

RSS Series Externally Fed Rotary Screens

The RSS Series of externally fed rotary drum screens is a reliable self-cleaning wedgewire screen for both industrial screen applications and municipal wastewater operations. This screening technology performs particularly well in wastewater with high oil or grease loadings as well as scum applications that can blind other types of screens.

The RSS has slotted wedgewire and cylindrical drums that rotate on two pillow block bearings. They can handle flows from 110 to 4000 gpm (25 to 908 m³/hr). The screen slot openings range from 0.010 to 0.100 inches (250 to 2500 microns). The rotary drum is driven by a TEFC motor fitted to a shaft-mounted gearbox.

The RSS has three methods of maintaining clean screen openings. The doctor blade scrapes the solids from the face of the screen surface. The filtrate back washes while exiting the bottom of the screen, and a shower on an automatic cycle washes the screen drum from inside.

Method of Operation

Raw influent enters a headbox which distributes the flow evenly across the full length of the rear, upper external surface of the rotating drum. As water passes through the screen, solids are retained on the outside of the screen drum and are carried by rotation around to the front of the screen, where they are removed by a fixed doctor blade. The screened water cascades down inside the drum and falls through the bottom, creating a vigorous backwash action. This action, together with the use of internal water sprays, self-cleans the drum on every revolution.



Features

Reliable and efficient operation

- 100% overflow protection for designed flow up to 5.0 mgd
- More material recovery for reuse
- Improved wastewater production

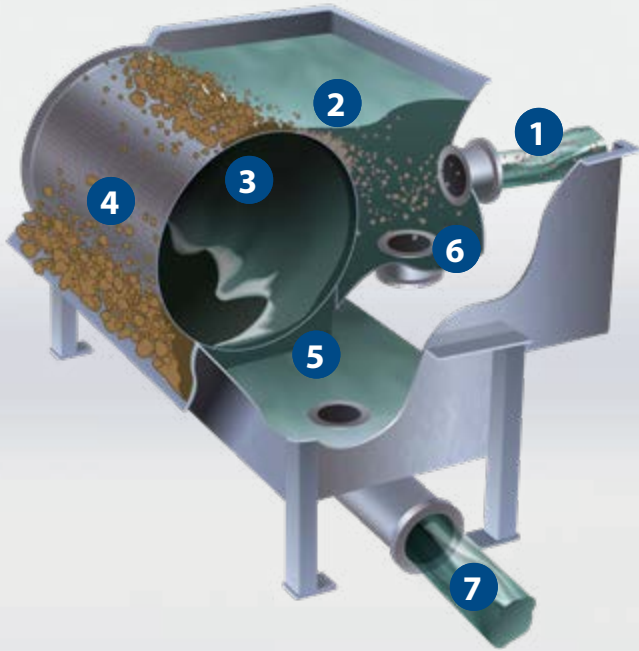
Design and construction flexibility

- Drum diameters range from 25 to 36 inches (63 to 92 cm)
- Drum lengths range from 12 to 120 inches (30 to 305 cm)
- Customizable to fit into existing infrastructure.

Applications

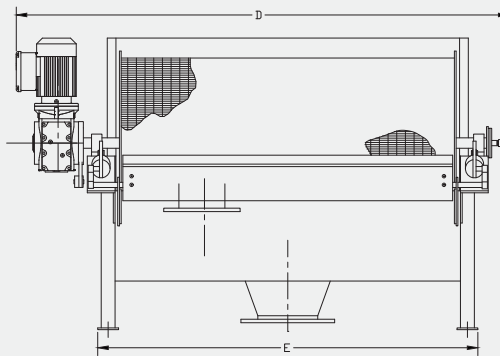
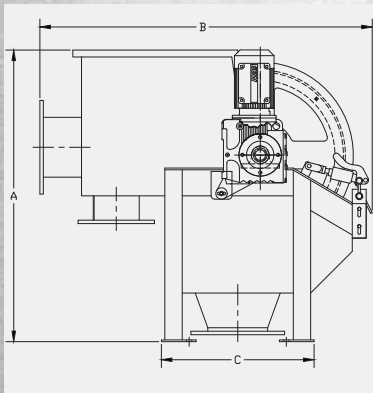
- Municipal primary sewage
- Vegetable and fruit processing effluent
- Seafood processing effluent
- Poultry processing effluent
- Bakery
- Meat processing effluent





Externally Fed Rotary Drum Screen Operation

1. Influent enters
2. Solids build on drum exterior
3. Filtrate passes through drum
4. Solids pass over drum and are removed
5. Internal spray bar rinses drum
6. Effluent overflows to channel if drum blinds
7. Effluent discharge



MODEL
CODE

RSS XX XX

Drum Diameter
Inches

Drum Length
Inches

RSS Model	Standard Dimensions - inches (mm)					Approximate Net Weight - lbs (kg)
	A	B	C	D	E	
RSS2512	42 (1067)	47-5/8 (1210)	22 (559)	31-1/2 (800)	18-3/4 (476)	500 (227)
RSS2524	42 (1067)	47 (1194)	22 (559)	43-1/2 (1105)	30-3/4 (781)	840 (381)
RSS2536	42 (1067)	48 (1219)	22 (559)	58-3/16 (1478)	39-3/4 (1010)	1000 (454)
RSS2548	42 (1067)	48 (1219)	22 (559)	70-15/16 (1802)	54-3/4 (1391)	1125 (510)
RSS2572	44 (1118)	52 (1321)	24-1/2 (622)	95-5/8 (2429)	79-3/4 (2026)	1500 (680)
RSS2596	44 (1118)	52 (1321)	24-1/2 (622)	120 (3048)	102-3/4 (2610)	1800 (816)
RSS3672	57 (1448)	76 (1930)	36 (914)	101-1/2 (2578)	79.75 (2026)	2400 (1089)
RSS3696	57 (1448)	79 (2007)	36 (914)	125-1/2 (3188)	103.75 (2635)	2800 (1270)
RSS36120	57 (1448)	79 (2007)	36 (914)	119-1/2 (3035)	127-3/4 (3245)	3050(1383)

This chart is only to be used as a guide. For specific sizing inquiries please contact JWC Environmental.

Standard Construction

- 304 stainless steel construction
- Unitary frame
- Wedgewire drum
- TEFC motor and shaft-mounted geardrive
- Headbox with overflow protection
- Doctor blade assembly with monel blade (drum diameter 25 inch (635 mm))
- Doctor blade assembly with bronze blade (drum diameter 36 inch (915 mm))
- Internal spray bar

Options

- 316 stainless steel construction
- Control panel with starter and spray bar timer
- Pneumatic or cam-operated doctor blade cleaner
- Enclosure (cover)
- Discharge chute
- Headbox level sensor



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