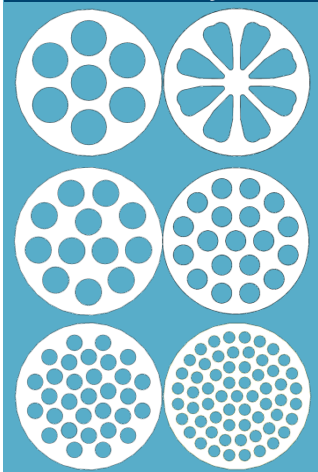


Kleansep™ MEMBRANE



The membranes are ceramic filters tubular

SPECIFICATIONS		Geometry	
Support:	monolithic TiO ₂ – Al ₂ O ₃	Microfiltration	
External diameter/length:	25 mm / 1178 mm		
Number of channels:	7 - 8 - 12 - 19 - 31 - 61	<ul style="list-style-type: none"> • 1,0 µm • 0,8 µm • 0,45 µm • • 0,2 µm • 0,1 µm HR • 	
Membrane code:	X - E - D - W - H - S		
Diameter of channels:	6 - 5 - 4,5 - 3,5 - 2,8 - 2,0 mm	Ultrafiltration	
Membrane:	ZrO ₂ / TiO ₂		
Bursting pressure:	80 bar	<ul style="list-style-type: none"> • 300 kD HF • 150 kD • 50 kD • • 15 kD • 8 kD • 	
Service pressure:	10 bar		
pH range:	0 – 14	Nanofiltration	
Sterilization:	121°C		
Sterilization by oxidants:	yes	<ul style="list-style-type: none"> • 5 kD • 1 kD • 	
Solvents / radiations:	unaffected		
Temperature limitation:	up to 150°C		



Detailed MODULE K138 flanged

The filter modules are equipped with ceramic membranes

GEOMETRY OF MODULES		Number of channels - Membrane area in sqm					
Modules	Quantity of membranes	7	8	12	19	31	61
Module K01	1 membrane	0,16	0,2	0,2	0,25	0,33	0,45
Module K03	3 membranes	0,48	0,6	0,6	0,75	0,99	1,35
Module K07	7 membranes	1,12	1,4	1,4	1,75	2,31	3,15
Module K19	19 membranes	3,04	3,8	3,8	4,75	6,27	8,55
Module K37	37 membranes	5,92	7,4	7,4	9,25	12,21	16,65
Module K99	99 membranes	15,84	19,8	19,8	24,75	32,67	44,55
Module K138	138 membranes	22,08	27,6	27,6	34,5	45,54	62,1

The modules are available in different types of steel: 316L, 316Ti, Uranus B6, Hastelloy C22, Hastelloy C276 ...

Connections

Connecting type	Clamp fitting connection		Flanged connection	
	Retentate	Permeate	Retentate	Permeate
Module K01	SMS DN25	SMS DN25	NA	NA
Module K03	SMS DN104	SMS DN25	ISO DN80	ISO DN20
Module K07	SMS DN104	SMS DN25	ISO DN100	ISO DN20
Module K19	ISO DN150	SMS DN25	ISO DN150	ISO DN20
Module K37	ISO DN200	SMS DN38	ISO DN200	ISO DN32
Module K99	hook Ø 354 mm	SMS fitting DN51	ASME DN350	ASME DN65
Module K138	NA	NA	ASME DN400	ASME DN65

Gaskets

Modules	EPDM	FPM	NBR	Silicone
Module K01	✓	✓	✓	✓
Module K03	✓	✓	✓	✓
Module K07	✓	✓	✓	✓
Module K19	✓	✓	✓	✓
Module K37	✓	✓	✓	✓
Module K99	✓	✓	✓	✓
Module K138	✓	✓	✓	✓