



Product Catalogue

ROShell RS.80

ROShell RSE.80

ROShell Cube RSC.80

Fabrication & Assembly Services

AquaShell AQHF.80

Cartrex CXHF.80

About Us

We are proud to be the [first manufacturer of membrane housings for large-scale reverse osmosis in the Middle East](#). Backed by [over 20 years of expertise](#) in delivering industrial and municipal reverse osmosis systems, our technology is designed for superior performance, reliability, and long-term value.

Launched in 2025, our state-of-the-art [production facility in the United Arab Emirates](#) is strategically positioned to serve both regional and global markets with efficiency.

We offer a comprehensive range of solutions for water treatment, including:

- Membrane housings for reverse osmosis
- Membrane housings and cartridges for high flow filtration
- Assembly and OEM fabrication services tailored to client requirements
- Spare parts and accessories for industrial reverse osmosis systems

RO Membrane Housings



High Flow Filtration Products



Our unique [ROShell Cube RSC.80](#) series offers effortless implementation, while our assembly and OEM fabrication service streamline operations, delivering unmatched convenience.

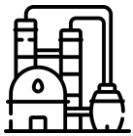
We are constantly expanding our product portfolio, adapting to the evolving needs of our clients. By staying close to our customers and deeply understanding their requirements, we ensure that our solutions enhance their competitiveness and growth in the global market.

We strive to be your [supplier of choice](#) and a [trusted long-term partner](#) in the industry.

State-of-the-art production facility in the UAE



Thousands of RO pressure vessels installed across the globe



Oil Refining and
Petrochemicals



Power



Chemicals



Food &
Beverages



Metallurgy



Municipal



ROShell RS.80

8-inch diameter fibreglass reinforced epoxy membrane housings for reverse osmosis with [side ports](#).

Features & Benefits

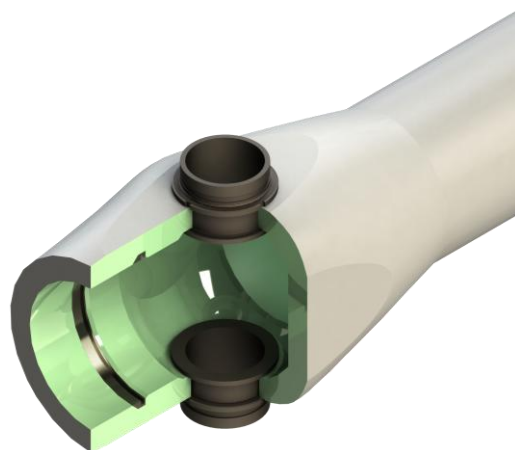
The [ROShell](#) RS.80 series is a high-performance membrane housing designed for 8" diameter reverse osmosis membranes, ensuring continuous and long-term reliability.

Side Ports:

Equipped with side ports up to 4" in diameter, featuring multi-porting capability. The flat inner surfaces of the heads provide a secure, leak-free seal. Easy installation with a threaded nut fastening system ensures a quick and secure connection.

End Plates:

The locking slot is seamlessly integrated into the housing shell for increased structural integrity. A quick-release spiral retaining ring allows for effortless installation and removal of the end plate assembly, simplifying maintenance.

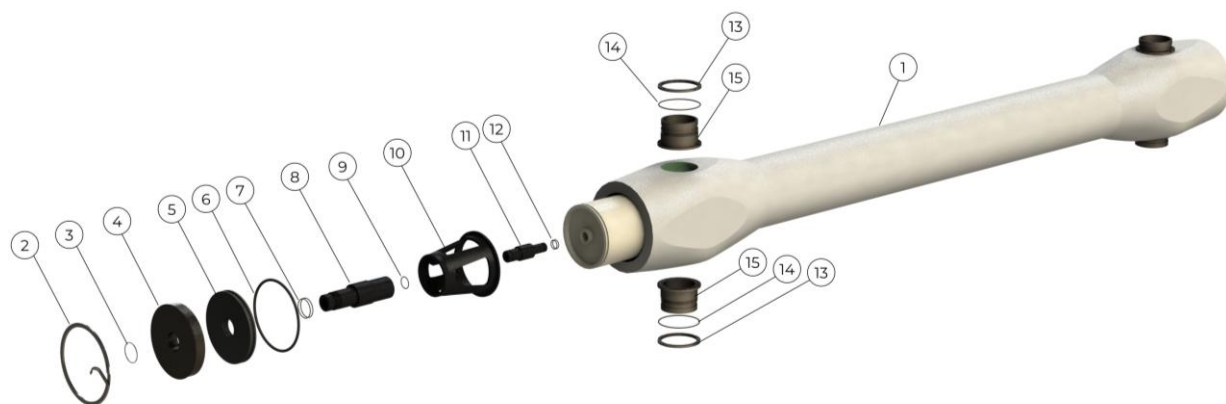


ROShell RS.80 Series Specifications

Model No.	Max. Operating Pressure	Qualification Pressure	Max. Operating Temperature	Number of Membrane Elements	Available Port Sizes
RS.80.0300	300 PSI / 20 BAR	1800 PSI / 124 BAR	120°F / 49°C	1-8	1.5", 2", 2.5", 3", 4"
RS.80.0450	450 PSI / 31 BAR	2700 PSI / 186 BAR	120°F / 49°C	1-8	1.5", 2", 2.5", 3", 4"
RS.80.0600	600 PSI / 41 BAR	3600 PSI / 248 BAR	120°F / 49°C	1-8	1.5", 2", 2.5", 3", 4"
RS.80.1000	1000 PSI / 69 BAR	6000 PSI / 414 BAR	120°F / 49°C	1-8	1.5", 2", 2.5", 3", 4"
RS.80.1200	1200 PSI / 83 BAR	7200 PSI / 496 BAR	120°F / 49°C	1-8	1.5", 2", 2.5", 3", 4"

ROShell RS.80

Exploded View



Parts Table

Item	QTY	Description	Material
1	1	Shell	Filament wound fibreglass reinforced epoxy composite with end plate locking slot integrally wound in place
2	2	Spiral Retaining Ring	Stainless Steel, 316L
3	2	Retaining Ring	Stainless Steel, 316L
4	2	Bearing Plate	6061-T6 Aluminium, Hard Anodised
5	2	Sealing Plate	Engineering Thermoplastic
6	2	Head Seal	EPDM
7	4	Permeate Port Seal	EPDM
8	2	Permeate Port	Engineering Thermoplastic
9	2	Adapter Seal	EPDM
10	1	Thrust Cone	Engineering Thermoplastic
11	2	Adapter	Engineering Thermoplastic
12	4	PWT Seal	EPDM
13	AR*	F/C Port Nut	Stainless Steel 316L
14	AR*	F/C Port Seal	EPDM
15	AR*	F/C Port	Stainless Steel 316L / Super Duplex 2507
16**	AR*	Support Saddle	Engineering Thermoplastic
17**	AR*	Strap Assembly	Stainless Steel 304, PVC Cushion
18**	AR*	Strap Screw	A2 Stainless Steel

*As required based on selected configuration

**Not shown in exploded view

ROShell Cube RSC.80

8-inch diameter fibreglass reinforced epoxy membrane housings for reverse osmosis with pioneering [inside port](#) design and convenient [saddle system](#).

Features & Benefits

The [ROShell Cube](#) RSC.80 series is a high-performance membrane housing designed for 8" diameter reverse osmosis membranes, ensuring continuous and long-term reliability.

Inside Ports:

Our innovative inside port system allows multiple housings to be directly connected. With diameters of up to 4", more housings can be linked together, minimizing the need for external pipe manifolds.

Saddles:

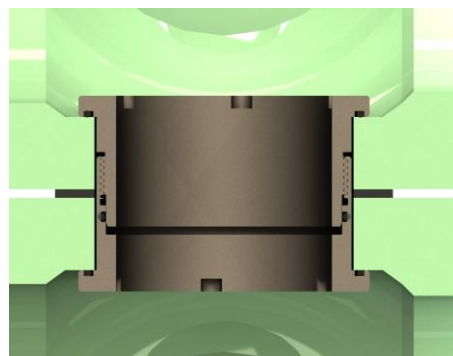
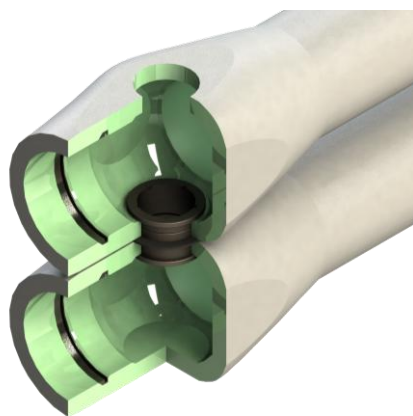
The integrated saddle system provides stable support without requiring an external frame, simplifying installation and reducing structural complexity.

Side Ports:

The flat inner surfaces of the heads provide a secure, leak-free seal. Easy installation with a threaded nut fastening system ensures a quick and secure connection.

End Plates:

The locking slot is seamlessly integrated into the housing shell for increased structural integrity. A quick-release spiral retaining ring allows for effortless installation and removal of the end plate assembly, simplifying maintenance.

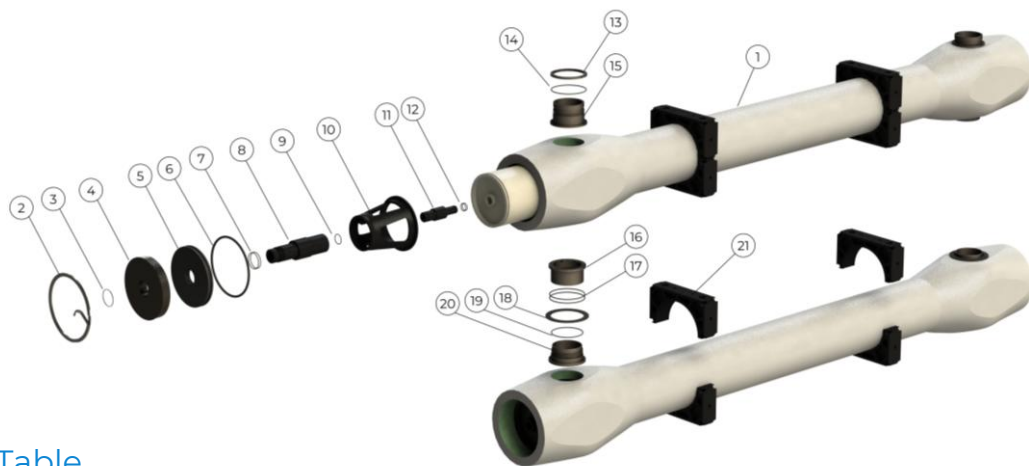


ROShell RSC.80 Series Specifications

Model No.	Max. Operating Pressure	Qualification Pressure	Max. Operating Temperature	Number of Membrane Elements	Available Port Sizes
RSC.80.0300	300 PSI / 20 BAR	1800 PSI / 124 BAR	120°F / 49°C	1-8	1.5", 2", 2.5", 3", 4"
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RSC.80.0600	600 PSI / 41 BAR	3600 PSI / 248 BAR	120°F / 49°C	1-8	1.5", 2", 2.5", 3", 4"
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ROShell Cube RSC.80

Exploded View



Parts Table

Item	QTY	Description	Material
1	1	Shell	Filament wound fibreglass reinforced epoxy composite with end plate locking slot integrally wound in place
2	2	Spiral Retaining Ring	Stainless Steel, 316L
3	2	Retaining Ring	Stainless Steel, 316L
4	2	Bearing Plate	6061-T6 Aluminium, Hard Anodised
5	2	Sealing Plate	Engineering Thermoplastic
6	2	Head Seal	EPDM
7	4	Permeate Port Seal	EPDM
8	2	Permeate Port	Engineering Thermoplastic
9	2	Adapter Seal	EPDM
10	1	Thrust Cone	Engineering Thermoplastic
11	2	Adapter	Engineering Thermoplastic
12	4	PWT Seal	EPDM
13	AR*	Side Port Nut	Stainless Steel, 316L
14	AR*	Side Port Seal	EPDM
15	AR*	Side Port	Stainless Steel 316L / Super Duplex 2507
16	AR*	Inside Port A	Stainless Steel 316L / Super Duplex 2507
17	AR*	Inside Port Axial Seal	EPDM
18	AR*	Cushioning Pad	PVC
19	AR*	Inside Port Radial Seal	EPDM
20	AR*	Inside Port B	Stainless Steel 316L / Super Duplex 2507
21	AR*	Saddle Assembly	Engineering Thermoplastic, PVC Cushion, A2 Stainless Steel Nut & Bolt

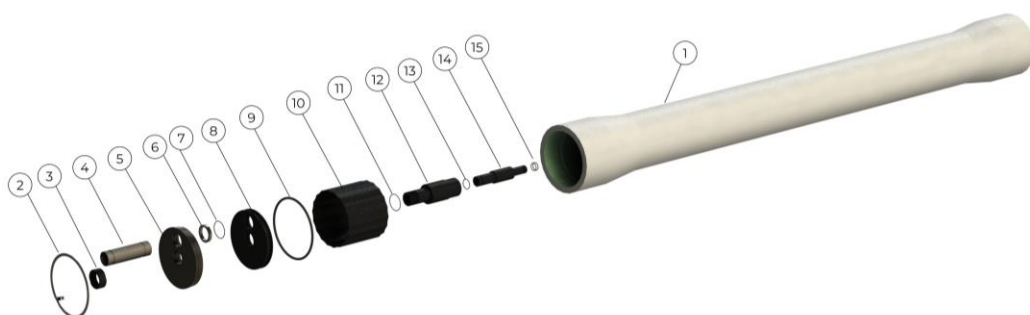
*As required based on selected configuration

ROShell RSE.80

8-inch diameter fibreglass reinforced epoxy membrane housings for reverse osmosis with end port.

ROShell RSE.80 Series Specifications

Model No.	Max. Operating Pressure	Qualification Pressure	Max. Operating Temperature	Number of Membrane Elements
RSE.80.0300	300 PSI / 20 BAR	1800 PSI / 124 BAR	120°F / 49°C	1-8
RSE.80.0450	450 PSI / 31 BAR	2700 PSI / 186 BAR	120°F / 49°C	1-8
RSE.80.0600	600 PSI / 41 BAR	3600 PSI / 248 BAR	120°F / 49°C	1-8
RSE.80.1000	1000 PSI / 69 BAR	6000 PSI / 414 BAR	120°F / 49°C	1-8
RSE.80.1200	1200 PSI / 83 BAR	7200 PSI / 496 BAR	120°F / 49°C	1-8



Item	QTY	Description	Material
1	1	Shell	Filament wound fibreglass reinforced epoxy composite with end plate locking slot integrally wound in place
2	2	Spiral Retaining Ring	Stainless Steel, 316L
3	2	Permeate Port Nut	Engineering Thermoplastic
4	2	1.5" F/C Port	Stainless Steel 316L / Super Duplex
5	2	Bearing Plate	6061-T6 Aluminium, Hard Anodised
6	2	F/C Port Retainer Set	Stainless Steel 316L, Two-piece set
7	2	F/C Port Seal	EPDM
8	2	Sealing Plate	Engineering Thermoplastic
9	2	Head Seal	EPDM
10	1	Thrust Cone	Engineering Thermoplastic
11	2	Permeate Port Seal	EPDM
12	2	Permeate Port	Engineering Thermoplastic
13	2	Adapter Seal	EPDM
14	2	Adapter	Engineering Thermoplastic
15	4	PWT Seal	EPDM

Fabrication & Assembly Services

ROshell Cube Skid

We offer [pre-assembled ROshell Cube RSC.80 series](#) membrane housings, delivered as a [ready-to-install skid](#) for your convenience.

The ROshell Cube RSC.80 series features [inside port connections](#), allowing for seamless integration of multiple housings. These housings are securely supported by our [innovative saddle system](#), ensuring ease of installation.

Additionally, perforated profiles attached to the saddles provide versatile [attachment points for essential RO system components](#), such as piping, valves, and instruments.



No additional frame required
between
membrane
housing rows

Compact design with a
smaller footprint

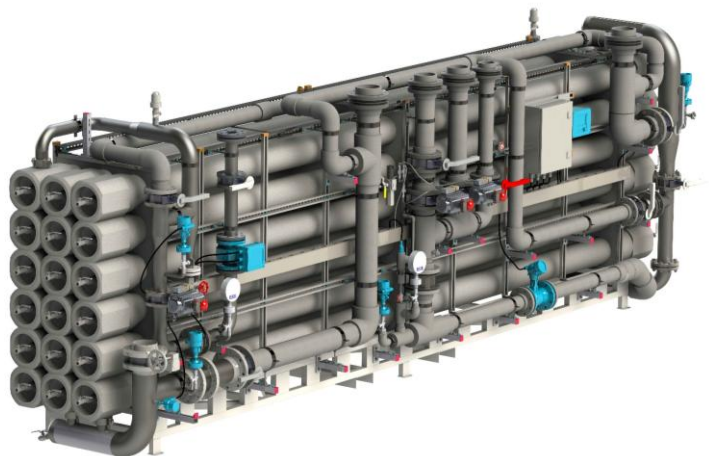
Simplified installation,
reducing
labour and
setup time

Fewer external pipe manifolds
needed, thanks
to **large-diameter**
inside ports

OEM Fabrication Service

Beyond our preassembled skids, we offer an OEM fabrication service for the [comprehensive assembly of reverse osmosis systems](#), tailored precisely to your specifications and [delivered as a ready-to-deploy system](#).

Our service includes [component procurement and assembly](#) based on your technical drawings. Additionally, we provide [optional engineering support](#) to transform a basic process definition into a fully detailed design that is ready for production.



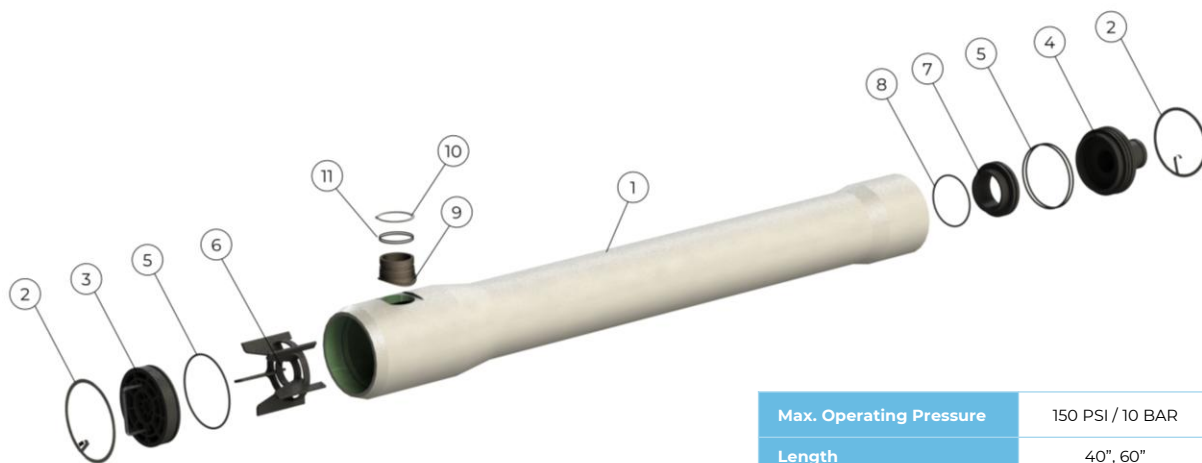
AquaShell AQHF.80

8" diameter fibreglass reinforced epoxy housings for high flow filtration.

Features & Benefits

AquaShell AQHF.80 Series is an FRP housing for high flow filtration. Designed for cartridge filters used in RO water treatment systems. Multiple configurations are available to fit the high flow cartridge type of your choice.

- Easy installation and maintenance. Can be disassembled easily for quick change-out of the cartridge without dismounting the surrounding pipe manifold.
- FRP housing is designed for corrosion resistance and high chemical resistance.
- Large capacity with a smaller footprint.



Max. Operating Pressure	150 PSI / 10 BAR
Length	40", 60"

Item	QTY	Description	Material
1	1	Shell	Filament wound fibreglass reinforced epoxy composite with end plate locking slot integrally wound in place
2	2	Spiral Retaining Ring	Stainless Steel, 316L
3	1	End Plate with Handle	Engineering Thermoplastic / SS304 Handle
4	1	End Plate with Port	Engineering Thermoplastic
5	3	End Plate Seal	EPDM
6	1	Thrust Ring	Engineering Thermoplastic
7	1	Adapter	Engineering Thermoplastic
8	1	Adapter Seal	EPDM
9	1	Side Port	Engineering Thermoplastic
10	1	Side Port Retaining Ring	Stainless Steel, 316L
11	2	Side Port Seal	EPDM

Cartrex CXHF.80 Series

High flow filter cartridges efficiently remove impurities from liquids while accommodating high flow rates.

- Larger diameter and increased surface area to handle large volumes of liquid.
- Easy to install and replace.
- Featuring a single open end design compatible with both outside to inside flow and inside to outside flow.
- Compatible with [AquaShell AQHF.80 Series FRP housing](#). Our standard models can replace high flow cartridges of Pall Ultiplex and Pentair Aqualine.



Model R – Pentair Aqualine Replacement
Outside to inside flow direction



Model L – Pall Ultiplex Replacement
Inside to outside flow direction

Model No.	Filter Media	Cartridge Length	Micron Rating	Seal Material
R	PP – Polypropylene	40 – 40"	010 – 1 µm	E – EPDM
		60 – 60"	030 – 3 µm	B – Buna-N
			050 – 5 µm	V – Viton
			100 – 10 µm	
			200 – 20 µm	
			400 – 40 µm	
			700 – 70 µm	
			1000 – 100 µm	

Model No.	Filter Media	Cartridge Length	Structure Form	Micron Rating	Seal Material
L	PP – Polypropylene	20 – 20"	N – Inner and outer skeleton	010 – 1 µm	S – Silicone
	GF – Glass Fiber	40 – 40"	W – Outer skeleton	030 – 3 µm	E – EPDM
		60 – 60"	R – External winding tape	050 – 5 µm	V – Viton
				100 – 10 µm	B – Buna-N
				200 – 20 µm	
				400 – 40 µm	
				700 – 70 µm	
				1000 – 100 µm	



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