Product Data Sheet
P series | Pressurized PES UF Module

DuPont™ IntegraTec™ MB 60 TR S

Modules for T-Rack™ S

(previously dizzer XL 0.9 MB 60 ST)

Key Features

Proven Multibore™ PES Fibers:

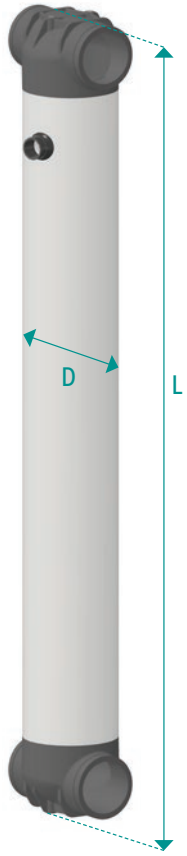
- Exceptional physical strength and chemical resistance.
- High colloidal particulate, bacteria and virus log removal rate.
- Unique design for high solids loads.
- Optional coagulation can enhance the removal of algae and organics.

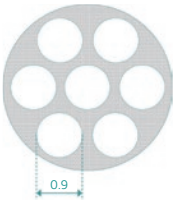
Optimized Module Design:

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

Key Applications

- Municipal drinking water.
- Desalination RO pretreatment.
- Industrial utility water.
- Industrial wastewater reuse.
- Ideal for height restricted or containerized filtration solution.





Module Specification

General		
Part Number / GMID	IN-5102 / 12071528	
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	60 m²	646 ft²
Module Length Including T-Piece (L)	1,879 mm	74.0 inch
Module Diameter (D)	250 mm	9.8 inch
Weight and Volume		
Shipping Weight (Module Only)	49 kg	108 lbs.
Weight Empty (Module and Corresponding Frame)	61 kg	134 lbs.
Weight Filled (Module and Corresponding Frame)	142 kg	313 lbs.
Hold-Up Volume Feed (CIP)	29 L	7.7 gal
Hold-Up Volume Membrane Structure (CIP)	16 L	4.2 gal
Hold-Up Volume Filtrate (CIP)	28 L	7.4 gal

Certified to NSF/ANSI 61

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inge heart of pure water
a DuPont brand

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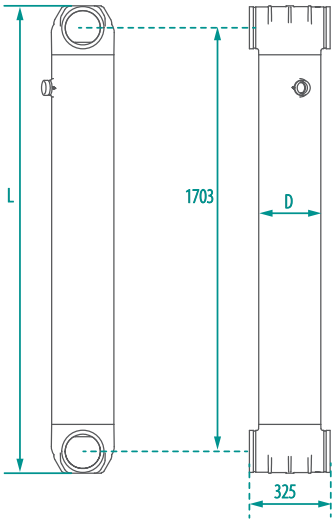
Suggested Operating Conditions

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	13.8 m³/h	60.8 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	10.8 m³/h	47.6 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
2 Rows Configuration						
4	TR-S-4-2-1	TD-3204	655	2.15	240	2,583
6	TR-S-6-2-1	TD-3206	985	3.23	360	3,875
8	TR-S-8-2-1	TD-3208	1,315	4.31	480	5,167
10	TR-S-10-2-1	TD-3210	1,645	5.40	600	6,459
12	TR-S-12-2-1	TD-3212	1,975	6.48	720	7,750
14	TR-S-14-2-1	TD-3214	2,305	7.56	840	9,042
16	TR-S-16-2-1	TD-3216	2,635	8.65	960	10,334
18	TR-S-18-2-1	TD-3218	2,965	9.73	1,080	11,625
20	TR-S-20-2-1	TD-3220	3,295	10.81	1,200	12,917
22	TR-S-22-2-1	TD-3222	3,625	11.89	1,320	14,209
24	TR-S-24-2-1	TD-3224	3,955	12.98	1,440	15,501
26	TR-S-26-2-1	TD-3226	4,285	14.06	1,560	16,792
28	TR-S-28-2-1	TD-3228	4,615	15.14	1,680	18,084
30	TR-S-30-2-1	TD-3230	4,945	16.22	1,800	19,376
32	TR-S-32-2-1	TD-3232	5,275	17.31	1,920	20,667
34	TR-S-34-2-1	TD-3234	5,605	18.39	2,040	21,959
36	TR-S-36-2-1	TD-3236	5,935	19.47	2,160	23,251
38	TR-S-38-2-1	TD-3238	6,265	20.55	2,280	24,543
40	TR-S-40-2-1	TD-3240	6,595	21.64	2,400	25,834

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
4 Rows Configuration						
16	TR-S-16-4-1	TD-3416	1,315	4.31	960	10,334
20	TR-S-20-4-1	TD-3420	1,645	5.40	1,200	12,917
24	TR-S-24-4-1	TD-3424	1,975	6.48	1,440	15,501
28	TR-S-28-4-1	TD-3428	2,305	7.56	1,680	18,084
32	TR-S-32-4-1	TD-3432	2,635	8.65	1,920	20,667
36	TR-S-36-4-1	TD-3436	2,965	9.73	2,160	23,251
40	TR-S-40-4-1	TD-3440	3,295	10.81	2,400	25,834
44	TR-S-44-4-1	TD-3444	3,625	11.89	2,640	28,418
48	TR-S-48-4-1	TD-3448	3,955	12.98	2,880	31,001
52	TR-S-52-4-1	TD-3452	4,285	14.06	3,120	33,584
56	TR-S-56-4-1	TD-3456	4,615	15.14	3,360	36,168
60	TR-S-60-4-1	TD-3460	4,945	16.22	3,600	38,751
64	TR-S-64-4-1	TD-3464	5,275	17.31	3,840	41,335
68	TR-S-68-4-1	TD-3468	5,605	18.39	4,080	43,918
72	TR-S-72-4-1	TD-3472	5,935	19.47	4,320	46,502
76	TR-S-76-4-1	TD-3476	6,265	20.55	4,560	49,085
80	TR-S-80-4-1	TD-3480	6,595	21.64	4,800	51,668

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

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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Have a question? Contact us at:
dupont.com/water/contact-us

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