

**WARNING!**  
 PRESSURE IN THE PERMEATE PORT SHALL NOT EXCEED 125 PSI (0.86MPa)

PERMEATE PORT  
 OPTION F---NPT 1" FEMALE THREAD;  
 OPTION G---Rp 1" FEMALE THREAD;  
 OPTION H--- UNION ADAPTOR;  
 FIT 32mm(O.D) PIPE  
 OPTION J---UNION ADAPTOR;  
 FIT 1.32"(O.D) PIPE  
 OPTION V---Mechanical Coupling 1"-ABS;  
 OPTION S---Mechanical Coupling 1"-SS;

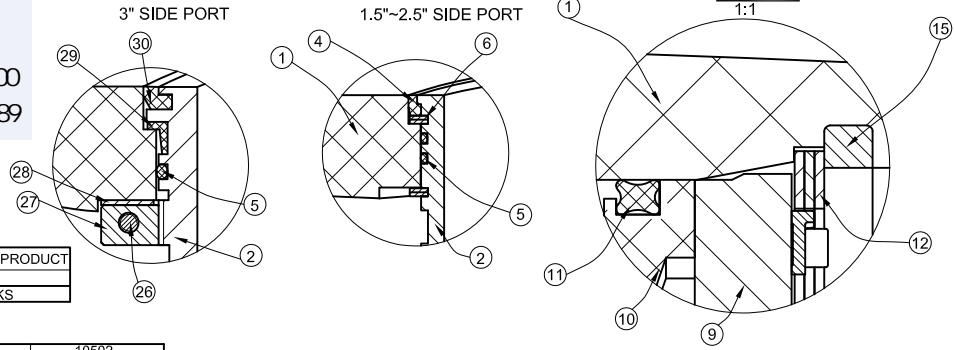
- 1.Flexible piping should be used on permeate connection to manifold.
- 2.Side port misalignment can not exceed 0.7mm in any direction.
- 3.MPV is not designed for negative pressures.

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DESCRIPTION	DRAWING NO.	CODE	SPECS	COMPUTER CODE	QTY
SIDE PORT O RING	Ø80(I.D)*Ø2.65		3"	10392	2
	Ø70(I.D)*Ø2		2.5"	10425	4
	Ø55(I.D)*Ø2		2"	10424	4
	Ø42(I.D)*Ø2		1.5"	10423	4
CURVED SIDE PORT SEAL	23300-04-02-01		2.5"	10614	2
	23300-04-01-01		2"	10613	2
	23300-04-03-01		1.5"	10615	2
RETAINING RING	(23300-06-02)EC30-08-06/2		2.5"	20112	4
	(23300-06-01)EC30-08-06/1		2"	20111	4
	(23300-06-03)EC30-08-06/3		1.5"	20113	4
SIDE PORT	23450-02-04-03		U 3"	20380	2
	23450-02-02/2		T 2.5"	20330	2
	23450-02-01/2		S 2"	20329	2
	23450-02-03/2		R 1.5"	20331	2

DESCRIPTION	DRAWING NO.	MATERIAL	COMPUTER CODE	REMARKS
BEARING PLATE	23450-09-01	SB-209.6061-T6S1	20314	ASME CODE PRODUCT
450 PSI	23450-09	SB-211.6061-T6	20060	

DESCRIPTION	DRAWING NO.	CODE	PERMEATE PORT SPECS	COMPUTER CODE
PERMEATE PORT 450 PSI	23300-10-08	UF	CONNECTED WITH VICTAULIC	10502
	23300-10-09	N	NPT 1 1/2" MALE THREAD	10845
	23300-10-06	M	NPT 1 1/4" MALE THREAD	10086
	23300-10-05	S	MECHANICAL COUPLING 1"-SS	10071
	23300-10-05	V	MECHANICAL COUPLING 1"-ABS	10071
	23300-10-05	J	UNION ADAPTOR(American Standard)	10071
	23300-10-05	F	NPT 1" FEMALE THREAD	10071
	23300-10-05	G	Rp 1" FEMALE THREAD	10071
	23300-10-05	H	UNION ADAPTOR(National Standard)	10071



**TECHNICAL REQUIREMENT**

1. MANUFACTURED IN CONFORMITY TO « ASME BOILER&PRESSURE VESSEL CODE » SECTION X: « FIBER REINFORCED PLASTIC PRESSURE VESSELS » -CLASS I VESSELS;
2. MAX OPERATING PRESSURE: 450Psi ( 3.1026MPa ) , ALLOWABLE TEMPERATURE RANGE: 20°F(-7°C)~120°F(49°C), NOT APPLICABLE TO CORROSIVE LIQUID;
3. LEAKAGE TEST: HYDRO TEST, TESTED AT 1.1 TIMES ITS OPERATING PRESSURE, I.E.: 495Psi ( 3.4129MPa ) , SAMPLE RATE: 100%;

NOTE: DIMENSIONS IN PARENTHESIS ARE REFERENCE ONLY.

SHELL Length Code	L Inch (mm)	P Standard Inch (mm)	S Span Inch (mm)	WEIGHT lb (kg)
-1	58.7 (1491)	47 (1194)	1@22.4 (570)	63 (29)
-1.5	78.7 (1999)	67 (1702)	1@42 (1067)	73 (33)
-2	98.7 (2507)	87 (2210)	1@56 (1422)	83 (38)
-3	138.7 (3523)	127 (3226)	1@80 (2032)	103 (47)
-4	178.7 (4539)	167 (4242)	2@64 (1626)	123 (56)
-5	218.7 (5555)	207 (5258)	2@78 (1981)	143 (65)
-6	258.7 (6571)	247 (6274)	2@92 (2337)	163 (74)
-7	298.7 (7587)	287 (7290)	2@106 (2692)	183 (83)
-7.5	318.7 (8095)	307 (7798)	2@114 (2896)	193 (88)
-8	338.7 (8603)	327 (8306)	2@120 (3048)	203 (92)

ITEM	DESCRIPTION	DRAWING NO.	QTY	MATERIAL	COMPUTER CODE
30	CURVED SIDE PORT SEAL(3")	23450-03-05	2	EPDM	10709
29	SIDE PORT PACKING WAHSER(3")	23450-26-02	2	EPDM	10710
28	SIDE PORT GASKET(3")	23100-46-04	2	SA-213.TP316L	20286
27	SIDE PORT NUT(3")	23100-45-04	2	316L	20458
26	SIDE PORT BOLT		4	M4*16 STAINLESS STEEL, GRADE 8.8	20439
25	RETAINING BLOCK	23300-36-01	4	316	20183-1
24	ALUMINUM PLATE LABEL		2	ADHESIVE LABEL	40843
23	LOGO LABEL		2	ADHESIVE LABEL	40255
22	SERIAL NO LABEL		1	ART PAPER 20*53	40425
21	SCREW	GB819-85	8	M5*14 STAINLESS STEEL	20833
20	STRAP PROTECTIVE JACKET	(23300-19)EC30-08-19	2or3	SOFT PVC	10188
19	STRAP SCREW		4or6	M5*90 STAINLESS STEEL, GRADE 8.8	10129
18	STRAP NUT	(23300-19)EC30-08-18	4or6	Hb851-9	20123
17	STRAP	(23300-17)EC30-08-17	2or3	A666.304	20122
16	SADDLE	(23300-16)EC30-08-16	2or3	TPU(S60D)	10141
15	EMBEDDED RING	(23450-15)EC45-08-15	2	SA-213.TP316L	20073
14	ADAPTOR O RING	(23300-14)EC30-08-14	4	EPDM	10182
13	ADAPTOR(O29,1)	(23300-13)EC30-08-13	2	ABS, CHIMEI/757K	10125
12	RETAINING RING	(23300-12)EC30-08-12	2	SA-479.316	20025
11	HEAD SEAL	23300-28	2	EPDM	10175
10	PERMEATE PORT(450PSI)	SEE "PERMEATE PORT CONFIGURATIONS"	2	PP	SEE THE CHART
9	BEARING PLATE	SEE "BEARING PLATE CONFIGURATIONS"	2	SEE "BEARING PLATE CONFIGURATIONS"	SEE THE CHART
8	PERMEATE PORT O RING	(23300-08)EC-30-08-08	2	EPDM	10181
7	THRUST CONE	(23300-07)EC-30-08-07	1	PP	10192
6	RETAINING RING	SEE "SIDE PORT CONFIGURATIONS"	4	SA-479.316	SEE THE CHART
5	SIDE PORT O RING	SEE "SIDE PORT CONFIGURATIONS"	2	EPDM	SEE THE CHART
4	CURVED SIDE PORT SEAL	SEE "SIDE PORT CONFIGURATIONS"	2	EPDM	SEE THE CHART
3	PERMEATE RETAINING RING	(23300-03)EC30-08-03	2	AS80.316	20107
2	SIDE PORT	SEE "SIDE PORT CONFIGURATIONS"	2	SA-213. TP316L	SEE THE CHART
1	SHELL	23450-01-04	1	FIBER GLASS + EPOXY	

REVISION NO.	DESCRIPTION OF CHANGES	SIGNATURE	DATE
12	ADD THE NOTES:		2013/02/05
11	⊕ DIMENSION CHANGED; RETAINING BLOCK AND SCREW CHANGED; HEAD SEAL CHANGED;		2012/09/17
10	⊕ INCREASE TOLERANCE;		2011/07/04
9	HEAD SEAL CHANGED;		2011/01/28
8	IS SHELL SADDLE DISTANCE CHANGED; ⊕ SIZE CHANGED;		2010/04/14

REFERENTIAL PLASTIC SHRINKAGE (IF NECESSARY):

**THE DIMENSIONS ARE FOR REFERENCE ONLY**

**WAVE CYBER (SHANGHAI) CO., LTD.**

DESIGN	NAME	DATE	SCALE	MATERIAL	MODEL	WAVE-450P-8
INSPECTION			1:7		DESCRIPTION	450P-8 MEMBRANE HOUSING (Hi-Flo)
APPROVAL			QUANTITY	SMOOTHNESS	DRAWING NO.	23450-00-01
			PROJECTION	COMPUTER CODE	VERSION NO.	12

THIS PRODUCT DRAWING CAN NOT BE COPIED AND/OR USED WITHOUT PRIOR WRITTEN APPROVAL OF WAVE CYBER.

DO NOT MEASURE THE DIMENSIONS. UNIT: MM TOTAL PAGE: 1