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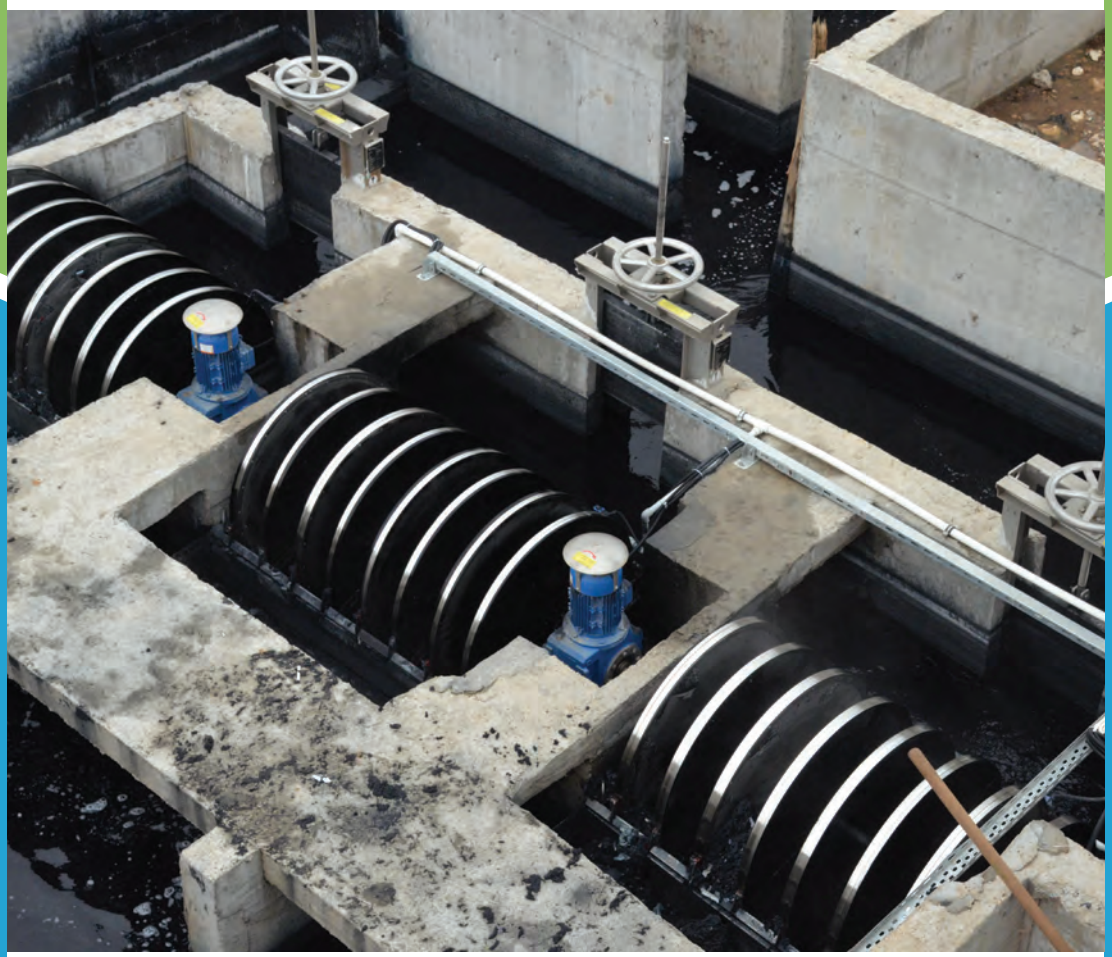
ROTARY DISC SCREENS



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ROTARY DISC SCREENS

General Description and Intended Use

The rotary disc screens are used to remove suspended solids (textile fiber, paper fiber, plastic parts etc.) in the wastewater with its high filtering feature. Thus, the blockage and breakdowns in the pump, valves and pipes are minimized. The treatment is performed with low costs by removing suspended solids. It also reduces the pollution load in the biological treatment and provides energy saving.

It is used prevent blockages and low performance arising out of textile fibers which are the biggest problem of the exchangers in the heat recovery systems from textile wastewater. It is also used in processes of recovering of the raw material removed from the wastewater such as paper industry. The raw material is removed from the water and recovered with the physical treatment method which is the most economical treatment method.

It is also used in different sectors such as food, slaughter house, plastic recycling, wood industry.

There are two types according to application point as portable and channel type.

Working Principle Of Equipment

The discs are rotated by being driven with the motor / reducer group. The surface of the screen is cleaned by spraying water from the nozzle system. The wastes accumulated in between the discs are thrown from a single point with the rotating effect of the discs. The screen provides high filtering performance. The workmanship for cleaning is minimum because it is automatically cleaned thanks to its design.

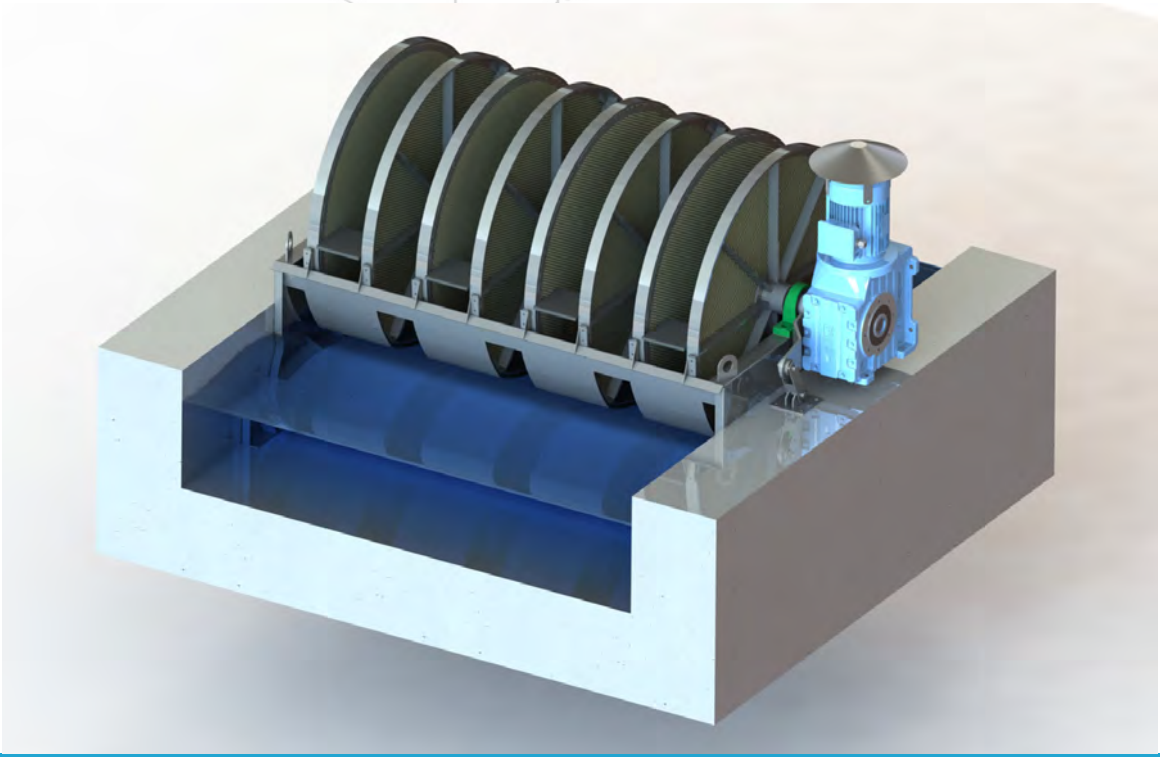
In case energy is cut or the flow rate of the wastewater is over the designed flow rate, the unfiltered wastewater passes through the by-pass line of the screen and thus, the damaging of the rotary disc screen is prevented.

ADVANTAGES

- Portable and Channel Type Selection Advantage,
- Filtering in Micron Size,
- Low First Investment Cost,
- Compact Design,
- Low Operation and Maintenance Costs,
- Low Energy Consumption,
- Automatic Cleaning and Lower Workmanship Requirement,
- Easy Transportation and Mounting,
- Long Operation Life.

Technical Specifications

- The rotary disc screens are manufactured with different capacities from 15 m^3/h-up to 280 m^3/h. However, they serve for higher flow rates in parallel uses.
- The permeability of the screen surface can be selected as 100-2000 microns in different sector applications. It is extremely successful in removing solids which cannot be captured by the drum and the static sieve thanks to its small meshes.
- It is automatically operated depending on the water level in the screen channel or time without needing an operator.
- There are necessary OHS protection sheets in portable type screens in order to prevent interfering in the movable parts manually.
- An upper cover is used to ensure heat insulation in rotary disc screens which are used in heat recovery systems.
- The nozzle system which operates depending on the solenoid valve sprays clean water on screen surface and cleans it.
- A waste shovel may be preferred according to the sector in order to discharge the wastes captured.



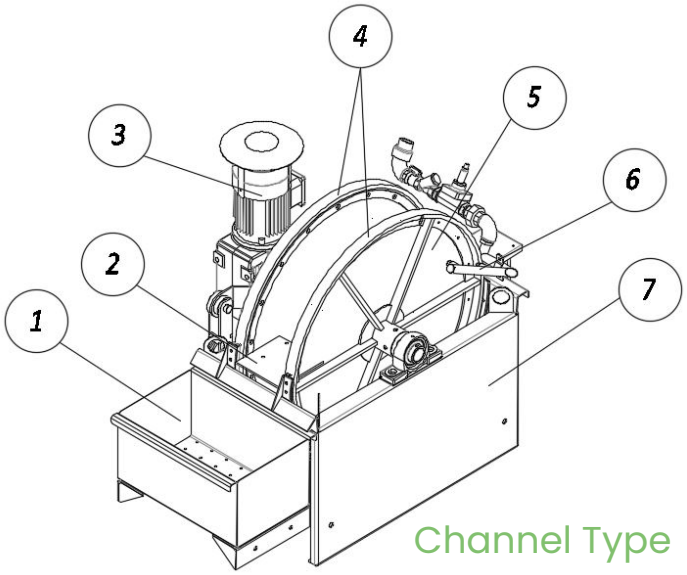
ROTARY DISC SCREEN CAPACITY AND MEASUREMENT TABLE

DISC NUM-BER	DISC DIAME-TER (mm)	CAPACITY (m3/h)	REDUCER POWER AND REVOLUTION ≈ (kW) (rpm)	SCREEN DIMENSIONS Width*Length*Height (mm)*	CHANNEL TYPE	PORTABLE TYPE
					CHANNEL WIDTH (mm)	PORTABLE TYPE PIPE INLET-OUTLET FLANGE MEASUREMENT (PN10)
2	500	15	0,25 kW 10 rpm	KNL: 610*630*620 PRT: 750*740*730	400	2 ½"
2	650	25	0,37 kW 10 rpm	KNL: 590*755*775 PRT: 710*1090*890	400	3"
4	500	30	0,55 kW 10 rpm	KNL: 940*605*800 PRT: 1500*740*730	800	3"
2	800	40	0,55 kW 10 rpm	KNL: 600*825*950 PRT: 1000*1600*1250	400	4"
4	650	50	0,55 kW 10 rpm	KNL: 1100*800*900 PRT: 1400*1200*1050	800	5"
2	950	70	0,75 kW 10 rpm	KNL: 1100*1100*750 PRT: 600*1750*1370	400	6"
4	800	80	0,75 kW 10 rpm	KNL: 1000*1100*1200 PRT: 1350*1100*1250	800	6"
6	800	120	1,1 kW 10 rpm	KNL: 1100*1500*1250 PRT: 1700*1600*1250	1200	8"
4	950	140	1,5 kW 10 rpm	KNL: 1100*1100*1100 PRT: 1500*1750*1370	800	8"
6	950	210	2,2 kW 10 rpm	KNL: 1100*1600*1250 PRT: 1725*1660*1350	1200	10"
8	950	280	3 kW 10 rpm	KNL: 1900*1200*1100 PRT: 2200*1850*1350	1600	12"

IMPORTANT: The flow rates are determined by calculating the clean water passage in 500 microns of meshes.

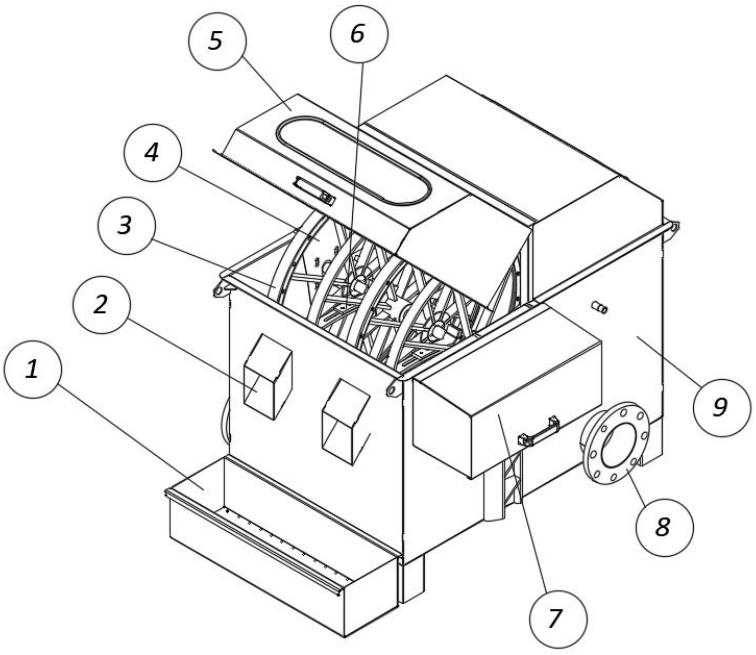
IMPORTANT: The custom made designs are done by calculating the blockage rates according to the request of the customer.

No	Part Name
1	Waste Container
2	Waste Disposal Shovel
3	Motor / Reducer
4	Disc
5	Screen Mesh
6	Nozzle System
7	Frame



Channel Type

No	Part Name
1	Waste Container
2	Waste Output Point
3	Disc
4	Screen Mesh
5	Upper Cover
6	Waste Disposal Shovel
7	Motor / Reducer
8	Wastewater Inlet
9	Frame



Portable Type

MATERIAL DETAILS

- Frame: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Upper Cover: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Screen Mesh: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Discs: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Waste Container: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).

"Different materials can be preferred in accordance with the request of the customer."

ACCESSORIES

- Wash Water Inlet Line Strainer
- Wash Water Inlet Solenoid Valve
- Waste Shovel*
- Upper Protection Cover for Channel Type*
- Waste Container*
- Upper Cover with Piston*
- Water Level Measuring Sensors*
- Emergency Button*
- Local Power and Control Panel*
- Waste Tank**

* Optional accessories are defined.

**It is given in channel type equipment as a standard and in portable type equipment optionally.

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