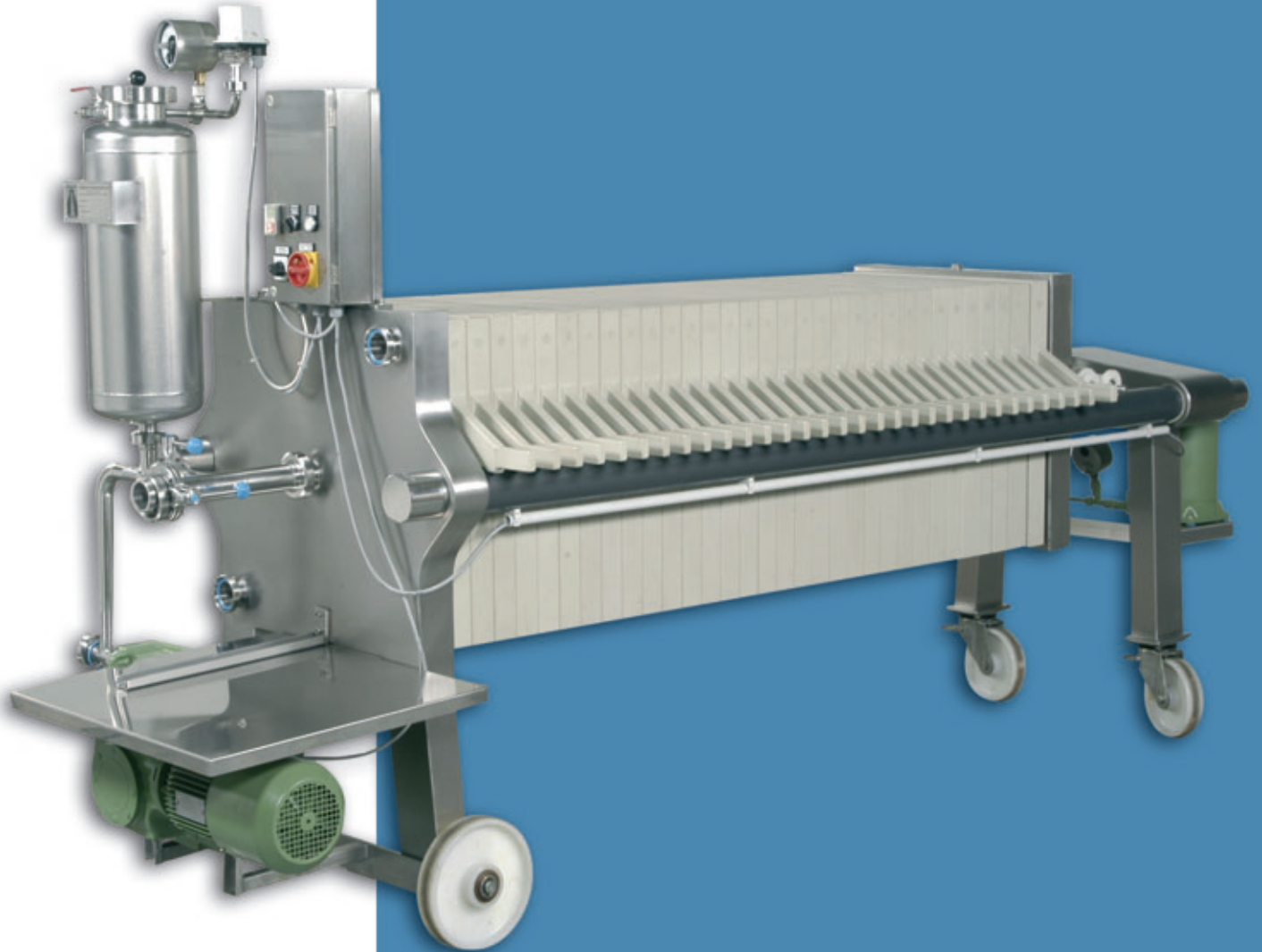


FILTERS | SYSTEMS | APPARATUS ENGINEERING | SEPARATION TECHNOLOGY | SOLID-LIQUID



KFP 470 III with 30 chambers

Chamber and Membrane Filter Press – Clean System

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Design

Filter presses are pressure filters in which a filter package formed by filter plates and filter frames or chamber plates is installed in a stand between a “fixed cover” and a “loose cover”. These elements are plane-parallel to each other and are pressed together by the fixed cover and the loose cover. The fixed cover is connected to the traverse via connecting and tie bars. Together they form the press stand. The filter package is pressed together by a pressure unit which is incorporated in the traverse and acts on the loose cover.

Between the individual filter plates or chamber plates there are filter cloths which have an outward sealing function under the pressure applied. The unfiltrate is conveyed into the chambers formed by the filter elements via a pump. The filtrate passes through the filter medium, leaves the filter via internal or external outlet channels and is conveyed further according to its intended usage.

Filtration produces a filter cake, which can be washed if required.

In the membrane filter press every second plate is equipped with an inflatable membrane. After the end of the filtration process the membrane plates are pressurised with compressed air or water and forced against the cake. The cake is thus also drained mechanically and the process accelerated.

Benefits from the use of membrane plates:

- higher yield, virtually no losses
- drier filter cake
- filtration cycle shortened by approx. 50 %

Materials

The filter stand is made of nonrust stainless steel; painted steel is also available.

The filter plates are of polypropylene although other materials are also possible as required. The filter cloths are generally also made of polypropylene.



KFP 470 III with 30 chambers

Applications and options for use

Filter presses are used in all branches: foodstuffs and drinks, chemistry, pharmaceuticals or in the environmental sector.

Filtration with filter aids

As filter aids kieselguhr or perlite are generally added to facilitate filtration.

Precoating

Before the start of actual filtration the filter cloth is coated with a layer of the filter aid. This prevents bleeding and protects the filter cloth from blockage. We recommend the STRASSBURGER dosing unit, e.g. DOS 500, for precoating and subsequent metered addition of the filter aid to ensure optimum mixing and dosing of the necessary quantity of filter aids.

Clean System type KFP-C-drip-free

A hermetically sealed filter can be achieved using filter plates equipped with an O-ring rim seal.

The filter cloths have an all-round sealing bead and are attached within the plate.

The patented sealing bead is designed so that no soiling can get behind the sealing bead.

Filters remain clean and aseptic on the outside.



Chamber plate Clean System and cloth with integrated rim seal (patented)

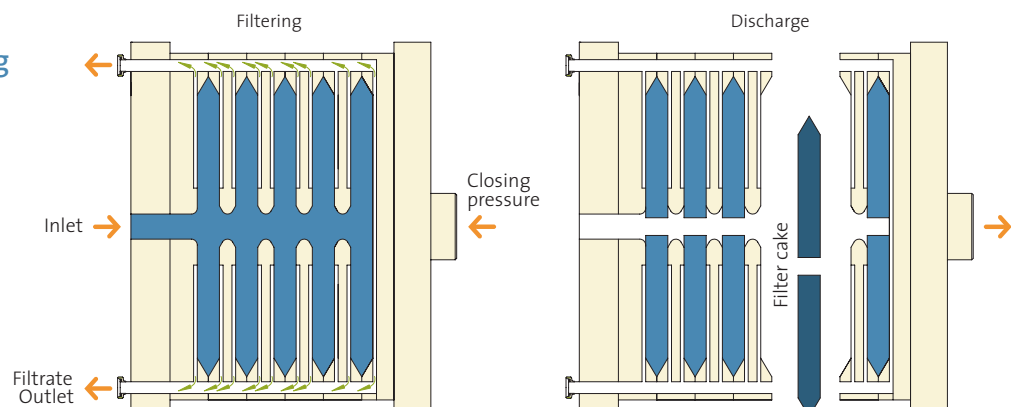
Drainage of solid matter / Sludge drainage

In the case of products with a high solid matter content this is retained in the chambers of the filter until a solid cake has formed.

Washing and drying of filter cake

Substances to be recovered or removed can be washed out from the previously drained solid matter by adding certain solvents. The plates and frames used for this purpose are equipped with special washing channels. The filter cake can be additionally dehydrated using membrane plates followed by compressed air blown through the filter cake.

Diagram showing operation





Types	KFP/MFP 470	KFP/MFP 630	KFP/MFP 800
Plate size	470 x 470 mm	630 x 630 mm	800 x 800 mm
Cake thickness	30 mm	30 mm	30 mm

Standardausstattung der Filter KFP und MFP

- Wahlweise Ausstattung mit Membran- oder Kammerplatten
- Komplett mit Schlauch- oder Kolbenpumpe zur Beschickung
- Trockenlaufschutz und elektrische Schaltautomatik
- Druckausgleichsbehälter und erforderliche Armaturen
- Manuelle oder elektrohydraulische Anpressung
- Bei Membranplatten mit Druckluftanschluss

*KFP 470 painted steel
with overhang cloths for
waste water*



Type KFP/MFP	Number of chambers	Number of plates	Filter area m ²	Chamber volume l	Dimensions (MFP) LxWxH (approx. mm)	Weight kg
470 I	10	9	3,4	45	2000 x 890 x 1600	450
470 II	20	19	6,8	90	2620 x 890 x 1600	353
470 III	30	29	10,2	135	3240 x 890 x 1600	620
470 IV	40	39	13,6	180	3860 x 890 x 1600	710
630 I	10	9	5,9	80	2790 x 1060 x 1800	945
630 II	20	19	11,8	160	3520 x 1060 x 1800	1150
630 III	30	29	17,7	240	4240 x 1060 x 1800	1325
630 IV	40	39	23,6	320	4990 x 1060 x 1800	1500
630 V	50	49	29,5	400	5740 x 1060 x 1800	1675
630 VI	60	59	35,4	480	6470 x 1060 x 1800	1850
800 II	20	19	21,0	304	3055 x 1250 x 1900	2860
800 III	30	29	31,5	456	3665 x 1250 x 1900	3095
800 IV	40	39	42,0	608	4325 x 1250 x 1900	3525
800 V	50	49	52,5	760	4985 x 1250 x 1900	3970
800 VI	60	59	63,0	912	5645 x 1250 x 1900	4415
800 VII	70	69	73,5	1064	6305 x 1250 x 1900	4850
800 VIII	80	79	84,0	1216	6965 x 1250 x 1900	5305
800 IX	90	89	95,5	1368	7505 x 1250 x 1900	5850
800 X	100	99	105,0	1520	8015 x 1250 x 1900	6305