



Completely made and assembled in the U.S.A.

The Superior Butterfly Valve with the Most Corrosion Resistant Standard Disc & Stem for the Chemical & Food Processing Industry

Sure Seal Series **890-893**

Butterfly Valves PATENTED

Sizes 2"-12" 125/150 ANSI

*Interchangeable with Keystone
Figure 099 and 993 valves*

SURE SEAL INCORPORATED IS PROUD TO BE

ISO 9001
certified

ABS[®]
TYPE APPROVAL



The Sure Seal Valve line comes to you with new and improved patented designs and concepts.

A Lot More Valve For A Lot Less Cost.

U.S. Patent #5207411
Teflon[®] is a registered trademark of E.I. DuPont Co.

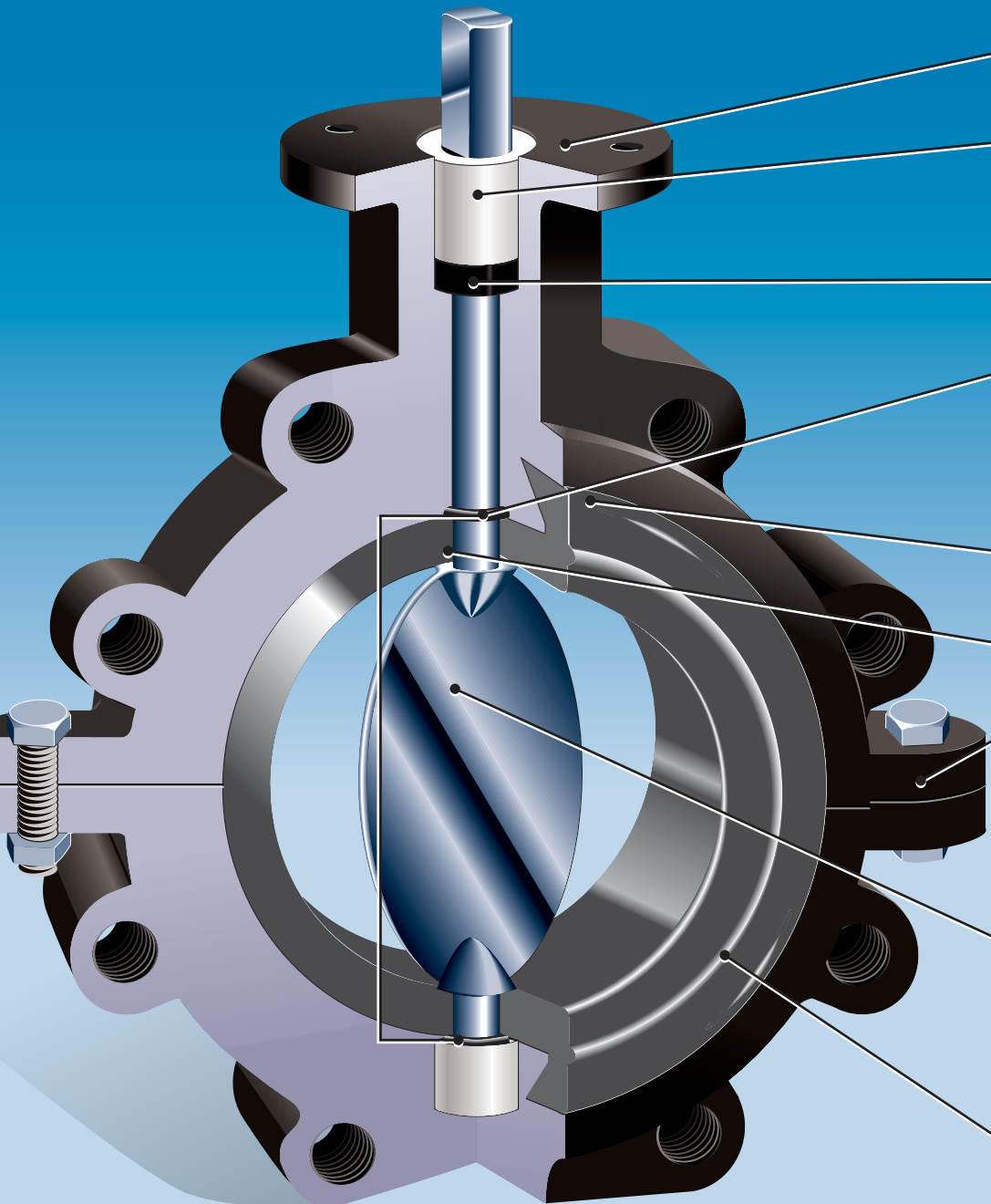


Sure Seal Series 890-893

Sizes 2"-12"

PATENTED

The Superior Sanitary Valve



STANDARD FEATURES

Top Plate - Machined to standardized drilling pattern allowing manual handle kits, and actuation, interchangeability also available in ISO patterns.

Stem Bushing - Composed of full strength, corrosion resistant ertalyte, stem bushings absorb operator side thrust. Top bushing comes standard in all valves, while bottom bushing comes with all valves sizes 4"-12", to ensure trouble free valve operation.

Stem-Seal - A third seal ensuring absolute seal externally or internally for vacuum or pressure service. Available in Buna-N, EPDM, or Viton®.

O-Seal (patented) - Two Sure Seal O-Seals give a sure secondary seal as the O-seal becomes part of the body and encircles the stem before entering the seat and disc area. O-seals are also located at top and bottom of stem entry to form an absolute secondary seal. Available in Buna-N, EPDM, Viton®, or Teflon®.

Seat - EPDM, Viton®, and Sure Seal's Special Abrasion Resistant formulated blend of FDA approved Nitrile, along with 12 other standard compounds to meet your application.

Hub Seal or Primary Seal - Occurs when contact is made between the disc hub and the flat surface of the seat. Hub/seat seals prevent product from attacking stem or body.

Body - Lug style has drilled and tapped lugs meeting ANSI 125 and 150 flange standards. Two piece body allows ease of seat replacement. Lug body standard with Nodular Iron. Wafer body standard with Cast Iron also available in Aluminum, Anodized Aluminum, Aluminum Bronze, Stainless Steel, Teflon® Coated and several Corrosion Resistant platings.

Disc/Stem - Sure Seal's standard is 255, a duplex stainless which is more corrosion resistant and almost twice as strong as all other butterfly valve manufacturers' standard 316 stainless steel. This eliminates shaft twisting and water hammer damage and allows a thin disc design which increases CV rating with out reducing strength. Other materials are also available.

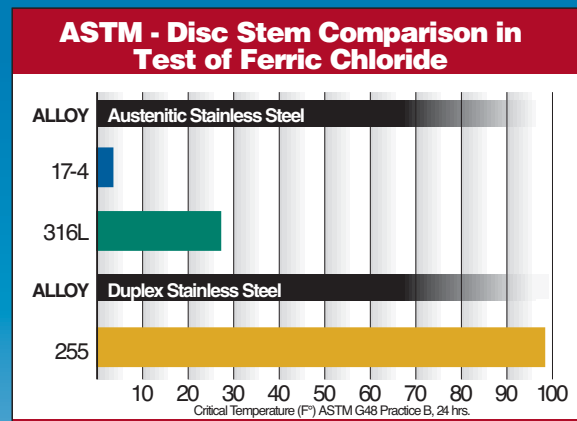
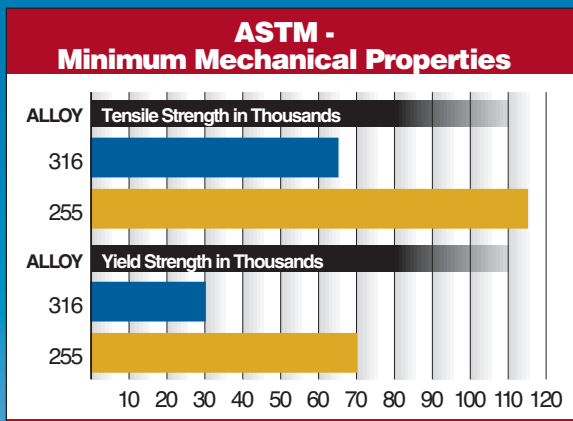
Flange Seal - Sealing O-Ring of resilient seat which provides an absolute seal to all flanges within specifications.

Patent #5207411

Every valve is tested to 110% of full pressure rating.

Teflon® and Viton® are registered trademarks of E.I. DuPont Co.

The reason why Sure Seal is clearly the Superior Butterfly Valve on the Market Today



Sure Seal's standard is a 255 duplex stainless which is more corrosion resistant and almost twice as strong as all other butterfly valve manufacturers standard 316 stainless steel. This eliminates shaft twisting and water hammer damage which other butterfly valve manufacturers have to make their disc thicker to handle water hammer which also reduces the CV of their valve. With Sure Seal's standard no other valve has higher Cv's with this super thin disc design and the strength to handle the service. Other materials also available.

Bar graph above is showing a comparison of the ASTM minimum mechanical properties of 316 stainless steel to 255 stainless steel. Bar graph above right is showing Sure Seal's standard disc stem material 255 to other manufacturers optional 316L and 17-4 disc stem in an ASTM test of Ferric Chloride, a common method of comparing corrosion resistance in stainless steels.



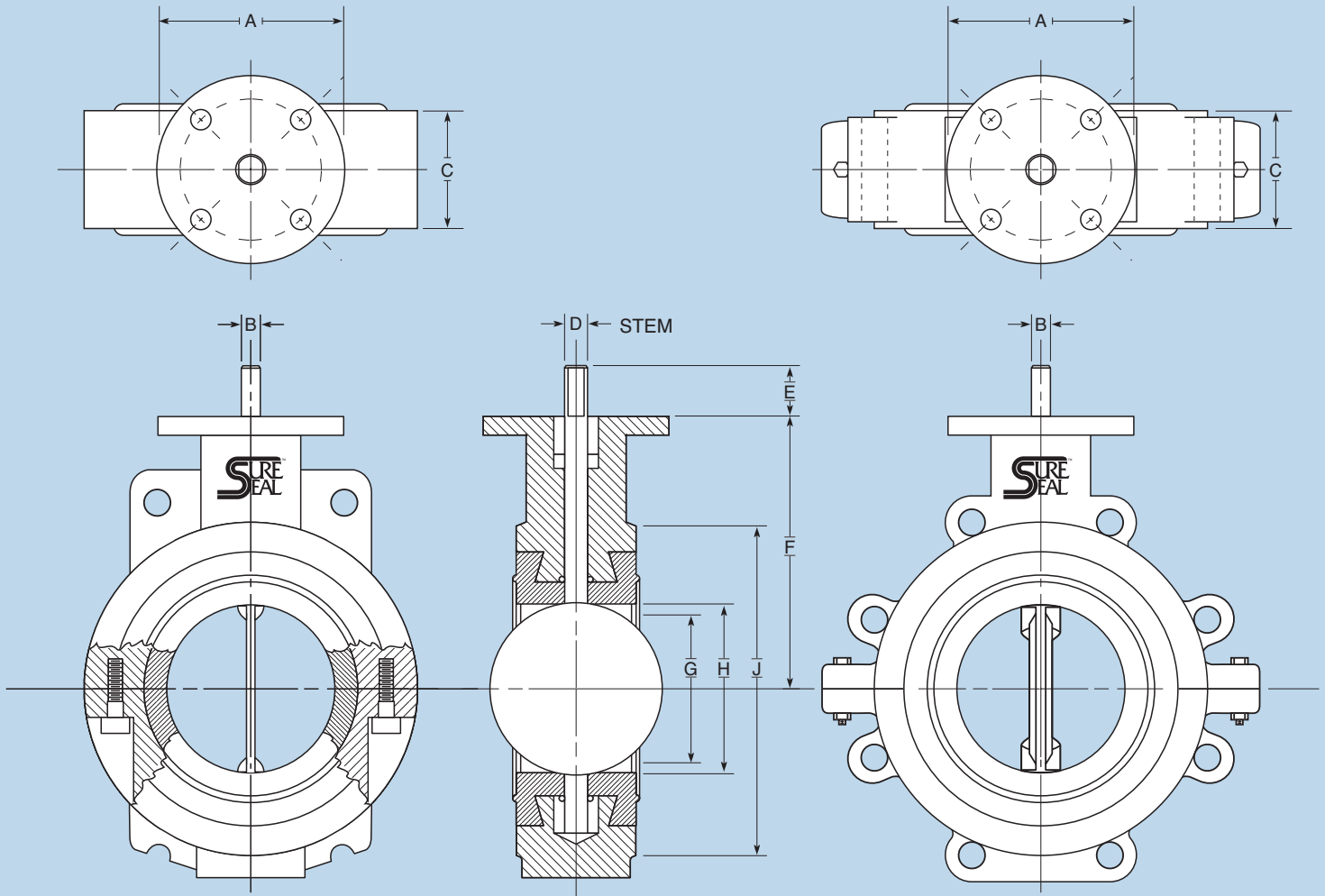
The chemical and food processing industry

needed a truly sanitary valve and with Sure Seal's patented O-Seals they got just that. As the O-Seal seals at the back side of the seat top and bottom and also at the stem entry top and bottom it forms an absolute seal making it the truly sanitary valve on the market today. O-Seals are available in Buna-N, EPDM, Viton® and Teflon®. In either wafer style 890 or a full lug body 893 drilled and tapped for 125 to 150 ANSI flanges. With Sure Seal's slim disc design no other valve has higher CV's and with rounded, hand polished disc and hub edges reduce friction torque to maintain seat life. Seat's are available in 14 different compounds including Sure Seal's special FDA approved All Season nitrile which can handle temperatures from 300° to -40° and still stay resilient, flexible, and very abrasion resistant. Now you can save on valves and replacement parts for your existing valves.

Sure Seal's 890/893 are dimensionally interchangeable with Keystone 99/993.

Sure Seal Series 890/893

Sure Seal Series 890/893 are dimensionally interchangeable with Keystone Fig. 99/993



Valve Size

Valve Dimension	2	3	4	5	6	8	10	12
A	4.00	4.000	4.000	4.000	4.000	6.000	6.000	6.000
B	.375	.375	.438	.438	.500	.625	—	—
C	1.625	1.750	2.000	2.125	2.125	2.500	2.500	3.000
D	.563	.563	.625	.625	.750	.875	1.125	1.125
E	1.250	1.250	1.250	1.250	1.250	1.250	2.000	2.000
F	3.938	4.875	6.000	6.000	6.500	8.313	9.000	10.282
G	1.688	2.875	3.875	5.000	6.000	8.000	10.063	11.938
H	2.125	3.125	4.125	5.188	6.125	8.125	10.125	12.063
J	4.125	5.313	6.750	7.750	8.750	10.875	13.250	16.063

GENERAL NOTES:

- C = INSTALLED WIDTH
- G = MINIMUM ALLOWABLE INSIDE DIA. OF PIPE OR MATING FLANGE
- 2" - 8" — D = STEM CONNECTION DIA.; B = FLATS
- 10" - 12" — D = STEM CONNECTION DIA.; KEYWAY = .250 X .250
- * Weight based on Cast Iron Body and 255 Stainless Steel disc/stem.

Top Plate Drilling

	2	3	4	5	6	8	10	12
No. Holes	4	4	4	4	4	4	4	4
Bolt Circle	3.250	3.250	3.250	3.250	3.250	5.000	5.000	5.000
Hole Dia.	.438	.438	.438	.438	.438	.563	.563	.563

Weight in Pounds*

	2	3	4	5	6	8	10	12
890	6	9	11	15	17	29	44	85
893	8	11	17	—	26	42	65	108

Lug Tapping Data

	2	3	4	5	6	8	10	12
Bolt Circle	4.750	6.000	7.500	—	9.500	11.750	14.250	17.000
No. Holes	4	4	8	—	8	8	12	12
Tap	.625-11 UNC			.750-10 UNC			.875-9 UNC	

Purchasers are expected to make their own tests to determine the suitability of these products for their particular purposes. The data represented in this flyer is for general information only. Manufacturer is not responsible for acceptability of these products in regard to individual system requirements. For specific performance data and correct materials selection, please contact your Sure Seal Dealer. ©1998 Sure Seal, Incorporated • Printed in the USA

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