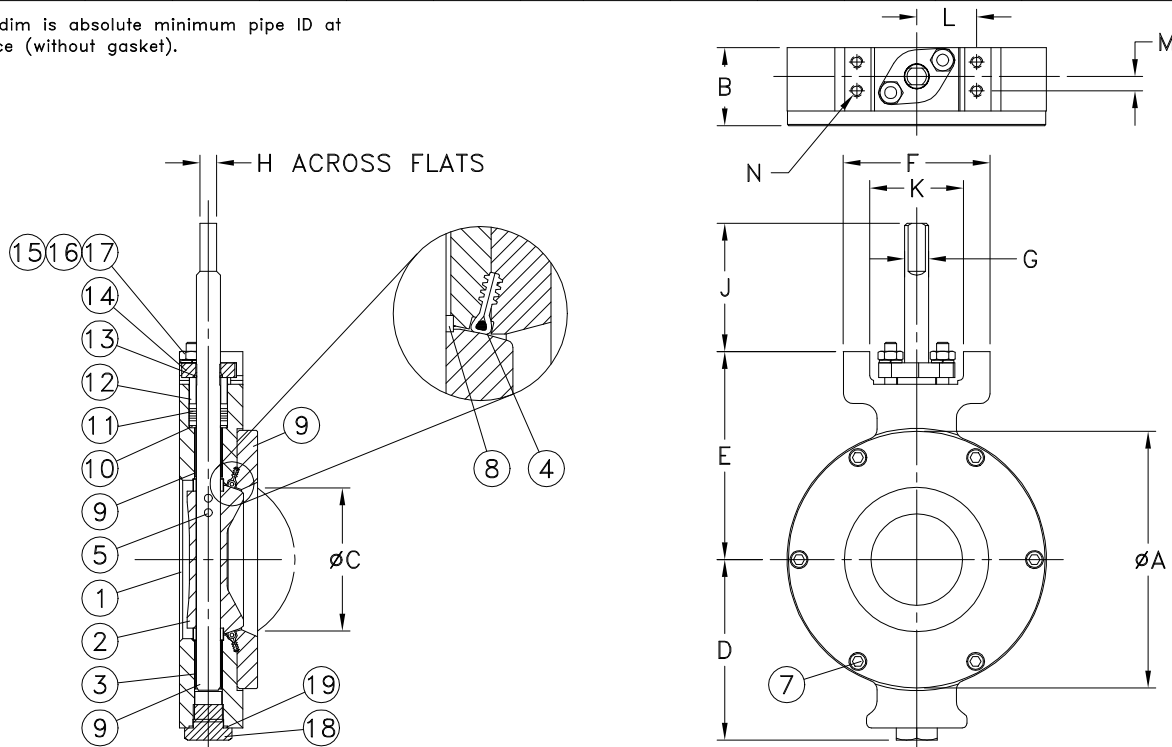


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Valve Size	A	B	C	D	E	F	G	H	J	K	L	M	Threads N UNC-2B	Weight
2.5"	4.75	1.88	2.28	3.81	4.29	3.81	.63	.43	3.34	2.44	1.56	.38	5/16-18	13
3"	5.25	1.88	2.86	4.09	4.54	3.81	.63	.43	3.34	2.44	1.56	.38	5/16-18	15
4"	6.75	2.03	3.72	4.71	5.41	3.81	.63	.43	3.34	2.44	1.56	.38	5/16-18	20

Note: C dim is absolute minimum pipe ID at valve face (without gasket).



19	GASKET	1			
18	LOCATING PLUG	1			
17	LOCKWASHER	2			
16	NUT	2			
15	STUD	2			
14	GLAND RETAINER	1			
13	RETAINING RING	1			
12	GLAND RING	1			
11	PACKING KIT	1			
10	THRUST WASHER	1			
9	BEARING	2			
8	DISC SPACER	2			
7	RETAINER SCREWS	6			
6	SEAT RETAINER	1			
5	TAPER PINS	2			
4	SEAT	1			
3	STEM	1			
2	DISC	1			
1	BODY	1			
ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS

Valve Size _____ Pressure Rating _____
 Fig. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 40/42 SIZES 2-1/2" - 4"

Bray CONTROLS
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SHEET 1 OF 1 REV. 2
 DRAWING NO. ES11A-0339

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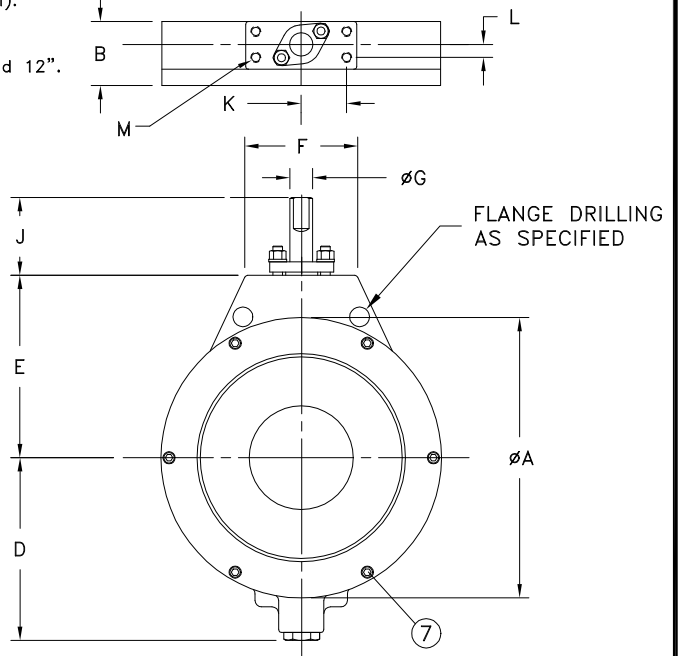
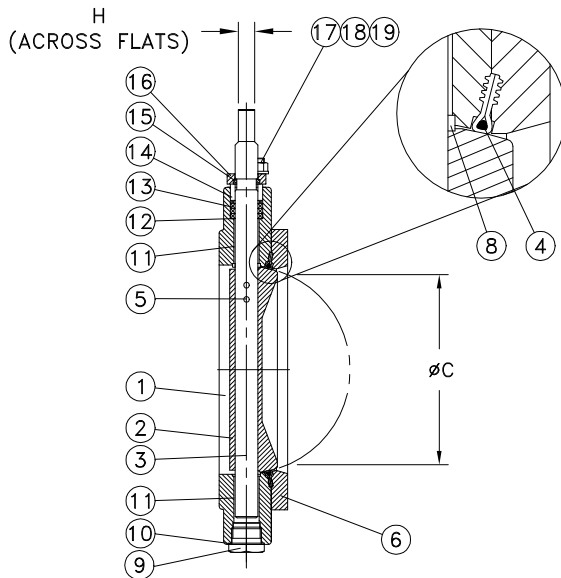
Valve Size	A	B	C	D	E	F	G	H	J	K	L	Threads ^M UNC-2B	Weight
5"	7.62	2.23	4.80	5.07	5.12	4.32	.75	.51	3.63	1.75	.50	3/8-16	23
6"	8.62	2.23	5.88	5.57	5.62	4.32	.75	.51	3.63	1.75	.50	3/8-16	30
8"	10.81	2.40	7.80	6.94	7.12	4.29	.87	.63	3.63	1.75	.50	3/8-16	43
10"	13.06	2.75	9.78	8.56	8.47	5.50	1.18	.87	4.28	2.19	.56	1/2-13	76
12"	15.50	3.08	11.74	10.18	9.97	5.50	1.18	.87	4.28	2.19	.56	1/2-13	119

Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).

Note 2: Six screws for 5", 6", and 8"; Eight screws for 10" and 12".

Note 3: Two spacers for 5" and 6"; Four spacers for 8", 10", and 12".

Note 4: One retaining ring for 5" & 6", Two split rings for 8", 10", and 12".



19	WASHER	2			
18	NUT	2			
17	STUD	2			
16	GLAND RETAINER	1			
15	RETAINING RING	SEE NOTE 4			
14	GLAND RING	1			
13	PACKING KIT	1			
12	THRUST WASHER	1			
11	BEARING	2			
10	GASKET	1			
9	LOCATING PLUG	1			
8	DISC SPACER	SEE NOTE 3			
7	RETAINER SCREWS	SEE NOTE 2			
6	SEAT RETAINER	1			
5	TAPER PINS	2			
4	SEAT	1			
3	STEM	1			
2	DISC	1			
1	BODY	1			

ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS
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Valve Size _____ Pressure Rating _____
 Flg. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 40 SIZES 5" - 12"



SHEET	REV.
1 OF 1	1
DRAWING NO.	
ES11A-0340	

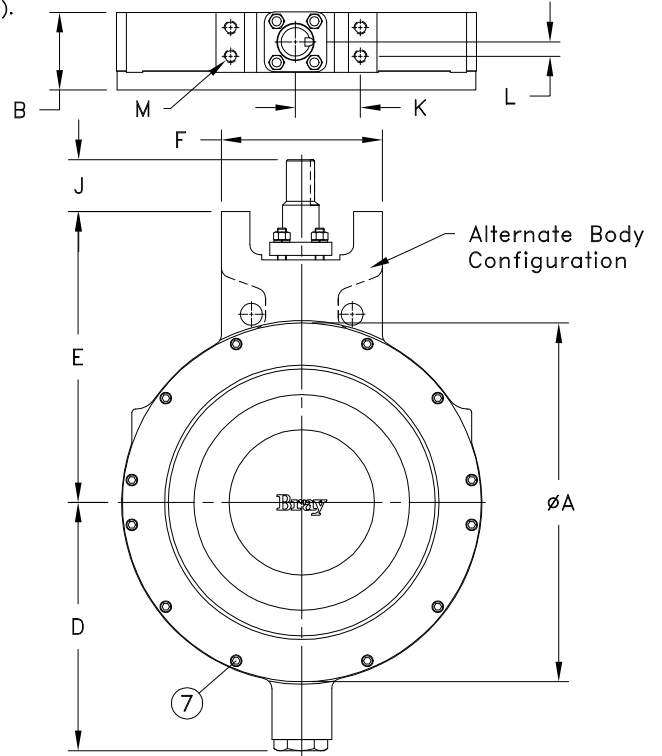
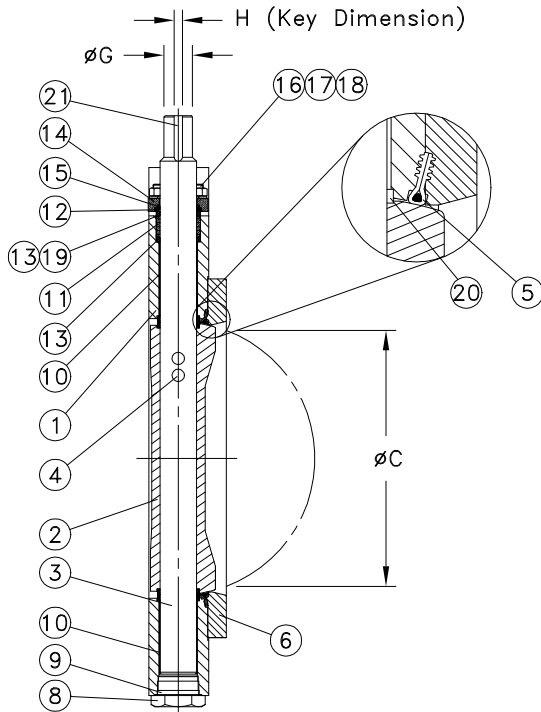
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SERIES 40
ES11A-0367
Date: March 2003

Valve Size	A	B	C	D	E	F	G	H	J	K	L	M Threads UNC-2B	Weight
14	17.50	3.73	12.90	11.95	14.00	7.75	1.38	10mm x 2.00"	2.50	3.13	.69	5/8-11	200

Note: C dim is absolute minimum pipe ID at valve face (without gasket).



21	KEY	1			
20	DISC SPACER	4			
19	GROUNDING WASHER	1			
18	LOCKWASHER	4			
17	NUT	4			
16	STUD	4			
15	SPLIT RING	2			
14	GLAND RETAINER	1			
13	GLAND RING	2			
12	DISC SPRING	2			
11	STEM SEAL SET	1			
10	BEARING	2			
9	GASKET	1			
8	LOCATING PLUG	1			
7	RETAINER SCREWS	12			
6	SEAT RETAINER	1			
5	SEAT	1			
4	TAPER PINS	2			
3	STEM	1			
2	DISC	1			
1	BODY	1			

ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS
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Valve Size _____ Pressure Rating _____
 Fig. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 40 SIZE 14"



Bray CONTROLS
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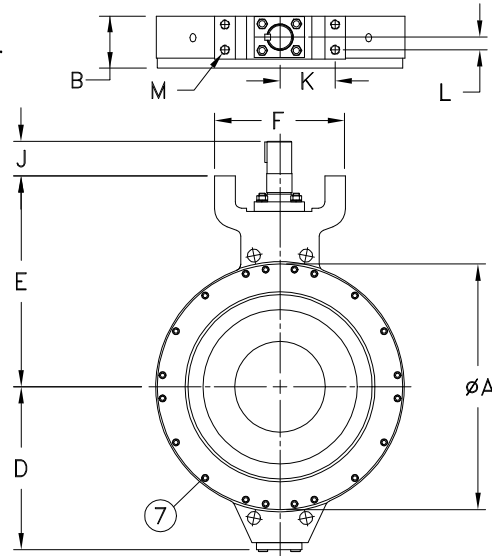
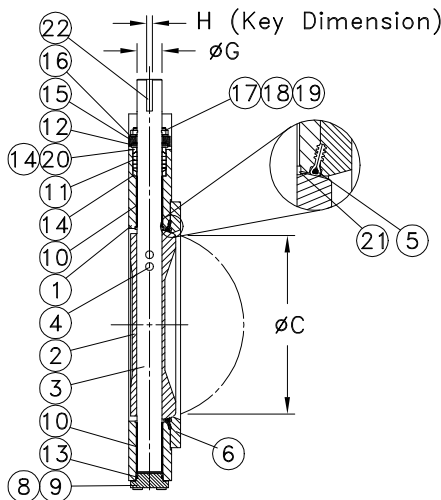
SHEET	REV.
1 OF 1	1
DRAWING NO.	
ES11A-0367	

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Valve Size	A	B	C	D	E	F	G	H	J	K	L	M Threads UNC-2B	Weight
16	19.81	4.11	14.68	12.94	16.75	10.38	1.97	12mm x 10mm x 2.50	3.50	4.38	1.00	3/4-10	299
18	21.41	4.61	16.60	14.15	19.00	10.38	1.97	12mm x 10mm x 2.50	3.50	4.38	1.00	3/4-10	396
20	23.68	5.03	18.50	15.26	21.75	10.38	2.50	.625 x 4.00	5.00	4.38	1.00	3/4-10	518
24	28.00	6.00	22.50	18.21	24.25	15.38	3.00	.750 x 4.00	4.75	6.63	1.50	1-8	785
26	29.50	6.50	22.36	19.23	24.25	15.38	3.00	.750 x 4.00	4.75	6.63	1.50	1-8	935
28	32.41	6.50	26.47	20.54	26.00	15.38	3.00	.750 x 4.00	4.75	6.63	1.50	1-8	1085
30	34.50	7.50	28.31	21.36	27.87	19.50	3.50	.88 x .62 x 5.25	6.13	8.25	1.75	1.50-6	1419

Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).
 Note 2: Two taper pins in 16", three taper pins in 18" and larger.
 Note 3: Twenty-four retainer screws in 24", 20 in 16"-24", 28" and 30"



22	KEY	1			
21	DISC SPACER	4			
20	GROUNDING WASHER	1			
19	LOCKWASHER	4			
18	NUT	4			
17	STUD	4			
16	GLAND RETAINER	1			
15	SPLIT RING	2			
14	GLAND RING	2			
13	O-RING	1			
12	DISC SPRING	2			
11	STEM SEAL KIT	1			
10	BEARING	2			
9	CAPSCREWS	4			
8	LOCATING PLUG	1			
7	RETAINER SCREWS	SEE NOTE 3			
6	SEAT RETAINER	1			
5	SEAT	1			
4	TAPER PINS	SEE NOTE 2			
3	STEM	1			
2	DISC	1			
1	BODY	1			

ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS
----------	------	--------------	-----------------	----------	-----------------------

Valve Size _____ Pressure Rating _____
 Flg. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 40 SIZE 16" TO 30"

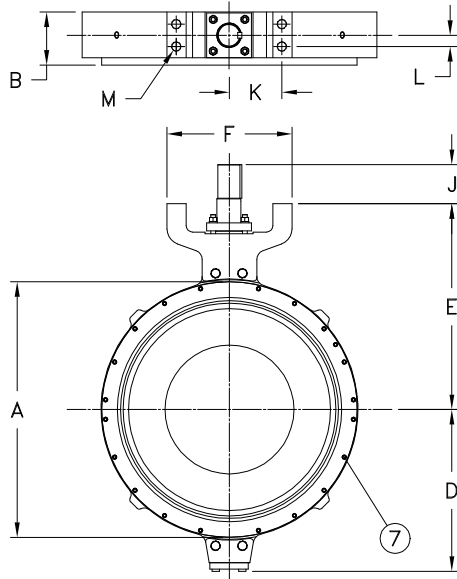


SHEET 1 OF 1	REV. 2
DRAWING NO. ES11A-0368	

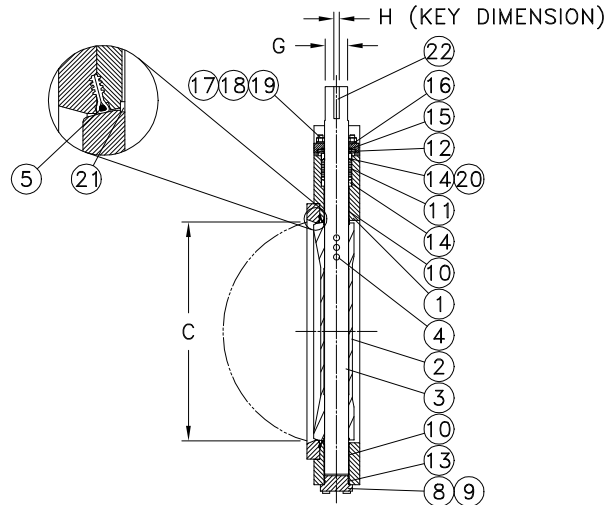
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Valve Size	A	B	C	D	E	F	G	H	J	K	L	M Threads UNC-2B	Weight
32	37.62	7.50	30.19	22.36	29.12	19.50	3.50	.88 X .62 X 5.25	6.13	8.25	1.75	1.50-6	1589
34	39.62	7.75	30.13	23.86	29.12	19.50	3.50	.88 X .62 X 5.25	6.13	8.25	1.75	1.50-6	1829
36	40.68	8.26	34.00	25.27	32.12	19.50	3.50	.88 X .62 X 5.25	6.13	8.25	1.75	1.50-6	1899
40	51.00	9.50	36.99	27.25	36.12	19.50	4.50	1.00 X .75 X 5.25	6.13	8.25	1.75	1.50-6	3789
42	53.31	9.50	39.05	29.37	37.12	19.50	4.50	1.00 X .75 X 5.25	6.13	8.25	1.75	1.50-6	4189
48	54.00	10.00	46.09	33.12	41.00	24.00	5.00	1.25 X .88 X 6.00	7.13	10.25	3.00	1.50-6	4505
54	66.38	10.75	52.45	35.65	44.37	24.00	6.00	1.50 X 1.00 X 6.50	7.63	10.25	3.00	1.50-6	6995



Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).
 Note 2: Fourteen seat retainer screws in 32", sixteen seat retainer screws in 34", twenty seat retainer screws in 36", thirty retainer screws in 42", thirty-two retainer screws in 48" and 54".



22	KEY	1			
21	DISC SPACER	4			
20	GROUNDING WASHER	1			
19	LOCKWASHER	4			
18	NUT	4			
17	STUD	4			
16	GLAND RETAINER	1			
15	SPLIT RING	2			
14	GLAND RING	2			
13	O-RING	1			
12	DISC SPRING	2			
11	STEM SEAL KIT	1			
10	BEARING	2			
9	CAPSCREWS	4			
8	LOCATING PLUG	1			
7	RETAINER SCREWS	SEE NOTE 2			
6	SEAT RETAINER	1			
5	SEAT	1			
4	TAPER PINS	3			
3	STEM	1			
2	DISC	1			
1	BODY	1			
ITEM No.	NAME		SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS

Valve Size _____ Pressure Rating _____
 Flg. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 40 SIZE 32" TO 54"

SHEET	REV.
1 OF 1	1
DRAWING NO.	
ES11A-0419	

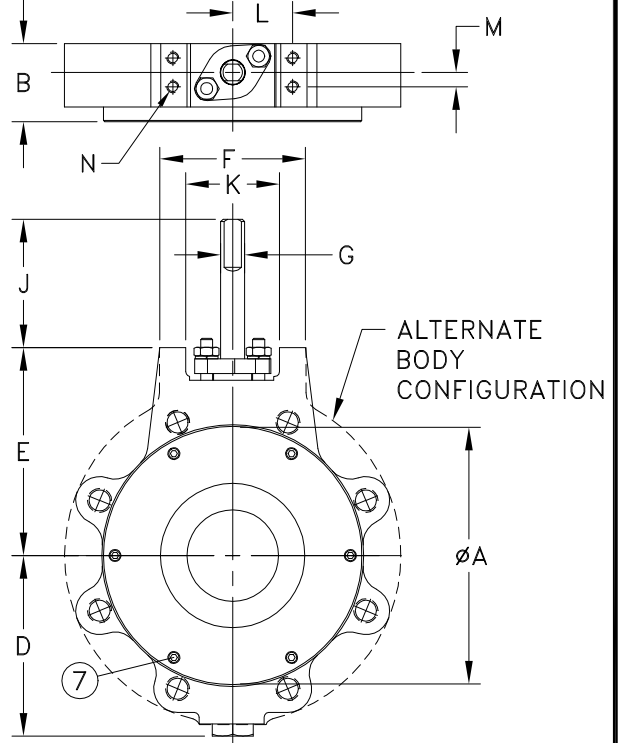
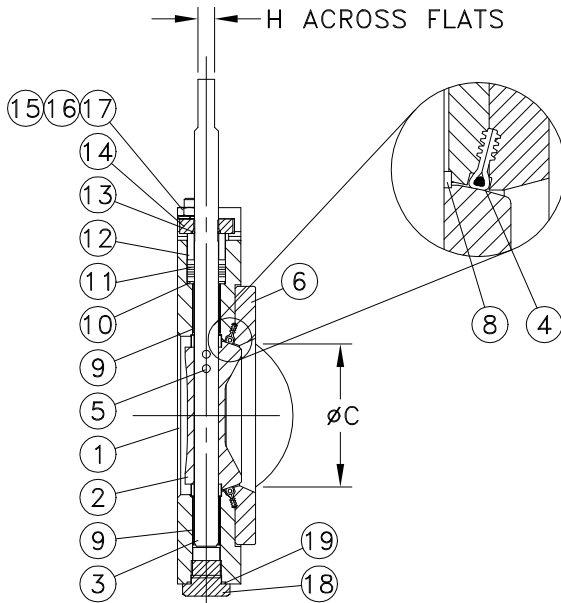
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Valve Size	A	B	C	D	E	F	G	H	J	K	L	M	N Threads UNC-2B	Lug BC	Bolting No. of Holes	Data Threads UNC-2B	Weight	Weight (Alt Cfg)
2.5"	4.75	1.88	2.28	3.81	4.29	3.81	.63	.43	3.34	2.44	1.56	.38	5/16-18	5.50	4	.62-11	11	18
3"	5.25	1.88	2.86	4.09	4.54	3.81	.63	.43	3.34	2.44	1.56	.38	5/16-18	6.00	4	.62-11	13	19
4"	6.72	2.03	3.72	4.71	5.41	3.81	.63	.43	3.34	2.44	1.56	.38	5/16-18	7.50	8	.62-11	22	28

Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).
Note 2: Ten screws for 2-1/2" and 3"; Six screws for 4".



19	GASKET	1			
18	LOCATING PLUG	1			
17	LOCKWASHER	2			
16	NUT	2			
15	STUD	2			
14	GLAND RETAINER	1			
13	RETAINING RING	1			
12	GLAND RING	1			
11	PACKING KIT	1			
10	THRUST WASHER	1			
9	BEARING	2			
8	DISC SPACER	2			
7	RETAINER SCREWS	6			
6	SEAT RETAINER	1			
5	TAPER PINS	2			
4	SEAT	1			
3	STEM	1			
2	DISC	1			
1	BODY	1			
ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS

Valve Size _____ Pressure Rating _____
 Fig. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 41 SIZES 2-1/2" - 4"



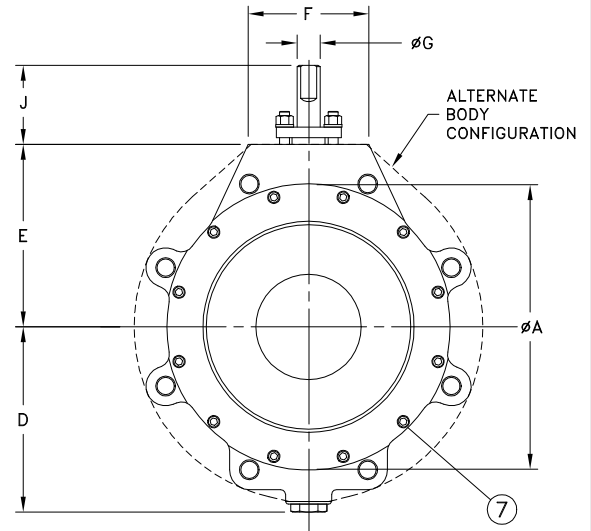
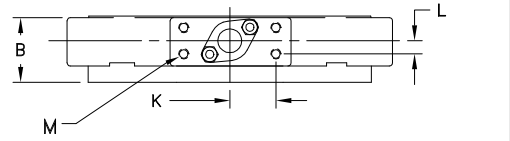
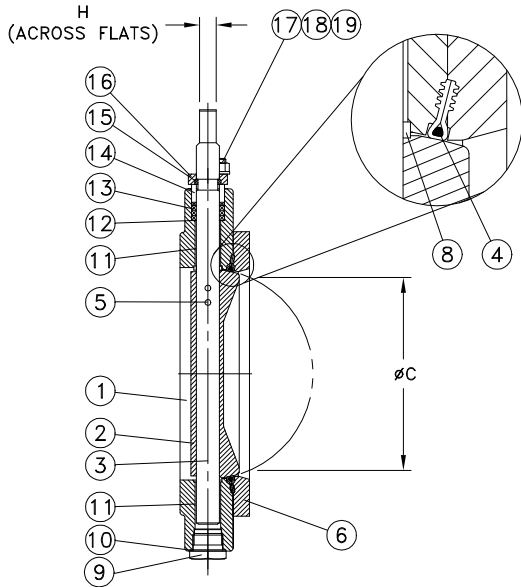
SHEET 1 OF 1	REV. 2
DRAWING NO. ES11A-0341	

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Valve Size	A	B	C	D	E	F	G	H	J	K	L	M Threads UNC-2B	Lug Bolting BC	No. of Holes	Data Threads UNC-2B	Weight	Weight (Alt Cfg)
5"	7.62	2.23	4.80	5.07	5.12	4.32	.75	.51	3.63	1.75	.50	3/8-16	8.50	8	.75-10	27	39
6"	8.62	2.23	5.88	5.57	5.62	4.32	.75	.51	3.63	1.75	.50	3/8-16	9.50	8	.75-10	32	44
8"	10.81	2.40	7.80	6.94	7.12	4.58	.87	.63	3.63	1.75	.50	3/8-16	11.75	8	.75-10	52	67
10"	13.06	2.75	9.78	8.56	8.47	5.50	1.18	.87	4.28	2.19	.56	1/2-13	14.25	12	.88-9	88	106
12"	15.50	3.08	11.74	10.18	9.97	5.50	1.18	.87	4.28	2.19	.56	1/2-13	17.00	12	.88-9	132	163

Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).
 Note 2: Twelve screws for 5", 6", 8" and 12"; Sixteen screws for 10".
 Note 3: Two spacers for 5" and 6"; Four spacers for 8", 10", and 12".
 Note 4: One retaining ring for sizes 5" & 6"; two split rings for sizes 8", 10" & 12"



19	WASHER	2			
18	NUT	2			
17	STUD	2			
16	GLAND RETAINER	1			
15	RETAINING RING	SEE NOTE 4			
14	GLAND RING	1			
13	PACKING KIT	1			
12	THRUST WASHER	1			
11	BEARING	2			
10	GASKET	1			
9	LOCATING PLUG	1			
8	DISC SPACER	SEE NOTE 3			
7	RETAINER SCREWS	SEE NOTE 2			
6	SEAT RETAINER	1			
5	TAPER PINS	2			
4	SEAT	1			
3	STEM	1			
2	DISC	1			
1	BODY	1			

ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS
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Valve Size _____ Pressure Rating _____
 Fig. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 41 SIZES 5" - 12"



SHEET 1 OF 1	REV. 1
DRAWING NO. ES11A-0342	

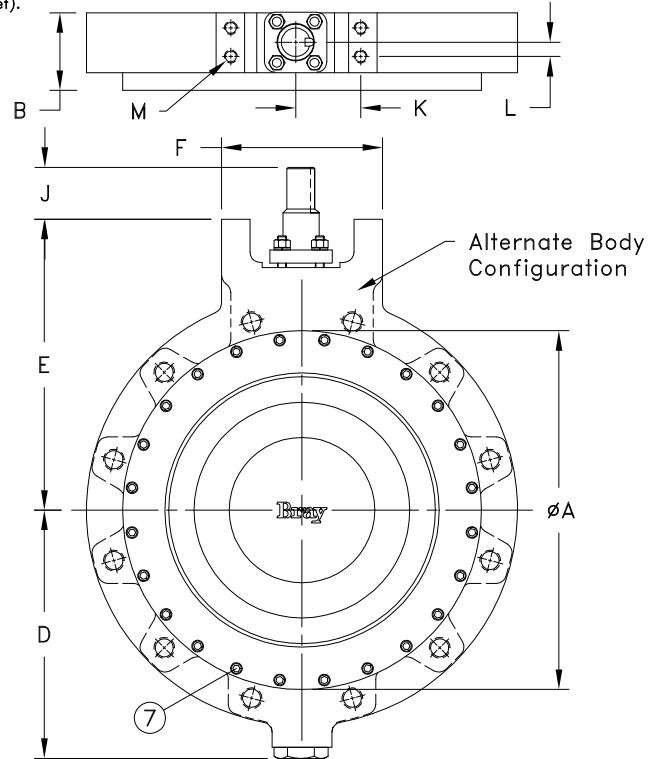
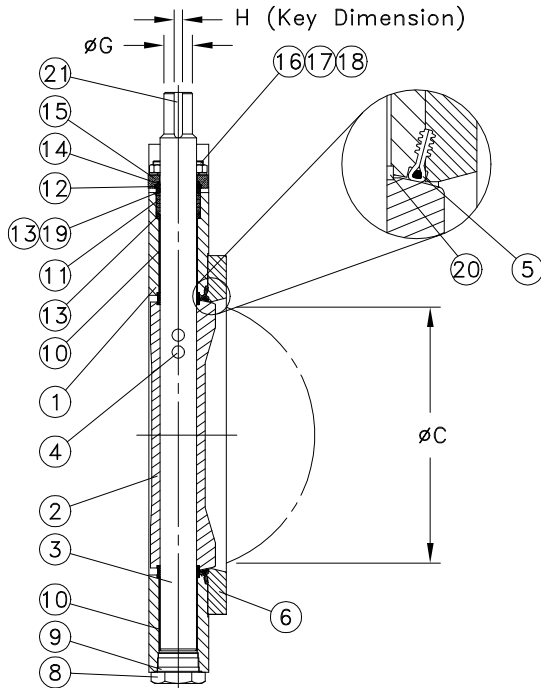
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**SERIES 41
ES11A-0369
Date: March 2003**

Valve Size	A	B	C	D	E	F	G	H	J	K	L	M Threads UNC-2B	Lug Bolt BC	No. of Holes	Data Threads UNC-2B	Weight
14	17.50	3.73	12.90	11.95	14.00	7.75	1.38	10mm x 2.00"	2.50	3.13	.69	5/8-11	18.75	12	1-8	262

Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).



21	KEY	1			
20	DISC SPACER	4			
19	GROUNDING WASHER	1			
18	LOCKWASHER	4			
17	NUT	4			
16	STUD	4			
15	GLAND RETAINER	1			
14	SPLIT RING	2			
13	GLAND RING	2			
12	DISC SPRING	2			
11	STEM SEAL SET	1			
10	BEARING	2			
9	GASKET	1			
8	LOCATING PLUG	1			
7	RETAINER SCREWS	12			
6	SEAT RETAINER	1			
5	SEAT	1			
4	TAPER PINS	2			
3	STEM	1			
2	DISC	1			
1	BODY	1			

ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS
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Valve Size _____ Pressure Rating _____
 Fig. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 41 SIZE 14"



SHEET	REV.
1 OF 1	1
DRAWING NO.	
ES11A-0369	

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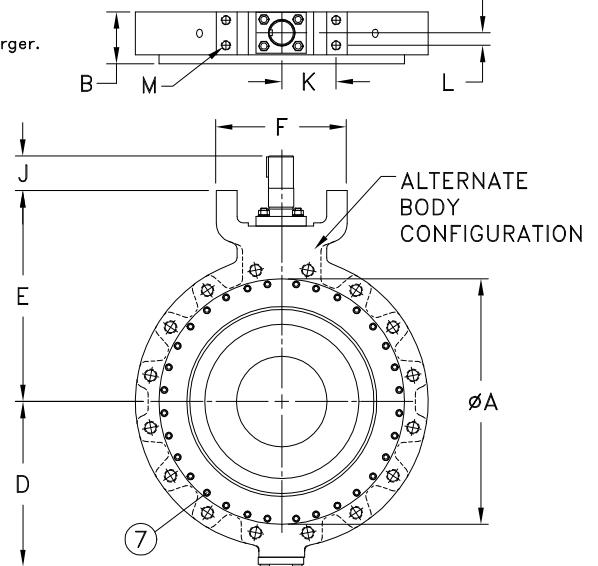
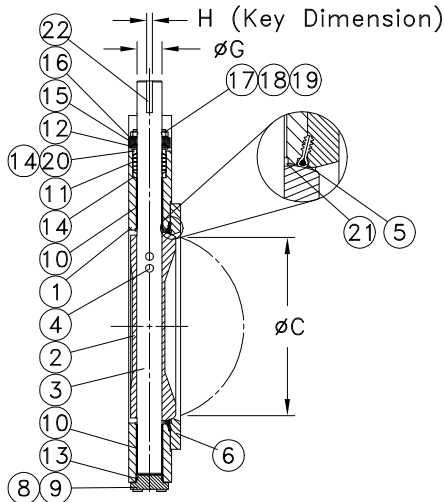
**SERIES 41
ES11A-0370
Date: March 2003**

Valve Size	A	B	C	D	E	F	G	H	J	K	L	M Threads UN-2B	Lug Bolting Data BC	No. of Holes	Threads UN-2B	Weight
16	19.50	4.11	14.68	12.94	16.75	10.38	1.97	12mm x 10mm x 2.50	3.50	4.38	1.00	3/4-10	21.25	16	1-8UNC	384
18	21.38	4.61	16.60	14.15	19.00	10.38	1.97	12mm x 10mm x 2.50	3.50	4.38	1.00	3/4-10	22.75	16	1.12-8UN	493
20	23.62	5.03	18.50	15.26	21.75	10.38	2.50	.625 x 4.00	5.00	4.38	1.00	3/4-10	25.00	20	1.12-8UN	633
24	27.96	6.00	22.50	18.21	24.25	15.38	3.00	.750 x 4.00	4.75	6.63	1.50	1-8	29.50	20	1.25-8UN	975
26	29.50	6.50	22.36	19.23	24.25	15.38	3.00	.750 x 4.00	4.75	6.63	1.50	1-8	31.75	24	1.25-8UN	1245
28	32.41	6.50	26.47	20.54	26.00	15.38	3.00	.750 x 4.00	4.75	6.63	1.50	1-8	34.00	28	1.25-8UN	1365
30	34.41	7.50	28.31	21.36	27.87	19.50	3.50	.88 x .62 x 5.25	6.13	8.25	1.75	1.50-6	36.00	28	1.25-8UN	1769

Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).

Note 2: Two taper pins in 16", three taper pins in 18" & larger.

Note 3: Thirty-two retainer screws in 16" & 18", forty retainer screws in 20" & larger.



22	KEY	1			
21	DISC SPACER	4			
20	GROUNDING WASHER	1			
19	LOCKWASHER	4			
18	NUT	4			
17	STUD	4			
16	GLAND RETAINER	1			
15	SPLIT RING	2			
14	GLAND RING	2			
13	O-RING	1			
12	DISC SPRING	2			
11	STEM SEAL KIT	1			
10	BEARING	2			
9	CAPSCREWS	4			
8	LOCATING PLUG	1			
7	RETAINER SCREWS	SEE NOTE 3			
6	SEAT RETAINER	1			
5	SEAT	1			
4	TAPER PINS	SEE NOTE 2			
3	STEM	1			
2	DISC	1			
1	BODY	1			
ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS

Valve Size _____ Pressure Rating _____
 Fig. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 41 SIZES 16" TO 30"

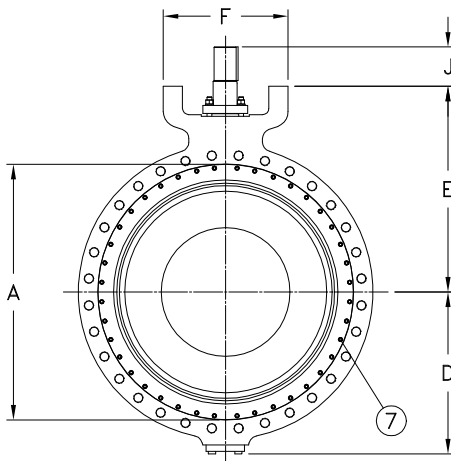
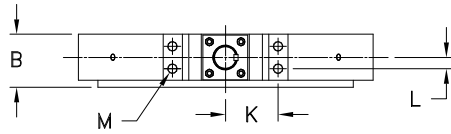
SHEET	REV.
1 OF 1	2
DRAWING NO.	
ES11A-0370	

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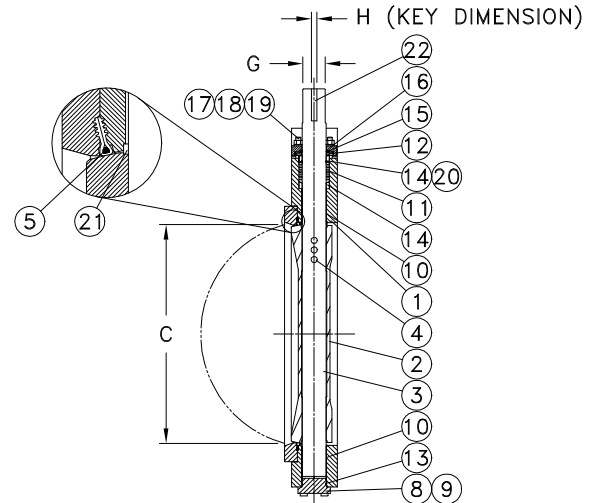
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Valve Size	A	B	C	D	E	F	G	H	J	K	L	M Threads UNC-2B	BC	Lug Bolting No. of Holes	Data Threads UN-2B	Weight
32	37.62	7.50	30.19	22.36	29.12	19.50	3.50	.88 x .62 x 5.25	6.13	8.25	1.75	1.50-6	38.50	28	1.50-8	1999
34	39.62	7.75	30.13	23.86	29.12	19.50	3.50	.88 x .62 x 5.25	6.13	8.25	1.75	1.50-6	40.50	32	1.50-8	2279
36	39.87	8.26	34.00	25.27	32.12	19.50	3.50	.88 x .62 x 5.25	6.13	8.25	1.75	1.50-6	42.75	32	1.50-8	2539
40	51.00	9.50	36.99	27.25	36.12	19.50	4.50	1.00 x .75 x 5.25	6.13	8.25	1.75	1.50-6	47.25	36	1.50-8	3889
42	46.20	9.50	39.05	29.37	37.12	19.50	4.50	1.00 x .75 x 5.25	6.13	8.25	1.75	1.50-6	49.50	36	1.50-8	4279
48	52.25	10.00	46.09	33.12	41.00	24.00	5.00	1.25 x .88 x 6.00	7.13	10.25	3.00	1.50-6	56.00	44	1.50-8	5575
54	66.38	10.75	52.45	35.65	44.37	24.00	6.00	1.50 X 1.00 X 6.50	7.63	10.25	3.00	1.50-6	62.75	44	1.75-8	7105



Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).
 Note 2: Twenty-eight retainer screws in 32", thirty-two screws in 34", forty retainer screws in 36", forty-eight retainer screws in 40", 42" and 48", fifty retainer screws in 54".



22	KEY	1			
21	DISC SPACER	4			
20	GROUNDING WASHER	1			
19	LOCKWASHER	4			
18	NUT	4			
17	STUD	4			
16	GLAND RETAINER	1			
15	SPLIT RING	2			
14	GLAND RING	2			
13	O-RING	1			
12	DISC SPRING	2			
11	STEM SEAL KIT	1			
10	BEARING	2			
9	CAPSCREWS	4			
8	LOCATING PLUG	1			
7	RETAINER SCREWS	SEE NOTE 2			
6	SEAT RETAINER	1			
5	SEAT	1			
4	TAPER PINS	3			
3	STEM	1			
2	DISC	1			
1	BODY	1			
ITEM No.	NAME		SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS

Valve Size _____ Pressure Rating _____
 Flg. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 41 SIZES 32" TO 54"

SHEET	REV.
1 OF 1	1
DRAWING NO.	
ES11A-0420	

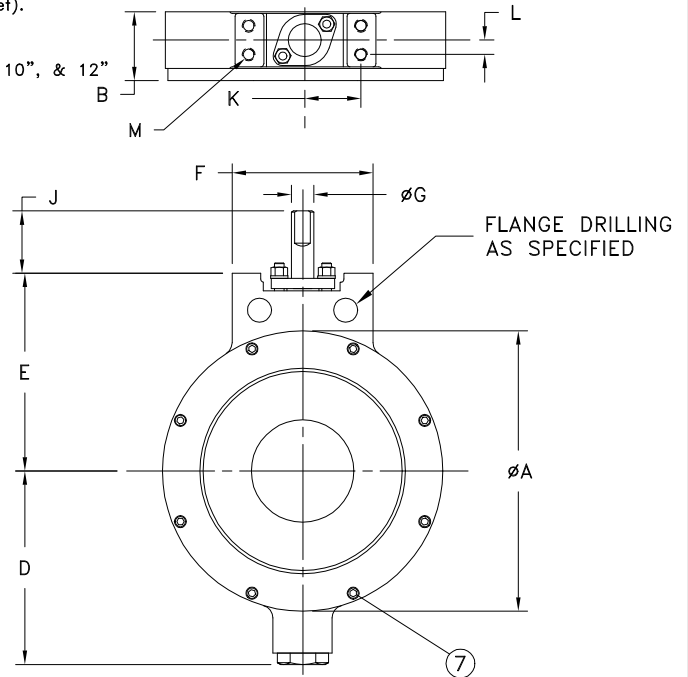
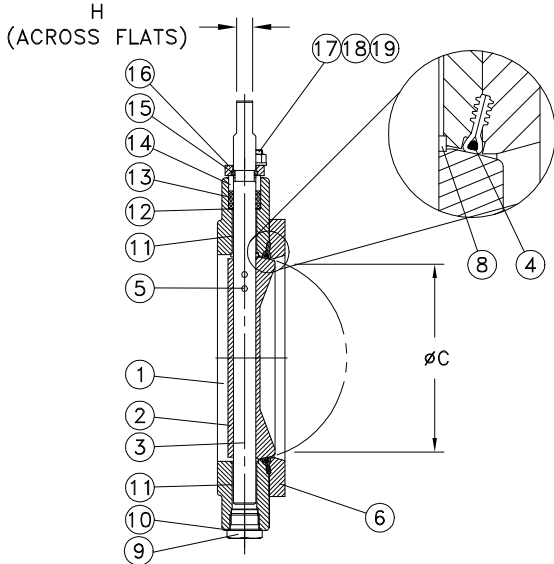
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Valve Size	A	B	C	D	E	F	G	H*	J	K	L	M Threads UNC-2B	Weight
5"	8.25	2.23	4.80	5.13	5.62	4.32	.75	.51	3.63	1.75	.50	3/8-16	30
6"	8.88	2.42	5.75	6.25	6.37	4.25	.87	.63	3.63	1.75	.50	3/8-16	37
8"	10.94	2.82	7.56	7.55	7.72	5.50	1.18	.87	4.28	2.19	.56	1/2-13	65
10"	13.26	3.28	9.44	9.36	9.10	5.50	1.38	.39x.39	4.28	2.19	.56	1/2-13	110
12"	15.57	3.62	11.31	10.89	13.00	7.75	1.38	.39x.39	2.50	3.13	.69	5/8-11	175

Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).
 Note 2: Six screws for 5" and 6"; Eight screws for 8", 10" and 12".
 Note 3: Two spacers for 5"; Four spacers for 6", 8", 10" and 12".
 Note 4: One retaining ring for size 5", two split rings for sizes 6", 8", 10", & 12"
 *H dim for 10" and 12" have keyway.



19	WASHER	2			
18	NUT	2			
17	STUD	2			
16	GLAND RETAINER	1			
15	RETAINING RING	SEE NOTE 4			
14	GLAND RING	1			
13	PACKING KIT	1			
12	THRUST WASHER	1			
11	BEARING	2			
10	GASKET	1			
9	LOCATING PLUG	1			
8	DISC SPACER	SEE NOTE 3			
7	RETAINER SCREWS	SEE NOTE 2			
6	SEAT RETAINER	1			
5	TAPER PINS	2			
4	SEAT	1			
3	STEM	1			
2	DISC	1			
1	BODY	1			

ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS
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Valve Size _____ Pressure Rating _____
 Flg. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 42 SIZES 5" - 12"



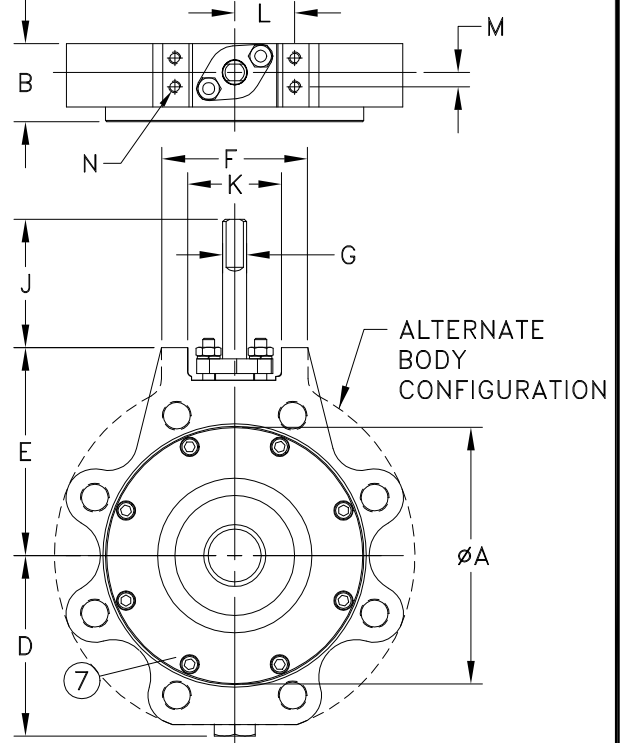
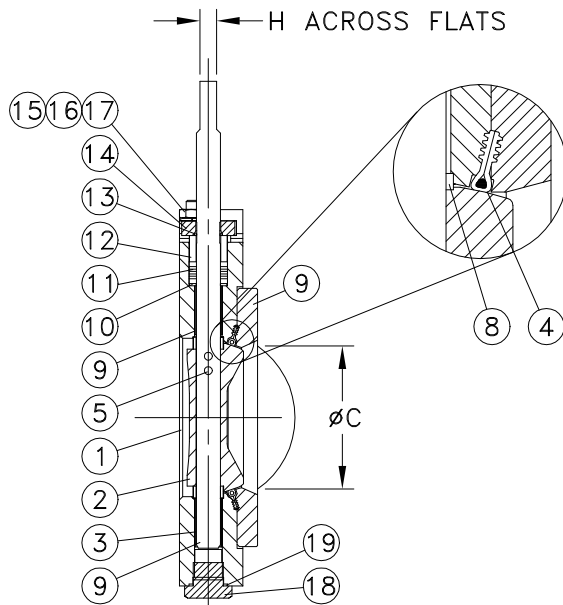
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DRAWING NO. ES11A-0343	

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Valve Size	A	B	C	D	E	F	G	H	J	K	L	M	N Threads UNC-2B	Lug BC	Bolting No. of Holes	Data Threads UNC-2B	Weight	Weight (Alt Cfg)
2.5"	4.75	1.88	2.28	3.81	4.29	3.81	.63	.43	3.34	2.44	1.56	.38	5/16-18	5.88	8	.75-10	15	18
3"	5.25	1.88	2.86	4.09	4.54	3.81	.63	.43	3.34	2.44	1.56	.38	5/16-18	6.63	8	.75-10	17	19
4"	6.72	2.03	3.72	4.71	5.41	3.81	.63	.43	3.34	2.44	1.56	.38	5/16-18	7.88	8	.75-10	27	28

Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).
Note 2: Ten screws for 2-1/2" and 3"; Six screws for 4".



19	GASKET	1			
18	LOCATING PLUG	1			
17	LOCKWASHER	2			
16	NUT	2			
15	STUD	2			
14	GLAND RETAINER	1			
13	RETAINING RING	1			
12	GLAND RING	1			
11	PACKING KIT	1			
10	THRUST WASHER	1			
9	BEARING	2			
8	DISC SPACER	2			
7	RETAINER SCREWS	6			
6	SEAT RETAINER	1			
5	TAPER PINS	2			
4	SEAT	1			
3	STEM	1			
2	DISC	1			
1	BODY	1			
ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS

Valve Size _____ Pressure Rating _____
 Fig. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 43 SIZES 2-1/2" - 4"



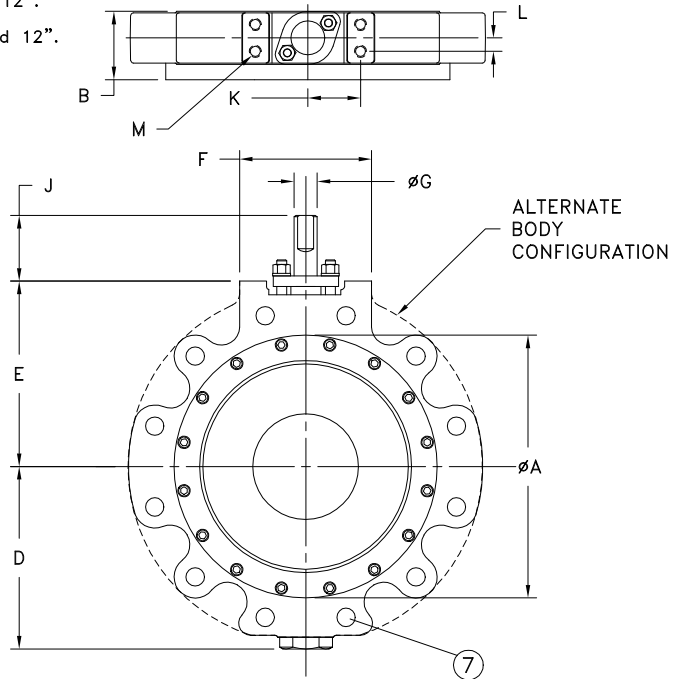
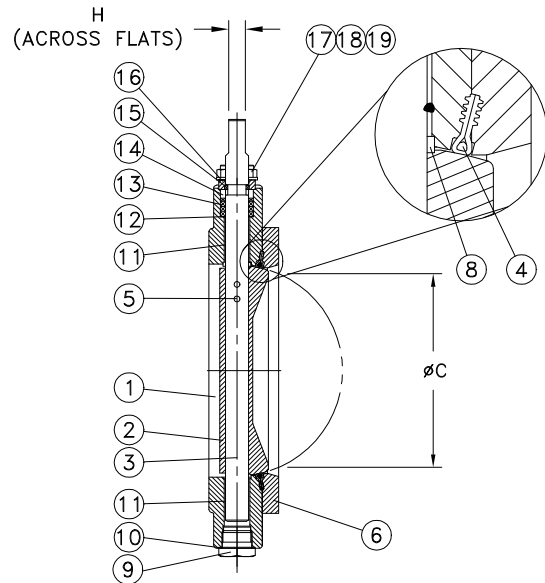
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DRAWING NO. ES11A-0346	

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Valve Size	A	B	C	D	E	F	G	H*	J	K	L	M Threads UNC-2B	BC	Lug No. of Holes	Data Threads UNC-2B	Weight	Weight (Alt Cfg)
5"	8.25	2.23	4.80	5.13	5.62	4.32	.75	.51	3.63	1.75	.50	3/8-16	9.25	8	.75-10	37	46
6"	8.88	2.42	5.75	6.25	6.37	4.25	.87	.63	3.63	1.75	.50	3/8-16	10.62	12	.75-10	51	59
8"	10.94	2.82	7.56	7.55	7.72	5.50	1.18	.87	4.28	2.19	.56	1/2-13	13.00	12	.88-9	94	103
10"	13.26	3.28	9.44	9.36	9.10	5.50	1.38	.39	4.28	2.19	.56	1/2-13	15.25	16	1-8	148	161
12"	15.57	3.62	11.31	10.89	13.00	7.75	1.38	.39	2.50	3.13	.69	5/8-11	17.75	16	1.13-8UN	232	248

Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).
 Note 2: Twelve screws for 5", 6" and 10"; Sixteen screws for 8" and 12".
 Note 3: Two spacers for 5"; Four spacers for 6", 8", 10", and 12".
 Note 4: One retaining ring for 5"; two split rings for 6", 8", 10", and 12".
 *H dim for 10" and 12" have square keyway.



19	WASHER	2			
18	NUT	2			
17	STUD	2			
16	GLAND RETAINER	1			
15	RETAINING RING	SEE NOTE 4			
14	GLAND RING	1			
13	PACKING KIT	1			
12	THRUST WASHER	1			
11	BEARING	2			
10	GASKET	1			
9	LOCATING PLUG	1			
8	DISC SPACER	SEE NOTE 3			
7	RETAINER SCREWS	SEE NOTE 2			
6	SEAT RETAINER	1			
5	TAPER PINS	2			
4	SEAT	1			
3	STEM	1			
2	DISC	1			
1	BODY	1			

ITEM No.	NAME	No. REQUIRED	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS
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Valve Size _____ Pressure Rating _____
 Flg. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 43 SIZES 5" - 12"

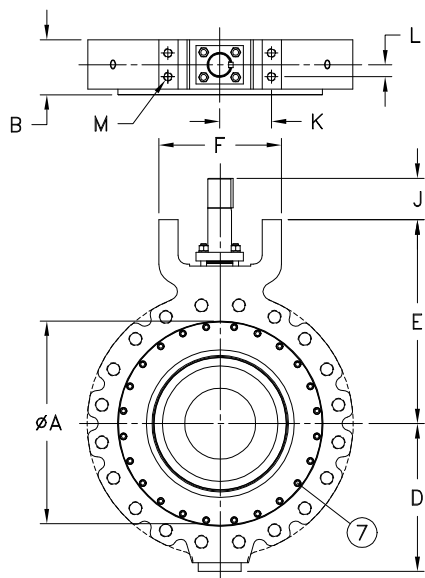


SHEET 1 OF 1 REV. 1
 DRAWING NO. ES11A-0345

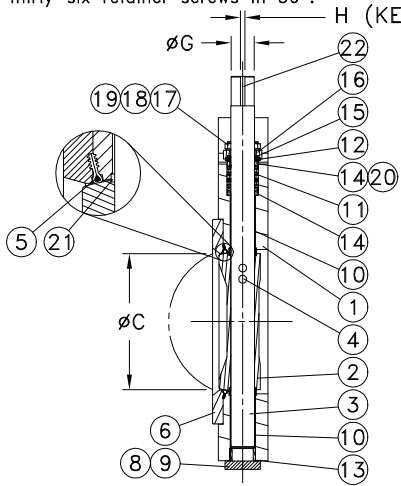
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Valve Size	A	B	C	D	E	F	G	H	J	K	L	M Threads UNC-2B	BC	Lug Bolting No. of Holes	Data Threads UN-2B	Weight
14	17.27	4.66	11.38	12.50	17.25	10.38	1.97	12mm x 10mm	3.50	4.38	1.00	3/4-10	20.25	20	1.12-8	443
16	19.50	5.35	14.31	13.88	20.00	10.38	2.50	.62 x .62	5.00	4.38	1.00	3/4-10	22.50	20	1.25-8	625
18	21.38	5.98	15.00	15.43	20.25	15.38	2.50	.62 x .62	4.75	6.63	1.50	1-8	24.75	24	1.25-8	834
20	23.76	6.34	16.50	16.80	21.50	15.38	3.00	.75 x .75	4.75	6.63	1.50	1-8	27.00	24	1.25-8	1030
24	28.75	7.05	20.68	19.80	25.37	19.50	3.50	.88 x .62	6.13	8.25	1.75	1.50-6	32.00	24	1.50-8	1699
30	35.00	8.98	26.81	23.40	31.12	24.00	4.50	1.00 x .75	6.38	10.25	3.00	1.50-6	39.25	28	1.75-8	3055
36	42.06	10.67	33.13	27.12	35.12	24.00	5.00	1.25 x .88	7.13	10.25	3.00	1.50-6	46.00	32	2.00-8	4465



Note 1: C dim is absolute minimum pipe ID at valve face (without gasket).
 Note 2: Two taper pins in 14" & 16", three taper pins in 18" & larger.
 Note 3: Twenty-four retainer screws in 14", thirty-two retainer screws in 16", 18" & 20", forty retainer screws in 24", forty-eight retainer screws in 30", thirty-six retainer screws in 36".



21	KEY	1			
21	DISC SPACER	4			
20	GROUNDING WASHER	1			
19	LOCKWASHER	4			
18	NUT	4			
17	STUD	4			
16	GLAND RETAINER	1			
15	SPLIT RING	2			
14	GLAND RING	2			
13	O-RING	1			
12	DISC SPRING	4			
11	STEM SEAL KIT	1			
10	BEARING	2			
9	CAPSCREWS	4			
8	LOCATING PLUG	1			
7	RETAINER SCREWS	SEE NOTE 3			
6	SEAT RETAINER	1			
5	SEAT	1			
4	TAPER PINS	SEE NOTE 2			
3	STEM	1			
2	DISC	1			
1	BODY	1			

ITEM No.	NAME	No. REQ'D	SERIES/PART No.	MATERIAL	SPECIFICATION/REMARKS
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Valve Size _____ Pressure Rating _____
 Flg. Drilling _____
 Customer/Project _____
 Inq./P.O. No. _____
 Bray Order No. _____
 Certified Correct By _____ Date _____

PARTS LIST AND DIMENSIONS (INCHES)
 HIGH PERFORMANCE BUTTERFLY VALVE
 SERIES 43 SIZE 14" TO 36"

SHEET	REV.
1 OF 1	2
DRAWING NO.	
ES11A-0425	

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