

PLATE AND FRAME FILTER

For depth filter sheets and/or precoat filtration – without gaskets in the filter stack



Characteristics

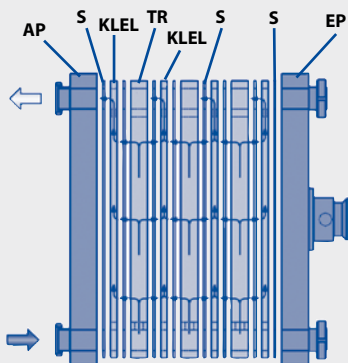
The NOVOX® OD is a high precision stainless steel plate & frame filter designed and built for industrial applications. Unique design of the NOVOX® OD allows efficient handling without the need for gaskets in the filter stack – inlet/outlet tubes are formed within the stack itself, sealed by the filter sheets. This feature promotes ease-of-use benefits for the operator by eliminating the need for gasket removal or replacement.



High precision construction of the plate & frame assembly, and the hydraulic closing mechanism, combined with high-performance FILTROX filter sheets, contribute to significantly reduced driploss.

Function principle (plate and frame filter)

Plate and frame filters allow large filtration areas on a relatively small footprint. The filter area is separated in single plates which form stacks. Every other plate and frame has an inlet or an outlet for the filtrate. The filtration is performed parallel over the whole surface.



Schematic view of a precoat filter-setup:

AP / EP:
Supporting outer plates
KLEL: Plates / Elements on permeate side
TR: Draff frames, for precoat filtration or large filter cakes
S: Sheet

Applications

There is a broad field of applications for the NOVOX® OD series filter. Industrial applications demanding both high quality filtration and documentation can benefit from the high performance set-up and certificates of the NOVOX® OD i.e. pharmaceutical and/or biotech processes. The NOVOX® OD filter can successfully operate in processes with high filter cakes as well as precoat filtration.

Operating conditions (filter)

Max. operating temperature: 140°C
Max. pressure 8 bar
Max. differential pressure ($\Delta p_{\text{inlet-outlet}}$): 6 bar
Limiting factor for the Δp of a sheet filtration is the sheet grade and the application.

Sheet sizes

The NOVOX® OD is available for two different nominal sheet sizes:

NOVOX®	Sheet format (mm)
OD 400	400 x 400
OD 600	600 x 600

Both NOVOX® OD 400 and NOVOX® OD 600 are available in three different support (chassis) lengths for different sizes of the filter stacks and thus for different filter area sizes.

Technical data

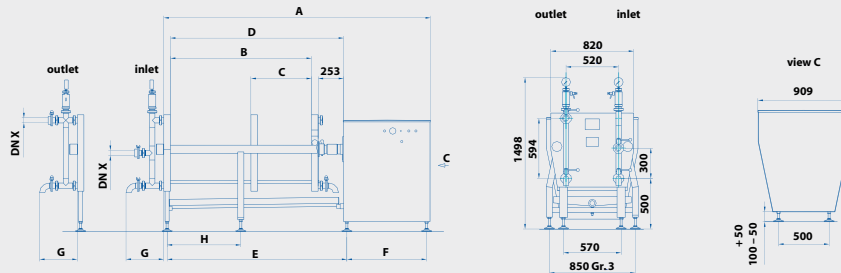
NOVOX®	OD 400	OD 600	Unit
filter area per sheet	0.14	0.33	m ²
width per plate (element)	8	8	mm
width per draff frame	40	40	mm
void volume per plate	1.1	2.4	liter
void volume per draff frame	5.7	13.5	liter
weight per plate (element)	2.5	5.5	kg
weight per draff frame (40 mm)	6.4	13	kg
weight support size 1	476	1'477	kg
weight support size 2	498	1532	kg
weight support size 3	530	1574	kg
max. liquid volume size 1	81	374	liter
max. liquid volume size 2	156	581	liter
max. liquid volume size 3	228	740	liter

Dimensions

NOVOX® OD Filter is available in 2 models; each model is determined by the filter sheet size it accepts; 1) 400 mm filter sheet, and 2) 600 mm filter sheet. Each model of the NOVOX® OD filter is available in 3 different chassis lengths (size 1 – 3). The technical drawings below describe a NOVOX® OD 600.

The letters are assigned to dimensions of the various models in the corresponding spreadsheets below.

The 400 model is equipped with wheels instead of feet. Value «E» in the technical drawing indicates the lengthwise wheel distance.



All measures according to letters in the drawing in mm:

NOVOX® OD 400	Size 1	Size 2	Size 3
DN x	40	40	40
A	1569	2100	2753
B	636	1168	1680
C	460	460	600
D	886	1418	1930
E	1184	1715	2228
F	–	–	–
G	194	194	194
H	–	–	–
I	540	540	540
K	1429	1429	1429

NOVOX® OD 600	Size 1	Size 2	Size 3
DN x	50	50	65
A	2640	3530	4060
B	1397	2087	2617
C	600	800	800
D	1715	2405	2935
E	1780	2470	3000
F	789	989	989
G	374	374	414
H	–	–	1350
I	909	909	909
K	1498	1498	1498

FILTROX quality assurance

FILTROX assures the best quality control according to international standards:

- ISO 9001 (Quality management)
- ISO 14001 (Environmental management)

Certificates and special documentation

Typically for pharmaceutical or near pharmaceutical applications we provide the following documents on request:

- EU guideline 89/392/EWG
- Material certificate 2.2 or 3.1 B (only for material in direct contact with the product)
- Surface roughness (Ra < 0.8 µm)

Connections

Available types:

- Triclamp
- Dairy fitting
- Special

Material

Material in contact with product: stainless steel..... 316L/316 Ti
 Other parts: stainless steel..... 304



NOVOX® OD 600, plates and draff frames, equipped with filter sheets.

Your FILTROX dealer:

The information contained in this pamphlet is up-to-date at the time of release. However, each end user is requested to check the suitability of their product(s) with the types of filtration mentioned in this leaflet. Technical modifications are reserved.