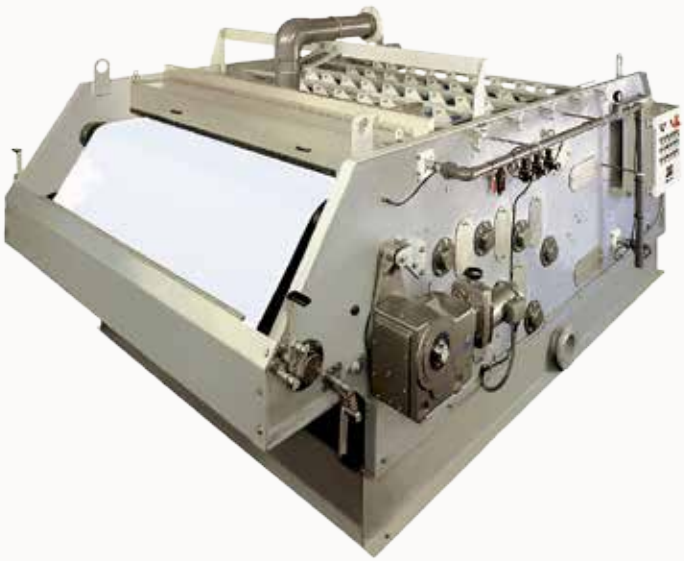
Alfa Laval AS-H Belt Press G2

Sludge dewatering machine



Application

The Alfa Laval AS-H Belt Press G2 is a sludge dewatering machine suitable for all municipal wastewater sludge types and a wide variety of industrial solid/liquid separation applications, such as paper, petrochemical, mineral, food processing, pharmaceutical and chemical. The G2 belt press incorporates variable energy mixing, flocculation, gravity drainage and pressure filtration within a single mechanical framework.

Working principle

Its operating principle is to condition the feed sludge with a poly-electrolyte and drain the flocculated sludge over an endless, horizontal porous filter belt. The thickened sludge is then sandwiched by a second filter belt before further dewatering by a series of decreasing diameter rollers. Final moisture removal is achieved by shear rollers arranged to give minimum 180 degree belt wrap in order to optimize dewatering.

Features

- Variable speed drive
- Optimized frame design in galvanized carbon steel
- Radial grid and perforated roller to accelerate dewatering
- Full pressure dewatering zone
- Highly durable chicanes – easy to operate and maintain
- High performance dewatering belts
- Pre-installed pneumatic system for automatic belt tensioning and steering

Benefits

- Thorough uniform mixing of polymer into sludge
- Higher volumetric throughput and solids loading
- Lower polymer consumption
- Less power consumption as there is no requirement for an additional flocculation tank/mixer

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- Enclosed design available ensures any odours, aerosols and spillages are contained
- Higher cake dry solids
- Better filtrate quality
- Better process performance

Bearings
- Extended lubrication cycle (monthly)
- Positioned for easy installation

Wedge zone
Wedge dewatering zone initiates the application of pressure to the dewatering process.

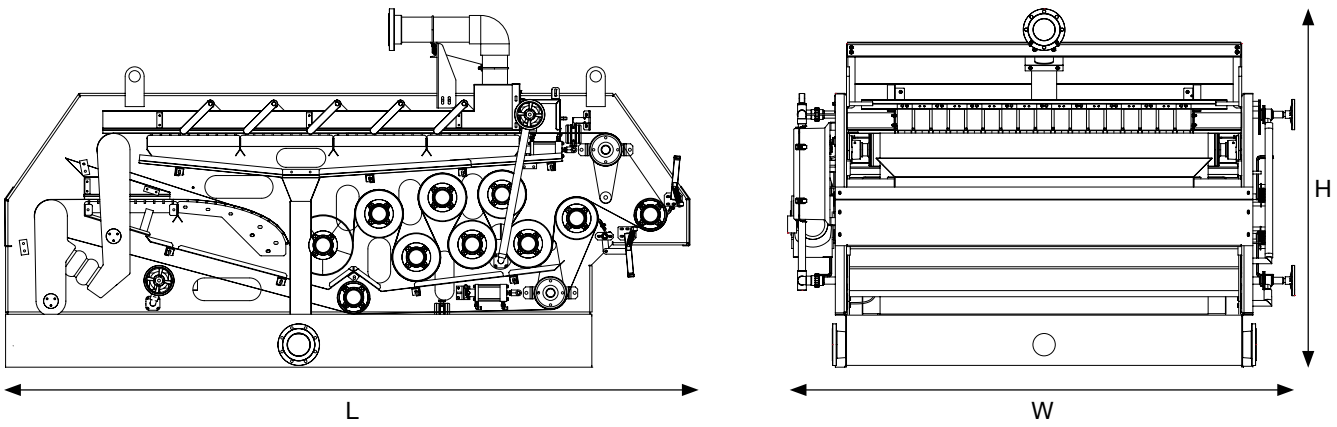
Belt alignment
SmartPress™ Belt Alignment System ensures continuous, smooth guidance control without the need for operator intervention.

Belt tensioning
- Operator specified belt tensioning is automatically maintained, recognizing subtle condition variations such as belt stretching or process changes
- Easy to operate and maintain
- Low air pressure and airflow requirements ensure system is inherently safe

Dewatering zones
- Better process performance
- No additional flocculator tank and mixer required
- Full-Pressure Dewatering Zone – pressure is gently increased as the sludge passes through 8 pressure rollers

Roller design
The strength of the rollers is optimized through the use of specialized forged-end construction. The drive roller is coated with Buna N and the pressure rollers are epoxy coated for corrosion resistance.

Chicanes
Chicanes in polyethylene material ensure long-life operation. They are easy to operate and maintain, and an entire row of chicanes lift simultaneously for easy cleaning.



Dimensions

Model	Length		Width		Height	
	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)
Belt Press 100	4,588	180	2,400	94	2,404	95
Belt Press 150	4,588	180	2,900	114	2,404	95
Belt Press 200	4,588	180	3,400	134	2,404	95

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

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