

HOWELL[®]

昊纬玻璃钢膜壳

HOWELL FRP MEMBRANE PRESSURE VESSELS



衡水昊纬水处理技术有限公司

Hengshui HOWELL water treatment technology Co.,Ltd



HOWELL 昊纬膜壳
HOWELL FRP MEMBRANE PRESSURE VESSELS

玻璃钢膜壳专家

——专业专注水工业十二年



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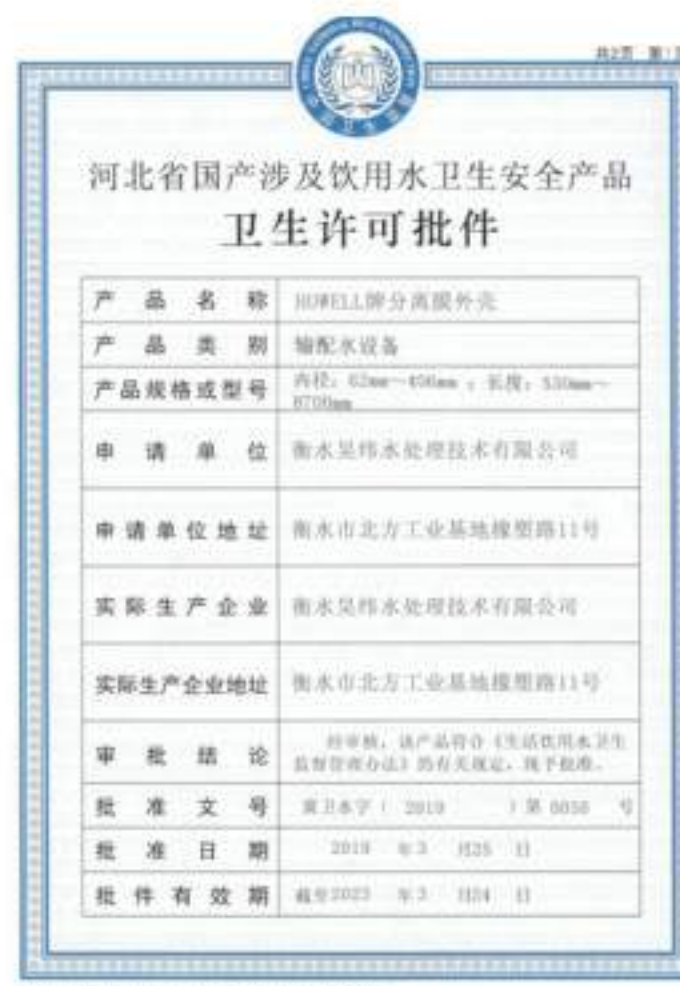


衡水昊纬水处理技术有限公司专业致力于膜法水处理用玻璃钢压力容器（膜壳）的研发与生产，公司成立于2010年，原名为河北科力集团水处理事业部，2015年改名为衡水昊纬水处理技术有限公司。

公司位于衡水市高新技术产业开发区橡塑路11号，占地面积10000平方米，其中建筑面积4500平方米，现有员工60人。公司现有膜壳生产专用设备56台套，年产玻璃钢膜壳40000支。

公司拥有SeaWell、HOWELL两大品牌，公司与中科院、武汉理工等多家科研院所形成紧密合作关系，关键设备采用国外先进设备，技术力量强，检测手段齐全，能够独立进行水处理膜壳和高端玻璃钢制品的研发和生产。公司膜壳系列产品已成为国内水处理行业知名品牌并出口到三十多个国家和地区。

Seawell系列、HOWELL系列玻璃钢膜壳适用于Hydranautics、DOW、Filmtec、Desal、Koch、CSM、TORAY等多种标准膜元件。工作压力75PSI-1000PSI；直径2.5”、4”、8”；内装膜元件1-7节。目前产品已经广泛应用于电子、电力、冶金、化工、医药、工业废水处理、海水淡化和苦咸水淡化等领域。并可根据客户要求定做非标产品和OEM服务。





Company Profiles

Hengshui HOWELL water treatment technology Co.,Ltd committed to research & development and production regarding reinforced plastic pressure vessel(FRP membrane housing) ,The company was founded in 2010, used name is The business Division of Hebei Keli seawell glass reinforced plastic membrane, In 2015 we changed our name to Hengshui HOWELL water treatment technology Co.,Ltd.

Our company located in No.11 xiangsu road, high-tech development zone, hengshui city, and covers an area of 10000 square meters, including an area structure reaching 4500 square meters. Now the company has 60 employees and 56 sets of professional equipment to produce the membrane housing, the annual output of FRP membrane housing over 40000.

Our company has Seawell and HOWELL two brand series. Our company cooperates closely with the CAS and the research institute of Wuhan University of Technology and so on.The key equipment used by our company is the advanced technical equipment imported from abroad,it has the characteristics of high technical content and complete detection means,and play an important role in the researchde and developed and production of FRP membrane housing and High quality fiberglass products. Our company' s membrane housing series are well-known brands in China's water treatment industry,and our company' s membrane housing are exported to more than 30 countries and regions.

Seawell and HOWELL FRP membrane housing apply to various kinds of standard membrane elements including Hydranautics, DOW, Filmtec, Desal, Koch, CSM and TORAY, etc. The working pressure is 75PSI to 1000PSI; the diameter includes 2.5"、4" and 8" ;the number of in-built membrane elements is 1-7 section(s). Now the product has been widely applide to such fields as electronics, electricity, metallurgy, chemical industry, pharmaceuticals industry, industrial effluent treatment, sea water desalination and brackish water desalination. In addition, non-standard products and OEM services can be customized as required by customers.



企业精神

跟踪服务 | 奉献真诚 | 用户至上 | 质量第一

经营理念

用户第一 | 信誉第一 | 服务第一

乘风破浪会有时
直挂云帆济沧海



HOWELL
昊纬玻璃钢膜壳
HOWELL FRP MEMBRANE PRESSURE VESSELS



8040 侧开



8040 端开



4040 侧开



4040 端开



DTRO 膜壳



2540 端开

HOWELL 膜壳编号说明

Explanation of codes of HOWELL Membrane pressure vessels

H 80 E(S) 300 - 4

HOWELL 系列
Brand Name

8 英寸膜元件
Membrane Housing Diameter 8"

原 / 浓水口端联为 E (侧联为 S)
Feed/Concentrate Port Type End port E(Side port S)

工作压力为 300PSI
Membrane Housing Max
operating pressure:300PSI

内装 4 支膜元件
Membranes of element inside

HOWELL 膜壳编号列表

List of codes of HOWELL Membrane pressure vessels

8 英寸侧开口膜壳 8" PRESSURE VESSEL (SIDE PORT)

型号 ITEM NO.	工作压力 PSI(MPa)	连接方式 Connection	膜元件规格 Membrane size	芯数
H80S150	150(1.0)	侧联 SIDE	8040	1-7
H80S300	300(2.1)	侧联 SIDE	8040	1-7
H80S450	450(3.1)	侧联 SIDE	8040	1-7
H80S600	600(4.1)	侧联 SIDE	8040	1-7
H80S1000	1000(6.9)	侧联 SIDE	8040	1-7

8 英寸端开口膜壳 8" PRESSURE VESSEL (END PORT)

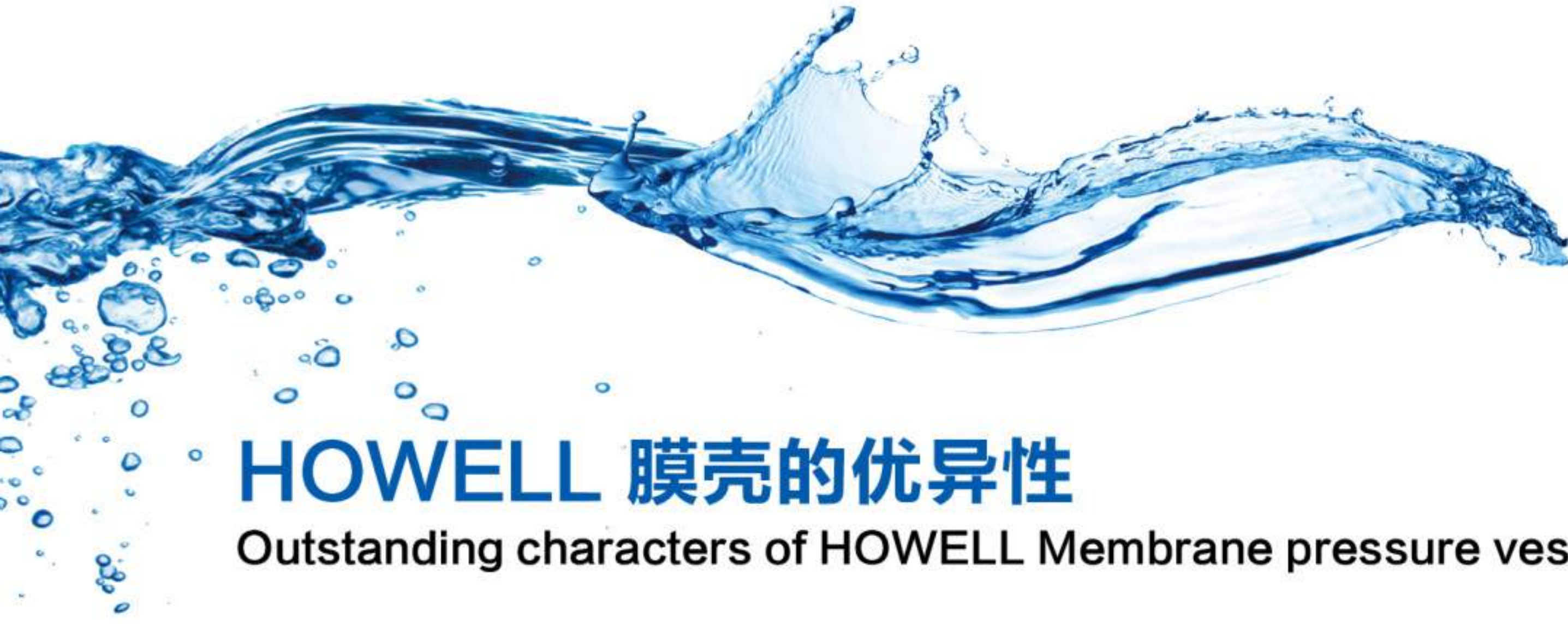
型号 ITEM NO.	工作压力 PSI(MPa)	连接方式 Connection	膜元件规格 Membrane size	芯数
H80E150	150(1.0)	端联 END	8040	1-7
H80E300	300(2.1)	端联 END	8040	1-7
H80E450	450(3.1)	端联 END	8040	1-7
H80E600	600(4.1)	端联 END	8040	1-7
H80E1000	1000(6.9)	端联 END	8040	1-7

4 英寸侧开口膜壳 4" PRESSURE VESSEL (SIDE PORT)

型号 ITEM NO.	工作压力 PSI(MPa)	连接方式 Connection	膜元件规格 Membrane size	芯数
H40S250	150(1.7)	侧联 SIDE	4040	1-4
H40S300	300(2.1)	侧联 SIDE	4040	1-4
H40S450	450(3.1)	侧联 SIDE	4040	1-4
H40S600	600(4.1)	侧联 SIDE	4040	1-4
H40S1000	1000(6.9)	侧联 SIDE	4040	1-4

4 英寸端开口膜壳 4" PRESSURE VESSEL (END PORT)

型号 ITEM NO.	工作压力 PSI(MPa)	连接方式 Connection	膜元件规格 Membrane size	芯数
H40E250	150(1.7)	端联 END	4040	1-4
H40E300	300(2.1)	端联 END	4040	1-4
H40E450	450(3.1)	端联 END	4040	1-4
H40E600	600(4.1)	端联 END	4040	1-4
H40E1000	1000(6.9)	端联 END	4040	1-4



HOWELL 膜壳的优异性

Outstanding characters of HOWELL Membrane pressure vessels

膜壳

- ◎ 采用进口材料，提高了产品的耐磨性；
- ◎ 采用特殊的处理工艺，提高了产品内壁光洁度；
- ◎ 针对容器之间的多样化对接方式，可根据客户要求，实现多开口订制；
- ◎ HOWELL产品采用高档汽车烤漆工艺，使产品外表面具有高光亮度和超强的漆膜附着力；
- ◎ 产品的耐腐蚀、耐高温、抗疲劳、抗老化、抗氧化性能优异。

Membrane pressure vessels

Adopt imported material to improve the anti-wearable property;
Adopt unique processing technique to make the inside of the products more smooth;
Multi-ports are available according to customer's requirements for the easy installation;
HOWELL series adopt up scale automobile baking varnish craft to ensure the smoothness and brightness of the products;
Outstanding corrosion resistance and anti-aging property;
Good heat-insulating property and anti-Oxidation property.

部件

- ◎ 端板采用航天表面处理工艺，有效提高了端板强度和表面抗腐蚀能力；
- ◎ 密封件采用特殊结构和制造工艺，有效提高了安装的密封性、抗老化性及便捷性；
- ◎ 端板采用高强度铝合金，提升抗形变能力；
- ◎ 密封件采用环保材料，既保证了密封性能和水质安全，又提高了其抗老化性；
- ◎ 进出水口等均采用优质316L不锈钢材料，使其具备较强的抗腐蚀性，便于拆装维护。

Spare parts

End plate adopt aenal processing technique, efficiently improving the intensity and capacity to resist deformation;
Seal kit adopt special structure and technique, efficiently enhancing the leak tightness;
End plate is made of aluminum alloy to enhance the intensity and improve the feature of resist deformation;
Seal kit adopt environmental material to assure the leak tightness and high water quality, meanwhile to improve its anti-aging capacity;
Feed/concentrate port adopt 316L stainless steel with high quality to assure outstanding corrosion resisting property and convinient maintenance.

测试保证

- ◎ 6倍于设计压力的爆破测试；
- ◎ 100,000次的疲劳测试；
- ◎ 出厂产品100%经过1.5倍的水压测试。

Quality Assurance

- Burst test with 6 times of its design pressure;
- 100,000times fatigue test at maximum operating temperatures;
- 100% qualified products tested by 1.5 times hydraulic pressure of design pressure.

DTRO碟管式膜壳



碟管式反渗透是反渗透的一种形式，是专门用来处理高浓度污水的膜组件，DT组件操作压力具有75bar,90bar,120bar,160bar四个等级可选。处理对象涉及到垃圾填埋场渗滤液、垃圾堆肥场渗滤液处理。

HOWELL碟管式反渗透玻璃钢膜壳具有强度高、内表面光滑、优良的耐压性、耐腐蚀性。除标准型号外，还可提供OEM服务和非标产品的研发及生产。

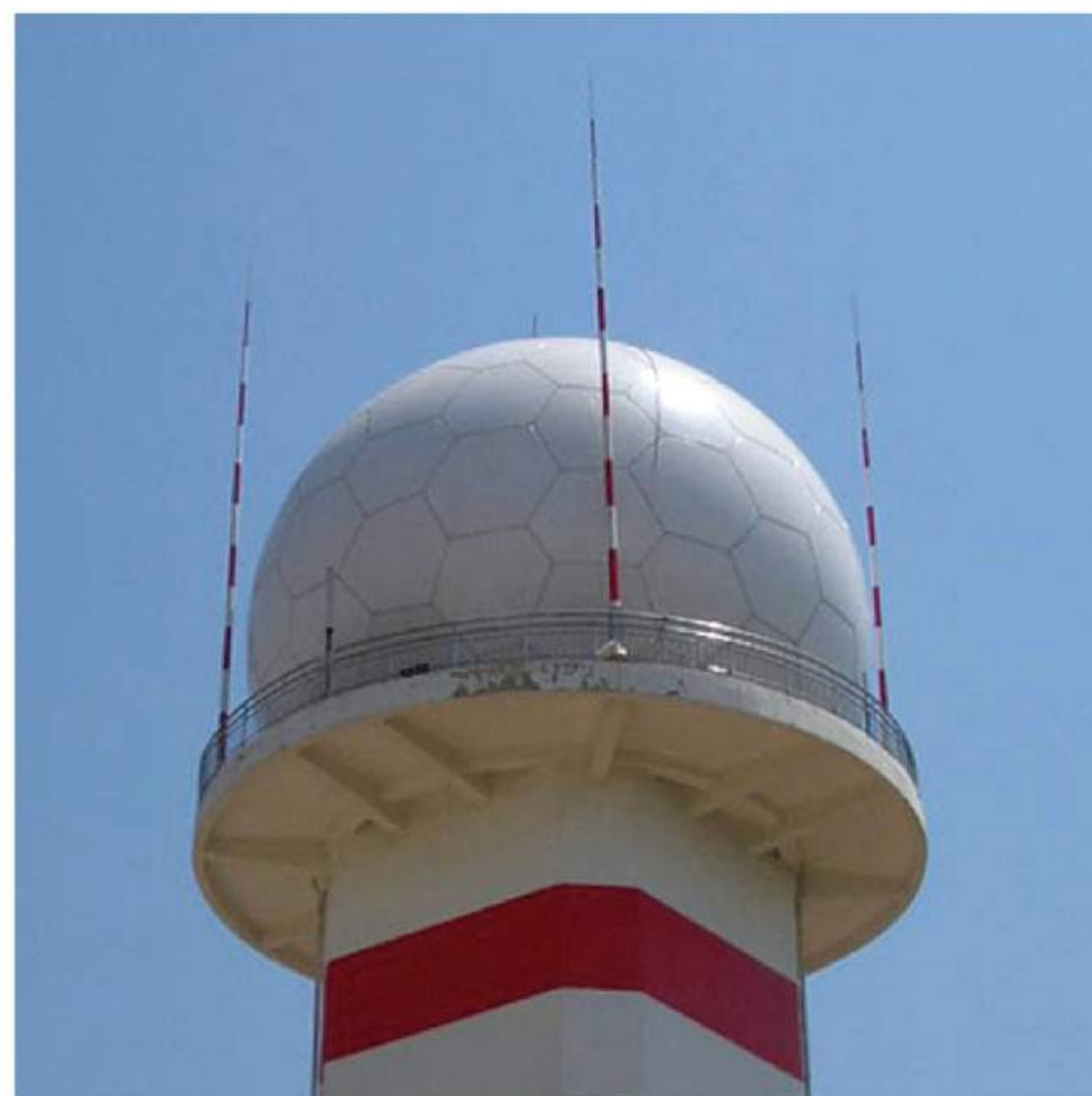
环氧玻璃钢避雷针系列

环氧玻璃钢避雷针是我司为微波通讯站、雷达站、气象站等涉及雷达场所的避要求而研发的专利产品。

避雷针由高强度环氧玻璃钢杆、接闪器、导线、基座组成。高度为5-18米，并可以根据客户需求定制生产。

环氧玻璃钢避雷针特点：

- ◎透波性好：.玻璃钢材料不影响多普勒雷达的电磁波传递，对雷达信号的影响可降到最低。
- ◎机械强度高：环氧玻璃钢材料具有轻质高强的特点，比强度为碳钢的3倍，抗风载能力强，抗风速可达50m/s。
- ◎安装便利：质量轻，分节承插连接，每节3-4米，便于运输和高空安装。
- ◎耐腐蚀耐老化：环氧玻璃钢具有优异的耐腐蚀性，并在表面涂装抗紫外线烤漆，美观不褪色、免维护。



HOWELL 膜壳使用维护指南 Maintenance Guide

水处理系统整体安装调试完毕后，在使用之前，应对系统中所有的设备装备严格按照设备设施装置的技术要求和安装操作要求逐项进行核实确认，从而预防和避免因人为疏漏造成的不规范操作。

HOWELL 系列膜壳作为滤膜元件的外壳，可长期连续使用，为了确保膜壳长期高效的使用，请严格遵照产品可承受的使用温度范围（-7℃~49℃），严禁在超出此温度范围的条件下工作。

因膜壳是玻璃纤维与环氧树脂缠绕后在高温下固化而成（俗称 玻璃钢），壳体在正常操作情况下能够承受的 pH 值范围为 3~10，在清洁的情况下为 2~12，为了确保膜壳内表面清洁，请选用中性清洗液对膜壳进行清洗，并在清洗后将所有的清洗用化学物质从膜壳中去除干净。

在整个水处理系统运行时，为了避免膜壳头部爆裂导致失效的可能性发生及人身伤害，在使用过程中，请务必考虑到各个方面的安全因素。

- 1 背压是否超出 125psi;
 - 2 有无接触禁用的有机溶液；
 - 3 严禁在系统工作时对膜壳进行拆卸；
 - 4 环境条件的适用性；
 - 5 周围环境的振动源因素；
 - 6 处理液体是否与膜壳及其所使用的配件材料相容；
 - 7 严禁在超出设计压力的条件下工作；
 - 8 须对操作使用人员进行培训，操作人员必须按照要求安装；
 - 9 膜壳不能作为承重载体，不能在其上部载重或施加重力，不能对其直接相连的配件施加压力；
- 请务必确保 HOWELL 系列膜壳在以上所要求的环境下使用。

After the installation of water processing system, all the equipment used in the system should be carefully examined according to technique, installing and operating requirements to avoid improper operation. After strict check, the shell should be used according to the Installation and Maintenance Guide.

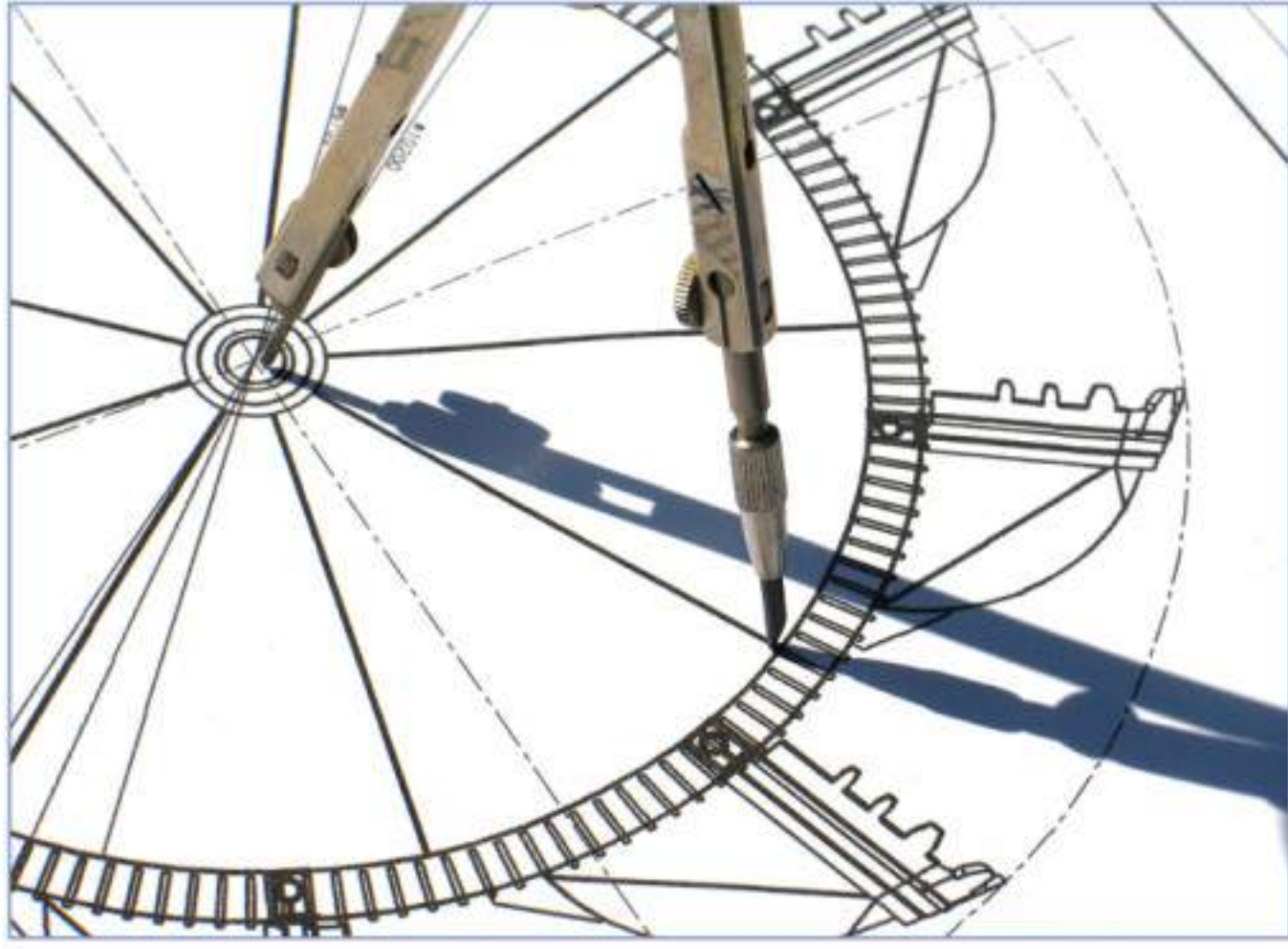
Safety and requirements:

HOWELL membrane shell are designed for continuous and continues long-term usage as housings for osmosis membrane elements. The allowable temperature is -7℃~49℃. The filament wound FRP shell is composed of continuous fiberglass impregnated with heated epoxy resin system. The allowable water PH range is 3~10 under normal operating conditions and 2~12 if the vessel is periodically cleaned. Cleaning agents must be wiped off and cleaned from the vessel after periodical cleaning.

In the operation of water processing system, there is considerable potential for explosive head failure, which could result in serious injury or loss of life. Therefore, many factors should be taken into consideration to guarantee safety. For example.

1. Abnormal back pressure should not above 125PSI;
 2. Use of unallowable solutions;
 3. Forbid to remove shell under working conditions;
 4. External environmental factors;
 5. Vibratory of environment factors;
 6. Process fluid, shell and assemblies compatibility;
 7. The shell should not be used beyond design pressure;
 8. The users should be trained and should use the shell according to the requirements;
 9. The shell should not be used as a support. Do not apply undue force to any fittings connected directly to a pressure vessel.
- Please assure that HOWELL membrane housing series be used in normal environment.





完备的售前、售后服务体系

Complete before-sale and after-sale service system

H40E150
H40E300
H40E450
H40S300
300PSI

说明

1. 设计压力2.1MPa(300PSI)
2. 设计温度66℃ (150°F) 至-10℃ (14°F)
3. 适用原水PH值3-11
4. 净水口工作压力0.88MPa(125PSI)
5. 外观颜色标准为白色 亦可涂装其它颜色
6. 产品设计不断改进中参数变动恕不另行通知

芯数	捆带数	S (mm)	P (mm)	L (mm)
6	3	2850*2	6249	6571
5	3	2350*2	5233	5555
4	3	1600*2	4217	4538
3	2	2000	3201	3522
2	2	1400	2185	2505
1	2	700	1169	1489

序号	名称	数量	材料
19	商标	1	不干胶
18	o型密封圈	4	乙丙橡胶
17	原液水口	2-4	316不锈钢
16	挡圈	2	304不锈钢
15	止推环	1	ABS
14	适配器	2	ABS
13	捆带螺栓	4-6	304不锈钢
12	鞍座	2-3	天然橡胶
11	捆带	2-3	304不锈钢
10	o型密封圈	4	乙丙橡胶
9	o型密封圈	4	乙丙橡胶
8	o型密封圈	2	乙丙橡胶
7	密封板	2	ABS
6	支撑板	2	铝合金
5	挡块螺栓	6	304不锈钢
4	管堵	2	ABS
3	紧固螺母	2	ABS
2	挡块	6	304不锈钢
1	压力壳体	1	环氧玻璃钢

衡水昊纬水处理技术有限公司

设计	名称	8寸玻璃钢膜壳	
校核	型号	H80S300	
批准	图号	H80S300-0-00	
日期	2018.12	版次	III

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www.hs-howell.com

HOWELL can provide detailed technical drawings, instruction manuals for in stallation, operation and maintenance, spare parts and other technical information and service, Please visit our website for further information: www.hs-howell.com

HOWELL 服务承诺

- ◎ 质保一年，终身维护；
- ◎ 八小时内对客户提出的异议或技术咨询做出回应；
- ◎ 对用户提出到现场进行处理的要求，承诺后 48 小时内到达工程现场；
- ◎ 根据用户需要提供 OEM 服务；
- ◎ 服务热线：400-031-8040
- ◎ 技术咨询：13833829520@163.com

规格、型号及参数等如有变更，恕不另行通知。请登录网站或电函索取相关资料以便获取最新信息。

HOWELL service

- ◎ Provide 1 year quality guarantee, lifelong maintenance;
- ◎ Response to the objections and technical advisory within 8 hours;
- ◎ Provide site service after confirming customer's site request in China within 48 hours;
- ◎ Provide OEM service;
- ◎ Sale & Service line: 400-031-8040
- ◎ Technical Consulting: 13833829520@163.com

If model, and parameter are changed, we feel sorry that further notice will not be given. Please get the latest information by contacting us or visiting our website www.hs-howell.com



HOWELL 昊纬膜壳
HOWELL FRP MEMBRANE PRESSURE VESSELS



HOWELL[®]

衡水昊纬水处理技术有限公司

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