DuPont™ IntegraTec™
Ultrafiltration Capabilities
Content

DuPont™ IntegraTec™ capabilities ............................................................................................................ 3
  The most versatile portfolio ....................................................................................................................... 4
  Solving various challenges with membrane excellence ............................................................................ 4
  Reliable & durable range of modules & racks configurations ................................................................. 5
  World class UF manufacturing & quality ................................................................................................. 5
  Expertise beyond the product ................................................................................................................... 5
DuPont™ IntegraTec™ Ultrafiltration ........................................................................................................... 6
  Portfolio overview ................................................................................................................................ 6
  Pressurized vs. submerged, PVDF vs. PES: which should I choose ...................................................... 6
Pressurized UF “P Series” ........................................................................................................................... 7
  PVDF UF Out-In ..................................................................................................................................... 7
  PES In-Out ............................................................................................................................................. 9
Submerged UF “S Series” ............................................................................................................................. 10
Integrated UF “I Series” ................................................................................................................................ 11
DuPont™ IntegraTec™
Ultrafiltration Capabilities

IntegraTec™ Ultrafiltration
a new global leader in Ultrafiltration (UF) Technology

- Broadest application cases for leverage total >3,000 Installations
- One-stop consultation for Multi-tech solutions

DuPont has created a UF portfolio that combines 3 industry leading brands and portfolios to deliver 35 years of experience and knowledge to the industry

- 40+ Scientists & engineers
- 200+ Patents
- 3000+ Global references
- 4 R&D sites
- 3 Manufacturing sites
- 700K+ Modules installed
- 50MM m³/day of water produced

Global competencies
- Global manufacturing capabilities
- World class technical service and application development
- UF modeling capabilities
- Pilot and testing facilities and demonstration units
- Membrane excellence
The most versatile portfolio delivers ideal solutions

Why choose DuPont™ IntegraTec™ Ultrafiltration Solutions?

Membrane excellence
Suitable to solve all challenges
- PVDF, PES and PP Chemistry
- Industrial, municipal and commercial applications
- Membrane prototyping and chemistry formulation

Manufacturing excellence
Trusted quality with world class production
- 3 manufacturing facilities
- Highest quality standards
- More than 35 years of experience
- 40+ drinking water regulatory certifications

Range of UF configurations
Durable, reliable & best fit solution
- Pressurized, submerged & integrated UF solutions
- Flexible commercial offering: components, racks and system level solutions
- Engineering & system design services

Expertise beyond the product
Customer tailored solutions
- 40 pilots globally located
- 75+ technical support professionals
- 40+ R&D specialists
- 5 regional labs
- Interactive tools (water academy, WAVE, iSD, Memsize)

Solving various challenges with membrane excellence

Decades of UF experience
- Industry leading portfolio
- Diverse membrane chemistries
- Solves various filtration challenges
- Proven results and large installed reference base
- Proven solids and pathogen rejection

PVDF “Polyvinylidene fluoride”
- High fouling resistance
- High oxidation resistance
- High Recovery

PES: Polyethersulfone
- Low energy
- Highest mechanical strength
- High virus rejection

Reliable & durable range of modules & racks configurations

Module & Potting
- Highest quality standards
- Optimal filtration performance
- Robustness, integrity & stability
- Effectively backwash and cleaning
- Differentiation to fit customer requirements
- Proven experience

Racks & Skids
- Durability & suitability
- Simplify installation
- Maximize productivity
- Scalable and economic
- Suit all geographies
World class UF manufacturing & quality
Manufacturing excellence in 3 production plants

Huzhou, China
- 22+ years
- PVDF/Out-In technology
- Pressurized & Integrated UF

Windsor, Australia
- 35+ years of UF manufacturing
- PVDF/Out-In technology
- Pressurized and Submerged UF

Greifenberg, Germany
- 20+ years of UF manufacturing
- PES/In-Out technology
- Pressurized & Integrated UF

Expertise beyond the product

WAVE projection software
- 75+ TS&D personnel globally
- Engineering support
- Drawings, layouts, designs, projections, P&ID
- Projection software: RO, UF & IER

Water Academy
- Water education resource
- Application, technology and design best practices
- 30+ Webinars available online

Extensive experience
with advanced expertise in application innovation
- 4 world class centers
- Real world testing conditions
- Industrial scale assets
- Best in class analytical lab
- System Optimization Services (SOS)
- Product & application experts

Portfolio overview

IntegraTec™ Ultrafiltration Portfolio

Pressurized P Series
- PVDF Out-In
- Modules
- IP racks Unassembled

Submerged S Series
- PES In-Out
- Modules
- CPII racks Pre-Assembled

Integrated I Series
- PVDF Out-In
- Multi Element Vessel
- CSII Solution
- Modules
- TR racks Unassembled
- Horizontal Modules

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## DuPont™ IntegraTec™ P Series

### PVDF UF Out-In

### PVDF open platform modules offering

<table>
<thead>
<tr>
<th>Standard</th>
<th>Adaptive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>XP 77</strong></td>
<td><strong>N 67 AM</strong></td>
</tr>
<tr>
<td>– 77 m² filtration area</td>
<td>– 67 m² filtration area</td>
</tr>
<tr>
<td>– 8” (D) x 80” (H) size</td>
<td>– 7” (D) x 70” (H) size</td>
</tr>
<tr>
<td>– 0.03 µm pore size fiber</td>
<td>– 4 adaptive end-caps</td>
</tr>
<tr>
<td>– Suitable for racks built by customers for medium to large size plants</td>
<td>– Suitable for new systems, containerized systems, or retrofit existing racks with PVDF</td>
</tr>
</tbody>
</table>

### XP 51
- 51 m² filtration area
- 8” (D) x 60” (H) size
- 0.03 µm pore size fiber
- Suitable for racks built by customers for containerized or height restricted sites

### XP 55 UXA
- 55 m² filtration area
- 6” (D) x 80” (H) size
- 3 adaptive end-caps
- Suitable for compact racks built by customers or replace other PVDF modules

### PVDF Scalable DuPont™ IntegraPac™ IP Racks

<table>
<thead>
<tr>
<th>IP Rack</th>
<th>IP UF Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Components</strong></td>
<td><strong>XP 77 IP</strong></td>
</tr>
<tr>
<td>- PVC filtrate and air scour pipes</td>
<td>- 77 m² filtration area</td>
</tr>
<tr>
<td>- Air scour tubing and DN connectors</td>
<td>- 8” (D) x 80” (H) size</td>
</tr>
<tr>
<td>- Connecting flanges</td>
<td>- 0.03 µm pore size fiber</td>
</tr>
<tr>
<td>- Frames with fastening nuts &amp; bolts</td>
<td>- Suitable for medium to large size plants</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Features</th>
<th><strong>XP 51 IP</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Scalable to fit 6 – 22 modules</td>
<td>- 51 m² filtration area</td>
</tr>
<tr>
<td>- Easily accessible</td>
<td>- 8” (D) x 60” (H) size</td>
</tr>
<tr>
<td>- Clear filtrate pipes</td>
<td>- 0.03 µm Pore size fiber</td>
</tr>
<tr>
<td>- Ships unassembled</td>
<td>- Suitable for containerized or height restricted sites</td>
</tr>
<tr>
<td>- High pressure rating</td>
<td>- Corrosion resistant materials</td>
</tr>
<tr>
<td>- Modular for ease of integration</td>
<td>- Modular for ease of integration</td>
</tr>
</tbody>
</table>
PVDF pre-assembled compact CPII Racks

Components

N 67 Modules
- 67 m² filtration area
- 7” (D) x 70” (H) size
- 0.03 µm Proven N Fiber

Fully assembled racks with
- Molded nylon rack headers
- ABS module housing center tube
- Mechanical fittings & accessories
- Painted, mild steel support skids

Features

- Up to 36 L40N modules per rack
- Self-supporting, self-manifolded for rapid installation
- Multiple configurations to fit a specific site
- Top and side module access point for ease of maintenance
- Standard seismic design
- Up to 5.0 bar operational pressure
- Most compact design for large scale projects
PES Streamlined T-Rack™ (TR) offering

**Components**

- Bottom frame & connecting brace
- Top cross brace
- Feed & drain integrated end caps
- Module connecting parts
- Filtrate header

**Features**

- Long and Short versions
- Safe, reliable & easy to assemble
- Lightweight
- Reduced shipping costs and assembly time
- High pressure rating
- Highest corrosion resistance class (C5)

**Components**

**TR Modules**

<table>
<thead>
<tr>
<th>MB PRO 95 TR</th>
<th>MB 80 TR</th>
<th>MB 50 TR</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 m² filtration area</td>
<td>80 m² filtration area</td>
<td>50 m² filtration area</td>
</tr>
<tr>
<td>10” (D) x 80” (H) size</td>
<td>10” (D) x 80” (H) size</td>
<td>10” (D) x 80” (H) size</td>
</tr>
<tr>
<td>0.02 µm innovative Multibore™ PRO fiber</td>
<td>0.02 µm Multibore™ fiber</td>
<td>0.02 µm Multibore™ fiber</td>
</tr>
<tr>
<td>Suitable for large desal &amp; drinking water plants</td>
<td>Suitable for medium to large size plants</td>
<td>Suitable for containerized or height restricted sites</td>
</tr>
</tbody>
</table>

**TR Module containerized solutions**

<table>
<thead>
<tr>
<th>MB 60 TR</th>
<th>MB 40 TR</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 m² filtration area</td>
<td>40 m² filtration area</td>
</tr>
<tr>
<td>10” (D) x 60” (H) size</td>
<td>10” (D) x 60” (H) size</td>
</tr>
<tr>
<td>0.02 µm Multibore™ fiber</td>
<td>0.02 µm Multibore™ fiber</td>
</tr>
<tr>
<td>Suitable for containerized or height restricted sites</td>
<td>Suitable for high TSS water filtration in containerized installations</td>
</tr>
</tbody>
</table>
## DuPont™ IntegraTec™ P Series

### PES In-Out

**PES Open Platform modules offering**

<table>
<thead>
<tr>
<th>Standard</th>
<th>MB PRO 95</th>
<th>MB 80</th>
<th>MB 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 95 m² filtration area</td>
<td>- 10” (D) x 80” (H) size</td>
<td>- 80 m² filtration area</td>
<td>- 10” (D) x 80” (H) size</td>
</tr>
<tr>
<td>- 0.02 µm innovativ Multibore™ PRO fiber</td>
<td>- Suitable for large desal &amp; drinking water plants</td>
<td>- 0.02 µm Multibore™ fiber</td>
<td>- Suitable for medium to large size plants</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- 0.02 µm Multibore™ fiber</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Suitable for containerized or height restricted sites</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MB 40</th>
<th>MB 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 40 m² filtration area</td>
<td>- 25 m² filtration area</td>
</tr>
<tr>
<td>- 10” (D) x 60” (H) size</td>
<td>- 10” (D) x 40” (H) size</td>
</tr>
<tr>
<td>- 0.02 µm Multibore™ fiber</td>
<td>- 0.02 µm Multibore™ fiber</td>
</tr>
<tr>
<td>- Suitable for High TSS water filtration</td>
<td>- Suitable for small plant size</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MB 55</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 55 m² filtration area</td>
</tr>
<tr>
<td>- 8” (D) x 60” (H) size</td>
</tr>
<tr>
<td>- 0.02 µm Multibore™ fiber</td>
</tr>
<tr>
<td>- Suitable for medium to large size plants</td>
</tr>
</tbody>
</table>
DuPont™ IntegraTec™ S Series

PVDF Out-In

PVDF compact submerged (CS & CSII) offering

Components

N 42 Modules
- 42 m² filtration area
- 4.7" (D) x 70" (H) size
- 0.04 µm Innovative N fiber
- Suitable for CSII Racks

S10N Modules
- 28 m² filtration area
- 5" (D) x 47" (H) size
- 0.04 µm Innovative N fiber
- Suitable for CS Racks

Pre-engineered nylon racks

In-tank rack support hardware

Features

- Up to 44 modules per rack
- Scalable building blocks
- High solids handling capacity
- Single step direct coupling to RO
- Low total cost of ownership
- Low energy consumption
- Most compact footprint
DuPont™ IntegraTec™ I Series

PVDF Out-In

PVDF multi-tech filter offering

Components

XP 52 Modules
- 52 m² filtration area
- 6” (D) x 80” (H) size
- 0.03 µm proven XP fiber

GRP Vessels:
- Various sizes & Pressure ratings
- Various base configuration

Integrated Self Cleaning Filter

Features

- Outdoor installation with limited civil investment
- Extended engineering & service packages
- High water recovery
- Low energy consumption
- Scalable & easy to assemble
- Flexible designs to suit various layouts
- Quick & simple to maintain
- Compact footprint
**DuPont™ IntegraTec™ I Series**

PES In-Out

**PES Horizontal Modules Suitable for retrofits and upgrades**

<table>
<thead>
<tr>
<th>Model</th>
<th>Filtration Area</th>
<th>Diameter (D)</th>
<th>Length (L)</th>
<th>Fiber Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB PRO 64 H</td>
<td>64 m²</td>
<td>8.7&quot;</td>
<td>60&quot;</td>
<td>0.02 µm Multibore™ PRO fiber</td>
</tr>
<tr>
<td>MB 55 H</td>
<td>55 m²</td>
<td>8.7&quot;</td>
<td>60&quot;</td>
<td>0.02 µm Multibore™ fiber</td>
</tr>
<tr>
<td>MB 40 H</td>
<td>40 m²</td>
<td>7.9&quot;</td>
<td>60&quot;</td>
<td>0.02 µm Multibore™ fiber</td>
</tr>
</tbody>
</table>

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