- Wastewater separation systems
- Sludge dewatering

PolyUnit polymer dosing

## **RDS** Rotary Drum Screen



- Reliable and energy efficient separation and thickening





The HJORTKAER RDS series Rotary Drum Screen is designed for robust and continuous waste water separation and sludge thickening. The RDS10 model is available in both single and double version for larger capacity.

The filter drum is directly connected to the gear motor via a strong flange bearing in the rear end. The front end is equipped with 2 heavy duty bearing wheels with stainless core and double dual ball bearings with integrated lubrication. The direct drive ensures minimum service costs and downtime on the filter drum transmission components.

An integrated lubrication system, distribute grease to the drum bearing wheels. Grease is added manually to all bearing wheels from a central position on the drum screen chassis.

The foldable side doors requires minimum space and ensures maximum inspection and service access from both sides of the chassis. Continuous flushing of the screen is carried out through the built in spray nozzles, in some cases combined with a rotating round brush arrangement (available for screen perforation above 1000 micron). Nozzle sizes are chosen according to actual separation and spray media. An optional, mechanical (pneumatically operated) nozzle arrangement with 2 powerful nozzles can be offered on request, which require additional pressure boosting.

Sludge is fed into a pipe manifold at the rear end of the filter chassis and led via 2 pipes through the front opening of the filter drum. Then gently discharged at the inside rear end of the drum. The separated material leaves the upper end of the drum and falls into the integrated funnel. The separated liquid / reject water can either be discharged through the bottom or rear end of the filter chassis. Preferred discharge orientation must be determined in each case.

The filter cake is continuously pulled towards the outlet of the drum screen by the integrated transport screw. Retention time of the sludge in the screen is adjusted by controlling rotation speed via an external frequency converter (not included). The Drum screen is offered with perforation between 600 and 2500 micron, depending on media and process requirements.

Made entirely from stainless steel AISI 304 / 1.4301. Available in full AISI 316 / 1.4404 execution at additional price if required.

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|-------------------------------------|---|--|
|                                     | RDS06   | RDS10  |
| Capacity, industrial waste water:   | Max. 100 m <sup>3</sup> /hour                       | Max. 300 m <sup>3</sup> /hour  |
| Capacity, public sludge dewatering: | Max. 13 m <sup>3</sup> /hour                        | Max. 38 m <sup>3</sup> /hour   |
| Dimensions (LxWxH)                  | 2040 x 766 x 1411 mm                                | 3155 x 1080 x 1800 mm  |
| Drum screen:                        | 1000 x Ø 642 mm                                     | 2000 x Ø 955 mm  |
| Inlet manifold                      | DN125 / 2 x DN80 (see drawing)                      | DN125 / 2 x DN100 (see drawing)  |
| Outlet / liquid discharge           | DN200   | DN 250   |
| Sludge inlet pressure               | Positive pressure must be maintained (max. 0,5 bar) |  |
| Gear motor:                         | 0,37 kW (SEW)                                       | 0,75 kW (SEW)  |
| Rinse water connection:             | ¾" BSPT, ext. thread                                | ¾" BSPT, ext. thread   |
| Filter cake discharge:              | Standard rectangular funnel flange                  | >>>  |



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**RDS10-2** 

DN 250

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Max. 600 m<sup>3</sup>/hour

Max. 76 m<sup>3</sup>/hour

3222 x 2080 x 1800

2 pcs. 0,75 kW (SEW)

2 pcs. ¾" BSPT, ext. thread

2 pcs. 2000 x Ø 955 mm

DN125 / 2 x DN100 per drum (see drawing)