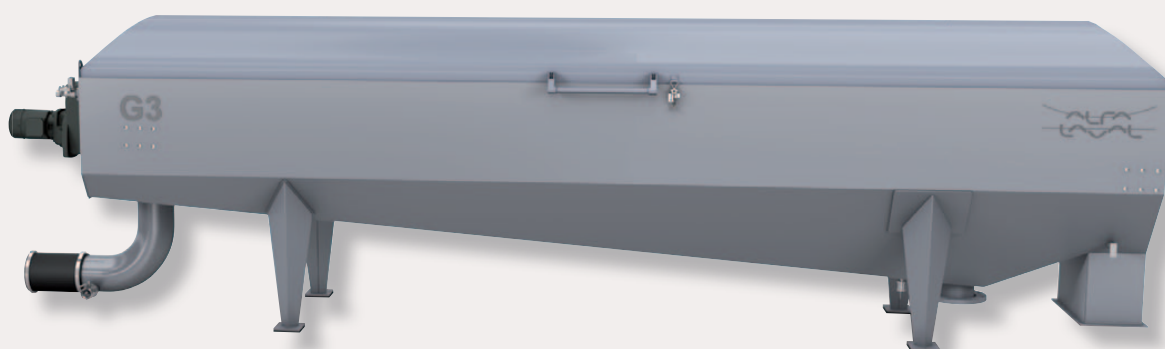




ALDRUM G3 – a revolution in sludge thickening

Drum thickener



The ALDRUM G3 is a new member of the well-proven range of Alfa Laval mechanical sludge thickeners, with significantly enhanced capabilities. The ALDRUM G3 is optimized to set new standards for sludge thickening, resulting in greatly improved process performance at minimum operating cost. The robust, straightforward design makes the ALDRUM G3 drum thickener a reliable, user-friendly product that only requires a minimum of maintenance. It is available with a range of auxiliary equipment to meet individual customer requirements.

The ALDRUM G3 reduces the sludge volume by as much as 90%, thus cutting costs for sludge handling, transportation and storage considerably.

Working principle

The ALDRUM G3 works on the principle of conveying poly-electrolyte treated sludge (a.k.a. flocculated sludge) through a slowly rotating drum filter. The sludge remains in the drum, while the water phase passes through the filter cloth. Water consumption is low due to intermittent cleaning of the drum using either potable water, final effluent or treated filtrate.

The ALDRUM G3 can be adjusted to suit individual sludge thickening needs. Optimal thickening is obtained by varying the feed rate, the polymer type and dosage, drum speed and the spraying interval. The best possible flocculation is achieved by installing the flocculation reactor and/or mixing valve upstream of the actual drum thickener.

Achieve more with ALDRUM G3

The new feed zone provides extraordinarily gentle treatment of the sludge being processed. This results in reduced polymer consumption at the same time as making sure of exceptionally high recovery rates for most types of sludge. Some particularly difficult sludge types, which previously required liquid polymer to flocculate and thicken them, can now be treated using cheaper powder polymer, thus reducing operating costs.

The ALDRUM G3 makes it possible to achieve a 30% increase in solids load capacity on the same footprint as the previous design. This is the result of a new conveyor design that also increases the separation efficiency in the drum. This, combined with the more gentle treatment of sludge, ensures superior performance as well as low polymer consumption.

Less maintenance work with ALDRUM G3

The entire ALDRUM range of drum thickeners is renowned for its robust, straightforward design, and extremely durable filter cloth. The new ALDRUM G3 design is also equipped with an integrated Cleaning in Place system.

The benefits include easy operation, limited maintenance and maximum uptime.

Meeting your exact requirements

A selection of auxiliary equipment is available for the ALDRUM G3, as well as for all other models in the ALDRUM range.

- Mixing valve
Ensures thorough mixing of polymer and sludge. Can be installed directly onto the inlet of the drum thickener, or before the flocculation reactor

- Flocculation reactor
Simple open reactor that kick-starts the creation of large and strong flocks. Can be installed directly onto the inlet of the drum thickener
- Sludge hopper
Leads the thickened sludge to the sludge pump in a controlled and efficient manner
- Basic control panel
Straightforward, user-friendly control of the drum thickener, including control of the level in the flocculation reactor (if fitted)
- Advanced control panel
All-in-one control solution. Control of the plant's feed pump, sludge pump and polymer pump, as well as the drum thickener, the level in the flocculation reactor and the sludge hopper.

Performance made simple

The ALDRUM G3 range features a unique design with multiple benefits:

- Excellent process performance
- Low polymer consumption, ensuring low operating costs
- Greater capacity from the same footprint
- Simple, easy operation and maintenance
- Outdoor installation, if required
- Enclosed design for a clean, odourless working environment
- Easier cleaning and maintenance, as a result of self-cleaning design
- Greater safety due to cover switch and slam-proof cover
- Selection of control panels and auxiliary equipment to meet virtually any specific processing requirement.

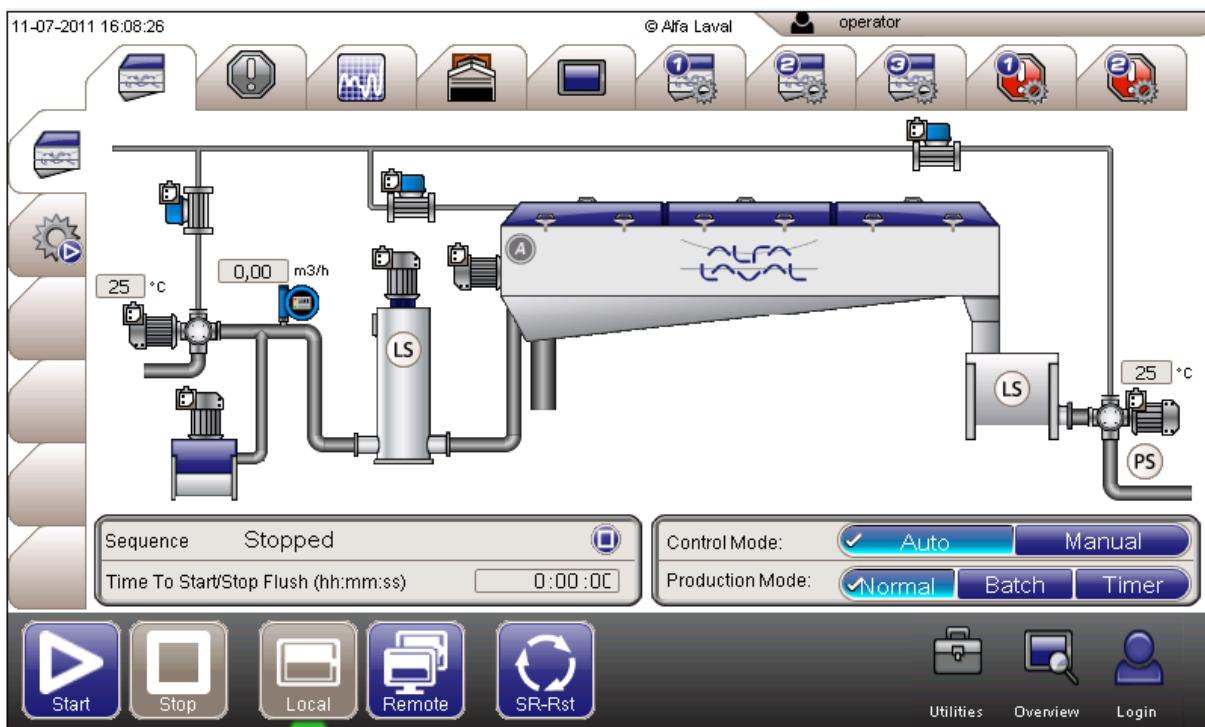
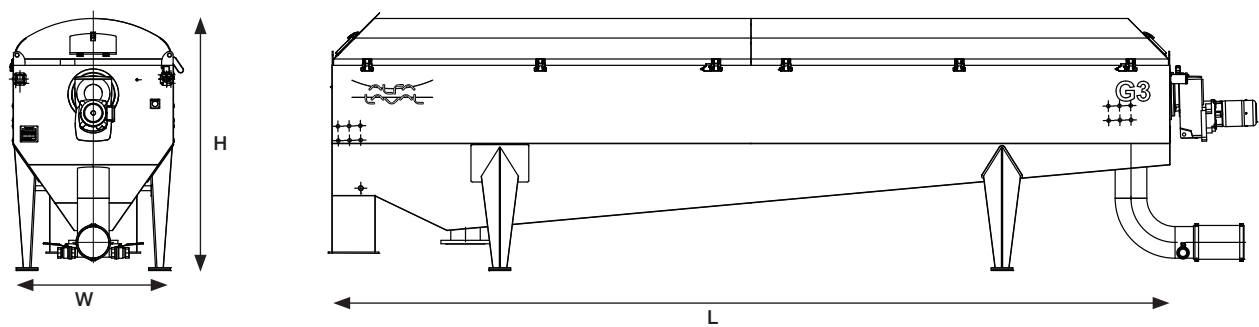


Fig. 1 All-in-one control panel

Dimensions



Dimensions	Maxi	Mega	Mega-Duo*
Length	TBA	6425 mm/253"	See Mega
Width	TBA	1110 mm/44"	See Mega
Height	TBA	1750 mm/69"	See Mega
Weight (dry)	TBA	1300 kg/2870 lbs	See Mega
Capacity	15–45 m ³ /hour	30–90 m ³ /hour	60–180 m ³ /hour

* Mega Duo is comprised of two (2) ALDRUM Mega in parallel

Materials			
Cover	GRP	Bearings	HDPE
Casing	AISI304 or AISI316	Filter cloth	Polyester
Drum	AISI304 or AISI316	Spray nozzles	AISI316
Legs	AISI304	Materials used in other non-wetted parts	Aluminium, brass

Typical performance*			
Type of sludge	Discharge dry solids (%)	Filtrate quality (mg/l SS)	Polymer consumption. (kg/tDS)
Primary	3–10	50-400	1–3
Mixed (50% primary/50% secondary)	3–8	50-400	1–4
WAS (waste activated sludge)	3–6	50-400	2–5

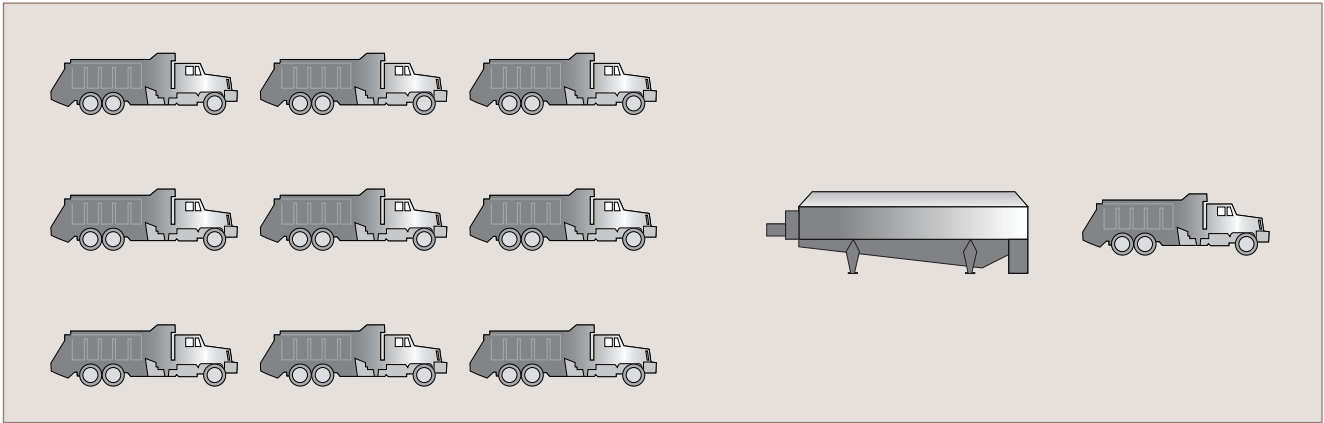


Fig. 2 Up to 90% reduced sludge volume using ALDRUM G3



Fig. 3 ALDRUM G3 configured with mixing valve and flocculation reactor

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How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com