



WATER
TECHNOLOGIES

Bilfinger Water Technologies GmbH

Coarse and Fine Screening NOGGERATH® Rotary Drum Screen NSA & NSA-Plus

April 2014

NOGGERATH® Rotary Drum Screen NSA

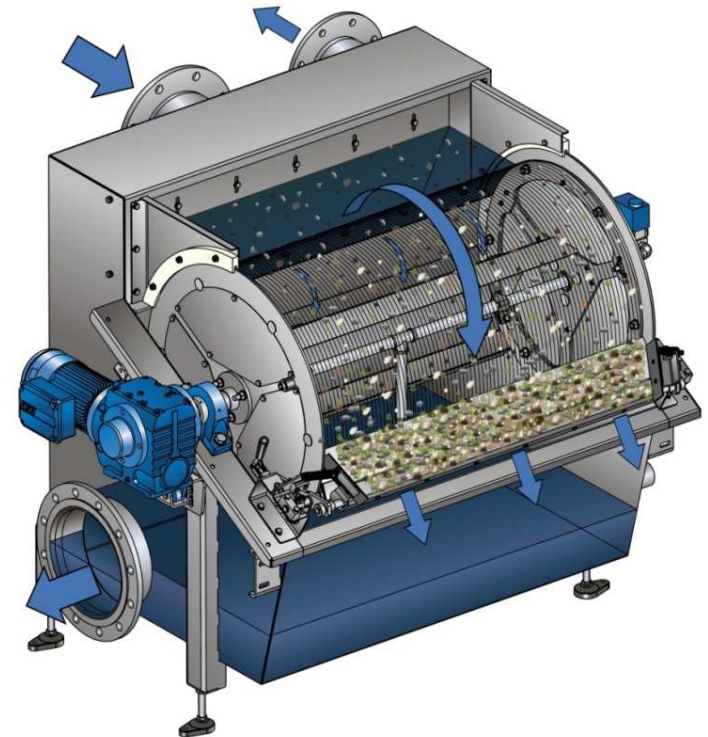
Externally-fed Rotary Drum Screen



NOGGERATH® Rotary Drum Screen NSA

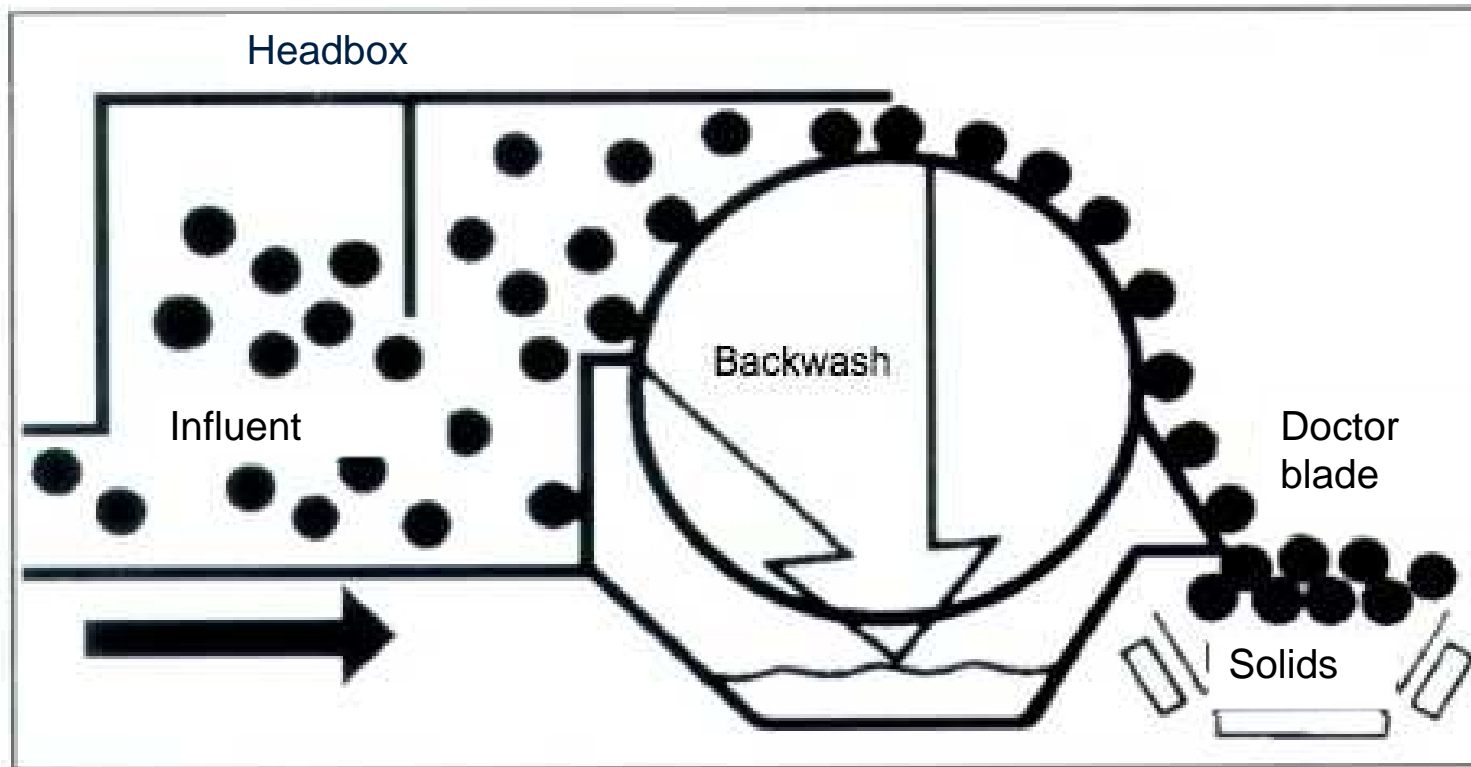
Function / Flow Scheme

- Continuously operating screening system with automatic cleaning device
- Separation of floating, greasy and adhesive solids
- The process/waste water is lead onto the rear of the wedge wire cylinder via the headbox where it is efficiently separated from solid matters
- The sieve drum is driven by a laterally mounted geared motor
- The rotating wedge-wire cylinder transports the separated solids up to the scraper blade where the solids are discharged into a suitable container, a press or into a conveyor
- The internal spray system is integrated into the drum (driveshaft with hollow shaft design)
- Slot openings in flow direction



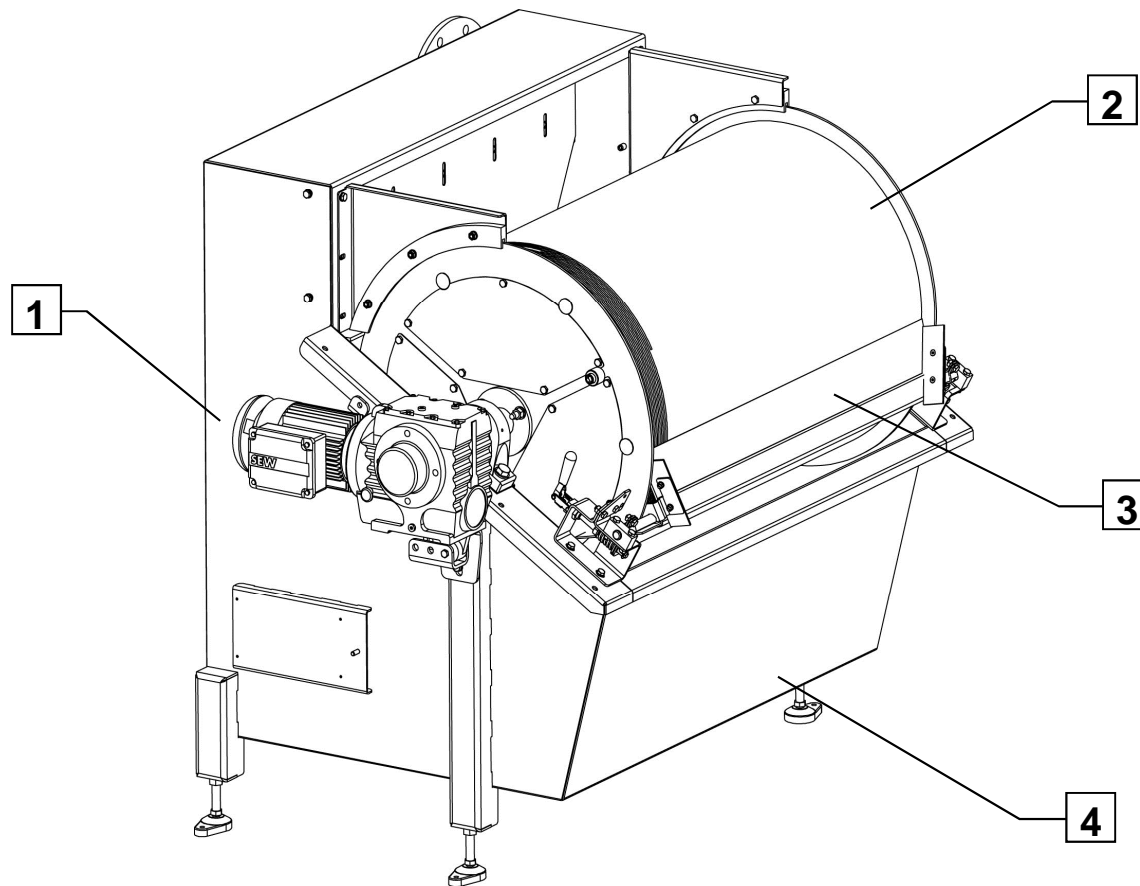
NOGGERATH® Rotary Drum Screen NSA

Function



NOGGERATH® Rotary Drum Screen NSA

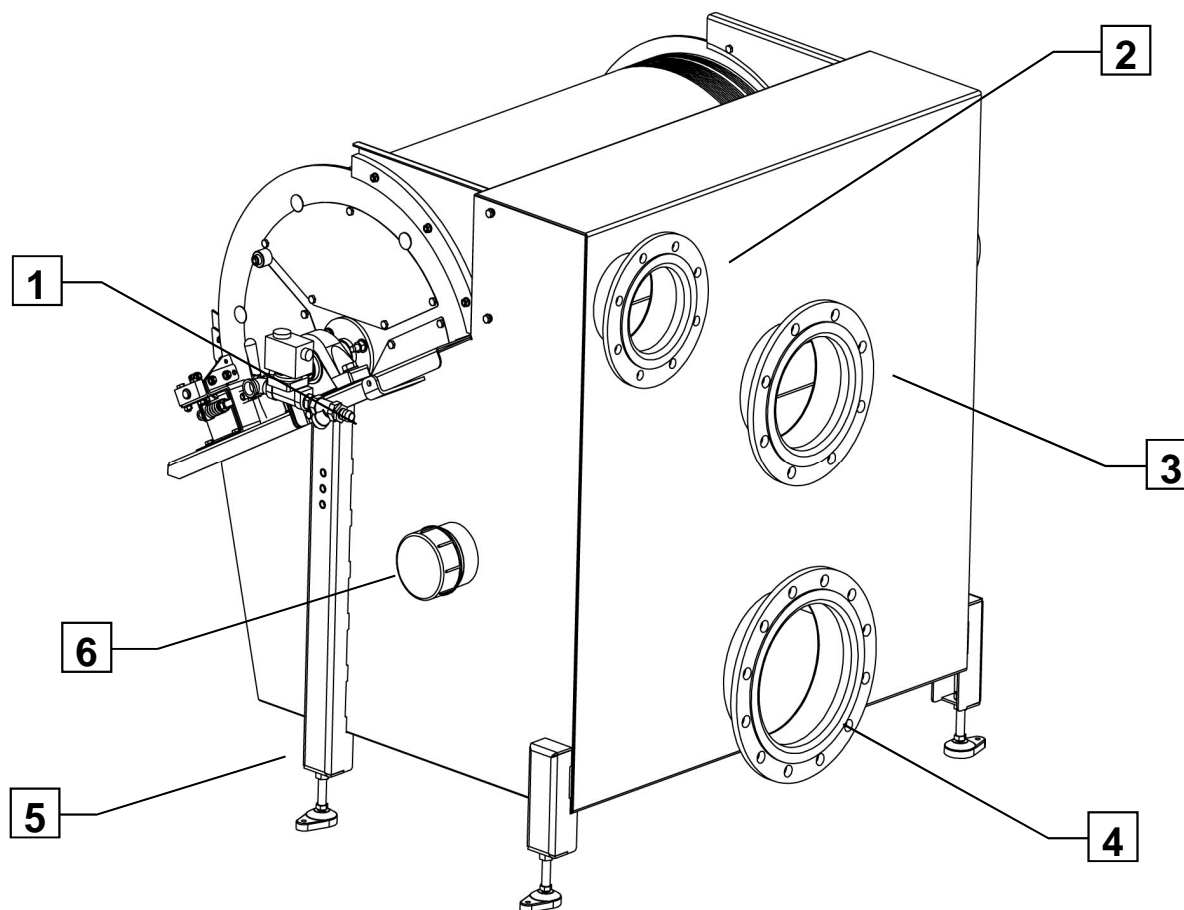
General Sketch – Front View



- 1 Drive
- 2 Screening drum
- 3 Doctor blade (scraper)
- 4 Drainage chamber

NOGGERATH® Rotary Drum Screen NSA

Functional Sketch – Rear View



- 1 Connection to spray bar system
- 2 Emergency overflow
- 3 Inlet
- 4 Outlet
- 5 Machine base
- 6 Drain connection inlet chamber

NOGGERATH® Rotary Drum Screen NSA

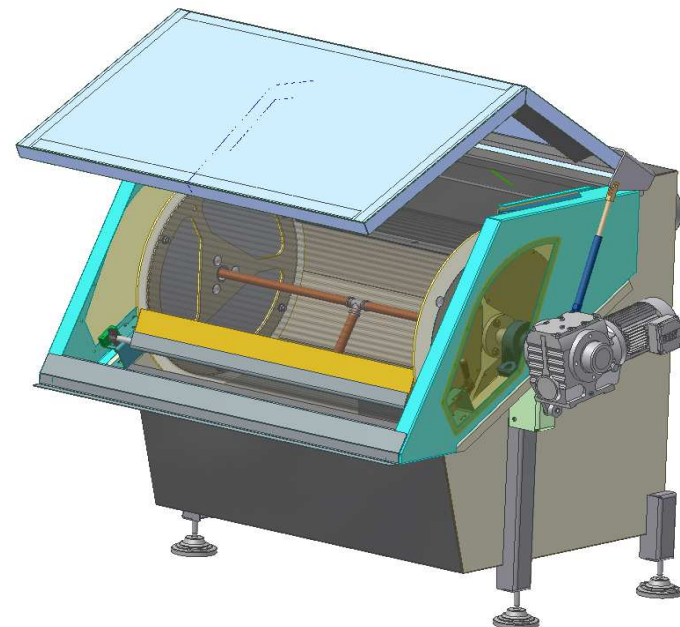
Sizes

Type	Drum Diameter	Drum Length
------	---------------	-------------

- | | | |
|-----------------|------|------|
| ▪ NSA 600/300 | 600 | 300 |
| ▪ NSA 600/600 | 600 | 600 |
| ▪ NSA 600/1000 | 600 | 1000 |
| ▪ NSA 600/1250 | 600 | 1250 |
| ▪ NSA 600/1500 | 600 | 1500 |
| ▪ NSA 600/2000 | 600 | 2000 |
| ▪ NSA 1000/2000 | 1000 | 2000 |
| ▪ NSA 1000/3000 | 1000 | 3000 |

(in mm)

- Standard wedgewire openings from 0.25 to 2.50 mm
- Throughput capacities up to 1,000 m³/h



NOGGERATH® Rotary Drum Screen NSA

Sizes



Example

- Drum Screen NSA 600/1500

NOGGERATH® Rotary Drum Screen NSA Equipment



Standard

- Machine frame with „U-style“ inlet and integrated discharge chamber
- Inlet, outlet and emergency overflow connections
- Wedge wire screen drum with internal spray bar and single scraper
- Wetted parts made of stainless steel DIN material No. 1.4301 (AISI 304)
- Solids scraper made of bronze
- Guiding rails and overflow weir made of HD-PE
- Geared motor SEW
- Screen openings 0.25 – 2.5 mm

Options

- Stainless steel components made of DIN material No. 1.4571 (AISI 316 Ti), drum made of stainless steel DIN material no. 1.4404 (AISI 316 L)
- Lateral covers not necessary
- Automatic double scraper
- Spray bar with solenoid valve
- Alternative positions resp. sizes for inlet and outlet connecting stubs
- Flanges
- Integrated level control
- Emergency by-pass as extension to emergency overflow
- Manually adjustable gear unit
- backward impulse motion of drum (only with single scraper)
- Flat inlet chamber
- Stainless steel bearings in polymer casing
- Integrated spiral press SPR 160 (NSA-Plus)

NOGGERATH® Rotary Drum Screen NSA

Applications



Fields

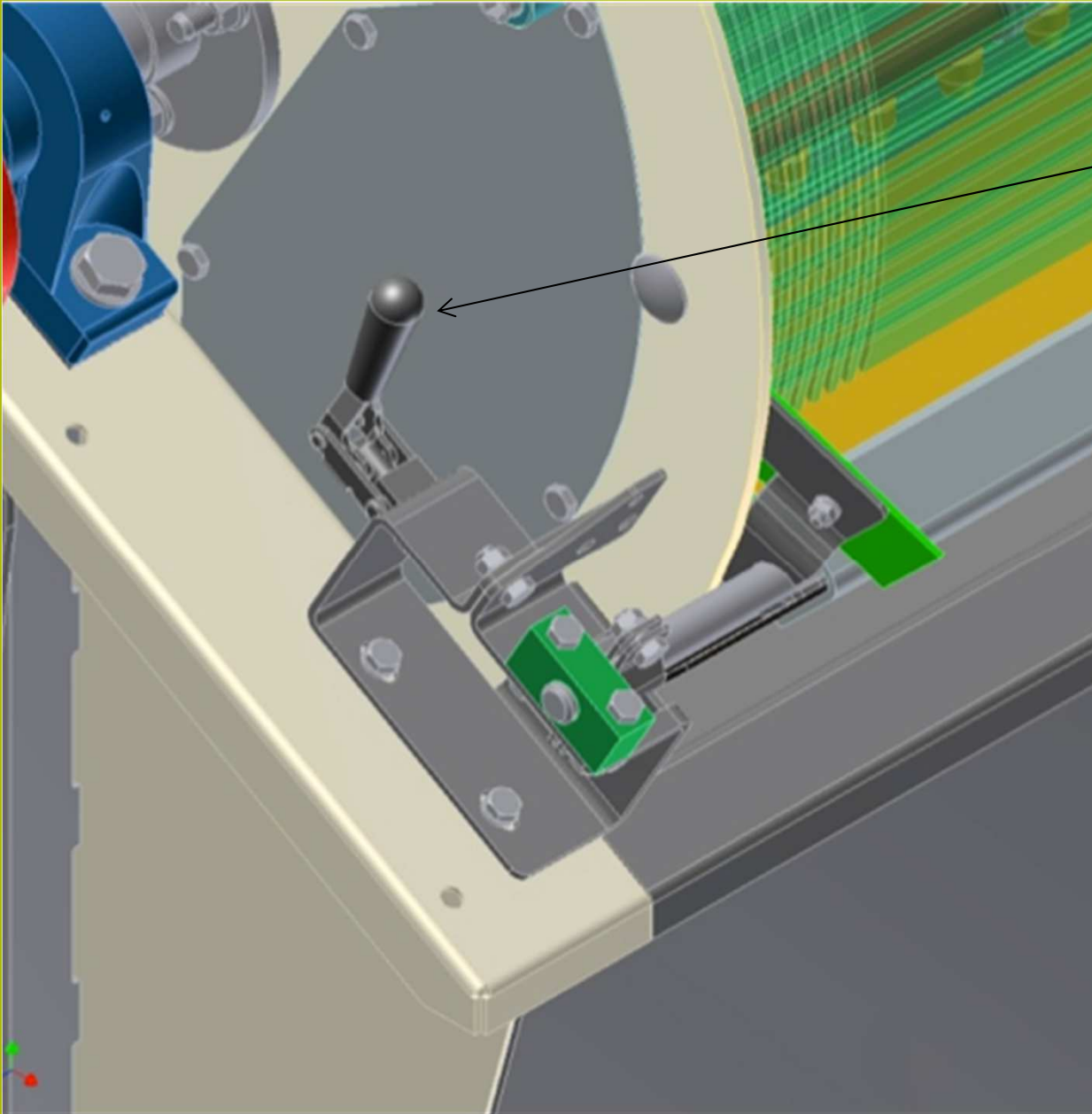
- Food and beverage industry
- Chemical industry
- Municipal wastewater
- Fine screening
- Abattoirs

Limits

- Specific heavy solids
- Large pieces
- Solids with long fibers
- Abattoirs red line particles not smaller than 0.75 mm

NOGGERATH® Rotary Drum Screen NSA

Details



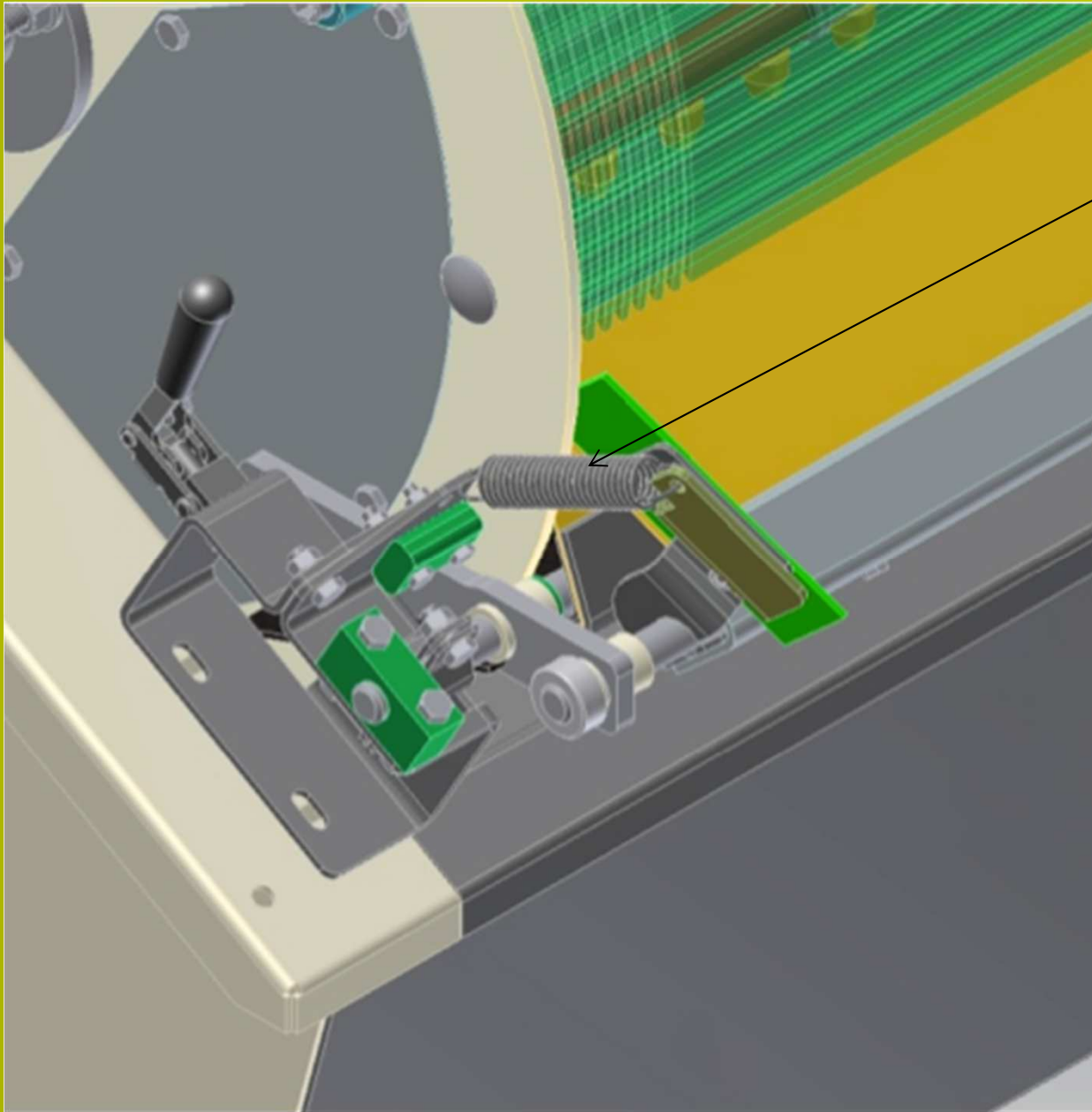
Doctor blade (single scraper)

With tension device for scraper



NOGGERATH® Rotary Drum Screen NSA

Details

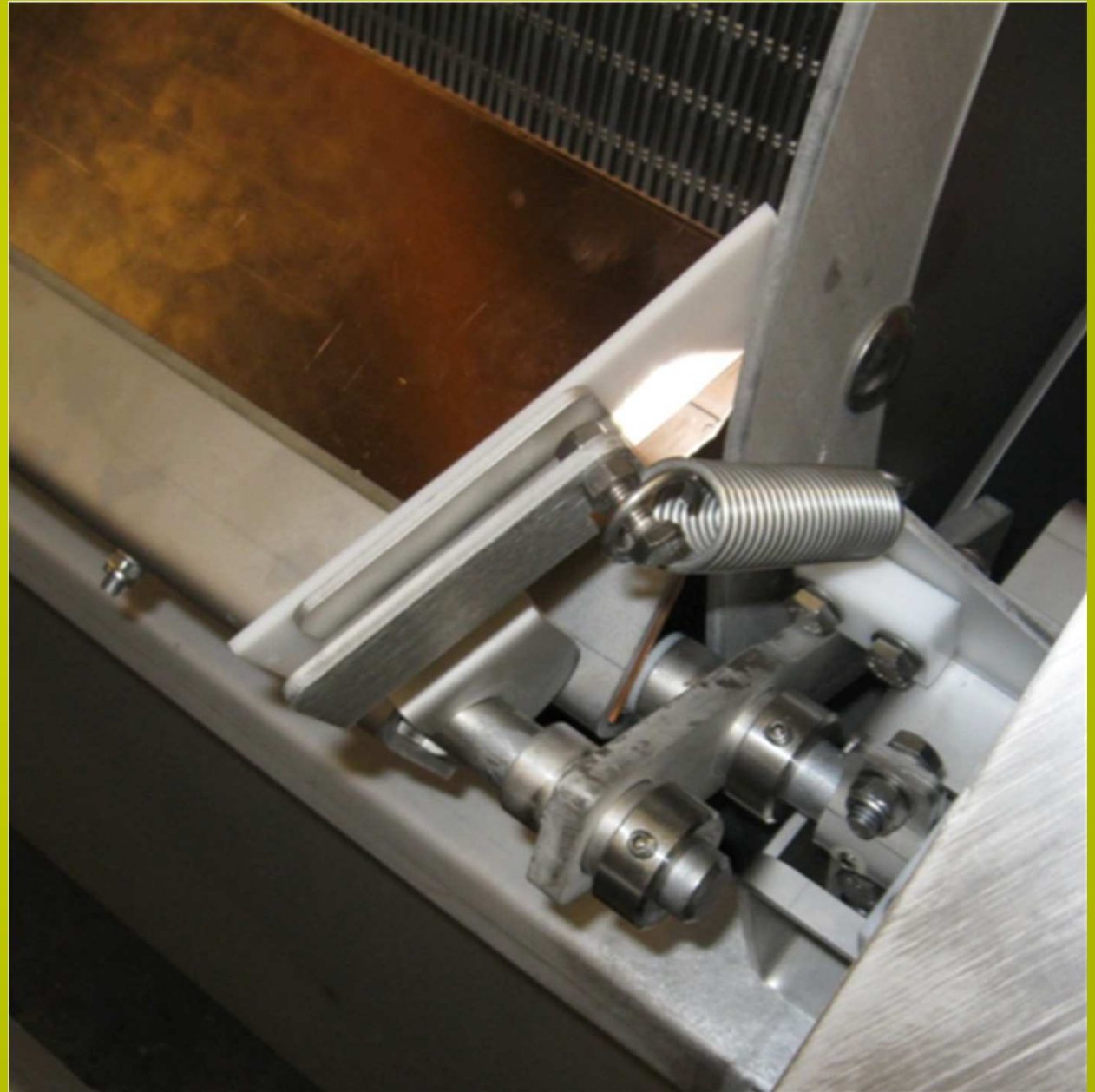


**Automatic doctor blade cleaner
(double scraper)**
with tension spring for cleaner blade



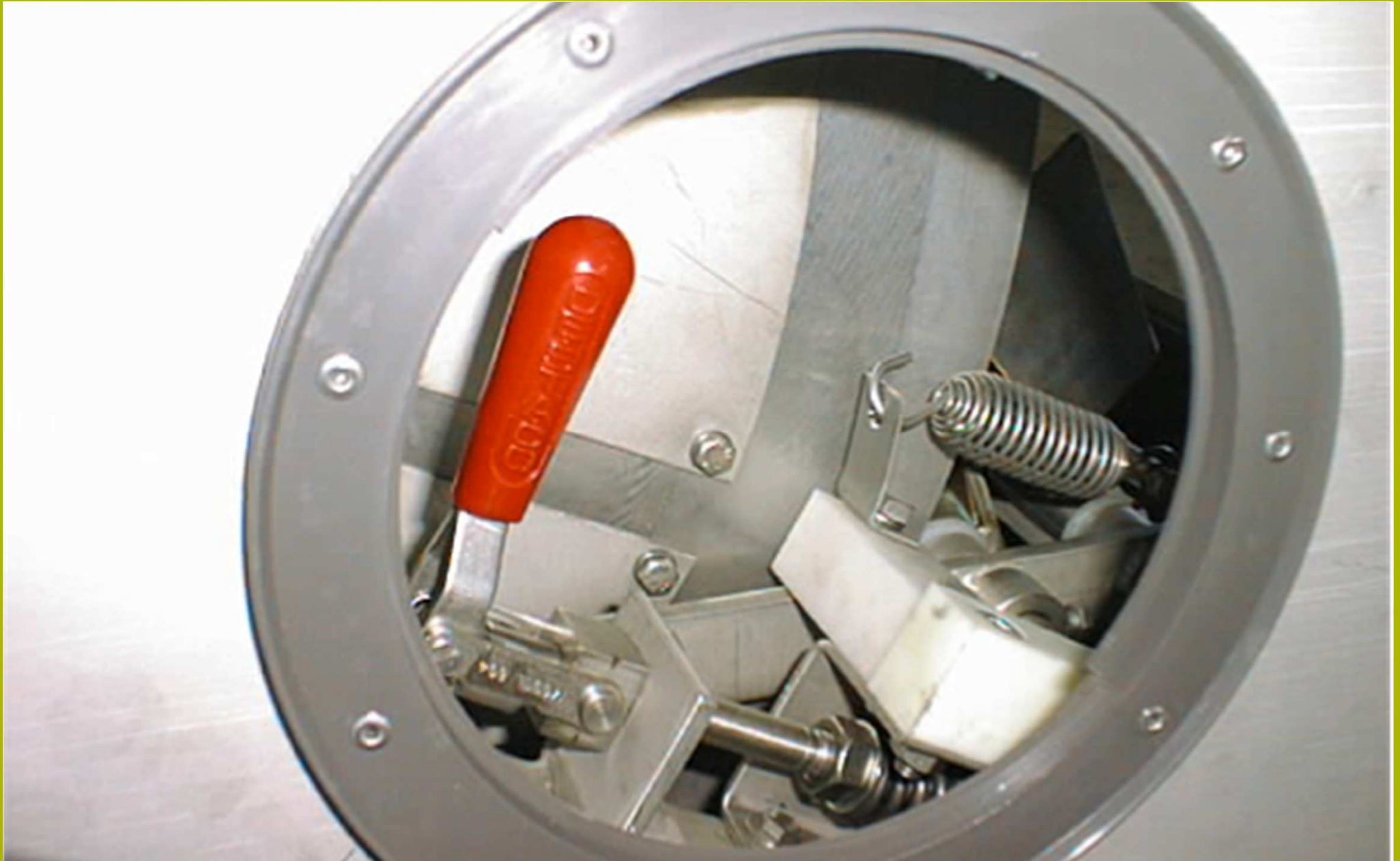
NOGGERATH® Rotary Drum Screen NSA

Details – Tension Device for Scraper



NOGGERATH® Rotary Drum Screen NSA

Details – Inspection Hatch



NOGGERATH® Rotary Drum Screen NSA

Details – Inlet and Overflow Weir



Adjustable inlet weir PE

- Counter-sunk bearing supports

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Details



- Drive unit
- Drum bearing
- Automatic double blade

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Installation



- Bakery

NOGGERATH® Rotary Drum Screen NSA Installation



NOGGERATH® Rotary Drum Screen NSA & NSA-Plus

- Brewery



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Installation



- Apple juice production

NOGGERATH® Rotary Drum Screen NSA Installation



- Space-saving connection between emergency overflow and discharge chamber

NOGGERATH® Rotary Drum Screen NSA

Installation



- NSA without lateral cover

NOGGERATH® Rotary Drum Screen NSA

Installation



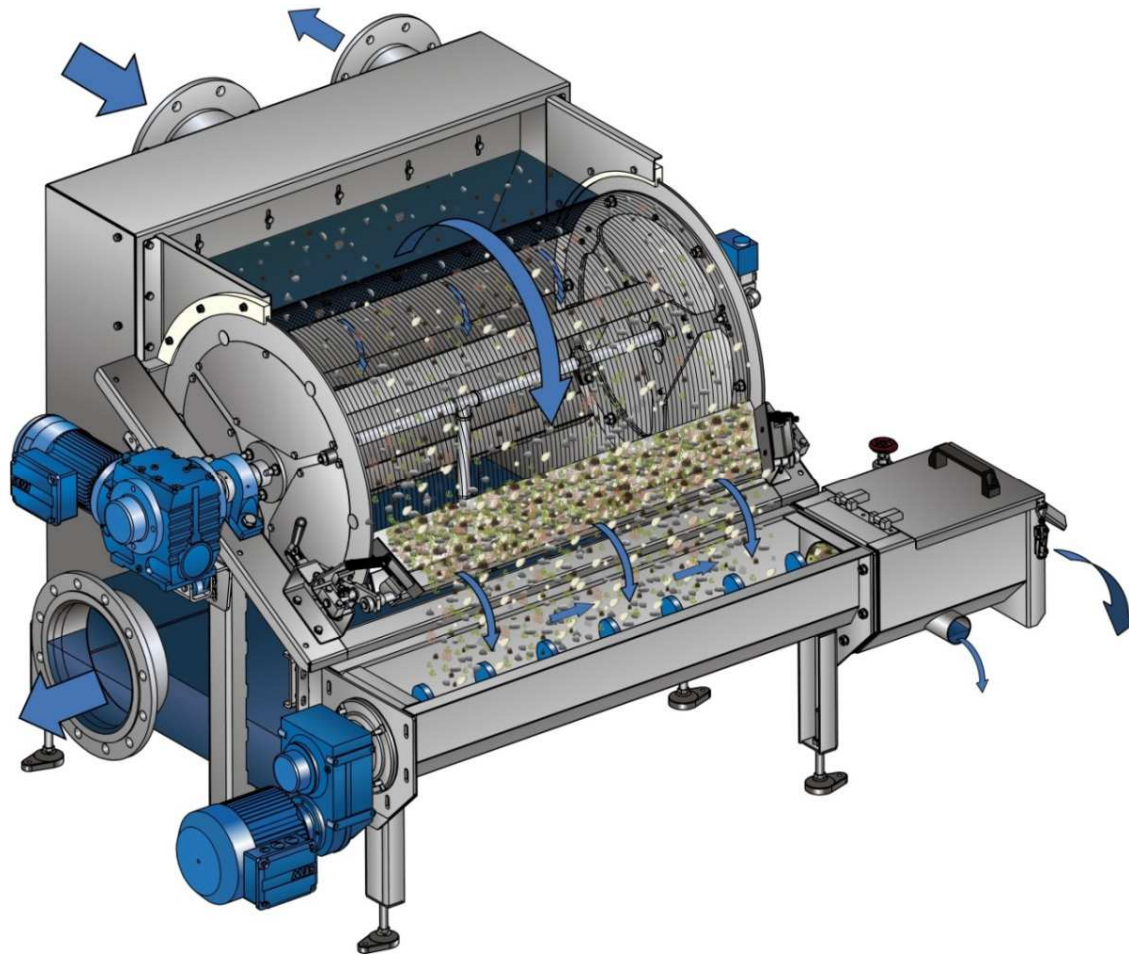
- Special solution
Mobile sludge thickening

NOGGERATH® Rotary Drum Screen NSA-Plus with Integrated Press



NOGGERATH® Rotary Drum Screen NSA-Plus

Function / Flow Scheme

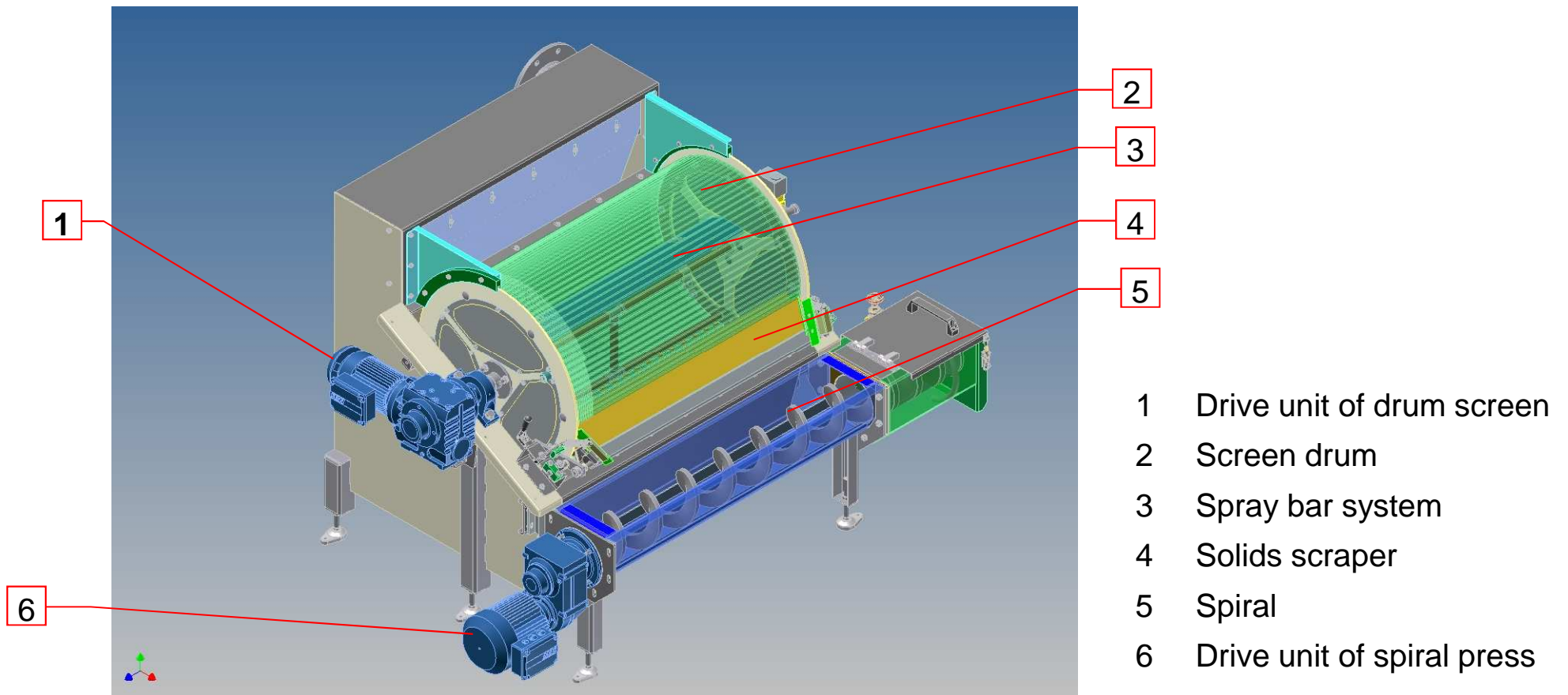


- The Rotary Drum Screen NSA-Plus shows all advantages of the drum screen NSA
- And, in addition, is equipped with an integrated spiral press for screenings dewatering



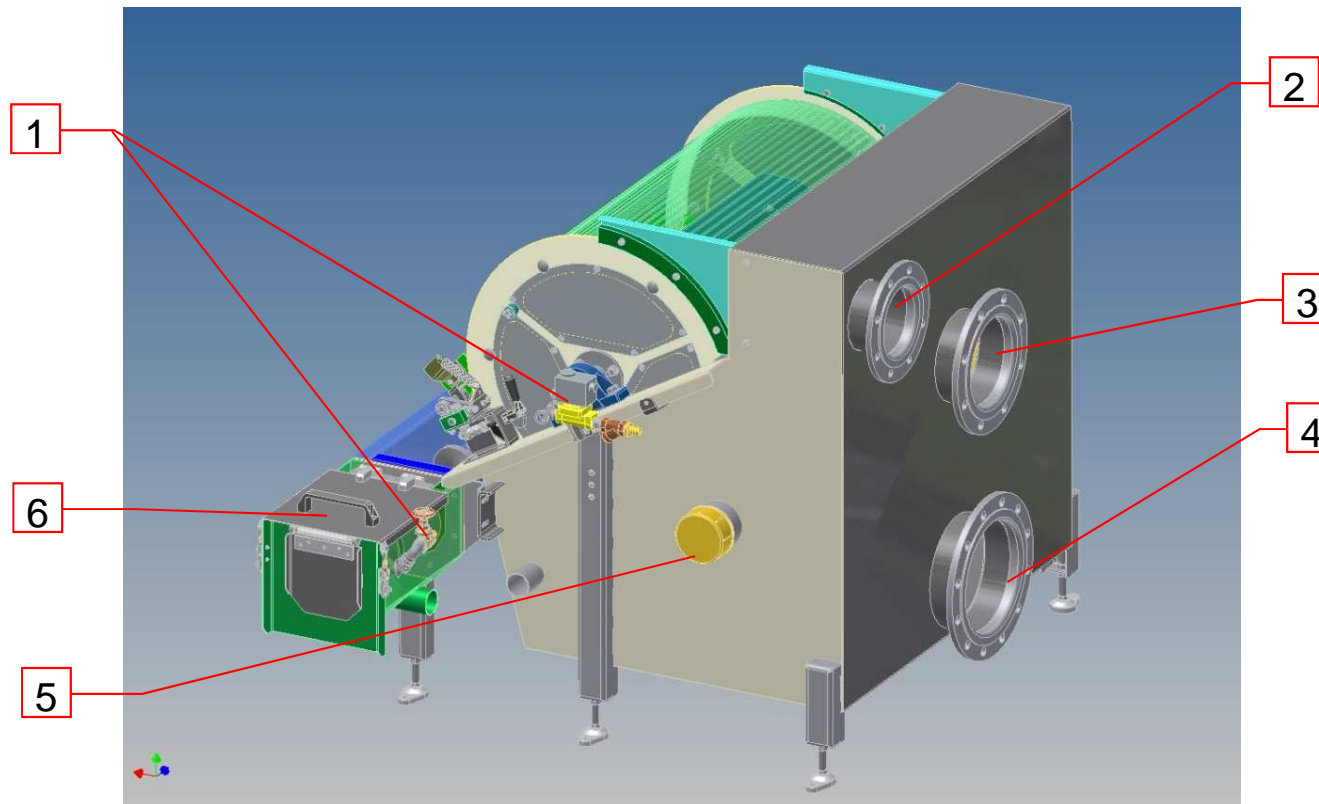
NOGGERATH® Rotary Drum Screen NSA-Plus

General Sketch – Front View



NOGGERATH® Rotary Drum Screen NSA-Plus

General Sketch – Rear View



- 1 Water connection
- 2 Emergency overflow
- 3 Inlet
- 4 Outlet
- 5 Port out stub of headbox
- 6 Compaction zone

NOGGERATH® Rotary Drum Screen NSA-Plus Details



- Solids scraper
- Spiral
- Trough of spiral press

NOGGERATH® Rotary Drum Screen NSA-Plus Details



- Compaction basket
1 x 10 mm drainage openings
(standard)

NOGGERATH® Rotary Drum Screen NSA-Plus Details



- Compaction basket
- Encapsulated discharge of compacted material (option)

NOGGERATH® Rotary Drum Screen NSA-Plus

Installation – Abattoir „Red Line“ 0.5 mm Wedgewire Opening



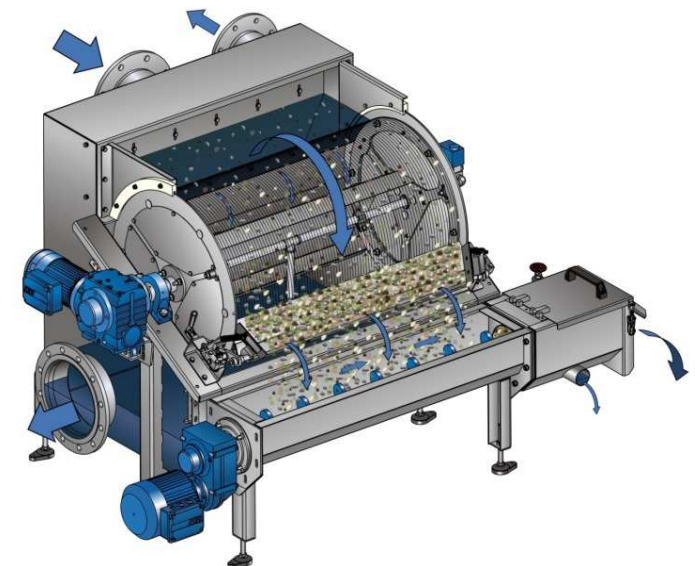
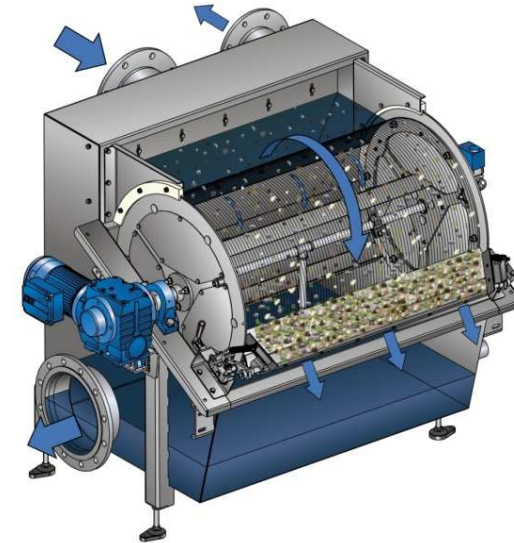
NOGGERATH® Rotary Drum Screen NSA-Plus Installation



NOGGERATH® Rotary Drum Screen NSA & NSA-Plus

Advantages

- ✓ Excellent quality at reasonable price
- ✓ No loss of dripping water
- ✓ Compact design
- ✓ Low operating and maintenance costs
- ✓ Integrated screenings dewatering (optional)
- ✓ Automatic double scraper (optional)



WE MAKE WATER TECHNOLOGY WORK

