

TASK

Separation and discharge of solids or respectively contaminants from a liquid phase for disposal or, where appropriate, for recycling.

SOLUTION

The NOGGERATH® Rotary Drum Screen HRS has successfully been employed in municipal wastewater treatment plants and in the cleaning of industrial process water for over 25 years. This rotary drum screen – originally developed for the paper industry – has proved to be particularly reliable and robust in daily use.

FUNCTION

The process water, or respectively wastewater, flows into the headbox via the inlet flange. The flow velocity is reduced here and the solids in the water are homogenised. The liquid reaches the inner surface of the rotating drum via the lateral weirs. Tangential loading results in a self-cleaning effect of the sieve surface. The solids remain in the drum, are transported axially by flights which are mounted on the inner walls, and is thereby statically dewatered. The filtrate drains off downwards.

PRODUCT VARIANTS

The NOGGERATH® Rotary Drum Screen HRS can be supplied with different types of drum drives:

- Chain drive (geared motor, chain wheel, chain pinion, chain, chain tensioner) or
- Direct drive (geared motor, pinion gear, gear wheel)

Diverse inlet chambers are also available (depending on the concentration of solids).

BILFINGER WATER TECHNOLOGIES

NOGGERATH® Rotary Drum Screen HRS

BENEFITS

- Continuous mode of operation and gentle handling of solids
- Internal loading and high solid loads
- Complete stainless steel encapsulation
- Direct drive of the drum (optional in many designs)
- Axial guiding roller stabilises drum position



WATER
TECHNOLOGIES

DESIGN SIZES

Drum diameter available in:

- 900, 1,200, 1,500, 2,000 mm with screen drum lengths of 1,200 to 4,000 mm

PERFORMANCE

- Gap width: 0.25–2.5 mm
- Perforations: 3–50 mm
- Throughput capacity up to 3,500 m³/h

MATERIALS

Stainless steel components:	stainless steel EN 1.4301 (AISI 304), alternatively stainless steel EN 1.4571 (AISI 316 Ti)
Rollers, pinion gear, gear wheel:	plastic PA
Chain, sprocket, chain pinion:	optionally in stainless steel

OPTIONS

- High pressure travelling nozzle for external cleaning of the drum surface with high pressure water jet
- Spray pipe with internal built in cleaning device for the utilisation of service water
- Outlet chamber enlarged as pump pit/reservoir
- Control panel with soft starter
- Large volume feeding hopper with integrated spiral conveyor for dosed infeed of solids into the drum (e.g. sewer sand receiving)

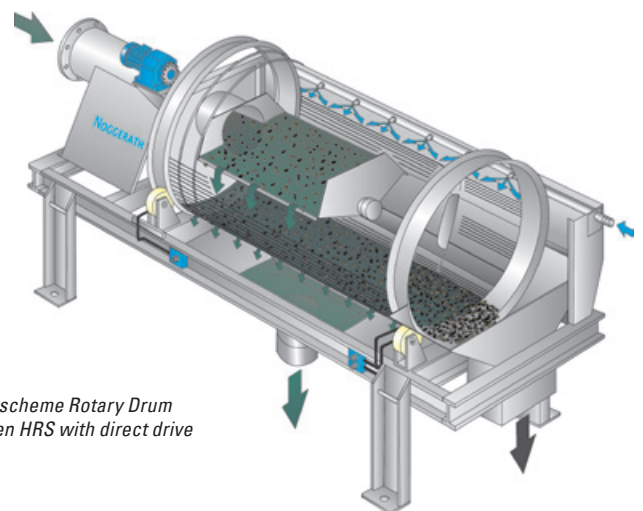
FIELDS OF OPERATION

- Plastic recycling, paper industry
- Animal rendering, abattoirs
- Fruit and vegetable processing
- Breweries, wine cellars
- Sugar industry
- Fibreglass industry, wood processing
- Municipal wastewater treatment plants

UNIQUE FEATURES

The intelligent design of the NOGGERATH® Rotary Drum Screen HRS is characterised by:

- Double rollers for the radial drum roller guide (from size 48)
- Axial drum guide due to roller
- Optimal adaptability of the inlet area to the individual requirements of the specific application
- Torsion resistant drum due to external reinforcement spiral
- Smooth and even running due to machined drum running surfaces under the radial rollers
- Suitable for the separation of coarse solids in connection with grit traps or sand washers



Flow scheme Rotary Drum Screen HRS with direct drive

NOGGERATH® Rotary Drum Screen HRS

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