

**ESMIL**  
EQUIPMENT

EQUIPMENT AND TECHNOLOGIES  
for wastewater treatment

[www.esmil.eu](http://www.esmil.eu)

## SCREW SCREEN

A space-saving solution for fine wastewater treatment.

RVO Screw Screen by ESMIL is reliable and efficient equipment for the separation of small and medium waste from municipal and industrial wastewater. Screw screens are functional equipment for mechanical wastewater treatment with an integrated system for screenings washing and pressing.



Closed and space-saving design for both channel and tank installation



Effective wastewater treatment due to an additional filtering layer



Separation of waste from wastewater, its washing and pressing in one unit



Reliable and durable construction made of corrosion-resistant materials



# COMPACT, RELIABLE, FUNCTIONAL

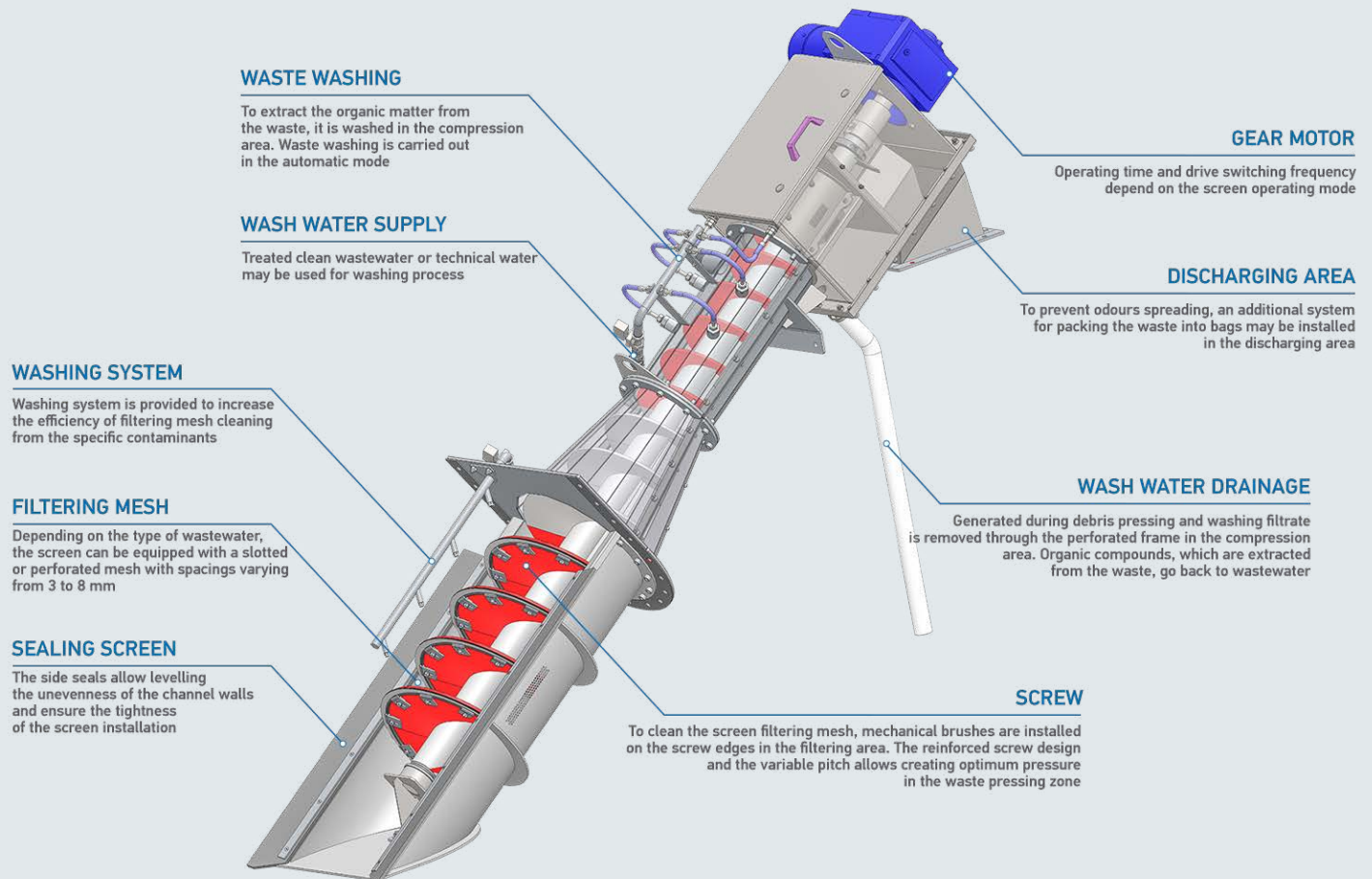
- ✓ ACCORDING TO THE CRITERIA OF RELIABILITY AND PERFORMANCE, RVO SCREENS ARE ONE OF THE BEST ENGINEERING SOLUTIONS IN THE MARKET OF EQUIPMENT FOR MECHANICAL WASTEWATER TREATMENT AT SMALL AND MEDIUM-SIZED WASTEWATER TREATMENT PLANTS.
- ✓ THEY WILL SUIT WELL FOR WORKING BOTH AT MUNICIPAL AND INDUSTRIAL PLANTS.
- ✓ DURABILITY IS GUARANTEED, WHILE THE SCREEN IS MADE OF CORROSION-RESISTANT STEEL.

## Scope of application:

-  Municipal wastewater treatment;
-  Meat processing industry;
-  Pulp-and-paper mills and tanneries;
-  Food industry;
-  Vegetable and fruit processing plants.

## Specification Summary::

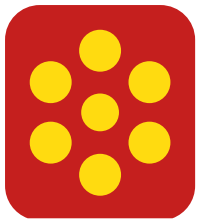
Parameter	Value
Openings	0.25 - 10 mm
Screw diameter	200 - 700 mm
Throughput	up to 1200 m <sup>3</sup> /hour
Material	stainless steel (AISI 304 or AISI 316)



## DESIGN ADVANTAGES OF ESMIL SCREW SCREENS

- » Screw screens are designed for medium and small waste separation from industrial and municipal wastewater, followed by washing, pressing and transportation of the screenings to the disposal tank. Recommended for fine mechanical wastewater treatment.
- » RVO screen consists of a perforated drum, screw conveyor and a waste compaction unit.
- » The screen is installed in open channels at an angle of 35-45°. A slotted or perforated sieve is installed at the bottom of the screen. As the wastewater passes through the sieve, the waste is retained on the filtering surface. The screw is equipped with a brush to clean the sieve in the filtration area. In the upper part of the screen, there are areas for screenings washing and pressing.
- » Screenings washing function allows retaining organic compounds in wastewater, which improves the sanitary quality of waste.
- » Fine mechanical wastewater treatment allows separation even hard-to-catch impurities such as hair, due to the use of a perforated sieve with small openings.
- » The screen can be equipped with a device for unloading washed and dewatered waste into polyethylene bags, which is not only extremely convenient for further transportation of waste, but also prevents the spread of odors.
- » The shaftless screw used for transportation of waste prevents jamming and blockage of the screen, even when working with fibrous materials.
- » RVO screen can be integrated into the existing wastewater treatment complex; its work is automated and synchronized with other types of equipment.
- » The screens are designed for use in wastewater with pH = 6.5÷8.5.





## WHY ARE ESMIL RVO SCREW SCREENS CONVENIENT, RELIABLE AND LONG-LASTING?

- » Possibility of installing RVO screens in the buildings for screens at the site of treatment facilities after preliminary coarse mechanical treatment;
- » Possibility of outdoor installation provided that the screens are equipped with heating devices;
- » The presence of the waste compaction function (volume reduction of up to 40%) directly in the screen eliminates the need for additional equipment;
- » Reliable operation due to the absence of a large number of rotating parts: one screw takes over all the work;
- » The screw made of wear-resistant carbon steel is equipped with a self-cleaning brush in the filtering area;
- » Waste separation, its transportation and compaction in a single unit using only one drive;
- » High corrosion resistance due to the use of stainless steel (AISI 304, AISI 316);
- » Perfect association of casing parts and screen mechanisms due to the use of high-precision manufacturing technologies.

## WHAT OPTIONS CAN WE OFFER?

- ✓ A wide range of different types of screens depending on the required throughput, wastewater characteristics and the place of installation.
- ✓ Possibility of manufacturing screens complete with a container for installation, which will significantly reduce the cost of construction and installation work.
- ✓ Implementation of control systems and equipment automation of various levels of complexity.



International Sales Department

+48 87 620 06 02  
[prodeko@esmil.eu](mailto:prodeko@esmil.eu)