

# ALDRUM Sludge Thickening System

## Drum Thickener



ALDRUM Drum Thickener Midi with an Outlet Adapter (optional)

The ALDRUM Drum Thickener is a range of mechanical sludge thickeners. The ALDRUM Drum Thickener works on the principle of conveying polyelectrolyte treated (floculated) sludge through a slowly rotating drum filter. The sludge remains in the drum, while the water phase passes through the filter cloth. The Sludge concentration can thus be regulated by adjusting the feed rate, angle and speed of the drum.

The ALDRUM Drum Thickeners are equipped with a drum cleaning system consisting of a spray bar for water. The water consumption is low due to intermittent cleaning of the drum using either potable water, final effluent or treated filtrate.

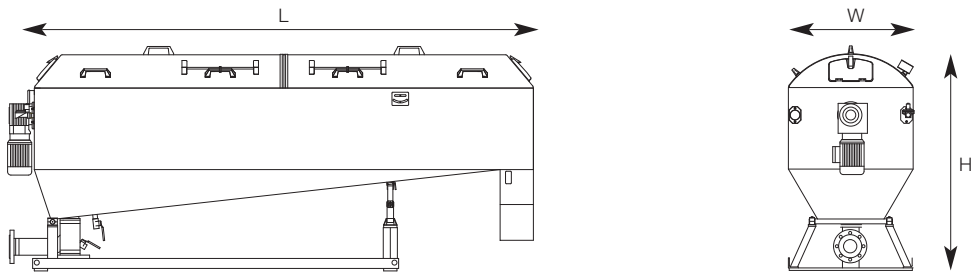
The ALDRUM Drum Thickener comes in four sizes. They are all available as separate components or as complete sludge thickening modules. The ALDRUM Drum Thickener is designed to handle sludge extremely gently, which means it gives exceptionally high recovery for nearly all sludge types.

An ALDRUM Drum Thickener is usually combined with an ALDRUM Flocculation Reactor. In this combination Alfa Laval is offering five different capacities, Mini, Midi, Maxi, Mega and Mega Duo, i.e. 7-120 m<sup>3</sup>/h / 30-530 GPM on the basis of 1% DS WAS.

### Optimisation

The ALDRUM Drum Thickeners can be adjusted to suit individual sludge thickening needs. Optimal thickening is found by varying the feed rate, the polymer type and dosage, flocculation mixer speed, drum speed, angle of the drum and the spraying interval. There is also a wide range of different filter cloths available for new applications.

## Dimensions



	Mini	Midi	Maxi	Mega*
Length	88"/2233 mm	125"/3175 mm	187"/4750 mm	240"/6100 mm
Width	18"/480 mm	30"/750 mm	34"/860 mm	44"/1110 mm
Height	31"/795 mm	43"/1100 mm	64"/1630 mm	83"/2105 mm
Weight (dry)	660 lb./300 kg	1320 lb./600 kg	2640 lb./1200 kg	4400 lb./2000 kg

\* Mega Duo is comprised of two (2) ALdrum Mega in parallel.

## Materials

Cover (Colour, RAL 5002)	GRP	Bearings	HDPE
Casing	AISI304 or AISI316	Flanges	Symalit
Drum	AISI304 or AISI316	Spray nozzles	AISI316
Base frame	AISI304	Filter cloths	Polyester

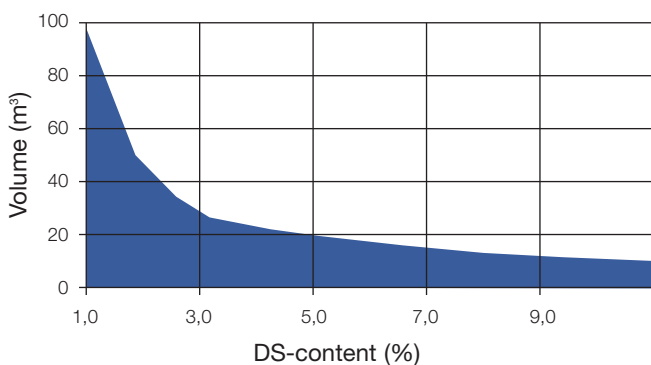
Materials of other non-wetted parts include: Aluminium, cast iron, mild steel, brass

## Typical performance\*

Type of sludge	Discharge DS (%)	Filtrate quality (mg/l SS)	Poly. cons. (kg/tDS)
Primary	4-12	<400	1-3
Mixed (50% Prim./50% Sec.)	4-10	<400	1-4
WAS (Waste Activated Sludge)	4-8	<400	2-5

\*Samples of expected results from an ALDRUM Drum Thickener used on municipal sludge. The results can vary due to a lot of reasons, such as sludge age and the ratio of industrial load. Regarding the filtrate quality, it is not unusual with less than 50 mg/l SS.

## Relation Volume/DS-content



The ALDRUM Drum Thickener cuts the sludge volume by up to 90%, thus cutting costs considerably.

