

## ROTARY DRUM THICKENER

With 20 years experience and more than 2000 references installed worldwide (60 countries), EMO is a leading Designer and Manufacturer not only of sludge treatment installation including thickening, dewatering and drying but also of sludge pre-treatment solutions.



The rotary drum thickener is used for the continuous and automatic thickening of municipal or industrial sludge.

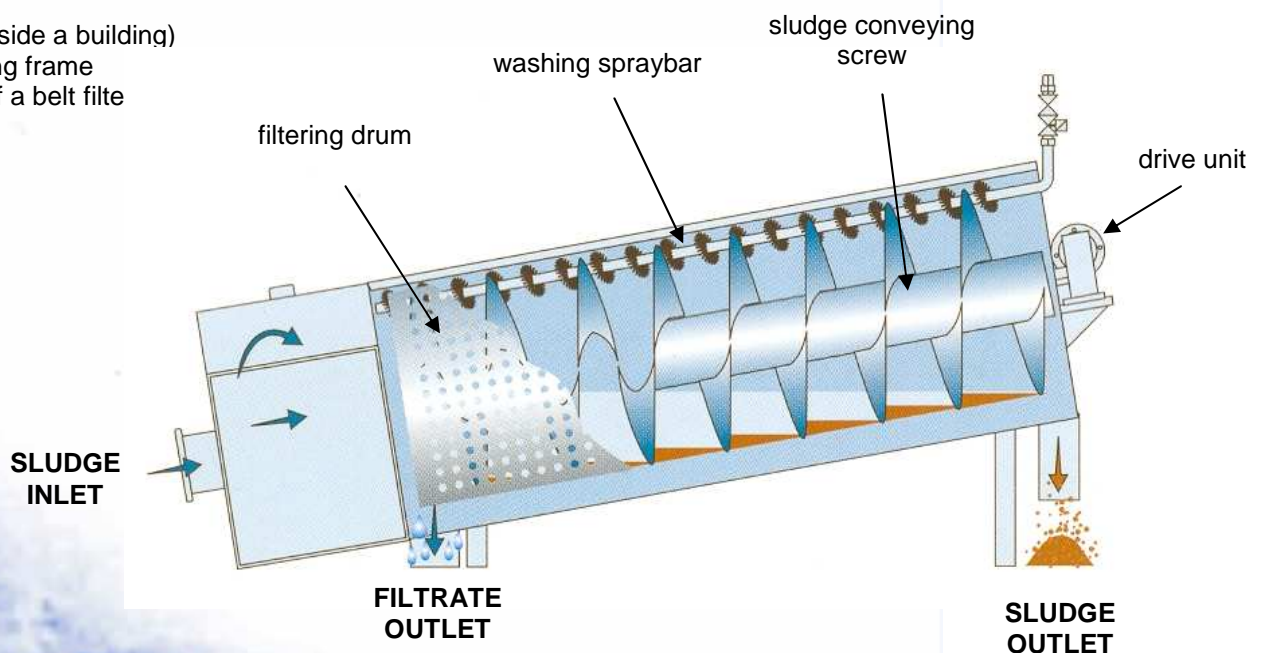
This technology has many advantages :

- simple operation
- low maintenance cost and no requirement for highly qualified operator
- low operation cost (low energy consumption...)
- small space requirement

### Technical description

Various installation of the RDT:

- on a sludge silo
- on a trailer
- on a civil works (inside a building)
- on a skid supporting frame
- in front or on top of a belt filter



## Operating principle

The rotary drum thickener consists of the following components: stainless steel structural frame, sludge distribution system, filtering drum, filtering drum washing system, drum drive system, full set of covers, electric control panel (optional). Water flows out through surface of the drum and sludge is transported by the spiral screw along the drum and finally out from the end of the drum. Sludge is led inside and through the drum over the flow edge. The spiral screw transports the sludge along the drum and finally out from the drum.

The construction which consists of the central shaft, spiral screw and the surface of the drum prevents the direct sludge flow through the drum from the begin to the end. The speed of the drum rotation can be adjusted by frequency converter.

The spiral screw mixes sludge slowly inside the drum so that water can come out from sludge very effectively. The horizontal position of the thickener can be lifted up to 10 degree. The outlet side is higher.

The cleaning of the drum surface is carried out by pressure water-jet. There is nozzle pipe inside the basin of drum thickener for surface washing. Washing operates according to the adjustable timer program.

The drum thickener is closed and compact construction, which makes the equipment easy to locate and avoid annoyance from odour and splashing.

PMT drum thickeners are available with wide capacity ranges from 1 to 100m<sup>3</sup>/h.



## Selection table

Below capacities are given for information only. Drum thickener selection must be confirmed according to sludge characteristics : type of sludge, inlet DS concentration, required outlet concentration, organic matters content, ...

Model	Drum diameter (mm)	Drum length (mm)	DS capacity (kg/h)	Flow (m <sup>3</sup> /h)	Power (kW)	Weight (kg)
400/1300/V	400	1300	120	3 - 8	0,37	180
400/1800/V	400	1800	200	4 - 13	0,37	200
500/1800/V	500	1800	300	6 - 20	0,55	220
500/2300/V	500	2300	400	8 - 30	0,55	280
500/2700/V	500	2700	500	10 - 24	0,55	320
600/2700/V	600	2700	600	12 - 50	0,75	360
600/3200/V	600	3200	700	14 - 60	0,75	450
800/2300/V	800	2300	800	16 - 65	0,75	550
600/3700/V	600	3700	800	16 - 70	0,75	500
700/3200/V	700	3200	1000	20 - 80	1,10	800
700/3700	700	3700	1500	30 - 90	1,10	800

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