



ALDRUM Sludge Thickener – Mini and Midi

Rotary drum filters for small to medium capacity sludge thickening



ALDRUM Midi Drum Thickener with an Outlet Adapter (optional) for sludge hopper and tilting mechanism

Alfa Laval ALDRUM Drum Thickeners are ideal for mechanical thickening of sludge prior to digestion or dewatering, and for reducing sludge volume prior to storage or transportation.

The ALDRUM Drum Thickener comes in two sizes, Mini and Midi, for capacities from 4- 22 m³/h (18-97 GPM on the basis of 1% dry solids waste activated sludge). They are available as separate components or as complete sludge thickening modules. They are designed to handle sludge extremely gently, providing exceptionally high recovery for nearly all sludge types.

Applications

- All municipal wastewater sludge types
- A wide variety of industrial separation applications, such as paper, solid waste and food
- Fresh water production at waterworks

Benefits

- Compact and robust design
- Long life time filter cloth
- Intermittent flushing saves water
- Very gentle treatment of flocculated feed saves polymer and gives high recovery
- Safe design with bolted, hinged cover
- Clean, enclosed, odour-free solution

Working principles

ALDRUM Drum Thickeners work on the principle of conveying polyelectrolyte treated (flocculated) 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 drums are equipped with a 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.

Optional extras for optimum mixing and separation

An ALDRUM Drum Thickener is usually combined with a polymer mixing valve for thorough mixing and minimum polymer consumption, and/or a flocculation reactor.

Another option is a sludge hopper which comes with an outlet adaptor

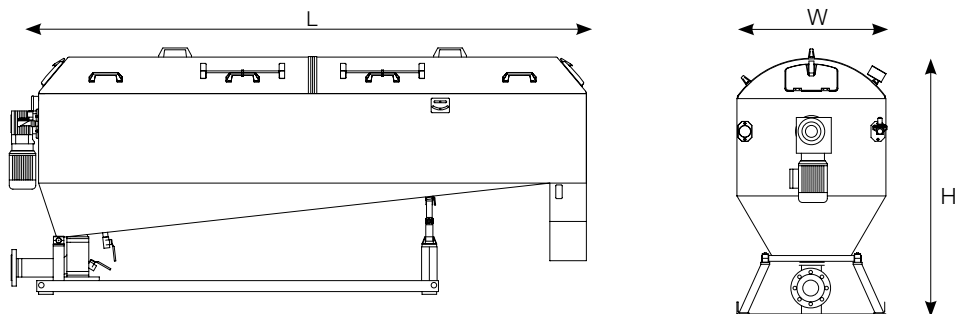
ALDRUM Mini and Midi can also be delivered with a basic control panel for straightforward, user-friendly control of the drum thickener, including level monitoring in the flocculation reactor (if fitted).

- Advanced control: All-in-one control solution. Control of the plant's feed pump, sludge pump and polymer pump, as well as the drum thickener, and level monitoring in the flocculation reactor and the sludge hopper.

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.

Dimensions



	ALDRUM Mini	ALDRUM Midi
Length	2,233 mm/88"	3175 mm/125"
Width	18"/480 mm/18"	750 mm/30"
Height	795 mm/31"	1100 mm/43"
Weight (dry)	300 kg/660 lb.	600 kg/1320 lb.

Materials

Cover (Colour, RAL 5002)	GRP	Bearings	HDPE
Casing	AISI316	Flanges	Symalit
Drum	AISI316	Spray nozzles	AISI 303
Base frame	AISI304	Filter cloths	Polyester

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

Typical performance*

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

* Examples 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.



Typical layout of an Alfa Laval ALDRUM Mini and Midi Drum Thickener.

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.