



# ROTO-SIEVE DRUM SCREENS PROVEN PERFORMANCE, FLEXIBILITY, AND RELIABILITY





# INNOVATIVE AND HIGH PERFORMANCE DRUM SCREENS

## MUNICIPAL APPLICATIONS

- PRIMARY SCREENING
- FINE SCREENING PRIOR TO MEMBRANES
- FINE SCREENING IN LIEU OF CLARIFIERS
- SLUDGE SCREENING
- SLUDGE THICKENING
- SEPTAGE RECEIVING

## INDUSTRIAL APPLICATIONS

- POULTRY, MEAT AND FISH PROCESSING
- FRUIT/VEGETABLE PROCESSING
- PULP AND PAPER
- BEVERAGE (BEER, WINE, OTHER)
- DAIRY
- FIBERGLASS
- RECYCLING (PLASTIC AND METAL)
- SLUDGE THICKENING

The Roto-Sieve drum screen is an internally fed, self cleaning, inclined drum screen that separates particles and fibers from almost any liquid. The self-cleaning Roto-Sieve design was developed over fifty years ago and has continually been improved. With over 5,000 units installed globally, the Roto-Sieve's unsurpassed quality, innovation, and reliability is well regarded throughout the world.

With high reliability, a long service life, and low energy consumption, Roto-Sieve drum screens are an excellent investment. The innovative drive system requires no trunnion wheels. This significantly lowers required maintenance while also improving operational reliability. Due to its internal feed and circular perforations, Roto-Sieve offers the best separation that can be achieved mechanically. A fiber or hair is unlikely to orient itself at a right angle and against the water flow to pass through the perforation. This results in a high removal efficiency for hair or fibers while also eliminating the possibility of permanent blinding caused by the stapling of these materials.

## ADVANCED DESIGN

Roto-Sieve drum screens are manufactured in 304 or 316L stainless steel with seven models available for various flows. The proprietary drum drive system requires minimal lubrication and no trunnion wheels. Standard drum perforation diameters range from 0.8 to 2.5mm with smaller or larger perforation diameters available upon request. All models except for the RS-11 are supplied with automatic overflow bypass systems and ventilation outlets as standard.

**NO TRUNNION WHEELS**

Equals low maintenance and high reliability.

**MORE THAN 5,000 ROTO-SIEVE DRUM SCREENS INSTALLED**

Supplied to both industrial and municipal customers worldwide.

# ROTO-SIEVE ADVANTAGES

- Innovative drive design results in extremely low maintenance and high reliability.
- Friction driven rotating drum cleaner brush results in very low spray water usage.
- Automatic overflow bypass system with overflow sensor protects sensitive downstream processes from damage.
- No vertical or slotted seals of any kind eliminates the risk of pass through.
- High capacity and high capture rate with a small footprint.
- Very low energy use – even the largest models have only 1.5 hp motors.
- Improves capacity and performance of downstream processes.
- A great fit for many different municipal and industrial applications.
- Shipped completely assembled. Simply connect piping, spray water and power at the jobsite.

WATER AND  
WASTEWATER  
TREATMENT

POULTRY AND MEAT

PAPER AND WOOD

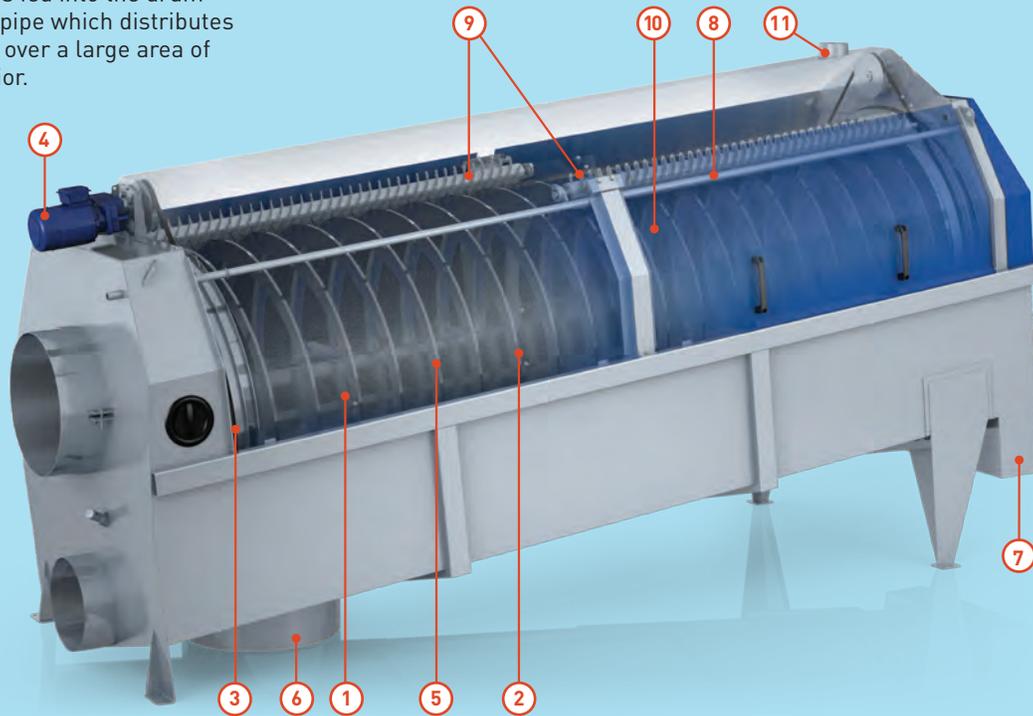
BEVERAGE AND FOOD

FISH AND SEAFOOD



# FORM AND FUNCTION

1. Roto-Sieve drum screens consist of a perforated stainless steel drum with internally fixed spiral flights.
2. The spiral flights transport the separated particles out of the drum.
3. The drum rotates by carbon fiber poly chains.
4. Drum is driven by a gear motor.
5. Incoming water is fed into the drum through an inlet pipe which distributes the water evenly over a large area of the drum's interior.
6. During passage through the drum, the water is screened through the drum's perforations and collects in the inclined trough underneath.
7. Separated particles are transported out of the drum through the screenings outlet. Dewatering continues through-out transport in the drum.
- 8,9. To prevent clogging of the drum's perforations, all models are fitted with a friction driven rotating brush and a spray header with spray nozzles.
10. Roto-Sieve drum screens are completely encased in removable fiberglass splash guards.
11. Equipped with a ventilation exhaust.



## TECHNICAL SPECIFICATIONS

Roto-Sieve Model		RS-11	RS-22	RS-24	RS-36	RS-48	RS-412	RS-416
Capacity (gpm) <sup>1</sup>	gpm	140	500	1500	2140	3280	4600	6900
Length	in	47 5/8	71-5/8	110 7/8	114 1/8	116 1/8	154 3/4	194 7/8
Width	in	23 5/8	37 7/8	37 7/8	49 1/4	63	63	63
Height	in	40 1/8	56 7/8	61	76 3/4	91 3/4	94 1/4	98 1/2
Net Weight	lb	255	510	705	1260	1940	2660	2980
Operating Weight <sup>2</sup>	lb	300	575	775	1360	2405	3175	3550
Inlet Diameter	in	5	10	10	12	16	20	24
Outlet Diameter <sup>3</sup>	in	6	10	16	20	20	24	28
Overflow Outlet Diameter	in	NA	8	8	10	16	16	16
Spray Wash Connection	in	3/4	1	1	1	1	1	1
Rec. Spray Wash Pressure	psi	60-80	60-80	60-80	60-80	60-80	60-80	60-80
Spray Wash Consumption <sup>4</sup>	gpm	6	6	13	10	9	14	19
Motor Horse Power	hp	0.33	0.5	0.5	0.75	1.5	1.5	1.5
Available Perforation Sizes	mm	0.6 – 10	0.6 – 10	0.8 – 10	0.8 – 10	0.8 – 10	1.0-10	1.0 – 10

1. Assumes standard municipal waste water with a TSS of 200 mg/l, FOG less than 35 mg/l and 2.0 mm diameter drum perforations. Different flow characteristics and perforation sizes may reduce capacity.
2. Static weight with drum filled to the overflow level.
3. Sized for unrestricted gravity discharge.
4. Intermittent operation with cycle time dependent on application.

Roto-Sieve® is a registered trademark owned by Lackey Products.



CleanTek Water Solutions  
7984 University Avenue NE  
Fridley, MN 55432

Tel: 866.929.7773  
info@cleantekwater.com  
www.cleantekwater.com