Spec Sect 02594-2 A 2.04B

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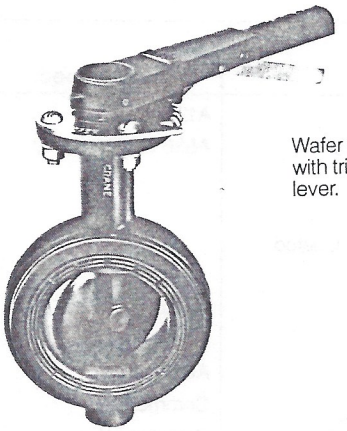
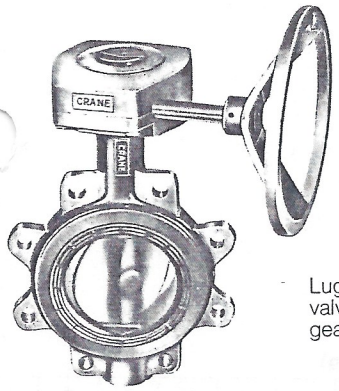
PORT OF BREMERTON

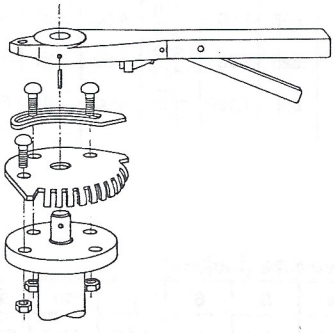
The Gem is available in sizes from 2 to 12 inches, in wafer and lug wafer, pressures to 200 psi and temperatures from −20 to 180°F for gas and air, 220°F for liquid.



Wafer valve with trigger lever.



Lug wafer valve with gear operator.



Multi-function operator base showing positioning of throttling plate and "memory stop."

Performance Proved

The Gem valve has proved to be a dependable, versatile and economical butterfly valve. Gem valves can be used for a variety of institutional, commercial and industrial applications in the control of air, gas, water and many other fluids. They are particularly suited for control of water containing chemical concentrations, brackish water, distilled water, slurries and in waste water treatment.

The Gem butterfly valve conforms to MSS-SP-67 and API 609. Its wafer body is designed for installation between ANSI B16.1 Class 125 Iron or ANSI B16.5 Class 150 Steel flanges. Steel flanges may have a flat face or 1/16-inch raised face.

Cartridge Seat with Back-Up Ring

The E.P.T. (ethylene-propylene-terpolymer) seat is bonded to a rigid, phenolic back-up ring. This reinforcement ring stops any shifting of the seat. When the valve is operated, the disc eases into the closed position without any "pinch" or undue seat wear. The cartridge seat slip-fits into the valve body and is field-replaceable if ever necessary.

Coated Disc

A heavy layer of Nylon II is fusion-bonded to the entire surface of the ductile iron disc. The Nylon II makes the disc practically impervious to damaging effects of water and has demonstrated superior resistance to many corrosive fluids. The action of Nylon II against the EPT seat results in smooth, low torque operation and longer seat life. An aluminum bronze disc is available as an option.

Positive Sealing

The primary seal is created by the constant pressure of the coated disc against the resilient EPT seat. A secondary seal is provided by the cone-shaped stem hole and EPT O-ring seal to further assure against leakage of line fluid.

Choice of Actuators

Gem Valves are available with lever, gear, electric motor or pneumatic actuators. Proper selection of a motor or cylinder actuator depends on valve size, pressure differential, media and flow rate.

Multi-Function Operator Base

Extended neck design permits use of normal pipe insulation with no operator interference. The body top serves as an operator flange base to allow these premium features:

- Padlock disc in any position
- Ten flow control positions
- Memory stop for balancing systems
- Disc position indicator

This submittal has been reviewed for compliance with general requirements of design and arrangement only, and is not a complete document and acknowledges compliance does not relieve Contractor of responsibility for compliance with all terms and requirements of the Contract documents. Job measurements and coordination of all dimensions for proper fit of all parts of the work and performance of all equipment supplied to meet specification requirements are the responsibilities of the Contractor.

Compliance acknowledged subject to the foregoing; distribute

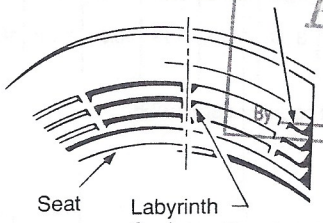
Compliance acknowledged as noted and subject to the foregoing; distribute

Compliance acknowledged as noted and subject to the foregoing; Revise and resubmit for record; distribute.

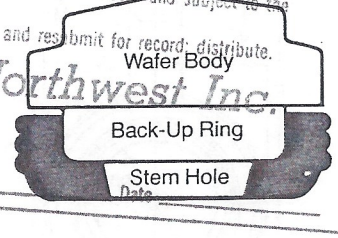
Bovay Northwest Inc.

BY

Date



Seat features buttressed ribs and labyrinth seal. Serves as gasketed seal between valve and pipe flange.



Cone-shaped stem hole through elastomer seat plus EPT O-ring provides a pressure tight stem seal.

Extra seat thickness for greater retained resiliency and longer seat life.

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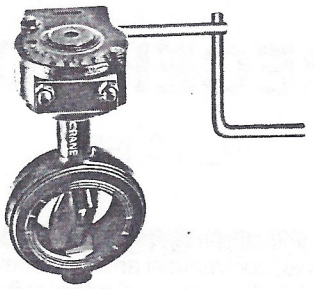
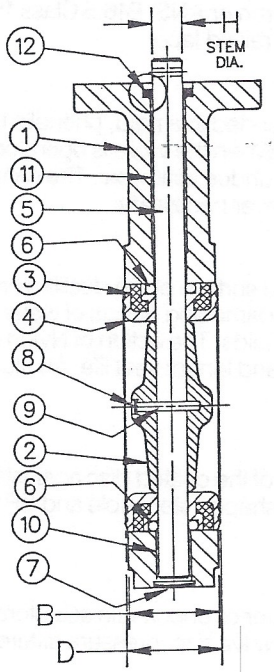


Gem Butterfly Valves

2" to 12" Wafer

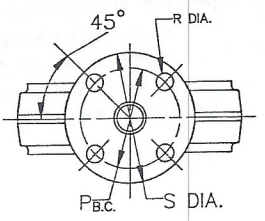
200 psi –20 to 180°F for Gases; to 220°F for Liquids
Vacuum Service up to 29.9" of Mercury
EPT Phenolic-Backed Cartridge Seat
Nylon-Coated Disc

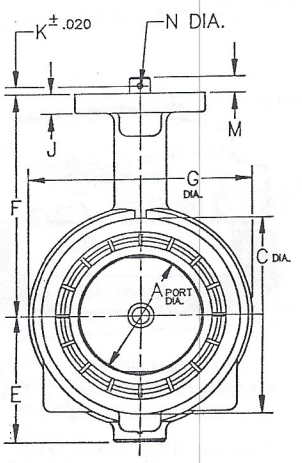
Catalog No. 12



No.	Name of Part	Material	ASTM Spec.
1	Body	High Strength Cast Iron	A126 CL. B
2	Disc	Ductile Iron Nylon Coated	A536 GR. 65-45-10
3	Seat Backing Ring	Phenolic	
4	Cartridge Seat	EPT (EPDM)	
5	Stem*	Carbon Steel Phosphate Coated	
6	Seat Insert "O" Ring	EPT (EPDM)	
7	Welch Plug for Body	Brass	Commercial
8	Welch Plug for Disc		Commercial
9	Stem-Disc Pin	Stainless Steel	AISI 302
10	Lower Bearing		Commercial
11	Upper Bearing		Commercial
12	Stem Wiper	BUNA-N	

*Option – 416 Stainless Steel





Valve Size	Dimensions (inches)														
	A	B	C	D	E	F	G	H	J	K	M	N	P	R	S
2	2.40	1.75	4.00	1.88	2.81	5.86	4.09	.438 .434	.50	.545	.87	.129 .125	2.50	.344	3.12
2½	2.40	1.75	4.00	1.88	2.81	5.86	4.85	.438 .434	.50	.545	.87	.129 .125	2.50	.344	3.12
3	3.00	1.81	4.75	1.94	3.38	6.11	5.38	.500 .495	.50	.565	.885	.160 .156	2.50	.344	3.12
4	4.00	2.06	6.12	2.19	4.00	6.93	6.88	.625 .620	.56	.585	.978	.224 .219	3.25	.406	4.00
5	5.00	2.19	7.00	2.32	5.00	7.46	7.75	.750 .745	.56	.575	.945	.224 .219	3.25	.406	4.00
6	6.00	2.19	8.05	2.32	6.00	7.95	8.75	1.000 .995	.56	.575	.955	.256 .250	3.25	.406	4.00
8	8.00	2.38	10.38	2.51	7.28	9.17	11.00	1.125 1.120	.62	.635	1.08	.318 .312	4.50	.531	5.50
10	10.00	2.69	12.55	2.81	8.65	10.44	13.38	1.375 1.370	.62	.625	1.06	.382 .375	4.50	.531	5.50
12	12.00	3.06	14.94	3.19	10.06	11.94	16.13	1.50*	.62	.695	1.122	.382 .375	4.50	.531	5.50

*1.375 dia. at operator connection.

Weights (lbs.)	Valve Size (inches)								
	2	2½	3	4	5	6	8	10	1
No. 12 (Valve Only)	7.2	8.2	9.2	15.7	19.7	22.2	37.2	51.2	83.2