

Products Search:

By Diameter By Pressure By Type By Element

SITE MAP



About Ropv

Ropv News

Ropv Products

Sales Net

User Manuals

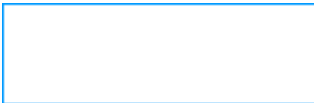
Technical Support

Contact Ropv

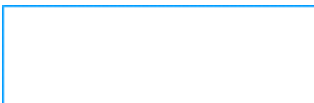
Home



Links



HYDRANAUTICS



More Links



About Ropv

As a professional manufacturer of FRP pressure vessels (membrane housings) for membrane separation technology, Harbin ROPV Industry Development Center (in abbreviation as ROPV) has owned self-determined intellectual property rights of a series of technologies of FRP pressure vessels. The products of ROPV are mainly used for industrial processing, desalination, electronics manufacturing, Ultra-pure water and so on. To be a high-tech enterprise with a history of research, development and manufacture of FRP pressure vessels for more than 20 years, ROPV has established the foundation for the biggest manufacturer and supplier of RO/UF FRP pressure vessels in present Chinese market.



With over 20 years of research and development of FRP pressure vessels, the properties of ROPV® Series products have reached international advanced level, over 10 patents about the invention, application in the field of FRP pressure vessels are awarded to ROPV to be its properties. In addition to the accreditation of ISO9001-2000 International Quality System Assessment, ROPV gets the authorization of American Society of Mechanical Engineers (ASME) for "RP" symbol stamp in Sept.2004, so becomes the first FRP pressure vessels manufacturer of China gets ASME certificate of authorization. The series products of ROPV ranges in pressure rating from 150psi to 1200psi, in diameter of 2.5", 4" and 8", membrane housing from 1 to 7, is suitable to house standard membranes of Filmtec, Hydranautics, Desal, KOCH, CSM, TORAY and so on. The products of ROPV have been used in thousands of projects in China and foreign countries, and is praised uniformly by the customers and users.

ROPV owns completed and advanced quality control system, has strong ability in the research, development, and designing of FRP pressure vessels. The professional working team including professors and senior engineers who are engaged in the research of composites for more than 20 years have accumulated rich experiences in the processing of composites. The use of Computer-controlled multiple axis filament winding machine and the first class testing and examining instruments provided high speed

Latest News

SEP28,2004, Harbin Ropv Industry Development Center Become China's First ASME"RP"Certificated FRP Pressure Vessels Manufactrer.

and precision for multiple-duplicated production. The combination of enterprising spirit of developing national industries and advanced materials created tremendous motive force to produce excellent properties and stable quality for the products, matched with attentive and satisfactory service, ROPV has become a famous brand in both domestic and foreign water treatment market.

ROPV was successively appraised by China Quality Inspection Association for "Important Protective Enterprise in the Activity of Fake Products Attacking and Outstanding Products Supporting" and "Bi-guaranteeing Enterprise for the Quality and After-sale Service", meanwhile, series products of ROPV were approved for "Qualified Products for National Quality Inspection", and was enlisted under 21315 Quality Monitoring and Controlling System. The authorization of "RP" symbol stamp of American Society of Mechanical Engineers, also represented the design, fabrication, and testing of the products of ROPV are in conformity with international requirements, and are keeping the same pace with international development.

Copyright (C) 2002 All Rights Reserved ICP 020337
Harbin Ropv Industry Development Center
E-mail: ropv@ropv.com.cn

Products Search:

SITE MAP



- About Ropv
- Ropv News
- Ropv Products
- Sales Net
- User Manuals
- Technical Support
- Contact Ropv
- Home

Links



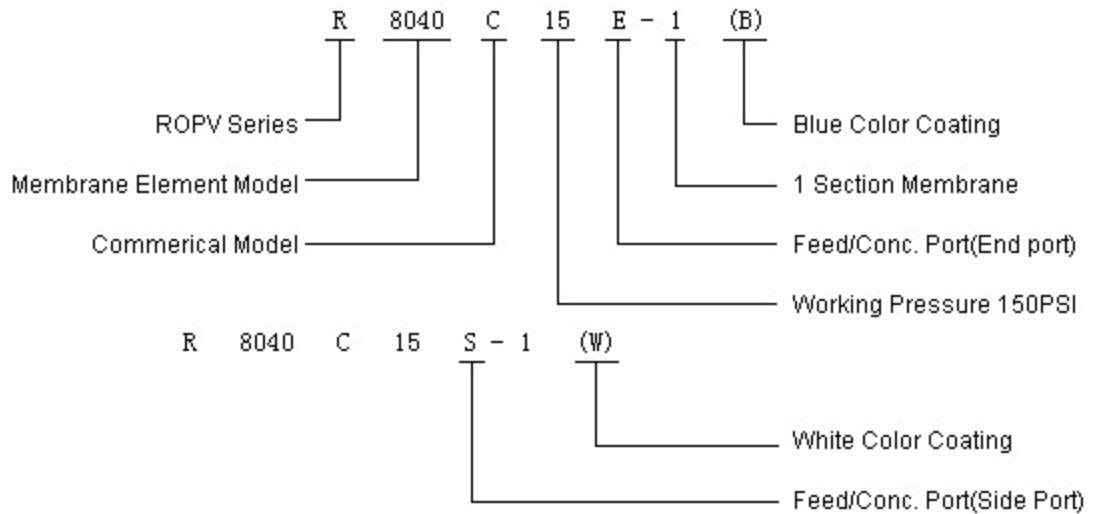
FILMTEC

KOCH
MEMBRANE SYSTEMS



Ropv Products

Model Explanation:



See about



CERTIFICATE OF AUTHORIZATION

This certificate accredits the named company as authorized to use the indicated symbol of the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the Code symbol and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this symbol shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

**HARBIN ROPV INDUSTRY DEVELOPMENT CENTER
NO. 32 GONGBIN ROAD
XIANGFANG DISTRICT
HARBIN 150030
THE PEOPLE'S REPUBLIC OF CHINA**

SCOPE:

MANUFACTURE OF CLASS I REINFORCED PLASTIC PRESSURE VESSELS AT THE ABOVE LOCATION ONLY

AUTHORIZED: OCTOBER 20, 2004

EXPIRES: OCTOBER 20, 2007

CERTIFICATE NUMBER: 34,802

Chairman of The Boiler
And Pressure Vessel Committee

Director, Accreditation and Certification





CERTIFICATE OF CONFORMITY OF QUALITY MANAGEMENT SYSTEM CERTIFICATION

Certificate No: 02603Q10241R1M

This is to certify the quality management system of
HARBIN ROPV INDUSTRY DEVELOPMENT CENTER

(No.180, Hongqi street, Nangang District, Harbin)

P.C: 150036)

is in conformity with

GB/T19001-2000 — ISO9001: 2000 standard

This certificate covers the following scope of quality management system
THE DESIGN, PRODUCTION AND SERVICE OF FRP PRESSURE VESSELS OF MEMBRANE
SEPARATION EQUIPMENT AND EDI PRESSURE SHELL

Director:

Hao Hongyan

Issue Date: Oct. 21, 2003

Expiry Date: Oct. 20, 2006



Registration Number: CNAB026-Q

ACCREDITED
BY MEMBER OF
THEIAF MLA
FOR QMS

Danger !

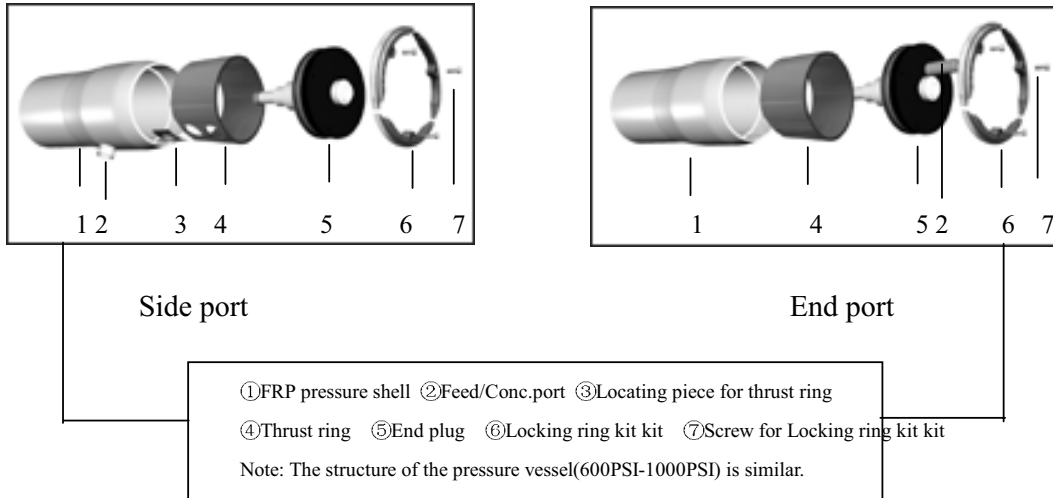
High Pressure Vessels

ROPV[®] series FRP pressure vessels are used to house RO membrane elements for water purification processes, any error in operation or usage may affect product quality, and even cause bodily harm. please read the manual carefully prior to operation of the pressure vessels.

Misuse, incorrect assembly, or use of damaged or corroded components may result in explosive release of the end plug.

We recommend that only qualified mechanics, experienced in servicing high pressure hydraulic systems, open, close and service this vessel.

8" pressure vessel



150PSI
1.0Mpa

250PSI
1.7Mpa

300PSI
2.1Mpa

400PSI
2.8Mpa

600PSI
4.1Mpa

800PSI
5.6Mpa

1000PSI
6.9Mpa

How to open the 8" side port pressure vessel

DANGER

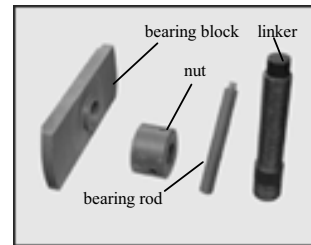
Be sure not to disassemble any components from the pressure vessel with pressure inside.

**Note: The operation of 8" side port (sea water) pressure vessel is similar*

- Step 1 Relieve pressure
- Step 2 Disconnect the pipe
- Step 3 Disassemble the end plug



1. Disconnect screw for locking ring kit with allen key (M8)



2. Use appropriate tools to disassemble the end plug



2.1 Remove the end plug with appropriate tools



2.2 Remove the end plug with appropriate tools

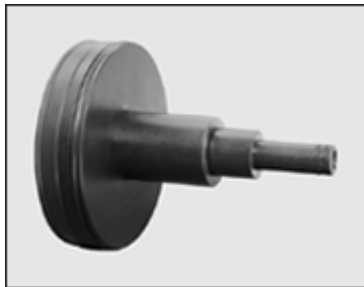


3. End plug disassembled

How to disassemble the 8" (side port) end plug

**Note: The operation of 8" side port (sea water) pressure vessel is similar*

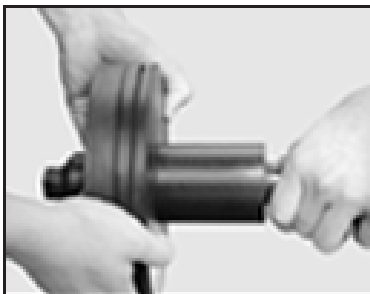
End plug



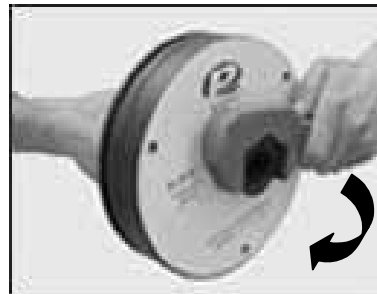
Step1 Remove the seal ring



Step2 Remove the adapter



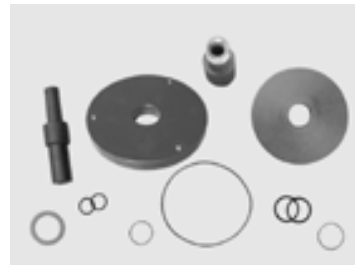
Step3 Remove the bearing plate with permeate port locknut spanner



End plug components



End plug components (sea water)



Maintenance Guide

End plug assembling

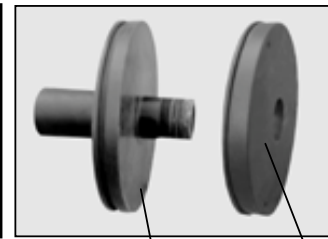
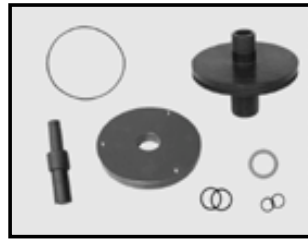
How to assemble the 8" (side port) end plug

**Note: The operation of 8" side port (sea water) pressure vessel is similar*

Step 1 Clean the surface of the plug components with mild solution or clean water (Be careful not to hurt the Seal area of the End plug).

Step 2 Wipe the seal ring clean

Step 3 Assemble the end plug



End plug components

Sealing plate A side

Bearing plate A side

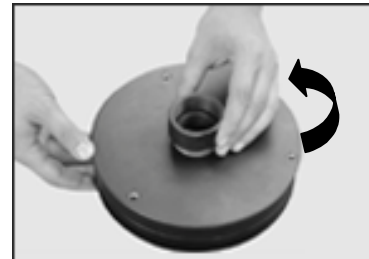
3.1 Assemble the seal ring to the sealing plate (with a thin layer glycerin)



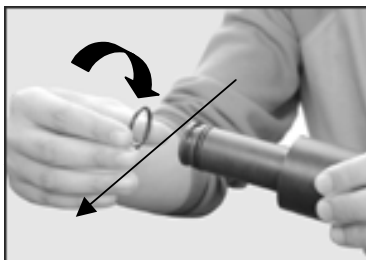
3.2 Assemble bearing plate A side to the sealing plate A side



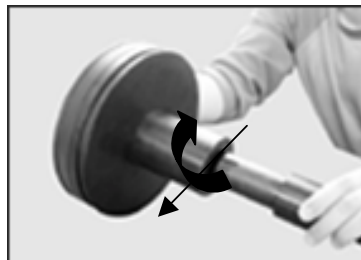
3.3 Assemble the permeate port locknut



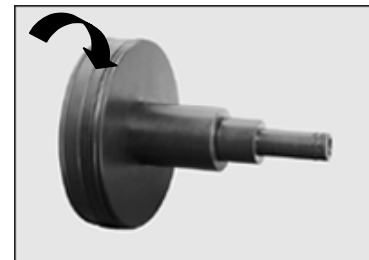
3.4 Assemble the seal ring of the adapter (with a thin layer glycerin)



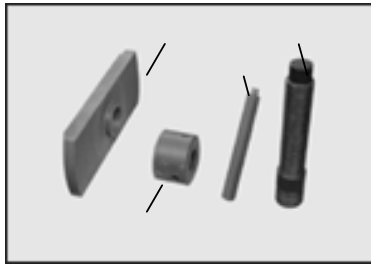
3.5 Assemble adapter to permeate port



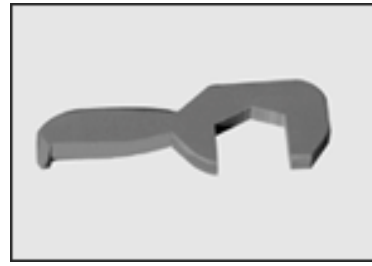
3.6 Assemble O-ring seal to the sealing plate



Appropriate tools for use with 8" pressure vessel



8" End plug tools



8" Locknut spanner(permeate port)

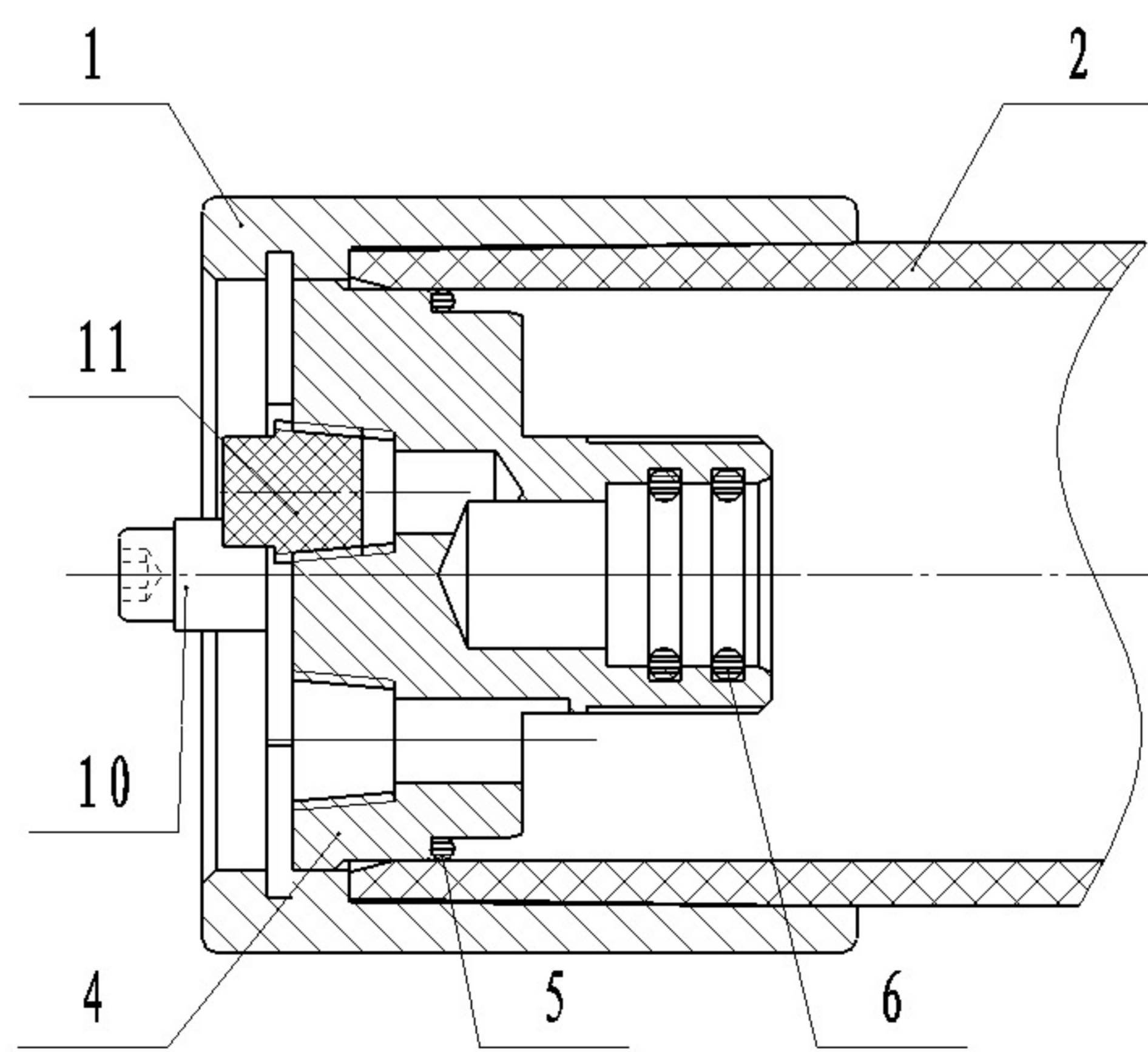
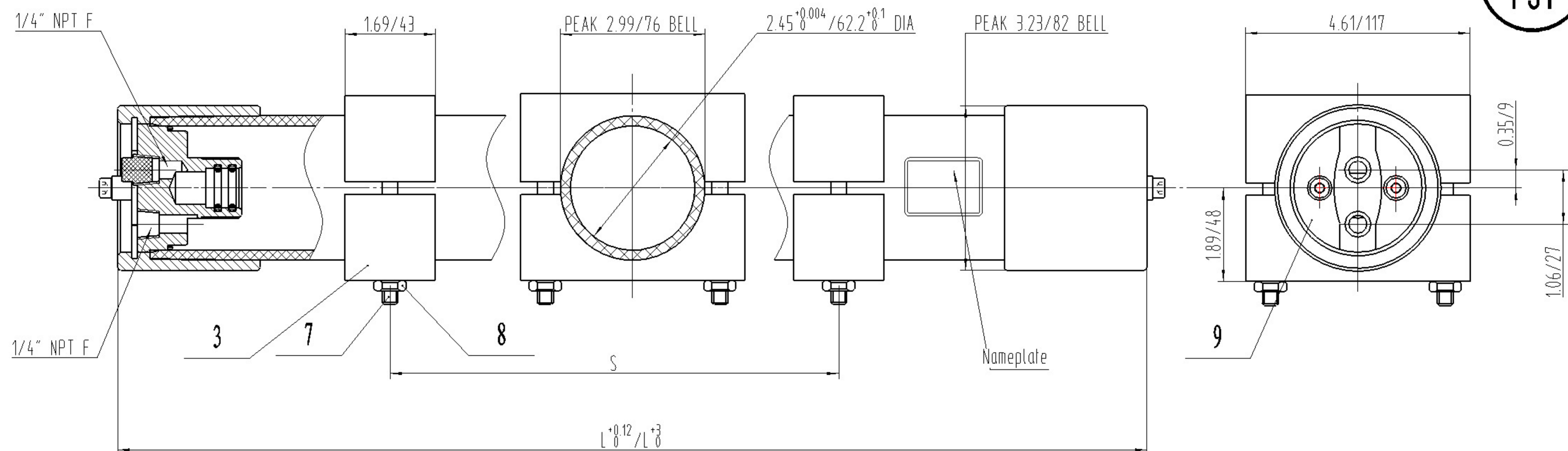


8" Locking ring kit tools (allen key M8)



8" Feed/Conc.port tools (Side port)

1000
PSI



Ref.	Part Number	Description	Qty.	Material
1	2080	Pressure Shell Cooler	2	Aluminum alloy 6061-T6
2	20020	Pressure Shell(2540)	1	Epoxy FRP
	200210	Pressure Shell(2521)		
	200220	Pressure Shell(2514)		
3	2003	Saddle	2	NR
4	20041	Endplug	2	2205SST
5	2005	O-Ring	2	EPDM
6	4007	O-Ring	4	EPDM
7	2007	Saddle Screw	4	304SST
8	2008	Locknut	4	304SST
9	2009	Locking Crescent	4	316SST
10	2010	Locking Crescent Screw	4	316SST
11	2011	Plug	1	ABS

WARNING:

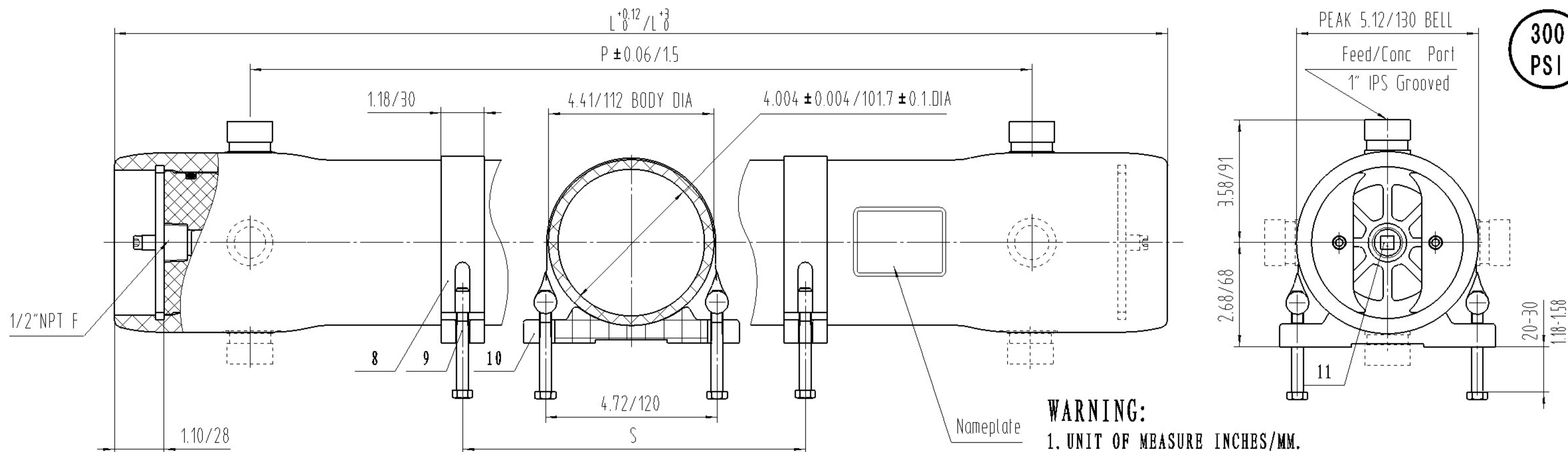
1. UNIT OF MEASURE INCHES/MM.
2. DRAWING DIMENSIONS ARE FOR REFERENCE ONLY.
3. PRECAUTIONS, USAGE GUIDELINES, AND USER GUIDE INTEGRAL TO DRAWING.
4. SUBJECT TO CHANGE WITHOUT NOTICE.
5. INTERNAL PERMEATE PRESSURE NOT TO EXCEED 125PSI (0.88Mpa).

Shell length code	Shell number	L L. O. A IN/MM	S Span IN/MM	Approx assembly weight LB/KG
200220	2514	17.6/447	7.9/200	6.8/3
200210	2521	24.6/625	15.7/400	7.9/3.5
20020	2540	43.6/1107	27.6/700	10.8/4.8



HARBIN ROPV
INDUSTRY DEVELOPMENT CENTER

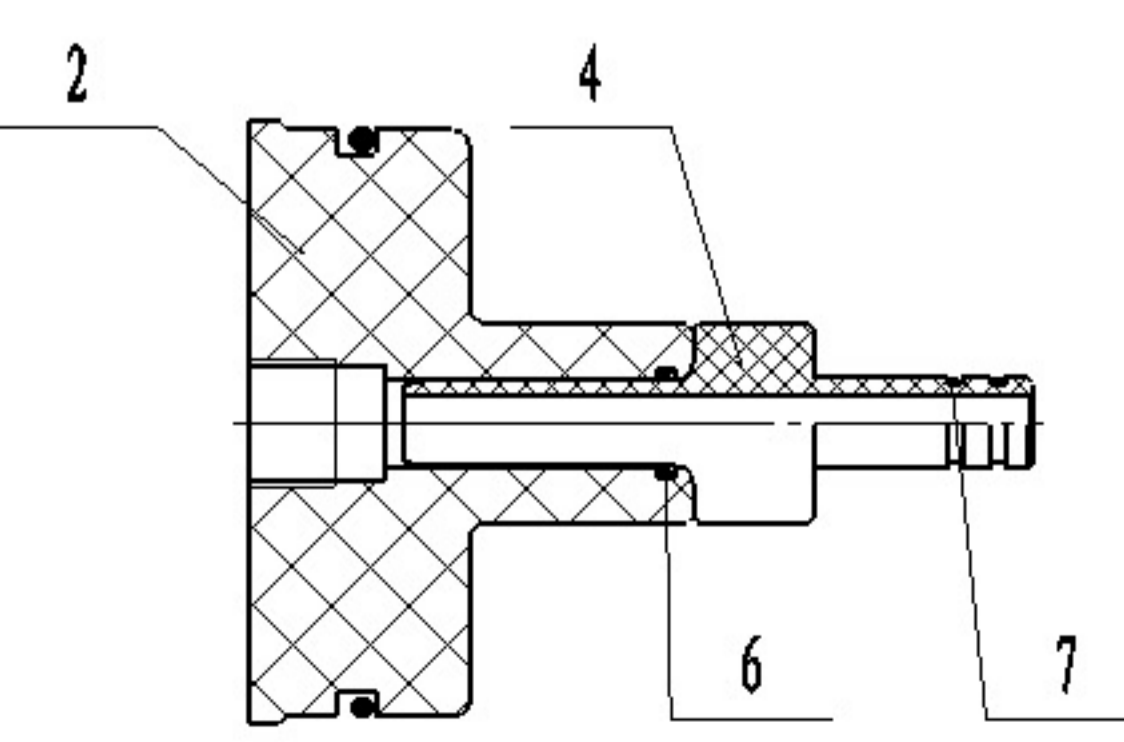
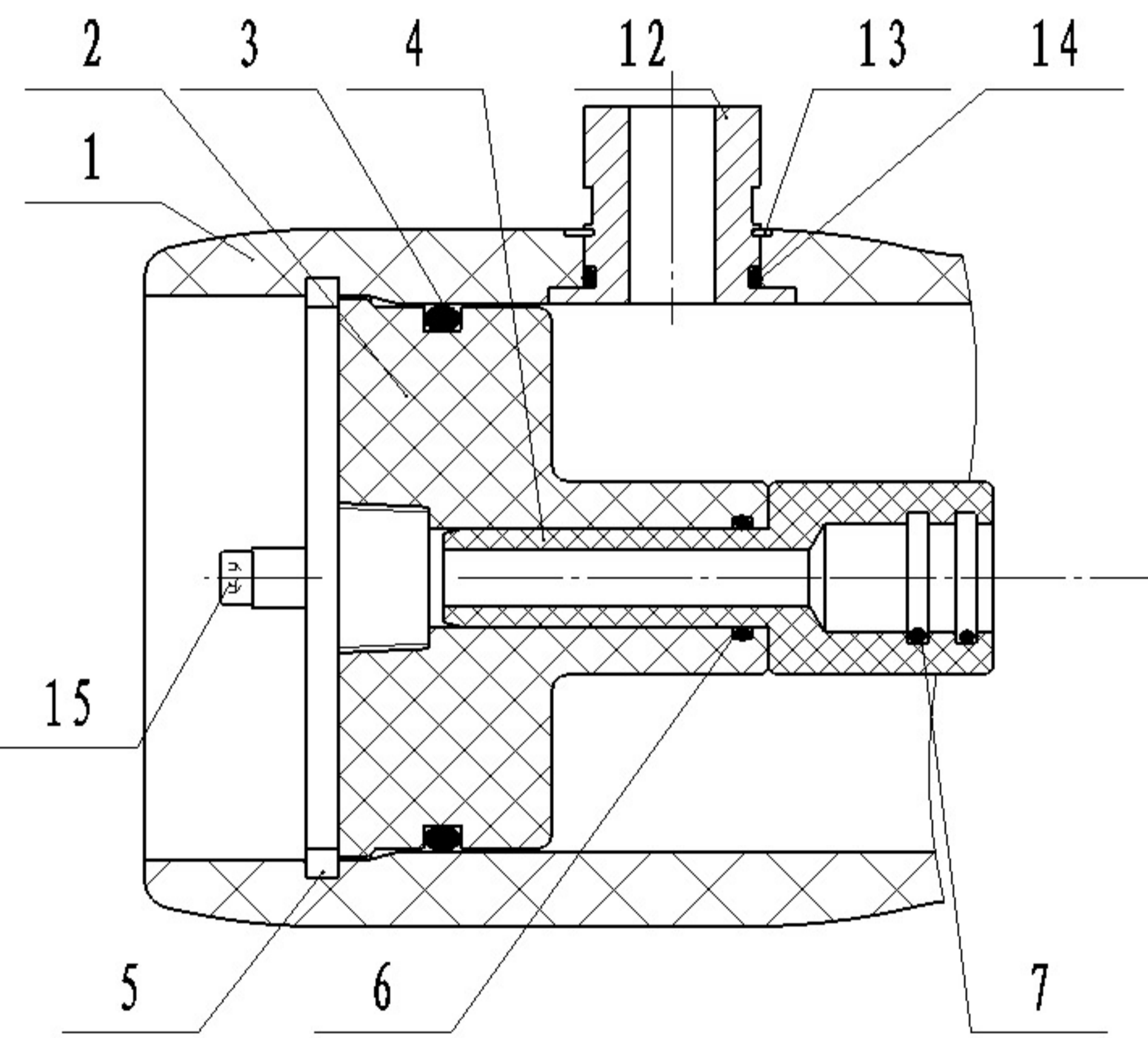
BNGR	JINGBO AN 2005/6/15	MODEL	R25B 1000E
QLTY	QITUAN WANG 2005/6/16	DRG	R25B100E-00
MAKT	YOUQING LI 2005/6/16	REV	A



WARNING:

1. UNIT OF MEASURE INCHES/MM.
2. DRAWING DIMENSIONS ARE FOR REFERENCE ONLY.
3. PRECAUTIONS, USEAGE GUIDLINES, AND USER GUIDE INTEGRAL TO DRAWING.
4. SUBJECT TO CHANGE WITHOUT NOTICE.
5. INTERNAL PERMEATE PRESSURE NOT TO EXCEED 125PSI (0.88Mpa).

Ref.	Part Number	Description	Qty.	Material
1	4012.1-6	Pressure Shell	1	Epoxy FRP
2	4101.1	Endplug	2	ABS
	4101			
3	4002	O-Ring	2	EPDM
4	4021.1	Adapter (Internal)	2	ABS
	4021	Adapter (External)		
5	4011	Locking Crescent	4	304SST
6	4061.1	O-Ring	2	EPDM
	4061			
7	4007.1	O-Ring	4	EPDM
	4007			
8	4008	Strap	2-3	304SST
9	4009	Strap Screw	4-6	304SST
10	4010	Saddle	2-3	NR
11	4013.1	Plug	1	ABS
12	4004	Feed/Conc. Port	2-4	316SST
13	4005	Retaining Ring	2	304SST
14	4006	O-Ring	2	EPDM
15	4012	Locking Crescent Screw	4	304SST



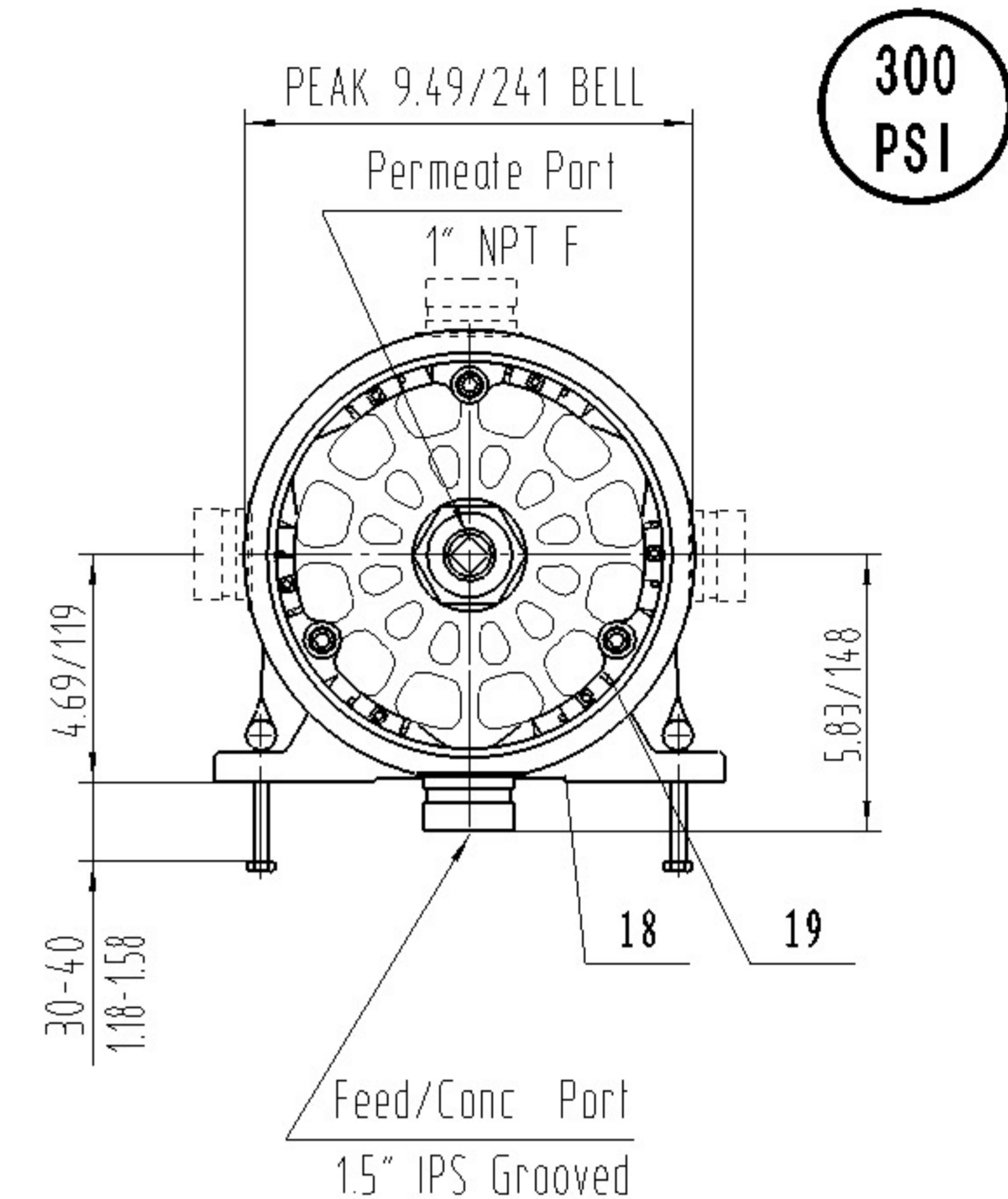
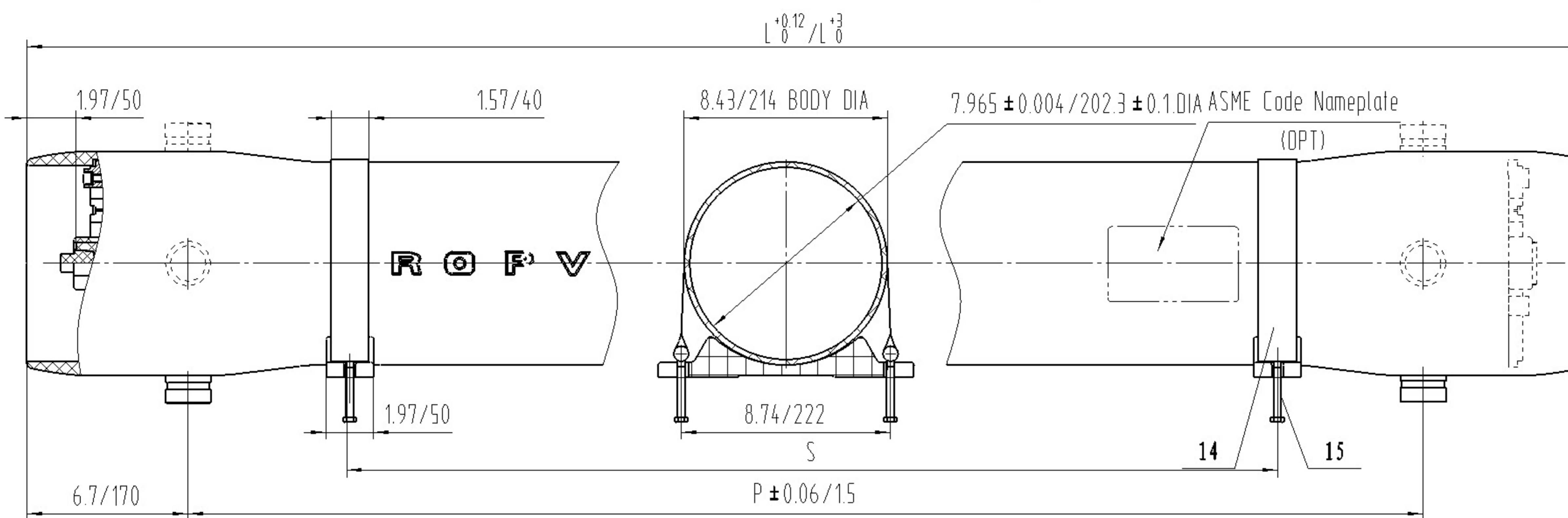
For Internal Flat Membrane

Shell length code	Shell number	L L. O. A IN/MM	P Port to port IN/MM	S Span IN/MM	Approx assembly weight LB/KG
1	4012.1	49.7/1263	42/1067	23.6/600	18/8
2	4012.2	89.7/2279	82/2083	47.2/1200	25.9/11.5
3	4012.3	129.7/3295	122/3099	86.6/2200	33.8/15
4	4012.4	169.7/4311	162/4115	63/1600 x2	41.6/18.5
5	4012.5	209.7/5327	202/5131	90.6/2300 x2	49.5/22
6	4012.6	249.7/6343	242/6147	106.3/2700 x2	57.4/25.5



HARBIN ROPV
INDUSTRY DEVELOPMENT CENTER

ENGR	JINGBO AN 2005/6/15	MODEL	R40B 300S	
QLTY	QIYUAN WANG 2005/6/16	DRG	R40B30S-00	REV
MAKT	YOUQING LI 2005/6/16			A

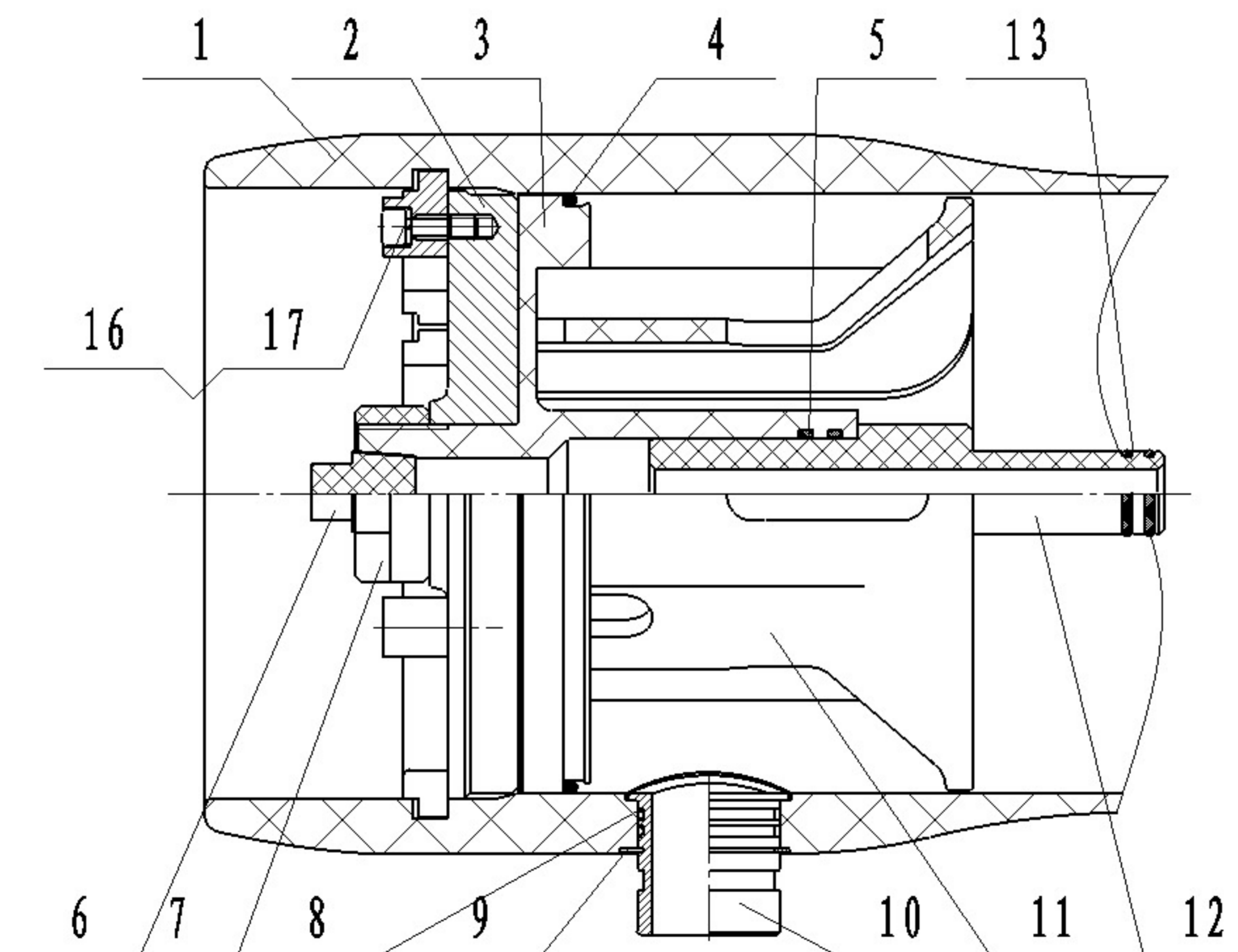


**300
PSI**

WARNING:

1. UNIT OF MEASURE INCHES/MM.
2. DRAWING DIMENSIONS ARE FOR REFERENCE ONLY.
3. PRECAUTIONS, USEAGE GUIDLINES, AND USER GUIDE INTEGRAL TO DRAWING.
4. SUBJECT TO CHANGE WITHOUT NOTICE.
5. INTERNAL PERMEATE PRESSURE NOT TO EXCEED 125PSI (0.88Mpa).

Ref.	Part Number	Description	Qty.	Material
1	8003.1-7	Pressure Shell	1	Epoxy FRP
2	8011	Bearing Plate	2	Aluminum alloy
3	8010.1	Sealing Plate	2	ABS
4	8037	O-Ring	2	EPDM
5	8040	O-Ring	4	EPDM
6	8013	Plug	1	ABS
7	8014.1	Permeate Port Locknut	2	ABS
8	8041	O-Ring	4	EPDM
9	80051	Retaining Ring	2	304SST
10	8015.1	1.5"Feed/Conc. Port	2-4	316LSST
11	8022.1	Thrust Ring	1	ABS
12	8025	Adapter	2	ABS
13	8043	O-Ring	4	EPDM
14	8027	Strap	2-3	304SST
15	8029	Strap Screw	4-6	304SST
16	8031	Screw Spring	6	304SST
17	8030	Locking Segment Screw	6	304SST
18	8032	Saddle	2-3	NR
19	8033	Locking Kit Segment	6	304SST

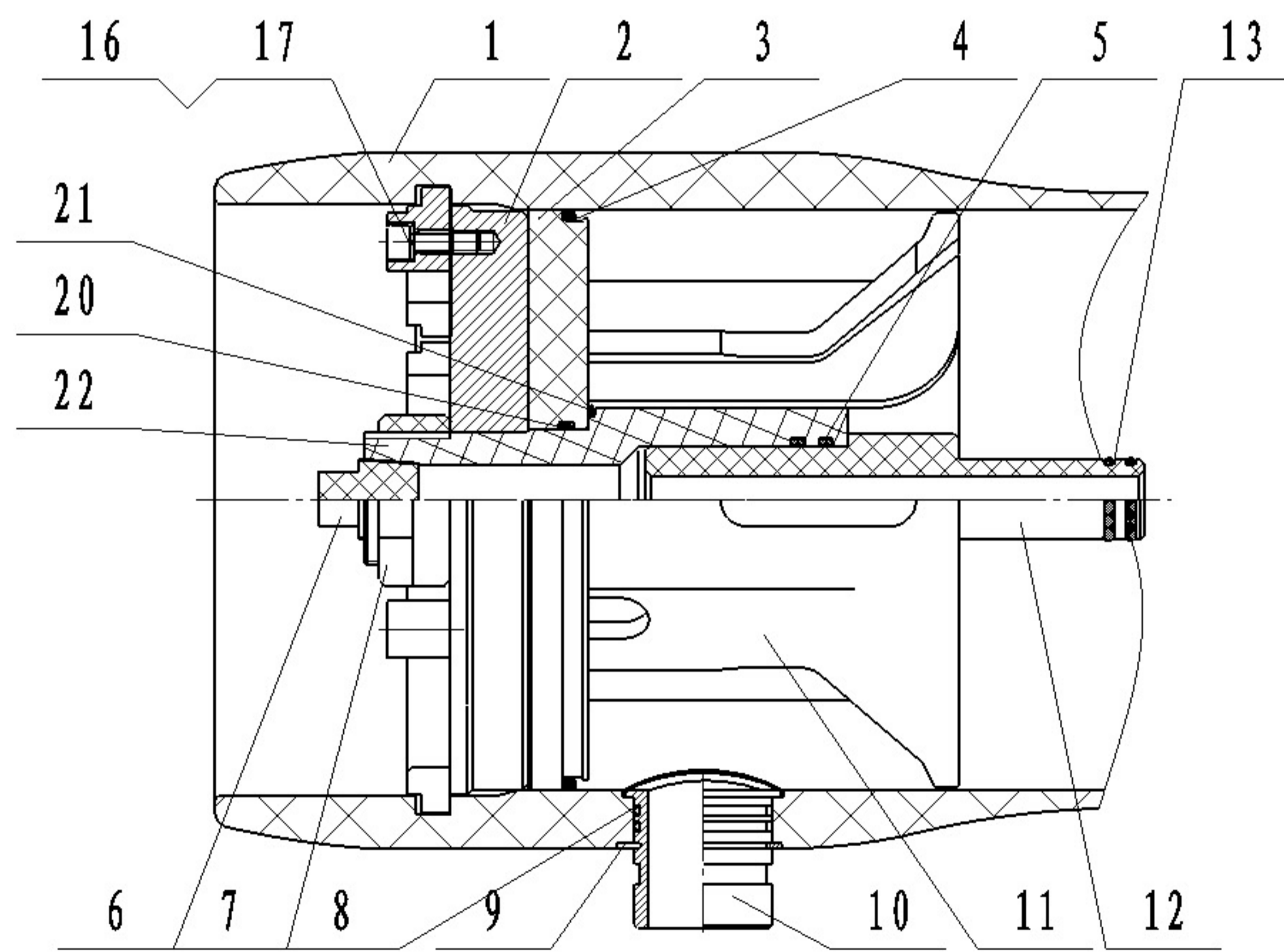
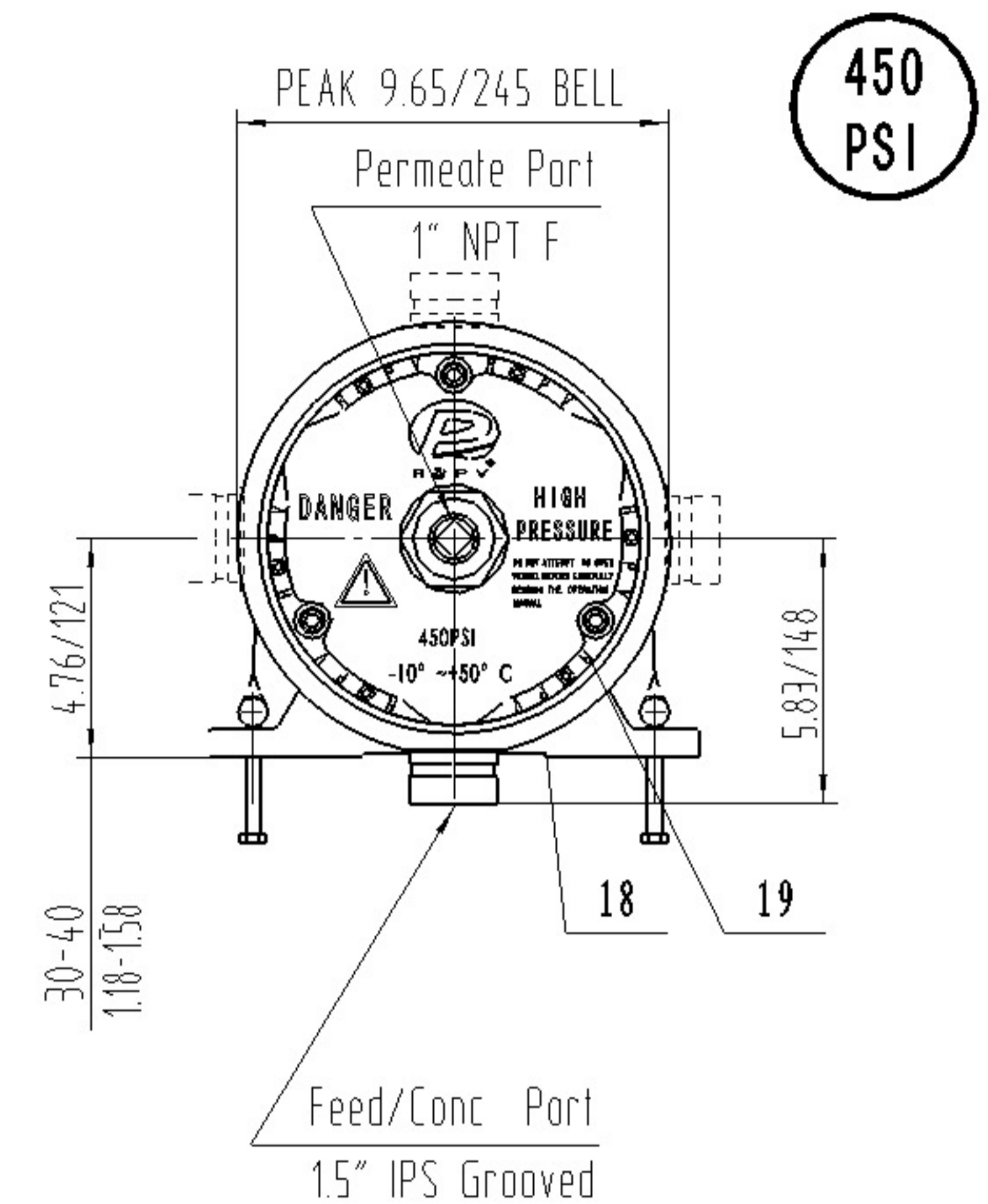
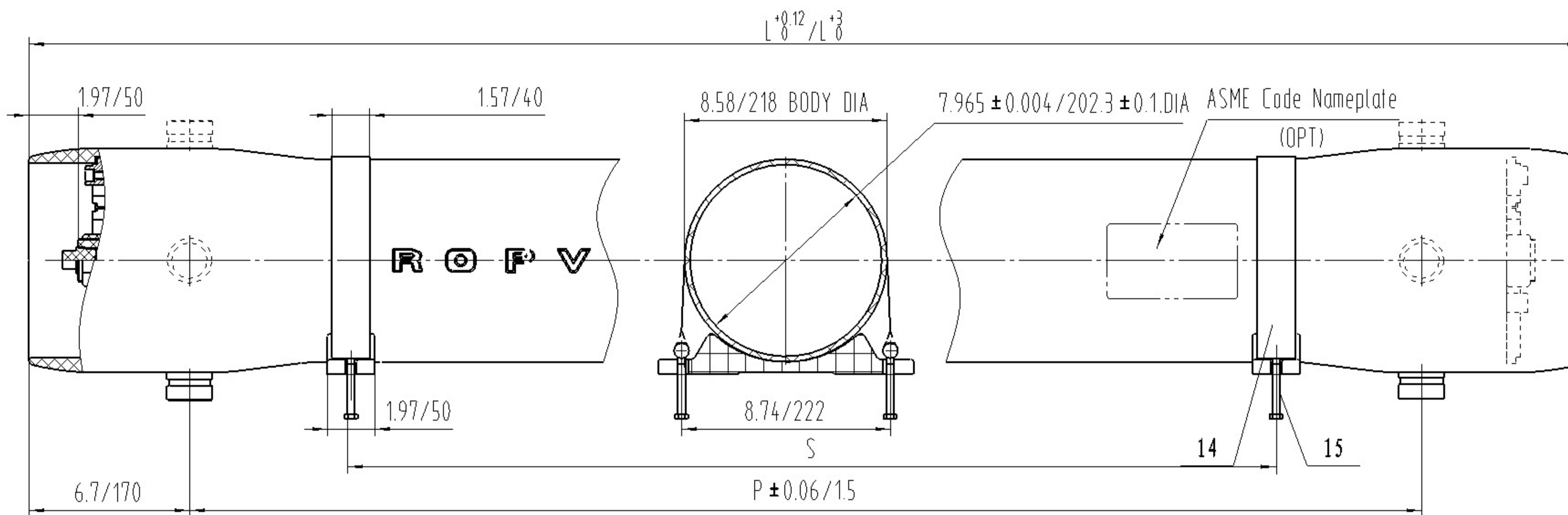


Shell length code	Shell number	L L. O. A IN/MM	P Port to port IN/MM	S Span IN/MM	Approx assembly weight LB/KG
1	8003.1	60.4/1534	47/1194	28/700	87.8/39
2	8003.2	100.4/2550	87/2210	57/1455	105.8/47
3	8003.3	140.4/3566	127/3226	81/2064	123.8/55
4	8003.4	180.4/4582	167/4242	63/1600 x2	141.8/63
5	8003.5	220.4/5598	207/5258	79/2000 x2	159.8/71
6	8003.6	260.4/6614	247/6274	93/2358 x2	177.8/79
7	8003.7	300.4/7630	287/7290	113/2865 x2	195.8/87



**HARBIN ROPV
INDUSTRY DEVELOPMENT CENTER**

ENGR	JINGBO AN 2005/6/15	MODEL	R80B 300S	
QLTY	QIYUAN WANG 2005/6/16	DRG	R80B30S-00	REV A
MAKT	YOUQING LI 2005/6/16			



WARNING:

1. UNIT OF MEASURE INCHES/MM.
2. DRAWING DIMENSIONS ARE FOR REFERENCE ONLY.
3. PRECAUTIONS, USEAGE GUIDLINES, AND USER GUIDE INTEGRAL TO DRAWING.
4. SUBJECT TO CHANGE WITHOUT NOTICE.
5. INTERNAL PERMEATE PRESSURE NOT TO EXCEED 125PSI (0.88Mpa).

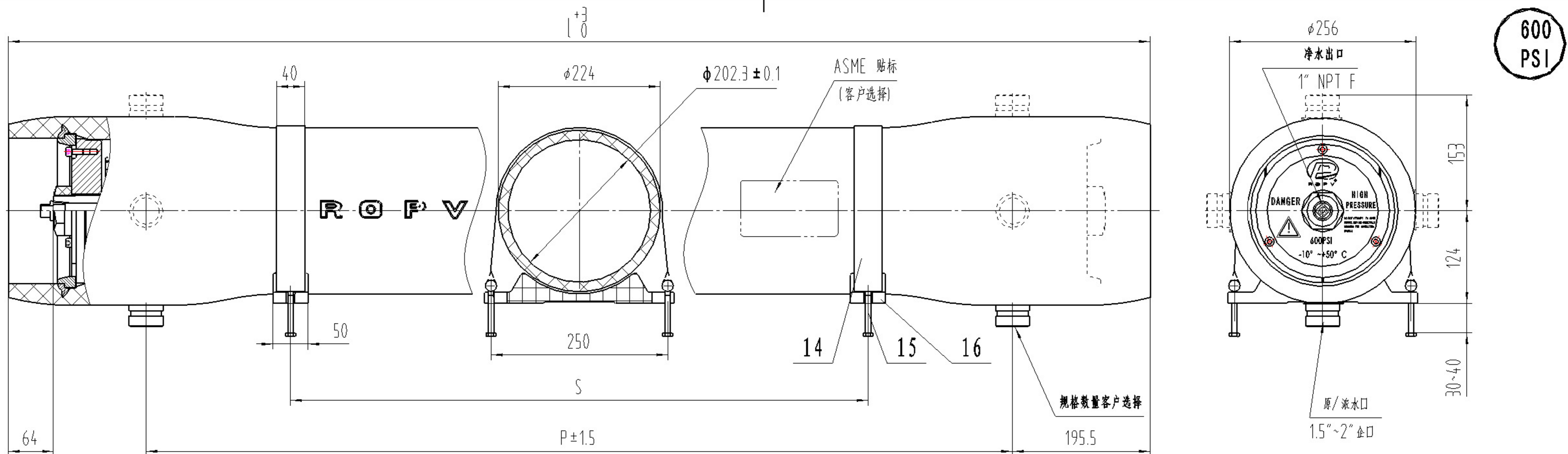
Ref.	Part Number	Description	Qty.	Material
1	8004.8-14	Pressure Shell	1	Epoxy FRP
2	8008.2	Bearing Plate	2	Aluminum alloy 6061-T6
3	80510.2	Sealing Plate	2	ABS/PVC
4	8037	O-Ring	2	EPDM
5	8040	O-Ring	4	EPDM
6	8013	Plug	1	ABS
7	8014.1	Permeate Port Locknut	2	ABS
8	8041	O-Ring	4	EPDM
9	80051	Retaining Ring	2	304SST
10	8015.1	1.5"Feed/Conc. Port	2~4	316LSST
11	8022.2	Thrust Ring	1	ABS
12	8025	Adapter	2	ABS
13	8043	O-Ring	4	EPDM
14	8027	Strap	2~3	304SST
15	8029	Strap Screw	4~6	304SST
16	8031	Screw Spring	6	304SST
17	8030	Locing Segment Screw	6	304SST
18	8032	Saddle	2~3	NR
19	8033	Locking Kit Segment	6	304SST
20	8058	O-Ring	2	EPDM
21	8062.1	O-Ring	2	EPDM
22	8064.2	Permeate Port	2	ABS

Shell length code	Shell number	L L. O. A IN/MM	P Port to port IN/MM	S Span IN/MM	Approx assembly weight LB/KG
1	8004.8	60.4/1534	47/1194	28/700	94.5/42
2	8004.9	100.4/2550	87/2210	57/1455	117/52
3	8004.10	140.4/3566	127/3226	81/2064	139.5/62
4	8004.11	180.4/4582	167/4242	63/1600 x2	162/72
5	8004.12	220.4/5598	207/5258	79/2000 x2	184.5/82
6	8004.13	260.4/6614	247/6274	93/2358 x2	207/92
7	8004.14	300.4/7630	287/7290	113/2865 x2	229.5/102



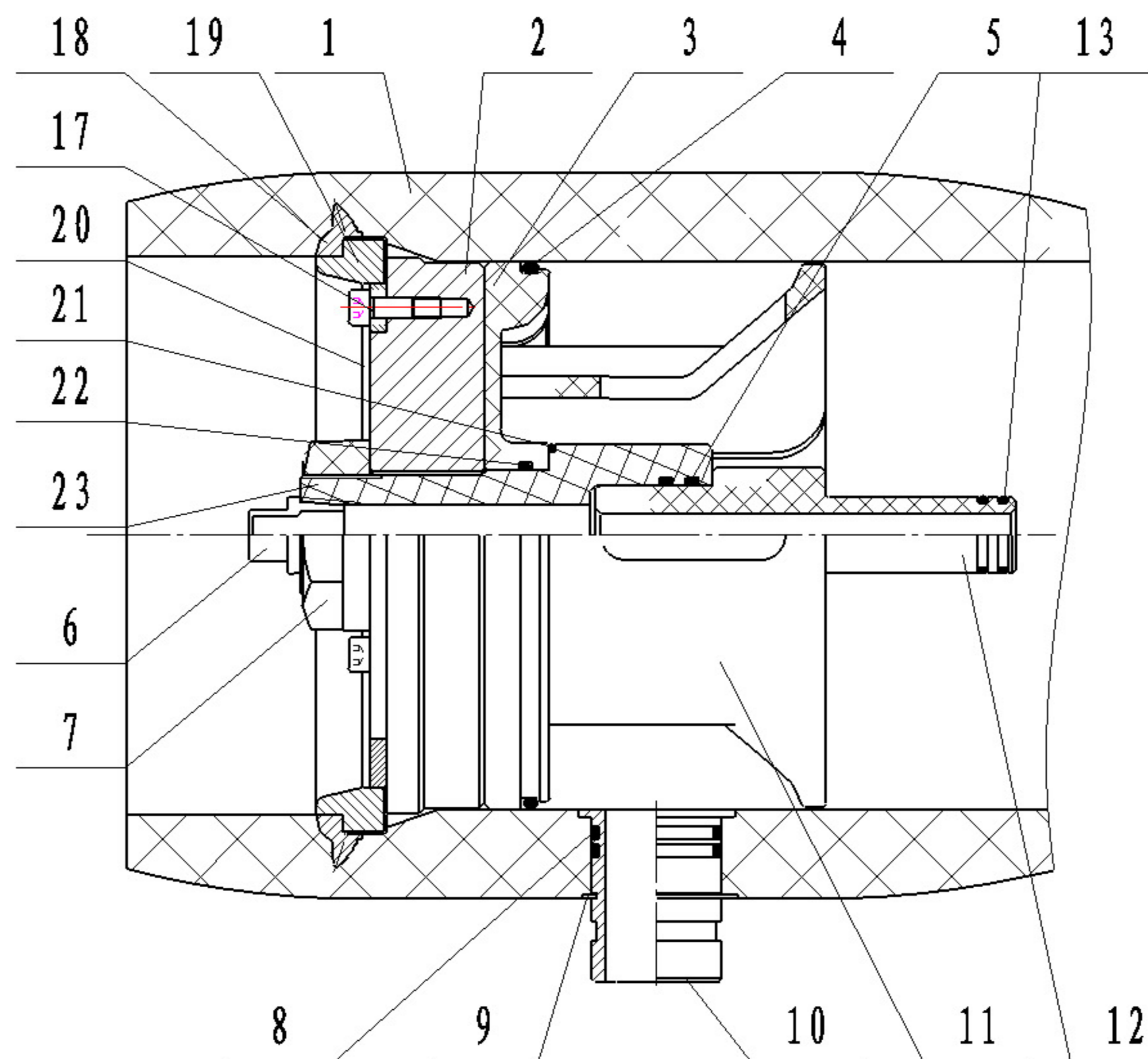
HARBIN ROPV
INDUSTRY DEVELOPMENT CENTER

ENGR	JINGBO AN 2005/6/15	MODEL	R80B 450S	
QLTY	QIYUAN WANG 2005/6/16	DRG	R80B45S-00	REV A
MAKT	YOUQING LI 2005/6/16			



23	8064.3	净水出口	2	ABS	
22	8058	O型密封圈	2	乙丙橡胶	47.5x3.55
21	8062.1	O型密封圈	2	乙丙橡胶	58x2.65
20	8035	保安环	2	铝合金	
19	8097	预埋环	2	316不锈钢	选配
18	8034	三瓣环	6	LY12 铝合金	
17	8036	保安环螺栓	6	304不锈钢	M8x16
16	8032	鞍座	2~3	天然橡胶	
15	8029	捆带螺栓	4~6	304不锈钢	M8x70
14	8027.3	捆带	2~3	304不锈钢	
13	8043	O型密封圈	4	乙丙橡胶	23.6x2.65
12	8026	适配器	2	ABS	
11	8022.3	止推环	1	ABS	
10	8019.1	2"原/浓水口	2~4		客户选择
	8018.1	1.5"原/浓水口*		2205不锈钢	
9	80051	轴用挡圈	2	304不锈钢	
8	80411	O型密封圈	4	乙丙橡胶	41.2x3.55
7	8014.1	紧固螺母	2	ABS	
6	8013	管堵	1	ABS	
5	8040	O型密封圈	4	乙丙橡胶	36.5x3.55
4	8038	O型密封圈	2	乙丙橡胶	190x5.3
3	8010.2	分体密封板	2	ABS	
2	8009	支承板	2	6061 T651	
1	8005.1-7	压力壳体	1	环氧玻璃钢	可选蓝、白涂装
序号	代号	名称	数量	材料	备注

*为标准配置

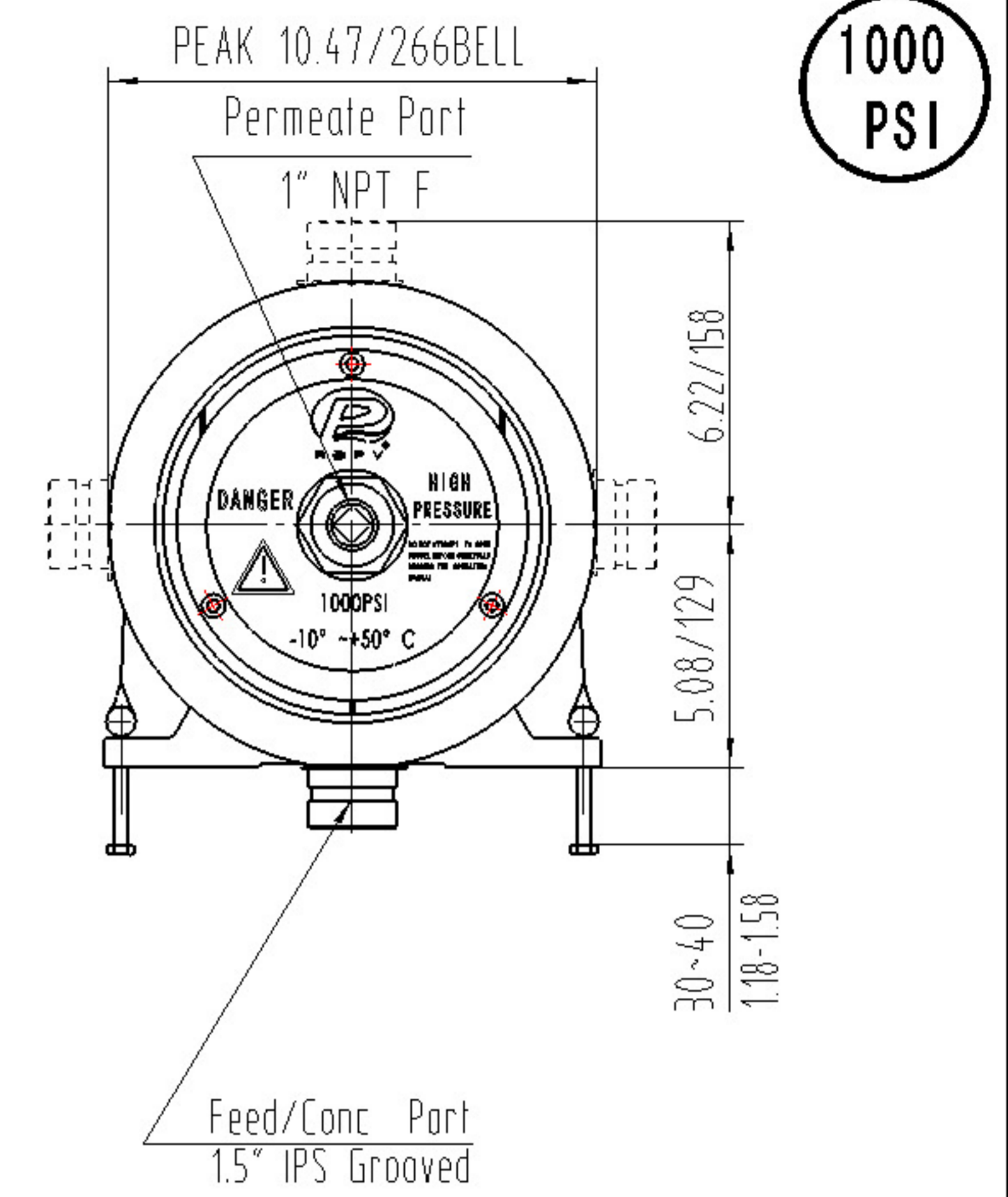
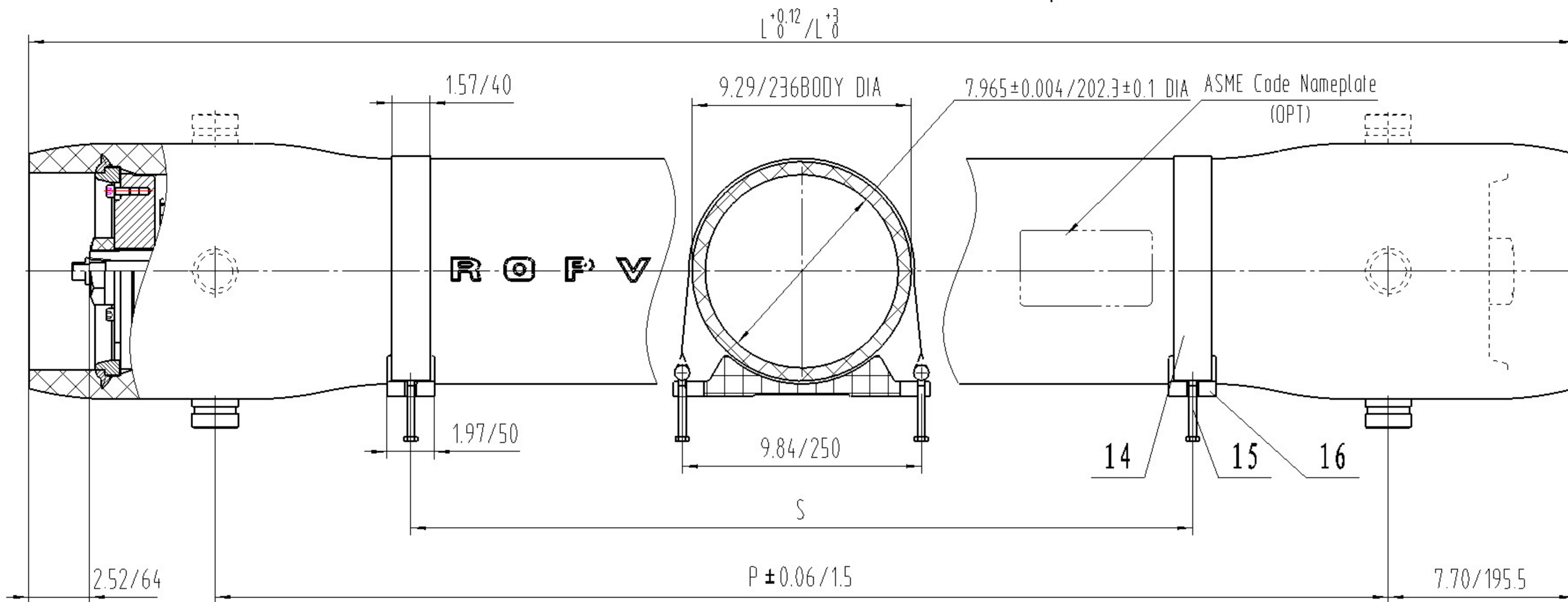


- 1 设计压力41.4MPa(600PSI)
- 2 设计温度66° (150° F)
- 3 最低允许温度-10° (14° F)
- 4 工作介质为苦咸水或海水
- 5 净水出口内部最大工作压力0.88MPa(125PSI)
- 6 请按照说明书正确操作。
- 7 可以选择ASME 贴标。
- 8 设计变动不另行通知,请登录公司网站查询。

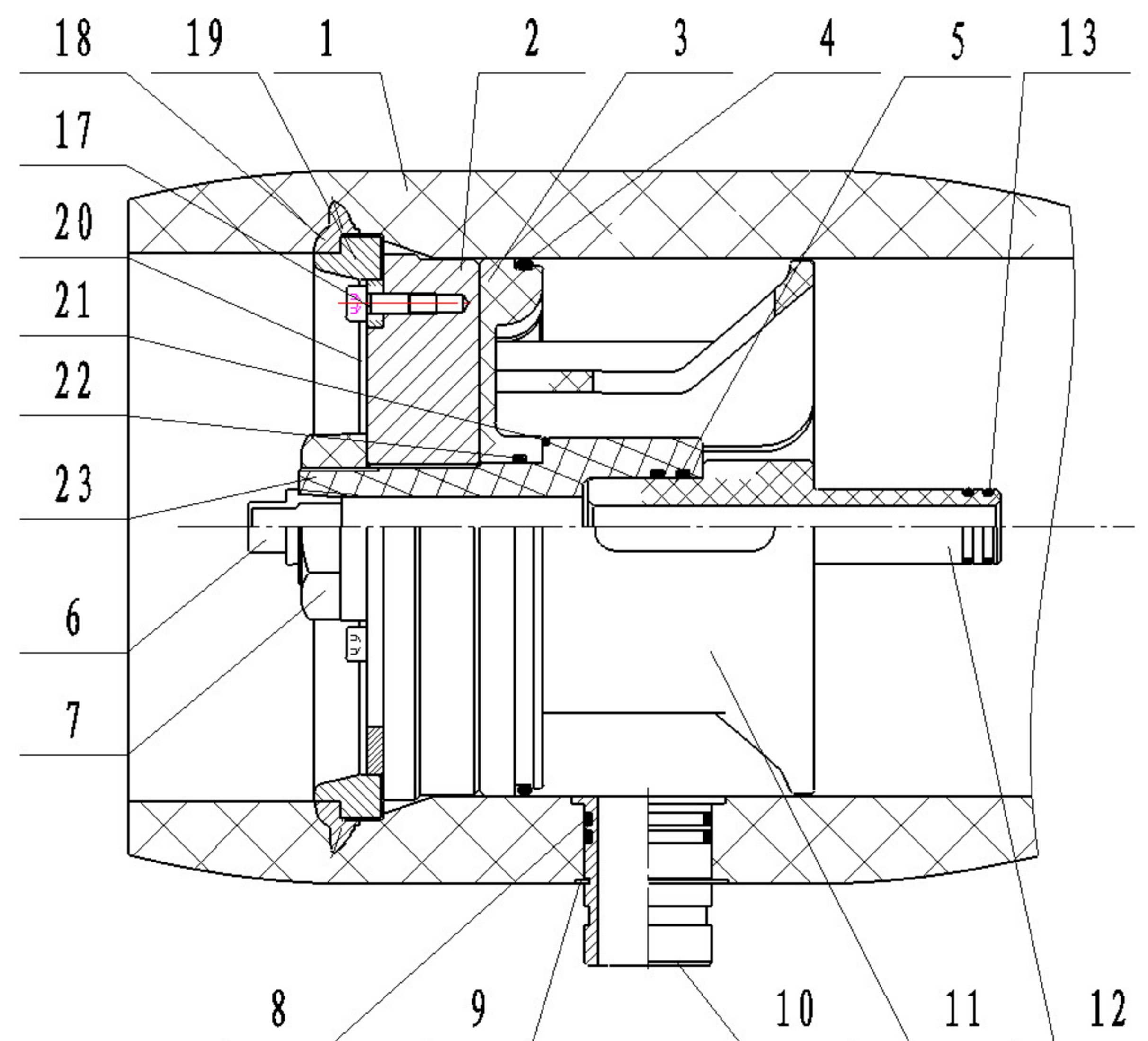
长度代码	壳体编号	L (MM)	P (MM)	S (MM)	近似重量 (KG)
1	8005.1	1534	1143	700	49
2	8005.2	2550	2159	1455	64
3	8005.3	3566	3175	2064	79
4	8005.4	4582	4191	1600x2	94
5	8005.5	5598	5207	2000x2	109
6	8005.6	6614	6223	2358x2	124
7	8005.7	7630	7239	2865x2	139



设计	安静波	名称	R80B 600S型膜壳
	2005/5/8		
设计	王其远		
校核	王其远	图号	R80B60S-00
	2005/5/8		
批准	李友清	版次	A
	2005/5/8		



Ref Part Number	Description	Qty.	Material
1	8007.1-7 Pressure Shell	1	Epoxy FRP
2	8009 Bearing Plate	2	Aluminum alloy 6061-T6
3	8010.2 Sealing Plate (Without permeate port)	2	ABS
4	8038 O-Ring	2	EPDM
5	8040 O-Ring	4	EPDM
6	8013 Plug	1	ABS
7	8014.1 Permeate Port Locknut	2	ABS
8	80411 O-Ring	4	EPDM
9	80051 Retaining Ring	2	304SST
10	8018.3 1.5" Feed/Conc. Port	2~4	2205SST
11	8022.3 Thrust Ring	1	ABS
12	8026 Adapter	2	ABS
13	8043 O-Ring	4	EPDM
14	8027.3 Strap	2~3	304SST
15	8029 Strap Screw	4~6	304SST
16	8032 Saddle	2~3	NR
17	8036 Securing Ring Screw	6	304SST
18	8034 Locking Kit Segment	6	Aluminum alloy
19	8097 Embedded Ring	2	316SST
20	8035 Securing Ring	2	Aluminum alloy
21	8062.1 O-Ring	2	EPDM
22	8058 O-Ring	2	EPDM
23	8064.3 Permeate Port	2	ABS



WARNING:

1. UNIT OF MEASURE INCHES/MM.
2. DRAWING DIMENSIONS ARE FOR REFERENCE ONLY.
3. PRECAUTIONS, USAGE GUIDELINES, AND USER GUIDE INTEGRAL TO DRAWING.
4. SUBJECT TO CHANGE WITHOUT NOTICE.
5. INTERNAL PERMEATE PRESSURE NOT TO EXCEED 125PSI (0.88Mpa).

Shell length code	Shell number	L L. O. A IN/MM	P Port to port IN/MM	S Span IN/MM	Approx assembly weight LB/KG
1	8007.1	60.4/1534	45/1143	28/700	140.2/62.3
2	8007.2	100.4/2550	85/2159	57/1455	193.5/86
3	8007.3	140.4/3566	125/3175	81/2064	247.5/110
4	8007.4	180.4/4582	165/4191	63/1600 x2	301.1/133.8
5	8007.5	220.4/5598	205/5207	79/2000 x2	354.4/157.5
6	8007.6	260.4/6614	245/6223	93/2358 x2	408.4/181.5
7	8007.7	300.4/7630	285/7239	113/2865 x2	461.3/205



HARBIN ROPV
INDUSTRY DEVELOPMENT CENTER

ENGR	JINGBO AN 2005/6/15	MODEL	R80B 1000S	
QLTY	QIYUAN WANG 2005/6/16	DRG	R80B100S-00	REV
MAKT	YOUQING LI 2005/6/16			A