



# W80 Series Side Port 600-1200PSI

**User Manual** 

# For Use with Winder RO Pressure Vessel Models: W80-600S W80-1000S W80-1200S

### **General Product Description**

W80 600S Design Pressure: 600PSI / 41Bar (at 150°F / 66°C)
W80 1000S Design Pressure: 1000PSI / 69Bar (at 150°F / 66°C)
W80 1200S Design Pressure:1200PSI / 84Bar (at 150°F / 66°C)
Min. Operating Temp: 14°F / -10°C
Max. Operating Temp: 120°F / 49°C
Factory Test Pressure: Standard: 1.5x Design Pressure
ASME: 1.1x Design Pressure
Operating pH Range: 3 - 11
Cleaning pH Range: 2 - 14 (less than 30 minutes)

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## **General Warning**

*Winder* RO pressure vessels (vessel) are designed to provide safe operation over a long service life if properly installed, operated, and maintained. The vessel may cause loss of life, severe bodily harm, or property damage if it is NOT correctly installed, operated, or maintained. Please make sure you read and understand all the guidelines in the User Manual provided with the vessel. Observe every precaution contained therein. Failure to do so may result in malfunction and potential catastrophic failure. It is recommended that only qualified technicians experienced in servicing hydraulic systems work with this vessel. Misuse, incorrect assembly, or use of damaged/corroded components may result in catastrophic failure, or may cause to void the warranty.

## **Vessel Use and Precautions**

Positive pressure up to the design pressure (PSI) of the specific model being used

Accommodates standard 8" nominal diameter spiral-wound element

The required vessel/element interface hardware is supplied with the vessel (please refer to Winder's adapter list)

Vessel expands under pressure and careful consideration must be taken when installing straps/saddles and system connection piping

Installation with the straps/saddles provided is strongly recommended

 Vessel should not support any other system components, connections should be non-load bearing

 Periodic inspection of the vessel end cap is recommended to ensure all parts are dry and free of corrosion

Failure to understand and follow all precautions may void warranty and result in catastrophic failure of the vessel

These guidelines are subject to change without prior notice. Please check with *Winder* to ensure that the User Manual is the latest version for the vessel model being used.

Mount vessel using strap/saddle hardware provided and span recommended in the engineering drawing

Do not over tighten the straps - vessel must be allowed to expand under operation Maximize the connection flexibility to allow for vessel growth under pressure

Align the side ports with the system manifold, correcting any misalignment before final installation

Provide overpressure protection in the system safety devices

Inspect end caps regularly for signs of corrosion. Immediate corrective action and/or replacement are recommended in case of corrosion.

Relieve system pressure before working on the vessel

Do not attempt to over-tighten the Permeate Port connections as this may damage the end cap. One turn past hand tight should be sufficient.

Never operate the vessel in excess of its ratings. This may void the warranty and cause bodily or property damage.

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Do not operate the vessel permeate port over 125PSI

Flush the vessel with permeate before system shutdown to reduce the chance of corrosion

Do not install the vessel under direct sunlight

Operate the vessel within the recommended pH range

- Operating pH Range: 3 11
- Cleaning pH Range: 2 14 (less than 30 minutes)

## **Piping and Mounting Recommendations**

Use two flexible Victaulic<sup>™</sup> connections with an intermediate section of pipe when possible

This the preferred method for connecting the feed/concentrate ports to the system piping, especially when system manifold tolerances cannot be guaranteed. There is a maximum 0.03" misalignment allowance per port.

✓ Single flexible Victaulic<sup>™</sup> connections should only be used when the axial misalignment from the port to the manifold is less than 0.03" per port.
 Make sure the vessel is centered on the rack when checking for port/manifold alignment.

wake sure the vessel is centered on the rack when checking for portmanifold digriment.

√ Using intermediate flexible Victaulic<sup>™</sup> connections in the manifold will ease port alignment and vessel installation.

 $\sqrt{}$  Do not force any connections.

 $\sqrt{}$  The Header and related piping should be self-supported.

 $\sqrt{\text{Space strap/saddle locations using "S" dimension shown in model engineering drawing.}}$ 4 and longer vessels have a third strap/saddle assembly, to be installed at the center point of the vessel.

 $\sqrt{1}$  Tighten straps to hand tightness plus one turn.

 $\sqrt{}$  Manifold span should be greater than vessel span to allow for vessel growth under pressure.

## Winder Limited Warranty

HEBEI CHENGDA HUAMO TECHNOLOGY CO.,LTD (hereinafter called "HBCD") RO pressure vessels (the "Product") are warranted to the original purchaser (the "Customer") under normal use and if installed, operated and maintained in accordance with applicable User Guides to be free of defects in material and/or workmanship for a period of one (1) year from date of manufacture subject to the following. Any replacement Product or Part will be warranted only for the remainder of the original warranty period or thirty (30) days, whichever is longer.

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#### **Exclusions from this Limited Warranty**

The warranty shall be void if:

1. Defects are not reported during the warranty period.

2. The Product is subject to accident, damage, incorrect installation, mishandling, abuse, misuse, negligence or accident by any other party.

3. Problems caused by modification or alteration.

4. Chemical exposure or acts of nature.

5. Any item manufactured by other companies.

6. Wear on replaceable components under normal conditions - seals are excluded from this warranty.

#### **Procedure for Obtaining Warranty Performance**

*Winder* reserves the right to determine if a reported defect is a breach of this warranty. This may require, at Winder's discretion, one or more of the following:

1. An inspection or test of the Product and/or the system that was installed by a Winder representative - the customer is responsible for arranging access to the Product.

2. An inspection or test of the product and/or the system in which that was installed by the Customer.

3. An inspection or test of the product and/or the system performed by third party inspector appointed by *Winder*.

4. Return of the Product to Winder's factory for inspection or testing. This is not a statement of limitations for warranty performance and *Winder* reserves the right to conduct warranty performance outside of the items shown.

If the Product is found by *Winder* to be defective under the terms of this warranty, Winder will perform one of the following at its option:

a. Supply a similar replacement part based on FOB factory terms.

b. Conduct a field repair of the Product.

d. Issue a credit for the original cost of the Products. This is not a statement of limitations for warranty performance and Winder reserves the right to conduct warranty performance outside of the items shown.

Products returned to Winder for inspection or testing must be shipped freight prepaid at the Customer's expense. If a breach of warranty is confirmed, Winder will bear all costs related to the inspection and testing. If after investigation, the Product failure is due to breach of warranty, all costs related to the inspection and testing of the Product will be borne by the Customer. This includes a USD\$500 per day fee and all related travel expenses.



All reported defects must be submitted to Winder in writing.

#### Disclaimer

*Winder* makes no express or implied warranty other than that specifically set forth in this warranty statement. Winder disclaims any warranty of merchantability or of fitness for a particular purpose. Winder's liability under the terms of this warranty shall not exceed the purchase price of the Product that are claimed to be defective. Winder shall not be liable for any consequential or incidental damages whatsoever, including but not limited to injuries or damages to person or property, loss of business profits, business interruption, loss of use, cost of removing/installing Products, or the claims of third parties.

#### Warranties or Representations by Others

No agent, employee, dealer, or other person has any authority to make any warranties or representations concerning Winder or the Product. Winder is not responsible for such claims of warranty or representation!



## ORDERING CHART

Purchaser: \_\_\_\_\_\_ Order NO.: \_\_\_\_\_ Order model: \_\_\_\_\_ Order Qty:

Purchaser signature: \_\_\_\_\_\_ signing date:

Specifications:											
W 80 E(S) 300-4 Winder 系列 Brand Name 内装4支展元件					Ope	Operating pressure		□ 300 □ 450 □ 600 □ 1000 □ 1200			
原/浓水口端联为E(如联为S)				lement insi		Element inside			3 🗆 4		
Feed/Concentrate Port Type End port E(Side port S)	Membrane Housing Max Operating pressure:900PSI							7 🗆 8			
				Shel	Shell body color		□ W (Standard: white)				
							$\Box$ Other (	)			
Side ports information:											
Feed/Concentrate ports position & size: as the picture	Position code			Port size code			٤	6	1		
	Position code			Ports	size code			Ţ	4		
	Position code			Ports	ort size code				3		
	Position code			Port size co							
	Position code			Ports	size code	2					
	Position code			Ports	size code	2					
Feed/Concentrate ports material:		□ 304 □ 316L		□ 250	2507		Others (	)			
Con./Feed port stand Dia.(mm); for detaile	to the china			C(1"):	C(1"): 32.0		D(1.5"): 48.0 E(2"): 60.0				
chart with China GB s standard				F(2.5"):	(2.5"): 76.0		8"): 89.0	I(4"): 114.0			
End ports postion &	material:								·		
Feed/Concentrate po	orts size										
Feed/Concentrate po					ro information						
Membrane housing											



		$\bigcirc$ 2.5" membrane h	ousing							
Permeate ports size		O4" membrane ho	ousing							
		O8" membrane ho	ousing	1"FNPT		Other(	)			
Permeate ports material		O2.5" membrane l			1					
		O4" membrane ho	ousing							
		O8" membrane ho	ousing	ABS( )	ABS( ) PP( )					
Straps & Saddles:		I								
Straps&Saddles Qty per housing	O2.5" housin	membrane g	N/A		O2.5" me housing	embrane				
	O4″ n	nembrane housing	N/A	Strap nuts:	O4" men	O4" membrane housing				
	<b>○8″ n</b>	nembrane housing	3 Sets		O8″ men	nbrane housing	M8*90			
	OOth	er()			Other(	)				
Logo:										
Logo on the shell body					Other( )					
Logo on the cap	O2.5" housin	/4" membrane g	N/A	N/A		Other( )				
	○8″ n	nembrane housing	Wind	Winder		Other()				
Using environment:	I									
Temperature	$\Box -10^{\circ} C -66^{\circ} C \qquad \Box \text{ other } ( ) \qquad \Box \text{ PH: 3-11 } \Box \text{ Other } ( ) $									
	□ Surface、Ground、Tap water □ Electroplating effluent									
	□ Sea water、subsea water □ Landfill leachate									
Medium	Brackish water Special separation filtrate (such as heavy metal recovery, chlor alkali liquid)									
	🗆 Indi	ustrial waste water		High quality pure water						
	□ Municipal waste water □ Other ( )									
If membrane elemer inner dia 1.125")Ven		•	•		•	used membranes	(central tube			
Membrane brand &	model:									
Others:										

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All information subject to change without prior notice