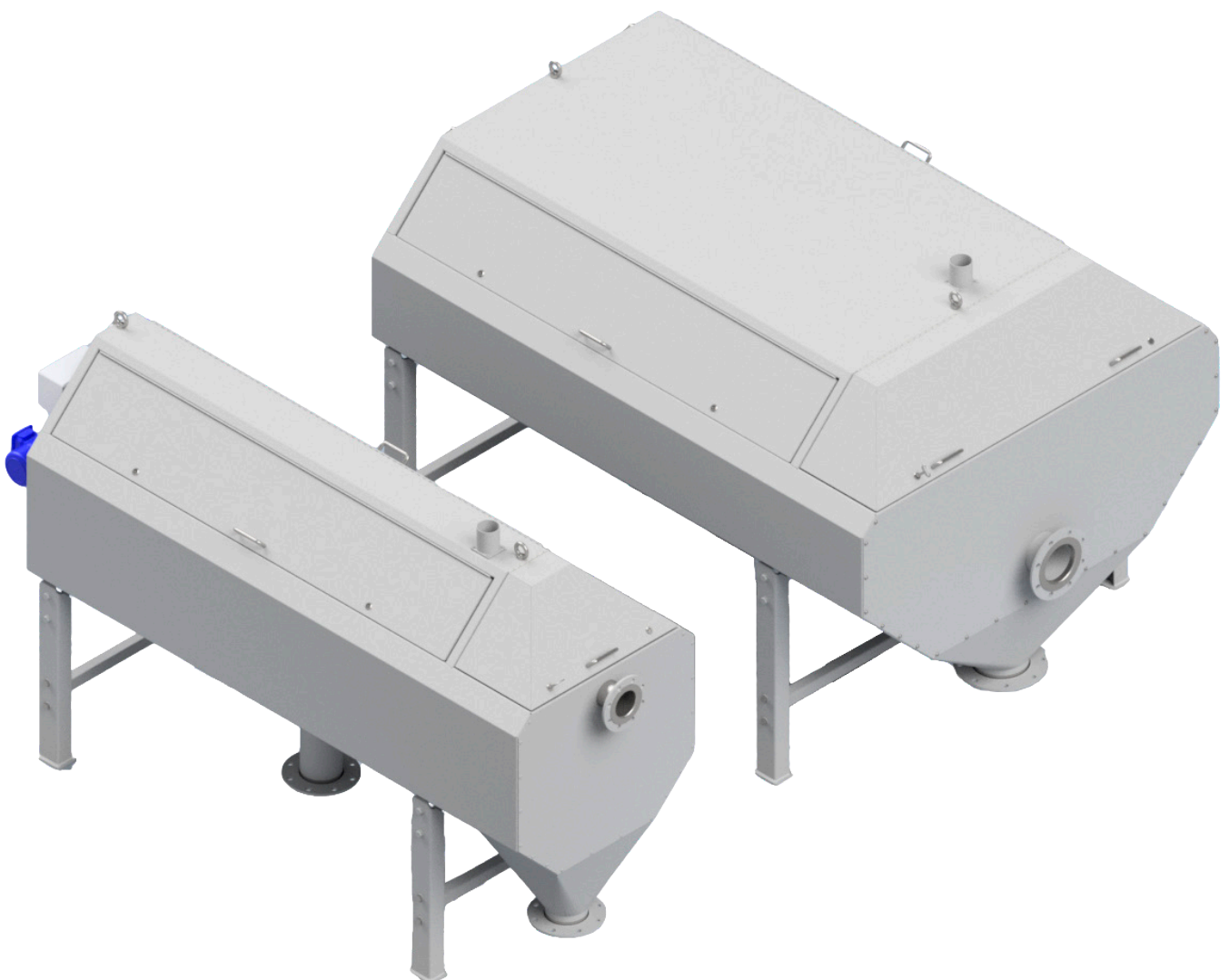


KD 30 – Drum thickener

KD 30 rotary drum thickener (RDT) is a thoroughly tested machine designed to ensure low service and maintenance costs.



Introduction

KD 30 RDT is used for thickening of effluent sludge. A concentration from 0.8% dry solids to approximately 5-7% dry solids is normally achieved when dewatering municipal biological excess sludge for biogas production. Under the right circumstances it can reach 12-13% dry solids.

The RDT is especially suited for further treatment of sludge in e.g. sludge digesters or similar as it is possible to place a progressive cavity pump directly under the sludge discharge (see illustration).

The RDT is best used for Primary, WAS and Digested sludge, due to its versatility, efficient solid-liquid separation, and adjustability.



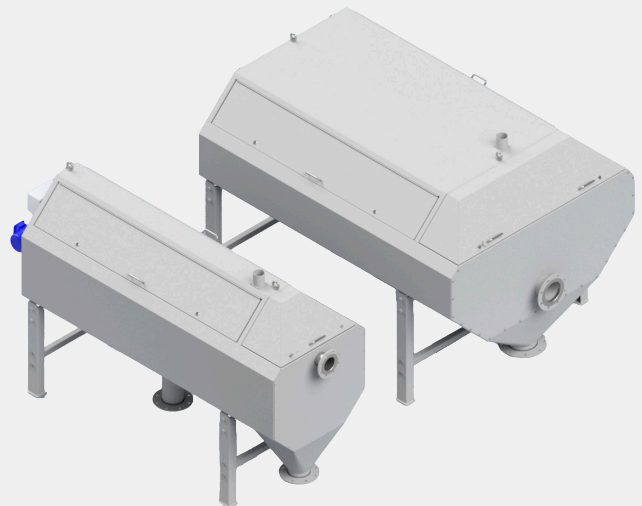
Construction

The RDT is designed as a closed unit in which one or two drums are placed. The drum is equipped with polyester filter cloth or similar matching application. The drum is equipped with internal twisted guide/bump plates.

A comprehensive auto cleaning system is integrated within the machine, featuring a flushing bar positioned atop the drum. Continuous flushing occurs during both operation and final cleaning cycles. The flushing bar is conveniently detachable and outfitted with a series of click-on nozzles, streamlining the cleaning process. Additionally, the inclusion of high-pressure flushing is available as an optional feature, accommodating specific cleaning requirements as necessary.

The RDT has inspection doors – one on each side and one at the sludge outlet.

The entire machine is constructed from stainless steel, undergoing a dip-pickling process post-manufacturing. This meticulous treatment guarantees exceptional corrosion resistance, thereby enhancing the longevity and durability of the equipment.





Method of operation

Dewatering is performed by feeding a mixed polymer and sludge substance to the back end of the rotating drum (gear end). The drained water is then gravitated through the filter cloth and the up-concentrated sludge is carried to the sludge discharge.

The direction of rotation can be changed according to the requirements. During normal operation the sludge is screwed towards the sludge inlet (end of the drum). In this way the interior drum bumps ensure a long retention time.

With the help of a crossflow technique, we enable a high efficiency of polymer usage and therefore lower the cost.

The drum thickener can be supplied in other materials and designs according to customer requirements. Under you can see the different versions of the RDT we can provide and their targeted capacities.

List of different versions of KD 30

	KD 30-10	KD 30-20	KD 30-30	KD 30-35	KD 30-40	KD 30-50
Capacity*	6 m ³ /h	12 m ³ /h	25 m ³ /h	38 m ³ /h	50 m ³ /h	75 m ³ /h
Sludge load*	60 kg ss/h	120 kg ss/h	250 kg ss/h	380 kg ss/h	500 kg ss/h	750 kg ss/h
Amount of drums	1	1	1	1	2	2
Power	0.25 kW	0.25 kW	0.25 kW	0,37 kW	2x 0.25 kW	2x 0.25 kW
Dimensions:						
Length (mm)	2350	2530	2850	3250	2850	3250
Width (mm)	700	800	900	1100	1800	2200
Height (mm)	1450	1550	1650	1850	1650	1850
Option: Height with high pressure flushing	1700	1800	1900	2100	1900	2100

*Recommended capacity and sludge load.

KD Group

www.kdgroup.dk

