Water Solutions

DUPONT™

iLEC™ Technology

The highest quality water at the lowest total cost – FilmTec™ membranes

Easier installation

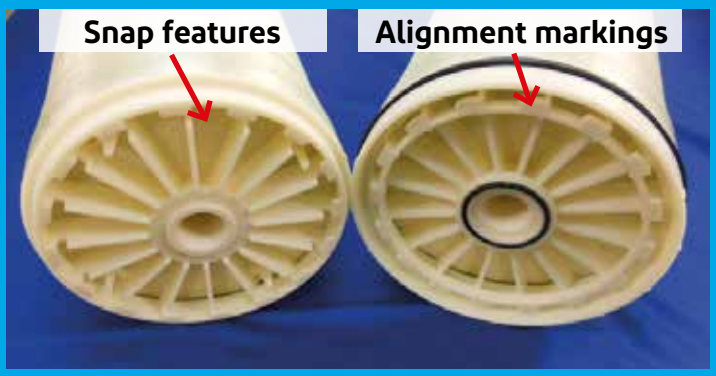
Easier maintenance

Trouble free operation

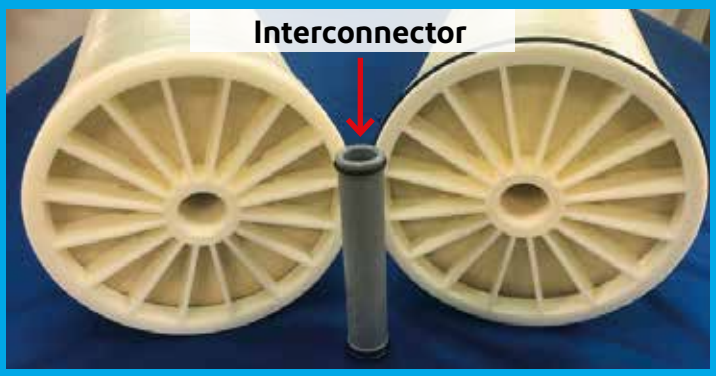
Energy savings

What is iLEC™?

iLEC™ is an interlocking end-cap technology of FilmTec™ RO/NF elements that avoids the need of installing an interconnector between membranes.



iLEC™ system



Standard system

Savings example

Considering a 19,000 m³/d brackish water plant with 1,050 membrane elements installed across 150 vessels, the following parts are saved:

900 **interconnectors** that increase **Energy** consumption saved

1,800 interconnector **o-rings** that are subject to frequent movement and may eventually **leak** saved

Key benefits of iLEC™ technology

- **Easier installation and maintenance**
  - iLEC™ provides immediate feedback on seal tightness, does not require lubricants and reduce spare parts
- **Trouble free operation**
  - iLEC™ helps keep the desired permeate water quality target, by eliminating risk of damaged o-rings
- **Energy savings**
  - iLEC™ reduces energy consumption due to the lack of interconnectors that creates a resistance to water flow

Why iLEC™?

iLEC™ allows users to enjoy easier installation and maintenance, trouble free operation and energy savings.

Easier installation

iLEC™ provides immediate feedback on seal tightness and does not require lubricants

Immediate feedback on seal tightness helps keeping the desired permeate water quality target

Lubricant-free installation preserves permeate quality

Easy loading and unloading thanks to optional tools

Easier maintenance

iLEC™ reduces spare parts

Reduced spare parts reduce maintenance cost

Trouble free operation

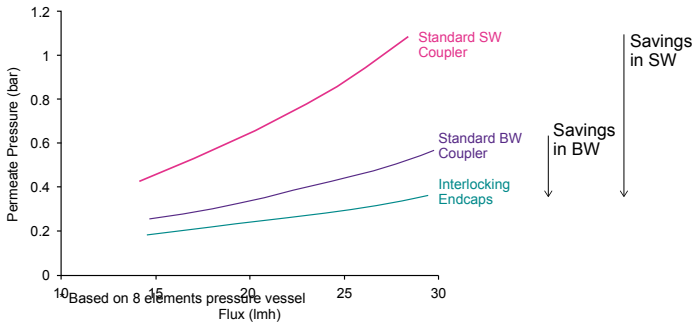
iLEC™ helps keeping the desired permeate water quality target, by eliminating risk of damaged o-rings

Leakage happens when o-rings are pinched and damaged during installation or routine maintenance

Easier permeate conductivity probing

Energy savings

iLEC™ reduces energy consumption due to the lack of interconnectors that creates a resistance to water flow



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References

Proven track record of iLEC™ in multiple installations across the world

Country	Capacity (m^3/d)	Technology	Application	Commissioning Year
Brazil	3,000	SWRO	Municipal	2017
Germany	2,400	BWRO	Pulp & Paper	2017
Santa Lucia	500	SWRO	Municipal	2017
China	48,000	NF	Municipal	2016
Korea	44,000	BWRO	Microelectronics	2016
Korea	32,000	BWRO	Microelectronics	2016
China	31,000	BWRO	Microelectronics	2016
China	29,000	BWRO	Microelectronics	2016
China	25,000	NF	Municipal	2016
USA	23,000	BWRO	Municipal	2016
USA	23,000	NF	Municipal	2016
Bahamas	19,000	SWRO	Municipal	2016
USA	15,000	NF	Municipal	2016
USA	15,000	NF	Municipal	2016
USA	4,200	NF	Municipal	2016
Brazil	3,100	BWRO	Pulp & Paper	2016
Spain	3,000	BWRO	Municipal	2016
China	2,200	SWRO	Chemical & Petrochemical	2016
Germany	1,900	BWRO	Building & Institutions	2016
Brazil	1,900	BWRO	Pulp & Paper	2016
UAE	1,500	BWRO	Municipal	2016
Singapore	1,200	BWRO	Microelectronics	2016
Russia	25,000	BWRO	Chemical & Petrochemical	2015
Mexico	18,000	BWRO	Chemical & Petrochemical	2015
China	9,600	SWRO	Chemical & Petrochemical	2015
Brazil	6,500	BWRO	Chemical & Petrochemical	2015
China	5,900	BWRO	Mining & Hydrometallurgy	2015
Netherlands	5,400	BWRO	Chemical & Petrochemical	2015
China	2,600	BWRO	Chemical & Petrochemical	2015
China	2,400	BWRO	Chemical & Petrochemical	2015
Brazil	2,400	BWRO	Food & Beverage	2015
USA	2,200	BWRO	Microelectronics	2015
Brazil	1,900	BWRO	Food & Beverage	2015
France	1,600	BWRO	Power Generation	2015

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