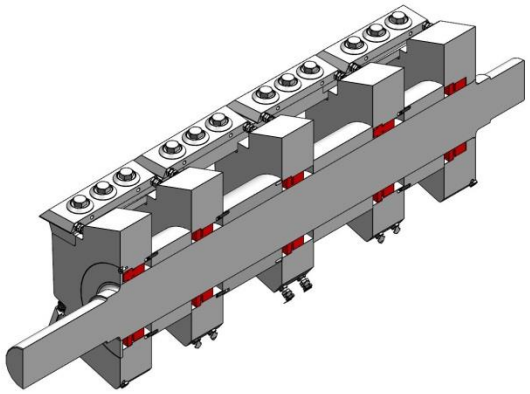
Modular desi

- Individual variation of components
- Integrated noise protection
- Blade adjustment gauge included

RS 45000-A

A smart rotor

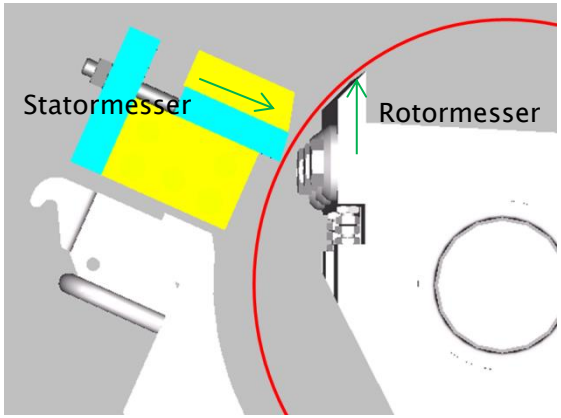
- Rotor segments are mounted on a steel shaft with couplings
- It is possible to replace individual rotor components
- Segments with opposing blade angles keep the material in the middle of the rotor (v-cut)

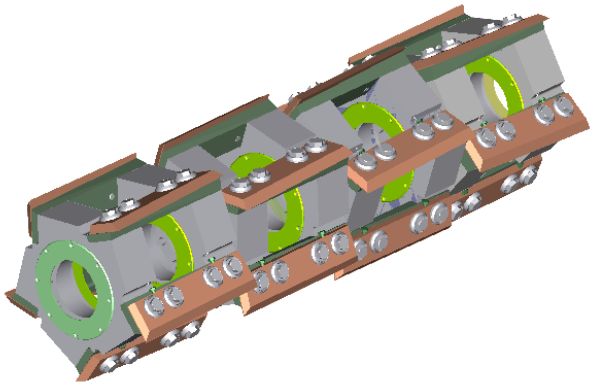


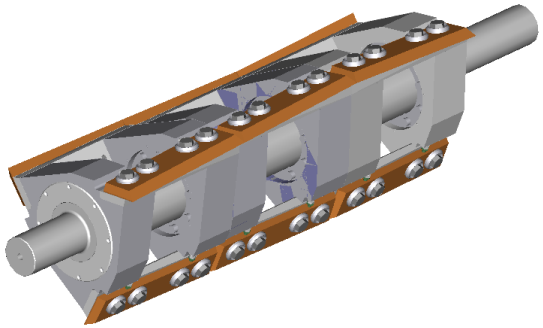
RS 45000-A

A smart rotor

- Constant cutting circle diameter guarantees consistent throughput and granulate quality
- Short rotary blades simplify handling when replacing blades
- Unlimited rotor configuration (offset or continuous cut)



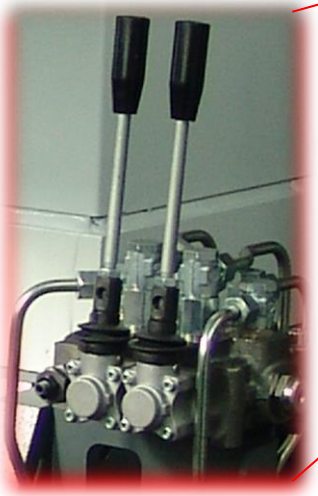


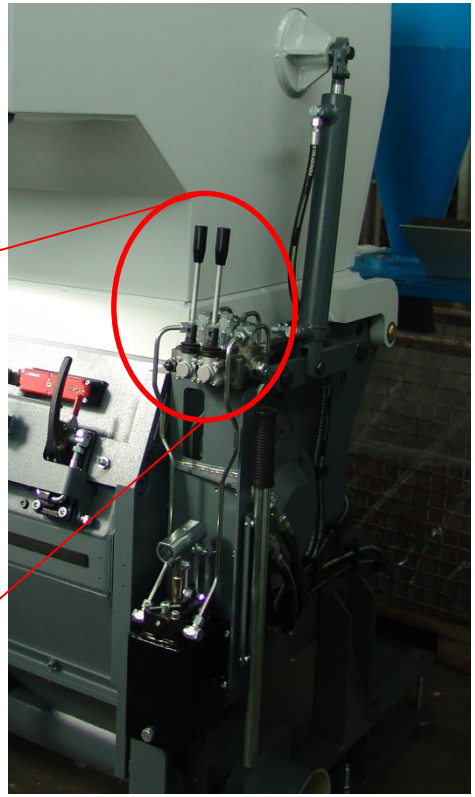


RS 45000-A

Developed on the basis of practical experience

- Hopper and screen opens easily by means of manual hydraulic system

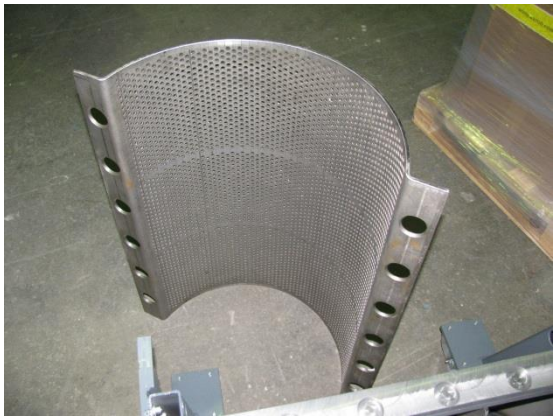




RS 45000-A

Developed on the basis of practical experience

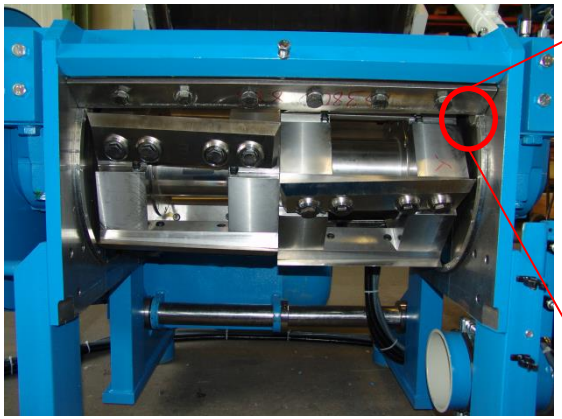
- Very good machine accessibility for cleaning and servicing
- Screen is useable on both sides and can be removed without tools

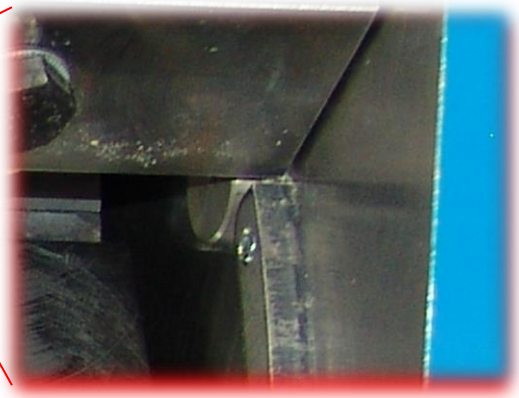


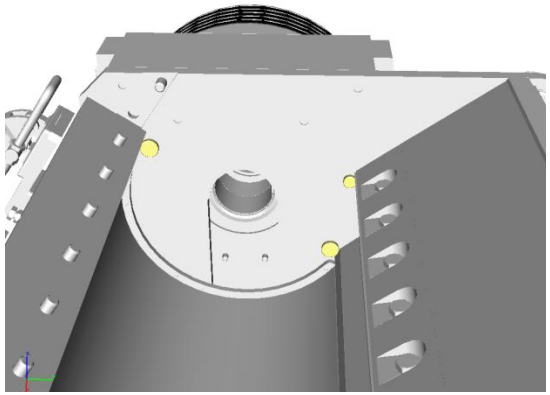
RS 45000-A

Developed on the basis of practical experience

- Stator blade is mounted against a positive stop



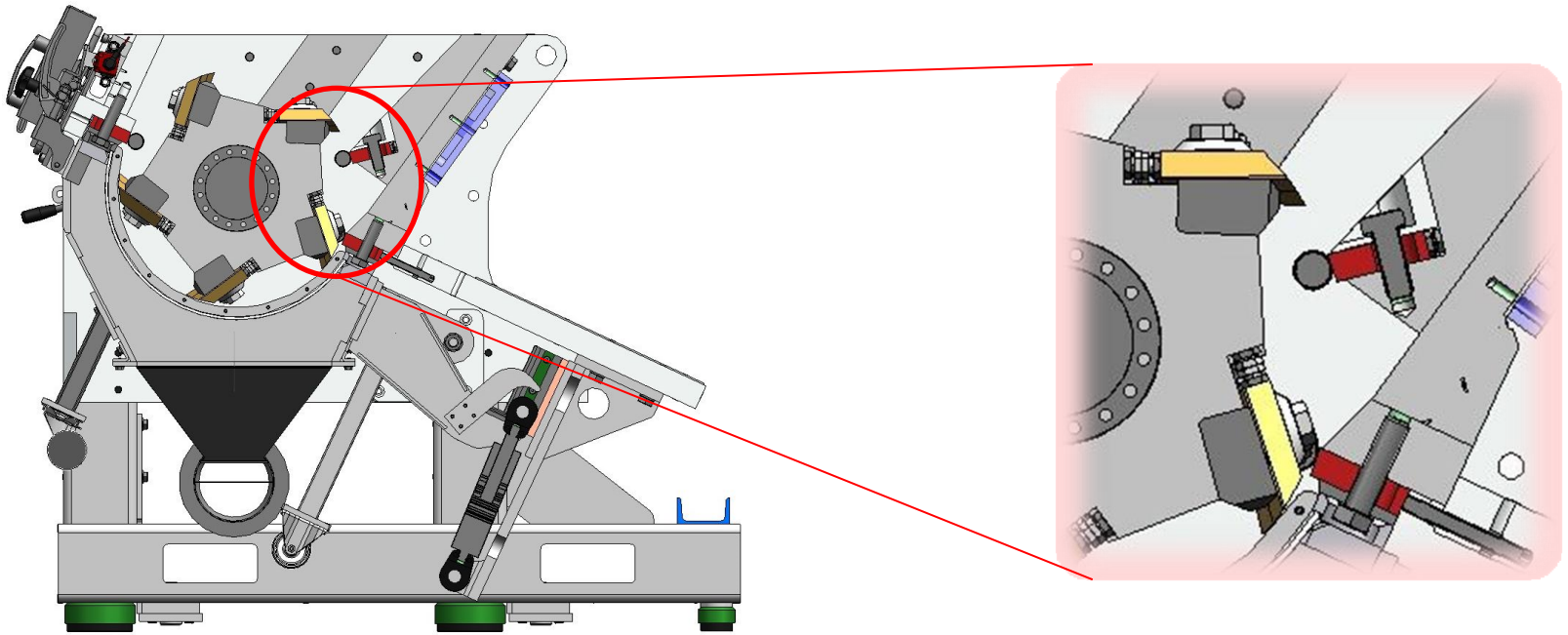




RS 45000-A

Versatile in use

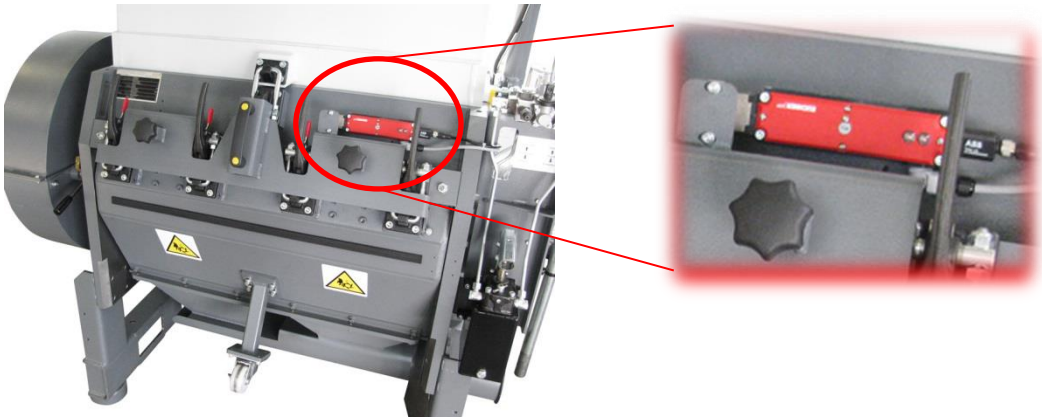
- Five-blade rotor for higher throughput
- Third stationary blades for thick-walled parts



RS 45000-A

SECURITY is a top priority

- A safety limit switch at the hopper and the screen tray guarantee a opening 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



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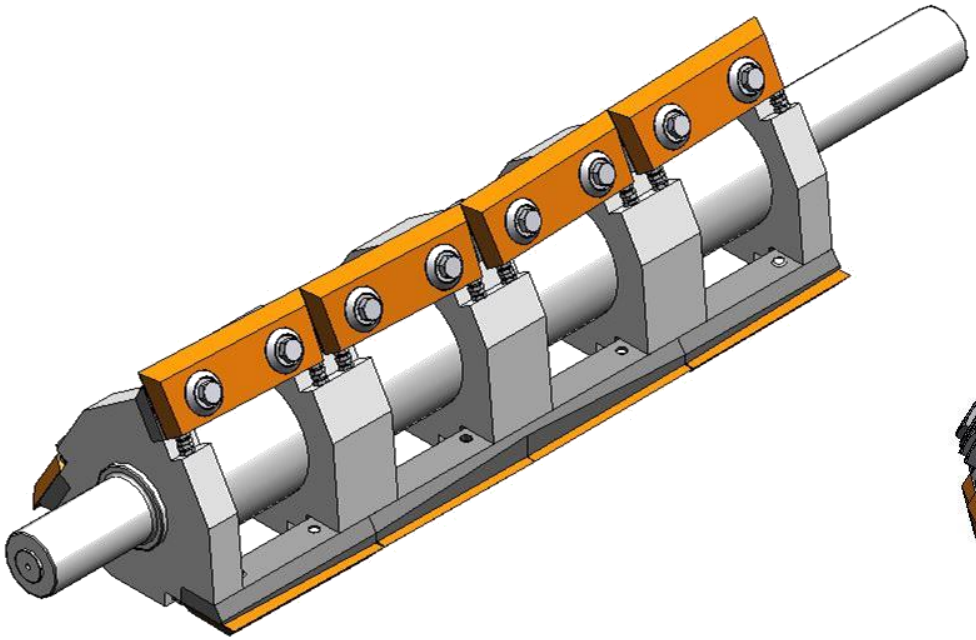
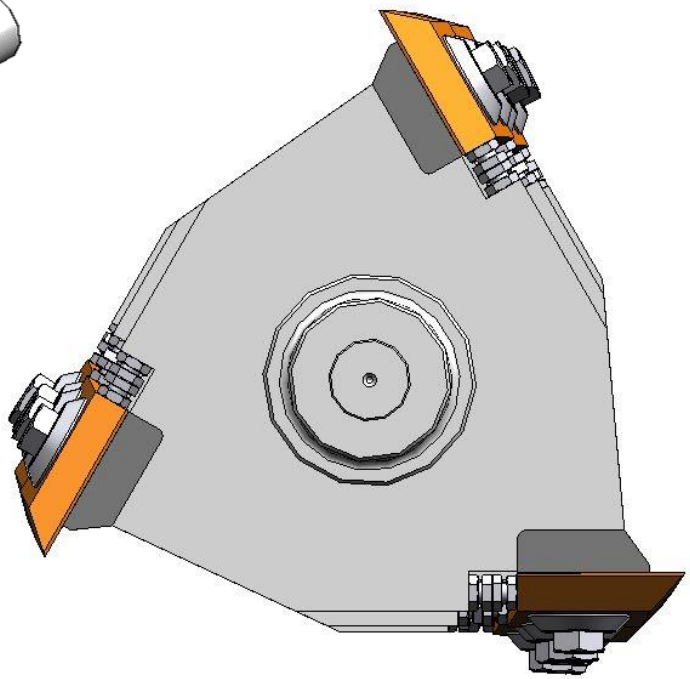
3 blade open segment rotor





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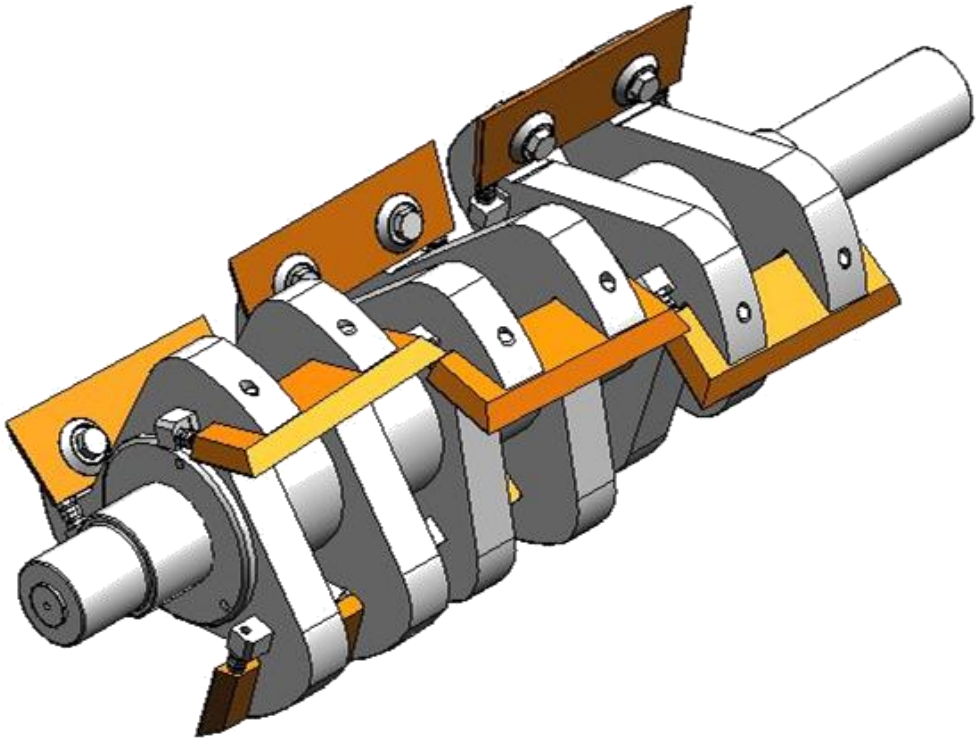
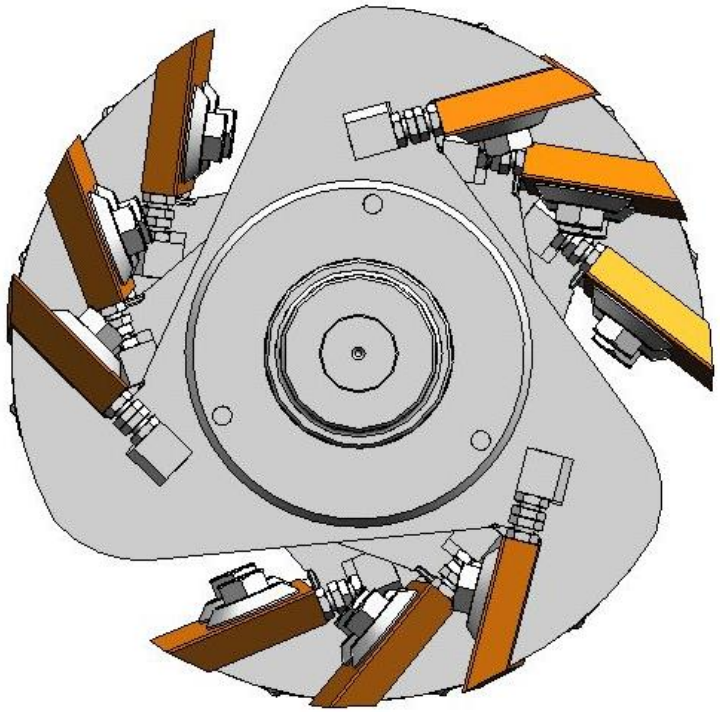
3 blade hooked rotor





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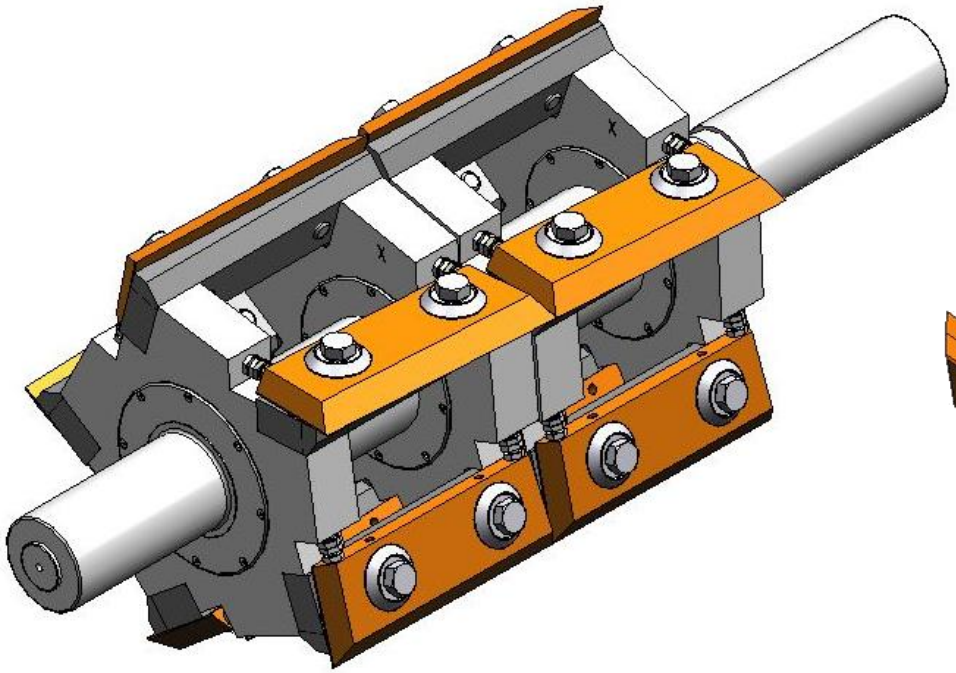
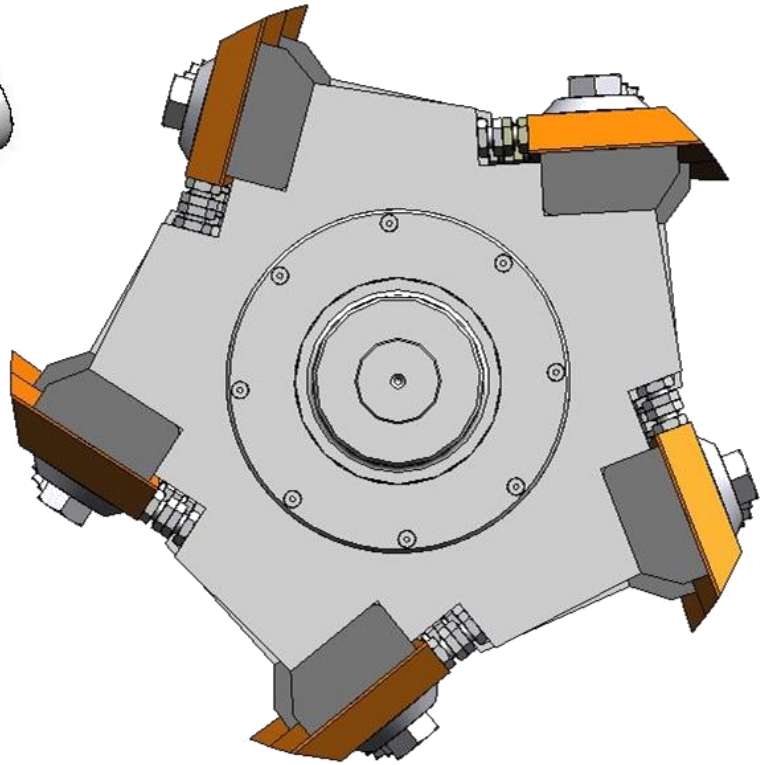
5 blade open segment rotor





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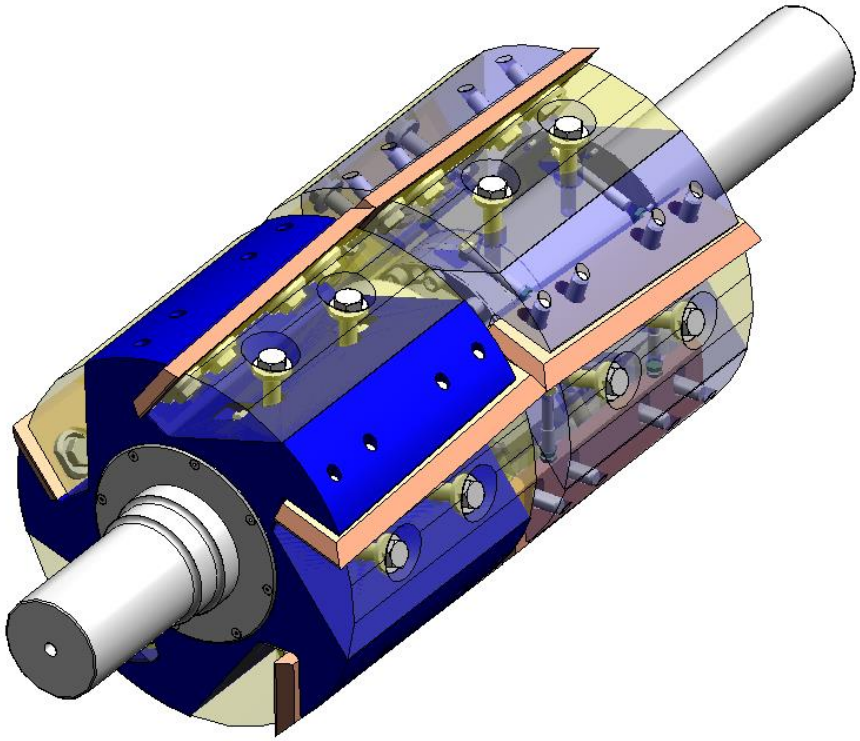
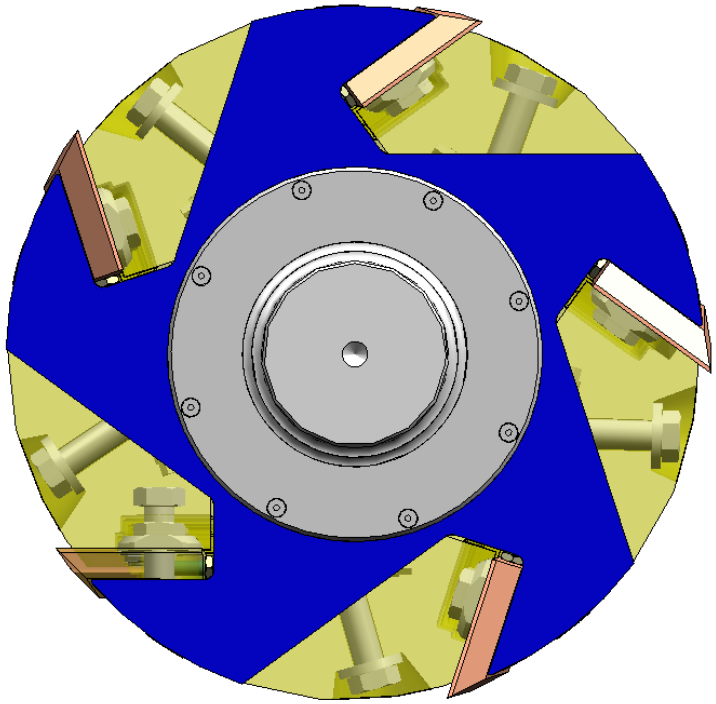
5 blade variation rotor





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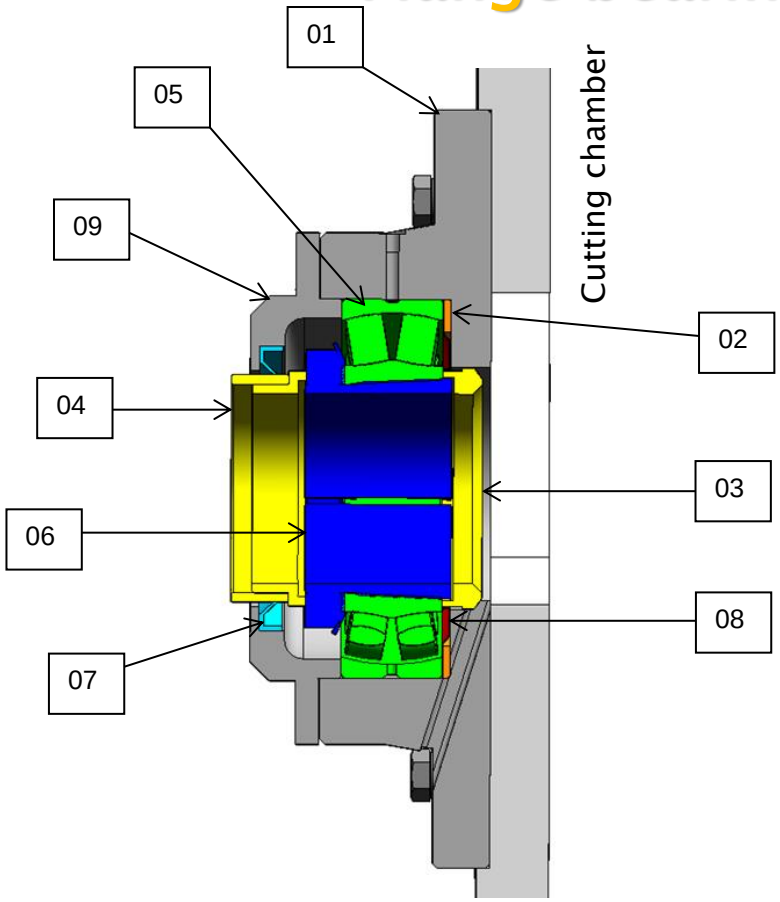
Flange bearing (fixed bearing)



- Double-row cylindrical roller bearings
- Free space in the bearing with dust outlet duct
- Advantage compared to pillow block bearings: The stress points of the two bearings are closer to each other

Pos.	Anzahl	Benennung
01	1	Bearing flange
02	1	Distance ring
03	1	Fixed ring-bearing-rotor
04	1	Fixed ring-bearing-v-belt pulley
05	1	Ball joint bearing
06	1	Clamping sleeve
07	1	Rotory shaft seal
08	1	Sealing ring
09	1	Bearing cover

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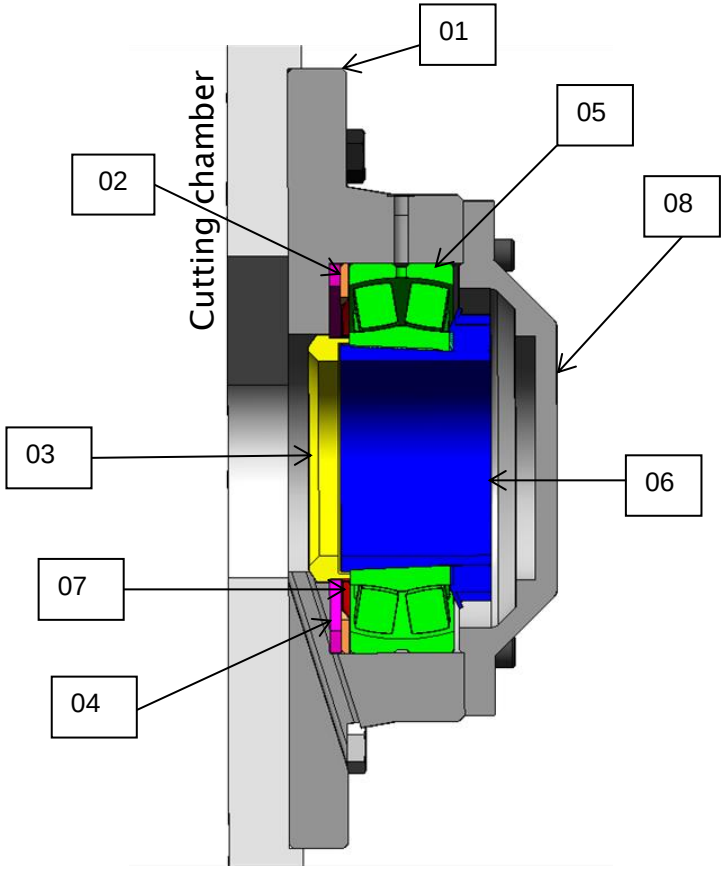
Flange bearing (movable bearing)



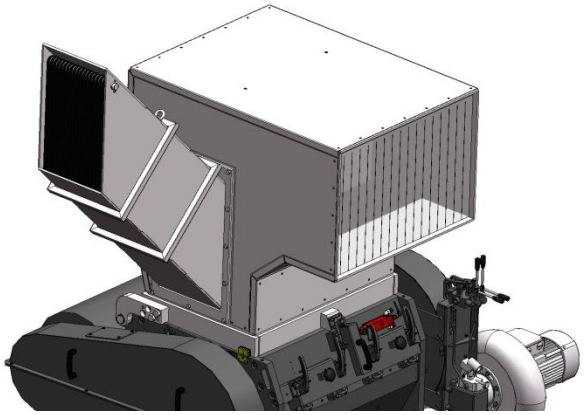
- Double-row cylindrical roller bearings
- Free space in the bearing with dust outlet duct
- Fixed bearing on the drive side
- Advantage compared to pillow block bearings: The stress points of the two bearings are closer to each other

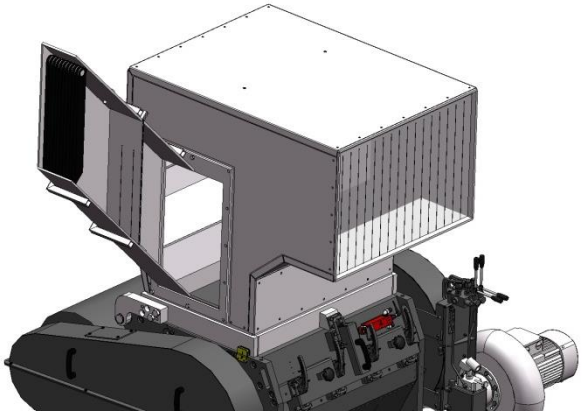
Pos.	Anzahl	Benennung
01	1	Bearing flange
02	1	Distance ring
03	1	Fixed ring-bearing-rotor
04	1	Bearing adjustment
05	1	Ball joint bearing
06	1	Clamping sleeve
07	1	Sealing ring
08	1	Bearing cover

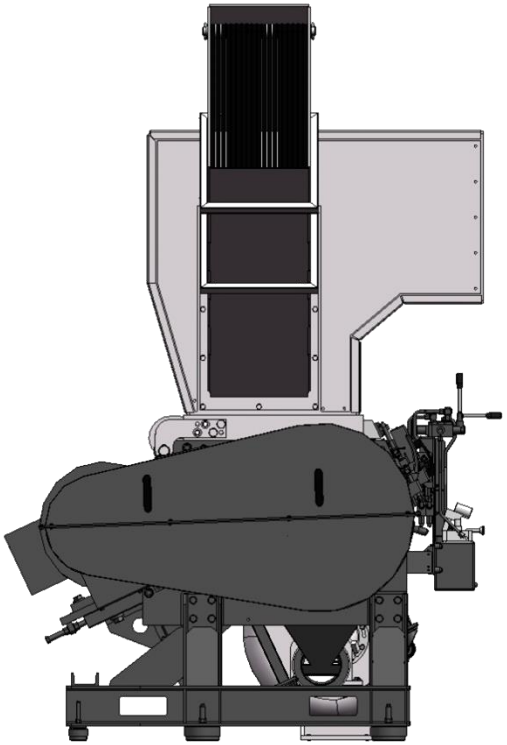
RS 45000-A

Various hoppers

- Lateral bypass hopper for tubes and profiles







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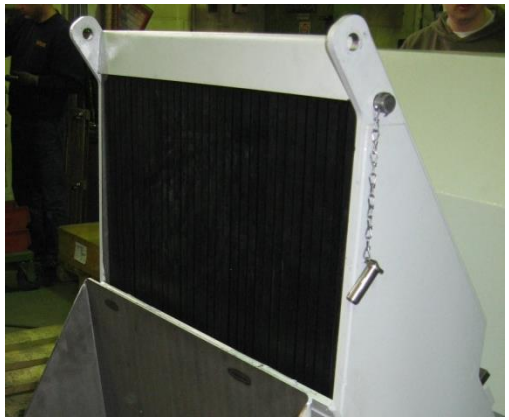
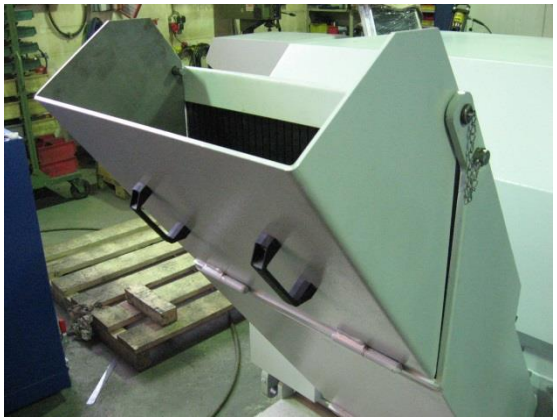
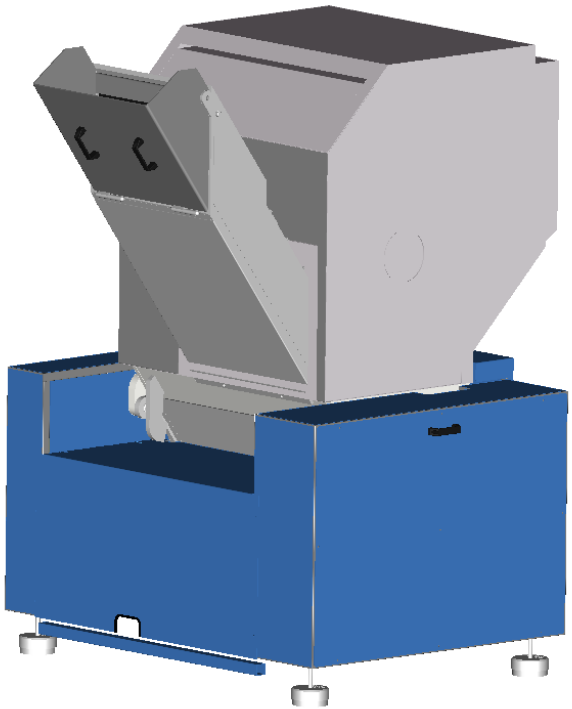
Various hoppers

- Rear bypass hopper for plates



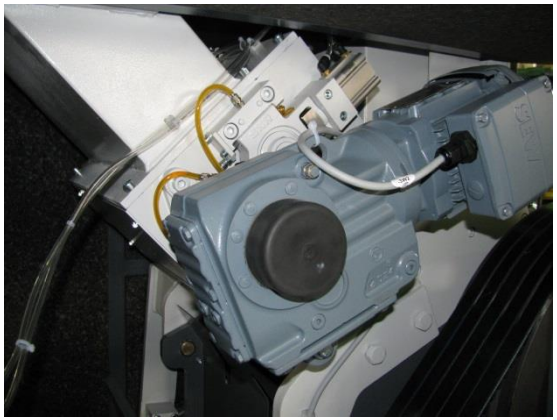


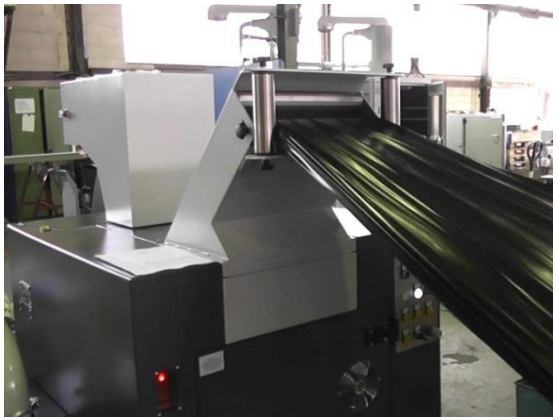


RS 45000-A

Various hoppers

- Rear roller infeed





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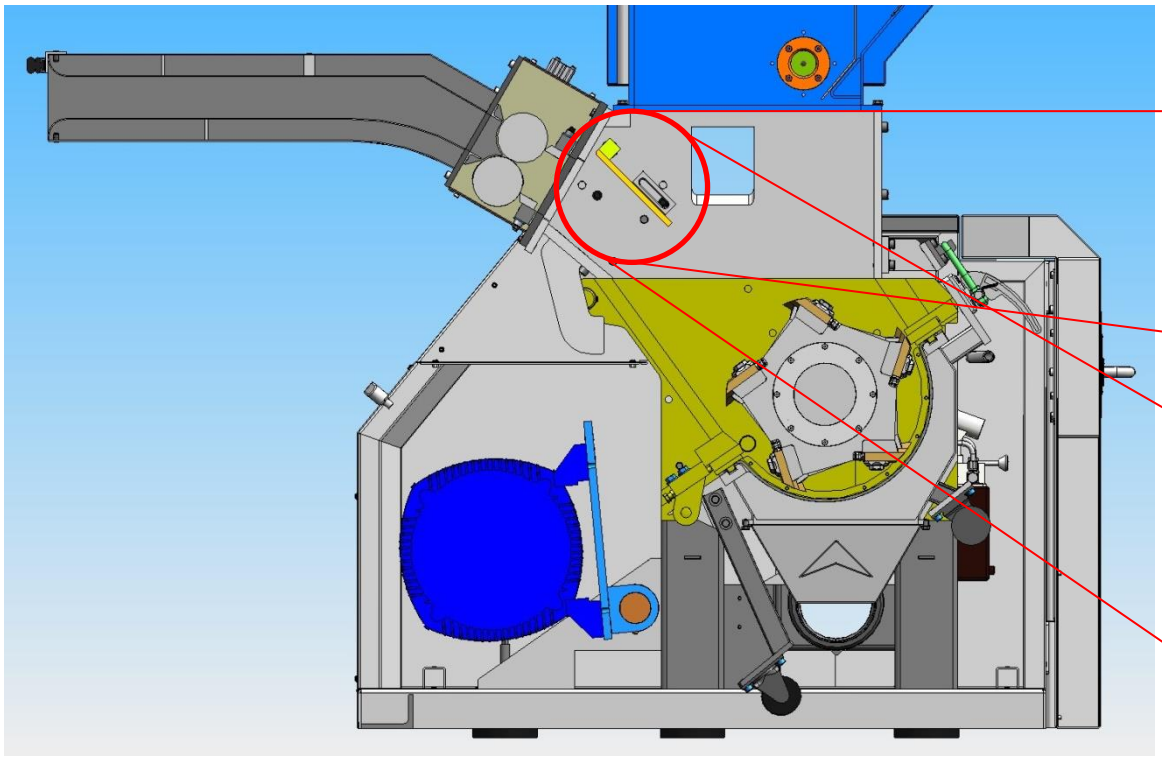
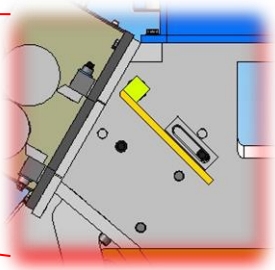
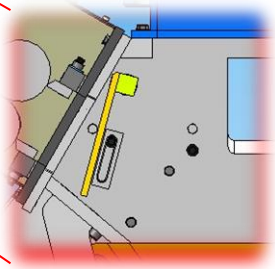
Switchover flap for rear roller infeed



- Feeding by roller infeed



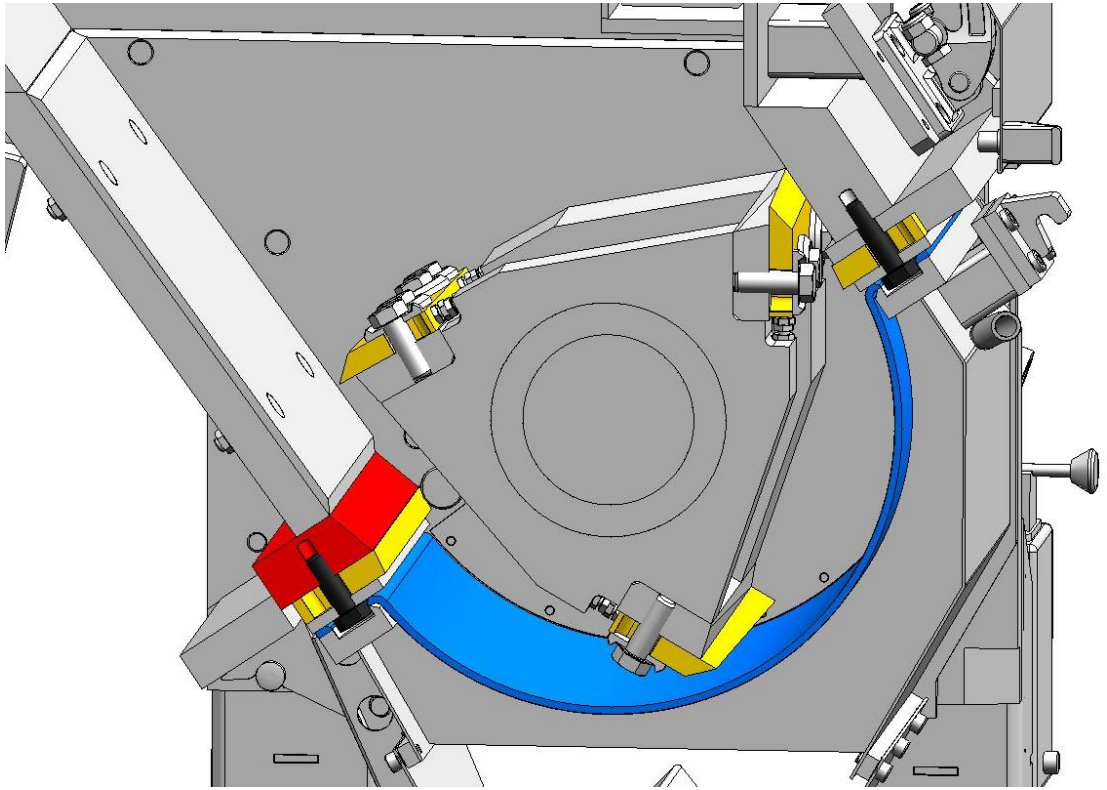
- Feeding manually



RS 45000-A

Wear and tear package

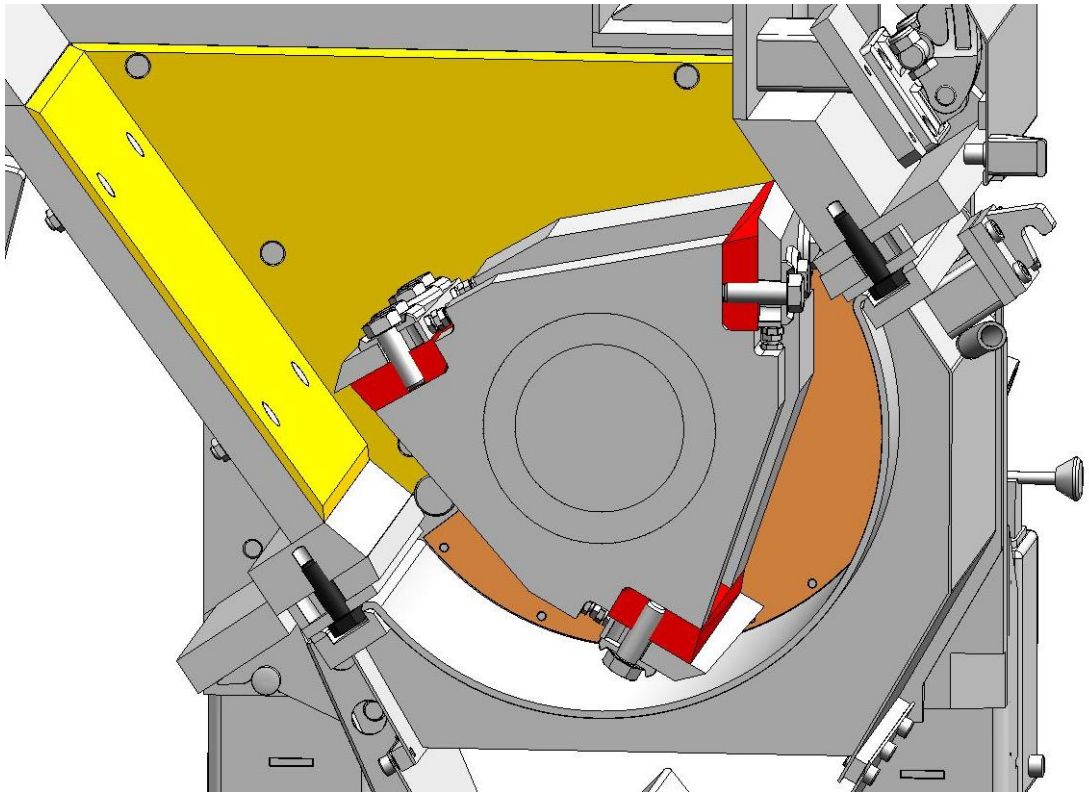
- Rotory blades and statornary blades HSS
- Screen nitrocarburated
- Hinterer Messerträger gehärtet



RS 45000-A

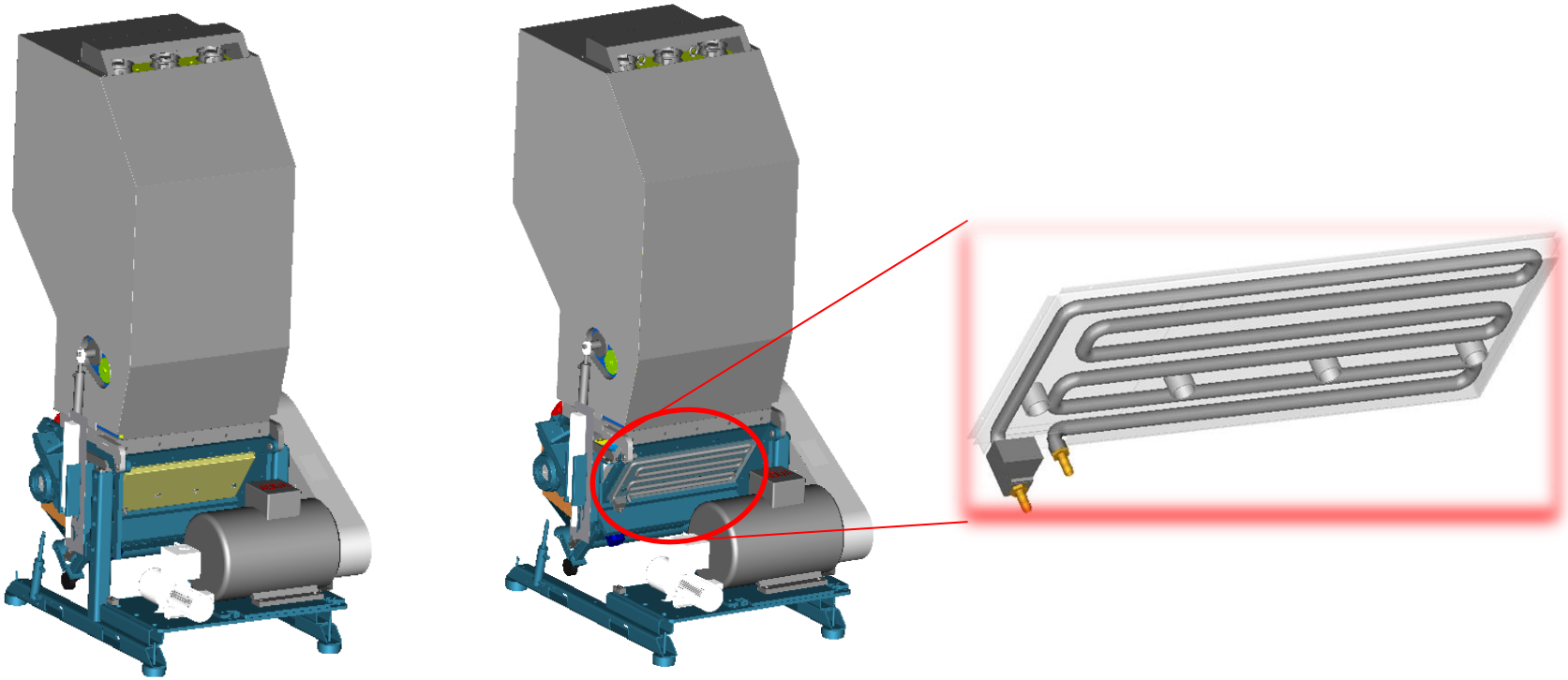
Extended wear and tear package

- Changeable wear protection plate in the infeed zone
- Hardened side plates in the cutting chamber
- Hardened knive carrier for the rotory blades



RS 45000-A

Water cooling



RS 45000-A

Problem: Long parts in regrind

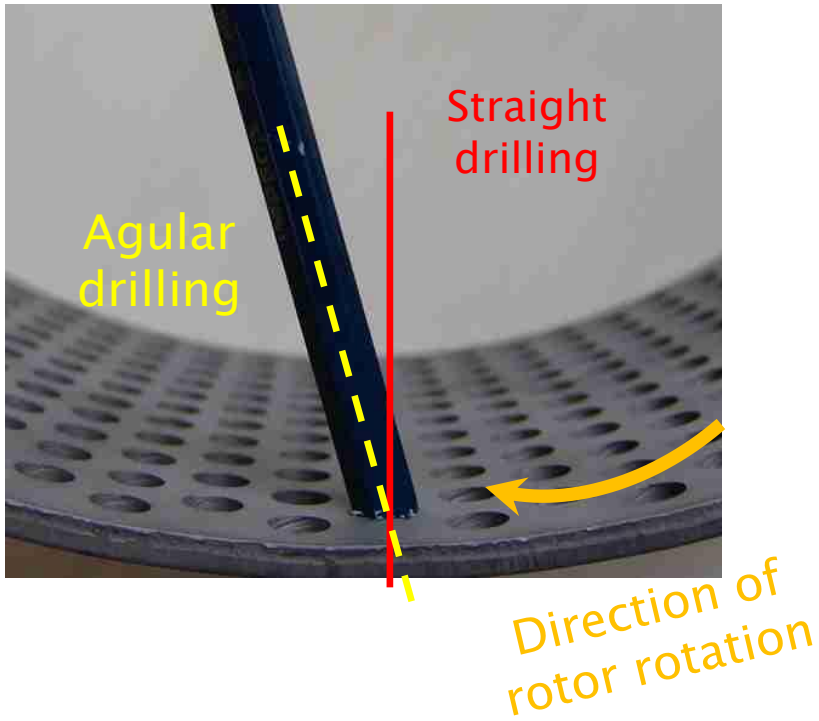
- When granulating sprues or other applications where long parts are thinner than the screen holes, they can fall through the screen before they are gathered and cutted by the rotor blades. So long parts can occur in the regrind.

- 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 3800-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 3800-A

Solution: Angular drilled screen

- 6 mm standard screen

- 6 mm angular drilled screen

RS 45000-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 45000-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 45000-A

Problem: Very massiv material

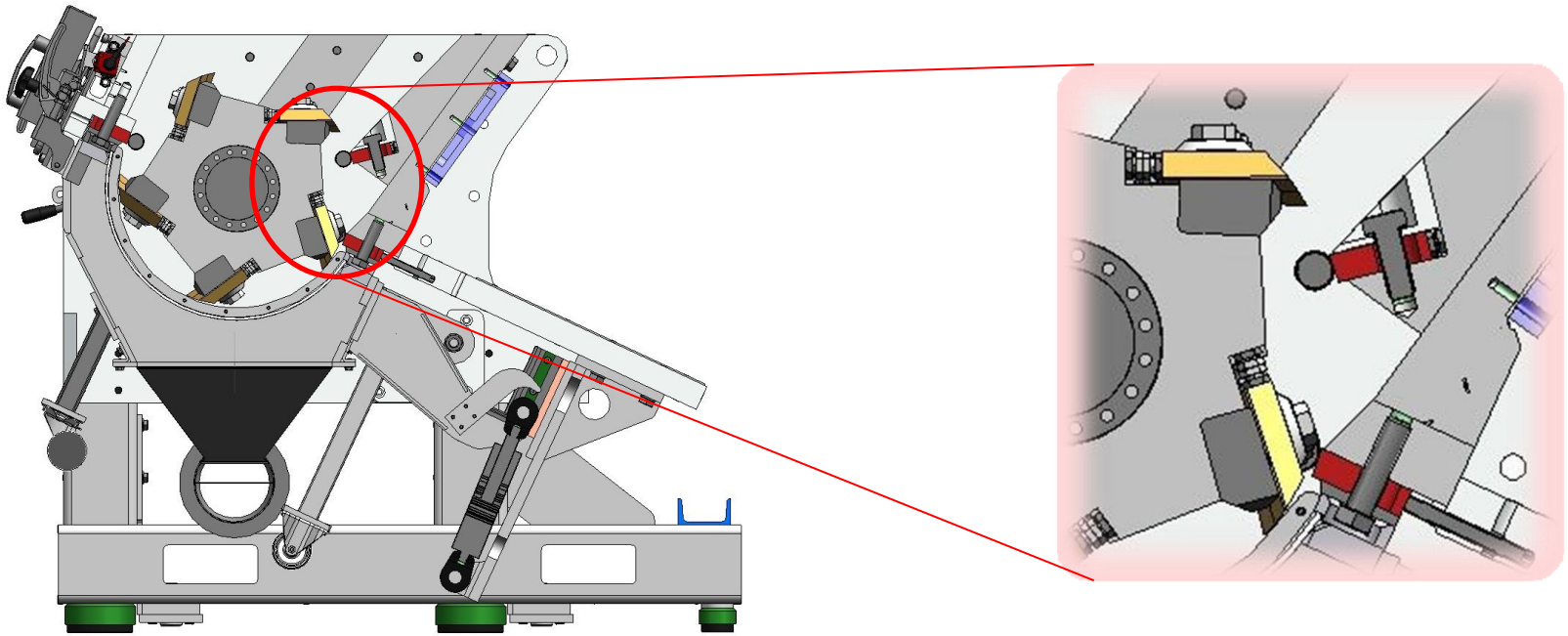
- At thick lumps or plates a very long cut results from the tangential cutting path of the rotor blade through the material. This increases the force needed to pass through the material.

- 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 45000-A

Solution: 3rd stator blade as pre-cutting blade

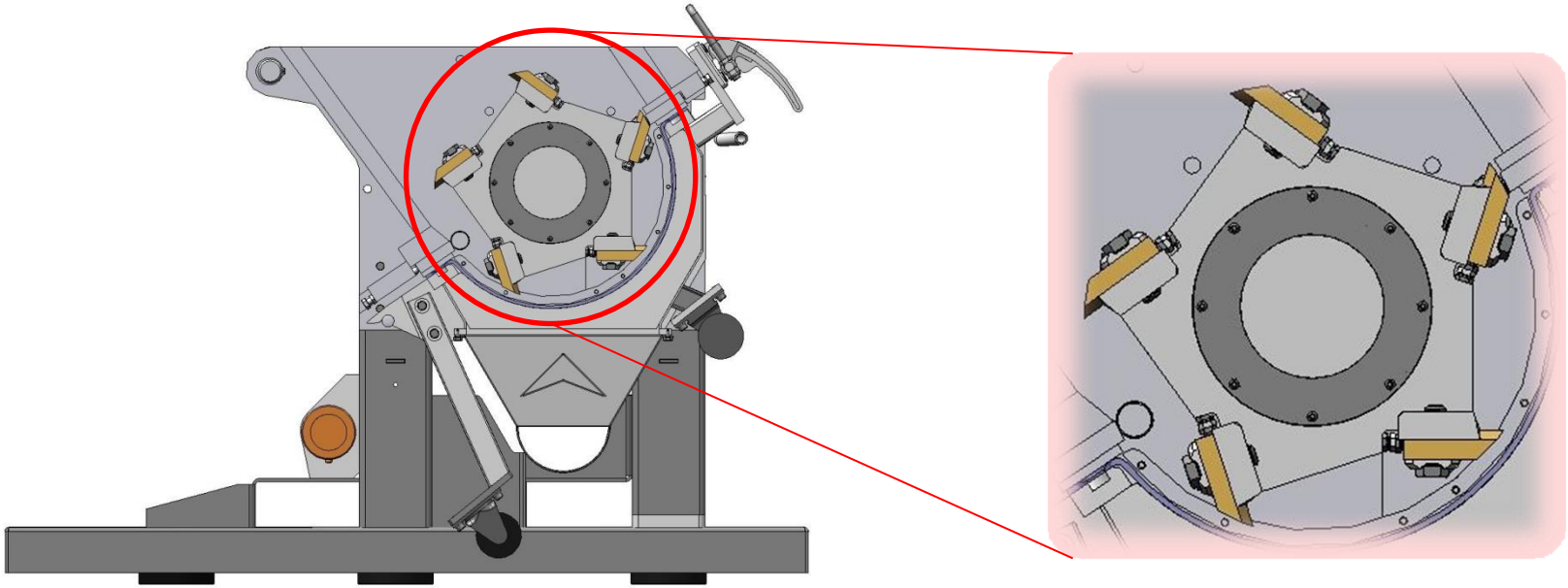
- Up from the series 380x the 3rd stator blades can be used as a pre-cutting blade. Because of the location of this 3rd stator blade the cutting length is shortened.



RS 45000-A

Solution: 5-blade rotor

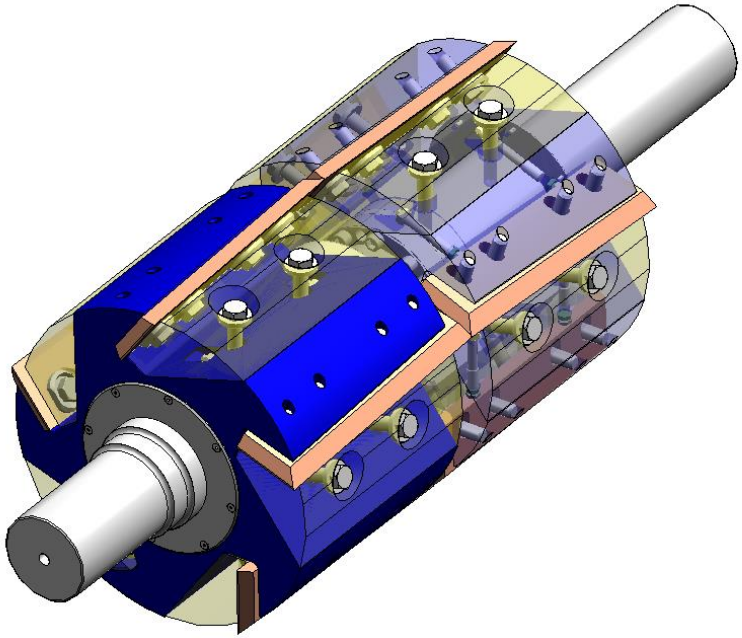
- By using a 5-blade rotor, the lump cannot penetrate as deeply into the rotor, because the space between the blades is smaller. Thus, the lump will be cutting at the edge and not in the center where the lump is usually more massive.

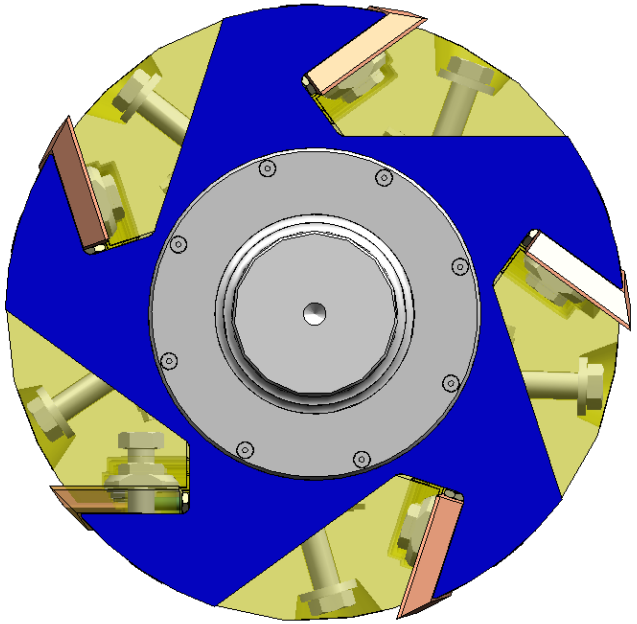


RS 45000-A

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