



Spare Parts Manual

ROShell RS.80.0300



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ROShell Resilience & Reliability Framework™

RS.80.0300

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Exploded View



Parts Table

ITEM	PART NO.	DESCRIPTION	MATERIAL
1	10103000	Shell	Filament Wound Fiberglass Reinforced Epoxy
2	31512000	Bearing Plate	6061-T6, Aluminium, Hard Anodised
3	32110000	Sealing Plate	Engineering Thermoplastic
4	A/R	Permeate Port	Engineering Thermoplastic
5	35110000	Thrust Cone	Engineering Thermoplastic
6	41121801	Spiral Retaining Ring / Finger Pull	Stainless Steel, 316L
7	42105201	Permeate Port / Retaining Ring	Stainless Steel
8	51119021386	Head Seal	EPDM
9	51119005626	Permeate Port Seal	EPDM
10	A/R	Adaptor	Engineering Thermoplastic
11	51119003126	Adaptor Seal	EPDM
12	51117002326	PWT Seal	EPDM
13	A/R	F/C Port	Stainless Steel, 316L
14	A/R	F/C Port Nut	Stainless Steel
15	A/R	F/C Port Seal	EPDM
*16	60100100	Support Saddle	Thermoplastic Rubber
*17	60100200	Strap Assembly	Stainless Steel / Rubber Cushion
*18	A/R	Shim Ring	Engineering Thermoplastic

*Not shown in exploded view

Spare Parts - Description

1. Permeate Port Snap Ring (Part No. 42105201)

Manufactured from stainless steel, this retaining ring / circlip secures the permeate port components and ensures stable positioning under operating pressure.



2. Spiral Retaining Ring (Part No. 42121801)

Head Retaining Ring, made of stainless steel 316L, is used to securely lock the end closure assembly in place. The finger pull feature allows easy installation and removal.



3. Bearing Plate (Part No. 31512000)

The bearing plate is made from 6061-T6 aluminium with hard anodizing. It provides structural support and precise alignment for internal components while ensuring corrosion resistance.



4. Sealing Plate (Part No. 32110000)

The sealing plate, made of engineering thermoplastic, ensures proper sealing of the vessel and supports internal components while maintaining chemical compatibility.



5. Head Seal (Part No. 51119021386)

The head seal is made of EPDM and provides a leak-proof seal between the end closure and the vessel, ensuring safe and efficient operation.



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Spare Parts - Description

6. Thrust Cone (Part No. 35110000)

The thrust cone is made of engineering thermoplastic and is designed to transfer axial loads from the membrane stack, ensuring proper positioning and preventing movement during operation.



7. Permeate Port

The permeate port is constructed from engineering thermoplastic. The connection allows the extraction of permeate water from the membrane elements with reliable sealing performance.

PART NO.	SPECIFICATION
33110010	1.5" IPS Grooved End, 1" BSP Female
33110020	Type 1.5" NPT Male



8. Permeate Port Seal (Part No. 51119005626)

This EPDM seal is designed to prevent leakage at the permeate port interface, maintaining system integrity and performance.



9. Adaptor

The adaptor, made from engineering thermoplastic, connects membrane elements and ensures proper alignment and flow transition within the vessel. Two standard (Open). Size: 1.125".



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Spare Parts - Description

PART NO.	SPECIFICATION
34210010	Two standard (Open) Size: 1.125"
34210011	Standard Solid (blind) Size: 1.125"
34210020	Two standard (Open) Size: 1.5"
34210021	Standard Solid (blind) Size: 1.5"

10. Adaptor Seal (Part No. 51119003126)

The adaptor seal is made of EPDM and provides sealing between adaptor components to prevent leakage and maintain system efficiency.



11. PWT Seal (Part No. 51117002326)

The PWT seal, manufactured from EPDM, ensures proper sealing within the permeate water tube system, preventing internal leakage.



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Spare Parts - Description

12. F/C Side Port

The feed/concentrate (F/C) side port is made from stainless steel 316L and serves as the inlet and outlet connection for feed and concentrate streams.

PART NO.	SPECIFICATION
21114000	Design Pressure: 600 psi, Size: 1.5"
21124000	Design Pressure: 600 psi, Size: 2"
21134000	Design Pressure: 600 psi, Size: 2.5"
21144000	Design Pressure: 600 psi, Size: 3"
21154000	Design Pressure: 600 psi, Size: 4"



13. F/C Side Port Nut

This stainless-steel nut secures the F/C port connection, ensuring a tight and leak-proof assembly.

PART NO.	SPECIFICATION
22110000	Side Port Nut - 1.5"
22120000	Side Port Nut - 2"
22130000	Side Port Nut - 2.5"
22140000	Side Port Nut - 3"
22150000	Side Port Nut - 4"



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Spare Parts - Description

14. F/C Side Port Seal

The F/C side port seal is made of EPDM and ensures leak-free sealing at the feed and concentrate port connections.

PART NO.	SPECIFICATION
51119006353	Side Port Seal - 1.5"
51119007553	Side Port Seal - 2"
51119008853	Side Port Seal - 2.5"
51119010453	Side Port Seal - 3"
51119012953	Side Port Seal - 4"



15. Shim Ring

The shim ring is used for membrane element positioning and adjustment. Material: engineering thermoplastic.

PART NO.	SPECIFICATION
37210010	Thickness: 3 mm
37210020	Thickness: 10 mm



16. Support Saddle (Part No. 60100100)

The support saddle is made from thermoplastic rubber and provides stable support for the vessel while minimizing vibration and mechanical stress.



17. Saddle Strap Assembly (Part No. 60100200)

The Saddle Strap Assembly is supplied as a complete set comprising the Saddle Strap and Strap Screw, ensuring secure mounting of the vessel.



ROShell FZC
Unit FB 207-1
Fujairah Freezone 2
P.O. Box 50267
Fujairah, UAE

Contact Us
info@roshell.net
www.roshell.net
www.linkedin.com/company/roshell

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