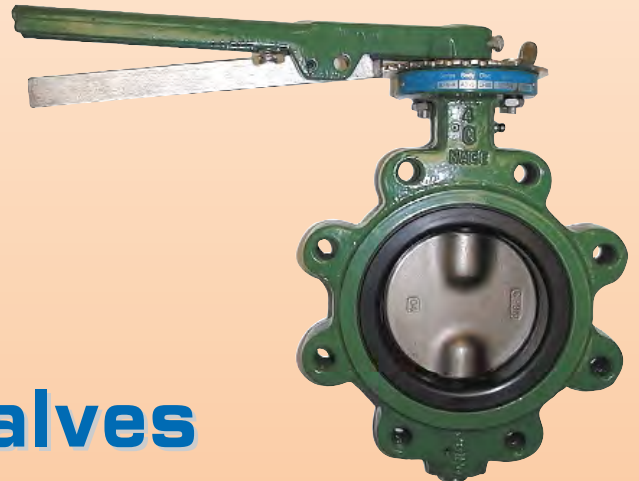
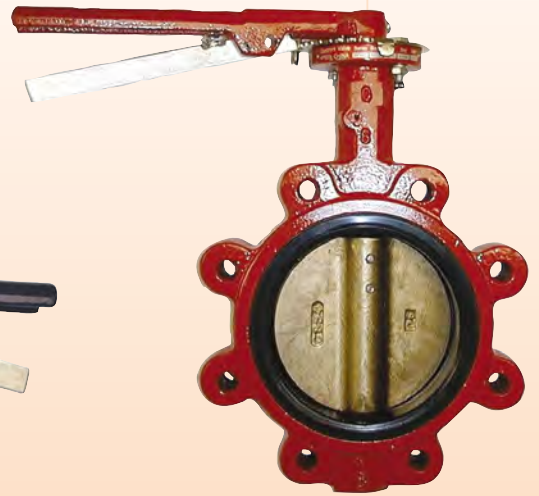
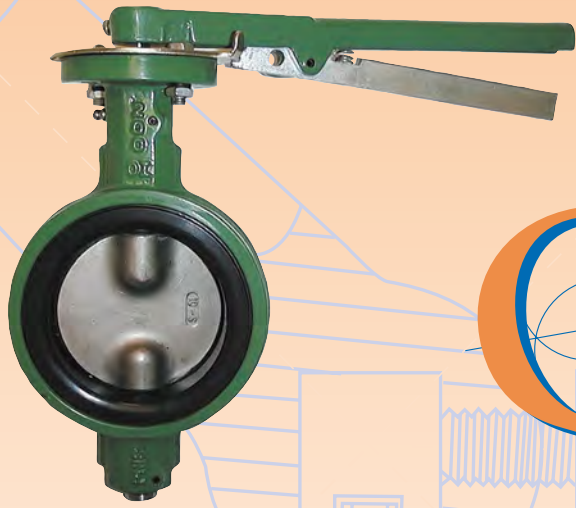


BFV-903

Quadrant[®]

VALVE & ACTUATOR, LLC

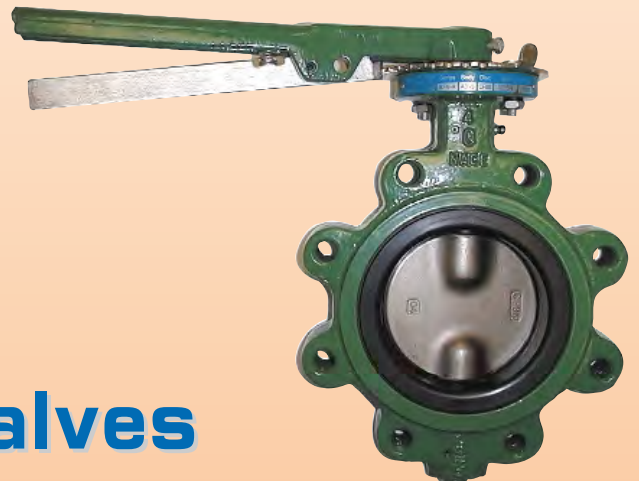
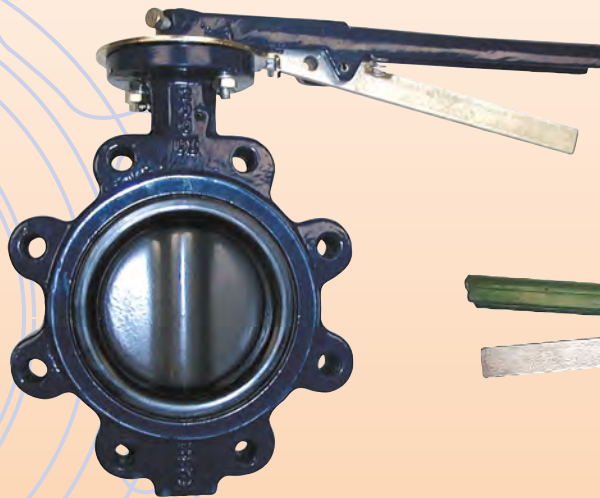
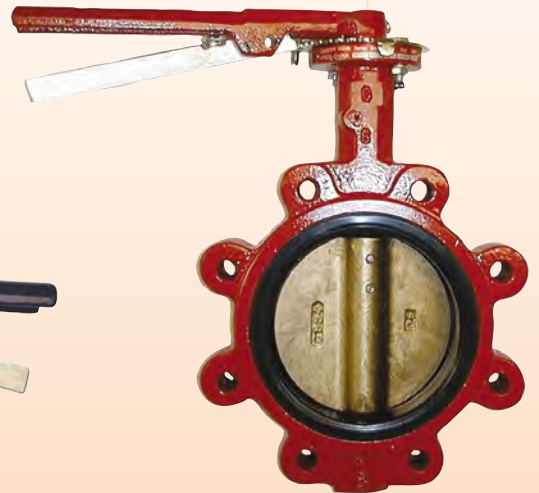
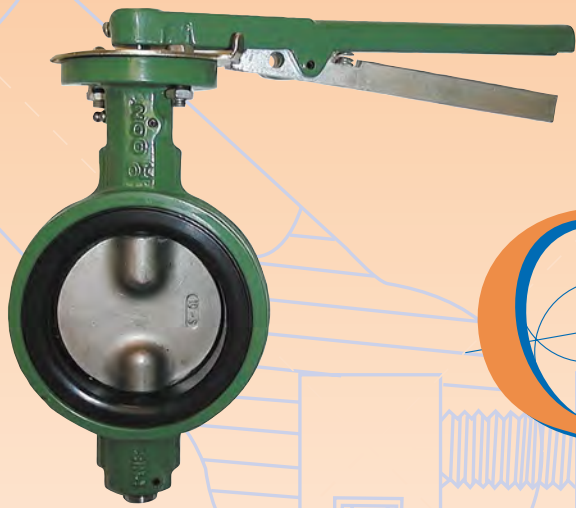


**Lug & Wafer
Style Butterfly Valves**

BFV-903

Quadrant[®]

VALVE & ACTUATOR, LLC



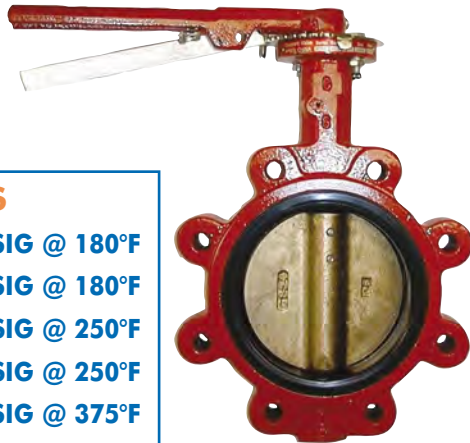
**Lug & Wafer
Style Butterfly Valves**

Series BFV-WD & BFV-LD



**2" to 48"
Sizes**

**Complies with USCG 46CFR
Category B Requirements**



RATINGS

2"-24" BUNA: 200 PSIG @ 180°F
28"-48" BUNA: 150 PSIG @ 180°F
2"-24" EPDM: 200 PSIG @ 250°F
28"-48" EPDM: 150 PSIG @ 250°F
2"-24" VITON: 200 PSIG @ 375°F
28"-48" VITON: 150 PSIG @ 375°F

FEATURES

- Standard ASTM A536 Ductile Iron Bodies
- Unique ISO 5211 Pattern & Square Stem*
- Seat Retaining Bolts on Lug Valves Provide 200PSI Dead-End Service Without Downstream Flange
- Standard Grease Fitting for Stem Lubrication
- 2"-24" Rated @ 200WOG, 28" to 48" Rated @ 150WOG
- Fully Compliant to API 609 & MSS SP-67
- Standard 416SS Shaft

MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	ASTM A536 Ductile Iron
2	DISC	See Page 3
3	SHAFT	416SS or 316SS w/CF8M Disc
4	BEARINGS	Fiberglass Backed PTFE
5	PIN(S)	416SS or 316SS w/CF8M Disc
6	SEAT ASSEMBLY	Buna-N, EPDM or VITON (Phenolic Supported)
7	SET SCREWS (not shown)	Plated Carbon Steel (Lug only)
8	STOP PLATE (not shown)	Plated Carbon Steel
9	FASTENERS (not shown)	Plated Carbon Steel
10	HANDLE ASSEMBLY	Ductile Iron
11	LUBE FITTING	Plated Carbon Steel
12	O-RING	Buna-N

See Page 4 for Cross Sections.

Series BFV-WC & BFV-LC



**2" to 12"
Sizes**



RATINGS

BUNA-N SEAT: 200 PSIG @ 180°F
EPDM SEAT: 200 PSIG @ 250°F
VITON SEAT: 200 PSIG @ 375°F

**.040" Thick
Nylon-II
Coated
Ductile Iron
Disc
Available
On BFV-C!**

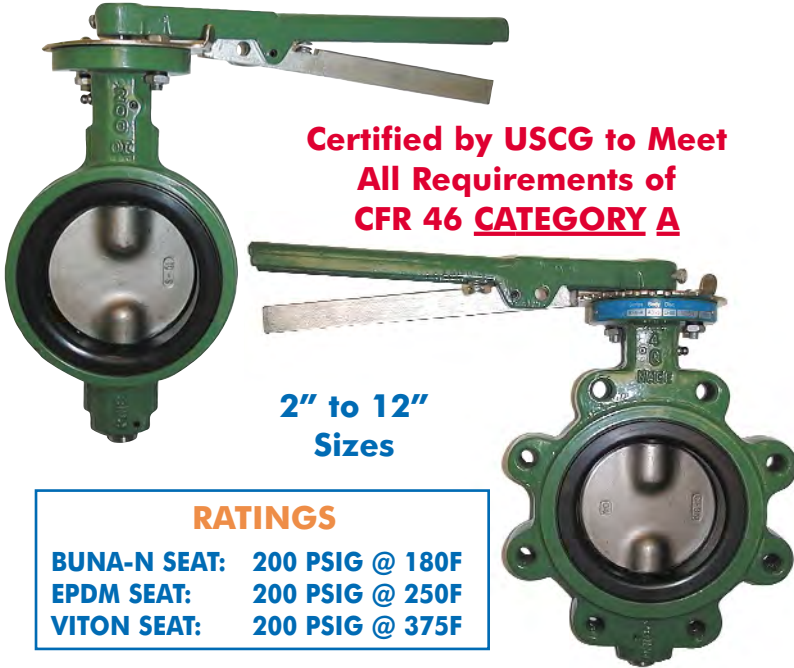
FEATURES

- Standard ASTM A536 Ductile Iron Bodies
- Unique ISO 5211 Pattern & Square Stem*
- Seat Retaining Bolts on Lug Valves Provide 200PSI Dead-End Service Without Downstream Flange
- Standard Grease Fitting for Stem Lubrication
- All Sizes Rated @ 200WOG
- Fully Compliant to API 609 & MSS SP-67
- Standard 416SS Shaft with Internal Drive
- Internal Shaft to Disc Drive Eliminates Disc Pin(s)

MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	ASTM A536 Ductile Iron
2	DISC	See Page 3
3	SHAFT	416SS or 316SS w/CF8M Disc
4	BEARINGS	Fiberglass Backed PTFE
6	SEAT ASSEMBLY	Buna-N, EPDM or VITON (Phenolic Supported)
7	SET SCREWS (not shown)	Plated Carbon Steel (Lug only)
8	STOP PLATE (not shown)	Plated Carbon Steel
9	FASTENERS (not shown)	Plated Carbon Steel
10	HANDLE ASSEMBLY	Ductile Iron
11	LUBE FITTING	Plated Carbon Steel
12	O-RING	Buna-N

See Page 4 for Cross Sections.



**Certified by USCG to Meet
All Requirements of
CFR 46 CATEGORY A**

**2" to 12"
Sizes**

RATINGS

BUNA-N SEAT: 200 PSIG @ 180F
EPDM SEAT: 200 PSIG @ 250F
VITON SEAT: 200 PSIG @ 375F

MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	ASTM A395 Ductile Iron
2	DISC	See Below
3	SHAFTS	ASTM A276 316SS
4	BEARINGS	Fiberglass Backed PTFE
5	SEAT ASSEMBLY	Buna-N, EPDM or VITON (Phenolic Supported)
6	SET SCREWS (not shown)	Plated Carbon Steel (Lug only)
7	ROLL PINS	Plated Carbon Steel
8	STOP PLATE (not shown)	Plated Carbon Steel
9	FASTENERS (not shown)	Plated Carbon Steel
10	HANDLE ASSEMBLY	Ductile Iron
11	LUBE FITTING	Plated Carbon Steel
12	O-RING	Buna-N

See Page 4 for Cross Sections.

FEATURES

- ASTM A-395 Ductile Iron Bodies
- Unique ISO 5211 Mounting Pattern & Square Stem*
- Lug Style Valves have Seat Retaining Bolts allowing Dead-End Service without Downstream Flange
- Standard Grease Fitting for Stem Lubrication and Corrosion Protection
- Available with Buna-N, EPDM or VITON seats
- Standard 316SS Stem
- Ductile Iron, Aluminum Bronze or CF8M Discs
- All sizes rated at 200WOG
- Standard NACE MR01-75, 2000 Revision Compliance
- 2-Piece Shaft and "Thin" Disc for Low Pressure Drop
- Fully Compliant with API 609
- Fully Compliant with MSS SP-67
- 304SS Lock Plates Available
- CF8M Stainless bodies Available
- Standard Locking Handle Accepts Common 5/16" Hasp Locks

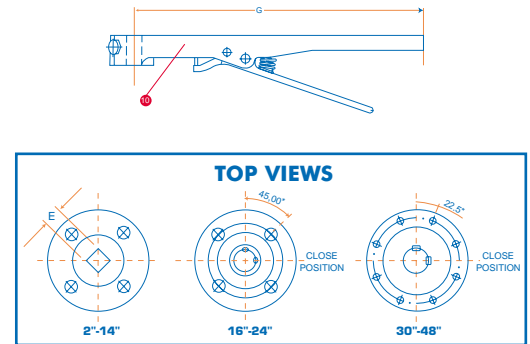
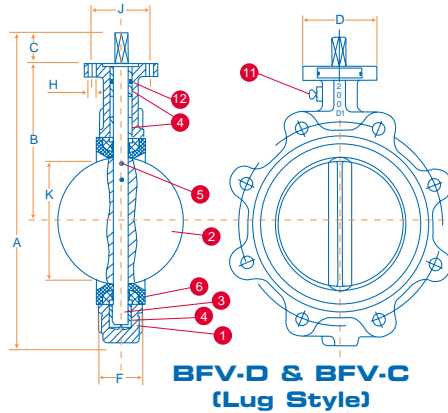
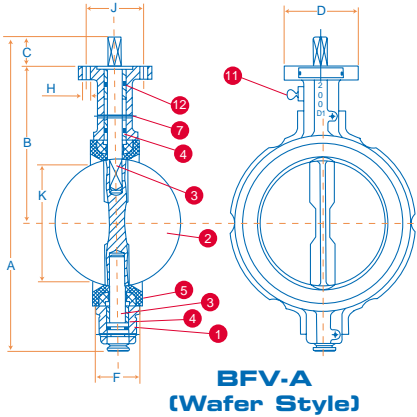
NUMBERING SYSTEM ... HOW TO ORDER:

BFV W D B 4 E C PH 300

SERIES	BODY STYLE	BODY MATERIAL	DISC MATERIAL	STEM MAT'L	SEAT/SEAL MAT'L	BODY COAT	HANDLE TYPE	SIZE
BFV	W = WAFER L = LUG	A = A395 DUCTILE C = A536 DUCTILE INTERNAL DRIVE D = A536 DUCTILE S = CF8M STAINLESS	D = DUCTILE IRON (536) NICKEL PLATED B = ALUMINUM BRONZE (C954) S = CF8M STAINLESS N = .040" THICK NYLON-II COATED DUCTILE IRON (BFV-C ONLY)	4 = 416SS 3 = 316SS M = MONEL	B = Buna-N E = EPDM F = VITON	P = PAINTED C = EPOXY COATED N = NO COATING	PH = 10 POS. LEVER BH = INFINITE POSITION LOCKING HANDLE GO = GEAR OPERATOR PA = DOUBLE ACTING PNEUMATIC D00 = 16" SA = SPRING RETURN PNEUMATIC EA = ELECTRIC ACTUATED BS = BARE STEM	200 = 2" 250 = 2-1/2" 300 = 3" 400 = 4" 500 = 5" 600 = 6" 800 = 8" A00 = 10" B00 = 12" C00 = 14" D00 = 16" E00 = 18" F00 = 20" G00 = 24" I00 = 30" K00 = 36" M00 = 42" N00 = 48"

* PATENT APPLIED FOR

DIMENSIONS, WEIGHTS, CV FACTORS & TORQUES



SIZE	"A" BFV-A & C	"A" BFV-D	"B" BFV-A & C	"B" BFV-D	"C"	"D" DIA	"E" SQUARE or "E" STEM DIA (16" UP)	"F"	"G"
2"	8.4	10.8	3.9	6.3	1.26	3.03	11MM	1.69	9.0
2-1/2"	9.2	11.7	4.5	6.9	1.26	3.03	11MM	1.81	9.0
3"	9.9	12.2	4.9	7.1	1.26	3.03	11MM	1.81	9.0
4"	11.8	13.7	6.0	7.9	1.26	3.62	11MM	2.06	11.0
5"	12.3	14.7	6.0	8.4	1.26	3.62	14MM	2.19	11.0
6"	13.3	15.7	6.5	8.9	1.26	3.62	14MM	2.19	11.0
8"	16.8	18.9	8.1	10.2	1.77	4.92	19MM	2.38	15.0
10"	19.8	21.3	10.0	11.5	1.77	5.91	22MM	2.69	17.0
12"	22.2	24.6	10.9	13.3	1.77	5.91	27MM	3.06	17.0
14"	26.8	26.8	14.5	14.5	1.77	5.91	27MM	3.06	N/A
16"		29.9		15.8	2.02	7.76	33.15MM (5/16" KEYS)	4.00	N/A
18"		31.6		16.6	2.02	7.76	37.95MM (3/8" KEYS)	4.50	N/A
20"		35.7		18.9	2.53	7.76	41.12MM (3/8" KEYS)	5.00	N/A
24"		43.0		22.2	2.76	10.87	50.62MM (1/2" KEYS)	6.06	N/A
30"		50.7		26.0	2.60	11.81	63.35MM (18MM KEYS)	6.50	N/A
36"		58.8		28.4	4.65	11.81	75.0MM (20MM KEYS)	7.88	N/A
42"		70.3		33.8	5.91	11.81	95.0MM (25MM KEYS)	9.88	N/A
48"		77.0		37.1	5.91	13.78	105.0MM (28MM KEYS)	10.88	N/A

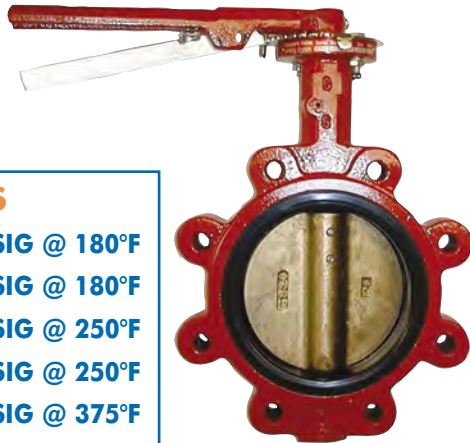
SIZE DIA	"H" DIA	"J" DIA	"K" DIA (Disc Chord)	ISO PATTERN	WT-LBS WAFER	WT-LBS LUG	MAX TORQUE (IN-LBS)		Cv FACTOR BFV-A	Cv FACTOR BFV-D & C
							WET	DRY		
2"	.28 x 4	1.97	1.27	F05	7.5	10.3	109	119	145	125
2-1/2"	.28 x 4	1.97	1.82	F05	9.0	11.2	122	153	225	200
3"	.28 x 4	1.97	2.54	F05	10.0	12.3	157	200	325	302
4"	.39 x 4	2.76	3.40	F07	12.8	21.8	283	410	620	600
5"	.39 x 4	2.76	4.35	F07	17.4	26.0	561	849	1125	1022
6"	.39 x 4	2.76	5.31	F07	19.1	33.3	742	1014	1950	1579
8"	.47 x 4	4.02	7.58	F10	34.1	45.1	1344	1901	3250	3136
10"	.55 x 4	4.92	9.52	F12	48.4	65.1	2344	3693	5500	5340
12"	.55 x 4	4.92	11.49	F12	77.7	94.2	3968	6311	8500	8250
14"	.55 x 4	4.92	12.68	F12	90.5	123.5	5310	8243		11920
16"	.71 x 4	5.51	14.96	F14	135	212	8727	13488		16390
18"	.71 x 4	5.51	16.85	F14	175	269	10628	16796		21700
20"	.71 x 4	5.51	18.62	F14	283	446	13277	21412		27900
24"	.91 x 4	6.50	22.52	F16	415	596	17332	27955		43100
30"	.71 x 8	10.00	28.58	F25	926	926	33336 WET @ 150PSID			73426
36"	.71 x 8	10.00	33.11	F25	1455	1455	46528 WET @ 150PSID			87500
42"	.71 x 8	10.00	39.33	F25	1976	1976	79864 WET @ 150PSID			117500
48"	.87 x 8	11.73	44.37	F30	2822	2822	111112 WET @ 150PSID			154000

Series BFV-WD & BFV-LD



**2" to 48"
Sizes**

**Complies with USCG 46CFR
Category B Requirements**



RATINGS

2"-24" BUNA: 200 PSIG @ 180°F
28"-48" BUNA: 150 PSIG @ 180°F
2"-24" EPDM: 200 PSIG @ 250°F
28"-48" EPDM: 150 PSIG @ 250°F
2"-24" VITON: 200 PSIG @ 375°F
28"-48" VITON: 150 PSIG @ 375°F

FEATURES

- Standard ASTM A536 Ductile Iron Bodies
- Unique ISO 5211 Pattern & Square Stem*
- Seat Retaining Bolts on Lug Valves Provide 200PSI Dead-End Service Without Downstream Flange
- Standard Grease Fitting for Stem Lubrication
- 2"-24" Rated @ 200WOG, 28" to 48" Rated @ 150WOG
- Fully Compliant to API 609 & MSS SP-67
- Standard 416SS Shaft

MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	ASTM A536 Ductile Iron
2	DISC	See Page 3
3	SHAFT	416SS or 316SS w/CF8M Disc
4	BEARINGS	Fiberglass Backed PTFE
5	PIN(S)	416SS or 316SS w/CF8M Disc
6	SEAT ASSEMBLY	Buna-N, EPDM or VITON (Phenolic Supported)
7	SET SCREWS (not shown)	Plated Carbon Steel (Lug only)
8	STOP PLATE (not shown)	Plated Carbon Steel
9	FASTENERS (not shown)	Plated Carbon Steel
10	HANDLE ASSEMBLY	Ductile Iron
11	LUBE FITTING	Plated Carbon Steel
12	O-RING	Buna-N

See Page 4 for Cross Sections.

Series BFV-WC & BFV-LC



**2" to 12"
Sizes**



**.040" Thick
Nylon-II
Coated
Ductile Iron
Disc
Available
On BFV-C!**

RATINGS

BUNA-N SEAT: 200 PSIG @ 180F
EPDM SEAT: 200 PSIG @ 250F
VITON SEAT: 200 PSIG @ 375F

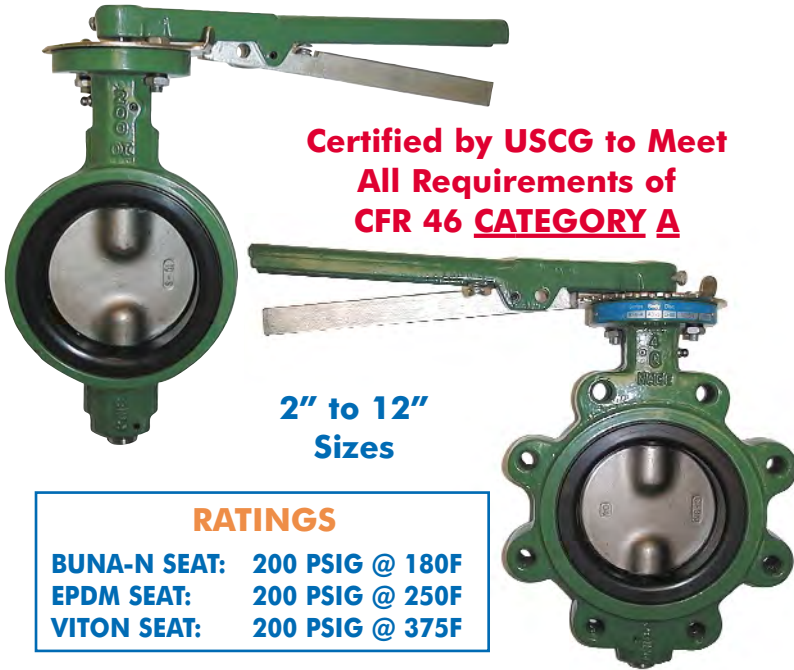
FEATURES

- Standard ASTM A536 Ductile Iron Bodies
- Unique ISO 5211 Pattern & Square Stem*
- Seat Retaining Bolts on Lug Valves Provide 200PSI Dead-End Service Without Downstream Flange
- Standard Grease Fitting for Stem Lubrication
- All Sizes Rated @ 200WOG
- Fully Compliant to API 609 & MSS SP-67
- Standard 416SS Shaft with Internal Drive
- Internal Shaft to Disc Drive Eliminates Disc Pin(s)

MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	ASTM A536 Ductile Iron
2	DISC	See Page 3
3	SHAFT	416SS or 316SS w/CF8M Disc
4	BEARINGS	Fiberglass Backed PTFE
6	SEAT ASSEMBLY	Buna-N, EPDM or VITON (Phenolic Supported)
7	SET SCREWS (not shown)	Plated Carbon Steel (Lug only)
8	STOP PLATE (not shown)	Plated Carbon Steel
9	FASTENERS (not shown)	Plated Carbon Steel
10	HANDLE ASSEMBLY	Ductile Iron
11	LUBE FITTING	Plated Carbon Steel
12	O-RING	Buna-N

See Page 4 for Cross Sections.



**Certified by USCG to Meet
All Requirements of
CFR 46 CATEGORY A**

**2" to 12"
Sizes**

RATINGS

BUNA-N SEAT: 200 PSIG @ 180F
EPDM SEAT: 200 PSIG @ 250F
VITON SEAT: 200 PSIG @ 375F

MATERIALS OF CONSTRUCTION

PART	DESCRIPTION	STANDARD MATERIAL
1	BODY	ASTM A395 Ductile Iron
2	DISC	See Below
3	SHAFTS	ASTM A276 316SS
4	BEARINGS	Fiberglass Backed PTFE
5	SEAT ASSEMBLY	Buna-N, EPDM or VITON (Phenolic Supported)
6	SET SCREWS (not shown)	Plated Carbon Steel (Lug only)
7	ROLL PINS	Plated Carbon Steel
8	STOP PLATE (not shown)	Plated Carbon Steel
9	FASTENERS (not shown)	Plated Carbon Steel
10	HANDLE ASSEMBLY	Ductile Iron
11	LUBE FITTING	Plated Carbon Steel
12	O-RING	Buna-N

See Page 4 for Cross Sections.

FEATURES

- ASTM A-395 Ductile Iron Bodies
- Unique ISO 5211 Mounting Pattern & Square Stem*
- Lug Style Valves have Seat Retaining Bolts allowing Dead-End Service without Downstream Flange
- Standard Grease Fitting for Stem Lubrication and Corrosion Protection
- Available with Buna-N, EPDM or VITON seats
- Standard 316SS Stem
- Ductile Iron, Aluminum Bronze or CF8M Discs
- All sizes rated at 200WOG
- Standard NACE MR01-75, 2000 Revision Compliance
- 2-Piece Shaft and "Thin" Disc for Low Pressure Drop
- Fully Compliant with API 609
- Fully Compliant with MSS SP-67
- 304SS Lock Plates Available
- CF8M Stainless bodies Available
- Standard Locking Handle Accepts Common 5/16" Hasp Locks

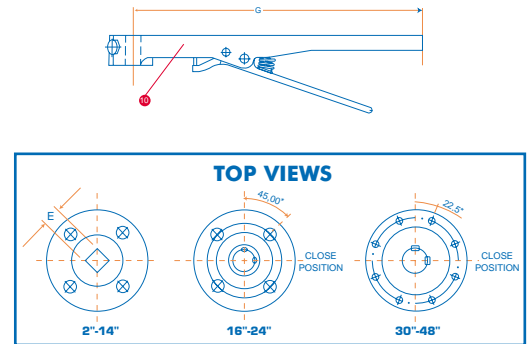
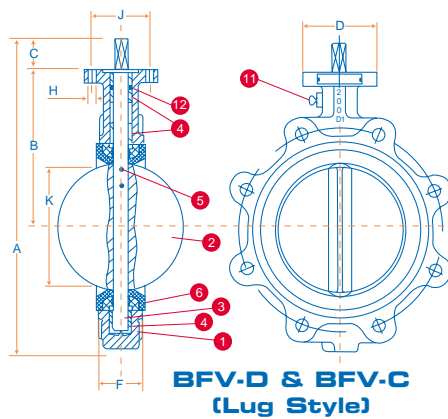
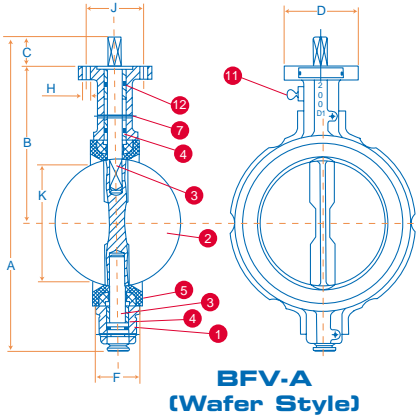
NUMBERING SYSTEM ... HOW TO ORDER:

BFV W D B 4 E C PH 300

SERIES	BODY STYLE	BODY MATERIAL	DISC MATERIAL	STEM MAT'L	SEAT/SEAL MAT'L	BODY COAT	HANDLE TYPE	SIZE
BFV	W = WAFER L = LUG	A = A395 DUCTILE C = A536 DUCTILE INTERNAL DRIVE D = A536 DUCTILE S = CF8M STAINLESS	D = DUCTILE IRON (536) NICKEL PLATED B = ALUMINUM BRONZE (C954) S = CF8M STAINLESS N = .040" THICK NYLON-II COATED DUCTILE IRON (BFV-C ONLY)	4 = 416SS 3 = 316SS M = MONEL	B = Buna-N E = EPDM F = VITON	P = PAINTED C = EPOXY COATED N = NO COATING	PH = 10 POS. LEVER BH = INFINITE POSITION LOCKING HANDLE GO = GEAR OPERATOR PA = DOUBLE ACTING PNEUMATIC D00 = 16" SA = SPRING RETURN PNEUMATIC EA = ELECTRIC ACTUATED BS = BARE STEM	200 = 2" 250 = 2-1/2" 300 = 3" 400 = 4" 500 = 5" 600 = 6" 800 = 8" A00 = 10" B00 = 12" C00 = 14" D00 = 16" E00 = 18" F00 = 20" G00 = 24" I00 = 30" K00 = 36" M00 = 42" N00 = 48"

* PATENT APPLIED FOR

DIMENSIONS, WEIGHTS, CV FACTORS & TORQUES



SIZE	"A" BFV-A & C	"A" BFV-D	"B" BFV-A & C	"B" BFV-D	"C"	"D" DIA	"E" SQUARE or "E" STEM DIA (16" UP)	"F"	"G"
2"	8.4	10.8	3.9	6.3	1.26	3.03	11MM	1.69	9.0
2-1/2"	9.2	11.7	4.5	6.9	1.26	3.03	11MM	1.81	9.0
3"	9.9	12.2	4.9	7.1	1.26	3.03	11MM	1.81	9.0
4"	11.8	13.7	6.0	7.9	1.26	3.62	11MM	2.06	11.0
5"	12.3	14.7	6.0	8.4	1.26	3.62	14MM	2.19	11.0
6"	13.3	15.7	6.5	8.9	1.26	3.62	14MM	2.19	11.0
8"	16.8	18.9	8.1	10.2	1.77	4.92	19MM	2.38	15.0
10"	19.8	21.3	10.0	11.5	1.77	5.91	22MM	2.69	17.0
12"	22.2	24.6	10.9	13.3	1.77	5.91	27MM	3.06	17.0
14"	26.8	26.8	14.5	14.5	1.77	5.91	27MM	3.06	N/A
16"		29.9		15.8	2.02	7.76	33.15MM (5/16" KEYS)	4.00	N/A
18"		31.6		16.6	2.02	7.76	37.95MM (3/8" KEYS)	4.50	N/A
20"		35.7		18.9	2.53	7.76	41.12MM (3/8" KEYS)	5.00	N/A
24"		43.0		22.2	2.76	10.87	50.62MM (1/2" KEYS)	6.06	N/A
30"		50.7		26.0	2.60	11.81	63.35MM (18MM KEYS)	6.50	N/A
36"		58.8		28.4	4.65	11.81	75.0MM (20MM KEYS)	7.88	N/A
42"		70.3		33.8	5.91	11.81	95.0MM (25MM KEYS)	9.88	N/A
48"		77.0		37.1	5.91	13.78	105.0MM (28MM KEYS)	10.88	N/A

SIZE DIA	"H" DIA	"J" DIA	"K" DIA (Disc Chord)	ISO PATTERN	WT-LBS WAFER	WT-LBS LUG	MAX TORQUE (IN-LBS)		Cv FACTOR BFV-A	Cv FACTOR BFV-D & C
							WET	DRY		
2"	.28 x 4	1.97	1.27	F05	7.5	10.3	109	119	145	125
2-1/2"	.28 x 4	1.97	1.82	F05	9.0	11.2	122	153	225	200
3"	.28 x 4	1.97	2.54	F05	10.0	12.3	157	200	325	302
4"	.39 x 4	2.76	3.40	F07	12.8	21.8	283	410	620	600
5"	.39 x 4	2.76	4.35	F07	17.4	26.0	561	849	1125	1022
6"	.39 x 4	2.76	5.31	F07	19.1	33.3	742	1014	1950	1579
8"	.47 x 4	4.02	7.58	F10	34.1	45.1	1344	1901	3250	3136
10"	.55 x 4	4.92	9.52	F12	48.4	65.1	2344	3693	5500	5340
12"	.55 x 4	4.92	11.49	F12	77.7	94.2	3968	6311	8500	8250
14"	.55 x 4	4.92	12.68	F12	90.5	123.5	5310	8243		11920
16"	.71 x 4	5.51	14.96	F14	135	212	8727	13488		16390
18"	.71 x 4	5.51	16.85	F14	175	269	10628	16796		21700
20"	.71 x 4	5.51	18.62	F14	283	446	13277	21412		27900
24"	.91 x 4	6.50	22.52	F16	415	596	17332	27955		43100
30"	.71 x 8	10.00	28.58	F25	926	926	33336 WET @ 150PSID			73426
36"	.71 x 8	10.00	33.11	F25	1455	1455	46528 WET @ 150PSID			87500
42"	.71 x 8	10.00	39.33	F25	1976	1976	79864 WET @ 150PSID			117500
48"	.87 x 8	11.73	44.37	F30	2822	2822	111112 WET @ 150PSID			154000