

# Consieve UET & UFC TFF Cassettes and Systems



# Tangential Flow Filtration Technology

Tangential flow filtration is a membrane technology used for concentration, dialysis, separation by tangential flow, usually retaining the molecular weight of the Range: 1-1000KD.

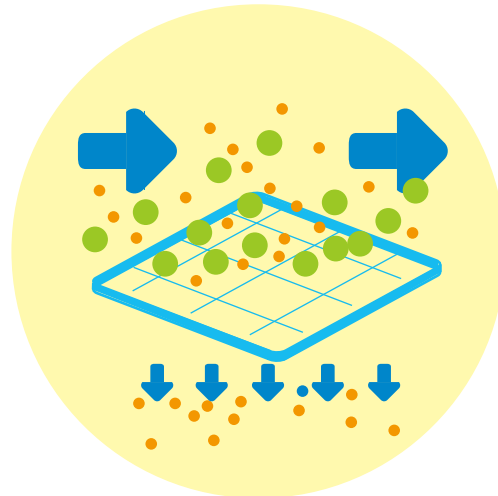
Unlike conventional vertical filtration, in tangential flow filtration, the fluid flows tangentially across the membrane surface and the transmembrane pressure difference created by the fluid presses a portion of the solution against the filter membrane, while the retained portion circulates back through the

system. During the whole process, the liquid flows continuously through the membrane surface at a certain speed, while ultrafiltration also flushes the membrane surface, so that the membrane surface is not easy to form a gel layer, so that the particles in the liquid will not quickly block the membrane, maintaining a stable filtration speed.

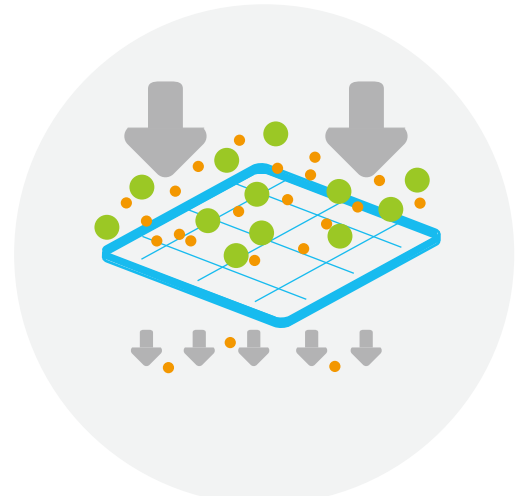
## Applications

Blood products  
Vaccines  
Recombinant protein  
Monoclonal  
Plasmids  
Chemical  
Traditional Chinese medicine injection

*Tangential flow filtration*

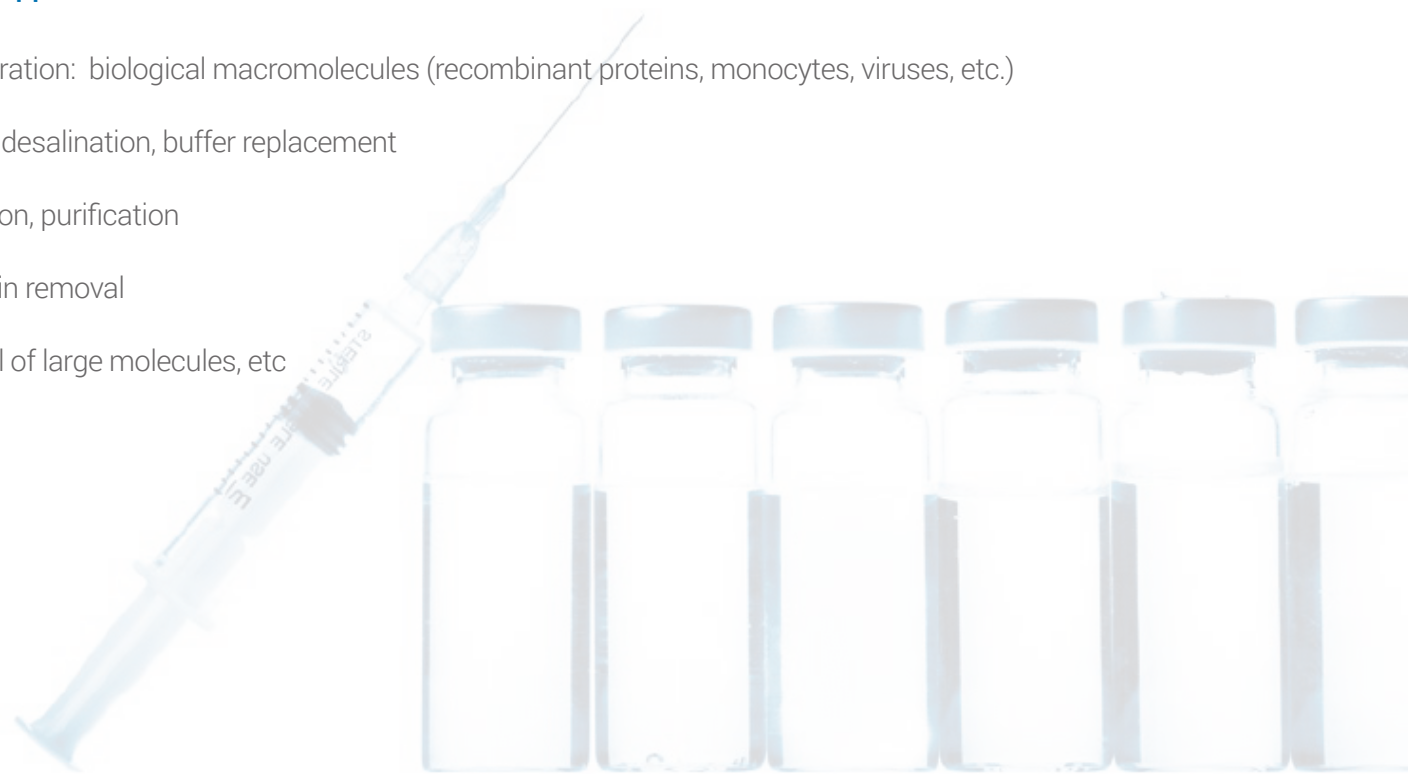


*Dead-End Filtration*



## Typical Applications

- Concentration: biological macromolecules (recombinant proteins, monocytes, viruses, etc.)
- Dialysis, desalination, buffer replacement
- Separation, purification
- Endotoxin removal
- Removal of large molecules, etc

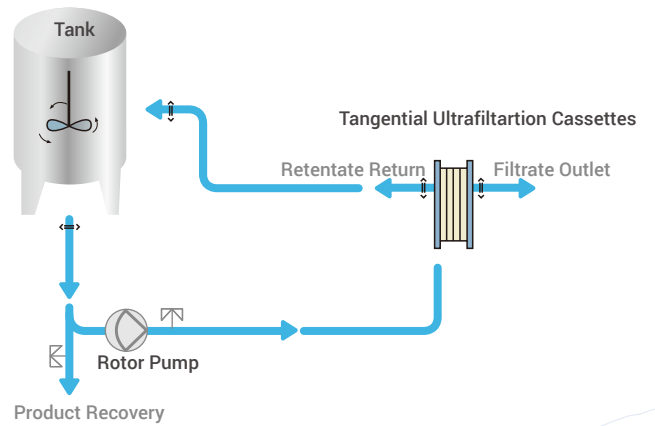


# Tangential Flow Simple Device

The tangential flow simple device is easy to operate, flexible configuration, small footprint, sanitary design.

Can be used for small trial, pilot, small scale production, fully linear scaling.

Pump	Peristaltic Pump			
Holder	Sanitary Cassette Holder			
Membrane	Lab	100cm <sup>2</sup>	200cm <sup>2</sup>	0.11m <sup>2</sup>
	Flow	0.46m <sup>2</sup>	0.5m <sup>2</sup>	2.33m <sup>2</sup> 2.5m <sup>2</sup>
Pipe	Hygienic silicone tubes, autoclavable			
Pressure Gauge	Sanitary diaphragm pressure gauge			
Connections	Sanitary clamp connection			



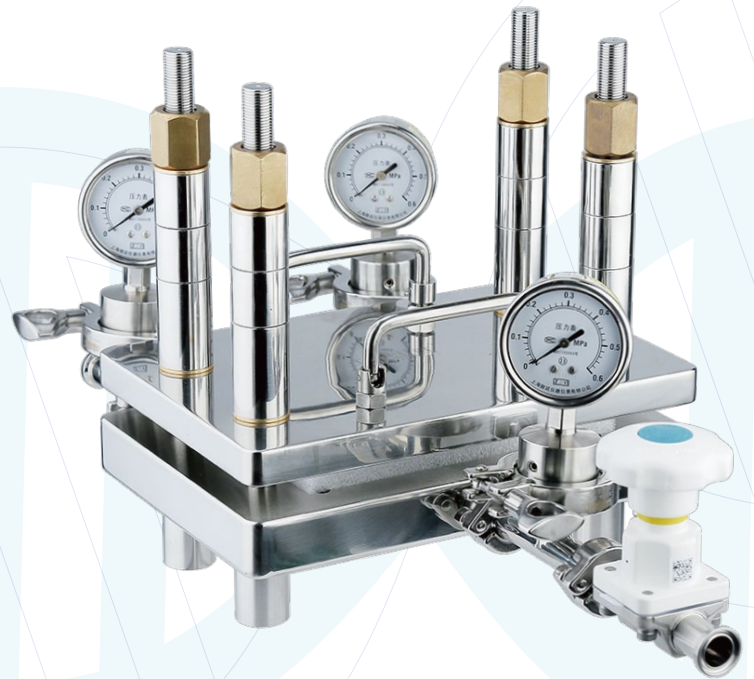
## 0.1 m<sup>2</sup> Stainless Steel Holder

Process development and small-volume parentals production with an EFA of 100cm<sup>2</sup>/200cm<sup>2</sup>/0.1m<sup>2</sup>. Unique design is fully compliant with biopharmaceutical applications and their requirements.



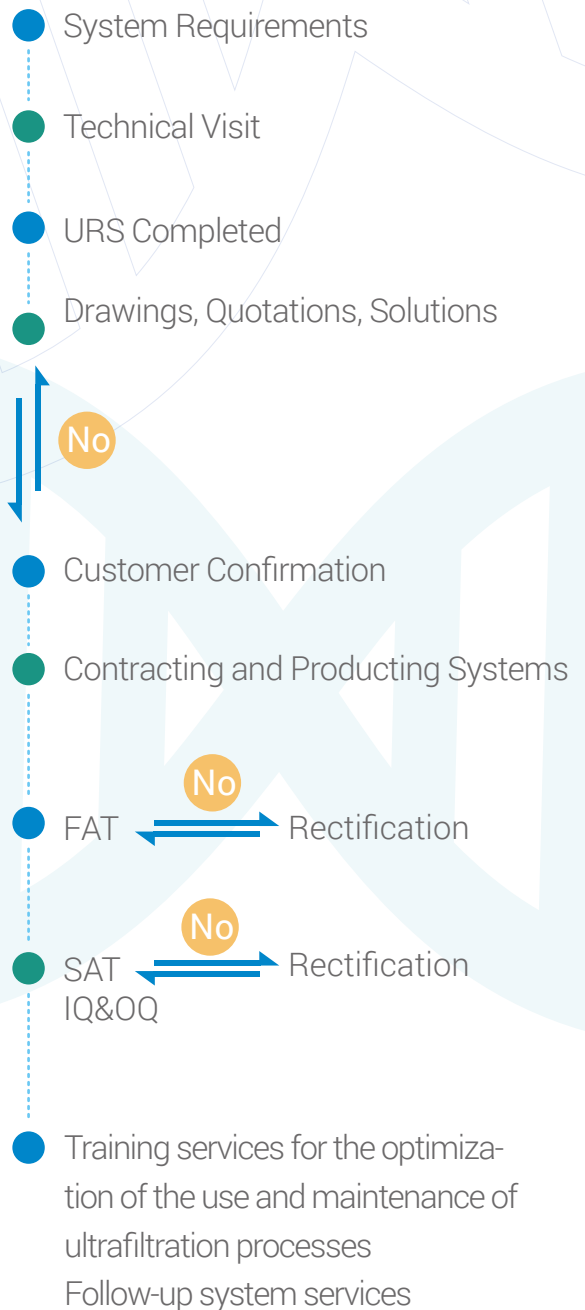
## 0.5 m<sup>2</sup> Stainless Steel Holder

Accomodate an effective filter area of 0.46 - 2.5 m<sup>2</sup> up to 5 m<sup>2</sup>



# Customized Ultrafiltration System for Lab Pilot & Process Scale Application

- Mass flowmeter, electromagnetic flowmeter, pH meter, conductivity meter and other testing equipment can be selected according to needs
- Automatic CIP/SIP, automatic detection of water flux, automatic concentration, constant-volume dialysis, automatic recycling, etc. can be achieved by editing methods
- Automatic adjustment/control of inlet or circulating flow rate and recording of flow rate change curve.
- Automatically monitor the inlet, retentate, and permeate pressure, calculate TMP automatically, realize TMP control, and record TMP curve.
- The retentate can be equipped with a precision TMP control valve for automatic and precise TMP control.  
Multi-level permission management with audit trail.



# Consieve UET & UFC TFF Cassettes

Consieve UET&UFC Cassette membranes have a high retention efficiency and are easy to clean/install. Available in a wide range of configurations.



Due to its design, it is easy to amplify/increase based on specific process requirements. The inner gaskets make installation/cleaning/storage/replacement quick and easy. Low working volume and high efficiency ensure product yields.



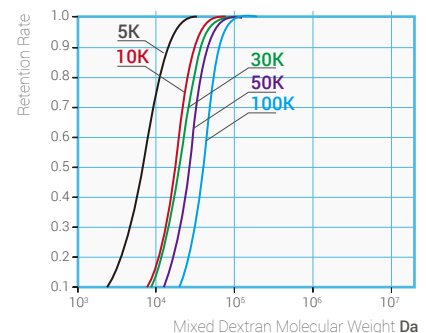
## Information

Materials	PES, RC
Material Features	Low protein binding and high product yield superior flow rates
PH Range	Broad chemical compatibility : PES pH 1-14, RC pH 2-13
NMWL	1/3/5/8/10/30/50/100/300/500/1000KD(PES) 1/2/3/5/8/10/30/100/300KD, 3KH/3KL(RC)
Operating Temperature Range	4-50°C
Max. Operating Pressure	4.0 bar @ 50°C
Diffusion Flow (Air)	0.11 m <sup>2</sup> ≤12ml/min@1.0bar, 0.46 m <sup>2</sup> ≤50ml/min@1.0bar 0.5 m <sup>2</sup> ≤55ml/min@1.0bar, 2.5 m <sup>2</sup> ≤270ml/min@1.0bar
Pressure Drop	0.3~0.6 bar (Circulation Flow Rate 6L/min/m <sup>2</sup> )

Types	Available Size	Applications	Throughput	Notes
Lab <b>LA</b>	100 cm <sup>2</sup> 200 cm <sup>2</sup> 0.11 m <sup>2</sup>	R&D R&D, Pilot Production	200-2000ml 5-50L	Membrane Cassette ; Stainless Steel Holder required
Flow <b>FL</b>	0.46m <sup>2</sup> 0.5m <sup>2</sup> 2.33m <sup>2</sup> 2.5m <sup>2</sup>	Pilot Production, Process Scale Production Pilot Production, Process Scale Production	> 50L > 50L	

Types	Consieve Flow	Consieve Flow B
Part No.	UFCFL0003250P	UFCFL0003B250P
Lot	3510SDR23410	3510SDR23411
Appearance		
Description	same raw material same production process difference in appearance	same raw material same production process difference in appearance
Materials of Construction	The Membrane , Encapsulant , Screen and the Gasket are all same	

PES Ultrafiltration Membrane  
- Mixed Dextran Retention Curve



## Ordering Information

### Cobetter Consieve UET Cassettes(Coarse Screen)

Application	Format	Screen Type	NMWL	Type	Effective Filtration Area	Industry
<b>UFE</b>	<b>LA</b>	<b>O</b>	<b>001</b>		<b>001</b>	<b>P</b>
Cobetter Consieve UET	LA Lab FL Flow	O Coarse Screen	001 1 KD 003 3 KD 005 5 KD 008 8 KD 010 10 KD 030 30 KD 050 50 KD 100 100 KD 300 300 KD 500 500 KD 01K 1000 KD	Blank	001 100 cm <sup>2</sup> (only Lab) 002 200 cm <sup>2</sup> (only Lab) 010 0.11 m <sup>2</sup> (only Lab) 050 0.46 m <sup>2</sup> (only Flow) 055 0.50 m <sup>2</sup> (only Flow) 250 2.33 m <sup>2</sup> (only Flow) 270 2.50 m <sup>2</sup> (only Flow)	P Pharmaceutical
<b>UFE</b>	<b>FL</b>	<b>O</b>		<b>B</b>		
Cobetter Consieve UET	FL Flow	O Coarse Screen		B	050 0.46 m <sup>2</sup> (only Flow) 055 0.50 m <sup>2</sup> (only Flow) 250 2.33 m <sup>2</sup> (only Flow) 270 2.50 m <sup>2</sup> (only Flow)	

### Cobetter Consieve UETA Cassettes(Tight Screen)

Application	Format	Screen Type	NMWL	Type	Effective Filtration Area	Industry
<b>UFE</b>	<b>LA</b>	<b>A</b>	<b>001</b>		<b>001</b>	<b>P</b>
Cobetter Consieve UET	LA Lab FL Flow	A Tight Screen	001 1 KD 003 3 KD 005 5 KD 008 8 KD 010 10 KD 030 30 KD 050 50 KD 100 100 KD 300 300 KD 500 500 KD 01K 1000 KD	Blank	001 100 cm <sup>2</sup> (only Lab) 002 200 cm <sup>2</sup> (only Lab) 010 0.11 m <sup>2</sup> (only Lab) 055 0.50 m <sup>2</sup> (only Flow) 270 2.50 m <sup>2</sup> (only Flow)	P Pharmaceutical
<b>UFE</b>	<b>FL</b>	<b>A</b>		<b>B</b>		
Cobetter Consieve UET	FL Flow	A Tight Screen		B	055 0.50 m <sup>2</sup> (only Flow) 270 2.50 m <sup>2</sup> (only Flow)	

### Cobetter Consieve UETV Cassettes(Suspended Coarse)

Application	Format	Screen Type	NMWL	Type	Effective Filtration Area	Industry
<b>UFE</b>	<b>LA</b>	<b>V</b>	<b>001</b>		<b>002</b>	<b>P</b>
Cobetter Consieve UET	LA Lab FL Flow	V Suspended Coarse	001 1 KD 003 3 KD 005 5 KD 008 8 KD 010 10 KD 030 30 KD 050 50 KD 100 100 KD 300 300 KD 500 500 KD 01K 1000 KD	Blank	002 200 cm <sup>2</sup> (only Lab) 010 0.11 m <sup>2</sup> (only Lab) 055 0.50 m <sup>2</sup> (only Flow) 270 2.50 m <sup>2</sup> (only Flow)	P Pharmaceutical
<b>UFE</b>	<b>FL</b>	<b>V</b>		<b>B</b>		
Cobetter Consieve UET	FL Flow	V Suspended Coarse		B	055 0.50 m <sup>2</sup> (only Flow) 270 2.50 m <sup>2</sup> (only Flow)	

### Cobetter Consieve UFC Cassettes(Coarse Screen)

Application	Format	Screen Type	NMWL	Type	Effective Filtration Area	Industry	
<b>UFC</b>	<b>LA</b>	<b>O</b>	<b>001</b>		<b>001</b>	<b>P</b>	
Cobetter Consieve UFC	Lab Flow	Coarse Screen	001	1 KD	Blank	001	100 cm <sup>2</sup> (only Lab)
			002	2 KD		002	200 cm <sup>2</sup> (only Lab)
			003L	3 KDL		010	0.11 m <sup>2</sup> (only Lab)
			003H	3 KDH		050	0.46 m <sup>2</sup> (only Flow)
			003	3 KD		055	0.50 m <sup>2</sup> (only Flow)
			005	5 KD		250	2.33 m <sup>2</sup> (only Flow)
			008	8 KD		270	2.50 m <sup>2</sup> (only Flow)
			010	10 KD			
			030	30 KD			
			100	100 KD			
<b>UFC</b>	<b>FL</b>	<b>O</b>	<b>300</b>	<b>B</b>	<b>050</b>		
Cobetter Consieve UFC	Flow	Coarse Screen	300	300 KD	B	050	0.46 m <sup>2</sup> (only Flow)
			055	0.50 m <sup>2</sup> (only Flow)			
			250	2.33 m <sup>2</sup> (only Flow)			
			270	2.50 m <sup>2</sup> (only Flow)			

### Cobetter Consieve UFCA Cassettes(Tight Screen)

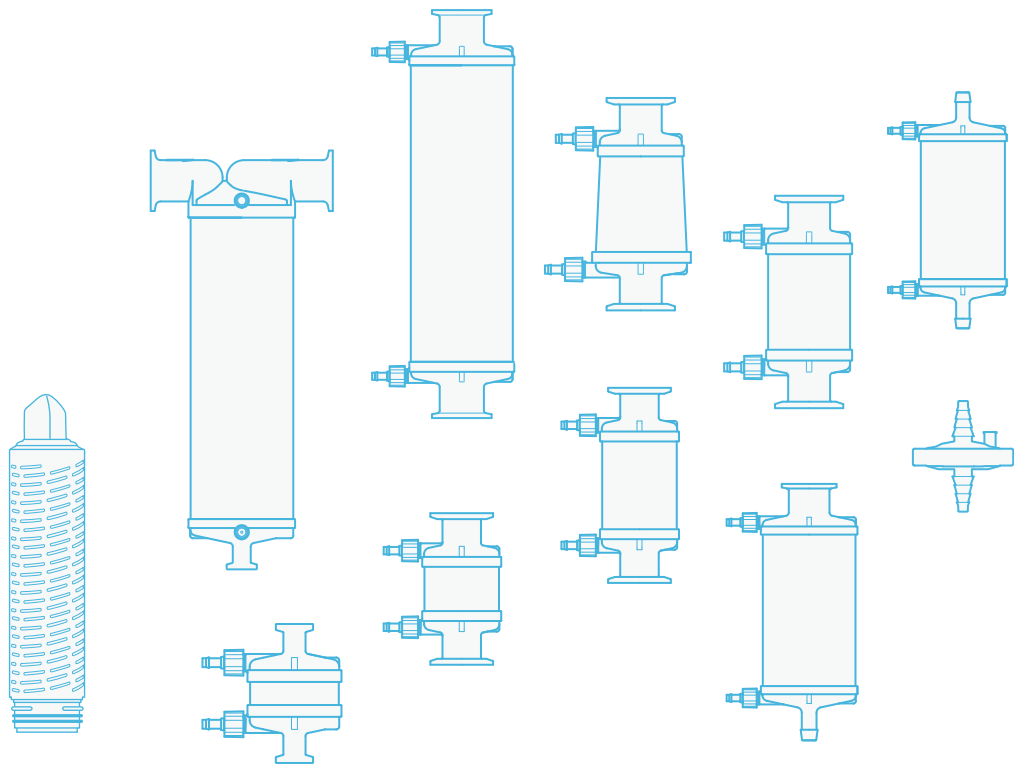
Application	Format	Screen Type	NMWL	Type	Effective Filtration Area	Industry	
<b>UFC</b>	<b>LA</b>	<b>A</b>	<b>030</b>		<b>001</b>	<b>P</b>	
Cobetter Consieve UFC	Lab Flow	Tight Screen	030	30 KD	Blank	001	100 cm <sup>2</sup> (only Lab)
			002	200 cm <sup>2</sup> (only Lab)			
			010	0.11 m <sup>2</sup> (only Lab)			
			055	0.50 m <sup>2</sup> (only Flow)			
			270	2.50 m <sup>2</sup> (only Flow)			
<b>UFC</b>	<b>FL</b>	<b>A</b>		<b>B</b>	<b>055</b>		
Cobetter Consieve UFC	Flow	Tight Screen		B	055	0.50 m <sup>2</sup> (only Flow)	
			270		2.50 m <sup>2</sup> (only Flow)		

### Cobetter Consieve UFCV Cassettes(Suspended Coarse)

Application	Format	Screen Type	NMWL	Type	Effective Filtration Area	Industry				
<b>UFC</b>	<b>LA</b>	<b>V</b>	<b>001</b>		<b>002</b>	<b>P</b>				
Cobetter Consieve UFC	Lab Flow	Suspended Coarse	001	1 KD	Blank	002	200 cm <sup>2</sup> (only Lab)			
			002	2 KD		010	0.11 m <sup>2</sup> (only Lab)			
			003L	3 KDL		055	0.50 m <sup>2</sup> (only Flow)			
			003H	3 KDH		270	2.50 m <sup>2</sup> (only Flow)			
			003	3 KD						
			005	5 KD						
			008	8 KD						
			010	10 KD						
			030	30 KD						
			100	100 KD						
			300	300 KD						
			<b>UFC</b>	<b>FL</b>		<b>V</b>		<b>B</b>	<b>055</b>	
			Cobetter Consieve UFC	Flow		Suspended Coarse		B	055	0.50 m <sup>2</sup> (only Flow)
270	2.50 m <sup>2</sup> (only Flow)									

# Our Mission

Committed to providing excellent products and continuous innovative solutions, we help customers optimise their process and improve product quality.



Please contact us for more in  
**Hangzhou Cobetter Filtration Equipment Co.,Ltd.**

Sales Add 13-18 F, Building 1, Zicheng International Innovation Center,  
No.39 Jincheng Road, Xiaoshan District, Hangzhou 311215, China

Factory Cobetter Park, Heshang New Material Industrial Park,  
Xiaoshan District, Hangzhou 311265, China

Tel +86 400-070-4266

Fax +86 571-87704256

[www.cobetterfiltration.com](http://www.cobetterfiltration.com)