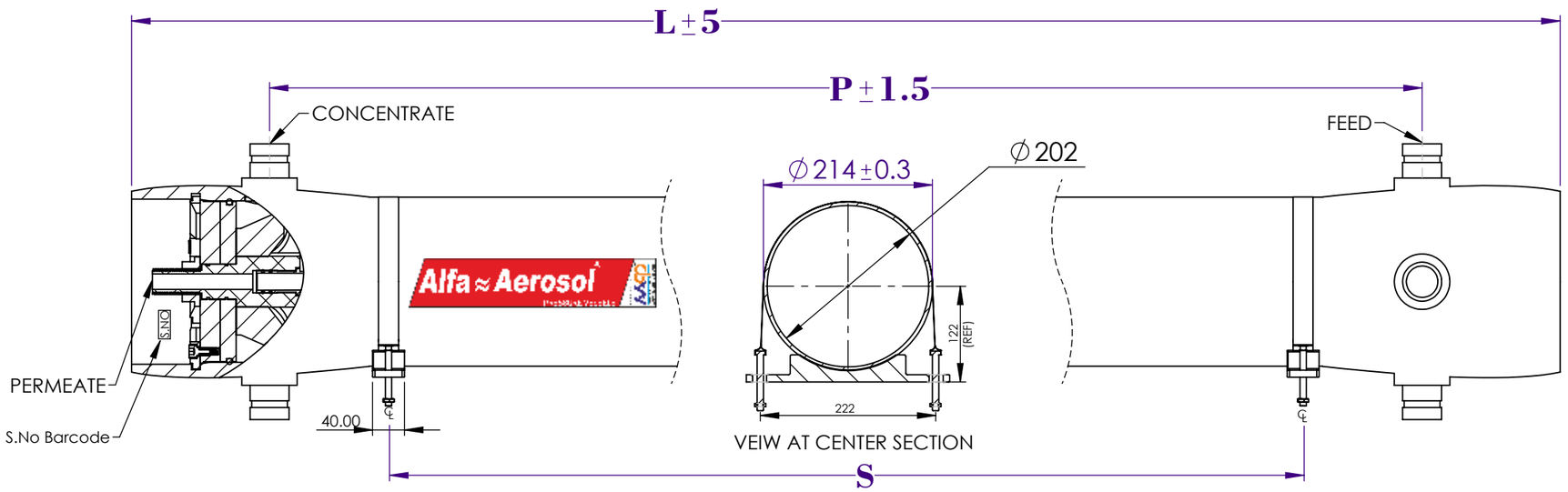
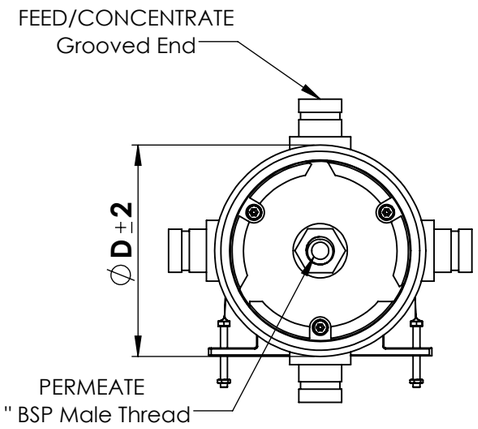
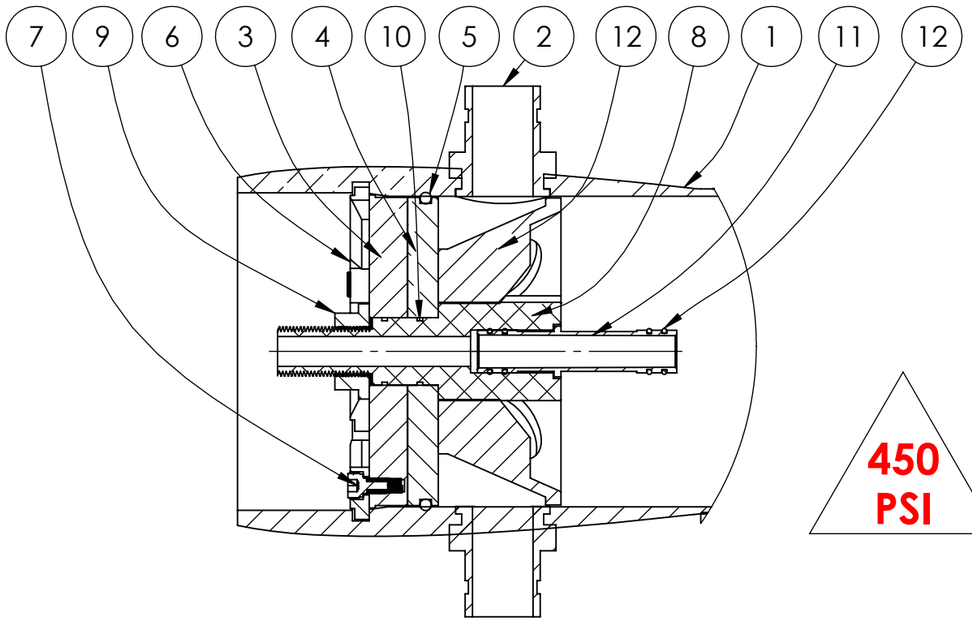




DWG REF	QTY	Part No	DESCRIPTION	MATERIAL
			SHELL	
①	1	8-SP-450	FRP Shell	Filament Wound Epoxy Composite
②	As Per Requirement		Feed/Concentrate Port	Stainless Steel 304 / 316L
			ENDCAP / HEAD ASSEMBLY	
③	2	8-EN-SP-20-AL	Bearing Plate	6061-T651 Aluminium
④	2	8-EN-SP-25-NY	Sealing Plate	Engineering ThermoPlastic
⑤	2	8-EN-OR-16-HS	Head Seal	Silicone O Ring
⑥	6	8-EN-LP-10-SS	Lock Plate / Link Stopper	304 Stainless Steel
⑦	6	8-EN-AS-10-SS	Baffle Fixing Bolts	304 Stainless Steel
⑧	2	8-EN-PP-70-NY	Permeate Port	Engineering ThermoPlastic
⑨	2	8-EN-PP-CN-NY	Permeate Port Nut	Engineering ThermoPlastic
⑩	2	8-EN-OR-27-PP	Permeate Port Seal	Silicon O Ring
⑪	2	8-EN-AD-MC-NY	Adapter	Engineering Thermo Plastic
⑫	8	8-EN-OR-19-MC	Adaptor Seal	Silicone O Ring
⑫	1	8-EN-TC-80-NY	Thrust Cone	Engineering Thermo Plastic



SECTION THROUGH END CLOSURE

450 PSI

NSF
ANSI / CAN 61 & 372

MULTIPORT CONFIGURATION AVAILABLE							
CONCENTRATE SIDE (BARCODE LABEL SIDE)				FEED SIDE (OPPOSITE SIDE)			
1	2	3	4	5	6	7	8
REFER ORDER SECTION FOR CONFIGURATION LOCATIONS							

PORT SIZES

PART NO	DESCRIPTION	D mm
8-FC-SP-15-SS	1.5" GROOVED END	257
8-FC-SP-20-SS	2.0" GROOVED END	259
8-FC-SP-25-SS	2.5" GROOVED END	266

Shell Element Code	L mm	P mm	S (REF) mm	Approx Weight KG*
1E	1416	1104	693	32
2E	2432	2120	1709	41
3E	3448	3136	2725	48
4E	4464	4152	3741	55
5E	5480	5168	4757	64
6E	6496	6184	5773	72

NOTES:
- Design Pressure 3.1MPa (450PSI)
- Test Pressure 4.6 MPa (675PSI)
- Qualification Pressure 18.62 MPa (2700PSI)
- Burst Pressure is 6 Times the design pressure
- Design Temperature 66°C (150° F)
- Minimum Temperature -6°C (21° F)
- Working Media : Water with pH2-11
- Internal Port Pressure should not increase 0.88Mpa (125PSI)
- *Weights given as per heighest configuration
- Exterior Shell is coated with High Gloss Polyurethane Paint
- Thrust Cone if provided should be installed in downstream only.

-INSTALLATION TO BE DONE ONLY WITH TRAINED PROFESSIONALS, IMPROPER INSTALLATION OF CONNECTIONS/MANIFOLLDINGS MAY CAUSE SEVERE STRESS AROUND THE PORTS CAUSING LEAKS AND FAILURES.

-LUBRICATE SEALS SPARINGLY USING NONPETROLEUM BASED LUBRICANTS SUCH AS GLYCERIN.
-MATERIAL OF CONSTRUCTION OF SOME COMPONENTS CAN BE DIFFERED BASED ON THE REQUIREMENT.
-ADHERENCE TO THE PRECAUTIONS IS NOT ONLY RECOMMENDED BUT ESSENTIAL TO GUARANTEE THE SAFETY, LONGEVITY, AND OPTIMAL PERFORMANCE OF THE VESSEL. NEGLECTING THESE GUIDELINES MAY COMPROMISE THE INTEGRITY OF THE SYSTEM AND RESULT IN POTENTIAL HAZARDS.

-SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

Manufactured By:
www.aacpindia.com

ANU ADVANCE COMPOSITE PRODUCTS PVT LTD
TELANGANA - INDIA

SIGNATURE			MODEL : MEMBRANE HOUSING - 80SP450PR		
	NAME	DATE			
DESIGN BY:	UM	21-12-22	CUSTOMER NAME:		
REVIEW BY:	MAR	21-12-22	PURCHASE ORDER:		QTY:
APPROVAL BY:	MAM	21-12-22	UNITS: mm	DRAWING NO. 607802	REV:1
DRAWING FOR REFERENCE ONLY			SIZE : A3	SCALE : N/A	SHEET 1 OF 2

SPECIFICATIONS:

• Design Pressure	3.1MPa (450PSI)
• Test Pressure	4.6 MPa (675PSI)
• Qualification Pressure	18.62 MPa (2700PSI) (Burst Pressure 6 Times)
• Design Temperature	66 °C (150 ° F)
• Minimum Temperature	-6 °C (21 ° F)
• Working Media :	Water with pH2-11

USE:

FRP membrane housings serve a crucial role in water treatment systems, particularly in Reverse Osmosis (RO) processes. These housings are meticulously crafted from epoxy resin and fiber materials, undergoing specialized processing through automatic winding molding under computer-controlled precision. The primary application of FRP membrane housings is in conjunction with RO membranes, forming an integral part of RO systems. Their purpose is to effectively eliminate impurities such as pigments, hardness, and high valence ions, ensuring that treated water adheres to the standards set for pure water.

Compared with traditional steel or plastic products, FRP membrane housings have excellent insulation properties, good corrosion resistance performance, optimized structural design, and have passed many official certificates such as NSF ANSI / CAN 61 & 372, ISO14001:2015,ISO9001:2015 and CE.

FRP membrane housings play a protective role for RO membranes in the water treatment process and are often used in industries such as electronics, food & beverage, metallurgy, pharmaceuticals, seawater desalination, and drinking water treatment.

• *Weights given as per heighest configuration

PRECAUTIONS:

These precautions are imperative for the safe and effective utilization of the vessel. It is crucial to thoroughly read, comprehend, and strictly adhere to all instructions outlined below.

Mounting:

• Mount the shell on horizontal members at span "S" using compliant vessel supports provided. Shim saddles if required. Tighten hold down straps just snug. Vertical mounting is permissible for up to 2 elements.

Piping:

• Use flexible IPS grooved-end pipe couplings (Victaulic) at side ports/Endports.

• Do not tighten Permeate Port connection more than one turn past hand tight.Internal Port Pressure should not increase 0.88Mpa (125PSI)

• Avoid making rigid connections as the membrane housing is designed to expand under high pressure.

• Do not support any other components from the ports.

• Do not pressurize the vessel until double-checking to verify that the Lockplates (Link Stoppers)/Retainer Rings (Circlips) are in place and fully seated.

Overpressure Protection:

• Provide a Pressure Switch set at 1.1 times the design pressure to protect against overpressure.

Work on Pressurized Vessel:

• Do not work on any component until verifying that pressure is relieved from the vessel.

Permeate Ports Inter Connections:

• Do not operate the vessel without connecting both Permeate Ports internally to complete the set of elements or otherwise plug ports internally.

Regular Inspection:

• Regularly inspect end closures and fittings to ensure they remain intact, especially in high-pressure pump vibrations.

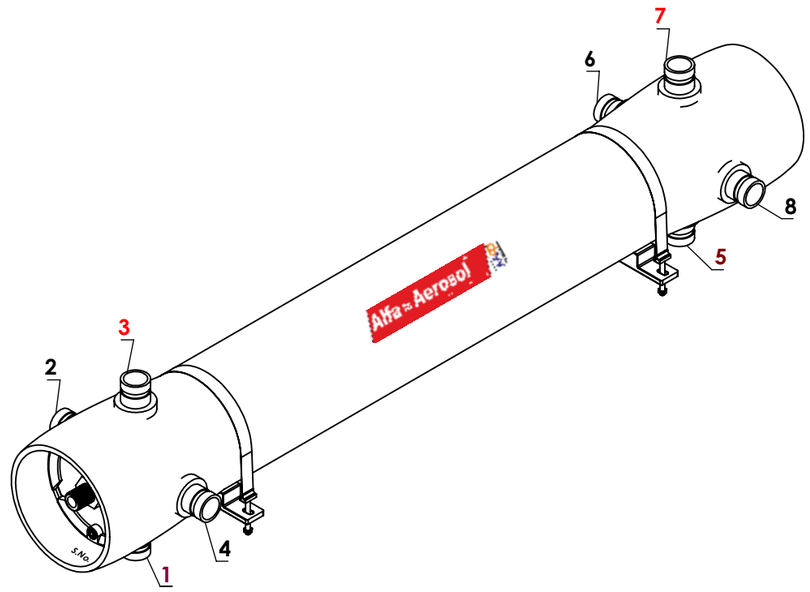
Lubrication:

• Lubricate seals sparingly using nonpetroleum-based lubricants, such as Glycerin or suitable alternatives.

Thrust Cone:

• Do not operate the vessel without the Thrust Cone installed downstream to protect the membrane from damage due to high pressure.

ORDERING:



Coding Interpretation: 80 SP 450 PR 1E

- 80 — Diameter: 80 - 8", 40 - 4"
- SP — SP-SIDEPORT, EP-ENDPORT
- 450 — Design Pressure: 300/450/600/1000/1200 PSI
- PR — PR-HEAVY DUTY
- 1E — ELEMENT CODE: 1E/2E/3E/4E/5E/6E

Port Configuration:

CONCENTRATE SIDE (BARCODE LABEL SIDE)				FEED SIDE (OPPOSITE SIDE)			
1	2	3	4	5	6	7	8

Feed/ Concentrate Port: ☐ 1.5" ☐ 2" ☐ 2.5"

Bearing Plate : ☐ 6061-T6 Aluminium ☐ Stainless Steel 316L ☐ Stainless Steel 304 ☐ FRP

Membrane Brand And Model: _____

Standard Offering:

Feed/Concentrate Port: 1.5" (1 & 5 Configuration)
Permeate Port : 1" Male Thread
Bearing Plate : 6061 Aluminium

NOTES:

-Refer Drawing Section for the Mounting Distance Span.

-Adherence to these precautions is not only recommended but essential to guarantee the safety, longevity, and optimal performance of the vessel. Neglecting these guidelines may compromise the integrity of the system and result in potential hazards.

- White Polyurethane Paint is offered as standard, This can be customized based on special request to the company.

-INSTALLATION TO BE DONE ONLY WITH TRAINED PROFESSIONALS, IMPROPER INSTALLATION OF CONNECTIONS/MANIFOLLDINGS MAY CAUSE SEVERE STRESS AROUND THE PORTS CAUSING LEAKS AND FAILURES.

-SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

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ANU ADVANCE COMPOSITE PRODUCTS PVT LTD
TELANGANA - INDIA

SIGNATURE			MODEL : MEMBRANE HOUSING - 80SP450PR		
	NAME	DATE			
DESIGN BY:	UM	21-12-22	CUSTOMER NAME:		
REVIEW BY:	MAR	21-12-22	PURCHASE ORDER:		QTY:
APPROVAL BY:	MAM	21-12-22	UNITS: mm	DRAWING NO. 607802	REV:1
DRAWING FOR REFERENCE ONLY			SIZE : A3	SCALE : N/A	SHEET 2 OF 2