

ROTATEC

ROTARY DRUM SCREEN

Fine screening, washing and compacting in one machine.
Drum-in-channel design for high flow in a small footprint.



Screen, convey
& compact



Up to 40%
volume reduction



Captures wipes
& fibrous waste



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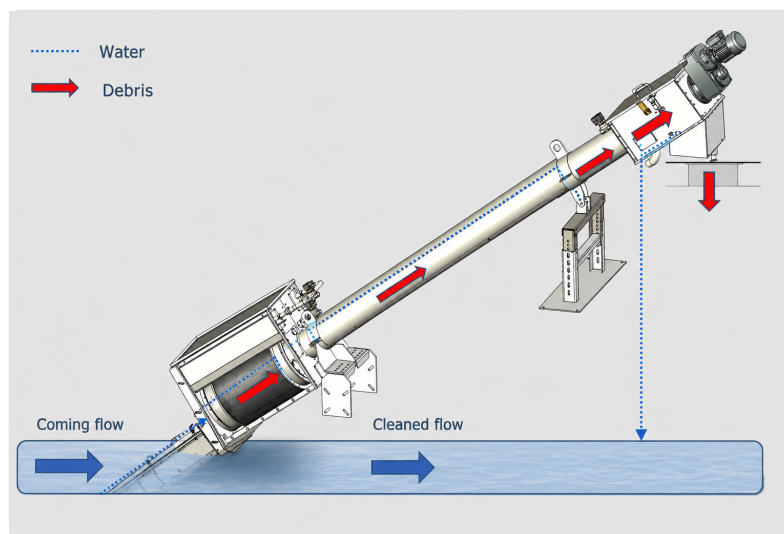
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OPERATING MODE

Rotatec sits directly inside the channel where the incoming flow requires screening. Wastewater enters the rotating drum, and the perforated plate or wedge wire basket retains the solids while the cleaned flow passes through and continues downstream.

Blades and brushes mounted on the shaft continuously lift the captured debris clear of the screen face, and a shafted screw begins conveying the material up the transport tube. Two spray ramps in the screening zone wash the basket as it turns, returning organics to the process.

In the compaction zone at the top of the machine, the screenings are pressed against the compacting strainer, dewatered and reduced in both volume and weight by up to 40%. A third spray ramp cleans the strainer periodically. The dewatered screenings then discharge through the chute, or into a bagging system where odor containment is required.



THREE ZONES, ONE DRIVE

Screening zone

Rotating basket in perforated plate or wedge wire, cleaned by two spray ramps and nylon brushes that penetrate the full screen depth.

Conveying zone

A single shafted screw carries the screenings up the enclosed transport tube, draining free water back to the channel upstream.

Compaction zone

Screenings are dewatered through the compacting strainer, then discharged via chute or bagging system. One spray ramp keeps the strainer clear.



FEATURES & BENEFITS



One machine, one drive

Screening, conveying, washing, dewatering and compacting are all driven by a single gearmotor. There is no separate washpress to buy, install, wire or maintain, and no transfer point between machines where screenings can be lost or spilled.

High capture on wipes and fibrous waste

The rotating basket presents a continuously renewed screen face rather than a fixed rack. Perforated plate from 1 mm, or wedge wire from 0.5 mm, captures wipes, rags, fibers, hair and grit that pass a conventional bar screen. As the basket blinds, the retained mat itself adds a filtering effect and fines capture rises further.

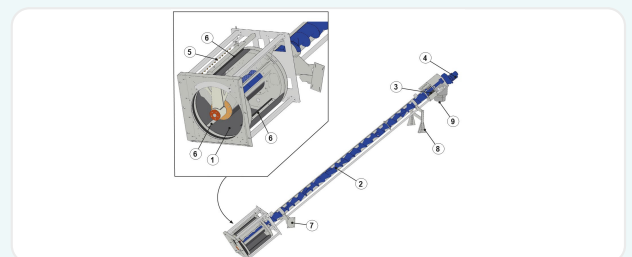


Fully enclosed — odor and aerosol contained

The screening, conveying and compaction zones are all enclosed. Spray water stays inside the machine and away from operators, and the transport tube is sealed along its full length. Where total odor control is required, a bagging system can be fitted at the discharge chute.

Built for access and low maintenance

Maintenance hoods over the screening and compaction zones open for inspection without removing the drive, discharge head or screw. Brushes are bolted and individually replaceable. Weekly maintenance is a visual check of the screen and spray nozzles; nozzles pull out for cleaning by hand.



Protected as standard

- ▶ Torque limiter transducer stops the machine on obstruction before damage occurs
- ▶ Hood safety switch and emergency stops on both the equipment and the panel
- ▶ Forward / reverse manual control of the compacting screw for clearing debris
- ▶ Alarm and fault history on the controller screen for fast troubleshooting



PERFORMANCE

APPLICATIONS	Municipal & Industrial	VOLUME REDUCTION	Up to 40%	SCREEN OPENING	From 0.5 mm
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MODEL	RDS 6	8	10	12	14	16	18	20	24	26	30
DIMENSIONS — inches											
A Frame width	23.6	31.5	39.4	47.2	55.1	63.0	70.9	78.7	94.5	102.4	118.1
B Frame height	23.6	31.5	39.4	47.2	55.1	63.0	70.9	78.7	94.5	102.4	118.1
C Drum diameter	17.6	22.8	29.9	36.6	41.3	47.2	55.1	63.0	78.7	82.7	86.6
D Drum length	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1
FLOW CAPACITY — GPM WEDGE WIRE											
0.5 mm	335	475	1,035	1,275	1,895	2,555	3,480	4,140	6,430	8,015	9,025
1 mm	555	1,190	1,760	2,070	3,170	4,270	6,515	7,705	10,655	13,200	14,135
2 mm	650	1,275	2,155	3,170	4,120	6,250	8,100	8,850	12,240	14,575	15,495
FLOW CAPACITY — GPM PERFORATED PLATE											
3 mm	745	1,430	1,760	2,420	3,920	5,285	6,825	8,220	10,785	11,930	14,100
6 mm	1,110	3,040	4,360	5,770	8,320	13,120	15,365	19,855	24,745	31,350	35,310
8 mm	1,365	3,565	4,490	8,410	10,830	13,695	17,170	21,795	26,375	33,065	39,540

Flow capacities are clean-water values for the drum only and do not allow for blinding. Screen openings are stated in mm as the industry standard for perforation and wedge wire. Final selection is confirmed against channel geometry, screenings load and allowable headloss.

DESIGN GUIDELINES

Rotatec is customized to the specification and to the structural constraints of the channel. Below are the standard design parameters.

MATERIALS		SPRAY WATER	
Frame, basket & transport tube	304 or 316 SS	Screening zone (2 ramps)	26.9 GPM
Conveying screw	Shafted, steel	Compaction zone (1 ramp)	9.5 GPM
Compaction zone	Stainless steel	Required pressure	70 – 90 PSI
Brushes	Nylon (polyamide)	Water connection	3/4" F
INSTALLATION		DRIVE & CONTROLS	
Mounting	In-channel	Voltage	Custom to site — 3 phase
Screen opening	From 0.5 mm	Frequency	60 Hz
Anchors	3/8" x 3"	Control modes	Float / timer / level
Discharge	Chute or bagging	Panel	PLC with touch screen