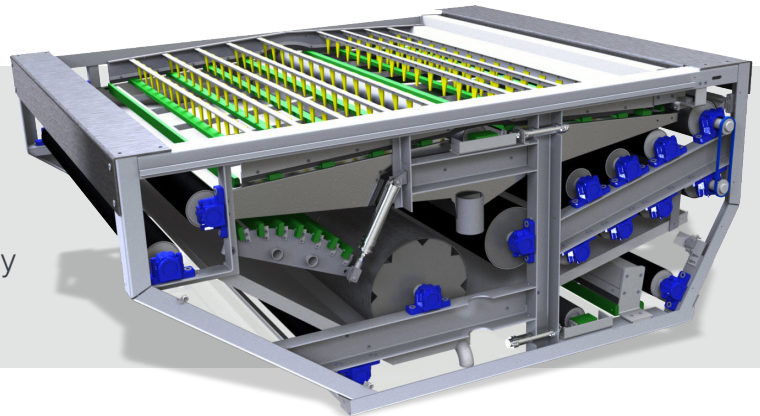


SALTEC Belt Filter Press is an environmentally acceptable machine with high performance and high reliability



### Information

This is an exceptionally robust machine with an excellent design concept and is suitable for dewatering a wide variety of sludges.

The curvature of the low pressure zone makes this a very effective machine for its size.

The drainage zone is fitted with self-clearing ploughs which turn the slurry and open new drainage channels.

**SALTEC** has 3-stage process of dewatering machine.

- **Drainage zone:** 2,3 meters
- **Low pressure zone:** 1,7 meters
- **High pressure zone:** 1,7 meters

*\*Belt tensioning and tracking are operated by pneumatically*

### Advantages

- High capacity of Belt filter press type **SALTEC CP**.
- Large gravity thickening area for pre-dewatering.
- High pressure zone with up to 12 press rollers.
- High dewatering performance by ideal arrangement of the rollers and high pressing.
- Low cost for operation and maintenance.
- Low wear and noise operation.
- High reduction of sludge volume leads to a reduction - In cost for transport.

### Dewatering of suspensions and sludge

SALTEC Belt Filter Press CP is a highly efficient system for the dewatering of all several sludge and other suspensions.

The pre-thickening process in the solids/liquid separation is followed with 12 rollers and increasing pressure up to 15-20 bar.

SALTEC Belt Filter Press CP can also have a combination with a gravity-belt thickner machine type SBT on top of the belt press which results in additional pre-dewatering zone to increase the throughput, even in case of very low DS-incoming concentration of sludge.

### **SALTEC CP is perfectly optimised with up to 3 stages of dewatering stage.**

To achieve best operational results using a belt filter press (highest final dry solids contents, lower polymer consumption) slowly increasing, smooth build-up of pressure on the sludge is needed. The new, further developed belt filter press type SALTEC CP with up to 3 dewatering stages, is specially designed to achieve it.

This is especially advantageous for sludges with low press stability and a high organic content, however also ensures better dewatering results for all other sludges.

Thanks to the further optimized roller configuration higher final dry solids contents can be obtained. The single roller gradations were completely revised and the pressing time within the machine was increased considerably. The key to a successful belt press is the relationship between these zones and that the increase in pressure is a gradual one.

High pressure zone is equipped with two counter rolls to create a high pressure. This will give a very high cake dry solids on e.g. fibrous sludges.

The press comes complete with pneumatic unit and built in control panel.

All presses are tested both electrically and mechanically prior to delivery

## **Process description - stages**

### **Pre dewatering section:**

After leaving the feed nozzle the conditioned sludge flows to the rotating upper belt. Sludge is dammed up by the so-called calibrating plate which evenly spreads it over the entire belt width.

The wedge-shaped chicanes plough furrows in the sludge cake as it forms. This exposes the gravity dewatering belt section so that remaining water can flow off through the belt.

After the pre dewatering section the sludge becomes packed between the two rotating belts and conveyed to the dewatering section.

### **Low pressure section with dandy roller:**

With the large diameter of the dandy rollers and pressure of sludge cake increase.

The shovel design inside the dandy roller allows effective water removal to both sides and prevents rewetting of the sludge. Furthermore the large diameter assures a high capacity.

### **Press section:**

The sludge cake is further dewatered in s-shaped wraps between the belts by the increasing pressure of the press rollers. The additionally occurring kneading and shearing effect frees enclosed liquid which results in an even higher final dry solids content. The different roller diameters allow a smooth pressure build-up for a gradual dewatering process to achieve best possible results.

With additional high pressure area allows further increase of the dry solids contents and further reduction of the sludge volume. Positioning of the high pressure rollers in order to increase the final dry solids.

### Material description

<b>Safety-Precision-Frame</b>	Stainless steel	LDX 2101 Duplex
<b>Safety flaps</b>	Stainless steel	AISI 304
<b>Sludge feed nozzle</b>	Stainless steel	AISI 304

<b>Drive rollers</b>		
and regulation rollers	Stainless steel	Coated with special rubber up to the bearings

<b>High performance bearings</b>		
Bearing housings	Steel hot galvanized	
Bearing life time	Designed for 100 000 hours	
Labyrinth rings	Plastic PE 500	
Lubricating nipple	Flat headed according to DIN 3404	AISI 304

<b>Belt tensioning device</b>		
Piston rods	Stainless steel	Hard chrome plated
Transverse shafts	Stainless steel	AISI 304
Toothed wheels	Brass	
Toothed racks	Steel galvanized	

<b>Belt cleaning device</b>		
Spray pipe / Brush shafts	Stainless steel	AISI 316L
Valves, Nozzles	Industrial quality material	

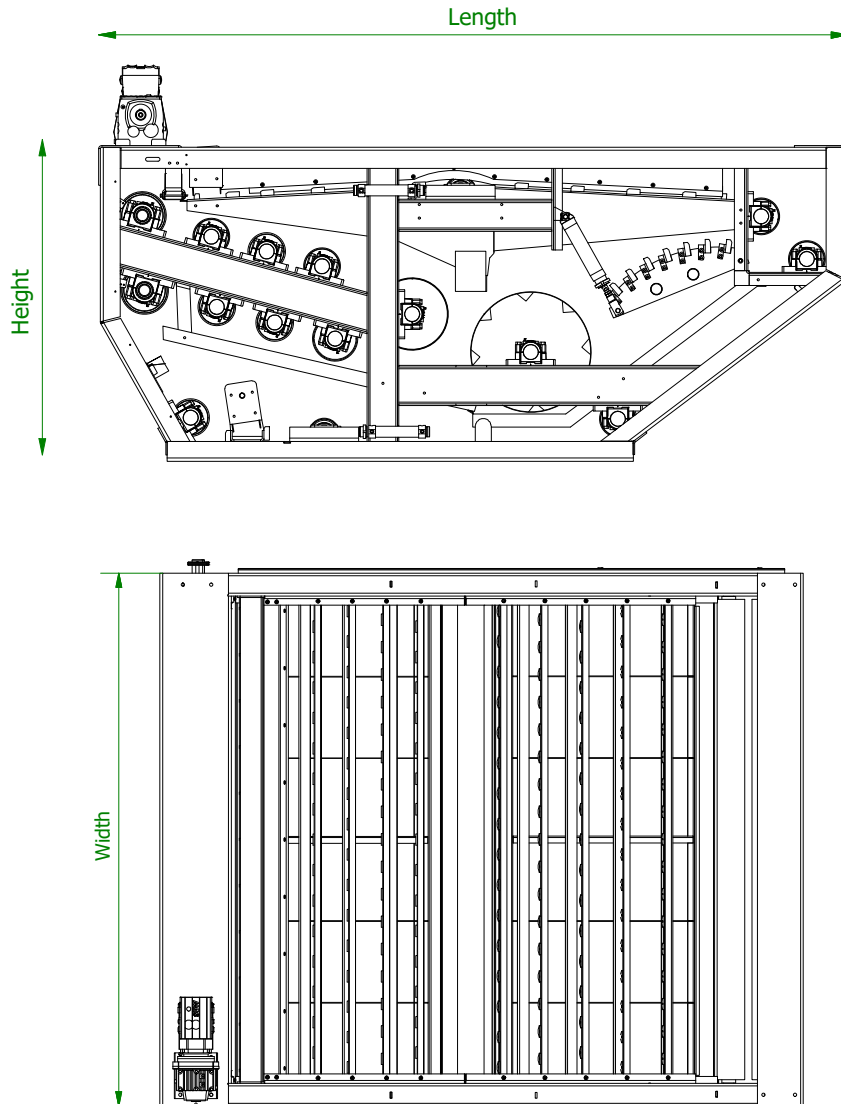
<b>Sludge retaining scraper (ramp)</b>		
Scraper	Plastic PE	
Scraper blade	Plastic PE	

<b>Sludge scraper</b>		
Scraper	Stainless steel	AISI 316L
Scraper blade	Plastic PE	Glass globe reinforced
Cover sheet	Stainless steel	AISI 316L

<b>Electricity</b>		
Voltage	380-415 V, 50Hz	
Manufacture motor	Nord / SEW	
Control voltage	24 VDC	
Drive unit thickening	1,5 kW	
Belt speed	0,5 - 10m / min	
Frequency inverter	Yes	

<b>Lubrication</b>	Centralised each side (grease)	
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### Dimensions



Model	Length [mm]	Width [mm]	Height [mm]	Weight [kg]	Power [kW]	Rinse [m <sup>3</sup> /h]	Capacity [m <sup>3</sup> /h]	DS-out [%]
CP 1200F	2830	1690	1550	1680	1.5	4	8 - 10	17 - 20
CP 1600F	2830	2090	1550	2000	1.5	6	10 - 12	17 - 20
CP 2000F	2830	2490	1550	2500	2.2	7	12 - 15	18 - 21
CP 2300F	2830	2790	1550	3000	2.2	8	15 - 18	18 - 21
CP 2600F	2830	3090	1550	3400	3.0	10	18 - 22	18 - 21

### Flowchart

