



# BUTTERFLY VALVES

AUTOMATED AND MANUAL

PNEUMATIC  
ACTUATORS



## CAST IRON BFVS

WITH STANDARD  
STAINLESS STEEL  
DISC AND STEM



ELECTRIC  
ACTUATORS



MANUAL AND GEAR  
OPERATORS



3-WAY TEE  
LINKAGES



# BUTTERFLY VALVES

## BY SERIES

### FEATURES AND BENEFITS

#### ISO MOUNTING PAD

The true ISO pad allows for direct mounting of a variety of gears, pneumatic and electric actuators, and a 10 position manual handle.

#### BUSHING

The stem bushing helps to reduce torque and isolate stem from valve body.

#### SHAFT SEAL

An EPDM O-ring creates a bubble tight design while limiting contact areas between the body and shaft.

#### DISC

A 316 SS disc is standard on all BY and MY series models. Aluminum bronze and cast iron discs also are available upon request.

#### BODY

The cast iron body is epoxy coated for a durable, attractive finish. A fully encapsulated body gives total protection, with the body never coming into contact with the fluid.

#### SHAFT

A square shaft allows for mounting to true ISO mount pneumatic and electric actuators as well as gear operators.

#### ANTI-BLOWOUT DESIGN

The standard shaft is 316 SS and never comes into contact with the media. The one piece design ensures positive disc positioning.

#### EXTENDED NECK

The elongated neck shaft creates added heat resistance.

#### SEAT LINER

EPDM, BUNA-N, Viton®, and PTFE liners are available. The seat face guarantees a perfect seal with the flanges without additional joints or gaskets.

#### BOLTING

Standard flange locating holes allow for quick installation and correct alignment. The standard valve is designed to ANSI standards.



**LUG STYLE**

10 throttling positions are available with each standard handle on manually operated valves. The ergonomic design allows for easy operation on all sizes. A padlocking device is optional with all lever handles.



**WAFER STYLE**

### AUTOMATION ACCESSORIES

BI-TORQ VALVE AUTOMATION OFFERS A WIDE VARIETY OF ACCESSORIES FOR OUR AUTOMATED BUTTERFLY VALVE ASSEMBLIES. ALL ACCESSORY COMPONENTS ARE MOUNTED AND TESTED ON THE ACTUATOR BY OUR TRAINED FACTORY PERSONNEL.



**ANALOG (3-15 PSI & 4-20MA)  
AND SMART POSITIONERS**



**LIMIT SWITCH  
POSITION INDICATORS**



**NAMUR MOUNT  
SOLENOIDS**



**CUSTOMIZED  
ASSEMBLIES**



**STAINLESS STEEL  
VERSIONS TOO!**

**LOCK-OUT  
KITS**



# BUTTERFLY VALVES

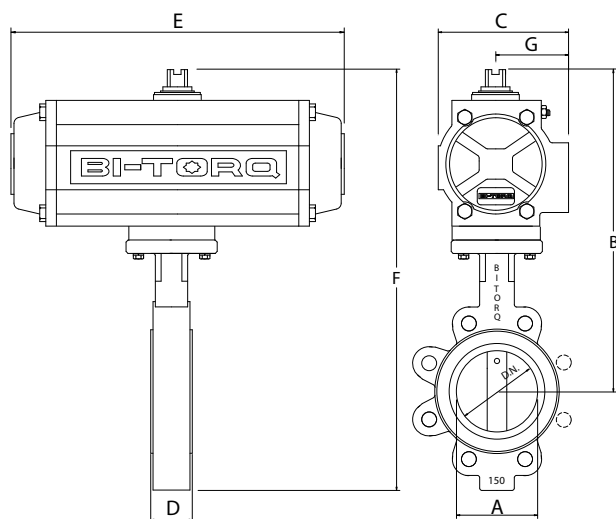
## BY SERIES



Lug style with pneumatic actuator and accessories

## AUTOMATED CAST IRON

- Wafer and lug style cast iron BFVS - 2" through 12"
- SS stem and disc as standard
- EPDM, BUNA-N, VITON® or PTFE® seats
- Direct mount for low profile, cost-efficient operation
- Pneumatic, electric and gear operators



ALL STANDARD PNEUMATIC ACTUATORS SIZED FOR 80 PSI SUPPLY; PLEASE CONSULT OUR SALES STAFF FOR OTHER COMBINATIONS.

## PNEUMATIC ACTUATORS

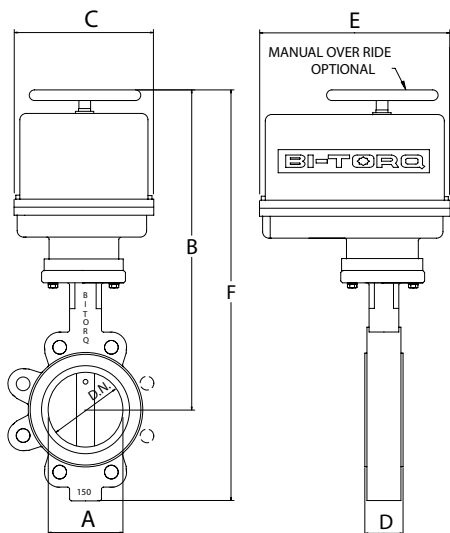
DOUBLE ACTING

	A	B	C	D	E	F	G	ACTUATOR
2"	10.30	3.17	1.69	6.38	13.45	1.77		PN-63DA
2-1/2"	10.85	3.17	1.81	6.38	14.35	1.77		PN-63DA
3"	11.09	3.17	1.81	6.38	14.83	1.77		PN-63DA
4"	12.46	3.17	2.05	6.38	16.95	1.77		PN-63DA
5"	14.08	4.17	2.20	9.35	19.08	2.30		PN-85DA
6"	15.10	4.85	2.69	10.69	20.57	2.30		PN-100DA
8"	17.62	5.39	2.87	12.91	24.51	2.68		PN-115DA
10"	20.49	6.45	3.44	16.85	28.48	3.15		PN-145DA
12"	22.89	7.35	3.07	16.93	32.42	3.94		PN-161DA

SPRING RETURN

	A	B	C	D	E	F	G	ACTUATOR
2"	10.95	3.72	1.69	8.15	14.10	2.07		PN-75SR
2-1/2"	11.50	3.72	1.81	8.15	15.00	2.07		PN-75SR
3"	12.19	4.17	1.81	9.35	15.93	2.30		PN-85SR
4"	14.07	4.85	2.05	10.69	18.56	2.68		PN-100SR
5"	14.59	4.85	2.20	10.69	19.59	2.68		PN-100SR
6"	17.64	6.45	2.20	16.85	23.11	3.44		PN-145SR
8"	19.61	7.35	2.36	16.93	26.50	3.94		PN-161SR
10"	23.17	8.82	2.68	20.94	31.16	4.41		PN-201SR
12"	29.79	10.48	3.07	26.06	39.32	5.24		PN-241SR*

\*INCLUDES CARBON STEEL MOUNTING KIT



## ELECTRIC ACTUATORS

	A	B	C	D	E	F	ACTUATOR
2"	12.22	4.25	1.69	6.88	15.37		BI-200-A-4-P1
2-1/2"	12.77	4.25	1.81	6.88	16.27		BI-200-A-4-P1
3"	13.01	4.25	1.81	6.88	16.75		BI-300-A-4-P1
4"	16.50	7.00	2.05	7.00	20.99		BI-675-A-4-P1
5"	17.02	7.00	2.20	7.00	22.02		BI-1000-A-4-P1*
6"	17.53	7.00	2.20	7.00	23.00		BI-1500-A-4-P1*
8"	22.50	10.00	2.36	10.00	29.39		BI-3800-A-4-P1*
10"	27.13	10.00	2.68	10.00	35.12		BI-3800-A-4-P1**
12"	28.91	11.42	3.07	17.60	38.44		BI-5310-A-4***

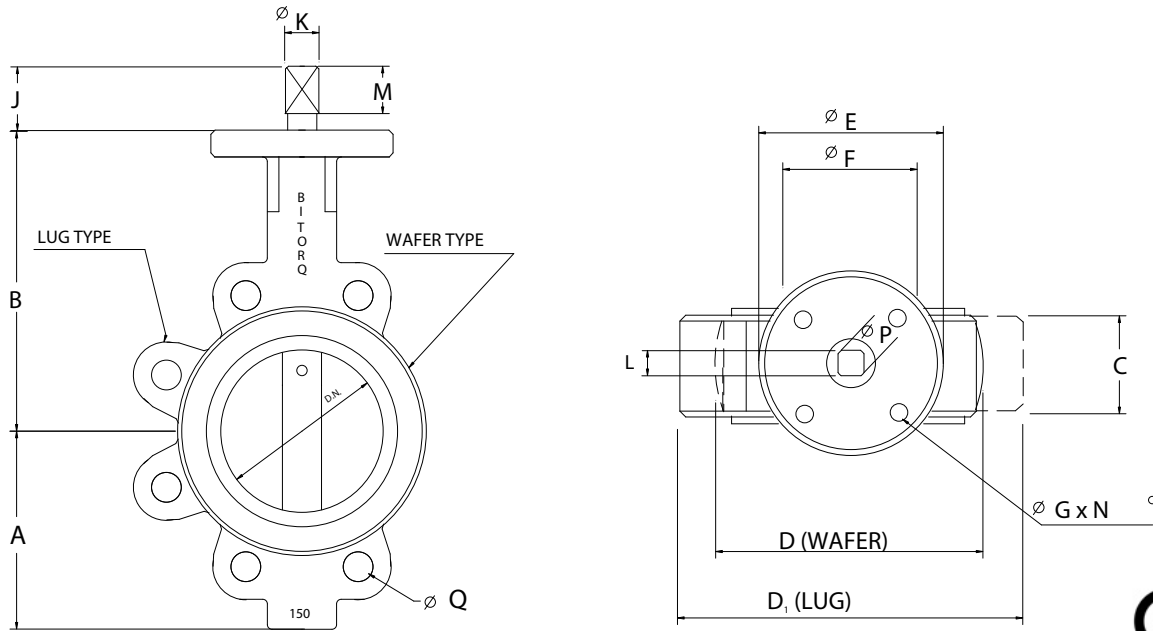
ALL ELECTRIC ACTUATOR DIMENSIONS ARE FOR NEMA 4 ENCLOSURES. FOR NEMA 7 ENCLOSURE DIMENSIONS, PLEASE CONSULT OUR SALES STAFF.

\*INCLUDES DECLUTCHABLE MANUAL OVERRIDE

\*\*INCLUDES DECLUTCHABLE MANUAL OVERRIDE AND MOUNTING KIT

\*\*\* INCLUDES MANUAL OVERRIDE AND MOUNTING KIT. THIS MODEL IS OUR BH SERIES - SEE SALES FOR LOOK OF ACTUATOR.

### DIMENSIONS AND MATERIALS



THE BY SERIES IS DESIGNED TO FIT BETWEEN ANSI CLASS 125# AND 150# FLANGES

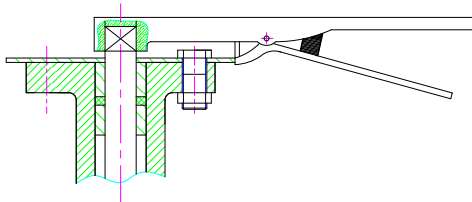


### DIMENSIONS

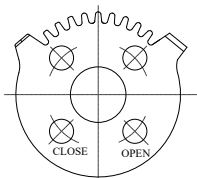
SIZE	ISO	A	B	C	D (WAFER)	D (LUG)	EØ	FØ	G x No.	J	KØ	L	M	Q (LUG ONLY)	WEIGHT (LBS.) LUG	WEIGHT (LBS.) WAFER
2"	F07	3.15	6.34	1.69	4.02	5.98	3.54	2.76	0.354 x 4	1.023	0.551	0.433	0.669	4 x 5/8-11	8.4	5.5
2-1/2"	F07	3.50	6.89	1.81	4.76	6.74	3.54	2.76	0.354 x 4	1.023	0.551	0.433	0.669	4 x 5/8-11	9.2	7.0
3"	F07	3.74	7.13	1.81	5.47	7.87	3.54	2.76	0.354 x 4	1.023	0.551	0.433	0.669	4 x 5/8-11	10.3	7.9
4"	F07	4.49	7.87	2.05	6.30	9.02	3.54	2.76	0.354 x 4	1.181	0.709	0.551	0.826	8 x 5/8-11	15.8	10.8
5"	F07	5.00	8.39	2.20	7.48	10.00	3.54	2.76	0.354 x 4	1.181	0.709	0.551	0.826	8 x 3/4-10	21	15.4
6"	F07	5.47	8.90	2.20	8.46	11.02	3.54	2.76	0.354 x 4	1.299	0.866	0.669	0.945	8 x 3/4-10	23	17.2
8"	F07	6.89	10.24	2.36	10.59	13.50	3.54	2.76	0.472 x 4	1.299	0.866	0.669	0.945	8 x 3/4-10	40	29
10"	F10	7.99	11.50	2.68	13.11	15.98	4.92	4.02	0.472 x 4	1.850	1.102	0.866	0.945	12 x 7/8-9	59	42.2
12"	F10	9.53	13.27	3.07	15.08	19.02	4.92	4.02	0.472 x 4	1.850	1.102	0.866	0.945	12 x 7/8-9	88	71.5

OPTIONAL BUTTERFLY VALVES AVAILABLE THROUGH 24". HIGH PERFORMANCE, ALL STAINLESS AND SANITARY VALVES ALSO AVAILABLE.

### 10 POSITION HANDLE



WITH 10 POSITION PLATE



ALL MANUAL VALVES INCLUDE A 10-POSITION HANDLE.  
CAST IRON GEAR OPERATORS ARE ALSO AVAILABLE.

### BILL OF MATERIALS

DESCRIPTION	QTY	MATERIAL
BODY	1	CAST IRON
BOTTOM BUSHING	1	BRONZE
SHAFT	1	316 SS
SEAT	1	EPDM, BUNA, VITON, PTFE
DISC	1	316 SS
TAPER PINS	1-2	316 SS
NAME PLATE	1	316 SS
RIVETS	2	316 SS
TOP BUSHING	1	BRONZE
O-RING	1	EPDM

### SPECIFICATIONS

**DESIGN AND STANDARDS:**  
MSS-SP67, API 609  
FLANGE ENDS ANSI B16.1

**WORKING PRESSURE:**  
225 PSI TO 8"  
150 PSI 10"-12"

**SHELL TEST:**  
350 PSI

**SEAL TEST:**  
250 PSI

**WORKING TEMPERATURE:**  
EPDM: -30° F TO +275° F  
BUNA-N: +10° F TO +180° F  
VITON®: 0° F TO 350° F  
PTFE: -20° F TO +250° F

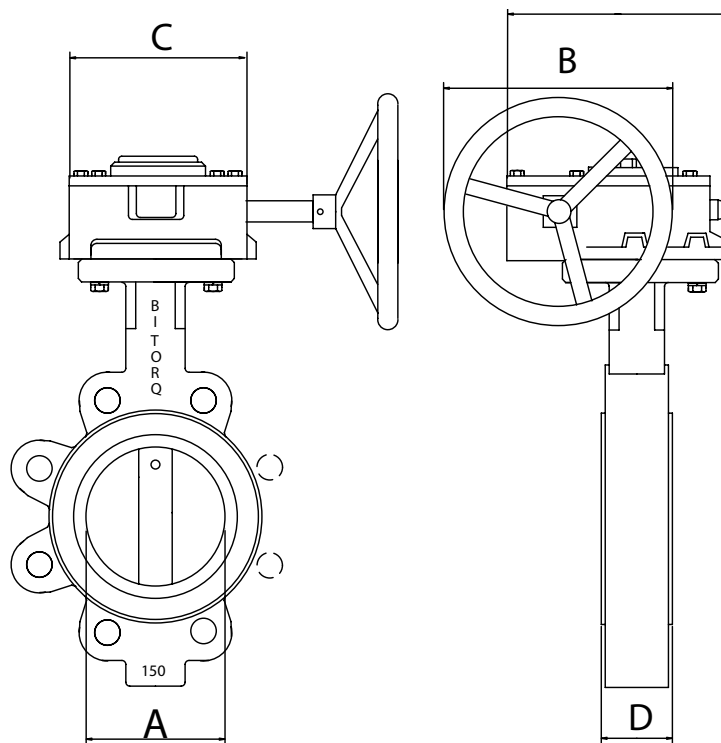
# BUTTERFLY VALVES

## BY SERIES

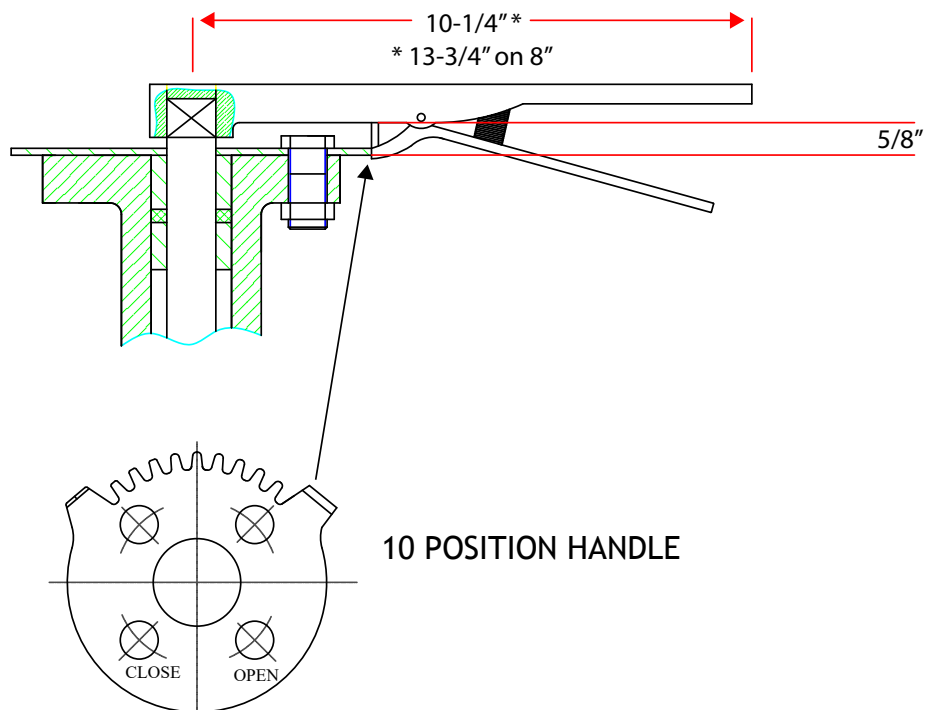
### GEAR OPERATED

MY SERIES BFV WITH DN SERIES  
CAST IRON GEAR OPERATOR

A	B	C	D	E	GEAR
2"	6.00	4.13	1.69	5.00	DN50
2-1/2"	6.00	4.13	1.81	5.00	DN65
3"	6.00	4.13	1.81	5.00	DN80
4"	6.00	4.13	2.05	5.00	DN100
5"	8.00	4.13	2.20	5.00	DN125
6"	8.00	4.13	2.20	5.00	DN150
8"	9.45	6.00	2.36	6.96	DN200
10"	9.45	6.00	2.68	6.96	DN250
12"	9.45	6.00	3.07	6.96	DN300



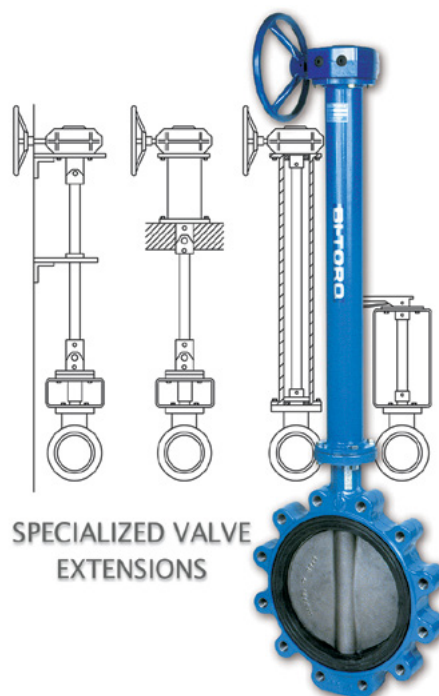
### Lever Handle Butterfly Valves 2" Through 8"



### EXTENSIONS

Customized stem extensions are designed for use inside tanks, coffer dams, tank sides or catwalks where the valve hand wheel, gear operator or actuator must be extended for operator accessibility. A mounting bracket complete with thrust bearing is furnished to carry the weight of the extension and eliminate load on the valve stem. All extensions over three feet are supplied with universal couplings to compensate for misalignment at installation. One additional mounting bracket is provided at the top of the extension for the operator plus one stabilizing bracket per six feet of extension.

BI-TORQ also offers a complete line of free standing extensions and stem extensions with a steadying pedestal for use in buried or underwater service lines. These extensions are ideal for marine or agricultural applications. As is the case with our standard stem extensions, we offer both epoxy coated carbon and stainless steel construction.



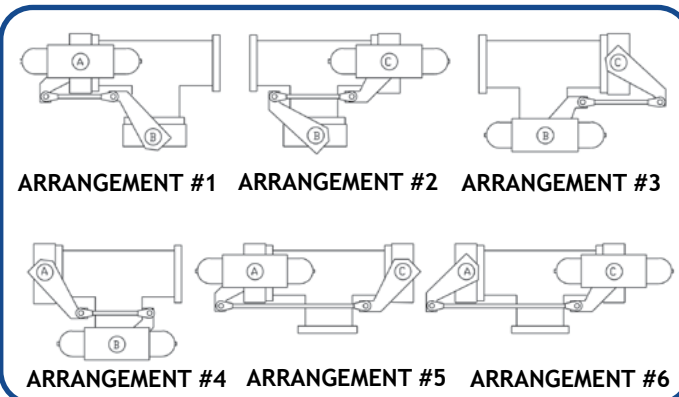
### Three Way Tee-Linkage Assemblies

*An economic alternative to large multi-port ball valves*



*Available with pneumatic and electric actuators*

Our unique 3-way tee-linkages utilize quality products and superior engineering to create an economic and effective assembly. Ideal for HVAC and diverting applications, our tee-linkage assembly is a big cost saver over expensive three-way ball valves. Add a positioner or fieldbus system and you can create a fully modulating system. All of our assemblies come complete with butterfly valves, actuators, tees and full mounting hardware. As is the case with all of our automated products, we will assemble and test the complete package for your convenience.



## THE STRAHMAN FAMILY OF PRODUCTS INCLUDE:



### WASH DOWN EQUIPMENT

Strahman offers a full line of mixing units, hose stations, hoses, nozzles, and wash down accessories designed for industrial use for a wide variety of industry including food & beverage processing, meat & poultry, agriculture, pharmaceutical, research laboratories, chemical, wineries, breweries, and more.

### AUTOMATED VALVES & THERMAL SHUT-OFF VALVES

Strahman automated valve packages with floating ball valves and resilient seated butterfly valves come complete with electric or pneumatic actuators for a wide array of industrial applications. Additionally, a full suite of API 607 fire safe valve products are offered as actuated units or to be used in conjunction with our FM approved thermal shut-off assemblies. Resettable Emergency Block Valves (R-EBV) are also available for the oil & gas and chemical industries.


### VALVES & LINE BLINDS


Strahman's portfolio includes: sampling valves, drain valves, gate valves, diverter and piston-type valves, ball valves, and line blinds for the control of fluid and gases in the pipeline system. Strahman also provides custom solutions for industry where products manufactured in batch and continuous process require consistent high quality and safety. Strahman serves a wide variety of industries and process applications including oil refinery, pulp and paper, and chemical.




## CONTACT US

Need more information? Give us a call today or visit our website.

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PRECISION AND PERFORMANCE