



## HM UF 60 PES High Performance Ultrafiltration Module

- High Strength Modified PES Hollow Fiber Membranes
- Low Operating Pressure & Power Consumption
- No Air Scouring required

### Membrane Specifications:

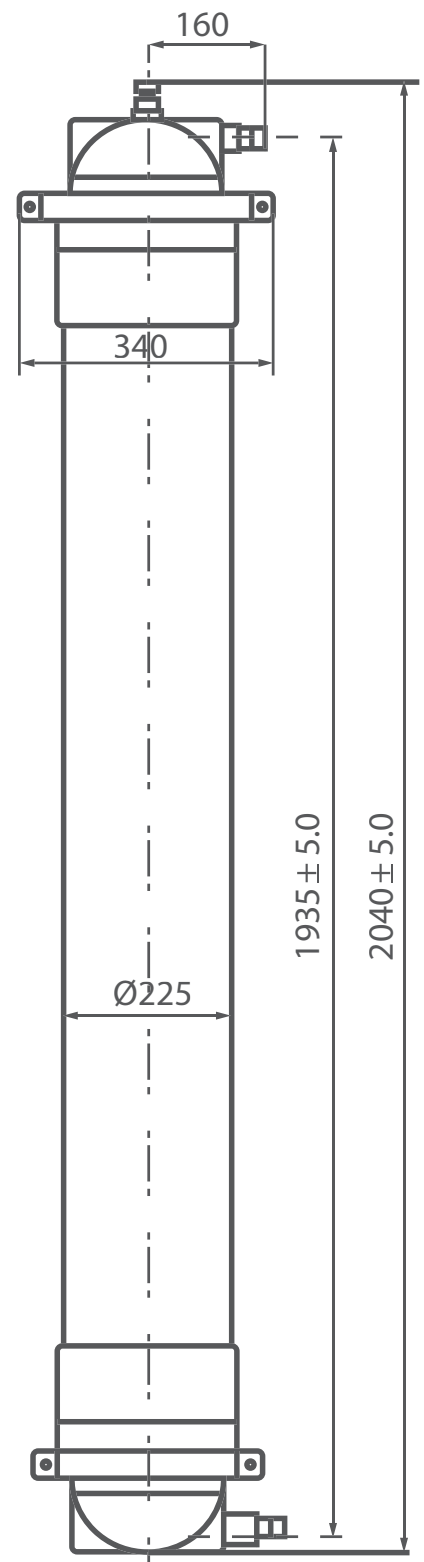
Model		HM UF 60 PES
Type		Hollow Fiber Ultrafiltration
Material		Modified Polyether Sulphone
Nominal Pore Size	nm ( $\mu$ )	20 (0.02)
MWCO	Dalton	100,000
Fiber Bore Diameter (Inner)	mm	0.9
Fiber Bore Diameter (Outer)	mm	1.5
MOC:		
Housing		UPVC
End Cap / Couplings		GFPP

### Module Data:

Membrane Surface Area (Active)	m <sup>2</sup>	60
Outer Diameter Housing	mm	225
Total Module Length	mm	2040 $\pm$ 5.0
Distance between feed ports	mm	1935 $\pm$ 5.0
Distance feed - module center axis	mm	160 $\pm$ 2.0
Feed / Permeate Port	Inch	2" Victaulic End
Backwash In / Out	Inch	2" Victaulic End
Empty Weight With End caps	kgs	50

### Operational Data:

Mode of Operation		In to Out (Dead End / Cross Flow)
Operating Flux Range	gfd (lmh)	18 - 70 (30 - 120)
Operating Temperature	°C	15 - 45
Feed Pressure Operating Range	bar	2.0 to 2.5
Burst Pressure (Housing)	bar	6.0
Trans membrane Pressure	bar	1.0 - 1.4
pH Range Operation		4.0 - 10.0
Chlorine Tolerance Instantaneous	ppm	250 (for short duration)
Chlorine Tolerance Maximum	ppm-hrs	200,000
Max Feed TSS	ppm	$\leq$ 25
Max Feed Turbidity	NTU	$\leq$ 25
Oil & Grease		Nil



## Performance Details:

Filtrate Flow Range	gpm (m <sup>3</sup> /hr)	8 - 32 (1.8 - 7.2)
Filtrate SDI		≤ 3
Filtrate Turbidity	NTU	≤ 0.5
Bacteria / Virus Reduction	log	4

## Process Data:

Backwash Flux	gfd (lmh)	100 - 141 (170 - 240)
Backwash Pressure	bar	1.5 - 2.5
Backwash Frequency		Once in every 30 - 60 min*
Backwash Duration	sec	30 - 60*
Forward Flush Duration	sec	15 - 45*
Forward Flush Flow	m <sup>3</sup> /hr	Feed Flow*
Chemical Enhanced Backwash		Once in 8/16/24 hrs*
NaOH	pH	12 -- 13
HCL	pH	3 -- 4
Disinfection Chemicals		NaOCl

Note:

\*Backwash / CEB / CIP frequency & duration shall be as per the design based on the feed water source, quality & fluctuations

Important Warnings & Information:

- For the recommended design range & guidelines, please follow this technical bulletin or call an application specialist. If the operating limits given in this product information bulletin are not strictly followed, the warranty will be null and void.
- The customer is fully responsible for the effects of chemicals that are incompatible with the membrane modules.



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