# PACKLESS VALVES Golden Bantam Series

# The function of a Packless Valve is to control flow or provide isolation in liquid or gas applications. Packless Valves are also suitable for use in vacuum applications.

#### Applications

Henry Technologies' Packless Valves are used in a variety of air conditioning and refrigeration applications for isolating, flow control, charging and purging purposes. The Golden Bantam Series Packless Valves are suitable for use with HCFC and HFC refrigerants, and their associated oils, as well as other industrial fluids non-corrosive to brass, phosphor bronze, copper, stainless steel and nylon.

#### **Main Features**

- •Robust Design
- Compact
- ·Heat stabilized nylon seat ring for positive shut-off
- •Positive back-seating with valve in open position
- •Raised seat reduces debris induced sealing issues
- •Large diameter diaphragm for greater lift, better flow and longer life
- •Hermetic seal between bonnet, diaphragms and body •Suitable for vacuum applications

#### **Technical Specifications**

Maximum working pressure = 500 PSI (34.5 Bar) Allowable operating temperature = -20°F to +275°F (-29°C to +135°C)

Henry Technologies' Golden Bantam Series Packless Valves are UL and C-UL Listed by Underwriters Laboratories, Inc.



#### Materials of Construction

The valve body, upper stem and bonnet are made from brass. The lower stem/seat ring is made from nylon and the diaphragm set is composed of both phosphor bronze and stainless steel. The valve spring is made from stainless steel. The hand-wheel is made from die cast zinc.



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Golden Bantam Valves											
Part No	Fig	Conn Size (inch)			Waight (lba)	<u>Cu</u>					
Part No	No		А	В	C (Open)	D	E	ØF	weight (ibs)	60	
5151	1	1/4 SAE Flare	3.50	0.56	2.56	N/A	2.00	0.28	0.62	0.45	
5153	1	3/8 SAE Flare	3.50	0.56	2.56	N/A	2.00	0.28	0.64	0.86	
5161	2	1/4 ODS	3.50	0.56	2.56	0.31	2.00	0.28	0.64	0.66	
5163	2	3/8 ODS	3.50	0.56	2.56	0.31	2.00	0.28	0.64	0.88	
5164	2	1/2 ODS	3.88	0.62	2.94	0.38	2.00	0.28	0.99	1.49	
5165	2	5/8 ODS	4.13	0.75	3.00	0.56	2.00	0.28	1.12	2.56	



# PACKLESS VALVES **Standard Series**

The function of a Packless Valve is to control flow or provide isolation in liquid or gas applications. Packless Valves are also suitable for use in vacuum applications.

#### Applications

Henry Technologies' Packless Valves are used in a variety of air conditioning and refrigeration applications for isolating, flow control, charging and purging purposes. The standard series Packless Valves are suitable for use with HCFC and HFC refrigerants, and their associated oils, as well as other industrial fluids non-corrosive to brass, phosphor bronze, copper, stainless steel, nylon and monel.

### **Main Features**

- Robust Design
- Compact
- ·Heat stabilized nylon seat ring for positive shut-off
- •Positive back-seating with valve in open position
- •Raised seat reduces debris induced sealing issues
- •Large diameter diaphragm for greater lift, better flow and longer life •Hermetic seal between bonnet, diaphragms and body
- •Suitable for vacuum applications
- •Diaphragms are changeable under line pressure
- •Bi-directional flow (see additional information)

## **Technical Specifications**

Maximum working pressure = 500 PSI (34.5 Bar) Allowable working temperature = -20°F to +275°F (-29°C to +135°C)

The standard series globe and angle Packless Valves are designed in conformance with MIL-V-20064E and Military Standards MS-35880, MS-35881 and MS-35883.

#### Materials of Construction - Standard series

The valve body and bonnet are made from brass. The lower stem is made from brass for all models except the 629 series, where the material is monel. The upper stem, stem cap and valve springs are made from stainless steel. The seat ring is made from nylon for all models except the 629 series. These models use a stainless steel seat ring. The diaphragm set is composed of both phosphor bronze and stainless steel. The hand-wheel is made from die cast zinc.





Part No No	Fig	Conn Sizo (inch)		Maight (lba)					
		А	В	С	D	E	ØF	weight (ibs)	
6231N	1	1/4 ODS x 1/4 SAE Flare	2.63	0.56	3.38	0.31	1.63	0.27	1.04
6232N	1	3/8 ODS x 3/8 SAE Flare	2.63	0.56	3.38	0.44	1.63	0.27	1.21
6233N	1	1/2 ODS x 1/2 SAE Flare	3.25	0.63	3.56	0.56	1.75	0.28	1.37
6234N	1	5/8 ODS x 5/8 SAE Flare	5.79	1.18	3.75	1.08	3.14	0.44	1.43



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Part No	Fig				Woight (lbs)	C) /				
Fall NO	No		А	В	С	D	Е	ØF	weight (ibs)	CV
6261N	2	1/4	2.63	0.56	3.38	0.31	1.63	0.27	1.04	0.69
6263N	2	3/8	2.63	0.55	3.38	0.44	1.63	0.27	1.12	0.78
6264N	2	1/2	3.13	0.63	3.56	0.56	1.75	0.28	1.26	1.44
6265N	2	5/8	3.50	0.69	3.75	0.69	2.00	0.28	1.43	2.48
6266N	2	3/4	4.38	0.71	5.00	0.75	2.25	0.34	3.13	3.70
6267N	2	7/8	4.81	0.75	5.38	0.88	2.50	0.41	3.53	5.31
6268N	2	1 1/8	5.94	0.94	6.50	1.00	3.25	0.41	5.80	8.41





Inlet

Outlet Mounting Flange Detail



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HAI	HAND EXPANSION/THROTTLING DATA								
	Cv (turns open)								
.25	.50	.75	1.00	1.25	1.50*				
0.123	0.209	0.325	0.401	0.457	0.496				
0.173	0.310	0.395	0.475	0.504	0.518				
0.098	0.263	0.354	0.388	0.475	0.497				
0.232	0.389	0.581	0.663	0.786	0.860				
0.317	0.546	0.877	1.036	1.189	1.428				
0.896	1.355	1.648	2.247	2.274	2.554				
*Full Op	*Full Open								

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Part No	Fig	ODS (inch)	Dimensions (inch)							
	No		А	В	С	D	E	ØF	vveigitt (ibs)	
6291N	3	1/4	2.63	0.56	3.38	0.31	1.63	0.27	1.04	
6293N	3	3/8	2.63	0.56	3.38	0.44	1.63	0.27	1.04	
6294N	3	1/2	2.63	0.56	3.38	0.56	1.63	0.27	1.04	
6295N	3	5/8	3.38	0.63	3.56	0.69	1.75	0.28	1.28	
6297N	3	7/8	4.49	0.69	5.00	0.75	2.25	0.34	2.76	
6298N	3	1 1/8	4.81	0.75	5.38	0.81	2.50	0.41	3.26	





Part No	Fig	Conn Sizo (inch)		Woight (lbs)			
	No		А	В	С	D	weight (IDS)
6432N	4	3/8 ODS x 3/8 SAE Flare	3.39	1.31	1.13	0.44	0.97
6433N	4	1/2 ODS x 1/2 SAE Flare	3.50	1.63	1.19	0.56	1.32
6434N	4	5/8 ODS x 5/8 SAE Flare	3.82	1.75	1.38	0.69	1.76



0	Bottom Connection
2	Side Connection

Part No	Fig No	ODS (inch)		Dimensio	Cy.	Weight (lba)		
			А	В	С	D	Cv	weight (ibs)
6471N	5	1/4	3.44	1.31	1.13	0.31	0.90	0.86
6473N	5	3/8	3.44	1.31	1.13	0.44	1.53	0.88
6474N	5	1/2	3.50	1.50	1.19	0.56	2.21	1.10
6475N	5	5/8	3.81	1.50	1.38	0.69	4.11	1.32
6476N	5	3/4	4.88	1.88	1.41	0.75	6.55	2.62
6477N	5	7/8	5.38	2.09	1.78	0.88	8.54	2.95
6478N	5	1 1/8	6.50	2.50	2.25	1.00	11.06	4.43

#### Additional Information

- For series 623\*, 626\*, 643\* and 647\*: Valves are bi-directional up to 350 PSI (24.1 Bar). Above this pressure, the direction of flow should be with the inlet under the valve seat.
- 2. For series 629\*: For hand expansion or throttling service, the direction of flow should be with the inlet under the valve seat.
- 3. All Cv Values are based on flow inlet under the valve seat.

## Installation - Notes

 Valves must be protected against excessive heat when installing to prevent damage to the seals. Full instructions are given in the Product Instruction Sheet, included with each valve.