LAARMANN

Innovators in Solids

www.laarmann.eu

Laboratory Pressure Filtration Unit with proven design for rapid filtration and enabling of difficult separations

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Laboratory Pressure Filtration Unit

LMPF-(x) L-TM/FM

- 4, 13, 24 or 41 litres capacities
- Table mounted version (TM)
- Floor mounted version (FM)
- Combinations of varios materials are available (stainless steel 304 & 316 and mild steel, with barrels in natural finish, Rubber or Poly-urethane lining)

LAARMANN
Pressure Filter

Laarmann Pressure Filters are of rugged construction and designed to facilitate easy operation.

Description

In dewatering applications, the most important question is the cost involved to reduce the moisture content of a slurry / suspension and process concentrate; both in regards to direct equipment investment and operation costs. With the usage of the Laarmann Laboratory Pressure Filtration Unit the final rest residual and cake features that the process requires with less energy usage can be easily and quickly determined. It is a question of the added energy to reduce the moisture.

Laarmann Pressure Filters are available in a standard range of sizes. ie. 4, 13, 24 and 41 litre capacities for **Table Mounted (TM)** as well as **Floor Mounted (FM)** version. Because of the diversity of applications for the Pressure Filters some combinations of construction materials are available including Stainless Steel 304, 316 and Mild Steel, with the barrels in natural finish or with either Rubber or Polyurethane lining.

The filter floor consists of a polyurethane plate with circular drainage channels strong to hold the cake weight and the pressure that is exerted on the cake's surface.

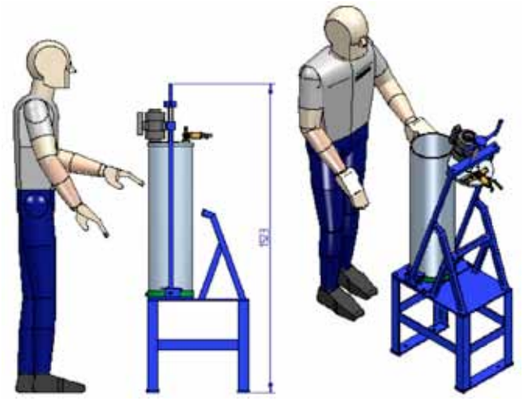
There are two types of filter medium available:

- Synthetic filter cloth.
- Woven metallic mesh screen.

The selection depends entirely on the characteristics of the solids, the liquid and the appropriate materials of construction.

Floor mounted

The 4, 13, 24 and 41 litre units feature fixed barrels with screw down/up, lid and base. The lid is also pivoted allowing it to be rotated away from the barrel. Each unit features a pressure gauge and ball valves to control the operations of pressurising, purging and bleeding.



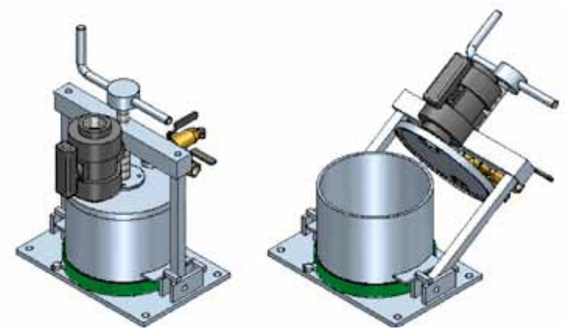


Table mounted

The Pressure Filter features a removable barrel, on a fixed base plate mounted on a table (TM) or put on the floor (FM). The lid is hinged and positioned via a screw. Control is achieved as on the larger units with an additional ball valve for introducing slurry to the filter.

Features and Benefits

- A minimum floor / table space is required
- Minimised risk of environmental hazard from toxic, flammable or volatile cakes
- For the easy handling of saturated brines
- Reslurry washing
- Sharp separation
- Suitable for filter cakes which tend to crack
- Easily recovering of the filtercake
- A full range of filtercloth with various permeability is available

Filter Cloth

The permeability of the filter material is mentioned in L/dm² per minute at a pressure of 2 Bars.

An Example of 2 Filtercloths:

- 400 gramms cloth, permeability is 200 L/dm² per minute at 2 Bar
- 500 gramm cloths, permeability is 120L/dm² per minute at 2 Bar
- For liquids Nylon material is more often used, available from 1 up to 2000 micron

THE HIGHER THE TYPE THE MORE RESISTANCE, CAUSING LESS LIQUID GO THROUGH.

Pressure Filter Data

TECHNICAL DATA	
Max air pressure to the filter	500 kPa
Volume	4,13,24 Litres