DuPont™ IntegraTec™ MB 50 TR

Modules for T-Rack™

(previously dizzer XL 1.5 MB 50 WT)

Key Features

Proven Multibore™ PES Fibers:

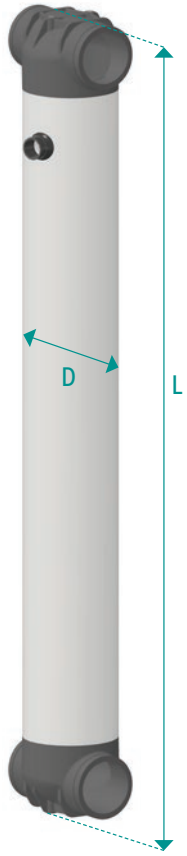
- Exceptional physical strength and chemical resistance.
- High colloidal particulate, bacteria and virus log removal rate.
- Unique design for high solids loads.
- Optional coagulation can enhance the removal of algae and organics.

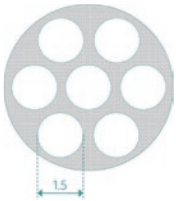
Optimized Module Design:

- Innovative end-cap design to suit T-Rack™ concept with simple assembly and scalability.
- Robust materials for long lifetime.
- Easy installation and low maintenance.
- All wetted parts corrosion free.

Key Applications

- Municipal wastewater.
- Industrial water.
- Wastewater reuse.
- Ideal for second stage filtration systems.





Module Specification

General		
Part Number / GMID	IN-5101 / 12071527	
Mode of Filtration	In-Out Pressurized	
Membrane Type	Multibore™	
Membrane Material	PESm	
Nominal Membrane Pore Size	0.02 µm	
Module Operating Process	Dead-end	
Housing Material	PVC-U, white	
Dimensions		
Active Membrane Area	50 m²	538 ft²
Module Length Including T-Piece (L)	2,101 mm	82.7 inch
Module Diameter (D)	250 mm	9.8 inch
Weight and Volume		
Shipping Weight (Module Only)	54 kg	119 lbs.
Weight Empty (Module and Corresponding Frame)	67 kg	147 lbs.
Weight Filled (Module and Corresponding Frame)	133 kg	294 lbs.
Hold-Up Volume Feed (CIP)	34 L	9.1 gal
Hold-Up Volume Membrane Structure (CIP)	20 L	5.2 gal
Hold-Up Volume Filtrate (CIP)	31 L	8.2 gal

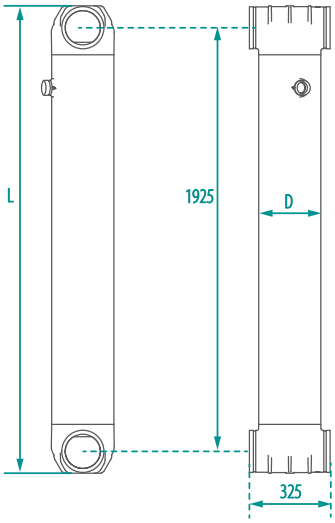
Certified to NSF/ANSI/CAN 61 & NSF/ANSI 419

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Form No. 45-D02246-en, Rev. 3
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Suggested Operating Conditions

General	Details	
Operating Temperature Range	1 - 40 °C	34 - 104 °F
Operating pH	3 - 11	
Cleaning pH	1 - 13	
Typical Filtration TMP	0.1 - 0.6 bar	1.5 - 8.7 psi
Typical Backwash TMP	0.3 - 2.0 bar	4.4 - 29.0 psi
Backwash Flux	230 L/(m²h)	135 gfd
Backwash Flow	11.5 m³/h	50.4 gpm
Operating Limits (Maximum)		
Rate of Temperature Change	5 °C/min	9 °F/min
Inlet Pressure	5 bar	73 psi
Rate of Pressure Change	0.5 bar/sec	7.3 psi/sec
Filtration TMP	1.5 bar	22 psi
Backwash TMP	3.0 bar	44 psi
Filtration Flux	180 L/(m²h)	106 gfd
Filtration Flow	9.0 m³/h	39.6 gpm
Backwash Flux	300 L/(m²h)	176 gfd
Particle Size	300 µm	
Exposure NaOCl	≤ 250,000 ppm x h (at pH ≥ 9.5)	
Concentration NaOCl	500 ppm	



T-Rack™ Configuration

Number of Modules	T-Rack™ Unit	Part Number [1]	Length [2]		Membrane Area	
			mm	ft	m²	ft²
Single-Sided Connection to Manifold						
2 Rows Configuration						
4	TR-4-2-1	12071552	655	2.15	200	2,153
6	TR-6-2-1	12071553	985	3.23	300	3,229
8	TR-8-2-1	12071554	1,315	4.31	400	4,306
10	TR-10-2-1	12071555	1,645	5.40	500	5,382
12	TR-12-2-1	12071557	1,975	6.48	600	6,458
14	TR-14-2-1	12071078	2,305	7.56	700	7,535
16	TR-16-2-1	12071558	2,635	8.65	800	8,611
18	TR-18-2-1	12071559	2,965	9.73	900	9,687
20	TR-20-2-1	12071560	3,295	10.81	1000	10,764
22	TR-22-2-1	12071561	3,625	11.89	1,100	11,840
24	TR-24-2-1	12071563	3,955	12.98	1,200	12,917
26	TR-26-2-1	12071091	4,285	14.06	1,300	13,993
28	TR-28-2-1	12071092	4,615	15.14	1,400	15,069
30	TR-30-2-1	12071093	4,945	16.22	1,500	16,146
32	TR-32-2-1	12071094	5,275	17.31	1,600	17,222
34	TR-34-2-1	12071095	5,605	18.39	1,700	18,299

1. Rack parts without modules.
2. Length excluding central header manifold. Tolerance to ISO 2768-1c.

Number of Modules	T-Rack™ Unit	Part Number [1]	Length [2]		Membrane Area	
			mm	ft	m^2	ft^2
Single-Sided Connection to Manifold						
4 Rows Configuration						
36	TR-36-4-1	12071096	2,965	9.73	1,800	19,375
40	TR-40-4-1	12071097	3,295	10.81	2,000	21,528
44	TR-44-4-1	12071098	3,625	11.89	2,200	23,681
48	TR-48-4-1	12071099	3,955	12.98	2,400	25,833
52	TR-52-4-1	12071100	4,285	14.06	2,600	27,986
56	TR-56-4-1	12071101	4,615	15.14	2,800	30,139
60	TR-60-4-1	12071102	4,945	16.22	3,000	32,292
64	TR-64-4-1	12071103	5,275	17.31	3,200	34,444
68	TR-68-4-1	12071104	5,605	18.39	3,400	36,597
Double-Sided Connection to Manifold						
4 Rows Configuration						
72	TR-72-4-2	12071105	5,930	19.46	3,600	38,750
76	TR-76-4-2[3]	12071106	6,260	20.54	3,800	40,903
80	TR-80-4-2	12071107	6,590	21.62	4,000	43,055
84	TR-84-4-2[3]	12071108	6,920	22.70	4,200	45,208
88	TR-88-4-2	12071109	7,250	23.79	4,400	47,361
92	TR-92-4-2[3]	12071110	7,580	24.87	4,600	49,514
96	TR-96-4-2	12071111	7,910	25.95	4,800	51,667
100	TR-100-4-2[3]	12071112	8,240	27.03	5,000	53,819
104	TR-104-4-2	12071113	8,570	28.12	5,200	55,972
108	TR-108-4-2[3]	12071114	8,900	29.20	5,400	58,125
112	TR-112-4-2	12071115	9,230	30.28	5,600	60,278
116	TR-116-4-2[3]	12071116	9,560	31.36	5,800	62,430
120	TR-120-4-2	12071117	9,890	32.45	6,000	64,583
124	TR-124-4-2[3]	12071118	10,220	33.53	6,200	66,736
128	TR-128-4-2	12071119	10,550	34.61	6,400	68,889
132	TR-132-4-2[3]	12071120	10,880	35.70	6,600	71,042
136	TR-136-4-2	12071121	11,210	36.78	6,800	73,194

1. Rack parts without modules.
2. Length excluding central header manifold. Tolerance to ISO 2768-1c.
3. Asymmetric module arrangement.

General Information

- Avoid any abrupt pressure variations during start-up, operation, shutdown, cleaning or other sequences to prevent possible membrane damage. The maximum pressure change allowable is 0.5 bar/s.
- For assembly please refer to the latest version of the DuPont™ IntegraTec™ Pressurized UF In-Out P Series Assembly Instructions for T-Rack™ Manual (Form No. 45-D02230-en).
- If operating limits and guidelines given in this bulletin are not strictly followed, any warranty will be null and void.
- To control biological growth during extended system shutdowns, a storage solution must be introduced into the membrane modules. For Detailed information, see the DuPont™ IntegraTec™ Pressurized UF Out-In Module Preservation Instruction Manual (Form No. 45-D02946-en).

Regulatory Note

- Certified drinking water modules require specific conditioning procedures prior to producing potable water. For operating parameters, please refer to the DuPont™ IntegraTec™ Pressurized UF In-Out P Series Process and Design Guidelines (Form No. 45-D02234-en).
- Drinking water modules may be subjected to additional regulatory restrictions in some countries. Please check local regulatory guidelines and application status before use.
- Flushing needs to be done according to the DuPont™ IntegraTec™ Pressurized UF Out-In Module Rinsing Procedure (Form No. 45-D02947-en).

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