



Reliability Assured

HYDRON
MEMBRANE TECHNOLOGY





HYDRON 4" FRPV Membrane Housing

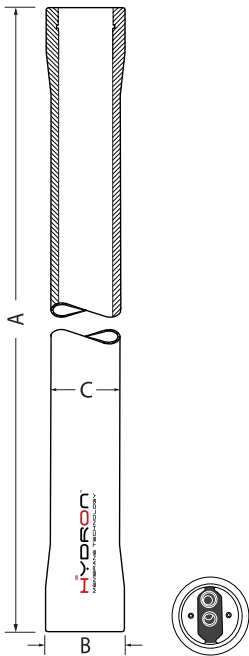
FRPV-4030EF / FRPV-403080EF / FRPV-4012030EF

HYDRON 4" FRPV Series II Membrane Housings are durable composite reinforced membrane vessels designed for use in commercial and industrial Reverse Osmosis systems. FRPV vessels are coated with high gloss polyurethane paint to provide resistance to UV rays and other elements.

HYDRON 4" FRPV Series II Membrane Housings can accommodate any standard 40" membrane element, have a compact design and offer a reliable head seal area. Hydron FRPV membrane housings are made to meet the demands of long term and continuous use.

- Accommodates all standard 4"x 40" membrane elements.
- Locking plate with allen head bolts for easy maintenance and safety.
- Manufactured to meet the demands of long term and continuous use.
- High Gloss Polyurethane Exterior Coating for resistance to UV rays and other elements.
- Compact design for commercial and industrial reverse osmosis and ultrafiltration applications.

4" FRPV Membrane Housing Specifications						
Elements	Part Number	Maximum Operating Pressure	Maximum Operating Temperature	Minimum Operating Temperature	Inlet Port	Permeate Port
1	FRPV-4030EF	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	1/2"	1/2"
2	FRPV-403080EF	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	3/4"	1/2"
3	FRPV-4012030EF	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	3/4"	1/2"



INTENDED USE

The model FRPV-4030EF Fiberglass RO/UF Pressure Vessel is designed for continuous, long-term use as a housing for single reverse osmosis and ultrafiltration elements in typical commercial water treatment systems at pressures up to 300 psi.

Any make of 4"x 40" nominal diameter spiral-wound element is easily accommodated.

The model FRPV-4030EF must be installed, operated and maintained in accordance with the listed precautions, and good industrial practice to assure safe operation over a long service life.

The high performance reinforced plastic shell must be allowed to expand under pressure; undue restraint at support points or piping connections can cause leaks to develop in the shell.

The end closure, incorporating close-fitting, interlocking metal components, must be kept dry and free of corrosion; deterioration can lead to catastrophic mechanical failure of the head assembly.

*Specifications subject to change without notice.

PRECAUTIONS

DO... read, understand and follow all instructions; failure to take every precaution will void warranty and may result in vessel failure.

DO... inspect end closures regularly; replace components that have deteriorated and correct causes of corrosion.

DO... provide overpressure protection for vessel set at not more than 105% of design pressure.

DO... mount shell on horizontal or vertical members at central span "S" using compliant, vessel supports; tighten hold down straps just snug.

DO NOT... pressurize vessel until double checking to verify that the retaining rings are in place.

DO NOT... work on any component until first verifying that pressure is relieved from vessel.

DO NOT... tolerate leaks or allow end closures to be routinely wetted in any way.

DO NOT... operate vessel with permeate pressure in excess of 125 psi at 120 °F (0.86 MPa at 49°C).

DO NOT... make rigid piping connections to parts or clamp vessel in any way that restricts growth of fiberglass shell under pressure; Δ DIA = 0.01 in. (0.25 mm) and Δ L = 0.3 in. (.8 mm) for a length code -1 vessel.

DO NOT... hang piping manifolds from parts or use vessel in any way to support other components.

DO NOT... operate at pH levels below 3 or above 11.

DO NOT... operate vessel at pressures and temperatures in excess of its rating.

FRPV Membrane Housing Measurements				
Elements	Part Number	A	B	C
		in (mm)	in (mm)	in (mm)
1	FRPV-4030EF	44.88" + 0.08" (1140 + 2)	Ø4.80" + 0.08" (Ø122 + 2)	Ø4.25" + 0.08" (Ø108 + 2)
2	FRPV-403080EF	84.88" + 0.08" (2156 + 2)	Ø4.80" + 0.08" (Ø122 + 2)	Ø4.25" + 0.08" (Ø108 + 2)
3	FRPV-4012030EF	124.88" + 0.08" (3172 + 2)	Ø4.80" + 0.08" (Ø122 + 2)	Ø4.25" + 0.08" (Ø108 + 2)

CAUTION

EYE PROTECTION SHOULD BE WORN WHEN REMOVING OR INSTALLING RETAINING RINGS. KEEP FINGERS CLEAR FROM RETAINING RING WHILE INSTALLING LAST OF TWO TURNS. RING MAY SNAP INTO POSITION POSSIBLY PINCHING FINGERS.

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3001 S.W. 15th Street, Suite C, Deerfield Beach, FL 33442

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Toll-Free Number: 1-800-570-3464

International: 1-954-570-3464





HYDRON 8" Side Entry FRPV Membrane Housing (300 psi)

FRPV-8030S-1F, FRPV-8030S-2F, FRPV-8030S-3F, FRPV-8030S-4F, FRPV-8030S-5F, FRPV-8030S-6F, FRPV-8030S-7F

HYDRON 8" FRPV Series II Membrane Housings are durable composite reinforced membrane vessels designed for use in commercial, municipal and industrial Reverse Osmosis systems. Hydron FRPV vessels are coated with high gloss polyurethane paint to provide resistance to UV rays and other elements and are available in 300 psi and 600 psi ratings.

HYDRON 8" FRPV Series II Membrane Housings can accommodate any standard 8" x 40" membrane elements, have a compact design, and offer a reliable head seal area. Hydron FRPV membrane housings are made to meet the demands of long term and continuous use.

- Accommodates all standard 8"x 40" membrane elements.
- Manufactured to meet the demands of long term and continuous use.
- Locking plate with secure head bolts for easy maintenance, safety and security.
- High Gloss Polyurethane Exterior Coating for resistance to UV rays and other elements.
- Compact design for commercial, municipal and industrial reverse osmosis and ultrafiltration applications.

8" FRPV Membrane Housing Specifications

Elements	Part Number	Maximum Operating Pressure	Maximum Operating Temperature	Minimum Operating Temperature	Inlet Port	Permeate Port
1	FRPV-8030S-1F	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
2	FRPV-8030S-2F	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
3	FRPV-8030S-3F	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
4	FRPV-8030S-4F	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
5	FRPV-8030S-5F	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
6	FRPV-8030S-6F	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
7	FRPV-8030S-7F	300 psi (21 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"

INTENDED USE

Hydron FRPV Membrane Housings are designed for continuous, long-term use as a housing for single and multiple reverse osmosis and ultrafiltration elements in typical commercial water treatment systems at pressures from 300 psi - 600 psi.

Hydron FRPV Membrane Housings must be installed, operated and maintained in accordance with the listed precautions, and good industrial practice to assure safe operation over a long service life.

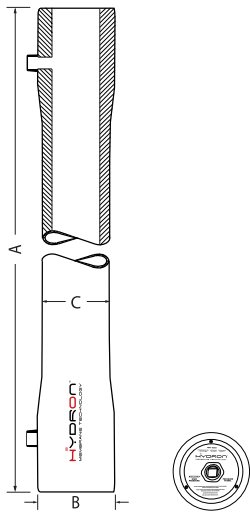
The high performance reinforced plastic shell must be allowed to expand under pressure; undue restraint at support points or piping connections can cause leaks to develop in the shell.

The end closure, incorporating close-fitting, interlocking metal components, must be kept dry and free of corrosion; deterioration can lead to catastrophic mechanical failure of the head assembly.

**Specifications subject to change without notice.*

8" FRPV Membrane Housing Measurements

Elements	Part Number	A			B			C		
		in (mm)			in (mm)			in (mm)		
1	FRPV-8030S-1F	58.82" + 0.12"	Ø9.49" + 0.07"	Ø8.27" + 0.12"	1494 + 3	Ø241 + 2	Ø210 + 3			
2	FRPV-8030S-2F	98.82" + 0.12"	Ø9.49" + 0.07"	Ø8.27" + 0.12"	2510 + 3	Ø241 + 2	Ø210 + 3			
3	FRPV-8030S-3F	138.82" + 0.12"	Ø9.49" + 0.07"	Ø8.27" + 0.12"	3526 + 3	Ø241 + 2	Ø210 + 3			
4	FRPV-8030S-4F	178.82" + 0.12"	Ø9.49" + 0.07"	Ø8.58" + 0.12"	4542 + 3	Ø241 + 2	Ø210 + 3			
5	FRPV-8030S-5F	218.82" + 0.12"	Ø9.49" + 0.07"	Ø8.58" + 0.12"	5558 + 3	Ø241 + 2	Ø210 + 3			
6	FRPV-8030S-6F	258.82" + 0.12"	Ø9.49" + 0.07"	Ø8.58" + 0.12"	6574 + 3	Ø241 + 2	Ø210 + 3			
7	FRPV-8030S-7F	298.82" + 0.12"	Ø9.49" + 0.07"	Ø8.58" + 0.12"	7590 + 3	Ø241 + 2	Ø210 + 3			



CAUTION

INCORRECT INSTALLATION, OPERATION AND MAINTENANCE OF THESE VESSELS MAY CAUSE LOSS OF LIFE, SEVER BODILY INJURY, AND OR PROPERTY DAMAGE.

PRECAUTIONS

DO... read, understand and follow all instructions; failure to take every precaution will void warranty and may result in vessel failure or serious injury or death.

DO... inspect end closures regularly; replace components that have deteriorated and correct causes of corrosion.

DO... provide overpressure protection for vessel set at not more than 105% of design pressure.

DO... mount shell on horizontal or vertical members at central span "S" using compliant, vessel supports; tighten hold down straps just snug.

DO NOT... pressurize vessel until double checking to verify that the Locking Plates are in place.

DO NOT... work on any component until first verifying that pressure is relieved from vessel.

DO NOT... tolerate leaks or allow end closures to be routinely wetted in any way.

DO NOT... operate vessel with permeate pressure in excess of 125 psi at 120 °F (0.86 MPa at 49 °C).

DO NOT... make rigid piping connections to parts or clamp vessel in any way that restricts growth of fiberglass shell under pressure; ▲DIA = 0.01 in. (0.25 mm) and ▲L = 0.3 in. (.8 mm) for a length code -1 vessel.

DO NOT... hang piping manifolds from parts or use vessel in any way to support other components.

DO NOT... operate at pH levels below 3 or above 11.

DO NOT... operate vessel at pressures and temperatures in excess of its rating.

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HYDRON 8" Side Entry FRPV Membrane Housing (600 psi)

FRPV-8060S-1F, FRPV-8060S-2F, FRPV-8060S-3F, FRPV-8060S-4F, FRPV-8060S-5F, FRPV-8060S-6F, FRPV-8060S-7F

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- Locking plate with secure head bolts for easy maintenance, safety and security.
- High Gloss Polyurethane Exterior Coating for resistance to UV rays and other elements.
- Compact design for commercial, municipal and industrial reverse osmosis and ultrafiltration applications.

8" FRPV Membrane Housing Specifications

Elements	Part Number	Maximum Operating Pressure	Maximum Operating Temperature	Minimum Operating Temperature	Inlet Port	Permeate Port
1	FRPV-8060S-1F	600 psi (41 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
2	FRPV-8060S-2F	600 psi (41 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
3	FRPV-8060S-3F	600 psi (41 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
4	FRPV-8060S-4F	600 psi (41 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
5	FRPV-8060S-5F	600 psi (41 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
6	FRPV-8060S-6F	600 psi (41 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"
7	FRPV-8060S-7F	600 psi (41 bar)	150° F (66° C)	14° F (-10° C)	1.5"	1"

INTENDED USE

Hydron FRPV Membrane Housings are designed for continuous, long-term use as a housing for single and multiple reverse osmosis and ultrafiltration elements in typical commercial water treatment systems at pressures from 300 psi - 600 psi.

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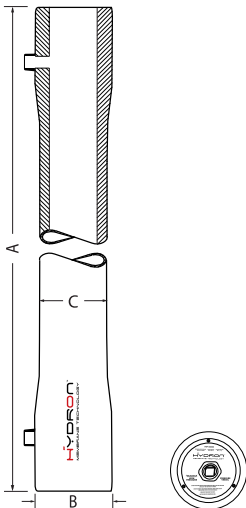
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8" FRPV Membrane Housing Measurements

Elements	Part Number	A	B	C
		in (mm)	in (mm)	in (mm)
1	FRPV-8060S-1F	62.28" + 0.12" (1582 + 3)	Ø9.96" + 0.07" (Ø253 + 2)	Ø8.58" + 0.12" (Ø218 + 3)
2	FRPV-8060S-2F	102.28" + 0.12" (2598 + 3)	Ø9.96" + 0.07" (Ø253 + 2)	Ø8.58" + 0.12" (Ø218 + 3)
3	FRPV-8060S-3F	142.28" + 0.12" (3614 + 3)	Ø9.96" + 0.07" (Ø253 + 2)	Ø8.58" + 0.12" (Ø218 + 3)
4	FRPV-8060S-4F	182.28" + 0.12" (4630 + 3)	Ø9.96" + 0.07" (Ø253 + 2)	Ø8.58" + 0.12" (Ø218 + 3)
5	FRPV-8060S-5F	222.28" + 0.12" (5646 + 3)	Ø9.96" + 0.07" (Ø253 + 2)	Ø8.58" + 0.12" (Ø218 + 3)
6	FRPV-8060S-6F	262.28" + 0.12" (6662 + 3)	Ø9.96" + 0.07" (Ø253 + 2)	Ø8.58" + 0.12" (Ø218 + 3)
7	FRPV-8060S-7F	302.28" + 0.12" (7678 + 3)	Ø9.96" + 0.07" (Ø253 + 2)	Ø8.58" + 0.12" (Ø218 + 3)



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