



专业给水领域三十年



河北成达玻璃钢有限公司  
HEBEI CHENGDA FIBER REINFORCED PLASTICS CO., LTD

# 1

## Enterprise introduce 企业简介

河北成达玻璃钢有限公司是一家专业从事研究、设计、生产、销售**Windor**玻璃钢膜壳及“成达旺”牌塑胶管道、玻璃钢管道、玻璃钢容器的企业，地处枣强县裕华东街666号。始建于1976年，1997年改制为有限责任公司，注册资金1.06亿元，占地151420平方米。现有职工720人，高级工程技术人员20人、中级52人、初级88人，其中聘请了国家技术专家6人，与科研院所建立了长期合作机制。目前，成达公司已形成了以技术创新，科学管理，研发产销于一体的多元化产业链。

河北成达**Windor**玻璃钢膜壳事业部是公司专业致力于膜法水处理用玻璃钢压力容器（膜壳）的研发和生产，通过引进国外先进设备和技术，依托公司强大的研发实力和资源，制造出具有国际同类产品先进水平的高品质水处理用玻璃钢膜壳。**Windor**系列玻璃钢反渗透膜壳以其高端的品质，良好的售后服务迅速进入国内外市场，同时与国内、国际80多个知名水处理工程公司建立了长期战略合作伙伴关系，产品出口到国外十几个国家和地区。

**Windor**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-1200PSI；直径2.5"、4"、8"；内装膜元件1-8芯。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。

成达公司成人达己，与您共铸辉煌！





# Company Introduction

Hebei Chengda FRP Co., Ltd. is an enterprise specialized in the research, design, production and sales of **Windor** pressure vessel, “ChengDaWang” plastic pipes, Glass fiber reinforced plastic containers and pipes and so on; Located in No. 666 Yuhua East Street, Zaoqiang County, Hebei province. Founded in 1976 , In 1997, reformed as a limited-liability company with registered capital of 106 million RMB, covers an area of 151,420 square meters. 720 employees, 20senior engineer, 52 Intermediate technician, 88Junior technician, Hired 6 national technologist. And have already established a long-term cooperation with the research institutions. At present, Chengda Company has formed a diversified industry chain which covering technology innovation scientific management R&D, production and sales. At the same time ,we have established a long-term strategic cooperative partnership with domestic, international more than 80 well-known water treatment engineering companies.

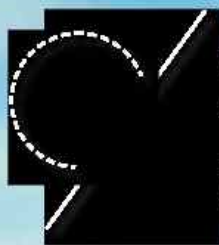
Hebei Chengda **Windor** FRP Membrane pressure vessels department is specialized in the R&D and product of FRP pressure vessels (Membrane pressure vessels) for water treatment in membrane process. Through the introduction of foreign equipment and technology, relying on the powerful research ability and resources of the company, comparing with the other similar products our fiberglass membranes for water treatment also can reach the international advanced level.

**Windor** series FRP Membrane pressure vessels are not only well received in domestic market but also exported to foreign several countries and regions. All these depend on high quality and excellent after-sale service.

**Windor** series FRP Membrane pressure vessels are applicable to multiple standard membrane elements, for example: Hydranautics, Filmtec, Dedal, Koch, CSM and TORAY, etc. Working pressure ranges from 75 PSI to 1200PSI; Diameter 2.5”, 4”, 8”; Built-in membrane elements 1-8 sections. At present, the products have been widely used in electronics, electric power, metallurgy, chemical, pharmaceutical, industrial wastewater treatment, desalination of seawater and brackish water desalination fields. According to the customer request custom make non-standard products and OEM Service.

Chengda Company is willing to create brilliance with you for mutual benefits .





# Development course

## 发展历程

完成对引进设备的消化和再创新，工艺生产线发展到六条。  
Complete digestion of the imported equipment and innovations,,  
process production line development to six.

1995

企业发展历程是企业走过的历史足迹。  
回首过去、展望未来，  
我们一直在不断地接受挑战并从中得到成长。

Looking to the future, we will keep growing by meeting the various  
challenges in our paths.

**Winda** 成功通过美国机械工程协会 (ASME) 认证。  
**Winda** FRP pressure vessels obtained the American Society  
of Mechanical Engineers (ASME) certificate.

2014



1989

我公司引进意大利VETRORESINA公司缠绕设备和技术，成为最早进行玻璃钢缠绕管道、容器工业化生产的企业之一。  
Imported Italian VETRORESINA winding equipment and technology, became one of the first producers of FRP wound pipes and vessels.

1998

改制为有限责任公司并通过ISO9001国家质量管理体系认证、ISO14001环境管理体系认证、CNAS28001职业健康安全管理体系认证，以新的高度、新的起点飞速向前发展。  
Transformed into a limited liability company, also passed the identification of ISO9001, SO14001 and CNAS28001, with a new attitude to move forward.

2001

攻克了现场大型立式缠绕容器难关，缠绕最大直径达到15米。  
Overcome difficulties of large vertical winding vessel wound vessels, with the maximum winding diameter up to 15M.

2005

油田用环氧缠绕高压管道顺利投产。  
Smooth epoxy wound high pressure pipeline in oil field production

2006

河北成达 Windor 玻璃钢膜壳事业部成立。  
Hebei Chengda Windor FRP Membrane pressure vessels department established.

2011

新增塑料管道PVC、PPR、PE、PE-RT生产线。  
Add new production lines of plastic pipes - PVC,PPR, PE and PE-RT.

走进成达 Into the Cheng Da







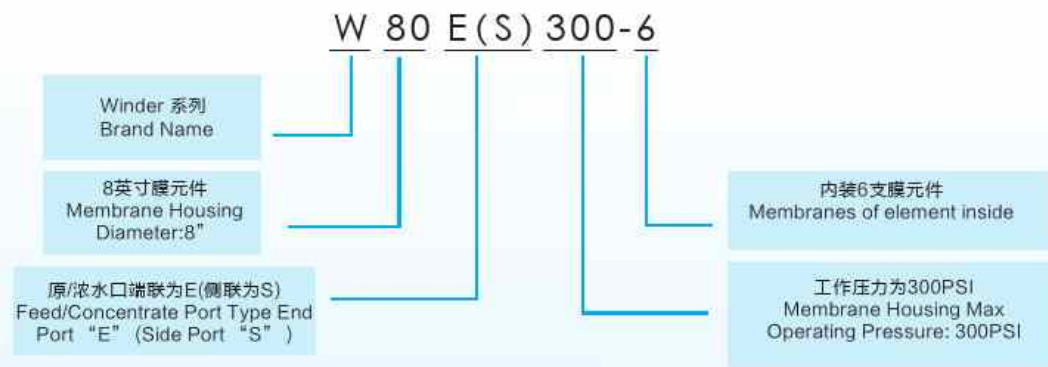
# 4 Enterprisee products 企业产品

## 玻璃钢膜壳 FRP Membrane Pressure Vessels

**Winda**系列玻璃钢压力容器规格与型号 Model Specification

**Winda**膜壳编号说明:

Explanation of codes of **Winda** Membrane pressure vessels





**Windor** 膜壳编号列表

 List of codes of **Windor** 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 Number of elements
W80S150	150(1.0)	侧联 SIDE	8040	1-8
W80S300	300(2.1)	侧联 SIDE	8040	1-8
W80S450	450(3.1)	侧联 SIDE	8040	1-8
W80S600	600(4.1)	侧联 SIDE	8040	1-8
W80S1000	1000(6.9)	侧联 SIDE	8040	1-8
W80S1200	1200(8.4)	侧联 SIDE	8040	1-8

**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 Number of elements
W80E150	150(1.0)	端联 END	8040	1-8
W80E300	300(2.1)	端联 END	8040	1-8
W80E450	450(3.1)	端联 END	8040	1-8
W80E600	600(4.1)	端联 END	8040	1-8
W80E1000	1000(6.9)	端联 END	8040	1-8
W80E1200	1200(8.4)	端联 END	8040	1-8

**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 Number of elements
W40S150	150(1.0)	侧联 SIDE	4040	1-4
W40S300	300(2.1)	侧联 SIDE	4040	1-4
W40S450	450(3.1)	侧联 SIDE	4040	1-4
W40S600	600(4.1)	侧联 SIDE	4040	1-4
W40S1000	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 Number of elements
W40E150	150(1.0)	端联 END	4040	1-4
W40E300	300(2.1)	端联 END	4040	1-4
W40E450	450(3.1)	端联 END	4040	1-4
W40E600	600(4.1)	端联 END	4040	1-4
W40E1000	1000(6.9)	端联 END	4040	1-4



精密过滤器又称保安过滤器，一般设置在压力容器之前，以去除浊度在1度以上的细小微粒，来满足后续工序对进水的要求；有时也设置在整個水处理系统的末端，防止细小微粒进入成品水。

**Winder** 玻璃钢精密（保安）过滤器是**Winder**玻璃钢膜壳事业部向国内推出的一款专利产品。该过滤器创新性的采用了玻璃钢膜壳的材质、工艺和结构设计，外形美观且具有高强度的耐腐蚀性能，拆装便利，运行可靠，配件设计优化等优点，完全解决了目前常用不锈钢过滤器被腐蚀生锈的问题……作为新一代过滤器其性能全面超越了传统过滤器。

可广泛用于饮用水、生活用水、电子、印染、纺织、环保等行业的生产用水过滤、酒精过滤、药业过滤、酸碱过滤、海水淡化及反渗透RO膜前置保安过滤。



The precision filter also called security filter, usually settled before a pressure vessel to wipe out fine particles with turbidity higher than 1 to satisfy the water input requirement in the following procedure; sometimes it can be settled at the end of the whole water treatment system to provide fine particles enter the finished water.

**Winder** FRP precision (security) filter is a patent product in the domestic launched by Winder FRP membrane shell division. The filter innovatively adopted the material、technology and structure of FRP membrane shell, it has a good-looking appearance and with advantages of high corrosion resistance、easy disassembly、reliable operation、accessories design optimization and so on, completely solved the current problem that common used stainless steel filter is corrosion rusty……As a new generation filter, its property beyond traditional filter comprehensively.

It can be widely used in the production of water filter, filter, pharmaceutical, alcohol, acid and alkali, and reverse osmosis desalination RO membrane front security filtering in domestic water, electronics, printing and dyeing, textile, environmental protection and other industries.

**Winder** 玻璃钢精密（保安）过滤器主要参数 List of codes of **Winder** FRP precision filter

型号 ITEM NO.	直径 Diameter(mm)	高度 Height(mm)	进/出水口 Inlet/Outlet	参考流量 (T/H) Water Flow(T/H)
5芯20英寸	200	780	1.5"	5.0
5芯30英寸	200	1034	1.5"	7.5
5芯40英寸	200	1288	1.5"	10.0



**Windor DTRO(碟管式反渗透)玻璃钢耐压外壳**  
DTRO(Disc Tube Reverse Osmosis) FRP High Pressure Resistant Shell



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、150bar、200bar三个等级可选，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。针对这一特性，我公司研发部自行研制开发了**Windor** DTRO（碟管式反渗透）玻璃钢耐压外壳即DTRO外部组件。

**Windor** DTRO（碟管式反渗透）玻璃钢耐压外壳由玻璃纤维缠绕而成，强度高，内表面光滑，具有优良的耐压性，耐腐蚀性。除标准生产型号外，还可提供OEM服务和非标产品的研发及生产。

Disc-tube is another form of reverse osmosis reverse osmosis, is designed for treatment of high concentration wastewater treatment by membrane components, DT component operating pressure has 75bar、150bar、200bar three levels can be selected, objects involved, refuse composting of leachate in landfill leachate treatment. For this characteristic, our research and Development Department has developed its own Winder DTRO (disc-tube reverse osmosis) resistance of glass fiber reinforced plastic shell that DTRO external components. Winder DTRO (disc-tube reverse osmosis) wound FRP pressure casing by glass fiber, high strength, smooth surface, with excellent pressure resistance, corrosion resistance.

In addition to standard production models, can also provide OEM Service and research and development and production of non-standard products.

5

## Winder Pressure Vessels Advantage

## Winder膜壳的优异性



### 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；
- **Winder** 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 special processing technology to make the inside of the products more smooth;
- Multi-ports are available according to customer requirements for easy installation;
- Winder** series adopt upscale automobile baking varnish craft to ensure the smoothness and brightness of the products;
- Outstanding corrosion resistance and anti-aging property; Well 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 adopts aerial processing technique, efficiently improving the intensity and capacity to resist deformation.
- Seal kit adopts special structure and technique, efficiently enhancing the leak tightness.
- End-plate made of aluminum alloy, enhance the ability to resist deformation;
- Seal kit adopts environmental material to assure the leak tightness and high water quality, meanwhile to improve its anti-aging capacity;
- Inlet and outlet are made of high quality stainless steel 316L materials, which have a strong ability to resistance corrosion, easy to disassembly ,assembly, maintenance.

## 测试保证

### Quality Assurance

- 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1.2倍的水压测试。

### Quality Assurance

- Burst test with 6 times of its design pressure;
- 100,000 times cycle test;
- 100% quality assurance test with 1.1 times stage elevation of hydrostatic pressure .

# 6 Maintenance Guide

## Winder膜壳使用维护指南

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置严格按照设备设施装置技术要求的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。完成以上检查步骤之后，严格按照该系统中各设备装置的操作规范和保养说明进行使用。



### 膜壳的使用注意事项及维护要求：

系列膜壳作为滤膜元件的外壳，可长期连续的使用，为了确保膜壳长期高效的使用，请严格按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。

因膜壳是由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。比如：

- 背压是否超出125PSI；
- 有无接触禁用的有机溶液；
- 严禁在系统工作时对膜壳进行拆卸；
- 环境条件的适用性；
- 周围环境的振动源因素；
- 处理液体是否与其所使用的配件材料相容；
- 严禁在超出设计压力的条件下工作；
- 须对操作使用人员进行培训，操作人员必须按照要求安

装；

- 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Winder系列膜壳在以上所要求的环境下使用。



### Maintenance Guide

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 check, the shell should be used according to the installation and Maintenance Guide.

**Safety and requirements:**

membrane vessels are designed for continuous and continues long-term usage as housing for osmosis membrane elements. The allowable temperature is  $-7^{\circ}\text{C}$ - $49^{\circ}\text{C}$ . 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 condition 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:

- Abnormal back pressure should not above 125PSI;
- Use of unallowable solutions;
- Forbid to remove shell under working conditions;
- External environment factors;
- Vibratory of environment factors;
- Process fluid, shell and assemblies compatibility;
- The shell should not be used beyond design pressure;
- The users should be trained and should use the shell according to the requirements;
- The shell should not be used as a support. Do not apply undue force to any fittings connected directly to a pressure vessel.

Make sure that **Windor** series Membrane pressure vessels are used in the environment as above mentioned.

## 7 Service commitment

### 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；

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



- 1 year quality guarantee, lifelong maintenance;
- Response to the objections and technical advisory within 8 hours;
- Users to the site to handle requests, within 48 hours of the commitments reached project site
- Provide OEM service;
- The specification, type and parameters are subject to change without notice, please visit web site or call us to get the latest information.

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