# Alfa Laval AS-H Belt Thickener

## Gravity belt thickener



### Application

The Alfa Laval AS-H Belt Thickener is a gravity belt thickener used to thicken dilute sludge and slurries particularly those from biological and activated sludge processes. It is suitable for all municipal sludge types and all industrial sludge that flocculates.

### Working principle

It works on the principle of separating liquid from solids by gravity drainage through a porous filter belt.

The Alfa Laval AS-H Belt Thickener is equipped with a patented sludge polymer mixing valve to ensure thorough, uniform mixing of polymer into the sludge. A sludge retention tank, also known as the flocculation chamber, is filled from the bottom and the flocculated sludge rises up over a weir to ensure even distribution onto the belt.

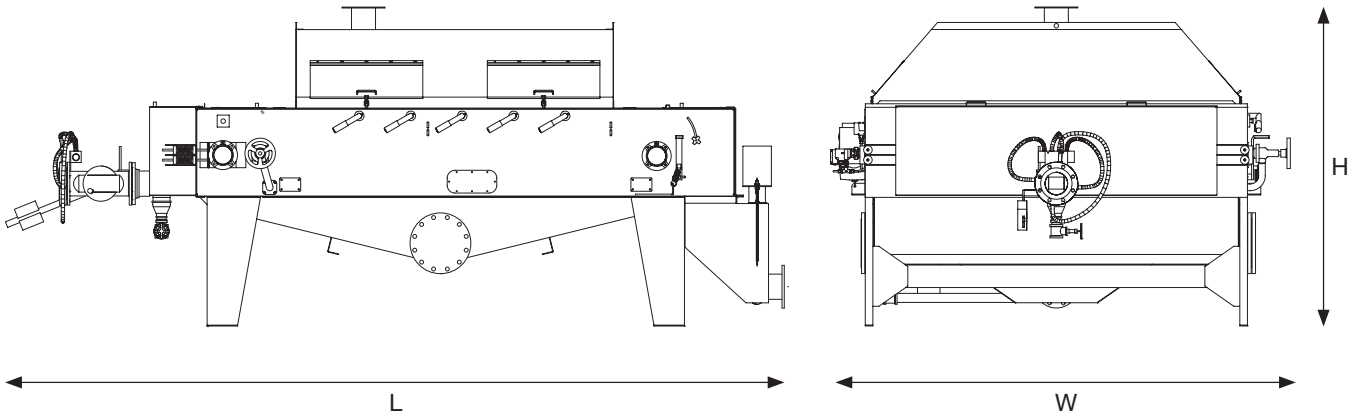
Sludge ploughs force the sludge into lanes which allows free water to run through the filter belt where sludge is not present, thus enhancing the thickening process. The patented ramp allows the thickened solids of the product to be precisely adjusted and fine tuned during operation.

### Features

- Patented ramp for enhanced thickening performance
- Stainless steel construction grades 316L or 304
- Robust belt steering and & tension mechanism
- Fully enclosed design to eliminate aerosol and odour
- Externally adjustable ploughs
- Few moving parts

### Benefits

- No spill design
- Minimum operator input
- Low power consumption
- Low polymer usage
- Low internal volume to minimize costs of odour control equipment
- Cost effective thickening
- Suitable for outdoor operation
- No additional flocculator and mixer requirement
- Higher percentage thickened dry solids
- Higher throughput




## Dimensions

| Model | Length | | Width | | Height | |
|---|---|---|---|---|---|---|
| | (mm) | (inches) | (mm) | (inches) | (mm) | (inches) |
| Belt thickener 60 | 4,375 | 172 | 1,606 | 63 | 2,126 | 84 |
| Belt thickener 100 | 4,375 | 172 | 2,012 | 79 | 2,126 | 84 |
| Belt thickener 150 | 4,345 | 171 | 2,560 | 101 | 2,126 | 84 |
| Belt thickener 200 | 4,345 | 171 | 3,064 | 121 | 2,126 | 84 |
| Belt thickener 250 | 4,345 | 171 | 3,564 | 140 | 2,126 | 84 |
| Belt thickener 300 | 6,237 | 246 | 4,053 | 160 | 2,053 | 81 |

## Typical performance

| Sludge Type | Feed Solids (% D.S.) | Throughput ($m^3$/hr/m belt width) | Product (% D.S.) |
|---|---|---|---|
| Surplus / Waste Activated | 0.3 to 1.0 | 30 to 60 | 5 to 8 |
| Co-settled | 1.0 to 3.0 | 20 to 50 | 6 to 10 |
| Primary | 2.0 to 5.0 | 20 to 40 | 6 to 12 |
| Waterworks | 0.3 to 0.8 | 15 to 30 | 4 to 6 |



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

**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