



# Hollow Fiber MBR Module



## Company profile

imemflo MBR module from the Makers of ATB WATER GmbH [Germany] winner of GreenTech Award have integrated skills and expertise in water and waste water treatment technologies. imemflo's high quality MBR modules and complementary water / waste water treatment products to help our customers improve their competitiveness and plant performance. The professional membrane products manufactured for microfiltration, ultrafiltration, nano filtration and reverse osmosis, provide value to the customers. The main objective on which imemflo strive is to build leadership in the membrane market.

imemflo as one of the main product of ATB WATER GmbH the German waste water Treatment company, include flat sheet and hollow fibre membrane, commonly known MBR module / submerged ultrafiltration. This is used for both Industrial & Domestic waste water treatment.

Imemflo has always focused on membrane research and development to meet customers stringent filtration needs and now available as flat sheet [F-MBR] and hollow fibre module [HF-MBR]

We have been cooperating with many steady customers worldwide. To meet customers 'requirements, we not only supply membrane products, but also membrane process design, system consultant service. Our key employees have more than a decade experience in membrane production and applications.

Imemflo devote to supply membrane products for liquid separation, concentration and clarification with guaranteed consistent membrane quality and also to deliver more efficient membrane process for a greater success for you in your markets.

We respect quality and are driven by quality standards. Each MBR module is engraved with unique identification code to facilitate tracking of the product quality with 100% integrity test on every product with stringent standards which has established our products as reputed high quality in the water field.

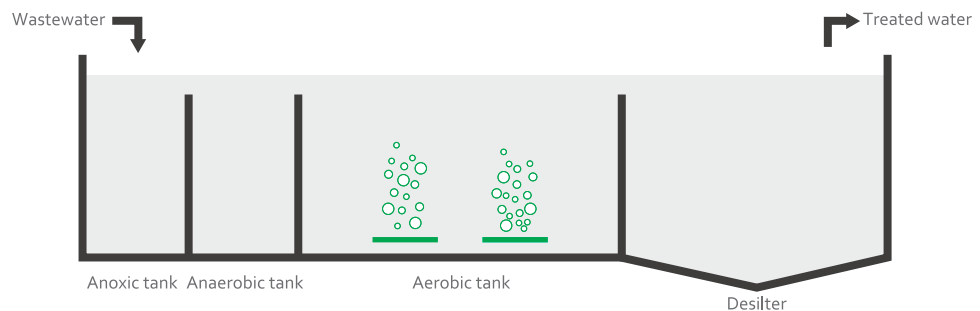
The product is applied successfully in the field of emulsified WWTP, Landfill leachate treatment, Domestic sewage Treatment, Laundry waste water treatment and industrial waste water treatment.

## Hollow Fiber MBR (HF-MBR)

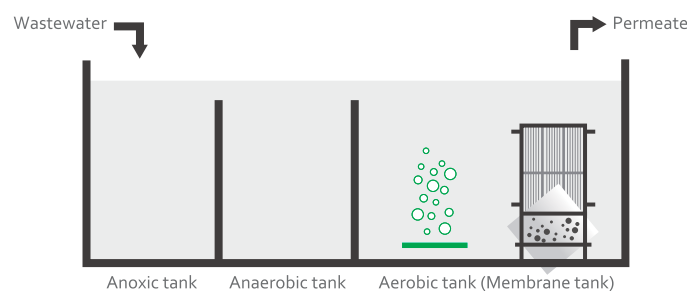
### MBR Introduction

Membrane bioreactor (MBR) is the combination of a membrane process like microfiltration or ultrafiltration with the biological wastewater treatment process and the activated sludge process. It is now widely used for municipal and industrial wastewater treatment. This bioreactor possesses the advantages of membrane filtration and biological treatment technology. Membrane modules, which can replace the secondary sedimentation tank, are used to separate mud and water. The MBR process has obvious advantages compared to the traditional wastewater treatment technology.

### Traditional wastewater treatment process



### MBR Process



### MBR Advantages

- Effluent high quality (low turbidity, low TSS) for regulatory or reuse purposes.
- Not reliant on input water MLSS.
- Longer activated sludge age and lower sludge disposal costs.
- Smaller footprint.
- Easy operation.

## Hollow Fiber MBR - Module

### Module & Details

Imemflo HF-MBR is assembled as a complete filtration module. It consists of a stainless-steel cage or skid made up of several elements including hollow fiber membranes of imemflo series.

Imemflo HF- MBR element has a bi-directional suction configuration to enhance filtration performances. HF-MBR allows large flux and low investment cost.



Air Diffuser  
SS AISI304 or AISI316



Cage and pipes  
SS AISI304 or AISI316



PVDF Membrane Element  
(6 to 40m<sup>2</sup>)

## PVDF Hollow Fiber

Imemflo 's HF-MBR-IA/IB elements have a microporous structure in the membrane's surface of 0.25  $\mu$  for optimal microfiltration. PVDF materials delivers greater strength & durability.

Imemflo HF-MBR-IA/IB Series membranes are made of a strong tubular woven tube and coated with a functional layer of our proprietary permanently hydrophilic PVDF membrane

### PVDF Material Features

- Permanently hydrophilic
- Enhanced durability tensile strength
- High permeability
- Excellent chemical resistance

# MBR – MEMBRANE BIOREACTOR

## HOLLOW FIBRE MEMBRANE

### HFMBR



imemflo HFMBR PVDF Series, is a high-quality reinforced Hollow Fibre MBR membrane optimized for small to large flux wastewater treatment plants.

Structured with PVDF (permanently hydrophilic polyvinyl difluoride) has the advantage of dry storage.

HFMBR PVDF Series membranes can be used for a wide variety of treatment applications such as industrial and domestic wastewaters.

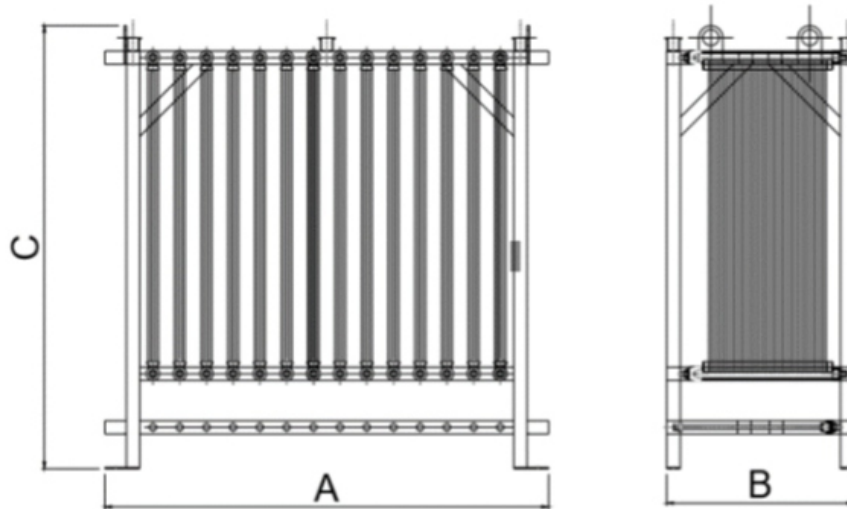


- Permanently hydrophilic
- High chlorine tolerance
- Backwashable Membrane
- High Packing Density



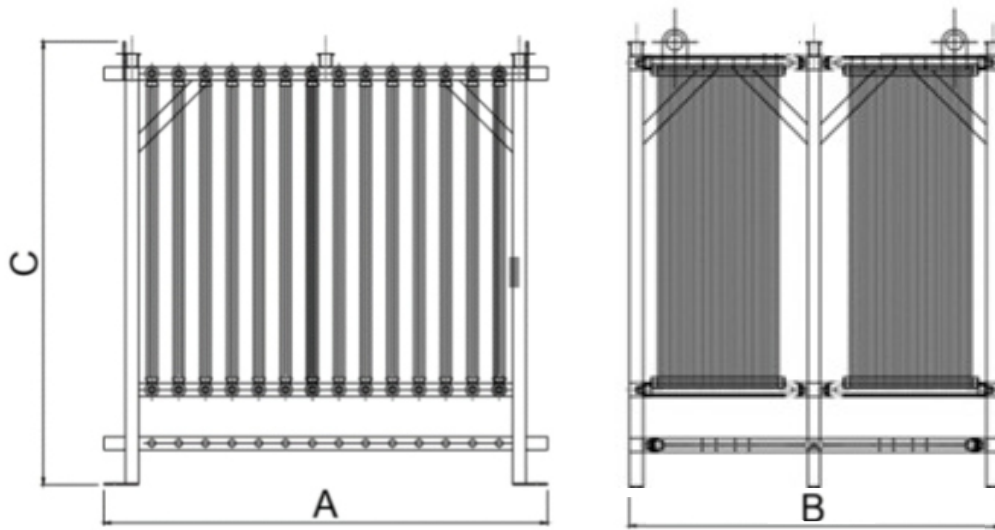
Product specification		
Effective membrane area	M2	6
Height	MM	800
Thickness	MM	45
Length	MM	610
Dry weight	Kg	3.8
ID/OD	MM	2.0/2.5
Nominal pore size	µm	0.04/0.2
Membrane Material		Reinforced PVDF
Product Performance		
Storage	Dry Storage	
Design Flux	LMH	0-25
MLSS	PPM	4000 -12000
Operation Specifications		
Operating Temperature	°C	5 -40
DO Concentration	PPM	>1
pH Range		5 - 9
Operating Trans. Pressure	Mbar	100-300
Operating Mode (Permeate-Relaxation)	Min	08-02
Max. Pressure Drop	Mbar	200
Maximum Backwash pressure	Mbar	2000
TMP	Mbar	Initial pressure
Max TMP	Mbar	400

# HFMBR – IA 06



Model No.	No. of Cassettes	Membrane Area m <sup>2</sup>	A Length	B Width	C Height	Wt. of Module (Kg.)	Permeate Nozzle	Air Nozzle	Guide Pipe	Linear Velocity (75m/s) min, Aeration m <sup>3</sup> /hr	Linear Velocity (125m/s) Standard, Aeration m <sup>3</sup> /hr	Linear Velocity (150m/s) Max, Aeration m <sup>3</sup> /hr
HFMBR IA 06-2	2	12	460	700	1260	72.5	DN 40	DN 40	DN 40	4.32	7.20	8.64
HFMBR IA 06-4	4	24	660	700	1260	77.5	DN 40	DN 40	DN 40	8.64	14.40	17.28
HFMBR IA 06-6	6	36	860	700	1260	82.5	DN 40	DN 40	DN 40	12.96	21.60	25.92
HFMBR IA 06-8	8	48	1060	700	1260	87.5	DN 40	DN 40	DN 40	17.28	28.80	34.56
HFMBR IA 06-10	10	60	1260	700	1260	92.5	DN 40	DN 40	DN 40	21.60	36.00	43.20
HFMBR IA 06-12	12	72	1460	700	1260	97.5	DN 40*2	DN 40*2	DN 40	25.92	43.20	51.84
HFMBR IA 06-14	14	84	1660	700	1260	102.5	DN 40*2	DN 40*2	DN 40	30.24	50.40	60.48
HFMBR IA 06-16	16	96	1860	700	1260	107.5	DN 40*2	DN 40*2	DN 40	34.56	57.60	69.12
HFMBR IA 06-18	18	108	2060	700	1260	112.5	DN 40*2	DN 40*2	DN 40	38.88	64.80	77.76
HFMBR IA 06-20	20	120	2260	700	1260	117.5	DN 40*2	DN 40*2	DN 40	43.20	72.00	86.40
HFMBR IA 06-22	22	132	2460	700	1260	122.5	DN 40*2	DN 50*2	DN 65	47.52	79.20	95.04
HFMBR IA 06-24	24	144	2660	700	1260	127.5	DN 40*2	DN 50*2	DN 65	51.84	86.40	103.68
HFMBR IA 06-26	26	156	2860	700	1260	132.5	DN 40*2	DN 50*2	DN 65	56.16	93.60	112.32
HFMBR IA 06-28	28	168	3060	700	1260	137.5	DN 40*2	DN 50*2	DN 65	60.48	100.80	120.96
HFMBR IA 06-30	30	180	3260	700	1260	142.5	DN 40*2	DN 50*2	DN 65	64.80	108.00	129.60

# HFMBR – IA D 06



Model No.	No. of Cassettes	Membrane area M2	A LENGTH	B WIDTH	C HEIGHT	(Kg)Total Wt. of Module	Permeate Nozzle	Air Nozzle	Guide Pipe	Linear Velocity (75 m/s) min. Aeration m3/hr	Linear Velocity (125m/s) Standard Aeration m3/hr	Linear Velocity (150 m/s) max. Aeration m3/hr
HFMBR IA D 06-4	4	24	460	1360	1260	55.2	DN 40	DN 40	DN 40	8.64	14.40	17.28
HFMBR IA D 06-8	8	48	660	1360	1260	75.4	DN 40	DN 40	DN 40	17.28	28.80	34.56
HFMBR IA D 06-12	12	72	860	1360	1260	95.6	DN 40*2	DN 40*2	DN 40	25.92	43.20	51.84
HFMBR IA D 06-16	16	96	1060	1360	1260	115.8	DN 40*2	DN 40*2	DN 40	34.56	57.60	69.12
HFMBR IA D 06-20	20	120	1260	1360	1260	136	DN 50*2	DN 50*2	DN 65	43.20	72.00	86.40
HFMBR IA D 06-24	24	144	1460	1360	1260	156.2	DN 50*2	DN 50*2	DN 65	51.84	86.40	103.68
HFMBR IA D 06-28	28	168	1660	1360	1260	176.4	DN 50*2	DN 50*2	DN 65	60.48	100.80	120.96
HFMBR IA D 06-32	32	192	1860	1360	1260	196.6	DN 50*2	DN 50*2	DN 65	69.12	115.20	138.24
HFMBR IA D 06-36	36	216	2060	1360	1260	216.8	DN 50*2	DN 50*2	DN 65	77.76	129.60	155.52
HFMBR IA D 06-40	40	240	2260	1360	1260	237	DN 50*2	DN 50*2	DN 65	86.40	144.00	172.80
HFMBR IA D 06-44	44	264	2460	1360	1260	257.2	DN 50*2	DN 50*2	DN 65	95.04	158.40	190.08
HFMBR IA D 06-48	48	288	2660	1360	1260	277.4	DN 50*2	DN 50*2	DN 65	103.68	172.80	207.36
HFMBR IA D 06-52	52	312	2860	1360	1260	297.6	DN 50*2	DN 50*2	DN 65	112.32	187.20	224.64
HFMBR IA D 06-56	56	336	3060	1360	1260	317.8	DN 50*2	DN 50*2	DN 65	120.96	201.60	241.92
HFMBR IA D 06-60	60	360	3260	1360	1260	338	DN 50*2	DN 50*2	DN 65	129.60	216.00	259.20

# MBR – MEMBRANE BIOREACTOR

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HFMBR PVDF Series membranes can be used for a wide variety of treatment applications such as industrial and domestic wastewaters.

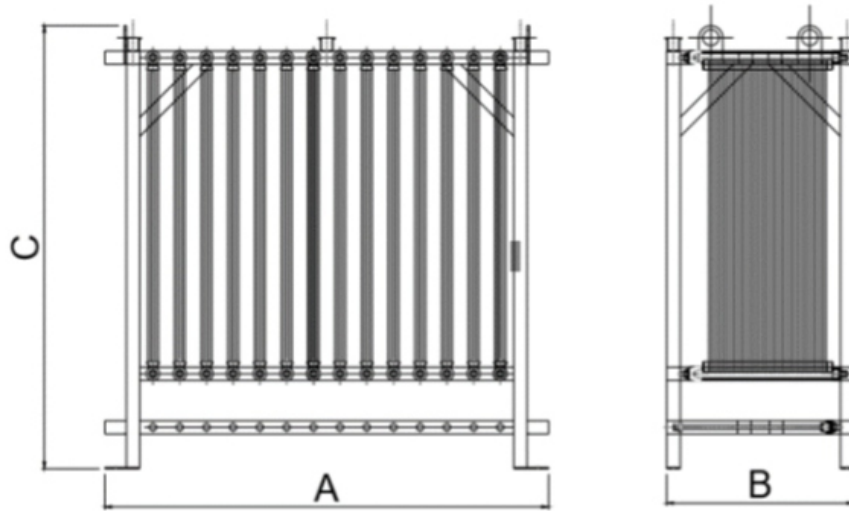


- Permanently hydrophilic
- High chlorine tolerance
- Backwashable Membrane
- High Packing Density



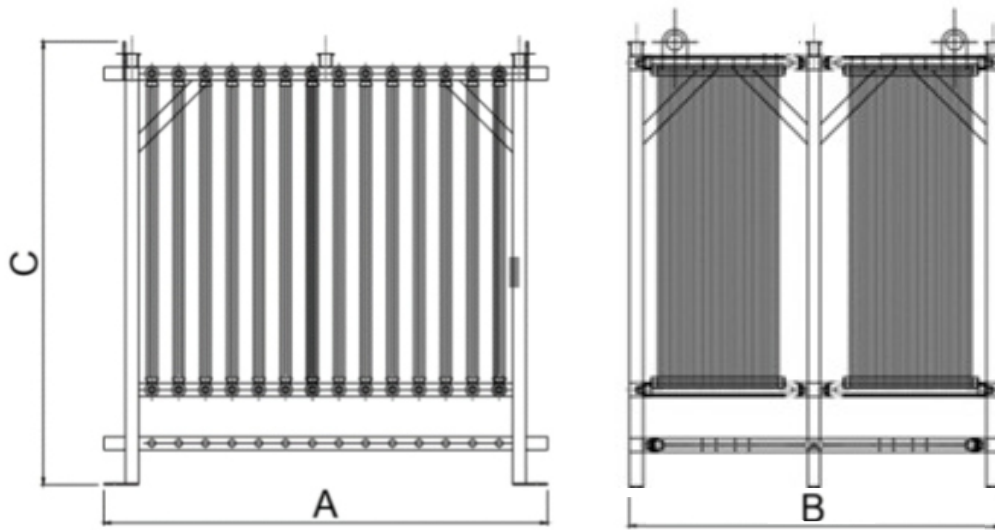
Product specification		
Effective membrane area	M2	10
Height	MM	1200
Thickness	MM	45
Length	MM	610
Dry weight	Kg	5
ID/OD	MM	2.0/2.5
Nominal pore size	µm	0.04/0.2
Membrane Material		Reinforced PVDF
Product Performance		
Storage	Dry Storage	
Design Flux	LMH	0-25
MLSS	PPM	4000 -12000
Operation Specifications		
Operating Temperature	°c	5 -40
DO Concentration	PPM	>1
pH Range		5 - 9
Operating Trans. Pressure	Mbar	100-500
Operating Mode (Permeate-Relaxation)	Min	08-02
Max. Pressure Drop	Mbar	200
Maximum Backwash pressure	Mbar	2000
TMP	Mbar	Initial pressure
Max TMP	Mbar	400

# HFMBR – IA 10



Model No.	No. of Cassettes	Membrane area M2	A LENGTH	B WIDTH	C HEIGHT	Wt. of module (Kg)	Permeate nozzle	Air Nozzle	Guide pipe	Linear velocity (75 m/s) min. Aeration m3/hr	Linear velocity (125m/s) standard Aeration m3/hr	Linear velocity (150 m/s)max. Aeration m3/hr
HFMBR IA 10-2	2	20	460	700	1660	60	DN 40	DN 40*2	DN 40	5.40	9.00	10.80
HFMBR IA 10-4	4	40	660	700	1660	72.5	DN 40	DN 40*2	DN 40	10.80	18.00	21.60
HFMBR IA 10-6	6	60	860	700	1660	85	DN 40	DN 40*2	DN 40	16.20	27.00	32.40
HFMBR IA 10-8	8	80	1060	700	1660	97.5	DN 40	DN 40*2	DN 40	21.60	36.00	43.20
HFMBR IA 10-10	10	100	1260	700	1660	110	DN 40	DN 40*2	DN 40	27.00	45.00	54.00
HFMBR IA 10-12	12	120	1460	700	1660	122.5	DN 40*2	DN 40*2	DN 40	32.40	54.00	64.80
HFMBR IA 10-14	14	140	1660	700	1660	135	DN 40*2	DN 40*2	DN 40	37.80	63.00	75.60
HFMBR IA 10-16	16	160	1860	700	1660	147.5	DN 40*2	DN 40*2	DN 40	43.20	72.00	86.40
HFMBR IA 10-18	18	180	2060	700	1660	160	DN 40*2	DN 40*2	DN 40	48.60	81.00	97.20
HFMBR IA 10-20	20	200	2260	700	1660	172.5	DN 50*2	DN 50*2	DN 65	54.00	90.00	108.00
HFMBR IA 10-22	22	220	2460	700	1660	185	DN 50*2	DN 50*2	DN 65	59.40	99.00	118.80
HFMBR IA 10-24	24	240	2660	700	1660	197.5	DN 50*2	DN 50*2	DN 65	64.80	108.00	129.60
HFMBR IA 10-26	26	260	2860	700	1660	210	DN 50*2	DN 50*2	DN 65	70.20	117.00	140.40
HFMBR IA 10-28	28	280	3060	700	1660	222.5	DN 50*2	DN 50*2	DN 65	75.60	126.00	151.20
HFMBR IA 10-30	30	300	3260	700	1660	235	DN 50*2	DN 50*2	DN 65	81.00	135.00	162.00

# HFMBR – IA D 10



Model No.	No. of Cassettes	Membrane area M2	A LENGTH	B WIDTH	C HEIGHT	(Kg)Total wt. of module	Permeate nozzle	Air Nozzle	Guide pipe	Linear velocity (75 m/s) min. Aeration m3/hr	Linear velocity (125m/s) standard Aeration m3/hr	Linear velocity (150 m/s)max. Aeration m3/hr
HFMBR IA D 10-4	4	40	460	1360	1660	72.5	DN 40	DN 40	DN 40	10.80	18.00	21.60
HFMBR IA D 10-8	8	80	660	1360	1660	97.5	DN 40	DN 40	DN 40	21.60	36.00	43.20
HFMBR IA D 10-12	12	120	860	1360	1660	122.5	DN 40*2	DN 40*2	DN 40	32.40	54.00	64.80
HFMBR IA D 10-16	16	160	1060	1360	1660	147.5	DN 40*2	DN 40*2	DN 40	43.20	72.00	86.40
HFMBR IA D 10-20	20	200	1260	1360	1660	172.5	DN 50*2	DN 50*2	DN 65	54.00	90.00	108.00
HFMBR IA D 10-24	24	240	1460	1360	1660	197.5	DN 50*2	DN 50*2	DN 65	64.80	108.00	129.60
HFMBR IA D 10-28	28	280	1660	1360	1660	222.5	DN 50*2	DN 50*2	DN 65	75.60	126.00	151.20
HFMBR IA D 10-32	32	320	1860	1360	1660	247.5	DN 50*2	DN 50*2	DN 65	86.40	144.00	172.80
HFMBR IA D 10-36	36	360	2060	1360	1660	272.5	DN 50*2	DN 50*2	DN 65	97.20	162.00	194.40
HFMBR IA D 10-40	40	400	2260	1360	1660	297.5	DN 65*2	DN 50*4	DN 65	108.00	180.00	216.00
HFMBR IA D 10-44	44	440	2460	1360	1660	322.5	DN 65*2	DN 50*4	DN 65	118.80	198.00	237.60
HFMBR IA D 10-48	48	480	2660	1360	1660	347.5	DN 65*2	DN 50*4	DN 65	129.60	216.00	259.20
HFMBR IA D 10-52	52	520	2860	1360	1660	372.5	DN 65*2	DN 50*4	DN 65	140.40	234.00	280.80
HFMBR IA D 10-56	56	560	3060	1360	1660	397.5	DN 65*2	DN 50*4	DN 65	151.20	252.00	302.40
HFMBR IA D 10-60	60	600	3260	1360	1660	422.5	DN 65*2	DN 50*4	DN 65	162.00	270.00	324.00

# MBR – MEMBRANE BIOREACTOR

## HOLLOW FIBRE MEMBRANE

### HFMBR



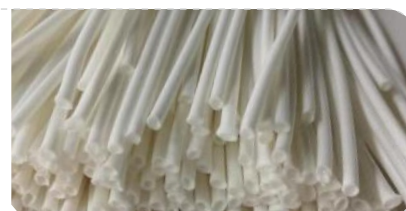
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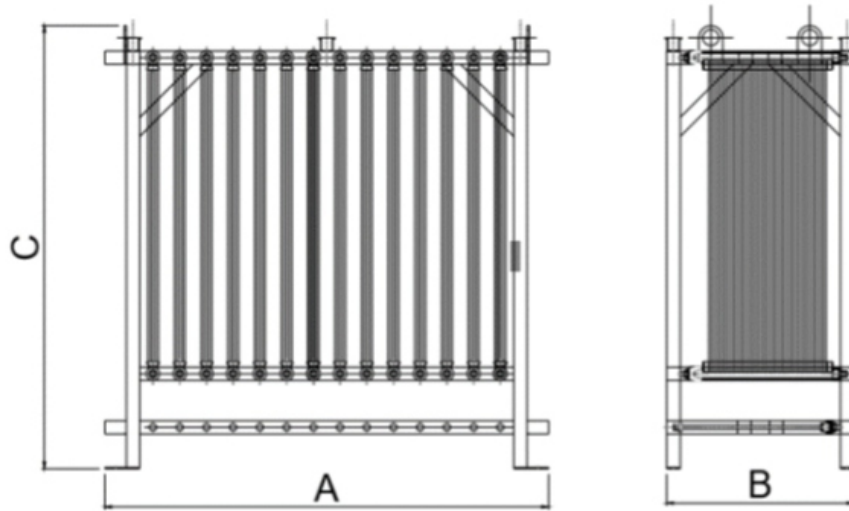


- Permanently hydrophilic
- High chlorine tolerance
- Backwashable Membrane
- High Packing Density



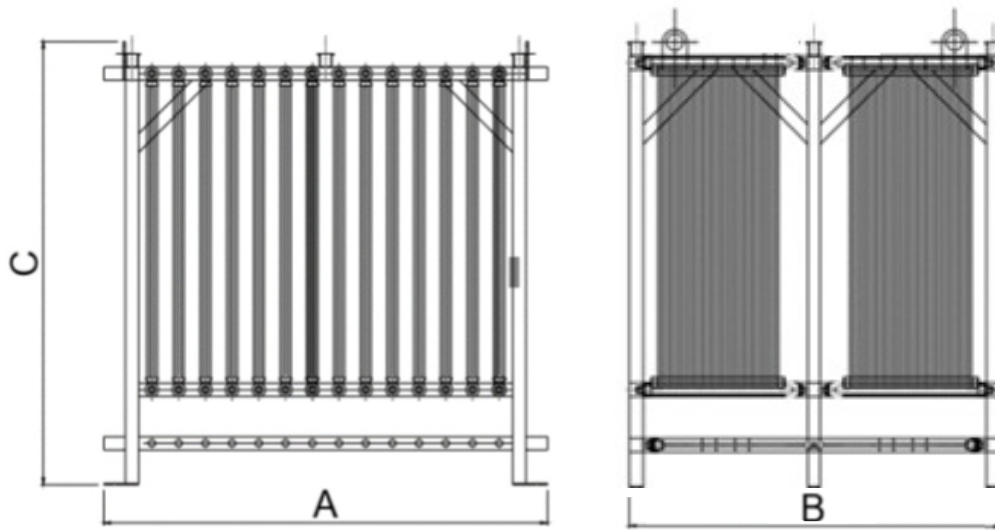
Product specification		
Effective membrane area	M2	15
Height	MM	2000
Thickness	MM	45
Length	MM	610
Dry weight	Kg	8
ID/OD	MM	2.0/2.5
Nominal pore size	µm	0.04/0.2
Membrane Material		Reinforced PVDF
Product Performance		
Storage	Dry Storage	
Design Flux	LMH	0-25
MLSS	PPM	4000 -12000
Operation Specifications		
Operating Temperature	°c	5 -40
DO Concentration	PPM	>1
pH Range		5 - 9
Operating Trans. Pressure	Mbar	100-500
Operating Mode (Permeate-Relaxation)	Min	08-02
Max. Pressure Drop	Mbar	200
Maximum Backwash pressure	Mbar	2000
TMP	Mbar	Initial pressure
Max TMP	Mbar	400

# HFMBR – IA 15



Model No.	No. of Cassettes	Membrane area M2	A LENGTH	B WIDTH	C HEIGHT	Wt. of module (Kg)	Permeate nozzle	Air Nozzle	Guide pipe	Linear velocity (75 m/s) min. Aeration m3/hr	Linear velocity (125m/s) standard Aeration m3/hr	Linear velocity (150 m/s)max. Aeration m3/hr
HFMBR IA 15-2	2	30	460	700	2460	81	DN 40	DN 40*2	DN 40	7.20	11.99	14.39
HFMBR IA 15-4	4	60	660	700	2460	2460	2460	2460	2460	2460	23.99	28.78
HFMBR IA 15-6	6	90	860	700	2460	118	DN 40	DN 40*2	DN 40	21.59	35.98	43.17
HFMBR IA 15-8	8	120	1060	700	2460	136.5	DN 40	DN 40*2	DN 40	28.78	47.97	57.56
HFMBR IA 15-10	10	150	1260	700	2460	155	DN 40	DN 40*2	DN 40	35.98	59.96	71.96
HFMBR IA 15-12	12	180	1460	700	2460	173.5	DN 40*2	DN 40*2	DN 40	43.17	71.96	86.35
HFMBR IA 15-14	14	210	1660	700	2460	192	DN 40*2	DN 40*2	DN 40	50.37	83.95	100.74
HFMBR IA 15-16	16	240	1860	700	2460	210.5	DN 40*2	DN 40*2	DN 40	57.56	95.94	115.13
HFMBR IA 15-18	18	270	2060	700	2460	229	DN 40*2	DN 40*2	DN 40	64.76	107.93	129.52
HFMBR IA 15-20	20	300	2260	700	2460	247.5	DN 50*2	DN 50*2	DN 65	71.96	119.93	143.91
HFMBR IA 15-22	22	330	2460	700	2460	266	DN 50*2	DN 50*2	DN 65	79.15	131.92	158.30
HFMBR IA 15-24	24	360	2660	700	2460	284.5	DN 50*2	DN 50*2	DN 65	86.35	143.91	172.69
HFMBR IA 15-26	26	390	2860	700	2460	303	DN 50*2	DN 50*2	DN 65	93.54	155.90	187.08
HFMBR IA 15-28	28	420	3060	700	2460	321.5	DN 50*2	DN 50*2	DN 65	100.74	167.90	201.47
HFMBR IA 15-30	30	450	3260	700	2460	340	DN 50*2	DN 50*2	DN 65	107.93	179.89	215.87

# HFMBR – IA D 15



Model No.	No. of Cassettes	Membrane area M2	A LENGTH	B WIDTH	C HEIGHT	(Kg)Total Wt. of Module	Permeate Nozzle	Air Nozzle	Guide Pipe	Linear Velocity (75 m/s) min. Aeration m3/hr	Linear Velocity (125m/s) Standard Aeration m3/hr	Linear Velocity (150 m/s) max. Aeration m3/hr
HFMBR IA D 15-4	4	60	460	1360	2460	99.5	DN 40	DN 40	DN 40	14.39	23.99	28.78
HFMBR IA D 15-8	8	120	660	1360	2460	136.5	DN 40	DN 40	DN 40	28.78	47.97	57.56
HFMBR IA D 15-12	12	180	860	1360	2460	173.5	DN 40*2	DN 40*2	DN 40	43.17	71.96	86.35
HFMBR IA D 15-16	16	240	1060	1360	2460	210.5	DN 40*2	DN 40*2	DN 40	57.56	95.94	115.13
HFMBR IA D 15-20	20	300	1260	1360	2460	247.5	DN 50*2	DN 50*2	DN 65	71.96	119.93	143.91
HFMBR IA D 15-24	24	360	1460	1360	2460	284.5	DN 50*2	DN 50*2	DN 65	86.35	143.91	172.69
HFMBR IA D 15-28	28	420	1660	1360	2460	321.5	DN 50*2	DN 50*2	DN 65	100.74	167.90	201.47
HFMBR IA D 15-32	32	480	1860	1360	2460	358.5	DN 50*2	DN 50*2	DN 65	115.13	191.88	230.26
HFMBR IA D 15-36	36	540	2060	1360	2460	395.5	DN 50*2	DN 50*2	DN 65	129.52	215.87	259.04
HFMBR IA D 15-40	40	600	2260	1360	2460	432.5	DN 65*2	DN 50*4	DN 65	143.91	239.85	287.82
HFMBR IA D 15-44	44	660	2460	1360	2460	469.5	DN 65*2	DN 50*4	DN 65	158.30	263.84	316.60
HFMBR IA D 15-48	48	720	2660	1360	2460	506.5	DN 65*2	DN 50*4	DN 65	172.69	287.82	345.38
HFMBR IA D 15-52	52	780	2860	1360	2460	543.5	DN 65*2	DN 50*4	DN 65	187.08	311.81	374.17
HFMBR IA D 15-56	56	840	3060	1360	2460	580.5	DN 65*2	DN 50*4	DN 65	201.47	335.79	402.95
HFMBR IA D 15-60	60	900	3260	1360	2460	617.5	DN 65*2	DN 50*4	DN 65	215.87	359.78	431.73

# MBR – MEMBRANE BIOREACTOR

## HOLLOW FIBRE MEMBRANE

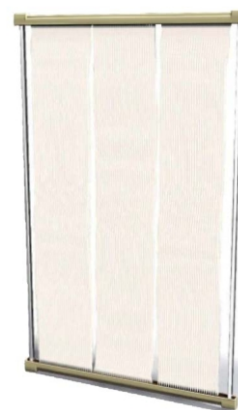
### HFMBR – IB 15



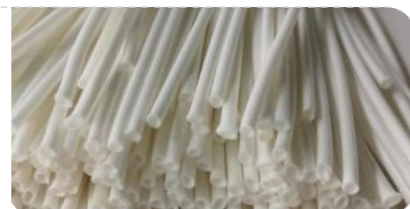
imemflo HFMBR PVDF Series, is a high-quality reinforced Hollow Fibre MBR membrane optimized for small to large flux wastewater treatment plants.

Structured with PVDF (permanently hydrophilic polyvinyl difluoride) has the advantage of dry storage.

HFMBR PVDF Series membranes can be used for a wide variety of treatment applications such as industrial and domestic wastewaters.

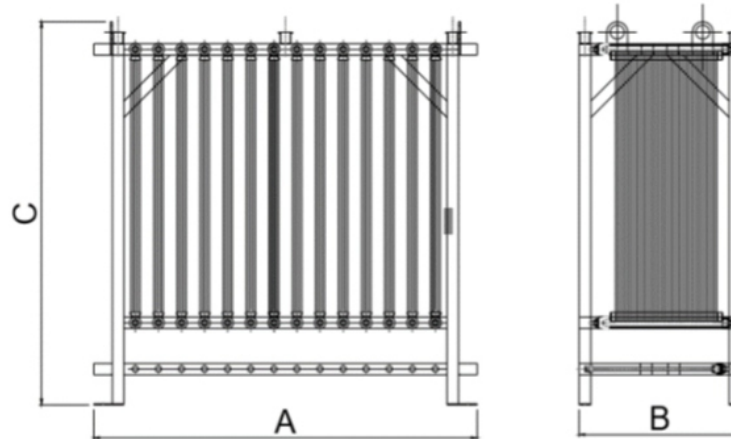


- Permanently hydrophilic
- High chlorine tolerance
- Backwashable Membrane
- High Packing Density



Product specification		
Effective membrane area	M2	15
Height	MM	1300
Thickness	MM	30
Length	MM	1250
Dry weight	Kg	10.5
ID/OD	MM	2.0/2.5
Nominal pore size	µm	0.04/0.2
Membrane Material		Reinforced PVDF
Product Performance		
Storage	Dry Storage	
Design Flux	LMH	0-25
MLSS	PPM	4000 -12000
Operation Specifications		
Operating Temperature	°c	5 -40
DO Concentration	PPM	>1
pH Range		5 - 9
Operating Trans. Pressure	Mbar	100-500
Operating Mode (Permeate-Relaxation)	Min	08-02
Max. Pressure Drop	Mbar	200
Maximum Backwash pressure	Mbar	2000
TMP	Mbar	Initial pressure
Max TMP	Mbar	400

# HFMBR – IB 15



Model No.	No. of Cassettes	Membrane area M2	A LENGTH	B WIDTH	C HEIGHT	(Kg) Total wt. of module	Permeate nozzle	Air Nozzle	Guide pipe	Linear velocity (75 m/s) min. Aeration m3/hr	Linear velocity (125m/s) standard Aeration m3/hr	Linear velocity (150 m/s)max. Aeration m3/hr
HFMBR IB 15-2	2	30	400	1510	2060	266.6	DN 40	DN 40	DN 40	7	12	14
HFMBR IB 15-4	4	60	500	1510	2060	292.2	DN 40	DN 40	DN 40	14	24	29
HFMBR IB 15-6	6	90	600	1510	2060	317.8	DN 40	DN 40	DN 40	22	36	43
HFMBR IB 15-8	8	120	700	1510	2060	343.4	DN 40	DN 40	DN 40	29	48	58
HFMBR IB 15-10	10	150	800	1510	2060	369.0	DN 40	DN 40	DN 40	36	60	72
HFMBR IB 15-12	12	180	900	1510	2060	394.6	DN 50	DN 50	DN 50	43	72	86
HFMBR IB 15-14	14	210	1000	1510	2060	420.2	DN 50	DN 50	DN 50	50	84	101
HFMBR IB 15-16	16	240	1100	1510	2060	445.8	DN 50	DN 50	DN 50	58	96	115
HFMBR IB 15-18	18	270	1200	1510	2060	471.4	DN 50	DN 50	DN 50	65	108	130
HFMBR IB 15-20	20	300	1300	1510	2060	497.0	DN 50	DN 50	DN 50	72	120	144
HFMBR IB 15-22	22	330	1400	1510	2060	522.6	DN 65	DN 65	DN 80	79	132	158
HFMBR IB 15-24	24	360	1500	1510	2060	548.2	DN 65	DN 65	DN 80	86	144	173
HFMBR IB 15-26	26	390	1600	1510	2060	573.8	DN 65	DN 65	DN 80	94	156	187
HFMBR IB 15-28	28	420	1700	1510	2060	599.4	DN 65	DN 65	DN 80	101	168	201
HFMBR IB 15-30	30	450	1800	1510	2060	625.0	DN 65	DN 65	DN 80	108	180	216
HFMBR IB 15-32	32	480	1900	1510	2060	650.6	DN 80	DN 80	DN 80	115	192	230
HFMBR IB 15-34	34	510	2000	1510	2060	676.2	DN 80	DN 80	DN 80	122	204	245
HFMBR IB 15-36	36	540	2100	1510	2060	701.8	DN 80	DN 80	DN 80	130	216	259
HFMBR IB 15-38	38	570	2200	1510	2060	727.4	DN 80	DN 80	DN 80	137	228	273
HFMBR IB 15-40	40	600	2300	1510	2060	753.0	DN 80	DN 80	DN 80	144	240	288
HFMBR IB 15-42	42	630	2400	1510	2060	778.6	DN 80*2	DN 80*2	DN 80	151	252	302
HFMBR IB 15-44	44	660	2500	1510	2060	804.2	DN 80*2	DN 80*2	DN 80	158	264	317
HFMBR IB 15-46	46	690	2600	1510	2060	829.8	DN 80*2	DN 80*2	DN 80	165	276	331
HFMBR IB 15-48	48	720	2700	1510	2060	855.4	DN 80*2	DN 80*2	DN 80	173	288	345
HFMBR IB 15-50	50	750	2800	1510	2060	881.0	DN 80*2	DN 80*2	DN 80	180	300	360
HFMBR IB 15-52	52	780	2900	1510	2060	906.6	DN 80*2	DN 80*2	DN 80	187	312	374
HFMBR IB 15-54	54	810	3000	1510	2060	932.2	DN 80*2	DN 80*2	DN 80	194	324	389
HFMBR IB 15-56	56	840	3100	1510	2060	957.8	DN 80*2	DN 80*2	DN 80	201	336	403
HFMBR IB 15-58	58	870	3200	1510	2060	983.4	DN 80*2	DN 80*2	DN 80	209	348	417
HFMBR IB 15-60	60	900	3300	1510	2060	1009.0	DN 80*2	DN 80*2	DN 80	216	360	432

# MBR – MEMBRANE BIOREACTOR

## HOLLOW FIBRE MEMBRANE

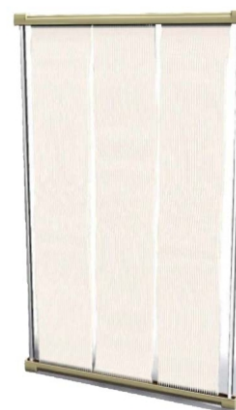
### HFMBR – IB 25



imemflo HFMBR PVDF Series, is a high-quality reinforced Hollow Fibre MBR membrane optimized for small to large flux wastewater treatment plants.

Structured with PVDF (permanently hydrophilic polyvinyl difluoride) has the advantage of dry storage.

HFMBR PVDF Series membranes can be used for a wide variety of treatment applications such as industrial and domestic wastewaters.

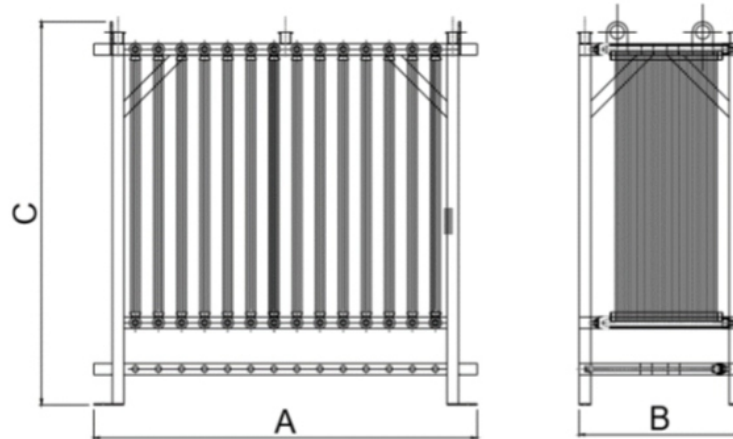


- Permanently hydrophilic
- High chlorine tolerance
- Backwashable Membrane
- High Packing Density



Product specification		
Effective membrane area	M2	25
Height	MM	2000
Thickness	MM	30
Length	MM	1250
Dry weight	Kg	15
ID/OD	MM	2.0/2.5
Nominal pore size	µm	0.04/0.2
Membrane Material		Reinforced PVDF
Product Performance		
Storage	Dry Storage	
Design Flux	LMH	0-25
MLSS	PPM	4000 -12000
Operation Specifications		
Operating Temperature	°c	5 -40
DO Concentration	PPM	>1
pH Range		5 - 9
Operating Trans. Pressure	Mbar	100-500
Operating Mode (Permeate-Relaxation)	Min	08-02
Max. Pressure Drop	Mbar	200
Maximum Backwash pressure	Mbar	2000
TMP	Mbar	Initial pressure
Max TMP	Mbar	400

# HFMBR - IB 25



Model No.	No. of Cassettes	Membrane area M2	A LENGTH	B WIDTH	C HEIGHT	(Kg)Total wt. of module	Permeate nozzle	Air Nozzle	Guide pipe	Linear velocity (75 m/s) min.Aeration m3/hr	Linear velocity (125m/s) standard Aeration m3/hr	Linear velocity (150 m/s)max. Aeration m3/hr
HFMBR IB 25-2	2	50	400	1510	2760	295.6	DN 40	DN 40	DN 40	9.00	15.00	18.00
HFMBR IB 25-4	4	100	500	1510	2760	330.2	DN 40	DN 40	DN 40	18.00	30.00	36.00
HFMBR IB 25-6	6	150	600	1510	2760	364.8	DN 40	DN 40	DN 40	27.00	45.00	54.00
HFMBR IB 25-8	8	200	700	1510	2760	399.4	DN 40	DN 40	DN 40	36.00	60.00	72.00
HFMBR IB 25-10	10	250	800	1510	2760	434.0	DN 40	DN 40	DN 40	45.00	75.00	90.00
HFMBR IB 25-12	12	300	900	1510	2760	468.6	DN 50	DN 50	DN 50	54.00	90.00	108.00
HFMBR IB 25-14	14	350	1000	1510	2760	503.2	DN 50	DN 50	DN 50	63.00	105.00	126.00
HFMBR IB 25-16	16	400	1100	1510	2760	537.8	DN 50	DN 50	DN 50	72.00	120.00	144.00
HFMBR IB 25-18	18	450	1200	1510	2760	572.4	DN 50	DN 50	DN 50	81.00	135.00	162.00
HFMBR IB 25-20	20	500	1300	1510	2760	607.0	DN 50	DN 50	DN 50	90.00	150.00	180.00
HFMBR IB 25-22	22	550	1400	1510	2760	641.6	DN 65	DN 65	DN 80	99.00	165.00	198.00
HFMBR IB 25-24	24	600	1500	1510	2760	676.2	DN 65	DN 65	DN 80	108.00	180.00	216.00
HFMBR IB 25-26	26	650	1600	1510	2760	710.8	DN 65	DN 65	DN 80	117.00	195.00	234.00
HFMBR IB 25-28	28	700	1700	1510	2760	745.4	DN 65	DN 65	DN 80	126.00	210.00	252.00
HFMBR IB 25-30	30	750	1800	1510	2760	780.0	DN 65	DN 65	DN 80	135.00	225.00	270.00
HFMBR IB 25-32	32	800	1900	1510	2760	814.6	DN 80	DN 80	DN 80	144.00	240.00	288.00
HFMBR IB 25-34	34	850	2000	1510	2760	849.2	DN 80	DN 80	DN 80	153.00	255.00	306.00
HFMBR IB 25-36	36	900	2100	1510	2760	883.8	DN 80	DN 80	DN 80	162.00	270.00	324.00
HFMBR IB 25-38	38	950	2200	1510	2760	918.4	DN 80	DN 80	DN 80	171.00	285.00	342.00
HFMBR IB 25-40	40	1000	2300	1510	2760	953.0	DN 80	DN 80	DN 80	180.00	300.00	360.00
HFMBR IB 25-42	42	1050	2400	1510	2760	987.6	DN 80*2	DN 80*2	DN 80	189.00	315.00	378.00
HFMBR IB 25-44	44	1100	2500	1510	2760	1022.2	DN 80*2	DN 80*2	DN 80	198.00	330.00	396.00
HFMBR IB 25-46	46	1150	2600	1510	2760	1056.8	DN 80*2	DN 80*2	DN 80	207.00	345.00	414.00
HFMBR IB 25-48	48	1200	2700	1510	2760	1091.4	DN 80*2	DN 80*2	DN 80	216.00	360.00	432.00
HFMBR IB 25-50	50	1250	2800	1510	2760	1126.0	DN 80*2	DN 80*2	DN 80	225.00	375.00	450.00
HFMBR IB 25-52	52	1300	2900	1510	2760	1160.6	DN 80*2	DN 80*2	DN 80	234.00	390.00	468.00
HFMBR IB 25-54	54	1350	3000	1510	2760	1195.2	DN 80*2	DN 80*2	DN 80	243.00	405.00	486.00
HFMBR IB 25-56	56	1400	3100	1510	2760	1229.8	DN 80*2	DN 80*2	DN 80	252.00	420.00	504.00
HFMBR IB 25-58	58	1450	3200	1510	2760	1264.4	DN 80*2	DN 80*2	DN 80	261.00	435.00	522.00
HFMBR IB 25-60	60	1500	3300	1510	2760	1299.0	DN 80*2	DN 80*2	DN 80	270.00	450.00	540.00



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