

About Hawach Scientific

Hawach Scientific is a top professional enterprise devoted to providing superior quality products, exclusive services and integrated solutions to filtration industry. We located in Xi'an, Shaanxi Province, the largest inland port of China with convenient transportation.

Hawach plant covers a production workshop area of 8000 m^2 , with 4000 m^2 of clean room. We have international advanced level of product lines. The main products including Filter Cartridge, Filter Bag, Filter Capsule with ISO9001 system and product quality certificate like SGS test report.

Today, we are happy to see our products exported to the United States, Korea, UK, Germany, Dubai, Israel and Mexico... The quality and service of our products received consistent approval from customers. Hawach's philosophy is "high quality, good service, both win", By joint efforts of Hawach's employee, business partners and customers, we believe Hawach can be a top leader of filtration industry.





Content

1. Filter Cartridge	1
1.1 Membrane Pleated Filter Cartridge	1
1.1.1 PP(polypropylene) series pleated filter cartridge	1
1.1.2 PTFE (Polytetrafluoroethylene) series pleated filter cartridge	2
1.1.3 Nylon series pleated filter cartridge	3
1.1.4 PES (polysulfone) series pleated filter cartridge	4
1.2 Drinking water treatment filter cartridge	5
1.2.1 Melt-blown filter cartridge (MBPP)	5
1.2.2 String wound filter cartridge (SW)	6
1.2.3 Active carbon block filter cartridge (CTO)	7
1.2.4 Granular Activated Carbon (UDF)	8
1.2.5 Multi pleated filter cartridge	9
1.3 Swimming pool & SPA filter cartridge	10
2. Filter Bag	11
3. Filter Capsule	13



1. Filter Cartridge

1.1 Membrane Pleated Filter Cartridge

1.1.1 PP(polypropylene) series pleated filter cartridge

PP pleated membrane filter cartridges are made of ultra-fine polypropylene membrane, the cage, the core and the end cap are all formed by hot-melt welding technology, without any glue, no leakage, no secondary pollution.

Features

Suitable for filtering strong acids, strong bases and organic solvents
Large filtration area
Low pressure difference
Strong dirt holding capacity
Long service life



Application

Many micro rating for option

Pre-filtering of antibiotics and other liquids
Alcohol, mineral water, drinking water filtration
High purity water pre-filter
Filtration of organic solvents, acids and alkali liquid

Specifications

Size:

OD: 69 mm(2.75")
ID: 33 mm(1.30")

Length: 5", 10", 20", 30", 40",...,70"

End Cap: DOE(220), 226/FIN, 226/FLAT, 222/FIN, 222/FLAT

Material:

Filter media: PP End cap: PP Inner core: PP

O-ring: silicone rubber, EPDM (ethylene propylene rubber), butadiene rubber, fluoro rubber

Filtration performance:

Micro rating: 0.1um, 0.22um, 0.45um, 1um, 5um, 10um, 20um, 50um

Operating Temperature Normal <55 $^{\circ}$ C (131 oF) Operating Temperature Max. <80 $^{\circ}$ C (176 oF) Normal Flow Direction pressure: 4.0 Bar at 25 $^{\circ}$ C Reverse Flow Direction pressure: 2.0 Bar at 25 $^{\circ}$ C Sterilization : Steam sterilization for 30 min at 121 $^{\circ}$ C



1.1.2 PTFE (Polytetrafluoroethylene) series pleated filter cartridge

PTFE pleated membrane filter cartridges are made of imported natural hydrophobic PTFE membrane and support layer. The cage, the center core and the end cap are made of PP. Use hot-melt welding technology, makes the good sealing and pollution-free.

Features

Hydrophobic PTFE ensures absolute sterilization in wet or dry conditions 100% filtration of phage in gas

Large gas flux
Long service life
No fiber shedding
100% integrity test
Many micro rating for option

Application

Air sterilization filtration
High purity gas in the electronics industry
Organic solvent sterilization filtration

Specifications

Size:

OD: 69 mm(2.75")
ID: 33 mm(1.30")

Length: 9.75", 10", 20", 30", 40"

End Cap: DOE(220), 226/FIN, 226/FLAT, 222/FIN, 222/FLAT

Material:

Filter media: Hydrophobic PTFE

End cap: PP Inner core: PP

O-ring: silicone rubber, EPDM (ethylene propylene rubber), butadiene rubber, fluoro rubber

Filtration performance:

Micro rating for air: 0.01um, 0.02um

Micro rating for liquid: 0.1um, 0.22um, 0.45um

Operating temperature Max. <90°C

Normal flow direction pressure: 4.2 Bar at 25 $^{\circ}$ C Reverse flow direction pressure: 2.0 Bar at 25 $^{\circ}$ C 10inch filter air filtration rate: 300Nm³/h~300Nmm³/h Sterilization : Steam sterilization for 30 min at 121 $^{\circ}$ C





1.1.3 Nylon series pleated filter cartridge

Nylon pleated membrane filter cartridge is folded from a Nylon membrane and its support layer. The cage, core and end cap are made of PP material. The whole filter cartridge is processed by hot melt welding technology, with excellent sealing performance, without any glue, no leakage.

Features

Uniform pore size distribution makes good filtration effect

Excellent chemical compatibility

No fiber is falling off, in line with the requirements of the pharmaceutical and food

industry

Made in cleaning workshop

Many micro rating for option

Application

Liquid filtration

Pure water, juice, alcohol filtration

Terminal filtration of distilled water

Specification

Size:

OD: 69 mm(2.75")

ID: 33 mm(1.30")

Length: 9.75", 10", 20", 30", 40"

End Cap: DOE(220), 226/FIN, 226/FLAT, 222/FIN, 222/FLAT

Material:

Filter media: Nylon

End cap: PP Inner core: PP

O-ring: silicone rubber, EPDM (ethylene propylene rubber), butadiene rubber, fluoro rubber

Filtration performance:

Micro rating: 0.1, 0.2, 0.45, 0.65, 1.0 um

Operating temperature Max. <90 ℃

Normal flow direction pressure: 4.2 Bar at 25 $\,^{\circ}$ C Reverse flow direction pressure: 2.1 Bar at 25 $\,^{\circ}$ C Sterilization : Steam sterilization for 30 min at 121 $\,^{\circ}$ C





1.1.4 PES (polysulfone) series pleated filter cartridge

PES pleated membrane filter cartridge is made of imported asymmetric PES membrane and support layer folded. The material are according to FDA requirements. The cage, center core and end cap are all made through hot-melt welding technology. No adhesive, made in clean room. 100% integrity test and high purity water rinse.

Features

Germany imported asymmetric membrane

High temperature resistance, acid and alkali resistance

Meet the requirements of medicine and food industry

According to pharmaceutical and food industry and FDA requirement

Many micro rating for option

Made in cleaning room

Application

Pharmaceutical and biological products terminal filtration

Final filtration of drinking water, beverages, alcohol, etc.

Chemical raw material filtration

Specification

Size:

OD: 69 mm(2.75")
ID: 33 mm(1.30")

Length: 9.75", 10", 20", 30", 40"

End Cap: DOE(220), 226/FIN, 226/FLAT, 222/FIN, 222/FLAT

Material:

Filter media: PES End cap: PP Inner core: PP

O-ring: silicone rubber, EPDM (ethylene propylene rubber), butadiene rubber, fluoro rubber, teflon fluororubber

Filtration performance:

Micro rating: 0.1, 0.2, 0.45, 0.65, 0.8, 1.2um

Operating temperature Max. <80°C

Normal flow direction pressure: 4.2 Bar at 25 $\,^{\circ}$ C Reverse flow direction pressure: 2.1 Bar at 25 $\,^{\circ}$ C Sterilization : Steam sterilization for 30 min at 121 $\,^{\circ}$ C

Number disinfection: 15 times





1.2 Drinking water treatment filter cartridge

1.2.1 Melt-blown filter cartridge (MBPP)

PP melt blown filter cartridge are made by superfine polypropylene fiber, through hot melt winding without any binder, which forming the deep filtration construction. It has big filtration ability and often used in pre-filer process to protect later filters.

Features

Deep filtration construction and result in big filter ability
High filter rating for the superfine PP fiber
Surface strengthening, no fiber fall off
100% PP which has high resistance to most solvent
Which out any binder introduced



Drinking water pre-filter to protect RO, UF Industry water, waste water, pure water filtration Chemical solvent, Acid-Bases solvent filtration

Specification

Size:

OD: 60-115mm, also can be customerized

ID: 28, 30mm

Length: 9.75", 9.87", 10", 20", 30", ...60"

Material:

Filter media: PP End cap: PP Inner core:PP

O-ring: silicone rubber, EPR (ethylene propylene rubber), nitrile rubber, fluororubber

Filtration performance:

Micro rating: 1, 3, 5,10,25,50,75,100,150

Max. temperature: 82 ℃

Max. pressure drop: 2.0 Bar at 21 $\,^{\circ}\mathrm{C}$

Classify:

product	rating/um	ID size/mm	OD size/mm(inch)	length/inch	weight/g	pcs/carton
PP melt blown	1-100	28, 30	63 (2.5")	5,10,20,3070	110, 120, 130, 140, 150g/10"	50/100
amboss PP melt blown	1-100	28, 30	63 (2.5")	5,10,20,3070	130g/10"	50/100
pressure melting point PP melt blown	1-100	28, 30	63 (2.5")	5,10,20,3070	130g/10"	50/100
PP melt blown with PP inner core	1-100	28, 30	63 (2.5")	5,10,20,3070	130g/10"	50/100
grooving PP melt blown (3M)	1-100	28, 30	63 (2.5")	10,20,30,40	150g/10"	50/100
big PP melt blown	1-100	28, 30	114(4.5")	10,20,30,40	350-380g/10"	10/20/30/36





1.2.2 String wound filter cartridge (SW)

PP, degreasing cotton and glass fiber string wound are made by PP and degreasing cotton textile fiber roving and poriferous inner core, it has great filtration ability, especially in pre-filter period for big particles contaminant.

Features

Resistant to high working pressure
High Chemical Compatibility
Deep filtration to remove most big particles contaminant.

Application

Drinking water, waste water, pure water pre-filter to protect RO filter Chemical acid-base solvent, ingredient, organic solvent Syrup, medicine ingredient, ink solvent filtration



Specification

Size:

OD: 62-114mm, also can be customerized

ID: 28, 30mm

Length: 9.75", 9.87", 10", 20", 30",40"

Material:

Filter media: PP, degreasing cotton, glass fiber

End cap: PP

Inner core: PP, 304 stainless steel

O-ring: silicone rubber, EPR (ethylene propylene rubber), nitrile rubber, fluororubber

Filtration performance:

Micro rating: 0.5, 1, 5,10,25,50,75,100

Max. temperature: PP: 60 °C

Classify:

product	rating/um	ID size/mm	OD size/mm(inch)	length/inch	weight/g	pcs/carton
	0.5, 1, 5, 10, 20,			9.75, 9.87, 10, 20,		
PP string wound	30, 50, 75, 100	28, 30	62-114	30, 40		50
	0.5, 1, 5, 10, 20,	W2.		9.75, 9.87, 10, 20,		
degreasing cotton string wound	30, 50, 75, 100	28, 30	62-114	30, 40		50
	0.5, 1, 5, 10, 20,	47.		9.75, 9.87, 10, 20,	note: inner core has PP and	
Glass fiber string wound	30, 50, 75, 100	28, 30	62-114	30, 40	304SS	50



1.2.3 Active carbon block filter cartridge (CTO)

Active block carbon filter cartridge(CTO) are made by high performance active carbon powder and food grade rubber powder, it has excellent absorb ability and can forbid release powder, which can absorb residual chlorine, taste, organics.

Features

High absorb ability to remove residual chlorine, bad taste, organics. Low pressure drop, stable water flow No release powder

Application

Drinking water treatment Food liquid pre-filter Industry waste water filtration

Specification

Size:

OD: 20, 50, 65, 68, 115mm, also can be customerized

ID: 28, 30mm

Length: 9.75", 9.87", 10", 20" also can be customerized

Material:

Filter media: Coal active block carbon

End cap: PP
Out shell: PP

O-ring: silicone rubber, EPR (ethylene propylene rubber), nitrile rubber

Filtration performance:

Micro rating: 5,10

Max. temperature: PP: 52 $^{\circ}$ C Max. operation pressure: 17Bar Max. pressure drop: 7Bar, 20 $^{\circ}$ C





1.2.4 Granular Activated Carbon (UDF)

Granular active carbon filter cartridge(UDF) are made by high performance active powder, it has good absorption of the residual chlorine, taste, organics.

Features

High absorb ability to remove residual chlorine, bad taste, organics. Low pressure drop, stable water flow No release powder

Application

Drinking water treatment Food liquid pre-filter Industry waste water filtration



Specification

Size:

OD: 68, 115mm ID: 28, 30mm

Length: 9.75", 9.87", 10", 20" also can be customerized

Material:

Filter media: Coal active block carbon/ coconut shell charcoal

End cap: PP
Out shell: PP

O-ring: silicone rubber, EPR (ethylene propylene rubber), nitrile rubber

Filtration performance:

Micro rating: 5,10

Max. temperature: PP: 52 $^{\circ}$ C Max. operation pressure: 17Bar Max. pressure drop: 7Bar, 20 $^{\circ}$ C

Classify:

rating/um	ID size/mm	OD size/mm(inch)	length/inch	weight/g	pcs/carton
5, 10	28, 30	68, 115	9.75, 9.87, 10, 20		20/25
5, 10	28, 30	68, 115	9.75, 9.87, 10, 20		20/25
5, 10	28, 30	20, 50, 65, 68, 115	10, 20		20/25
5, 10	28, 30		10, 20		
5, 10	28, 30	20, 50, 65, 68, 115	10, 20		20/25
0.2		20 20 20 20			25
					25
	5, 10 5, 10 5, 10 5, 10 5, 10	5, 10 28, 30 5, 10 28, 30 5, 10 28, 30 5, 10 28, 30 5, 10 28, 30	5, 10 28, 30 68, 115 5, 10 28, 30 68, 115 5, 10 28, 30 20, 50, 65, 68, 115 5, 10 28, 30 20, 50, 65, 68, 115	5, 10 28, 30 68, 115 9.75, 9.87, 10, 20 5, 10 28, 30 68, 115 9.75, 9.87, 10, 20 5, 10 28, 30 20, 50, 65, 68, 115 10, 20 5, 10 28, 30 10, 20	5, 10 28, 30 68, 115 9.75, 9.87, 10, 20 5, 10 28, 30 68, 115 9.75, 9.87, 10, 20 5, 10 28, 30 20, 50, 65, 68, 115 10, 20 5, 10 28, 30 10, 20



1.2.5 Multi pleated filter cartridge

Hawach multi pleated filter cartridge are made of polyester fiber and polypropylene, which are mainly used in water filtration process. It has long life time and big filtration area, it also a kind of economic filter cartridge.

Features

Multi pleated construction lead to big filtration area Low pressure, long life time Capable clearance to repeat use

Application

Pre-filtration in drinking water to protect RO/UF filter cartridge Food, drinking, pure w industry filtration
Swimming pool filtration

Specification

Size:

OD: 68, 115mm ID: 28 mm

Length: 9.75", 9.87", 10", 20", 30", 40"

Material:

Filter media: polyester fiber, polypropylene

End cap: plastisol Inner core:PP

Filtration performance:

Micro rating:1, 5,10, 20, 50 um Max. temperature: 37.8 $\,^{\circ}$ C

Max. operation pressure: 4.0 Bar Rate of flow: 3-10 gallon/min





1.3 Swimming pool & SPA filter cartridge

Our swimming pool filter cartridge is made of polyester fiber cloth and has durable performance. The filter media, the center core and the end cap are glued together to ensure better sealing of the end cap. Due to the folding design, it provides greater filtration area, reduce filter update times, reduce filtration costs.

Features

Multi-fold design increases filter area and reduces filter replacement times
Large amount of pollution
For various water filtration
Many micro rating for option
Made in cleaning room



Pool water treatment
RO security filtering
Conventional water purification

Specification

Size:

OD: 68mm, 115mm, 197mm

ID: 28mm

Length: 245mm, 495mm, 781mm

Material:

Filter media: Polyester, PP

End cap: Plastisol Inner core: PP

Filtration performance:

Micro rating: 1.0, 5.0, 10.0, 20.0, 50.0um

Operating temperature Max. <37.8℃ Max. Operation pressure: 4.0 Bar





2. Filter Bag

Hawach scientific produce varies kinds of filter bag used for industry filtration, the specific details are shown below.

Features

Varies kinds of filtration media to meet different request Good quality and high filtration efficiency

Application

Cement plant, asphalt mixing plant, blast furnace gas, cast··· industry filtration

Specification

	polyester needle-felt	anti-static polyester needle-felt		Anti	-water&oil polyester	
Room					dle-felt	
temp eratu re Filter bag		F	*			
	Weight: 500g	Weight: 500g		Wei	ght: 500g	
	Thickness: 1.8mm	Thickness: 1.8mm		Thic	kness: 1.8mm	
	Working temperature: ≤	Working temperature: ≤130°C		Wor	king temperature: ≤130°C	
	130℃	Max. temperature:150°C		Max	. temperature:150°C	
	Max. temperature:150°℃	acid resistance: good		acid resistance: good		
	acid resistance: excellent	alkali resistance: good		alkali resistance: good		
	alkali resistance: good					
	Acrylic needle-felt	Aramid needle-felt PTFE needle-felt			PPS needle-felt	
Middl e		2				
temp	Weight: 500g	Weight: 500g	Weight: 750g		Weight: 500g	
eratu	Thickness: 2.1 mm	Thickness: 1.8mm	Thickness: 1.1mm		Thickness: 1.8mm	
re	Working temperature: ≤	Working temperature: ≤	Working temperature:	\leq	Working temperature: ≤	
filter	160℃	160℃	260℃		190℃	
bag	Max. temperature:180°C Max. temperature:190°C		Max. temperature:280°	C	Max. temperature:232℃	
	acid resistance: good	acid resistance: good	acid resistance: excellen	nt	acid resistance: excellent	
	alkali resistance: good	alkali resistance: good	alkali resistance: good		alkali resistance: excellent	



	P84 needle-felt	FMS needle-felt	METAMAX needle-felt	Glass fiber needle-felt
High temp				8
eratu	Weight: 500g	Weight: 500g	Weight: 500g	Weight: 1000g
re	Thickness: 2.3 mm	Thickness: 2.0 mm	Thickness: 2.0 mm	Thickness: 2.1 mm
filter	Working temperature: ≤	Working temperature: ≤	Working temperature: ≤	Working temperature: ≤
bag	260℃	280℃	240℃	280℃
	Max. temperature:280°C	Max. temperature:300°C	Max. temperature:250°C	Max. temperature:300°C
	acid resistance: excellent	acid resistance: good	acid resistance: good	acid resistance: excellent
	alkali resistance: good	alkali resistance: good	alkali resistance: good	alkali resistance: good



3. Filter Capsule

Hawach capsule filters are available in a variety of sizes with a wide range micro rating options. Inlet and outlet are adapted with a standard NPT or Swa-gelock. It can be connected to different sizes of pipes through the corresponding adapters. It is quick and easy to install and suitable for fast filtration of small doses of liquid and gas.

Features

Disposable design, safe and convenient

Small retention volume

Good pressure resistance

Wide rang of inlet&outlet

Many micro rating for option

Convenient connection design, safe and convenient operation

Made in cleaning room

Application

Low dosage liquid

Quick filtration of gases

Chemical industry inks, dyes, developer

Ultrafiltration prefilter for reverse osmosis

Specification

Size:

Length: 2.5", 5" etc.

Material:

Filter media: PP, PES, PTFE, Nylon, GF

Housing: PP **Micro rating:**

PP: 0.1, 0.22, 0.45, 1.0, 3.0, 5.0, 10.0, 20.0, 30.0, 50.0 um

PES: 0.05, 0.1, 0.22, 0.45, 0.65, 0.8, 1.2 um

PTFE: Liquid: 0.1, 0.22, 0.45 um

Gas: 0.01, 0.02 um

Nylon6: 0.1, 0.2, 0.45, 0.65, 1.0 um

Drawing Picture:

Code	Joint	Drawing
128	In/out: hose barb vent: N/A	30.5mm





136	In/out:1/8" Swagelok	48mm FLOW
219	In/out: Luer lock	85mm
227	In/out: 1/8" hose barb	60mm 5 60mm
306	In: 1/8" NPTM Out: 1/4" NPTM Filtration area: 35 cm²	54mm
325	In/out: 1/4" Luer Slip Vent/Drain: 1/4" Luer Slip	61.5mm 6
414	In/out: 1/4" Swagelok Filtration area: 9.5 cm ²	www.gs
415	In/out: 1/8" Swagelok Filtration area: 9.5 cm ²	Ø44mm
416	In/out: Luer Lock Filtration area: 9.5 cm ²	31mm Ø44mm



418	In: 1/4" NPTM Out:3/8 HB OUT Filtration area: 150 cm ²	Ø46mm
505	In: Hose Barb Out: 1/4" NPTM Vent: Luer Lock Filtration area: 455 cm²	74mm
517	In/out: 1/4"-3/8" Hose Barb Filtration area: 13.8 cm²	Ø56mm
519	In/out: 1/4" Swagelok Vent: Luer Lock Filtration area: 250 cm ²	Ø60mm
523	In/out: 1/4" Swagelok	Ø53mm 53mm
601	In/out: 1/4" Swagelok Vent/Drain: 1/8" NPTM Filtration area: 455 cm²	100mm



624	In/out: 1/4" Swagelok Vent: N/A Filtration area: 560 cm²	065mm
702	In/out: 1/4" Swagelok Vent/Drain: 1/4" Swagelok Filtration area: 1134 cm²	114mm
703	In/out: 3/8" Swagelok Vent/Drain: 1/4" Swagelok Filtration area: 1920 cm²	183mm
704	In/out: 1/4" Swagelok Vent/Drain: 1/8" Swagelok Filtration area: 840 cm²	Z III4mm
707	In/out: 1/4" stepped Hose Barb Vent/Drain: 1/4" Swagelok Filtration area: 570 cm ²	47mm
709	In/out: 1/4" NPTM Vent/Drain: 1/8" NPTM Filtration area: 840 cm²	114mm



710	In/out: 1/2" Swagelok Vent/Drain: 1/4" Swagelok Filtration area: 1920 cm²	183mm
711	In/out: 1/4" Swagelok Filtration area: 358 cm ²	91.5mm 91.5mm
712	In/out: 1/4" NPTM Vent/Drain: 1/4" Swagelok Filtration area: 1134 cm²	138mm
722	In/out: 1/4" Swagelok Vent: N/A Filtration area: 1300 cm²	Ø72mm
726	In/out:1/4"-1/2" Hose Barb Vent/Drain: N/A Filtration area: 30 cm ²	Ø73mm
734	Seal Material: EPDM Filtration area: 350 cm ²	178±1



738	In/out: 1/4" Swagelok Vent/Drain: 1/4" Swagelok Filtration area: 1200 cm²	134mm
741	Seal Material: EPDM Filtration area: about 1200 cm²	124mm
743	In/out: 1/8" Swagelok	91.5mm
148	1/8" Swagelok	
149	1/4" Swagelok	
150	1/8" Swagelok	
151	1/4" Swagelok	
152		
753	In/out: 1/2" NPT Vent/Drain: Luer Lock	202mm
754	In/out: 3/8" NPT Vent/Drain: Luer Lock	202mm



553	M10X1-1/4"-3/8" HB	Ø55mm
554	M10X1.5-1/4"-3/8"HB	46mm \$25mm
555	M10X1.5-M10X1.5	Ø56mm
831L		159mm
558	Inlet:1/8" NPT Outlet:1/4" Hose bard	Ø 56mm
656	In/Out: 1/4" NPT Vent: 1/8" NPT	102mm



657	In/Out: CPC Vent: 1/8" NPT	100mm
759	Connection type: N1/N3: 1/4" NPT N2/N4:1/8" NPT	152.5±1mm 72.6mm N3 N4