

LAARMANN

Innovators in Solids

PRESSURE FILTER

Model

**Laarmann Pressure Filter all
types Type LMPF-(x)L-TM/FM**

INSTALLATION, OPERATION, MAINTENANCE AND SPARE PARTS MANUAL

March 2011



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1. MANUFACTURER

NAME: Laarmann Group B.V.

ADDRESS: Op het Schoor 6
6041AV Roermond
The Netherlands

PHONE: +31 475 470217

FACSIMILE: +31 475 470242

CONTACTS: Engineering

EMAIL: info@laarmann.eu

WEB: www.laarman.eu

2. DESCRIPTION

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

A proven design which achieves rapid filtration, enabling difficult separations that would otherwise be extremely slow.

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 varied applications for the Pressure Filters some combinations of construction materials are available including Stainless Steel 306 & 316 and Mild Steel, with the barrels in natural finish or with either Rubber or Polyurethane lining.

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.

Bench mounted

The Pressure Filter features a removable barrel, on a fixed base plate mounted on a table (BM) 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.

Note

Laarmann Pressure Filters are designed for use with solids suspended in water only. If it is necessary to use any other liquid as a suspension agent contact Laarmann for advice.

3. INSTALLATION

- 3.1 Position the pressure filter with consideration to accessing the unit for operational duties. Allow sufficient clearance to swing the lid away from the barrel.
- 3.2 Provision for a clean Compressed air supply at 500 kPa maximum is required.
- 3.3 It is recommended that a "wet" area be used with drainage and hosing/washing down facilities.
- 3.4 Bolt the pressure filter in position. Provision for 4 M12 bolts has been made in the feet or base of the filter.

4. OPERATION FLOOR MOUNTED

- 4.1 Fit the frame holding the pressure filter on the floor.
- 4.2 Swing the complete head of the unit backwards in order to have space to mount the filter cloth and barrel.
- 4.3 Release the top screw, swing the top lid free and remove the barrel.
- 4.4 Insert a filter cloth (covered with coarse filter paper medium).
- 4.5 Replace the barrel and lid and tighten the top screw.
- 4.6 Add slurry to be filtered through the PVC ball valve on top of the filter.
- 4.7 Apply air pressure to the filter (500 kPa max) through the air inlet ball valve.
- 4.8 When filtration is completed turn the air inlet ball valve to the exhaust position to purge air pressure from the barrel.
- 4.9 Release the top screw, swing the top lid free and remove the barrel.
- 4.10 Remove the filter cake and cloth.
- 4.11 Wash the cloth and pressure filter ready for next sample.

5. OPERATION TABLE MOUNTED

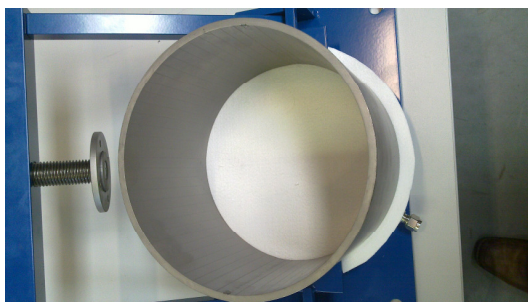
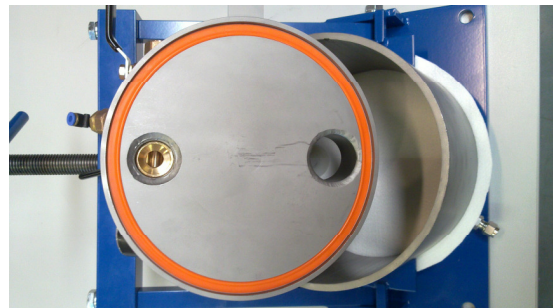
- 5.1 Release the top screw, swing the top lid free and remove the barrel.
- 5.2 Insert a filter cloth (covered with coarse filter paper medium).
- 5.3 Replace the barrel and lid and tighten the top screw.
- 5.4 Add slurry to be filtered through the PVC ball valve on top of the filter.
- 5.5 Apply air pressure to the filter (500 kPa max) through the air inlet ball valve.
- 5.6 When filtration is completed turn the air inlet ball valve to the exhaust position to purge air pressure from the barrel.
- 5.7 Release the top screw, swing the top lid free and remove the barrel.
- 5.8 Remove the filter cake and cloth.
- 5.9 Wash the cloth and pressure filter ready for next sample.

6. MAINTENANCE & LUBRICATION

- 6.1 Lubricate screw threads with general purpose grease.
- 6.2 Grease lid ends regularly with general purpose grease.
- 6.3 Hose down with water after use.

7. SPARE PARTS

FILTER MODEL	FILTER CLOTH	GASKET.
PF TM and FM	7000300002	7000300001



8. GENERAL ARRANGEMENT

Table Mounted

Pos.	Aant.	Benoeming	Lengte	Materiaal	Benoeming	Tel.
11	1	Overtrek				Tel. 20 100001-009-000
10	2	Overstort bewegende deel				Tel. 20 100001-008-000
19	1	Drukrolspindel				Tel. 20 100001-007-000
8	1	Drukrolspindel				Tel. 20 100001-006-000
17	1	Spindel				Tel. 20 100001-005-000
16	2	Pakking				Tel. 20 100001-004-002
5	1	Filterplaat				Tel. 20 100001-004-001
4	1	Blugplaat				Tel. 20 100001-003-004
3	1	Deuraf				Tel. 20 100001-003-000
2	1	Cilinder				Tel. 20 100001-002-000
1	1	Basisplaat				Tel. 20 100001-001-000

Pos.	Aant.	Benoeming	Lengte	Materiaal	Benoeming
22	1	Verz. schroef		M16x25	A4
21	1	Plaatje Insectenafkapping 50mm x 150"		PVC75	Levering Laarmann
20	1	Rol zach in kapping 50mm x 150"		Mechanisch	Levering Laarmann
19	2	Kogelgastuiter 1/2" in 1/2"		Messing	Levering Laarmann
18	1	T-nippel 1/2" x 1/2" x 1/2" buis		Messing	Levering Laarmann
17	1	Spindel 1/2" x 1/2" x 1/2" buis		Messing	Levering Laarmann
16	1	Verfreespindel 1" Ø 1/2"		Messing	Levering Laarmann
15	1	Kogelgastuiter 1 1/2" binnen draad		PVC	Levering Laarmann
14	2	Pak. bestvering 1/4" sluitring		M16x80	B.8
13	2	Pak. bestvering 1/4" sluitring		M16x40	B.8
12	4	Verz. schroef		M16x20	B.8

Aanhalen in stuklijst zijn toetsol

Wij.	Datum	Naam	Omschrijving	Aantal
Gec.:	15-11-2011	Projectleider	Overzicht PF13L-FM en PF24L-FM	
Gekon.:		Naam	Samenstelling	
Schaal:	1:5	Waar in (mm)	Klant	

LAARMANN LAARMANN GROUP BV
Broekstraat 15
6049 CJ Herfen

Project nr. 20100001
Tel. nr. 20100001-000-000

Floor mounted

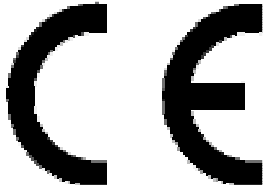
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LAARMANN LAARMANN GROUP BV
Broekstraat 15
6049 CJ Herfen

Project nr. 20100001
Tel. nr. 20100001-000-000

LAARMANN

**Pressure Filter
Type LMPF-(x)L-TM**



Product	Pressure Filter
Model	LMPF-(x)L-TM
Power supply	Pressure air

This declaration of conformity confirms compliance of the above mentioned equipment to the relevant sections of the following European Directives:

91/368EWG	European machine guideline
73/23/EWG	EC Low Voltage Guidelines
EN 292, 294, 418	Safety guidelines
VBG 1,4,5 en 22	General electrical facilities
89/336/EEC	Electromagnetic Compatibility Directive (EMC)
EN 5008-1-1992	Emissions
EN 50082-1-1992	Immunity
EN 60204-1 Part 1	Safety of Machinery – Electrical Equipment of Machines

WARNING:

This equipment is required to be operated strictly in accordance with the instructions given in the operating manual supplied with the product. All supply voltages and frequencies as stated on the rating plate must be used. External power cables and connectors must be supplied by LAARMANN. Any additional equipment used must be of a type approved by LAARMANN.

This conformity certificate will lose its validity in case of:

- Usage of unlicensed spares
- Usage of unlicensed accessories
- Any self made modifications of the machine

LAARMANN GROUP B.V.

Roermond, March 2011

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Engineering department LAARMANN Group B.V.