Polymer Leaf Disc Filter

Weave Impossible to Possible

BOEDON Industech Limited

www.boedon.com | sales@boedon.com

BOEDON Brochure

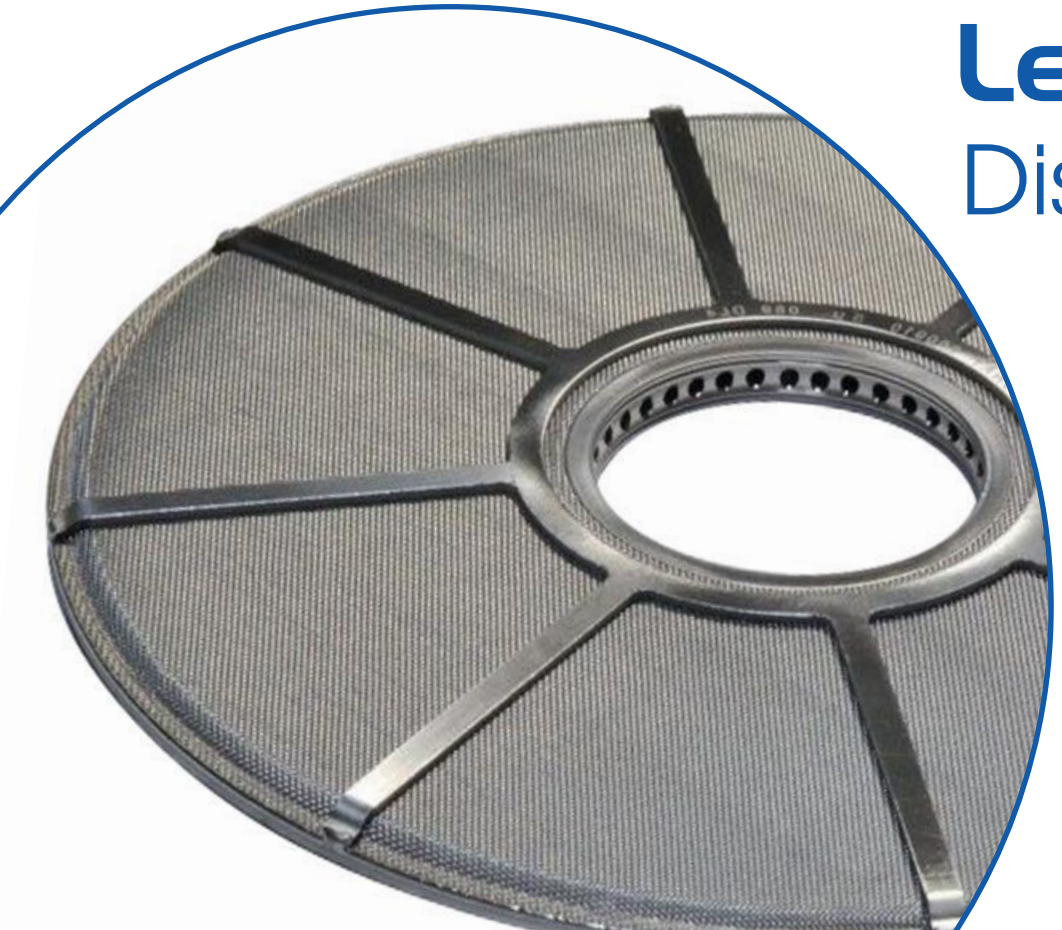
BOEDON

We can offer a full range of **polymer leaf disc filters** to meet your various requirements of **polymer melt filtration applications.**

Polymer leaf disc filter is made of sintered stainless steel (316L) wire mesh laminates or sintered metal non-woven felt medium. It is an ideal choice for polymer film production. The unique disc design and configuration help to maximize the increased effective filter area and shortened the residence time of the polymer, thereby lowering the risk of polymer degradation and offering fast, efficient filtration of polymer melt filtration applications.

In addition, we can also offer stainless steel (304, 316, etc.), Monel or other alloy as the filter media.

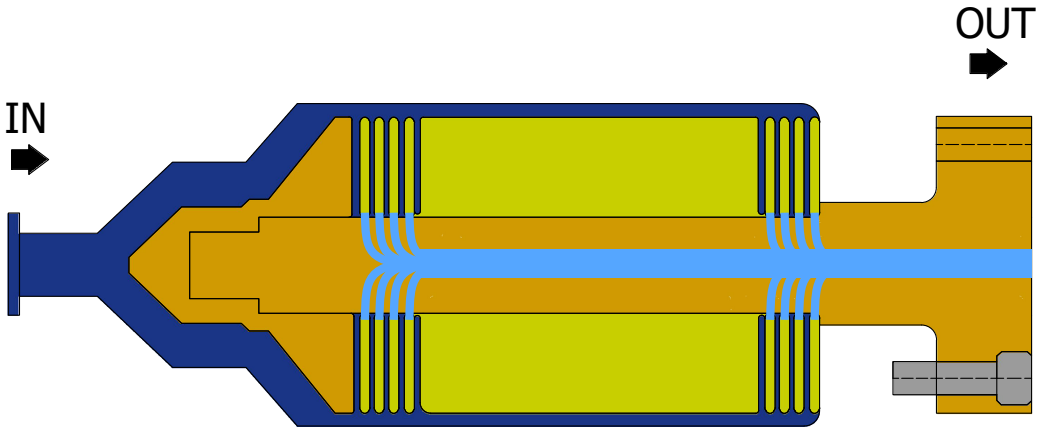
Polymer Leaf Disc Filter



POLYMER LEAF DISC FILTER

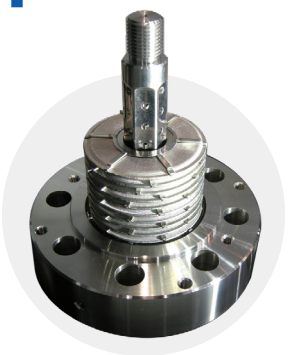
Working Principle

Place the multiple installed leaf disc filters into the horizontal filter housing. Melt with impurities enters from the inlet and flows towards the filter elements from the top and the bottom. Gel impurities are trapped on the filter surface and clean melt flows into the center tube from the hub holes and then flows out of the vessel.



POLYMER LEAF DISC FILTER

Installation



During Installation

After Installation

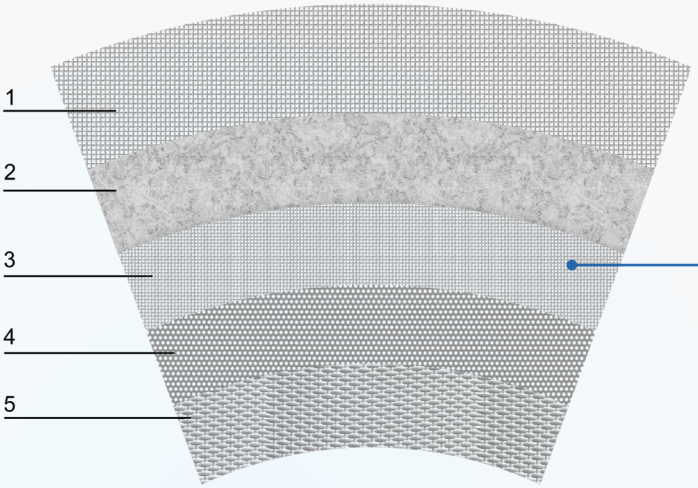
BOEDON

POLYMER LEAF DISC FILTER

Structure

Polymer leaf disc filter consists of the main body, hub and star support frame.

Main Body



1

Protective layer
Typically, it is made of stainless steel to protect the filter media.

2

Filtration layer
Play the main role in filtration.

3

Support layer
Support the filtration layer.

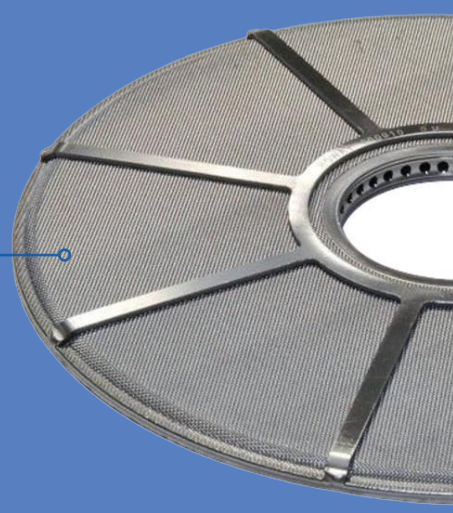
4

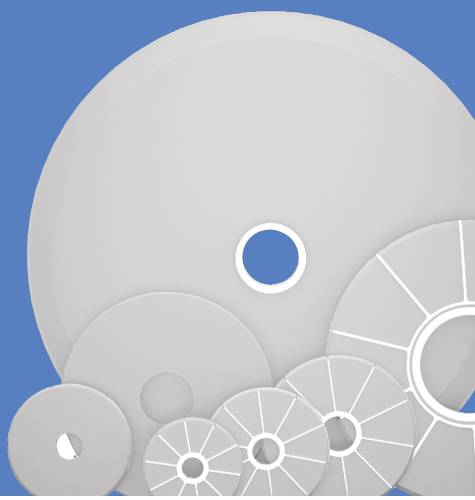
Drainage layer
Guide the clean melt to flow towards the center tube.

5

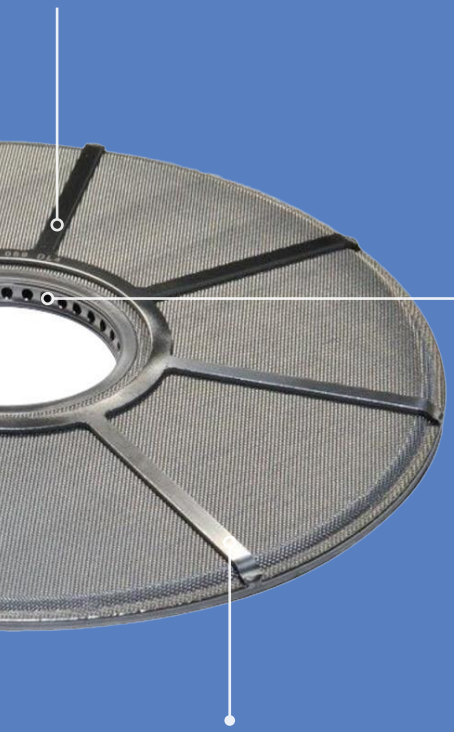
Mesh support layer
Support the whole mesh structure.

Suppor



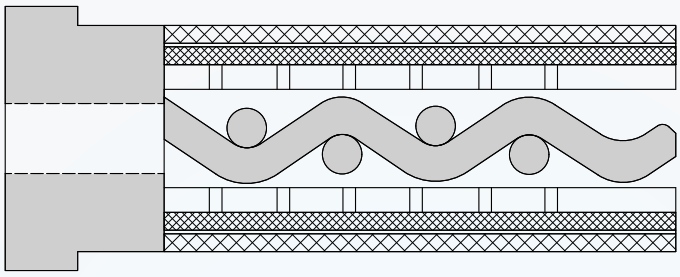


t Frame

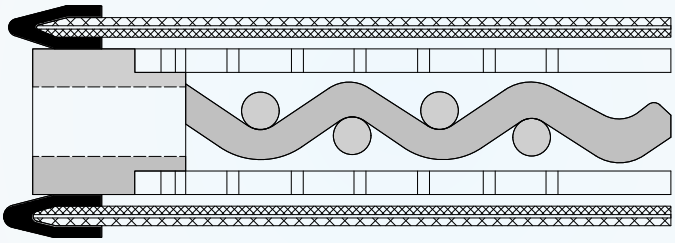


Keep the space between adjacent disc filters being maintained and guide the fluid to flow towards the center tube evenly.

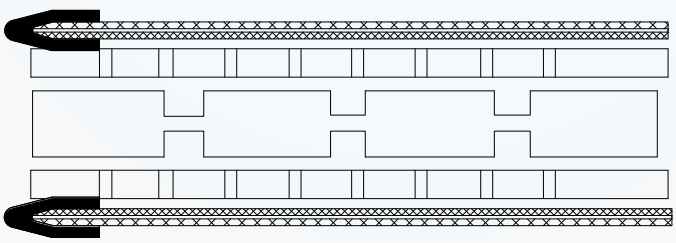
Hub



Hard hub



Semi-hard hub



Soft hub
(It is not recommended for micron rating at 10 μm and below)

BOEDON

POLYMER LEAF DISC FILTER

Specification

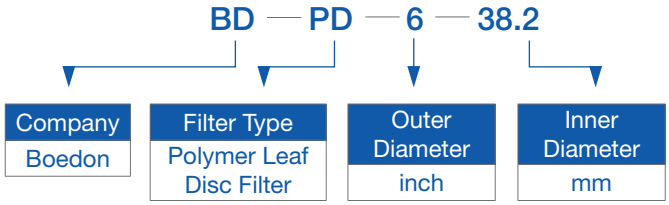
Material: sintered wire mesh, sintered metal fiber felt.

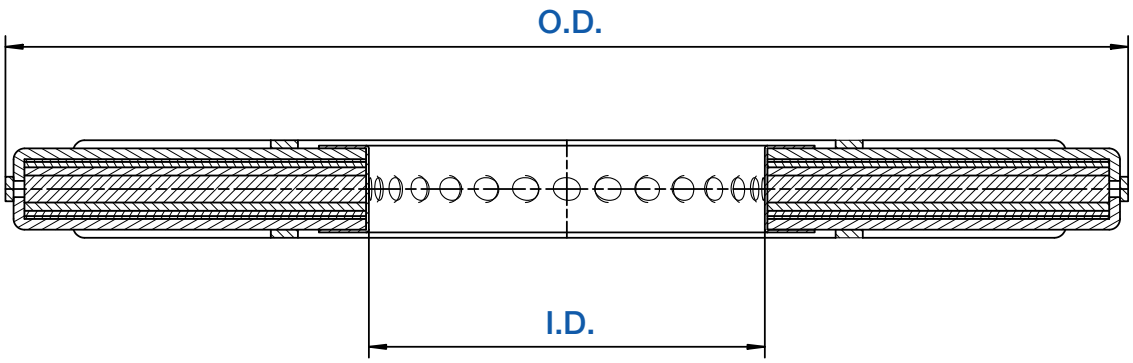
Maximum continuous: up to 400 °C

Filter rating: 0.5–200 μm

Minimum differential pressure: 300 bar at 350 °C

Porosity: 70%–85%





Popular Specification of Polymer Leaf Disc Filters

Model	O.D. (inch)	O.D. (mm)	I.D. (mm)	Thickness (mm)	Filter Area (m2)
BD-PD-6-38.2	6	152.4	38.2	6.5	0.032
BD-PD-7-38.2	7	177.8	38.2	6.5	0.048
BD-PD-7-47.6	7	177.8	47.6	6.5	0.046
BD-PD-7-63.5	7	177.8	63.5	6.5	0.044
BD-PD-7-85	7	177.8	85	6.5	0.038
BD-PD-10-47.6	10	254	47.6	7.2	0.082
BD-PD-10-85	10	254	85	6.5	0.08
BD-PD-12-63.5	12	304.8	63.5	6.5	0.13
BD-PD-12-85	12	304.8	85	6.5	0.12
BD-PD-12-85	12	304.8	85	7	0.12
BD-PD-12-85	12	304.8	85	7.5	0.12

Notes: Other specifications are available upon request.

POLYMER LEAF DISC FILTER

Features & Application

Features

- High viscosity, high flow
- Good cleaning performance
- Long service life
- Good mechanical strength
- High filtration accuracy
- High dirt holding capacity

Application

Rubber

- Thermosetting resin
- Thermoplastic resin

Plastic & Plastic Recycling

- Plastic bottle and box recovery
- Plastic bag and paper recovery
- BOPA
- BOPI and other biaxially oriented plastics film production

Chemical Fiber

- Polyester
- Spandex
- Polypropylene
- Nylon and other high-performance polymer fiber production

BOEDON Industech Limited

Weave Impossible to Possible

E-Mail: sales@boedon.com

www.boedon.com