



## **Purity with simple sophistication.**

DuPont™ B-Free™ pre-treatment keeps your membranes free from biofouling

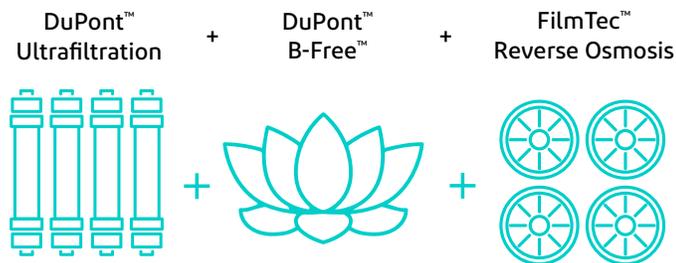
## Securing your membranes against biofouling

The DuPont™ B-Free™ pre-treatment is a novel vessel-based media technology that efficiently mitigates the effects of biofouling in Reverse Osmosis (RO) systems bringing peace-of-mind to customers by ensuring a reliable protection of the heart of the desalination plant.

### Multi-tech solution designed for easy upgrade or superior new-build

The B-Free™ solution pre-treats the seawater or brackish water ahead of the RO. For an optimum suspended solids removal and efficiency, ultrafiltration pre-treatment is recommended upstream B-Free™ filtration media. B-Free™ system enables a compact footprint solution and can be installed in both new plants and can also upgrade existing systems. B-Free™ technology can also retrofit existing sand-filters vessels with only minor adjustments.

DuPont multi-tech possibilities enable customers to achieve the full extent of DuPont™ B-Free™ pre-treatment benefits supported by exceptional warranties:



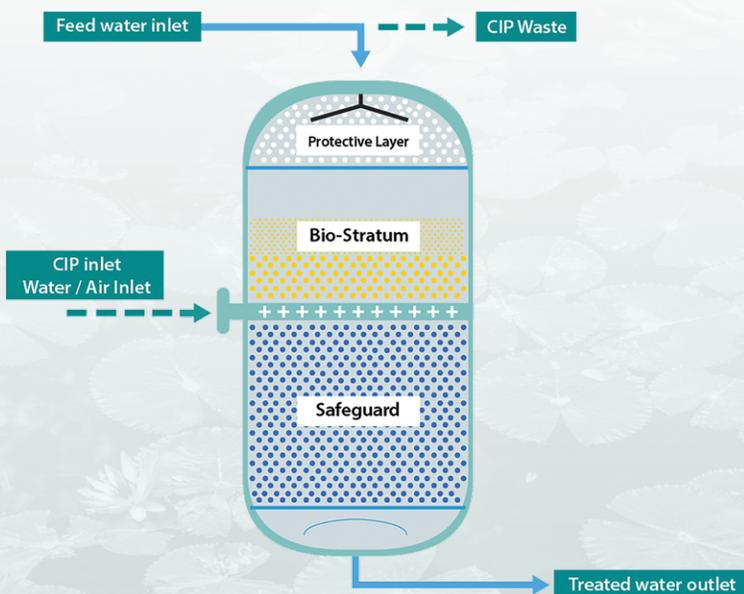
No matter how dirty the water is, the lotus plant thrives. Unblemished by the pollutants in its waters, it rises from the murky depths, blooming into a flower of pure and natural beauty. Unlike the lotus, that suppresses algae growth by removing nutrients and providing shade, Reverse Osmosis membranes are often still plagued by biofouling. It clogs them up, reducing their effectiveness, causing unwanted production interruptions, more energy and chemicals to be used and a shorter membrane life. And just as the lotus, DuPont™ B-Free™ pre-treatment technology offers purity with simple sophistication, an answer to cleaner reverse osmosis membranes.



# Easy to operate, maintenance friendly

Unlike other biofouling preventing techniques, DuPont™ B-Free™ pre-treatment technology offers a reliable, easy-to-use and sustainable solution that is based on its ability to create an instant and sustained biostatic environment for the downstream RO operations without the need for chemicals and resilient to upstream upsets, suitable for drinking water or industrial applications.

The DuPont™ B-Free™ pre-treatment can have a massive impact on the stability of the downstream RO operations, slashing the need for membrane and cartridge replacements and unplanned downtime due to cleanings.



## Benefits at a glance

- ☞ Peace-of-mind by ensuring a reliable protection of the heart of the desalination plant
- ☞ Low-touch and stable operations that minimize overall **system downtime**.
- ☞ Important reduction of **Clean-In-Place (CIP)** frequency in RO system and significantly extension of membranes and cartridge filters lifetime
- ☞ Easy to upgrade existing systems.

# For customers who are looking for designing, building and operating reliable and trouble-free RO systems



DuPont™ B-Free™ technology offers a **solution that prevents the negative effects of biofouling**

reducing the required downtime by up to 50%

lowering CIP frequency in RO by up to 75%.

extending RO membrane elements lifetime up to 200%

**DuPont™ B-Free™ pre-treatment takes away the trouble and expense associated with biofouling.**

**Optimized solution to reduce the total cost of water by up to 6% with an improved sustainability footprint for customers.**

Per each 10,000 m<sup>3</sup>/day of desalination capacity, DuPont™ B-Free™ pre-treatment technology will enable yearly savings up to:



**25,000 kg of CO<sub>2</sub> emissions**



**10,000 kg of chemicals**



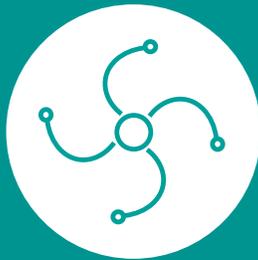
**4,000 m<sup>3</sup> of waste streams**

# Innovation beyond product specifications

With 70 years of separation-technology leadership, our global DuPont Water Solutions team is led by experts with unrivaled applications know-how, dedicated to global sustainability and backed by the most innovative R&D and technical service in the industry. We harness our collective global resources to ensure that your organization succeeds in all of its water and process operations.



Proven Trust



Effortless Engagement



Accessible knowledge



High-quality performance



Market-shaping innovation



Local expertise/  
Global Markets



Relationship



**Water Solutions**  
[dupont.com/water](http://dupont.com/water)

No freedom from infringement of any patent or trademark owned by DuPont or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where DuPont is represented. The claims made may not have been approved for use in all countries. DuPont assumes no obligation or liability for the information in this document. References to "DuPont" or the "Company" mean the DuPont legal entity selling the products to Customer unless otherwise expressly noted. **NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.** DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted. © 2021 DuPont.