# **GFH Series**

# --Glass Microfiber Filter Cartridge for Gas

GFH series filter cartridge is made of ultra-fine Glass fiber material with dust holding space more than 90%, which is especially suitable for gas filtration. The unique ability of particle retention ensures gas particle retention efficiency, is suitable for gas particle removal filtration.



#### Material Construction

Filter Media Ultrafine glass fiber	
Support/Drainage	Polypropylene (PP)
Cage/Core/End Caps Core: SS304 or PP	

#### Performance

Maximum Operating Temperature	50°C(6 Months)
Maximum Operating Differential Pressure	4bar/21°C 2.4bar/80°C

## Biological Safety

Dissolved Matter	<30mg/10°	
	<0.25EU/mi/10*	

#### **Ordering Information**

GFH	0002	10	C1	E
Series	Micron	Length	End Cap Type	Seal material
	0030=0.3µm	05=5*	C1=226/Spear	E=EPDM
	0050≈0.5µm	10=10"	C3=222/Spear	S#Silicone
GFH	0100=1.0µm	20=20"	C5=222/Flat	V=Vition
	0300=3.0μm	30=30"	C6=226/Flat	P=FEP
	0500=5.0µm	40=40*	C9=DOE	

-14-

# **GPF Series**

# --PTFE Membrane Filter Cartridge for Gas

GPF series filter cartridge is made of Polytetrafluoroethylene (PTFE) membrane, and the interception efficiency for 0.01µm solid particles is up to 99.99%, so that GPF can meet stringent gas filtration. PTFE membrane has natural hydrophobicity and can achieve good filtration efficiency in dry or humid conditions. High flow rate, low pressure drop.



# Material Construction

Filter Media	Hydrophilic Polytetrafluoroethylene (PTFE)
Support/Drainage	Polypropylene (PP)
Cage/Core/End Caps	Core: SS304 or PP Others: PP

# Performance

Maximum Operating Temperature	50°C (6 Months)
Maximum Operating Differential Pressure	4bar/21 C 2.4bar/80 C

# **Biological Safety**

Dissolved Matter	<30mg/10*	
	<0.25EU/mV10*	

#### Ordering Information

GPF	0001	10	C1	P
Series	Micron	Length	End Cap Type	Seal material
	00003=0.003µm	05=5*	C1=226/Spear	E=EPDM
	0001=0.01µm	10=10"	C3=222/Spear	S=Silicone
GPF	0010=0.1µm	20=20*	C5=222/Flat	V=Viton
	0020=0.2μm	30=30*	C6=226/Flat	P#FEP
		40=40*	C9=DOE	

-15-

# **PHFZ Series**

# --Power Plant Condensate Water Pleated Filter Cartridge

PHFZ series pleated filter cartridge is backflushable pleated filters, designed for iron removal in condensate with or without resin precoat in power plant. According to the structure, it can be divided into three types: PHFZ-I (7 parts), PHFZ-II (40°+30°) and PHFZ-III (20°+20°+20°+10°). The PHFZ-III (40°+30°) is 40° and 30° welded, with integral cage outer diameter of Φ69.

#### Material Construction

Filter Media	Polypropylene (PP)	
Cage/Core/End cap	Polypropylene (PP)	
Accessories (nut, screw)	SS304	

#### Performance

Maximum Operating Temperature	85°C	
Maximum Operating Differential Pressure	3.0bar/65°C	
Filtration Area	6.5m²	
Flow Rate	3.5-4.5m³/h(Design) 3.9m3/h(Recommend)	
Inlet water quality	<2000ppb	

Backwash water or gas: Under the pressure of 1.36-2.1bar, the backwash water of each filter cartridge is 0.45-0.65m3/h, backwash gas 3.4-5m3/h, can achieve the ideal effect. 600MW supercritical units and 1000MW ultra-supercritical units and 1000MW ultra-supercritical units, respectively recommended use 4µm and 1µm 70° filter cartridge, when debugging recommend 10µm filter cartridge for start-up.

## **Ordering Information**

PHFZ	PP	0600	70	101	Z2	W1
Series	Media	Micron	Length	Structure	Connection Thread	End Tread
PHFZ	PP=Polypropylene	0100=1.0µm 0400=4.0µm 1000=10µm	60=60° 70=70°	I=7Part (Φ69) II=40*+30* (Φ65) III=20*+20*+20*+10*(Φ69)	Z1=1 1/2*-12 Z2=M33×1.5	W1=M8 W2=M10 W3=M6 W4=3/8

-16-



# --High Flow/High Temperature Filter Cartridge



PHF series high flow filter cartridge adopts 6" large diameter (PHFM series is 6.5") structure with single open end. The filter body is divided into two types: PP pleated and melt blown. All connection us thermal welding, no any adhesive, has wide Chemical compatibility, can be applied to food and beverage filtration.

PHFLH series high temperature resistant high flow filter cartridge adopts 6" large diameter structure, single open end, no center core, outer cage is made of 304 stainless steel, filter material and support layer are made of high temperature resistant materials, which can be long-term under the condition of 120 C use.

#### **Material Construction**

Filter Media	PP: Deep Pleated PP/Melt PP	FO: Organic Fiber	GF: Resin Synthetic Glass Fiber
Support/Drainage	PP	Organic Fiber	Polyester
End Cap Material	Fiberglass Reinforced Polypropylene	Fiberglass Reinforced Polypropylene	Fiberglass Reinforced Polypropylene

# Performance

E	PP: 82°C	
Maximum Operation Temperature	FO: 120°C	
	GF: 121°C	
	PP: 3.44bar / 21°C	
Maximum Operation Differential Pressure	FO: 3.44bar / 120°C	
	GF: 3.44bar / 121°C	

#### Flow Rate and Filtration Area

Size (Diameter*Length)	Design Flow (m³/hr)	Maximum Flow (m³/hr)	Filtration Area (m²)
6**20*	15	40	2.6
6**40*	30	80	5.2
6**60*	45	120	7.8

-17-

#### End Cap Type



#### Ordering Information

PHF	L	PP	0500		40	G	V	ZA
Series	Турв	Media	Mi	oron	Length	Structure	Seal Material	End Cap Type
	L	PP	0010=0.1µm	1500=15µm	20=20*	G=PP Outer Cage	V=Viton	ZA=Single-Ring (HFK)
	LH	PBT	0100=1.0µm	2000=20µm	40=40*	M=Melt blown	S=Silicone	ZB=Double-Ring (HFK
PHF	K	GF	0600×5.0µm	4000=40µm	60=60*		E=EPDM	ZA= Type (HFM)
	М		1000=10µm	7000=70µm				ZB= + Type (HFM)
				1000=100µm				None= (HFL/HFLH)

# **PHFX Series**

# --Power Plant Condensate Water String Wound Filter Cartridge



PHFX series string wound filter cartridge is depth filter, using highperformance fiber (Polypropylene, Absorbent cotton or Glass fiber) thread according to a specific process, tightly wound on the porous center core (PP or SS hole tube), form a honeycomb structure with sparse outside and dense inside. It's designed for power plant condensate iron removal, use with or without resin pre-coat. Commonly use length 70° (1778mm), the large length with big filtration area ensures to reduce the number of filter cartridges and the dimension of housing required. The long service life and high flow rate result in low investment and less manpower in many applications

#### **Material Construction**

Filter Media	PP: Polypropylene (PP) CO: Cetton GF: Glass Fiber FO: Organic Fiber
Center Core	SS 304/316L

# Performance

Maximum Operating Temperature	250°C	
Maximum Operating Differential Pressure	3.0ban@90°C	
Flow Rate	2.2-2.8m3/h (Design) 2.5m3/h (Recommend)	
Inlet Water Quality (Recommend)	< 1000ppb	

# Ordering Information

PHFX	PP	0500	60	S1	Z1	W1
Series	Media	Micron	Length	Center Core	Connection Thread	End Thread
PHFX	PP=Polypropylene CO=Cotton GF=Glass Fiber FO= Organic Fiber	0100=1.0µm 0500=5.0µm 1000=10µm	40=40° 60=60° 70=70°	S1=304 S2=316L	Z1=M33×1.5 Z2=M33×2 Z3=G1* Z4=1 3/16*-24BSW	W1=M8 W2=M10 W3=M6

-18-

# **WPP Series**

# --Winding Polypropylene Filter Cartridge

WPP series filter cartridge is made of continuous Polypropylene (PP) filter material. It's made of various gradient polypropylene materials, has higher efficiency than ordinary melt blown filter elements. Because of the multi-layer polypropylene winding, its filtration area is larger than the ordinary melt blown filter element, the service life is relatively longer.



#### **Material Construction**

Filter Media	Polypropylene (PP)	
Support/Drainage	Polypropylene (PP)	
Cage0/Core/End Cap	Polypropylene (PP)	

#### Performance

Maximum Operating Temperature	80°C	
Maximum Operating Differential Pressure	3bar/21°C 1.2bar/80°C	

# Ordering Information

WPP	0100	10	C1	E
Series	Micron	Length	End Cap Type	Seal material
	0050=0.5µm	10=10*	C1=226/Spear	E=EPDM
	0100=1.0µm	20=20*	C5#222/Flat	V=Viton
	0300=3,0µm	30=30*	C3=222/Spear	H=PE Gasket
002201	0600=5.0µm	40=40*	C9=DOE	W=No Gasket
WPP -	1000=10µm		W=No Gasket (Standard)	
	2500=25µm		H=PE Gasket	
	4000=40µm			
	5000=50µm			

# PLM Series --Melt B

# --Melt Blown Filter Cartridge



#### Material Construction

Filter Media	PP: Polypropylene NY: Nylon
Center Core	Polypropylene/ Nylon/ Fiberglass reinforced polypropylene
Diameter	63mm or Customization

#### Performance

Maximum Operating Temperature	80°C	
Maximum Operating Differential	4bar/21°C	
Pressure	2.4bar/80°C	

PLM-PP series polypropylene melt blown filter cartridge adopts the latest technology, so that the entire filter element has very hard mechanical properties, and its compression resistance is more than twice that of ordinary melt blown filter elements. It can be applied to some liquids filtration with high viscosity and high solid content. The melt blown process makes it has high dirt holding capacity and can withstand more impurities. For particulate materials, such as metallic

paint, it has a good interception effect and low resistance. PLM-NY series nylon melt blown filter cartridge is an innovative product processed through melt blown technology, and the product uses a relatively unique nylon fiber as the filter media. Provides a nylon filter cartridge with larger pore size, which has wide applicability. Coupled with the excellent chemical compatibility, it can be used in strong solvents such as benzene, toluene, and xylene. The characteristics of nylon fiber make it suitable for filtering some

## Chemical Compatibility

Material	PP	NY	Material	PP	NY
Benzene	NR.	R	Acid	R.	NR
Xylene	NR	R	Alcohol	R	R
Acetone	R	R	Fat	LR	LR
Trichloro ethylene	LR	R	Alkali	R	R

R: Resistance NR: No Resistance LR: Limited Resistance

#### Ordering Information

PLM	PP	0005	10	C1	S
Series	Media	Micron	Length	End Cap Type	Seal Materia
	PP=Polypropylene	0100=1.0µm	05=5*	C1=226/Spear	E=EPDM
	NY≈Nylon	0300=3.0µm	10=10*	C3=222/Spear	S=Silicone
		0500≈5.0µm	20=20*	C5=222/Flat	V=Viton
PLM		1000=10μm	30=30*	C6=226/Flat	P=FEP
PLM		2500=25µm	40=40*	C9=DOE	
		7500=75µm			
		10000=100µm			
		15000=150µm			

# **PLX Series**

# --String Wound Filter Cartridge



PLX series filter cartridge is made of textile fiber (polypropylene, absorbent cotton or glass fiber) according to a specific process, tightly wound on a porous framework (PP or SS porous tube) to form a honeycomb structure with sparse outside and dense inside, which can effectively filter suspended solids in the fluid, Rust, particles and other impunities, with the characteristics of small pressure drop and large pollutant holding capacity.

#### **Material Construction**

Filter Media	PP: Polypropylene (PP) CO: Cotton GF: Glass Fiber FO: Organic Fiber	
Center Core	PP/Stainless Steel 304/316L	

# Performance

Maximum Operating Temperature	PP: 60°C CO: 120°C GF: 200°C FO: 120°C	
Maximum Operating Differential Pressure	4.0bar	
Recommend Change-out Differential Pressure	2.0bar	

# Ordering Information

PLX	A3	0500	40
Series	Filter Layer/Center core Material	Micron	Length
	A1=PP/PP	0100=1.0µm	05=5"
	A2=PP/SS (Stainless Steel)	0300=3.0µm	10=10*
	A3=Cotton/SS	0500=5.0µm	20=20*
m v	A4=Glass Fiber/SS	1000=10µm	30=30°
PLX	A5#FO/SS	2500=25µm	40=40*
		7500=75µm	50=50"
		10000=100µm	60=60"
		15000=150um	70=70

-22-

# **PCF Series**

# -- Carbon Fiber Filter Cartridge



PCF series carbon fiber filter cartridge is made of high-efficiency active adsorption material and environmentally friendly functional material activated carbon fiber. It is an updated product of activated carbon, especially with strong adsorption capacity for chlorine and organic odors. It is widely used in the filtration of deodorization, decolorization and organic removal in the beer production process.

### Material Construction

Filter Media	Carbon Fiber	
Support/Drainage	Polypropylene (PP)	
Cage/Core/End Caps	Core: SS304 Or PP Other: PP	

#### Performance

Maximum Operating Temperature	80°C	
Maximum Operating Difference Pressure	4bar/21°C 2.4bar/80°C	

# Filtration Micron and lodine adsorption

Filtration micron	lodine adsorption (mg/g)	
08	800	
10	1000	
16	1600	

# Ordering Information

PCF	10	80	W
Series	Length	Micron	End Cap Type
	10=10*	08	W=Gasket (Standard)
	20=20"	10	H=PE Gasket
	30=30"	16	C1=226/Spear
PCF	40=40*		C3=222/Spear
			C5=222/Flat
			C6=226/Flat
			C9=DOE

-23-

# **PFB Series**

# -- Bag Filter



PFB series bag filter is made of needled felt, the filter material has high precision and the surface is treated with singeing, calendering or film coating, without fiber shedding; the thermal welding technology ensures that there will be no side leakage.

#### **Material Construction**

Filter Media	Polypropylene, Polyester, Nylon	

#### Performance

Filter Media	PP: Polypropylene	PET: Polyester	NY: Nylon
Maximum Operating Temperature	90°C	160°C	160°C
Maximum Operating Differential Pressure	2bar/21°C	2bar/21°C	2bar/21°C
Maximum Operating Differential Pressure	1bar/80°C	1bar/160°C	1bar/80°C

# Ordering Information

PFB	PP	0500	01	N
Series	Material	Micron	Size	Ring
	PP	0100=1.0µm	01=Φ180*430mm	01=Φ180*430mm
	PET	0300×3.0µm	02≈Φ180*810mm	02=Ф180*810mm
	NY	0500=5.0µm	03=Φ100*230mm	03=Φ100°230mm
		1000=10µm	04=Φ100*380mm	04=Φ100*380mm
PFB		1500=15µm	05≈Φ150*500mm	05≈Φ150*500mm
PFD		3000=30µm		
		5000=50µm		
		7500=75µm		
		100H=100µm		
		150H=150µm		

-24-

# **PLBG Series**

# --Bag Filter replacement Filter Cartridge



PLBG series bag filter pleated high flow filter cartridge is designed to replace Size 1 and Size 2 bag filters. PP pleated type provides a cost-effective alternative with higher removal efficiencies over standard bag media configurations. It's suitable for existing bag filter vessels, no need add any hardware change. Long service life, save filtration cost.

#### Material Construction

Filter Media Depth Polypropylene (PP)		
Support/Drainage	Polypropylene (PP)	
Cage/Core/End Cap	Glass Fiber reinforced Polypropylene (PP)	

#### Performance

Filtration Micron	1µm, 2µm, 5µm, 10µm, 20µm, 40µm, 70µm, 90µm		
Maximum Operating Differential Pressure	3.5bar / 21°C(Inside to Outside)		
Recommend Change-out Differential Pressure	1.0 bar / 21°C(Inside to Outside)		
Hot Water Sterilization	77-92°C/30min		
Maximum Operating Temperature	82°C		

# Flow Rate and Filtration Area

Size	Design Flow Rate (m³/hr)	Max, Flow Rate (m³/hr)	Filtration Area (m²)	
1#	10	25	1.6	
2#	20	50	3.4	

#### Ordering Information

PLBG	0100		01	E
Series	Micron		Length	Seal Material
	0100=1.0µm	2000=20µm	01 (1#) =330mm	E=EPDM
PLBG	0300=3.0µm	4000=40µm	02 (2#) =660mm	S=Silicone
	0500≈5.0µm	7000=70µm	Customization	V≕Viton
	1000=10µm	9000=90µm		

-25-

# **PHSW Series**

# --Stainless Steel Multi-layer Sintered Mesh Filter Cartridge

sintered, it has excellent temperature, pressure and corrosion resistance, as well as excellent backwash effect, making it a substitute for trianium rod products, suitable for solid-liquid separation with rigid granular material.

#### **Material Construction**

Filter Media	316L/304Stainless Steel	
Cage/Core/End Caps	316L/304 Stainless Steel	

#### Performance

Maximum Operating Temperature	480°C
Maximum Operating Differential Pressure	3bar



# **PHSF Series**

# --Stainless Steel Sintered Fiber Felt Pleated Filter Cartridge

PHSF Stainless Steel Pleated Felt Filter Cartridges constructed with stainless steel sintered felt and shaped during the pleating process. These filters have a large filtration area. The stainless steel sintered felt is made from stainless steel fiber, which is then sintered under high temperature to form the porous depth filtration material. PHFS Filter Cartridges features including a graded pore size from coarse upstream to fine downstream, which results in a higher dirt holding capacity and longer service life.



#### **Material Construction**

Filter Media	316L/304Stainless Steet
Cage/Core/End Caps	316L/304 Stainless Steel
Performance	
Performance  Maximum Operating Temperal	ture 480°



# **PHSC Series**

# --Stainless Steel Mesh Pleated Filter Cartridge

The PHSC series pleated stainless steel mesh filter cartridge is made of woven stainless steel mesh. Compared with the cylindrical filter element, the pleat structure has larger filtration area, so it has obvious advantages in terms of life and flow rate.

#### Material Construction

Filter Media	316L/304Stainless Steel		
Cage/Core/End Caps	316L/304 Stainless Steel		

#### Performance

Maximum Operating Temperature	480°C	
Maximum Operating Pressure	5.0bar	



# **PHSP Series**

# --Stainless Steel Powder Sintered Filter Cartridge

PHSP series metal powder sintered filter element is made of stainless steel 316L, 310S or Hastelled-alloy powder sintered at high temperature. It has excellent temperature resistance, pressure resistance, corrison resistance, uniform pore size distribution, good air permeability, cleaning & regeneration, can welding and be machined, etc.



# Material Construction

Filter Media	316L/310S	
Filter Media	Hastelloy	
Performance		
Maximum Operating Temp	erature	480°C

Maximum Operating Differential Pressure 4bar

-27-

# **PHSV Series**

# --Stainless Steel Wedge Wire Filter Cartridge



PHSV series stainless steel wedge mesh filter cartridge is manufactured by welding ribs and V-shaped wires on advanced special welding equipment. Simple structure, high strength, high hardness, wear resistance and corrosion resistance, uniform gaps, good seepage, easy to clean and backflush, is one of the best choices for solid-liquid separation of materials containing rigid large

# Material Construction

Filter Media	316L/321/304 Stainless Steel, Special materials can be customized	
Filtration Micron	20µm, 25µm, 30µm, 50µm, 60µm, 100µm, 150µm	
Outer Diameter (OD: mm)	25.4, 33, 38, 50, 57, 76, 89, 105, 117, 130, 850mm, Customized.	

# Ordering Information

PHSP	S2	0500		10	C1	E
Series	Media	M	ioron	Length	End Cap Type	Seal Material
PHSC	S1=304	0200=2.0µm	3000≈30µm	05=5*	C1×226/Spear	E×EPDM
PHSF	S2=316L	0300=3,0µm	4000=40µm	10=10"	C3=222/Spear	S=Silicone
PHSP		0500=5.0µm	5000=50µm	20=20"	C6=226/Flat	V=Viton
PHSW		0700=7.0µm	6000=60µm	30=30*	C9=DOE	F=PTFE
		1000=10µm	100H=100µm	40=40"	L=Thread(Customized)	N=Nitrile
		2000=20µm	150H=150µm			
		2500=25µm				

-28-

# N/S Series

# -- Capsule Filter



N/S series capsule filters a variety of volumes are available, and the inlet and outlet, vent and outlet are configured with standard NPT or Swagelock interfaces, and can be connected to piping of various sizes through corresponding adaptors. Easy to install and operate. The inner filter cartridge can be configured according to the characteristics of the filter material and liquid. It has a wide range of applicability and is especially suitable for small flow filter material and

### Material Construction

Cage/Core/End Caps	Polypropylene (PP)

#### Performance

Maximum Operating Temperature	50°C		
Maximum Operating Differential Pressure	7bar		

#### Filtration Micron and lodine adsorption

iltrati	on Micron and lodine adsorption	Filtration Micron Table		
Code	Product Series	01	0.1µm	
GF	Ultra Glass Fiber	02	0.22µm	
PES	Polyether Sulfone	03	0.3µm	
PP	Polypropylene	04	0.45µm	
N66	Nylon	06	0.65µm	
PVDF	Hydrophilic Polyvinylidene Fluoride	08	0.8µm	
PFL	Hydrophobic PTFE	12	1.2µm	
PFLH	Hydrophilic Teffon	50	5.0µm	

## **Dimension Parameter Table**

Size Code	N09	N12	N53	N54	N59	S02	803	S04	S10
OD	Φ72mm	Ф72mm	Φ72mm	Ф72mm	Φ72mm	Φ72mm	Ф72mm	Φ72mm	Φ72mm
Length	114mm	138mm	202mm	202mm	152mm	114mm	183mm	114mm	183mm
Inlet &Outlet	1/4" NPT	1/4" NPT	1/2" NPT	3/8" NPT	1/4* NPT	1/4" Swage	3/8" Swage	1/4" Swage	1/2" Swage
Vent	1/8" NPT	1/4* Swage	Luer lock	Luer Lock	1/8" NPT	1/4" Swage	1/4" Swage	1/4" Swape	1/4" Swage

#### Ordering Information

N	Dimension Code	Product Series Code	Filtration Micron Code
3	Refer to Dimension Parameter Table	Refer to Product Series Table	Refer to Filtration Micron Table