

# Reverse Osmosis Membrane Housings

by

**STROMEN**<sup>TM</sup>

STROMEN FRP reverse osmosis membrane housings are manufactured by four axis CNC Filament winding Machine and associated high precision processing equipments, with a team of skilled technical experts in the field of computer controlled machines and with all the state - of - art processing machine.

The housings are made of superior resin that provides the ultimate glassy finish inside it. Carefully selected optimal grade raw materials provide strength, reliability, guarantee and unparalleled performance.

STROMEN Membrane Housing is produced with 2.5" diameter up to 2 elements, 4" diameter up to 6 elements and 8" diameter up to 7 elements with pressure rating from 300PSI to 1200 PSI. END PORT/SIDE PORT both options available.

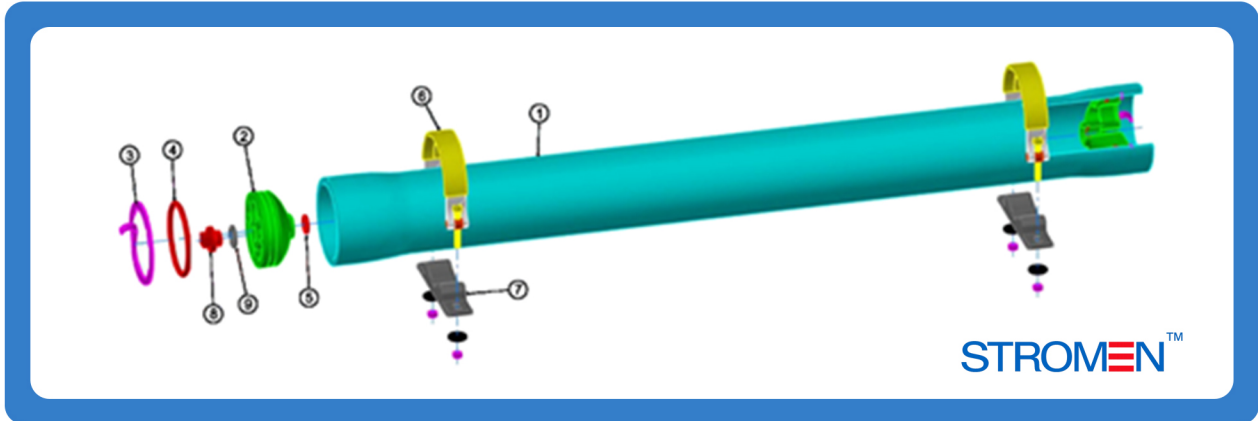
STROMEN membrane Housing's each unit is tested in the factory at 1.5 times of its actual working

# STROMEN 4 INCH END PORT MEMBRANE HOUSING

STROMEN 4 inch membrane housings are used for commercial and industrial RO applications. They are made of epoxy /glass composite for long and continuous use in any RO applications. They can accommodate any standard 4 inch element.



## STROMEN 4 INCH MEMBRANE HOUSING EXPLODED VIEW AND DETAILS



No.	Description	Materials	Qty.
1	Housing Shell	FRP	1 Nos.
2	End Plug	Thermo Plastic	2 Nos.
3	Retainino Locking Ring	SS304	2 Nos.
4	End Plug Seal	Synthetic Nitrile	2 Nos.
5	Permeate Port Seal	Synthetic Nitrile	2 Nos.
6	Straps Assembly	SS304, with PVC Sleeve	2 Nos.
7	Support Saddle	LDPE	2 Nos.
8	Permeate Thread Cap	LDPE	1 Nos.
9	Cap Square Seal	Synthetic Nitrile	1 Nos.

## TECHNICAL SPECIFICATION

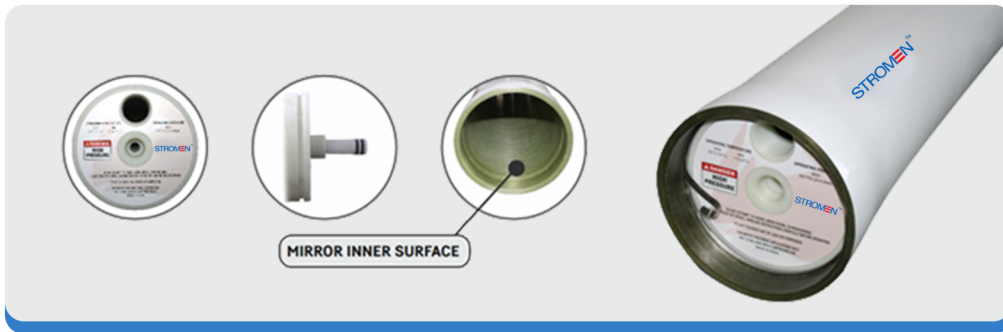
MEMBRANE FILTER HOUSING MODEL NO.	MAX OPERATING PRESSURE	MAX OPERATING TEMPERATURE	QUALITY CONTROL TEST PRESSURE	BURST PRESSURE	ELEMENT LENGTH
R-40E-300	300PSI (20BAR)	49°C (120°F)	450PSI (31BAR)	1500PSI (103BAR)	1 - 6
R-40E-350	450PSI (31BAR)	49°C (120°F)	675PSI (47BAR)	2250PSI (155BAR)	1 - 6
R-40E-600	600PSI (41BAR)	49°C (120°F)	900PSI (62BAR)	3000PSI (207BAR)	1 - 6
R-40E-1000	1000PSI (69BAR)	49°C (120°F)	1500PSI (103BAR)	5000PSI (345BAR)	1 - 6

# STROMEN 8 INCH MEMBRANE HOUSING -R,Q,H Series

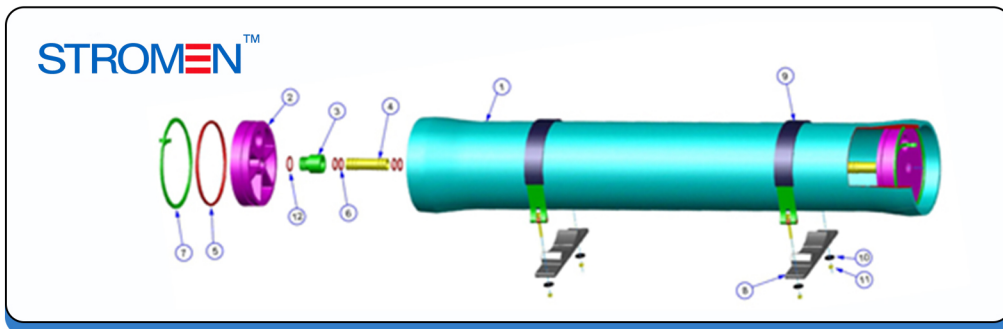
Stromen 8 INCH MEMBRANE HOUSINGS ARE AVAILABLE IN 3 VARIANTS – R series, Q series and H series, to cater any particular requirement.

## STROMEN - R SERIES 8 INCH MEMBRANE HOUSINGS

- ◆ Used for commercial, municipal and industrial RO applications.
- ◆ The most economic variant.
- ◆ R series membrane housing models are available upto a maximum operating pressure of 300 PSI.
- ◆ R series membrane housings are available for upto 6 elements.
- ◆ It comes with SINGLE PIECE Head assembly.
- ◆ Only END PORT option is available in this series.
- ◆ These housings are made up of epoxy/glass composite to meet the demands of long term and continuous use in RO processes.
- ◆ STROMEN membrane housings can accommodate any standard 8" membrane Element.



## STROMEN 8 INCH R SERIES MEMBRANE HOUSING EXPLODED VIEW



SR. NO.	PART NAME	QTY.
1	HOUSING	1
2	END CAP	2
3	PERMEATE PORT	2
4	CONNECTOR	2
5	END CAP O RING	2
6	CONNECTOR O RING	8

SR. NO.	PART NAME	QTY.
7	RETAINING RING	2
8	SADDLE	2
9	STRAP	2
10	WASHER	4
11	NUT	4
12	PERMEATE PORT O RING	2

## TECHNICAL SPECIFICATION

MEMBRANE HOUSING MODEL NO.	MAX OPERATING PRESSURE	MAX OPERATING TEMPERATURE	QUALITY CONTROL TEST PRESSURE	ELEMENT LENGTH
Q-80E-300(ECONOMIC)	300PSI	49°C (120°F)	360PSI	1 - 6

## STROMEN R SERIES – Material Of Construction

SR. NO.	PART NAME	QTY.	MATERIAL
1	MEMBRANE HOUSING	1	Filament Wound Epoxy/Glass composites
2	ADAPTER	2	Engineering Thermoplastic
3	PERMEATE PORT	2	Engineering Thermoplastic
4	HEAD ASSEMBLY	2	Engineering Thermoplastic
5	HEAD ASSEMBLY O RING	2	Synthetic Nitrile / Ethylene Propylene
6	ADAPTER MEMBRANE O RING	4	Synthetic Nitrile / Ethylene Propylene
7	ADAPTER PERMEATE O RING	4	Synthetic Nitrile / Ethylene Propylene
8	PERMEATE SEALING O RING	2	Synthetic Nitrile / Ethylene Propylene
9	RETAINING RING	2	S.S. 304
10	SADDLE	2	Engineering Thermoplastic
11	STRAP ASSEMBLY	2	S.S. 304 PVC Cushion

## FEATURES & BENEFITS

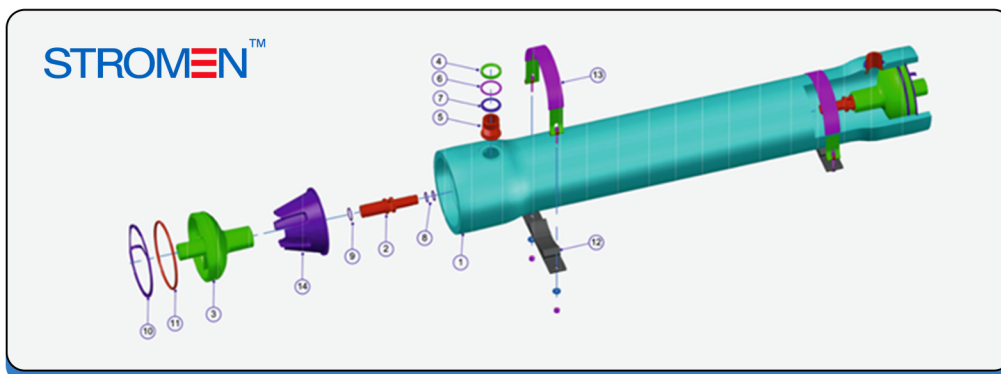
- ◆ Mirror Finished ID for easy & quick loading & unloading membranes.
- ◆ External surface coated with high gloss polyurethane paint for UV resistance.
- ◆ Quick lock head retention system for quick access to membranes.
- ◆ More accurate Head Seal Area is formed by mandrel surface.
- ◆ Compact design for use in compact and low energy water treatment units.
- ◆ Head Seal is captured, hence doesn't roll during head assembly fitment.

# STROMEN-Q SERIES 8 inch RO MEMBRANE HOUSINGS

- ◆ STROMEN-Q series RO membrane housings are value for money SIDE PORT membrane housings series.
- ◆ Pressure rating 300 psi and 450 psi both options available in this series.
- ◆ These housings are made up of epoxy/glass composite to meet the demands of long term and continuous use in RO processes.
- ◆ Stromen Q series membrane housings are available for upto 7 elements.
- ◆ It comes with single piece Head assembly and only SIDE PORT option is available in this series.



## STROMEN Q SERIES MEMBRANEHOUSING EXPLODED VIEW



SR. NO.	PART NAME	QTY.
1	MAMBRANE HOUSING	1
2	ADAPTER	2
3	HEAD ASSEMBLY	2
4	FC PORT CHUCK NUT	2
5	1.5" FC PORT	2
6	CHUCK NUT WASHER	2
7	FC PORT SEAL	2

SR. NO.	PART NAME	QTY.
8	ADAPTER MEMBRANE O RING	4
9	ADAPTER PERMEATEO RING	2
10	RETAINING RING	2
11	HEAD ASSEMBLY O RING	2
12	SADDLE	2
13	STARP ASSEMBLY	2
14	SPACER	2

MEMBRANE HOUSING MODEL NO.	MAX OPERATING PRESSURE	MAX OPERATING TEMPERATURE	QUALITY CONTROL TEST PRESSURE	BURST PRESSURE	ELEMENT LENGTH
Q-80S-300EC	300 PSI (20 BAR)	49°C (120°F)	330PSI (22.75 BAR)	1200PSI (82.75 BAR)	1 - 7
Q-80S-450EC	450 PSI (31 BAR)	49°C (120°F)	495PSI (34.12 BAR)	1800PSI (124.13 BAR)	1 - 7

## STROMEN Q SERIES : Material Of Construction

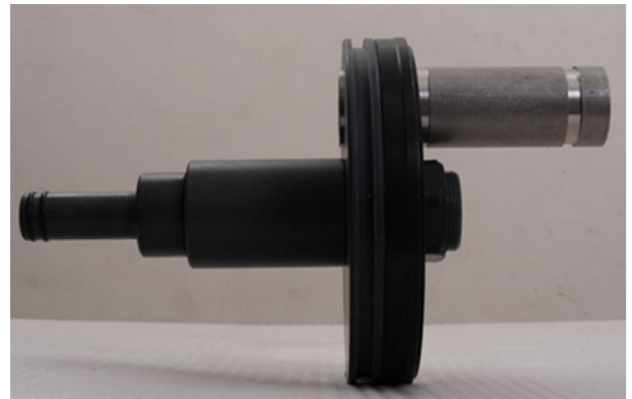
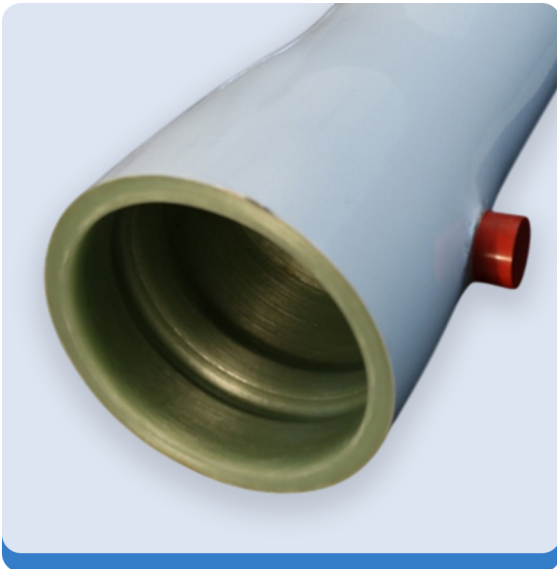
SR. NO.	PART NAME	QTY.	MATERIAL
1	MEMBRANE HOUSING	1	Filament Wound Epoxy/Glass composites
2	ADAPTER	2	Engineering Thermoplastic
3	HEAD ASSEMBLY	2	Engineering Thermoplastic
4	FC PORT CHECK NUT	2	S.S. 304
5	FC PORT	2	CF3M as per SA-351
6	CHECK NUT WASHER	2	S.S. 304
7	FC PORT	2	Ethylene Propylene / Synthetic Nitrile
8	ADAPTER MEMBRANE O RING	4	Ethylene Propylene / Synthetic Nitrile
9	ADAPTER PERMEATE O RING	2	Ethylene Propylene / Synthetic Nitrile
10	RETAINING RING	2	S.S. 316 as per SA-479
11	HEAD ASSEMBLY O RING	2	Ethylene Propylene / Synthetic Nitrile
12	SADDLE	2	Engineering Thermoplastic
13	STRAP ASSEMBLY	2	S.S. 304 PVC Cushion
14	SPACER	1	Engineering Thermoplastic

## UNIQUE BENEFITS

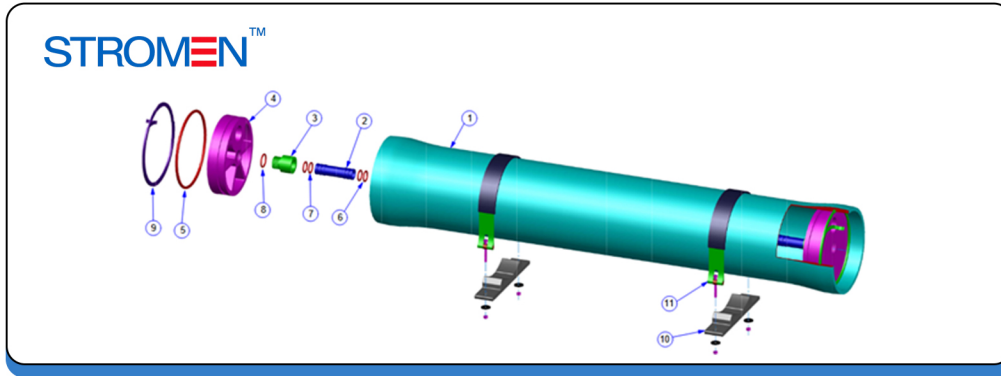
- ◆ **Minimized leakage:** The integrated shape provides a flat surface for superior and reliable side port sealing
- ◆ **Advanced end closure:** Single-piece head, made of high-grade thermoplastic material, provides superior chemical resistance and eliminates permeate port sealing joints
- ◆ **Easy service and maintenance:** The threaded side ports are easy to mount and allow for quick & easy on-site maintenance and replacements
- ◆ **Quick locking mechanism:** The user-friendly Quick Lock System eliminates the need for special removal tools and allows quick access to the membranes
- ◆ **Improved head sealing:** Integration into the head/sealing plate provides better sealing and avoids head seal roll, eliminating head leaks
- ◆ **Integrally wound locking groove:** Enhanced end-margin strength for better performance

# STROMEN H SERIES MEMBRANE HOUSINGS

- ◆ STROMEN-H series RO membrane housings are HEAVY DUTY SIDE PORT/END PORT membrane housings series.
- ◆ ENDPOR /SIDE PORT both options available.
- ◆ 300/450/600/1000/1200 psi - All options available.
- ◆ These housings are made up of epoxy/glass composite to meet the demands of long term and continuous use in RO processes.
- ◆ It comes with heavy duty dual-piece Head assembly, which makes it suitable for any application.
- ◆ Known for Durability, Reliability and Performance.



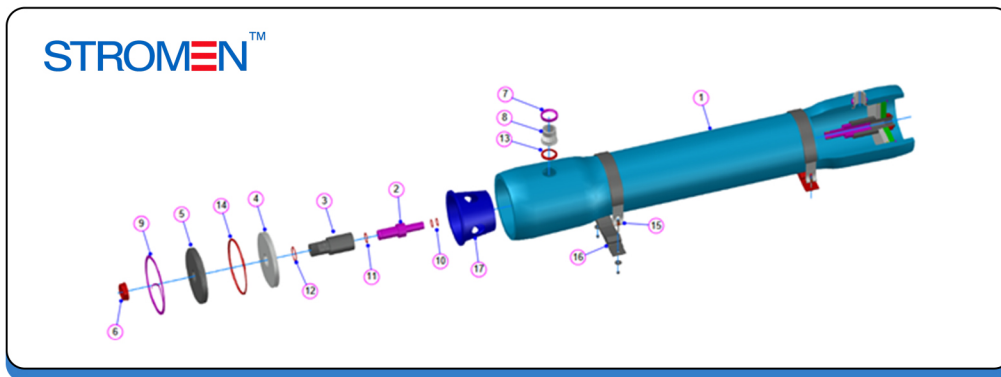
## STROMEN H SERIES - END PORT EXPLODED VIEW



SR. NO.	PART NAME	QTY.
1	MEMBRANE HOUSING	1
2	ADAPTER	2
3	PERMEATE PORT	2
4	HEAD ASSEMBLY	2
5	HEAD ASSEMBLY O RING	2
6	ADAPTER MEMBRANE O RING	2

SR. NO.	PART NAME	QTY.
7	ADAPTER PERMEATE O RING	2
8	PERMEATE O RING	2
9	RETAINING RING	2
10	SADDLE	2
11	STRAP ASSEMBLY	2
12	PERMEATE PORT O RING	2

## STROMEN H SERIES SIDE PORT EXPLODED VIEW



SR. NO.	PART NAME	QTY.
1	MAMBRANE HOUSING	1
2	ADAPTER	2
3	PERMEATE PORT	2
4	SEALING PLATE	2
5	BEARING PLATE	2
6	PORT NUT	2
7	FC PORT SEAL	2
8	FC PORT	2
9	RETAINING RING	2

SR. NO.	PART NAME	QTY.
10	ADAPTER - MAMBRANE O RING	4
11	ADAPTER - PERMEATE O RING	2
12	PERMEATE - SEALING O RING	2
13	FC PORT SEAL	2
14	HEAD ASSEMBLY O RING	2
15	STRAP ASSEMBLY	2
16	SADDLE	2
17	SPACER / THRUST CONE	1
18	RETAINING RING	2

SR. NO.	PART NAME	QTY.	MATERIAL
1	MEMBRANE HOUSING	1	Filament Wound Epoxy/Glass composites
2	ADAPTER	2	Engineering Thermoplastic
3	HEAD ASSEMBLY	2	Engineering Thermoplastic
4	SEALING PLATE	2	Engineering Thermoplastic
5	BEARING PLATE	2	6061-T6 as per SB-221
6	PORT NUT	2	Engineering Thermoplastic
7	FC PORT LOCK NUT	2	S.S. 304
8	FC PORT	2	CF3M as per SA-351
9	RETAINING RING	2	S.S. 316 as per SA-479
10	ADAPTER MEMBRANE O RING	4	Ethylene Propylene / Synthetic Nitrile
11	ADAPTER PERMEATE O RING	2	Ethylene Propylene / Synthetic Nitrile
12	PERMEATE SEALING O RING	2	Ethylene Propylene / Synthetic Nitrile
13	FC PORT SEAL	2	Ethylene Propylene / Synthetic Nitrile
14	HEAD ASSEMBLY O RING	2	Ethylene Propylene / Synthetic Nitrile
15	STRAP ASSEMBLY	2	S.S. 304 - PVC Cushion
16	SADDLE	2	Engineering Thermoplastic
17	SPACER / THRUST CONE	1	Engineering Thermoplastic
18	FC PORT WASHER	2	S.S. 316

## UNIQUE BENEFITS

- ◆ **Compact design:** for use in compact and low-energy water treatment units
- ◆ Membrane housings are with dual-piece end plug made from **superior quality thermoplastic material and metal bearing plate**
- ◆ **Higher pressure rated model for seawater applications** accommodates a maximum of seven membrane elements
- ◆ **Improved head sealing:** Integrated groove in the end plug /sealing plate provides better sealing and avoids head seal roll
- ◆ **Integrally formed locking groove:** enhanced end-margin strength for better performance

## About **STROMEN**<sup>TM</sup>

Stromen FRP range of products makes the most of water purification projects. Stromen products are built to withstand rigorous operations. All products designed and manufactured as per global standards.

With superior technology, we help equipment manufacturers, engineering and construction contractors to build the world's most reliable and cost-effective membrane water treatment systems.

Stromen is the leading pressure vessel brand and recognized for its high quality FRP and HDPE product portfolio and market changing innovations. Stromen is a brand from FIPL, the most trustworthy component supplier and water treatment partner for OEMs of the industry.

# Engineered To Endure



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