

ZeeWeed* 700B-RMS

FACT SHEET

Rackless module system - ZeeWeed pressurized ultrafiltration (UF)

Description and Use

As a pioneer of membrane technology, Veolia leverages decades of research, development, and operational experience to offer one of the most advanced ultrafiltration technology in the market. The ZeeWeed 700B RMS (Figure 1) line of products contains our SevenBore* fiber technology with an inside-out flow orientation. The SevenBore fiber is regarded as a leading polyethersulfone (PES) product on the market.

Customers of pressurized UF systems want cost-effective, worry-free solutions that meet their specific needs for the lifetime of their plant. Veolia's engineers have developed a revolutionary solution that meets all these needs.



Fig. 1: ZW700B-RMS 2x6 configuration

Typical Process Conditions

| Description | Measurement |
|---|----------------------------------|
| Maximum temperature | 40°C (104°F) |
| Maximum pressure | 5 bar (72.5 psi) |
| Typical Trans Membrane Pressure (TMP) operation | <1.0 bar (14.5 psi) |
| TMP maximum | 2.5 bar (36 psi) |
| Backwash/forward flush maximum | 250 l/m ² h (150 gfd) |
| pH range during operation | 2 to 11 |

Product Specifications Element Data

| Description | ZW700B 10072/UF8/7B/RMS/0.9/85 |
|------------------------|--|
| Material | Modified PES |
| Type | SevenBore |
| Material housing | PVC |
| Module Surface Area | 85 m ² (914.9 ft ²) |
| Feed connection OD | 6" Victaulic |
| Permeate connection OD | 6" Victaulic |
| Reject connection OD | 6" Victaulic |
| Housing OD | 250 mm (10 inch) |
| Weight | 54 kg (119 lbs) |
| Diameter bores ID | 0.9 mm (0.04 inch) |
| Diameter fiber OD | 3.6 mm (0.14 inch) |

Cleaning

| Description | Measurement |
|--|---------------------------------|
| Cleaning pH range | 1.0-13.0 |
| Disinfecting Chemicals: Hypochlorite (NaOCl) Hydrogen peroxide | 50 to 200 ppm 100 to 200 ppm |

General Properties

- UF membrane - for optimal removal of particulates, bacteria and viruses
- PES membrane fibers with 7 bores - provides high mechanical strength (>10x that of single fibers) and chemical resistance
- Inside-Out filtration – eliminates air scouring step and additional related equipment

Storage and Handling

All elements are filled with glycerin when new, which is part of the fiber manufacturing and preservation process. Elements must be stored in a dry and normal ventilated location, away from any sources of heat, ignition and direct sunlight in the original packing. The storage temperature must be between 5°C and 35°C (41°F to 95°F).

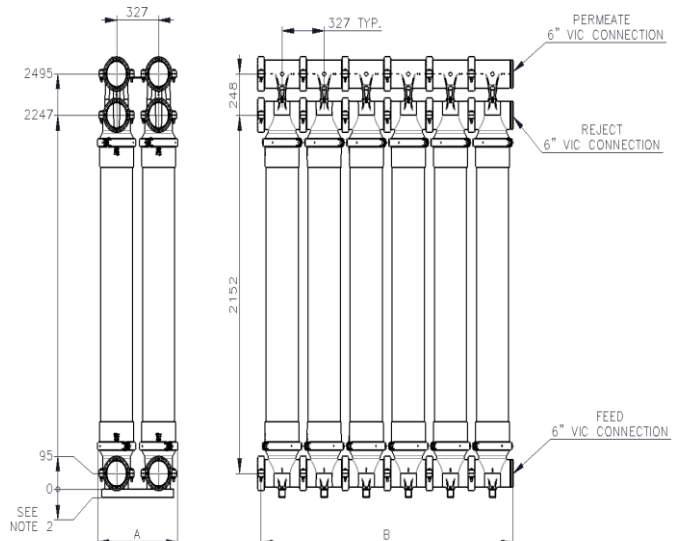
ZW700B-RMS Configurations

RMS with 2 rows of modules (85m²)

| # of Modules | Train Width (A) | | Train Length (B) | | Footprint | | Surface Area | |
|--------------|-----------------|------|------------------|-------|----------------|-----------------|----------------|-----------------|
| | mm | ft | mm | ft | m ² | ft ² | m ² | ft ² |
| 2 | 623 | 2.04 | 327 | 1.07 | 0.20 | 2.19 | 170 | 1830 |
| 4 | 623 | 2.04 | 654 | 2.15 | 0.41 | 4.39 | 340 | 3660 |
| 6 | 623 | 2.04 | 981 | 3.22 | 0.61 | 6.58 | 510 | 5490 |
| 8 | 623 | 2.04 | 1308 | 4.29 | 0.81 | 8.77 | 680 | 7319 |
| 10 | 623 | 2.04 | 1635 | 5.36 | 1.02 | 10.96 | 850 | 9149 |
| 12 | 623 | 2.04 | 1962 | 6.44 | 1.22 | 13.16 | 1020 | 10979 |
| 14 | 623 | 2.04 | 2289 | 7.51 | 1.43 | 15.35 | 1190 | 12809 |
| 16 | 623 | 2.04 | 2616 | 8.58 | 1.63 | 17.54 | 1360 | 14639 |
| 18 | 623 | 2.04 | 2943 | 9.66 | 1.83 | 19.74 | 1530 | 16469 |
| 20 | 623 | 2.04 | 3270 | 10.73 | 2.04 | 21.93 | 1700 | 18299 |
| 22 | 623 | 2.04 | 3597 | 11.80 | 2.24 | 24.12 | 1870 | 20129 |
| 24 | 623 | 2.04 | 3924 | 12.87 | 2.44 | 26.31 | 2040 | 21958 |
| 26 | 623 | 2.04 | 4251 | 13.95 | 2.65 | 28.51 | 2210 | 23788 |
| 28 | 623 | 2.04 | 4578 | 15.02 | 2.85 | 30.70 | 2380 | 25618 |
| 30 | 623 | 2.04 | 4905 | 16.09 | 3.06 | 32.89 | 2550 | 27448 |
| 32 | 623 | 2.04 | 5232 | 17.17 | 3.26 | 35.09 | 2720 | 29278 |

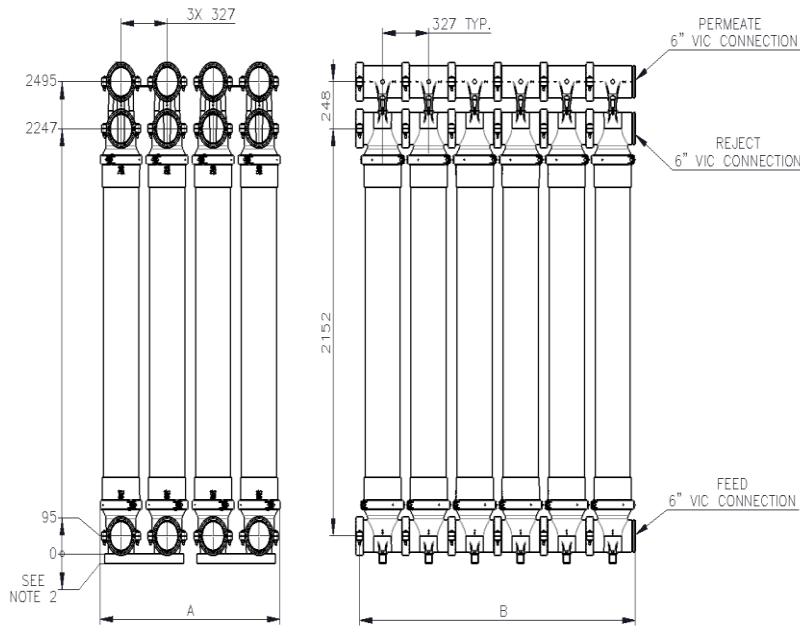
Note 1: ZW700B-RMS is not rated for high seismic zones. A seismic kit is available for special acceleration ratings up to 3.0g upon request.

Note 2: Technical details on module support options available upon request.



RMS with 4 rows of modules (85m²)

| # of Modules | Train Width (A) | | Train Length (B) | | Footprint | | Surface Area | |
|--------------|-----------------|------|------------------|-------|----------------|-----------------|----------------|-----------------|
| | mm | ft | mm | ft | m ² | ft ² | m ² | ft ² |
| 4 | 1277 | 4.19 | 327 | 1.07 | 0.42 | 4.49 | 340 | 3660 |
| 8 | 1277 | 4.19 | 654 | 2.15 | 0.84 | 8.99 | 680 | 7319 |
| 12 | 1277 | 4.19 | 981 | 3.22 | 1.25 | 13.48 | 1020 | 10979 |
| 16 | 1277 | 4.19 | 1308 | 4.29 | 1.67 | 17.98 | 1360 | 14639 |
| 20 | 1277 | 4.19 | 1635 | 5.36 | 2.09 | 22.47 | 1700 | 18299 |
| 24 | 1277 | 4.19 | 1962 | 6.44 | 2.51 | 26.97 | 2040 | 21958 |
| 28 | 1277 | 4.19 | 2289 | 7.51 | 2.92 | 31.46 | 2380 | 25618 |
| 32 | 1277 | 4.19 | 2616 | 8.58 | 3.34 | 35.96 | 2720 | 29278 |
| 36 | 1277 | 4.19 | 2943 | 9.66 | 3.76 | 40.45 | 3060 | 32938 |
| 40 | 1277 | 4.19 | 3270 | 10.73 | 4.18 | 44.95 | 3400 | 36597 |
| 44 | 1277 | 4.19 | 3597 | 11.80 | 4.59 | 49.44 | 3740 | 40257 |
| 48 | 1277 | 4.19 | 3924 | 12.87 | 5.01 | 53.94 | 4080 | 43917 |
| 52 | 1277 | 4.19 | 4251 | 13.95 | 5.43 | 58.43 | 4420 | 47576 |
| 56 | 1277 | 4.19 | 4578 | 15.02 | 5.85 | 62.93 | 4760 | 51236 |
| 60 | 1277 | 4.19 | 4905 | 16.09 | 6.26 | 67.42 | 5100 | 54896 |
| 64 | 1277 | 4.19 | 5232 | 17.17 | 6.68 | 71.92 | 5440 | 58556 |



Veolia Water Technologies
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