



AUTOMATED AND MANUAL BUTTERFLY VALVES

PNEUMATIC
ACTUATORS



CAST IRON BFVS

WITH STANDARD
STAINLESS STEEL
DISC AND STEM



ELECTRIC
ACTUATORS



MANUAL AND GEAR
OPERATORS



3-WAY TEE
LINKAGES

SERVING THE VALVE AUTOMATION INDUSTRY SINCE 1995

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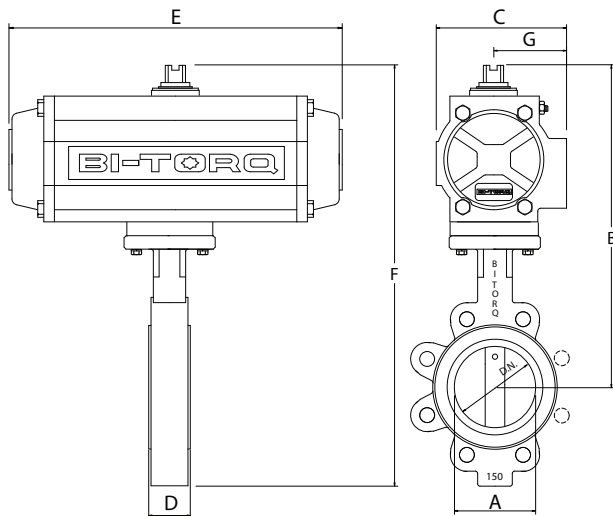
Automated Cast Iron Butterfly Valves



Lug style with pneumatic actuator and accessories

- 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

PNEUMATIC ACTUATORS



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

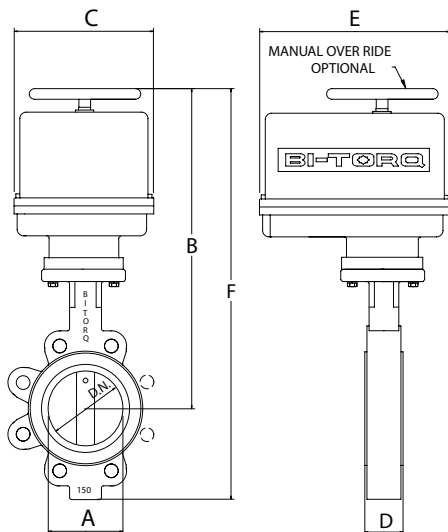
DOUBLE ACTING

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"	14.59	4.17	2.20	9.35	20.06	2.30	PN-85DA
8"	16.44	4.85	2.36	10.69	23.33	2.68	PN-100DA
10"	19.60	5.83	2.68	14.41	27.59	3.15	PN-125DA
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"	16.75	5.83	2.20	14.41	22.22	3.15	PN-125SR
8"	18.09	5.83	2.36	13.38	24.98	3.15	PN-125SR
10"	21.12	7.35	2.68	16.93	29.11	3.94	PN-161SR
12"	28.06	8.82	3.07	20.94	37.59	4.41	PN-201SR*

*INCLUDES CARBON STEEL MOUNTING KIT



ELECTRIC ACTUATORS

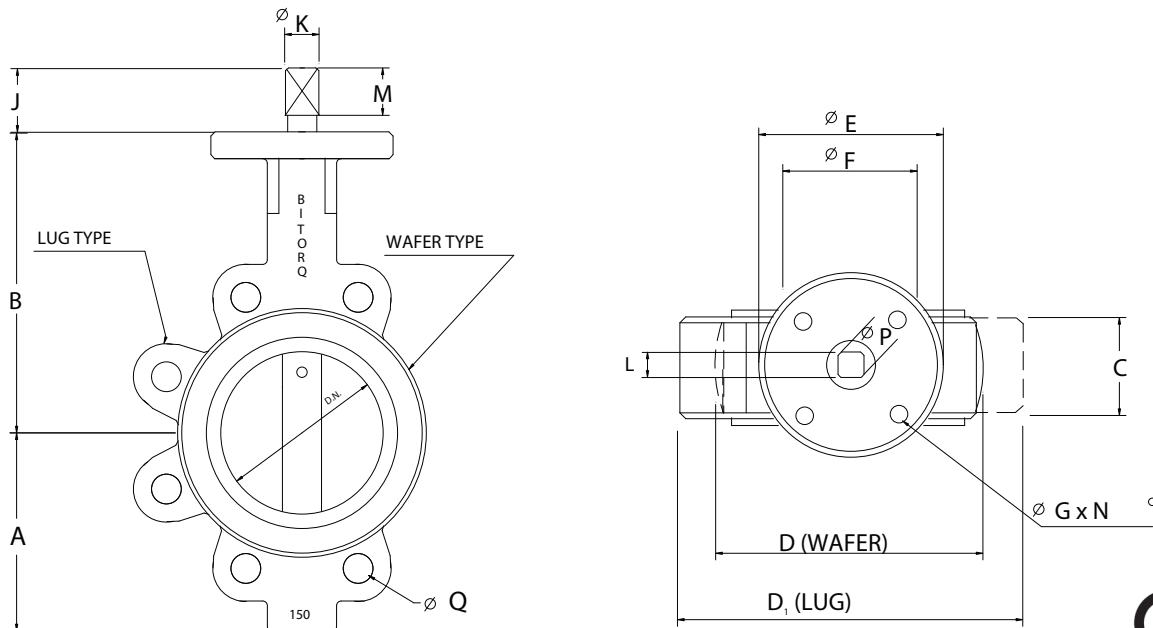
A	B	C	D	E	F	ACTUATOR
2"	12.22	4.25	1.69	6.88	15.37	BI-200-A-4-P1
2-1/2"	12.77	4.25	1.81	6.88	16.27	BI-200-A-4-P1
3"	13.01	4.25	1.81	6.88	16.75	BI-300-A-4-P1
4"	16.50	7.00	2.05	7.00	20.99	BI-400-A-4-P1
5"	17.02	7.00	2.20	7.00	22.02	BI-1000-A-4-P1*
6"	17.53	7.00	2.20	7.00	23.00	BI-1000-A-4-P1*
8"	18.87	7.00	2.36	7.00	25.76	BI-1500-A-4-P1*
10"	27.13	10.00	2.68	10.00	35.12	BI-3800-A-4-P1**
12"	28.90	10.00	3.07	10.00	38.43	BI-3800-A-4-P1**

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

Dimensions and Materials



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

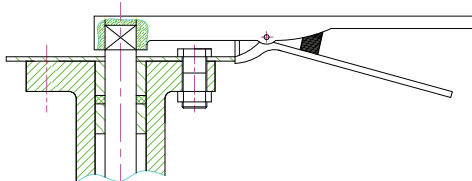


DIMENSIONS

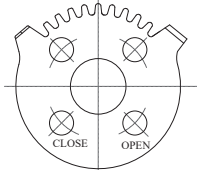
SIZE	ISO	A	B	C	D (WAFER)	D (LUG)	EØ	FØ	G x No.	J	KØ	L	M	Q (LUG ONLY)	WEIGHT (LBS.) LUG	WEIGHT (LBS.) WAFER
2"	F07	3.15	6.34	1.69	4.02	5.98	3.54	2.76	0.354 x 4	1.023	0.551	0.433	0.669	4 x 5/8-11	8.4	5.5
2-1/2"	F07	3.50	6.89	1.81	4.76	6.74	3.54	2.76	0.354 x 4	1.023	0.551	0.433	0.669	4 x 5/8-11	9.2	7.0
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

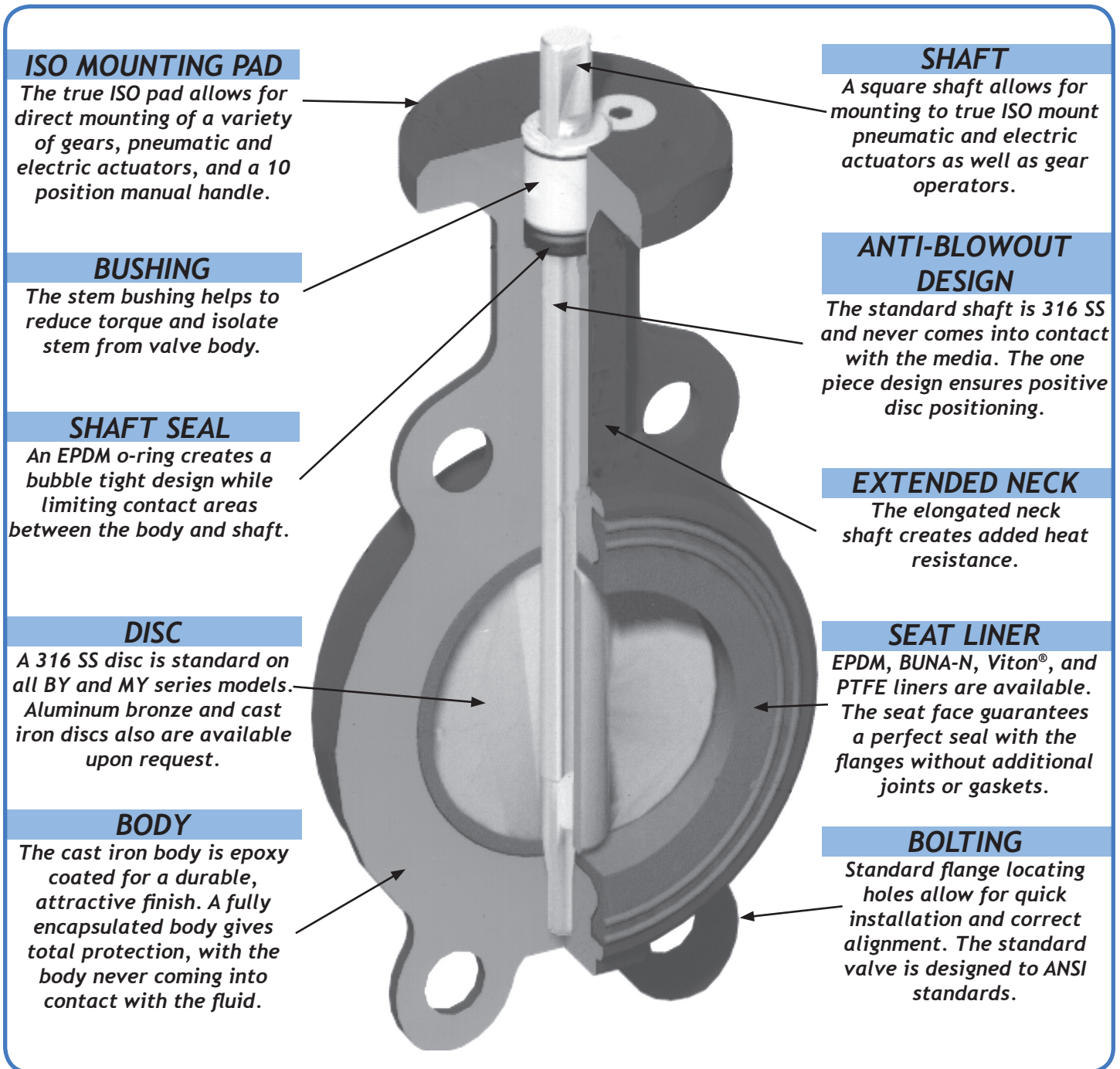
SEAL TEST:

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

Features and Benefits



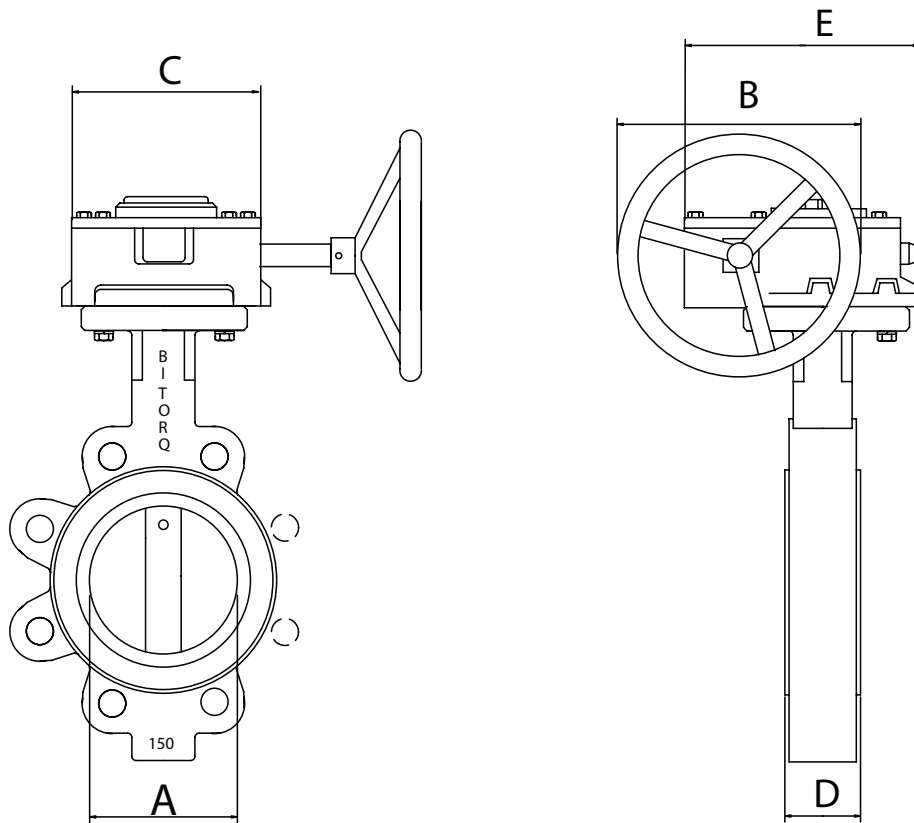
LUG STYLE

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

Gear Operated Butterfly Valves



**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

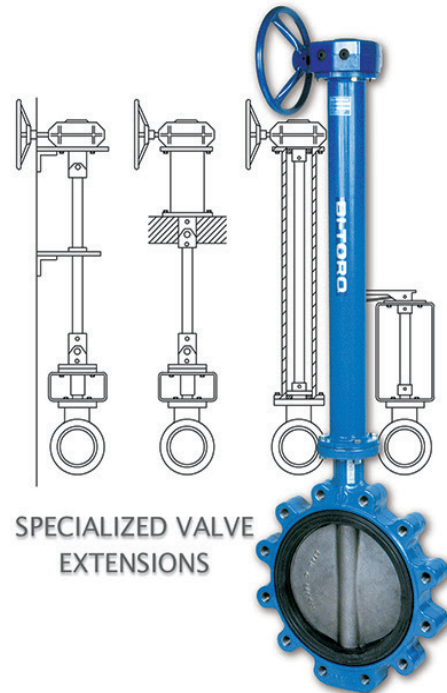


*Available with
Chainwheel Operators*

Butterfly Valve Extensions

Customized stem extensions are designed for use inside tanks, coffer dams, tank sides or catwalks where the valve handwheel, 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.



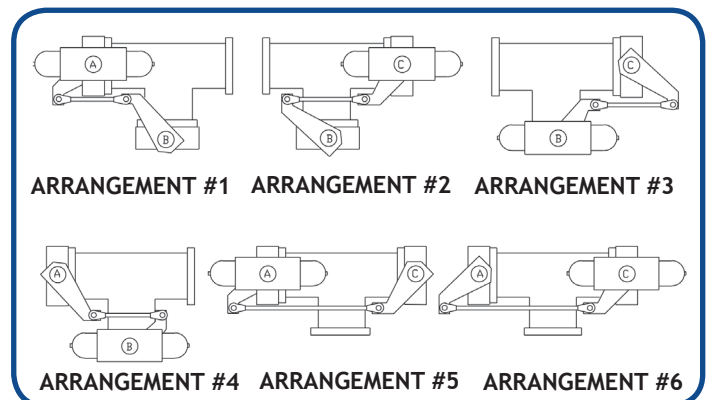
Three Way Tee-Linkage Assemblies

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.



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.



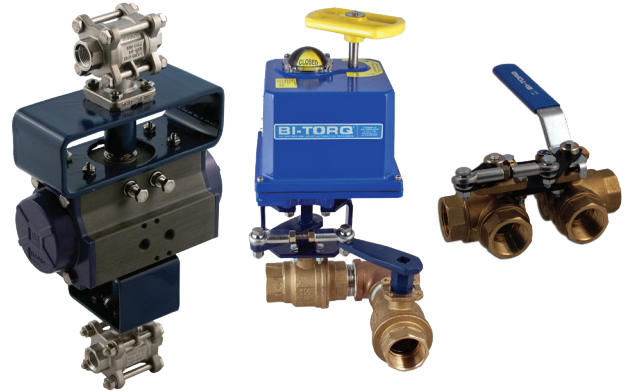
**ANALOG (3-15 PSI & 4-20MA)
AND SMART POSITIONERS**



**LIMIT SWITCH
POSITION INDICATORS**



**NAMUR MOUNT
SOLENOIDS**



**CUSTOMIZED
ASSEMBLIES**



**STAINLESS STEEL
VERSIONS TOO!**

**LOCK-OUT
KITS**





MORE QUALITY VALVE AUTOMATION PRODUCTS



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