



TFFNOVA[®] Hollow Fiber Filter

TFFNOVA[®]
Hollow Fiber Filter

Tangential Flow Filtration

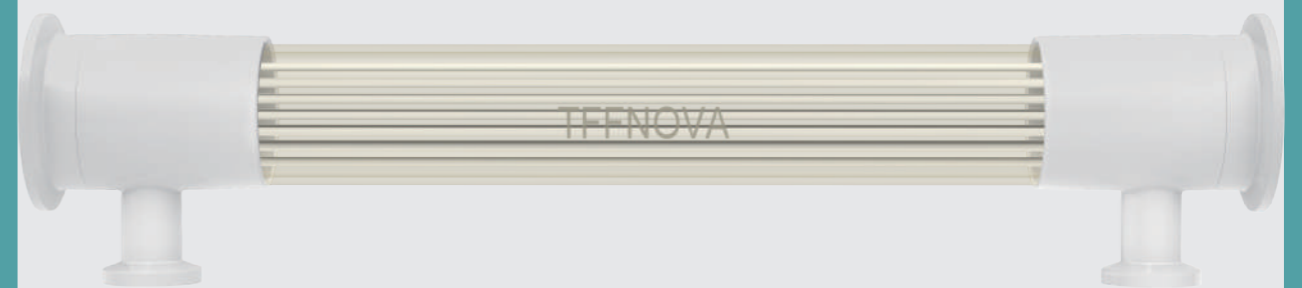
Suzhou SMAx Biotechnology Co., Ltd.

Add : 998 Guanpu Road, Guoxiang Street, Wuzhong Economic Development Zone,
Suzhou, Jiangsu, 215124, China

Web : www.smtworld.com

Mail : info@smtworld.com

Tel : +86-512-6528 7155



SMAX provides comprehensive solutions on tangential flow filtration

S-20U-03C-080-N




1 Material of hollow fiber membrane

S	mPES (Modified polyethersulfone)
---	-------------------------------------

2 MWCO

10U	0.10µm
20U	0.20µm
45U	0.45µm

3 Passageway length

03	
06	
11	

5 Membrane diameter

080	0.80mm
150	1.50mm

6 Specification

N	Common Filters
SU	Single-use filter, irradiated

4 Housing specifications

Code	Scale	Inner diameter (mm)	Surface Area (m ²)	Effective length (cm)	Housing length (cm)	Interface specifications Inlet/Return Port Through Port
A	small scale	3	0.00067	27	32.2	4mm male luer head
			0.0014	56	62.2	4mm female luer head
B	small scale	9	0.017	27	31.8	TC25(1/2")
			0.035	56	61.8	TC25(1/2")
C	small scale	19	0.10	27	33.3	TC25(1/2")
			0.20	56	63.3	TC25(1/2")
D	middle scale	32	0.24	27	31.2	TC50(1-1/2")
			0.50	56	61.2	TC25(1/2")
E	middle scale	51	0.53	27	35.5	TC50(1-1/2")
			1.1	56	65.5	TC25(1/2")
F	production	76	2.7	53	67.9	TC64(2")
			5.1	101	117.9	TC50(1-1/2")
G	production	108	5.0	50	70.9	TC64(2")
			10	101	121.1	TC50(1-1/2")

Common applications:

- Lysate clarification
- Upstream cell perfusion culture
- Inclusion body clarification and renaturation
- Nanoparticle Diafiltration and Separation
- Liposome concentration and diafiltration
- Cell concentration, clarification, diafiltration
- Virus purification, concentration, diafiltration
- Purification, concentration, diafiltration of proteins and nucleic acids

TFFNOVA® Hollow Fiber Filter

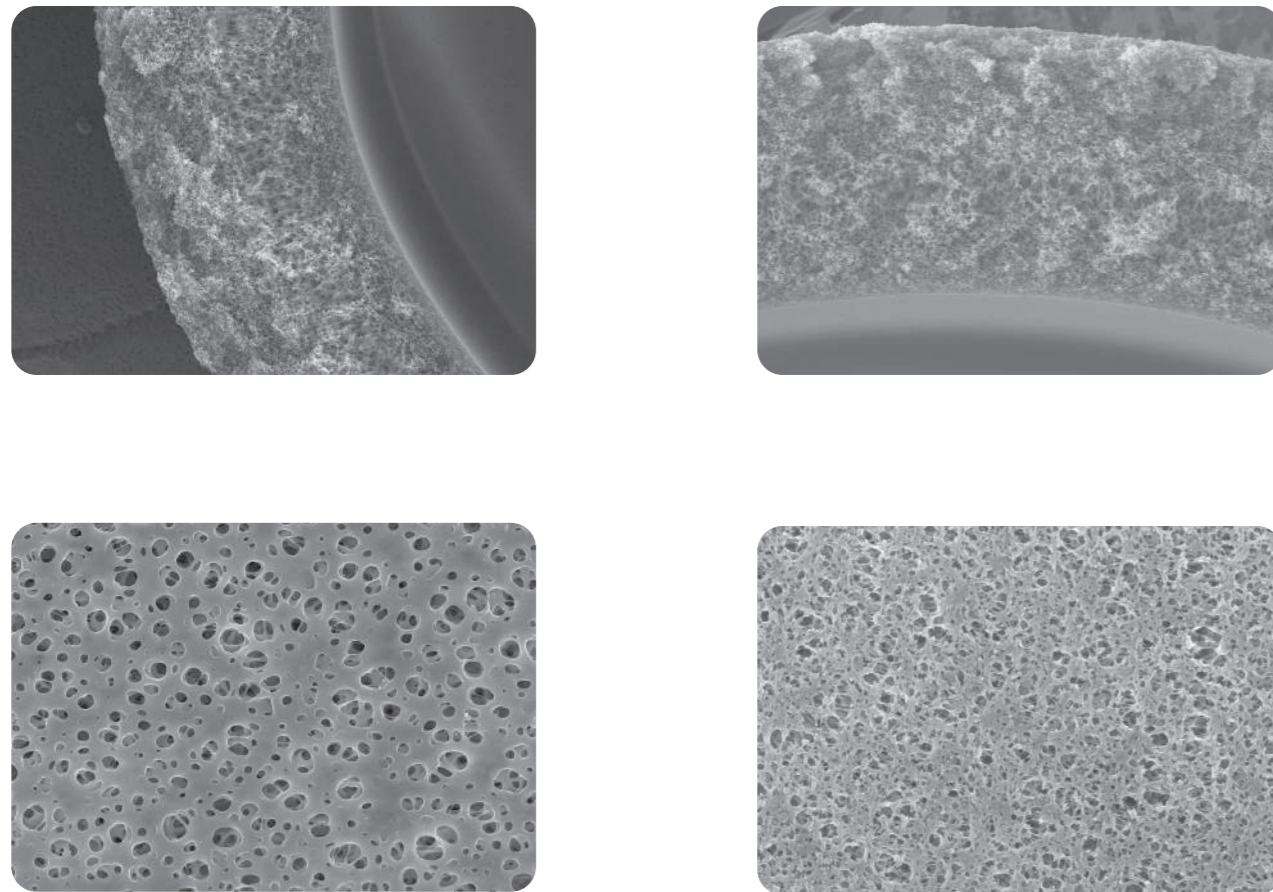


Published Document List:

- Certificate test for TFFNOVA® hollow fiber filter
- User guide for TFFNOVA® hollow fiber filter
- Validation guide for TFFNOVA® hollow fiber filter

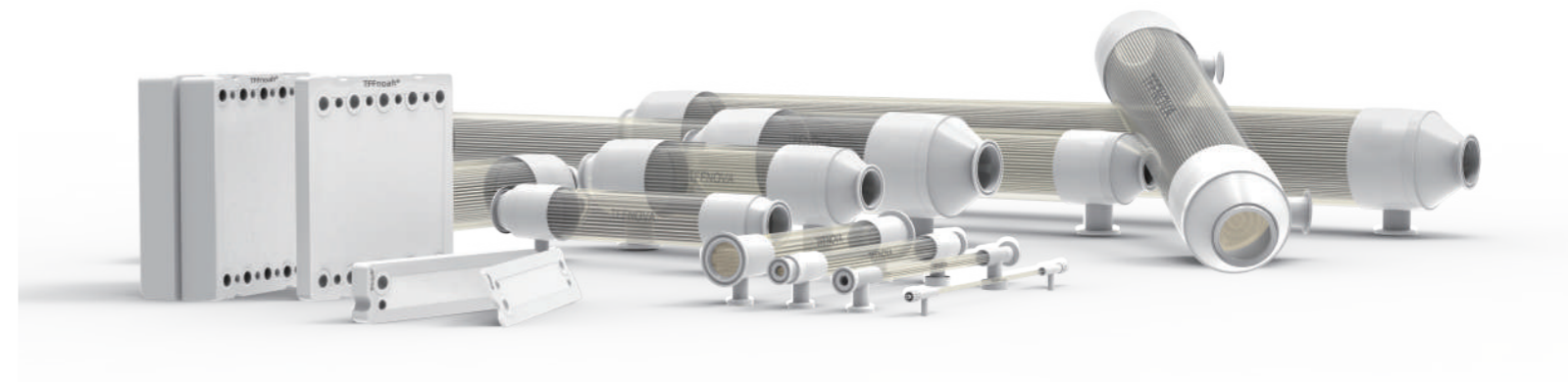
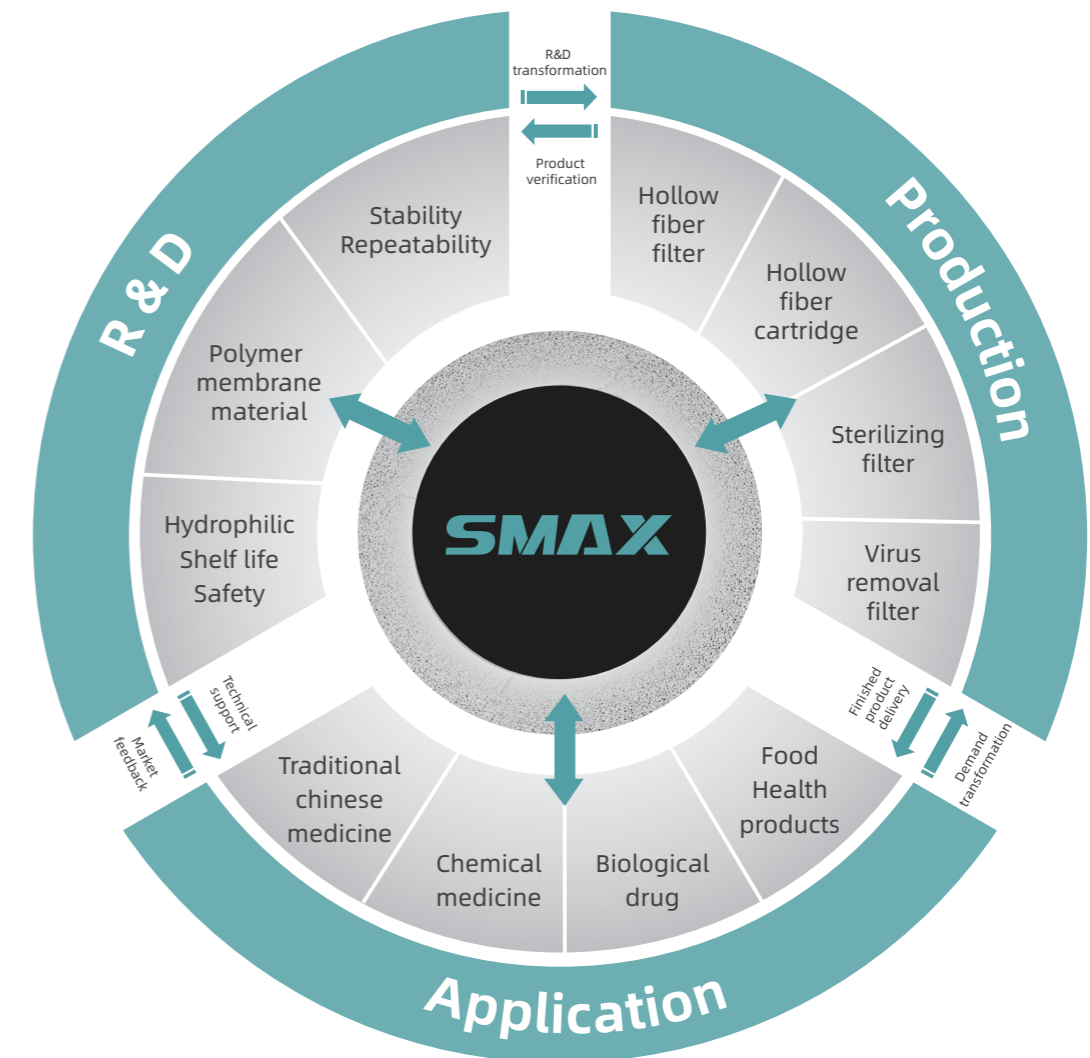
Hollow Fiber Membrane

TFFNOVA® hollow fiber filter produced by SMAX is made of modified polyethylene inkstone (mPES), which is suitable for filtration of various processes in the pharmaceutical industry (such as biopharmaceuticals, chemical drugs, traditional Chinese medicine, etc.) and the food industry. It can provide stable and reliable filtration performance.



TFFNOVA® hollow fiber membrane made of modified polyphenol is an asymmetric structure. Its unique structural design can result in lower bioburden, lower non-specific adsorption, faster filtration rate, higher throughput, and shorter filtration time, so it is very suitable for the pharmaceutical and food industries.

SMAX takes advantage of its professional production process in "membrane" to speed up the development of the biomedical industry



Chemical Compatibility

Code indication: R=Resistant; L=limited exposure; NR=not recommended; U=unknown

Solvent	Material	Polysulfone (PS) polyethersulfone (PES)	Modified polyethersulfone (mPES)	Polypropylene (PP)	Stainless steel (SS)
Ammonia (diluted)		R	R	R	R
Ammonia (diluted)(10%)		R	R	R	R
aniline		NR	NR	R	R
benzaldehyde		NR	NR	R	L
phenol (0.5%)		R	R	R	L
phenol (10%)		L	L	R	L
propanol		R	R	R	R
acetone		NR	NR	R	R
acetic acid (5%)		R	R	R	L
acetic acid (25%)		L	L	R	L
sodium hypochlorite		R	L	L	NR
butanol		R	R	R	R
xylene		NR	NR	R	L
dichloromethane		L	L	R	L
dimethylformamide		NR	NR	R	R
dimethyl sulfoxide (50%)		L	L	U	U
glycerin		R	R	R	R
peracetic acid (0.1N)		R	R	U	U
perchloric acid(25%)		NR	NR	NR	L
toluene		NR	NR	R	R
cresol		NR	NR	R	R
methanol		L	L	R	R
formaldehyde (2%)		R	R	R	R
formaldehyde (30%)		R	R	R	R
formic acid (25%)		R	R	R	L
formic acid (50%)		R	R	R	L
phosphoric acid (25%)		L	L	R	NR
sulfuric acid(5%)		R	R	R	NR
sulfuric acid(25%)		R	R	R	NR
citric acid(2%)		R	R	U	U
urea		R	R	R	L
urea (6N)		NR	R	R	L
boric acid		R	R	R	L
hydrofluoric acid (25%)		L	L	NR	NR
potassium hydroxide (1N)		R	R	R	L
potassium hydroxid (25%)		R	R	R	L
sodium hydroxide (0.1N)		R	R	R	L
sodium hydroxide (5%)		R	R	R	L
sodium hydroxide (25%)		R	R	R	L
trichloroacetic acid (25%)		R	R	R	NR
trichloromethane (chloroform)		NR	NR	R	R
triethylamine		NR	NR	L	R
carbon tetrachloride		NR	NR	R	L
tetrahydrofuran		NR	NR	R	R
diacetone alcohol		NR	NR	R	L
hydrogen peroxide(30%)		L	L	R	L

Solvent	Material	Polysulfone (PS) polyethersulfone (PES)	Modified polyethersulfone (mPES)	Polypropylene (PP)	Stainless steel (SS)
petroleum ether		R	R	R	U
nitric acid(5%)		R	R	R	R
nitric acid (25%)		R	R	R	R
nitric acid (6N)		L	L	L	R
acetonitrile		NR	NR	R	U
ether		NR	NR	L	R
ethyl acetate		NR	NR	R	L
amyl acetate (banana oil)		NR	NR	R	R
ethanol		R	R	R	R
ethanol(15%)		R	R	R	R
ethanol(95%)		L	L	R	R
ethylene glycol		R	R	R	L
hydrochloric acid (5%)		R	R	R	NR
hydrochloric acid (25%)		R	R	R	NR
hydrochloric acid(37%)		R	R	L	NR
Isopropyl alcohol		R	R	R	L
n-hexane		R	R	R	R

This table is for informational purposes only and is not a guarantee of chemical compatibility. Variations in temperature, concentration, exposure time and other factors may affect the performance of the product and it is recommended to test under your own conditions.

Quality assurance

TFFNOVA® hollow fiber filter is designed, developed and produced under the ISO 9001 quality management system. After the production be completed in an ISO CLASS 7 clean room, a quality certificate is issued after the products passing the inspection. Products with good quality specifications can meet the regulatory needs of biopharmaceutical customers.

- USP <88> Class VI Testing: All flow path materials have been tested confirmed to the USP <88> Class VI biocompatibility standards
- Bacterial endotoxin:TFFNOVA® hollow fiber filters are manufactured and assembled under strictly monitored conditions to ensure extremely low levels of bacterial endotoxin
- Free of Animal Origin: All raw materials used in these filter productions do not contain any animal or animal derived substances
- Shipping and Packaging Verification: SMAX has verified product shipping/packaging configurations to ISTA 3A (2008) requirements to ensure that sterile products are adequately protected from damage during shipping
- Product Validity: Non-sterile filters are valid for 5 years from the date of manufacture