

## 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 m<sup>3</sup>/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 & Efficient Operation

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

#### Design and Construction Flexibility

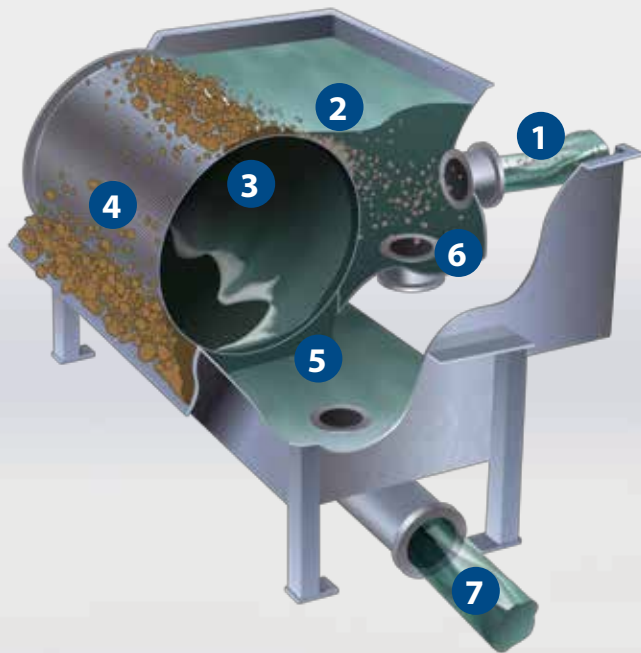
- Drum Diameters range from 25 to 36 inches (63 to 92 cm).
- Drum Lengths range from 12 to 120 inches (30 to 305 cm).
- Customizable to fit into existing infrastructure.

### Applications

- Municipal Primary Sewage
- Pulp & Paper Debarking Water
- Vegetable & Fruit Processing Effluent
- Seafood Processing Effluent
- Poultry Processing Effluent
- Bakery
- Meat Processing Effluent

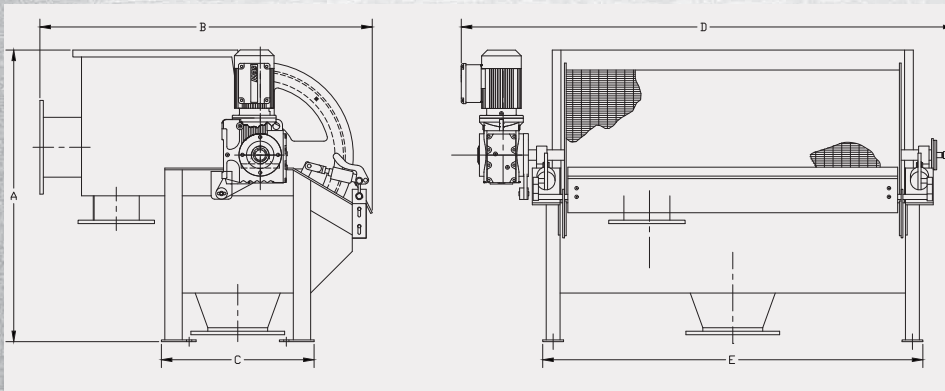






## Externally Fed Rotary Drum Screen Operation

1. Influent Enters
2. Solids build on drum exterior
3. Filtrate passes through drum
4. Solid pass over drum and 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

### 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 Dia. 25 inch)
- Doctor blade assembly with bronze blade (Drum Dia. 36 inch)
- Internal spray bar

### Options

- 316 stainless steel construction
- Control panel c/w starter & spray bar timer
- Pneumatic or cam operated doctor blade cleaner
- Enclosure (Cover)
- Discharge chute
- Headbox level sensor

| 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.



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