



Product Data Sheet

DOW IntegraPac™ Ultrafiltration Skid

With IP-77XP or IPD-77XP

Features

The DOW IntegraPac™ skid from Dow Water & Process Solutions is a pre-engineered, standardized skid design consisting of DOW IntegraPac™ Ultrafiltration modules with XP fiber, auxiliary parts and piping. It is designed to significantly streamline design, assembly and installation, making possible lower skid costs, reduced engineering design costs, easy assembly, smaller footprint and shortened delivery schedule. Features include:

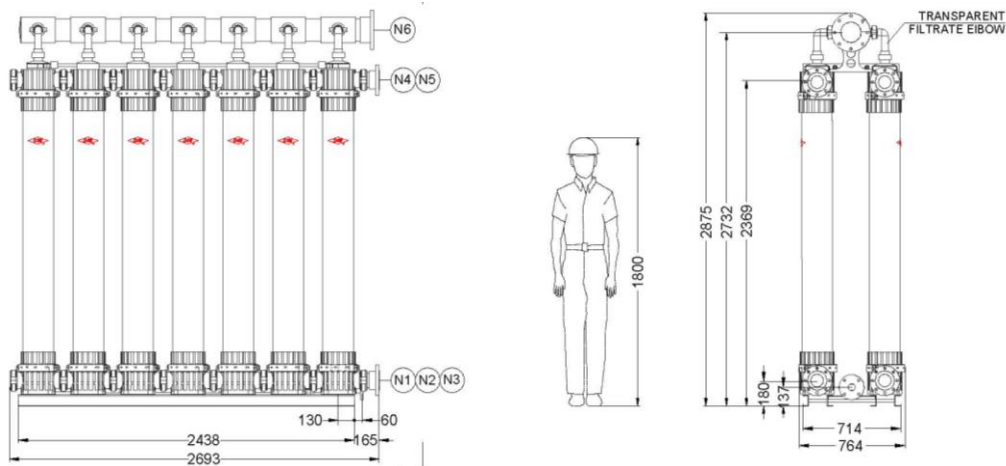
- Modular and scalable for design across a wide range of flow rates
- Uses high permeability XP fiber helping to improve operating efficiencies and productivity
- Skid tested and certified by NSF International under NSF/ANSI Standard 61 and 419, ensuring safe use in drinking water applications
- Direct coupling of modules eliminates ancillary piping, saving costs and reducing footprint
- Materials of construction selected for corrosion resistance and chemical compatibility
- Shipped unassembled to lower transportation cost and help prevent damage in transit
- Standardized and pre-fabricated components eliminates measuring, cutting, gluing and welding
- Easily accessible for physical inspection or replacement at end of life
- Operator-friendly transparent filtrate elbow designed and located for easy visual integrity inspection
- High pressure rating to enable direct feed to reverse osmosis feed pumps



Product Specifications

| No. of Modules | IntegraPac Skid | Membrane Area | | Flow @ 65 l/mh (38 gfd) | | Length (L) | | Width (W) | | Height (H) | | Weight, dry (incl. modules) | | Weight, filled (incl. modules) | | Hold-Up Volume | |
|----------------|------------------|----------------|-----------------|-------------------------|-----|------------|------|-----------|------|------------|------|-----------------------------|------|--------------------------------|------|----------------|--------|
| | | m ² | ft ² | m ³ /hr | gpm | mm | ft | mm | ft | mm | ft | kg | lbs | kg | lbs | m ³ | US gal |
| 6 | IP & IPD-77XP-06 | 462 | 4974 | 30 | 132 | 1241 | 4.1 | 764 | 2.51 | 2875 | 9.43 | 496 | 1093 | 840 | 1852 | 0.32 | 84.0 |
| 8 | IP & IPD-77XP-08 | 616 | 6632 | 40 | 176 | 1604 | 5.3 | 764 | 2.51 | 2875 | 9.43 | 644 | 1420 | 1102 | 2429 | 0.42 | 112.0 |
| 10 | IP & IPD-77XP-10 | 770 | 8290 | 50 | 220 | 1967 | 6.5 | 764 | 2.51 | 2875 | 9.43 | 791 | 1744 | 1364 | 3007 | 0.53 | 140.0 |
| 12 | IP & IPD-77XP-12 | 924 | 9948 | 60 | 264 | 2330 | 7.6 | 764 | 2.51 | 2875 | 9.43 | 939 | 2070 | 1626 | 3585 | 0.64 | 168.0 |
| 14 | IP & IPD-77XP-14 | 1078 | 11606 | 70 | 309 | 2693 | 8.8 | 764 | 2.51 | 2875 | 9.43 | 1091 | 2405 | 1893 | 4173 | 0.74 | 196.0 |
| 16 | IP & IPD-77XP-16 | 1232 | 13264 | 80 | 353 | 3056 | 10.0 | 764 | 2.51 | 2875 | 9.43 | 1249 | 2754 | 2165 | 4773 | 0.85 | 224.0 |
| 18 | IP & IPD-77XP-18 | 1386 | 14922 | 90 | 397 | 3419 | 11.2 | 764 | 2.51 | 2875 | 9.43 | 1401 | 3089 | 2432 | 5362 | 0.95 | 252.0 |
| 20 | IP & IPD-77XP-20 | 1540 | 16580 | 100 | 441 | 3782 | 12.4 | 764 | 2.51 | 2875 | 9.43 | 1554 | 3426 | 2699 | 5950 | 1.06 | 280.0 |
| 22 | IP & IPD-77XP-22 | 1694 | 18238 | 110 | 485 | 4145 | 13.6 | 764 | 2.51 | 2875 | 9.43 | 1706 | 3761 | 2966 | 6539 | 1.17 | 308.0 |

Figure 1
 Example: 2x7
 IntegraPac™ IP & IPD-77XP-14 Arrangement



Operating Limits

| | SI Units | US Units |
|--------------------------------------|------------------------------|------------|
| Filtrate Flux (25°C) | 40 -110 l/m ² /hr | 24- 65 gfd |
| Temperature | 1- 40°C | 34°-104°F |
| Maximum Inlet Module Pressure (20°C) | 6.25 bar | 90.65 psi |
| Maximum Inlet Module Pressure (40°C) | 4.75 bar | 68.89 psi |
| Maximum Operating TMP | 2.1 bar | 30.5 psi |
| Maximum Operating Air Scour Flow | 12 Nm ³ /hr | 7.1 scfm |
| Maximum Backwash Pressure | 2.5 bar | 36 psi |
| Maximum NaOCl | 2000 mg/L | |
| Maximum Particle Size | 300 µm | |
| Flow Configuration | Outside-in | |
| Expected Filtrate Turbidity | ≤ 0.1 NTU | |
| Expected Filtrate SDI | ≤ 2.5 | |

Important Information

Proper start-up of an ultrafiltration system is essential to prepare the membranes for operating service and to prevent membrane damage. Following the proper start-up sequence also helps ensure that system operating parameters conform to design specifications so that system water quality and productivity goals can be achieved.

Before initiating system start-up procedures, membrane pretreatment, installation of the membrane modules, instrument calibration and other system checks should be completed.

Please refer to the [DOW IntegraPac UF Product Manual](#).

Operation Guidelines

Avoid any abrupt pressure variations during start-up, shutdown, cleaning or other sequences to prevent possible membrane damage. Flush the ultrafiltration system to remove shipping solution prior to start-up. Remove residual air from the system prior to start-up. Manually start the equipment. Depending on the application, filtrate obtained from initial operations should be discarded.

Please refer to the [DOW IntegraPac™ UF Product Manual](#).

General Information

- If operating limits and guidelines given in this bulletin are not strictly followed, the limited warranty will be null and void.
- To control biological growth during extended system shutdowns, it is recommended that storage solution be injected into the membrane modules.

Please refer to the [DOW IntegraPac UF Product Manual](#).

Regulatory Note

NSF/ANSI 61 and 419 certified drinking water modules require specific conditioning procedures prior to producing potable water. Please refer to the product technical manual flushing section for specific procedures. Drinking water modules may be subjected to additional regulatory restrictions in some countries. Please check local regulatory guidelines and application status before use and sales.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

DOW™ Ultrafiltration

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Notice: The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.

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