

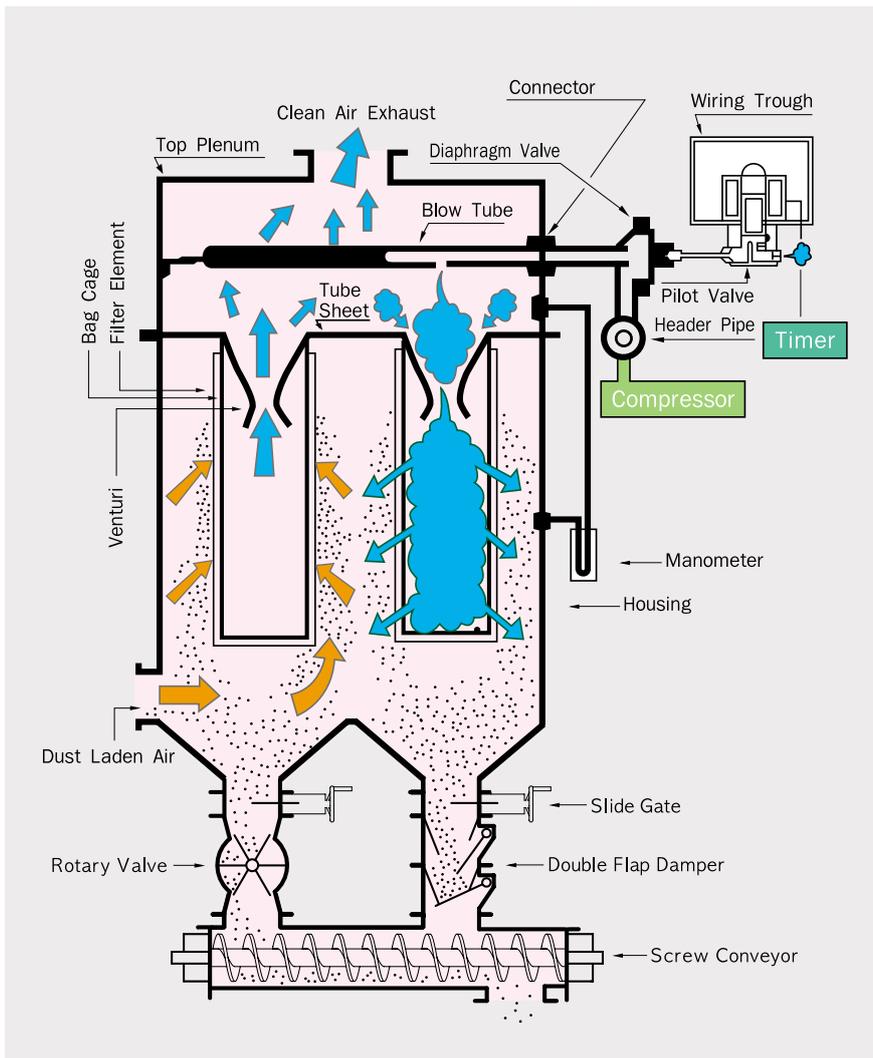
FILTER BAG

Considerations when selecting FILTER BAG

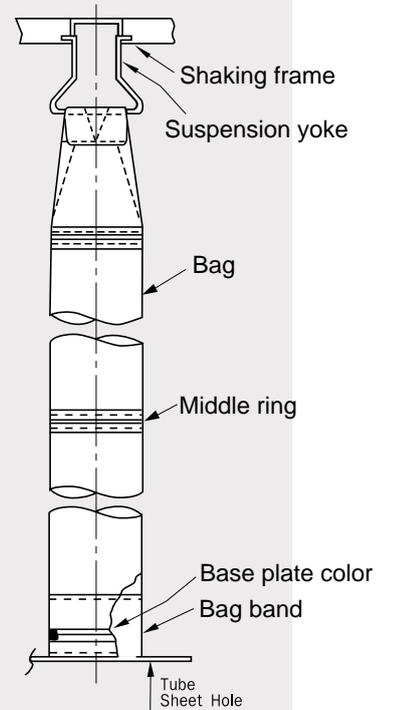
- Temperature of gas
- Constituents of gas
- Adhesiveness of gas
- Abrasiveness of dust
- Size distribution of dust
- Moisture regain of gas
- Electrostatic propensity of dust
- Static pressure of blower
- Dust collection method



DUST COLLECTOR FLOW OPERATED

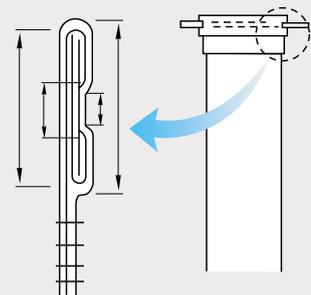


F-Bag attachment method by back pressure shaking type



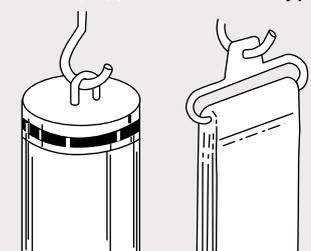
Top attachment method

- Snap ring type



- Cap type

- Tefaire type



FILTER BAG

■ FILTER BAG LIST & GUIDE

MODEL	PROCESS	FILTER BAG GROUP (PULSE AIR)	FILTERING VELOCITY (m/min)	TEMP. (°C)	CHEMICAL RESISTANCE	
					ACID	ALKALINE
CEMENT	Raw Mill	Polyester(P,E)	1.0 ~ 1.3	130°C	Good	Poor
	Kiln Gas & Clinker	Nomex		200°C	Fair	Very good
		Glass		260°C	Very good	Poor
	Cement Mill	Polyester(P,E)		130°C	Good	Poor
Coal Mill	Polyester(P,E)	0.5 ~ 0.8	130°C	Good	Poor	
IRON & STEEL MAKING AND CASTING PROCESSES	Electric Furnace	Polyester(P,E)	1.3 ~ 1.6	130°C	Good	Poor
	Dust Collection at Buildings	Polyester(P,E)	0.9 ~ 1.2	130°C	Good	Poor
		Polyester(P,E)	0.9 ~ 1.0	130°C	Good	Poor
	Shot Blast	Polyester(P,E)	0.9 ~ 1.0	130°C	Good	Poor
	Cupola	Nomex	0.7 ~ 0.9	200°C	Fair	Very good
Lime Furnace	Polyester	0.4	130°C	Good	Poor	
CARBON BLACK	Production of Carbon Black	Nomex	0.4	200°C	Fair	Very good
		Glass	0.5	260°C	Very good	Poor
	Production of Tires	Polyester(P,E)	1.3 ~ 1.5	130°C	Very good	Poor
SMELTING OF NON-FERROUS METALS	Fume Collection	Polyester(P,E)	0.8 ~ 1.0	130°C	Good	Poor
		Polypropylene(P,P)		80°C	Excellent	Excellent
		Ryton		190°C	Excellent	Excellent
		Acrylic (Dralon)		120°C	Very good	Fair
PLASTIC P,V,C A,B,S RESIN	Retrieval of Raw Materials	Polyester(P,E)	0.8 ~ 1.2	130°C	Good	Poor
BOILERS	Wood Boiler	Nomex(Antiacid)		200°C	Good	Very good
		Glass	0.7 ~ 0.9	260°C	Very good	Poor
		Acrylic		120°C	Very good	Poor
	Bunker-C Oil Boiler	Nomex(Antiacid)	1.0 ~ 1.3	200°C	Good	Very good
		Glass		260°C	Very good	Poor
		Ryton		190°C	Excellent	Excellent
	Coal Boiler	Nomex(Antiacid)	1.0 ~ 1.3	200°C	Good	Very good
		Glass		260°C	Very good	Poor
		Ryton		190°C	Excellent	Excellent
		Tefaire		250°C	Excellent	Excellent
Teflon		240°C	Excellent	Excellent		
ASPHALT	Asphalt Production	Nomex	1.3 ~ 1.5	200°C	Fair	Very good
		Nomex(Antiacid)		200°C	Good	Very good
		Acrylic (Dralon)		120°C	Very good	Fair
THE OTHERS	General dust collection	Polyester(P,E)	1 ~ 1.7	130°C	Good	Poor

RANK ① Excellent ② Very Good ③ Good ④ Fair ⑤ Poor

■ SPECIFICATIONS

FIBER STOC NUMBER ITEMS	POLYESTER						POLYPROPYLENE	NOMEX(ARAMID)			TEFAIRE (TEFLON)
	general	water resistance	oil resistance	antistatic	antistatic & water resistance	MEMBRANE	general	general	acid resistance & water resistance	MEMBRANE	
weight(g/m ²)	500	500	500	500	550	500	500	500	550	550	750
thickness(mm)	1.8	1.8	1.9	1.8	2.0	1.8	2.0	1.8	2.0	2.0	1.5
air permeability (cc/cm ² /sec)	20	20	18	10	10	20	20	20	20	20	20
tensile strength (kg/25mm)	OVER 170	OVER 170	OVER 170	OVER 150	OVER 150	OVER 170	OVER 200	OVER 150	OVER 150	OVER 150	OVER 100
heat resistance	~ 130°C						~ 100°C	~ 200°C			~ 280°C
chemical resistance	stable to the presence of acidic solvents					MEMBRANE	stable to acids, alkalis	stable to organic chemicals & alkalis			stable to acids, alkalis and organic chemicals

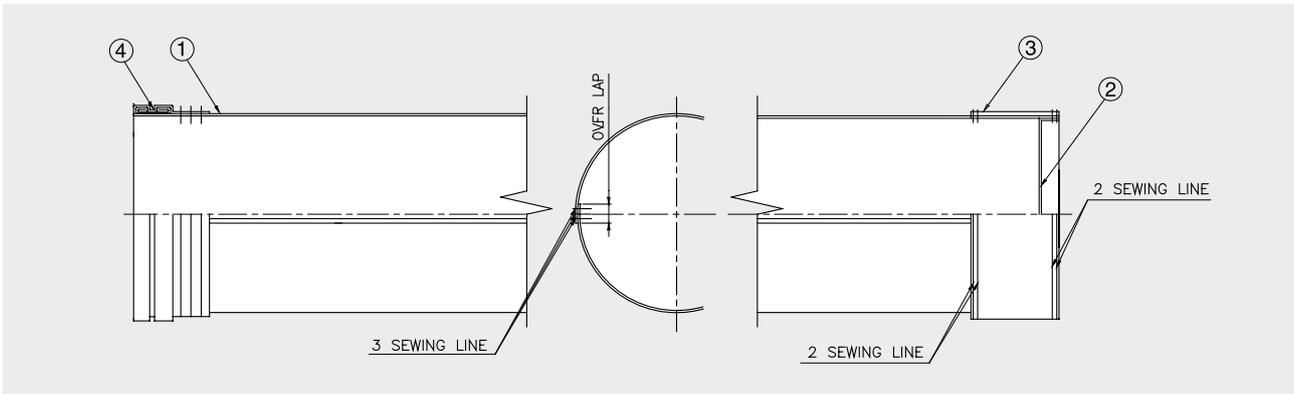
references

- Weight: The number of g/m² is adjustable slightly according to air permeability.
- Air permeability: The difference in air permeability are adjustable according to the number of weight (g/m²)
- Treatment of acid resistance on PE is possible.
- In addition, acrylic glass, P-84 and ryton are also available.

■ SPECIFICATIONS BY MATERIAL

ITEMS		MATERIAL								
		POLYESTER	POLYPROPYLEN	POLYARAMID	PPS	POLYIMIDE	GLASS	PTFE+GLASS	PTFE	PTFE+PTFE COATING
		P.E	P.P	NOMEX	RYTON	P84	FIBER GLASS	TEFAIRE	TEFLON	TEFLON
Range of Temp(°C)	CONTINUOUS OPERATING TEMP.(°C)	150	90	200	190	250	260	260	260	260
	MAX. SHOT DURATION TEMP.(°C)	170	100	250	230	280	290	280	280	280
Physical Property	WEIGHT(g/m ²)	500	500	550	550	500	650	750	750	750
	THICKNESS(mm)	1.72	2.27	2.2	1.75	2.61	1.0	1.5	1.1	1.3
	PERMEABILITY(cc/cm ² /sec)	20~25	20~25	15~20	15~20	25~30	12~18	19~21	20~23	18~21
Chemical Property	ACIDS	D	A	D	B	B	B	A	A	A
	ALKALIES	E	A	B	B	D	C	A	A	A
	SOLVENTS	B	A	B	B	B	A	A	A	A
	OXIDIZING AGENTS	A	B	B	C	C	B	A	A	A
	HYDROLYSIS	E	A	C	B	B	B	A	A	A
	RELATIVE MOISTURE REGAIN IN%	0.4	0.1	4.5	0.6	0.1	3.0	0	0	0

RANK ① Excellent ② Very Good ③ Good ④ Fair ⑤ Poor



■ JOIL'S STANDARD SPEC

NO.	DESCRIPTION	MATERIAL	QTY	SIZE
	FILTER BAG	P.E / NOMEX / FIBER GLASS / P84/TEFLON		450~700g (acid and water resistance/ antistatic)
1	FILTER CLOTH	P.E / NOMEX / FIBER GLASS / P84/TEFLON	1	1.6t ~ 2t
2	BOTTOM COVER	P.E / NOMEX / FIBER GLASS / P84/TEFLON	1	1.6t ~ 2t
3	STIFFENER	P.E / NOMEX / FIBER GLASS / P84/TEFLON	1	1.6t ~ 2t
4	SNAP RING	SK - 5 or SUP6	1	0.4t X 25

• Separate order spec of customer can be produced.

FILTER BAG

POLYESTER (P.E)

The polyester is the material which is used generally most widely in the normal temperature, and it is the dust collector material which can be used in all industrial settings such as Cement, Plant, The steel industry and so on very widely.

Heat resistance Continuous operating temperature is 130 °C, and it can be used up to 150 °C intermittently.

Chemical resistance It is strong at the acid but very weak for alkali.

Physical property It is excellent for the abrasion-proof, flex resistance, and it's tensile strength has no changed in the dry and wet conditions, and efficiency can be changed by weight and surface treatment.

NOMEX (ARAMID FELT)

It is material of Aramid, having excellent heat resistance characteristic and thermal characteristics, and the nomex as the fiber of m-aramid which was developed by Du-Pont company of U.S. is well known widely.

Heat resistance Continuous operating temperature is 200°C, and it can be used up to 230°C intermittently. It has self-extinguishing, so that it generates less smoke when it burns.

Chemical resistance It is weak for the strong acid but strong at alkali, so it is very suitable for the facilities of alkalic dust. It has chemical resistance to vapor a little contained in gas.

Physical property It is more excellent for the abrasion-proof, flex resistance than the P.E, P.P material.

RYTON (PPS FELT)

The material of PPS has been known widely as the brand name of ryton since it was developed in 1973 in Philips in USA. especially, it is very suitable for the incinerator, boiler and industrial plant that with often acid & alkali gas because of outstanding excellence for the chemical resistance.

Heat resistance Continuous operating temperature is 190°C, and it can be used up to 230°C intermittently. It can be used for dust collector in unstable temperature, so there is not contraction of the media itself so it is very excellent in any conditions.

Chemical resistance It has very excellent chemical resistance and ability to withstand for acid & alkali as much as it can be used for PH 1~PH 14 in the gas in the gaseous state.

Physical property It is excellent for the abrasion-proof and elasticity.

P-84 (POLYAMIDE FELT)

P-84 is Aramatic Polyamide Fiber which was developed by the Lenzing company of Austria, it has excellent benefits compared to existing filter material. It is appropriate material for the incinerator with the commitment facility of slaked lime which the strong acid and strong alkali dust do not occur and for the Carbon Black Plant which requires the high air permeability & high dust collection efficiency.

Heat resistance Continuous operating temperature is 250°C, and it can be used up to 280°C intermittently.

Chemical resistance It has acid resistance and alkali resistance of PH 3~PH 11 range.

Physical property The cross-sectional shape of the general fiber is circle but the P-84 filter is the extremely complex heteromorphy section structure so it has high relatively specific surface which can collect the dust. In addition, the fiber itself has conductivity so there is no problem caused by static electricity.

P.T.F.E + GLASS FELT (TEFAIRE)

THE TEFAIR made by mixing 88% of Teflon and 12% of Glass Fiber, is a product of excellent performance which cannot be compared to any filter-medium. Especially, The Tefair Felt occurs static electricity caused by fine glass fiber characteristic during operation, so it has very good collection efficiency for the extremely fine dust.

- Heat resistance** Continuous operating temperature is 260 °C, and it can be used up to 280 °C intermittently.
- Chemical resistance** It includes 88% of teflon fiber with the most excellent chemical resistance, so it has the great chemical resistance. It includes the glass fiber, so the plant which occurs fluorine gas should use 100% teflon felt.
- Physical property** It is very excellent for the abrasion-proof, flex resistance, elastic recovery.
- Applications** Incinerator and AL glass melting.

P.T.F.E + GLASS FELTS					
QUALITY	WEIGHT (g/m ²)	THICKNESS (mm)	AIR PERMEABILITY (cc/cm ² /sec)	CONTINUOUS OPERATING TEMP.(°C)	MAX. SHOT DURATION TEMP.(°C)
D 750 FFH	750	1.5	19 – 21	260	280

P.T.F.E + FELT (TEFLON)

Teflon is the most excellent for the chemical resistant, heat resistance, chemical resistivity among the existing collector felts, so it has the excellent performance in any conditions. Especially, it has fine very good fertilizer efficiency for the fine dust and it can prevent clogging phenomenon, and it has great durability which cannot be compared to other products that are processed with PTFE with film of the felt surface.

- Heat resistance** Continuous operating temperature is 260 °C, and it can be used up to 280 °C intermittently.
- Chemical resistance** It has acid and alkali resistance in any conditions, and it is excellent that Teflon can be used up to PH 1~PH 14.
- Physical property** It is very excellent for the abrasion-proof, flex resistance and elastic recovery.

P.T.F.E FELTS					
QUALITY	WEIGHT (g/m ²)	THICKNESS (mm)	AIR PERMEABILITY (cc/cm ² /sec)	CONTINUOUS OPERATING TEMP.(°C)	MAX. SHOT DURATION TEMP.(°C)
T 750 FFH	750	1.25	20 ~ 23	260	280
T 750 LFH	750	1.25	20 ~ 23	260	280
T 840 FFH	840	1.40	17 ~ 20	260	280
T 900 FFH	900	1.50	17 ~ 20	260	280

FIBER GLASS

The Glass Fiber can endure for high temperature inherently and has chemical resistance and excellent dust elimination, so it can be used in the various industries widely. It is used by being Teflon b-coating or Membrane coating on the surface of Felt, and it has excellent durability. It should be carried out with coating on the bag filter for the initial operation & operation after stop.

- Heat resistance** Continuous operating temperature is 260 °C~270 °C, and it can be used up to 290 °C intermittently.
- Chemical resistance** It can be used for the acid resistance, alkali resistance.
- Physical property** It has excellent abrasion-proof but low flexibility, so bag cage interval shall be designed to be compact and the pulse type should be operated with less than 3.5kg/cm of air pressure.
- Applications** Incinerator, Carbon, Cement, Smelting of non-ferrous metals, Coal boiler, Smelting and Casting.

FIBER GLASS					
SURFACE TREATMENT METHOD	WEIGHT (g/m ²)	THICKNESS (mm)	AIR PERMEABILITY (cc/cm ² /sec)	CONTINUOUS OPERATING TEMP.(°C)	MAX. SHOT DURATION TEMP.(°C)
B-COATING MEMBRANE	520~900 540~750	1.0~2.0	12~18	270	300