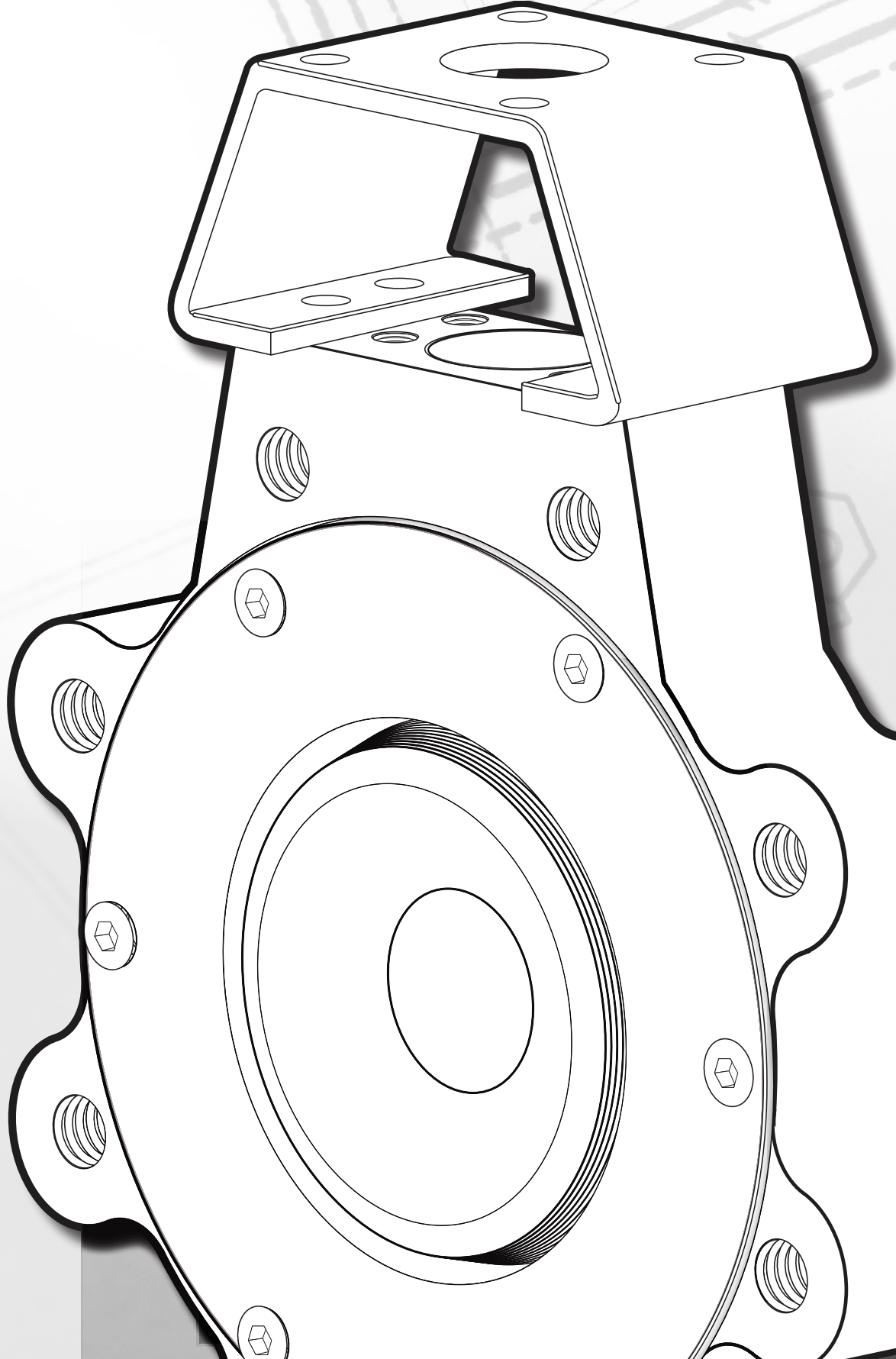


Bray[®]

Double Offset
High Performance Butterfly Valves
SALES REFERENCE DRAWINGS





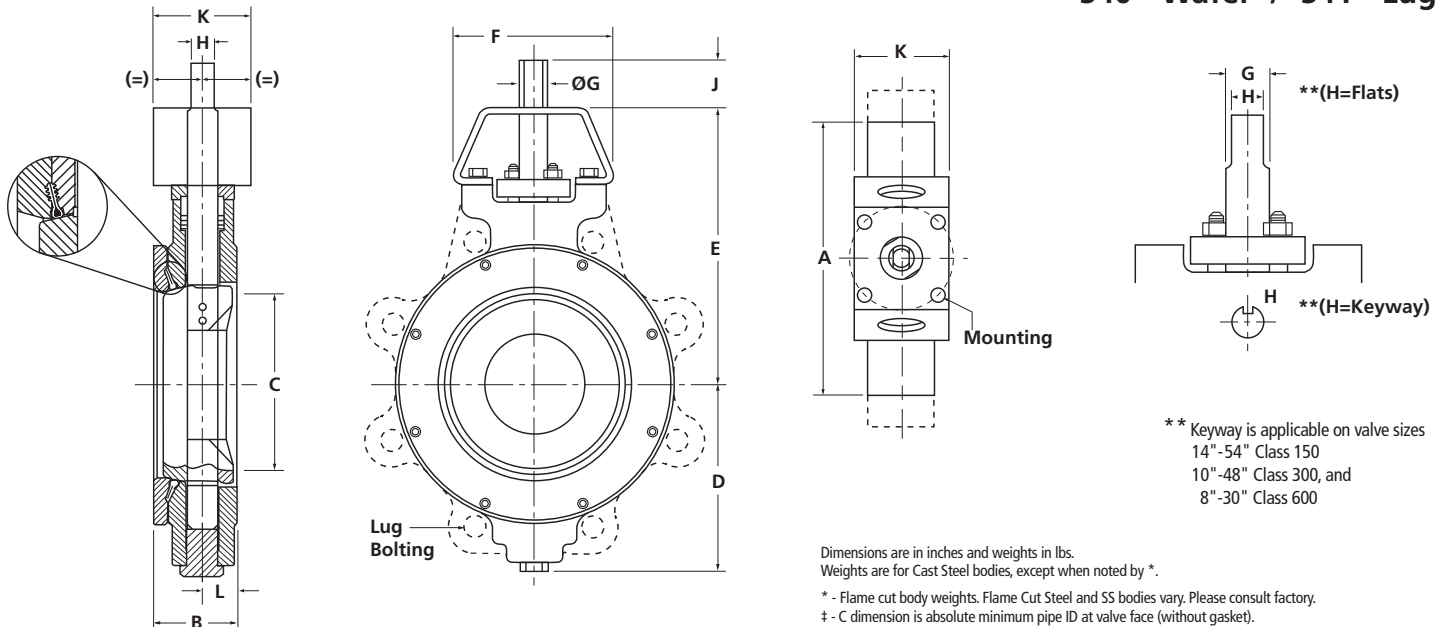
Double Offset High Performance Butterfly Valves SALES REFERENCE DRAWINGS

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S40 - Wafer / S41 - Lug



Dimensions are in inches and weights in lbs.
Weights are for Cast Steel bodies, except when noted by *.

* - Flame cut body weights. Flame Cut Steel and SS bodies vary. Please consult factory.
‡ - C dimension is absolute minimum pipe ID at valve face (without gasket).

IMPERIAL DIMENSIONS: Inches

Valve Size	A	B	C‡	D	E	F	Mounting Data			G	H**	J	K	L	Weight (lbs)	Lug Bolting Data			Weight (lbs)
							BCD	No. Holes	Hole Dia.							BCD	No. Holes	Threads UN-2B	
2½	4.75	1.88	2.28	3.81	6.38	4.36	2.76	4	0.38	0.63	0.43	1.25	2.50	0.77	13	5.50	4	5/8 - 11	14
3	5.25	1.88	2.86	4.09	6.63	4.36	2.76	4	0.38	0.63	0.43	1.25	2.50	0.77	16	6.00	4	5/8 - 11	15
4	6.75	2.03	3.72	4.71	7.50	4.36	2.76	4	0.38	0.63	0.43	1.25	2.50	0.75	20	7.50	8	5/8 - 11	23
5	7.50	2.23	4.80	5.07	7.50	5.12	2.76	4	0.38	0.75	0.51	1.25	4.50	0.94	26	8.50	8	3/4 - 10	34
6	8.62	2.23	5.88	5.57	8.00	5.12	2.76	4	0.38	0.75	0.51	1.25	4.50	0.94	33	9.50	8	3/4 - 10	47
8	10.75	2.40	7.80	6.94	9.50	5.12	4.92	4	0.53	0.87	0.63	1.25	4.50	0.94	46	11.75	8	3/4 - 10	54
10	13.06	2.75	9.78	8.56	10.75	6.12	4.92	4	0.53	1.18	0.87	2.00	4.50	1.07	79	14.25	12	7/8 - 9	94
12	15.50	3.08	11.74	10.18	12.25	6.12	4.92	4	0.53	1.18	0.87	2.00	4.50	1.13	123	17.00	12	7/8 - 9	136
14	17.50	3.73	12.90	11.95	14.50	7.75	4.92	4	0.53	1.38	.39 x .39	2.00	6.50	1.42	208	18.75	12	1 - 8	227
16	19.81	4.11	14.68	12.94	17.75	10.38	6.50	4	0.81	1.97	.47 x .39	2.50	6.50	1.66	313	21.25	16	1 - 8	345
18	21.41	4.61	16.60	14.15	20.00	10.38	6.50	4	0.81	1.97	.47 x .39	2.50	6.50	1.86	402	22.75	16	1 1/8 - 8	442
20	23.68	5.03	18.50	15.26	22.75	10.38	6.50	4	0.81	2.50	.62 x .62	4.00	6.50	2.06	527	25.00	20	1 1/8 - 8	604
24	28.00	6.00	22.50	18.21	25.00	15.38	10.00	8	0.67	3.00	.75 x .75	4.00	11.75	2.44	813	29.50	20	1 1/4 - 8	930
26	29.50	6.50	22.36	19.23	25.00	15.38	10.00	8	0.67	3.00	.75 x .75	4.00	11.75	2.81	970*	31.75	24	1 1/4 - 8	1280*
28	32.41	6.50	26.47	20.54	26.75	15.38	10.00	8	0.67	3.00	.75 x .75	4.00	11.75	2.81	1115	34.00	28	1 1/4 - 8	1300
30	34.50	7.50	28.31	21.36	28.75	19.50	11.73	8	0.81	3.50	.88 x .62	5.25	13.50	3.10	1475	36.00	28	1 1/4 - 8	1740
32	37.62	7.50	30.19	22.36	30.00	19.50	11.73	8	0.81	3.50	.88 x .62	5.25	13.50	3.22	1650*	38.50	28	1 1/2 - 8	2060*
34	39.62	7.75	30.13	23.86	30.00	19.50	11.73	8	0.81	3.50	.88 x .62	5.25	13.50	3.35	1890*	40.50	32	1 1/2 - 8	2340*
36	40.68	8.26	34.00	25.27	33.00	19.50	11.73	8	0.81	3.50	.88 x .62	5.25	13.50	3.63	1960	42.75	32	1 1/2 - 8	2600
40	51.00	9.50	36.99	27.25	37.00	19.50	11.73	8	0.81	4.50	1.0 x .75	5.25	13.50	4.38	3850*	47.25	36	1 1/2 - 8	3950*
42	53.31	9.50	39.05	29.37	38.00	19.50	11.73	8	0.81	4.50	1.0 x .75	5.25	13.50	4.38	4250*	49.50	36	1 1/2 - 8	4300
48	54.00	10.00	46.09	33.12	42.13	24.00	14.02	8	1.25	5.00	1.25 x .88	6.00	16.00	4.50	4610*	56.00	44	1 1/2 - 8	5680*
54	66.38	10.75	52.45	35.65	45.50	24.00	14.02	8	1.25	6.00	1.5 x 1.0	6.50	16.00	4.75	7100*	62.75	44	1 3/4 - 8	7210*
60	73.00	12.50	57.07	39.44	50.75	26.00	15.98	8	1.50	7.00	1.75 x 1.5	7.50	18.70	4.75	----*	69.25	52	1 3/4 - 8	9360

Drawings are for reference only. Please refer to Bray ES drawings on the Bray website, www.bray.com. Bray reserves the right to change product dimensions without notice.

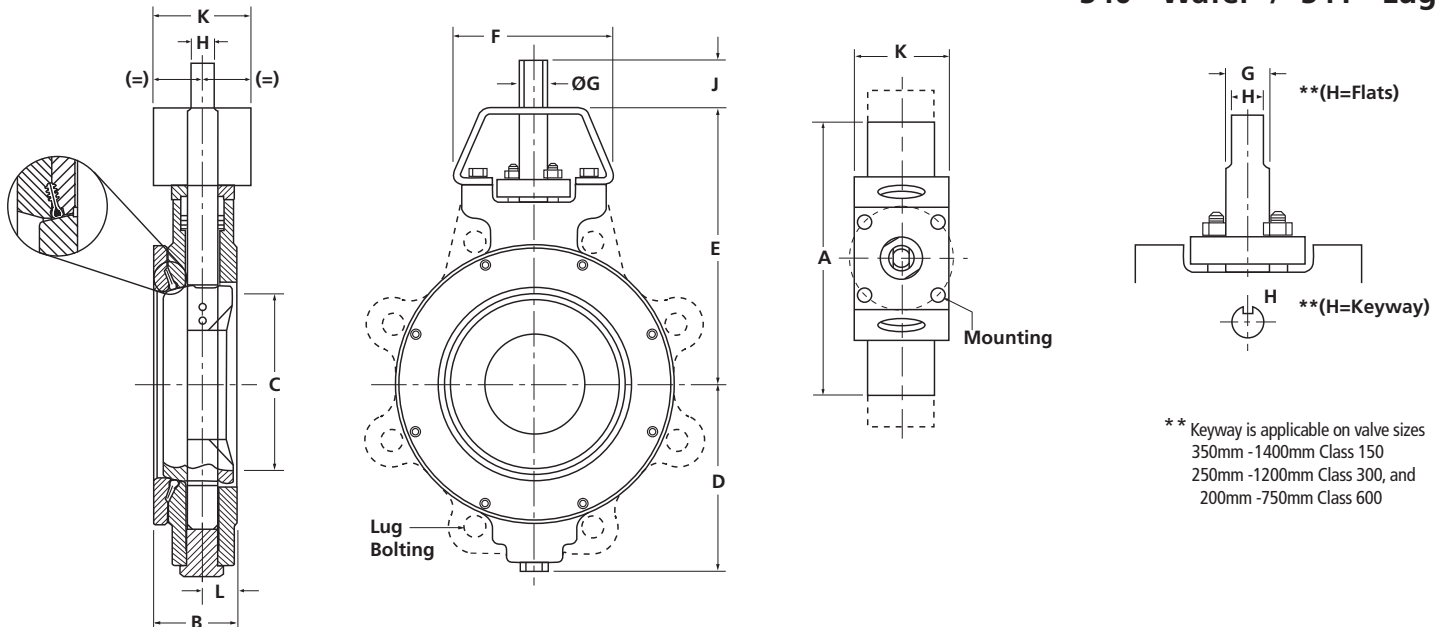
SR Drawing #40/41-2.5/60-in. August 2012- Rev. 0

Inquire/P.O. No.: _____

Customer/Project: _____

Bray Order No.: _____

S40 - Wafer / S41 - Lug



** Keyway is applicable on valve sizes
350mm - 1400mm Class 150
250mm - 1200mm Class 300, and
200mm - 750mm Class 600

Dimensions are in mm and weights in kgs.

Weights are for Cast Steel bodies, except when noted by *.

* - Flame cut body weights. Flame Cut Steel and SS bodies vary. Please consult factory.

‡ - C dimension is absolute minimum pipe ID at valve face (without gasket).

METRIC DIMENSIONS: Millimeters

Valve Size	A	B	C‡	D	E	F	Mounting Data			G	H**	J	K	L	Weight (kg)	Lug Bolting Data			Weight (kg)
							BCD	No. Holes	Hole Dia.							PCD	No. Holes	Threads UN-2B	
65	121	48	58	97	162	111	70	4	9.6	16	11	32	64	20	6	140	4	5/8 - 11	6
80	133	48	73	104	168	111	70	4	9.6	16	11	32	64	20	7	152	4	5/8 - 11	7
100	171	52	94	120	191	111	70	4	9.6	16	11	32	64	19	9	191	8	5/8 - 11	10
125	191	57	122	129	191	130	70	4	9.6	19	13	32	114	24	12	216	8	3/4 - 10	15
150	219	57	149	141	203	130	70	4	9.6	19	13	32	114	24	15	241	8	3/4 - 10	21
200	273	61	198	176	241	130	125	4	13.5	22	16	32	114	24	21	298	8	3/4 - 10	24
250	332	70	248	217	273	155	125	4	13.5	30	22	51	114	27	36	362	12	7/8 - 9	43
300	394	78	298	259	311	155	125	4	13.5	30	22	51	114	29	56	432	12	7/8 - 9	62
350	445	95	328	304	368	197	125	4	13.5	35	10 x 10	51	165	36	94	476	12	1 - 8	103
400	503	104	373	329	451	264	165	4	20.5	50	12 x 10	64	165	42	142	540	16	1 - 8	156
450	544	117	422	359	508	264	165	4	20.5	50	12 x 10	64	165	47	182	578	16	1 1/8 - 8	200
500	601	128	470	388	578	264	165	4	20.5	64	15.8 x 15.8	102	165	52	239	635	20	1 1/8 - 8	274
600	711	152	572	463	635	391	254	8	17.0	76	19 x 19	102	298	62	369	749	20	1 1/4 - 8	422
650	749	165	568	488	635	391	254	8	17.0	76	19 x 19	102	298	71	440	806	24	1 1/4 - 8	581
700	823	165	672	522	679	391	254	8	17.0	76	19 x 19	152	298	71	506	864	28	1 1/4 - 8	590
750	876	191	719	543	730	495	298	8	20.5	89	22.3 x 15.8	133	343	79	669	914	28	1 1/4 - 8	789
800	956	191	767	568	762	495	298	8	20.5	88.9	22.3 x 15.8	133	343	82	748	978	28	1 1/2 - 8	934
850	1006	197	765	606	762	495	298	8	20.5	89	22.3 x 15.8	133	343	85	857	1029	32	1 1/2 - 8	1061
900	1033	210	864	642	838	495	298	8	20.5	88.9	22.8 x 15.8	133	343	92	889	1086	32	1 1/2 - 8	1179
1000	1295	241	940	692	940	495	298	8	20.5	114	25.4 x 19.05	133	343	111	1746	1200	36	1 1/2 - 8	1792
1050	1354	241	992	746	965	495	298	8	20.5	114	25.4 x 19.05	133	343	111	1928	1257	36	1 1/2 - 8	1950
1200	1372	254	1171	841	1070	610	356	8	31.7	127	31.7 x 22.3	152	406	114	2091	1422	44	1 1/2 - 8	2576
1400	1686	273	1332	906	1156	610	356	8	31.7	152	38.1 x 25.4	165	406	121	3221	1594	44	1 3/8 - 8	3270

Drawings are for reference only. Please refer to Bray ES drawings on the Bray website, www.bray.com. Bray reserves the right to change product dimensions without notice.

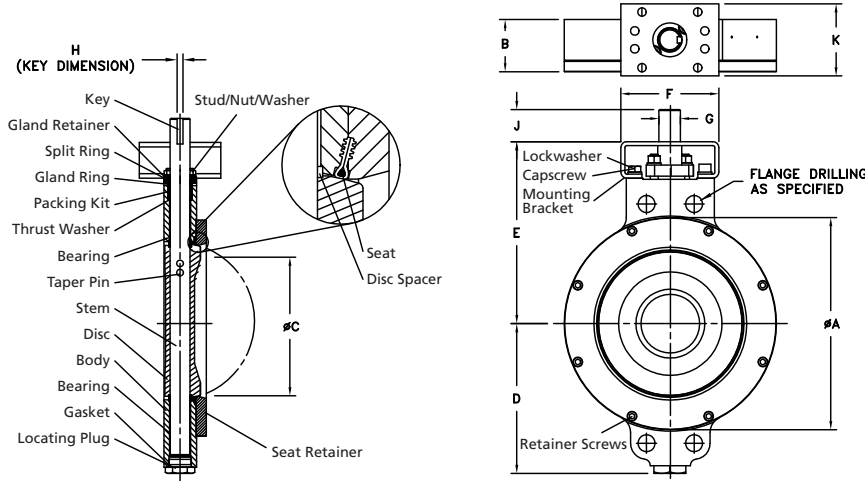
SR Drawing #40/41-2.5/60-m August 2012- Rev. 0

Inquire/P.O. No.: _____

Customer/Project: _____

Bray Order No.: _____

S42 - Wafer / S43 - Lug



IMPERIAL DIMENSIONS: Inches

Valve Size	A	B	C	D	E	F	Top Plate Drilling			G	H	J	K	L	Weight (lbs.)	Lug Bolting Data			Weight (lbs.)
							BC	No of Holes	Hole Dia.							BC	No. of Holes	Threads UN-2B	
2½	4.75	1.88	2.28	3.81	6.38	4.36	2.76	4	0.38	0.63	0.43	1.25	2.5	0.77	15	5.88	8	¾-10	13
3	5.25	1.88	2.86	4.09	6.63	4.36	2.76	4	0.38	0.63	0.43	1.25	2.5	0.77	17	6.62	8	¾-10	16
4	6.75	2.03	3.72	4.71	7.5	4.36	2.76	4	0.38	0.63	0.43	1.25	2.5	0.75	23	7.88	8	¾-10	20
5	8.25	2.23	4.8	5.13	8.0	5.12	2.76	4	0.38	0.75	0.51	1.25	4.5	0.94	39	9.25	8	¾-10	33
6	8.88	2.42	5.75	6.25	8.75	5.12	4.92	4	0.53	0.87	0.63	1.25	4.5	0.97	54	10.62	12	¾-10	40
8	10.94	2.82	7.56	7.55	10.0	6.12	4.92	4	0.53	1.18	0.87	2.0	4.5	1.1	89	13.0	12	7/8-9	68
10	13.26	3.28	9.44	9.36	11.38	6.12	4.92	4	0.53	1.38	.39 x .39	2.0	4.5	1.28	144	15.25	16	1-8	113
12	15.57	3.62	11.31	10.89	13.5	7.75	4.92	4	0.53	1.38	.39 x .39	2.0	6.5	1.4	217	17.75	16	1½-8	173
14	17.9	4.66	11.38	12.5	18.25	10.38	6.5	4	0.81	1.97	.47 x .39	2.5	6.5	2.13	444	20.25	20	1½-8	328
16	19.94	5.35	14.31	13.88	21.0	10.38	6.5	4	0.81	2.5	.62 x .62	4.0	6.5	2.5	592	22.5	20	1½-8	455
18	22.0	5.98	15.0	15.43	21.0	15.38	10.0	8	0.67	2.5	.62 x .62	4.0	11.75	2.65	856	24.75	24	1½-8	605
20	24.1	6.34	16.5	16.8	22.25	15.38	10.0	8	0.67	3.0	.75 x .75	4.0	11.75	2.9	1050	27.0	24	1½-8	780
24	28.88	7.15	20.68	19.8	26.25	19.5	11.73	8	0.81	3.5	.88 x .62	5.25	13.5	3.4	1720	32.0	24	1½-8	1260
30	35.12	8.98	26.81	23.4	32.25	24.0	14.02	8	1.25	4.5	1.0 x .75	5.25	16.0	4.38	3010	39.25	28	1¾-8	2260
36	42.0	10.67	33.13	27.12	36.25	24.0	14.02	8	1.25	5.0	1.25 x .88	6.0	16.0	5.23	4400	46.0	32	2-8	3320
42	50.75	11.5	38.88	29.25	40.5	26.0	15.98	8	1.5	6.0	1.5 x 1.0	6.5	18.7	5.13	4700	47.5	32	1½-8	5000
48	57.75	12.5	45.75	33.16	44.75	29.0	19.02	12	1.5	7.0	1.75 x 1.5	7.5	22.0	5.5	7000	54.0	32	1½-8	—

METRIC DIMENSIONS: Millimeters

Valve Size	A	B	C	D	E	F	Top Plate Drilling			G	H	J	K	L	Weight (kg.)	Lug Bolting Data			Weight (kg.)
							BC	No of Holes	Hole Dia.							BC	No. of Holes	Threads UN-2B	
65	121	48	58	97	162	111	70	4	9.6	16	11	32	64	20	7	149	8	¾-10	6
80	133	48	73	104	168	111	70	4	9.6	16	11	32	64	20	8	168	8	¾-10	7
100	171	52	94	120	191	111	70	4	9.6	16	11	32	64	19	10	200	8	¾-10	9
125	210	57	122	130	203	130	70	4	9.6	19	13	32	114	24	18	235	8	¾-10	15
150	226	61	146	159	222	130	125	4	13.5	22	16	32	114	25	25	270	12	¾-10	18
200	278	72	192	192	254	155	125	4	13.5	30	22	51	114	28	40	330	12	7/8-9	31
250	337	83	240	238	289	155	125	4	13.5	35	10 x 10	51	114	33	65	387	16	1-8	51
300	395	92	287	277	343	197	125	4	13.5	35	10 x 10	51	165	36	99	451	16	1½-8	78
350	455	118	289	318	464	264	165	4	20.5	50	12 x 10	64	165	54	202	514	20	1½-8	149
400	506	136	363	353	533	264	165	4	20.5	64	16 x 16	102	165	64	269	572	20	1½-8	206
450	559	152	381	392	533	391	254	8	17.0	64	16 x 16	102	298	67	389	629	24	1½-8	274
500	612	161	419	427	565	391	254	8	17.0	76	19 x 19	102	298	74	477	686	24	1½-8	354
600	734	182	525	503	667	495	298	8	20.5	89	22 x 16	133	343	86	781	813	24	1½-8	572
750	892	228	681	594	819	610	356	8	31.7	114	25 x 19	133	406	111	1367	997	28	1¾-8	1025
900	1067	271	842	689	921	610	356	8	31.7	127	32 x 22	152	406	133	1998	1168	32	2-8	1506
1050	1289	292	988	743	1029	660	406	8	38.1	152	38 x 25	165	475	130	2134	1207	32	1½-8	2268
1200	1467	318	1162	842	1137	737	483	12	38.1	178	44 x 38	191	559	140	3178	1372	32	1½-8	—

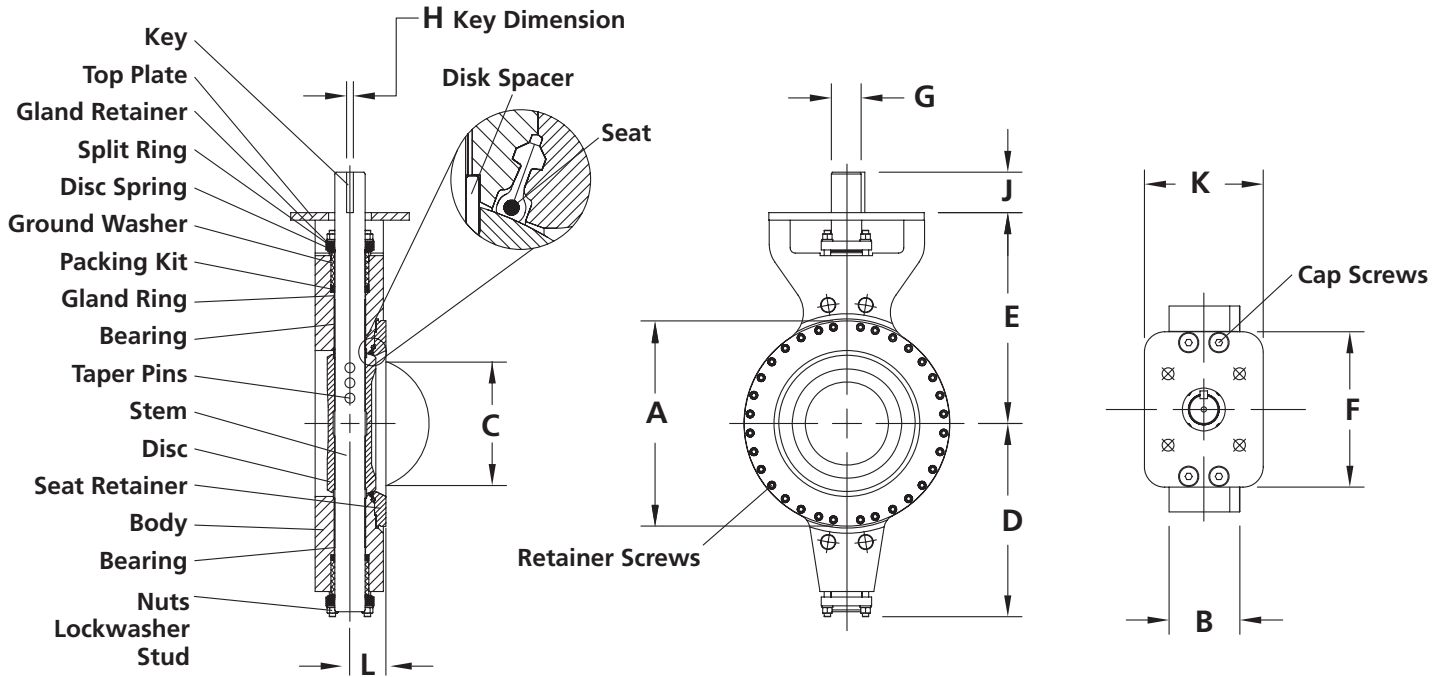
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Inquire/P.O. No.: _____

Bray Order No.: _____

SR Drawing #42/43-2.5/48-im August 2012- Rev. 0

Pg. 4 Customer/Project: _____



Note 1: K dimension is disc chordal dimension at valve face.
 Note 2: 28 Retainer screws for size 10" and 12"
 32 Retainer screws for size 14", 16" and 20"
 38 Retainer screws for size 24"
 Note 3: 6 Disc springs in sizes 10", 12", 16" and 20"
 4 Disc springs in size 14"
 8 Disc springs in sizes 18" and 24"

** Keyway is applicable on valve sizes
 14"-54" Class 150
 10"-48" Class 300, and
 8"-30" Class 600

Dimensions are in inches and weights in lbs.
 Weights are for Cast Steel bodies, except when noted by *.
 * - Flame cut body weights. Flame Cut Steel and SS bodies vary. Please consult factory.
 ‡ - C dimension is absolute minimum pipe ID at valve face (without gasket).

IMPERIAL DIMENSIONS: Inches																			
Valve Size	A	B	C‡	D	E	F	Mounting Data			G	H**	J	K	L	Weight (lbs)	Lug Bolting Data			Weight (lbs)
							BCD	No. Holes	Hole Dia.							BCD	No. Holes	Threads UN-2B	
3	5.78	2.22	2.75	5.71	7.00	5.12	2.76	4	0.38	0.75	0.51	1.25	4.50	0.90	24*	6.62	8	3/4-10	31*
4	7.00	2.77	3.56	7.04	8.50	5.12	4.92	4	0.53	0.87	0.63	1.25	4.50	1.15	41*	8.50	8	7/8-9	58‡
6	9.75	3.34	5.38	8.57	9.75	6.12	4.92	4	0.53	1.18	0.87	2.00	4.50	1.50	79*	11.50	12	1-8	119*
8	11.80	4.23	6.88	10.80	12.25	7.75	6.50	4	0.81	1.38	.39 x .39	2.00	6.50	1.90	155*	13.75	12	1 1/8-8	227*
10	14.09	4.82	8.50	14.62	17.00	10.38	6.50	4	0.81	1.97	.47 x .39	2.50	6.50	2.15	280*	17.00	16	1 1/4-8	400*
12	16.47	5.51	10.12	15.72	18.25	10.38	6.50	4	0.81	1.97	.47 x .39	2.50	6.50	2.53	386*	19.25	20	1 1/4-8	547*
14	18.03	6.09	10.88	17.48	19.75	15.38	10.00	8	0.67	2.50	.62 x .62	4.00	11.75	2.90	549*	20.75	20	1 3/8-8	750*
16	20.38	7.00	12.62	19.41	21.75	15.38	10.00	8	0.67	3.00	.75 x .75	4.00	11.75	3.44	752*	23.75	20	1 1/2-8	1100*
18	23.15	7.75	14.60	21.05	23.75	19.50	11.73	8	0.81	3.50	.88 x .62	5.25	13.50	3.60	1090*	25.75	20	1 5/8-8	1470*
20	25.15	8.50	16.37	23.21	25.75	19.50	11.73	8	0.81	4.00	1.0 x .75	5.25	13.50	3.88	1360*	28.50	24	1 5/8-8	1850*
24	29.38	9.13	19.87	27.71	31.00	24.00	14.02	8	1.25	5.00	1.25 x .88	6.00	16.00	3.94	2160*	33.00	24	1 7/8-8	2900*
30	36.00	11.25	26.50	31.50	36.00	26.00	15.98	8	1.50	6.00	1.5 x 1.0	6.50	18.70	5.00	3500*	40.25	28	2-8	4700*

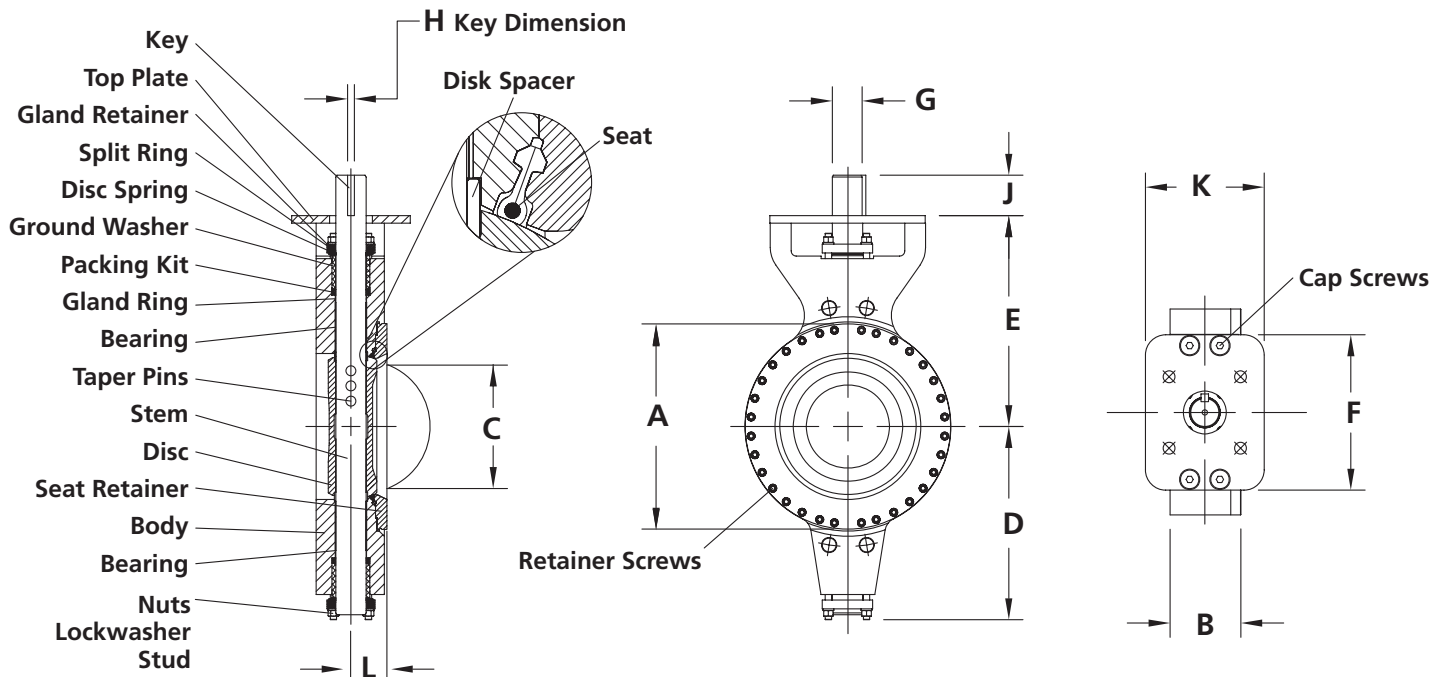
Drawings are for reference only. Please refer to Bray ES drawings on the Bray website, www.bray.com. Bray reserves the right to change product dimensions without notice.

SR Drawing #44/45-3/30-i August 2012- Rev. 0

Inquire/P.O. No.: _____

Customer/Project: _____

Bray Order No.: _____



Note 1: K dimension is disc chordal dimension at valve face.
 Note 2: 28 Retainer screws for size 250mm and 300mm
 32 Retainer screws for size 350mm, 400mm and 500mm
 38 Retainer screws for size 600mm
 Note 3: 6 Disc springs in sizes 250mm, 300mm, 400mm and 500mm
 4 Disc springs in size 350mm
 8 Disc springs in sizes 450mm and 600mm

** Keyway is applicable on valve sizes
 350mm - 1400mm Class 150
 250mm - 1467mm Class 300, and
 200mm - 750mm Class 600

Dimensions are in mm and weights in kgs.
 Weights are for Cast Steel bodies, except when noted by *.
 * - Flame cut body weights. Flame Cut Steel and SS bodies vary. Please consult factory.
 ‡ - C dimension is absolute minimum pipe ID at valve face (without gasket).

METRIC DIMENSIONS: Millimeters																			
Valve Size	A	B	C‡	D	E	F	Mounting Data			G	H**	J	K	L	Weight (kg)	Lug Bolting Data			Weight (kg)
							PCD	No. Holes	Hole Dia.							BCD	No. Holes	Threads UN-2B	
80	147	56	70	145	178	130	70	4	10	19	13	32	114	23	11	168	8	3/4-10	14
100	178	70	90	179	216	130	125	4	13	22	16	32	114	29	19	216	8	7/8-9	26
150	248	85	137	218	248	155	125	4	13	30	22	51	114	38	36	292	12	1-8	54
200	300	107	175	274	311	197	165	4	21	35	10 x 10	51	165	48	70	349	12	1 1/8-8	103
250	358	122	216	371	432	264	165	4	21	50	12 x 10	64	165	55	127	432	16	1 1/4-8	181
300	418	140	257	399	464	264	165	4	21	50	12 x 10	64	165	64	175	489	20	1 1/4-8	248
350	458	155	276	444	502	391	254	8	17	64	16 x 16	102	298	74	249	527	20	1 3/8-8	340
400	518	178	321	493	552	391	254	8	17	76	19 x 19	102	298	87	341	603	20	1 1/2-8	499
450	588	197	371	535	603	495	298	8	21	89	22 x 16	133	342.9	91	494	654	20	1 5/8-8	667
500	639	216	416	590	654	495	298	8	21	102	25 x 19	133	342.9	98.6	617	724	24	1 5/8-8	839
600	746	232	505	704	787	610	356	8	32	127	32 x 22	152	406	100	980	838	24	1 7/8-8	1315
750	914	286	673	800	914	660	406	8	38	152	38 x 25	152	475	127	1588	1022	28	2-8	2132

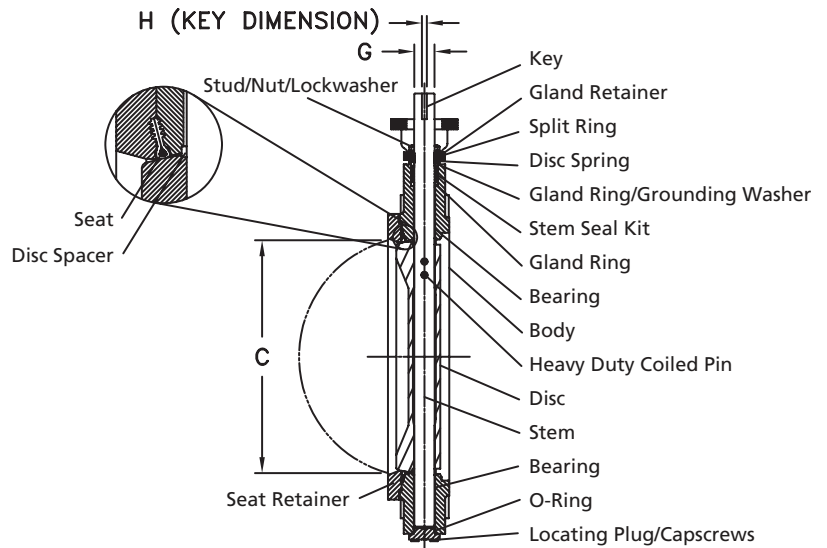
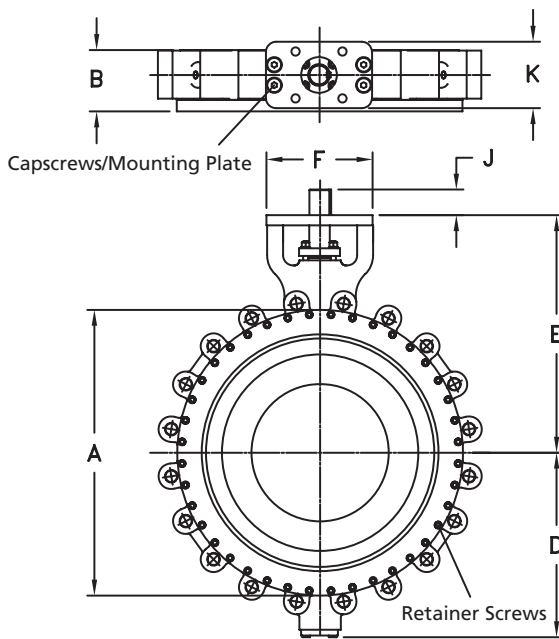
Drawings are for reference only. Please refer to Bray ES drawings on the Bray website, www.bray.com. Bray reserves the right to change product dimensions without notice.

SR Drawing #44/45-3/30-m August 2012- Rev. 0

Inquire/P.O. No.: _____

Customer/Project: _____

Bray Order No.: _____



↳ Dimensions are different from the Series 41

IMPERIAL DIMENSIONS: Inches

Valve Size	A	B	C	D	E	F	G	H	J	K	Top Plate Drilling				Lug Bolting Data			Adapter Code	Weight (lbs.)
											BC	No. of Holes	Hole Dia.	Flange Type	BC	No. of Holes	Threads UN-2B		
24	27.96	6.00	22.50	18.05	23.25	10.38	1.97	.472 x .394	2.50	6.50	6.50	4	.81	F16	29.50	20	1-1/4-8	G	641
28	32.41	6.50	26.47	20.27	27.50	10.38	2.50	.625 x .625	4.00	6.50	6.50	4	.81	F16	34.00	28	1-1/4-8	H	931
30	34.41	7.50	28.31	21.24	28.50	10.38	2.50	.625 x .625	4.00	6.50	6.50	4	.81	F16	36.00	28	1-1/4-8	H	1187
32	37.62	7.50	30.19	22.18	29.50	10.38	2.50	.625 x .625	4.00	6.50	6.50	4	.81	F16	38.50	28	1-1/2-8	H	1377
36	39.87	8.26	34.00	24.37	30.50	15.38	3.00	.750 x .750	4.00	11.75	10.00	8	.67	F25	42.75	32	1-1/2-8	F25-2	1736
40	44.20	9.50	36.99	27.16	33.25	15.38	3.00	.750 x .750	4.00	11.75	10.00	8	.67	F25	47.25	36	1-1/2-8	F25-2	2660
42	46.20	9.50	39.05	28.16	34.25	15.38	3.00	.750 x .750	4.00	11.75	10.00	8	.67	F25	49.50	36	1-1/2-8	F25-2	2882
48	52.25	10.00	46.09	32.00	40.00	19.50	3.50	.875 x .625	5.25	13.50	11.73	8	.81	F30	56.00	44	1-1/2-8	F30-2	3864
54	66.38	10.75	52.45	35.50	44.25	19.50	4.00	1.000 x .750	5.25	13.50	11.73	8	.81	F30	62.75	44	1-3/4-8	F30-3	4824

METRIC DIMENSIONS: Millimeters

Valve Size	A	B	C	D	E	F	G	H	J	K	Top Plate Drilling				Lug Bolting Data			Adapter Code	Weight (kg.)
											BC	No. of Holes	Hole Dia.	Flange Type	BC	No. of Holes	Threads UN-2B		
600	710	152	572	458	591	264	50	12 x 10	64	165	165	4	21	F16	749	20	1-1/4-8	G	291
650	823	165	672	515	699	264	64	16 x 16	102	165	165	4	21	F16	864	28	1-1/4-8	H	422
750	874	191	719	539	724	264	64	16 x 16	102	165	165	4	21	F16	914	28	1-1/4-8	H	538
800	956	191	767	563	749	264	64	16 x 16	102	165	165	4	21	F16	978	28	1-1/2-8	H	625
900	1013	210	864	619	775	391	76	19 x 19	102	298	254	8	17	F25	1086	32	1-1/2-8	F25-2	787
1000	1123	241	940	690	845	391	76	19 x 19	102	298	254	8	17	F25	1200	36	1-1/2-8	F25-2	1207
1050	1173	241	992	715	870	391	76	19 x 19	102	298	254	8	17	F25	1257	36	1-1/2-8	F25-2	1307
1200	1327	254	1171	813	1016	495	89	22 x 16	133	343	298	8	21	F30	1422	44	1-1/2-8	F30-2	1753
1400	1686	273	1332	902	1124	495	102	25 x 19	133	343	298	8	21	F30	1594	44	1-3/4-8	F30-3	2188

Drawings are for reference only. Please refer to Bray ES drawings on the Bray website, www.bray.com. Bray reserves the right to change product dimensions without notice.

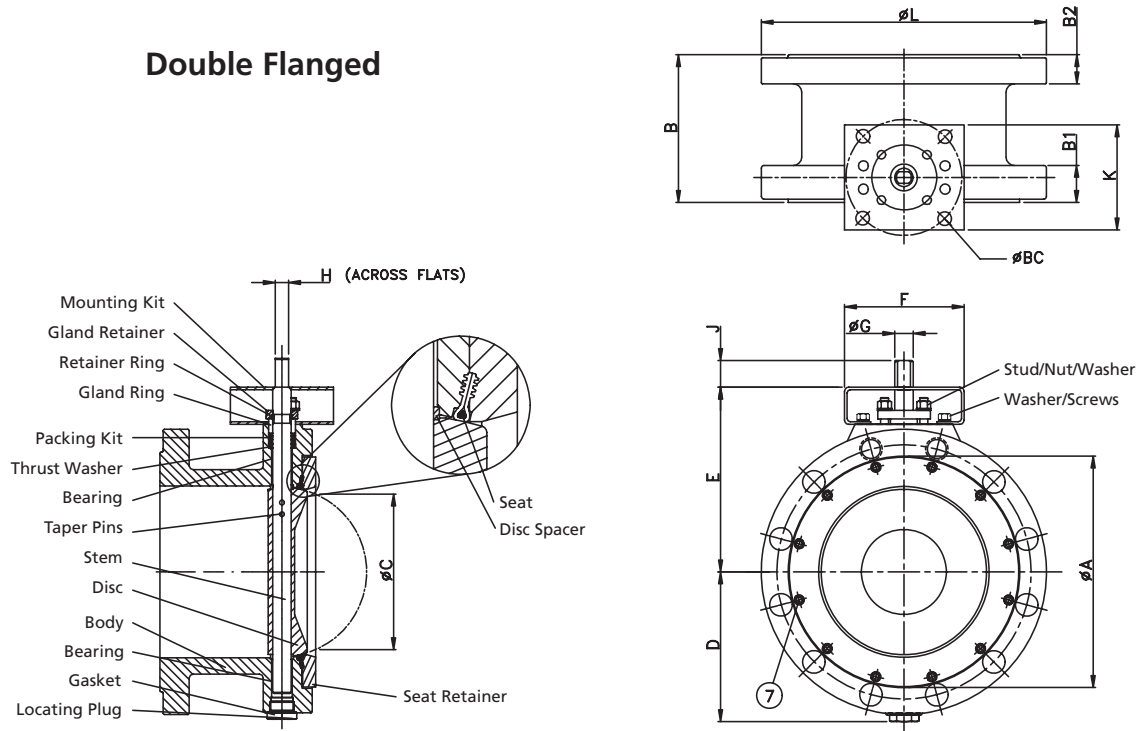
Inquire/P.O. No.: _____

Bray Order No.: _____

SR Drawing #41R-24/54-im August 2012- Rev. 0

Customer/Project: _____

Double Flanged



IMPERIAL DIMENSIONS: Inches

Valve Size	A	B	B1	B2	C	D	E	F	G	H	J	K	L	Top Plate Drilling			Weight (lbs.)
														BC	No of Holes	Hole Diameter	
3	5.25	4.50	1.40	1.06	2.86	4.09	6.63	4.36	.63	.43	1.25	2.50	7.50	2.76	4	.38	29
4	6.75	5.0	1.46	1.06	3.72	4.71	7.50	4.36	.63	.43	1.25	2.50	9.00	2.76	4	.38	42
5	7.50	5.50	1.42	1.00	4.80	5.07	7.50	5.12	.75	.51	1.25	4.50	10.00	2.76	4	.38	53
6	8.62	5.50	1.51	1.06	5.88	5.57	8.00	5.12	.75	.51	1.25	4.50	11.00	2.76	4	.38	62
8	10.75	6.00	1.83	1.18	7.80	6.94	9.50	5.12	.87	.63	1.25	4.50	13.50	4.92	4	.53	100
10	13.06	6.50	1.81	1.35	9.78	8.56	10.75	6.12	1.18	.87	2.00	4.50	16.00	4.92	4	.53	172
12	15.50	7.00	2.14	1.41	11.74	10.18	12.25	6.12	1.18	.87	2.00	4.50	19.00	4.92	4	.53	230
14	17.50	7.50	2.28	1.54	12.90	11.95	14.50	7.75	1.38	.39 x .39	2.00	6.50	21.00	4.92	4	.53	344
16	19.81	8.50	2.24	1.60	14.68	12.94	17.75	10.38	1.97	.47 x .39	2.50	6.50	23.50	6.50	4	.81	551
18	21.41	8.75	2.48	1.72	16.60	14.15	20.00	10.38	1.97	.47 x .39	2.50	6.50	25.00	6.50	4	.81	706
20	23.68	9.00	2.73	1.74	18.50	15.26	22.75	10.38	2.50	.62 x .62	4.00	6.50	28.15	6.50	4	.81	970

METRIC DIMENSIONS: Millimeters

Valve Size	A	B	B1	B2	C	D	E	F	G	H	J	K	L	Top Plate Drilling			Weight (kg.)
														BC	No of Holes	Hole Diameter	
80	133	114	36	27	73	104	168	111	16	11	32	64	191	70	4	9.6	13
100	171	127	37	27	94	120	191	111	16	11	32	64	229	70	4	9.6	19
125	191	140	36	25	122	129	191	130	19.1	13	32	114	254	70	4	9.6	24
150	219	140	38	27	149	141	203	130	19.1	13	32	114	279	70	4	9.6	28
200	273	152	46	30	198	176	241	130	22.1	16	32	114	343	125	4	13.5	45
250	332	165	46	34	248	217	273	155	30.0	22	22	114	406	125	4	13.5	78
300	394	178	54	36	298	259	311	155	30.0	22	22	114	483	125	4	13.5	104
350	445	191	58	39	328	304	368	197	35.1	10 x 10	51	165	533	125	4	13.5	156
400	503	216	57	41	373	329	451	264	50.0	12 x 10	64	165	597	165	4	20.6	250
450	544	222	63	44	422	359	508	264	50.0	12 x 10	64	165	635	165	4	20.6	320
500	601	229	69	44	470	388	578	264	63.5	16 x 16	102	165	715	165	4	20.6	440

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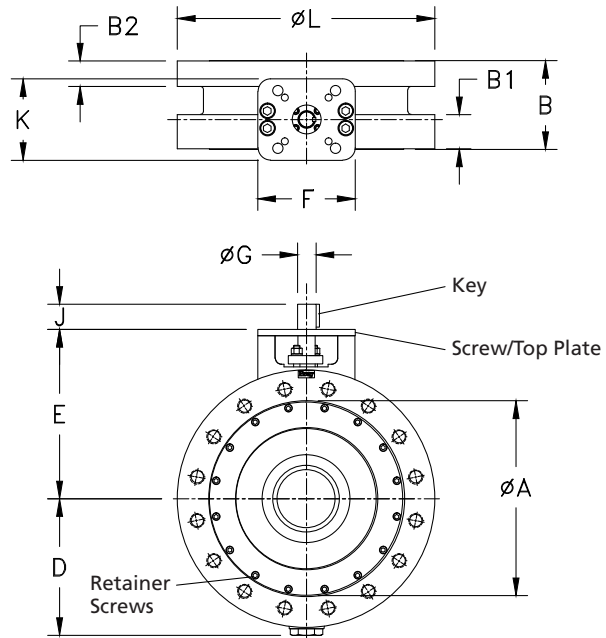
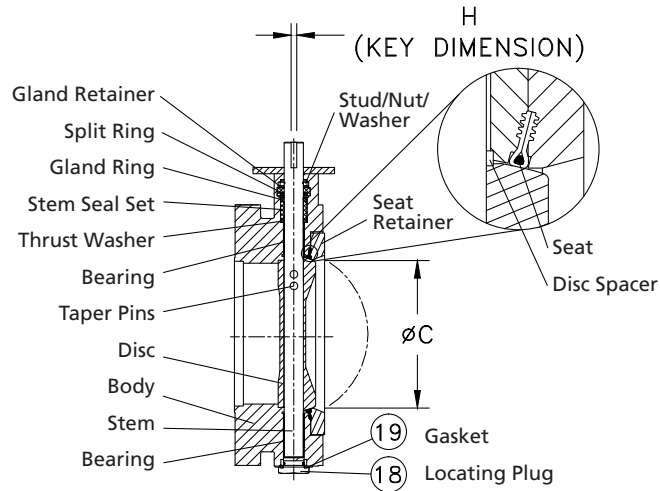
SR Drawing #4A-3/12-im August 2012- Rev. 0

Inquire/P.O. No.: _____

Pg. 8 Customer/Project: _____

Bray Order No.: _____

Double Flanged



IMPERIAL DIMENSIONS: Inches

Valve Size	A	B	B1	B2	C	D	E	F	G	H	J	K	L	Top Plate Drilling				Flange Data						Adapter	Weight (lbs.)
														BC	No of Holes	Hole Dia.	Flange Type	Retainer Side			Far Side				
																		BC	Tapped Holes	Thread Size	Taped Depth	# Thru Holes	Hole Dia.		
3	5.25	4.50	1.52	1.12	2.06	4.09	6.63	4.36	.63	.43	1.25	2.50	8.25	2.76	4	.38	F07	6.63	8	.75-10	Thru	8	.88	B	46
4	6.72	5.00	1.72	1.25	2.82	4.71	7.50	4.36	.63	.43	1.25	2.50	10.00	2.76	4	.38	F07	7.88	8	.75-10	Thru	8	.88	B	68
6	8.88	5.50	1.91	1.44	5.01	6.25	8.75	5.12	.87	.63	1.25	4.50	12.50	4.92	4	.53	F12	10.62	12	.75-10	Thru	12	.88	D	117
8	10.94	6.00	2.17	1.62	6.71	7.55	10.00	6.12	1.18	.87	2.00	4.50	15.50	4.92	4	.55	F12	10.62	12	.75-10	Thru	12	.88	E	194
10	13.26	6.50	2.54	1.88	8.56	9.36	11.38	6.12	1.38	.39	2.00	4.50	17.50	4.92	4	.53	F12	13.00	12	.88-9	Thru	12	1.00	F	299
12	15.57	7.00	2.75	2.00	10.40	10.89	13.50	7.75	1.38	.39	2.00	6.50	20.50	4.92	4	.53	F12	17.75	16	1.13-8	Thru	16	1.25	F	432
14	17.24	7.50	2.94	2.12	10.54	12.50	18.25	10.38	1.97	.39	2.5	6.50	23.00	6.50	4	.81	F16	20.25	16	1.13-8	Thru	16	1.25	G	683
16	19.50	8.50	3.13	2.25	13.53	13.88	21.00	10.38	2.50	.63	4.00	6.50	25.50	6.50	4	.81	F16	22.50	16	1.25-8	Thru	16	1.38	H	902
18	21.38	8.75	3.63	2.38	13.80	15.43	21.00	15.38	2.50	.63	4.00	11.75	28.00	10.00	8	.67	F25	24.75	20	1.25-8	Thru	20	1.38	F25-1	1169
20	23.76	9.00	3.57	2.50	15.50	16.80	22.25	15.38	3.00	.75	4.00	11.75	30.50	10.00	8	.67	F25	27.00	20	1.25-8	Thru	20	1.38	F25-2	1435
24	28.75	10.50	3.88	2.75	19.75	19.80	25.75	19.50	3.50	.63	5.25	13.50	36.00	11.73	8	.81	F30	32.00	20	1.50-8	Thru	20	1.62	F30-2	2206
30	35.00	12.52	5.03	3.62	25.88	23.40	32.25	24.00	4.50	.75	5.25	16.00	43.00	14.02	8	1.25	F35	39.25	24	1.75-8	Thru	24	1.88	F35-3	3814
36	42.06	12.99	5.99	4.12	32.44	27.12	36.25	24.00	5.00	.88	6.00	16.00	50.00	14.02	8	1.25	F35	46.00	28	2.00-8	Thru	28	2.12	F35-4	5122
42	45.63	16.14	6.94	4.69	37.37	29.25	40.50	26.00	6.00	1.0	6.50	18.70	50.75	15.98	8	1.50	F35	47.50	28	1.63-8	Thru	28	1.75	F35-3	5978

METRIC DIMENSIONS: Millimeters

Valve Size	A	B	B1	B2	C	D	E	F	G	H	J	K	L	Top Plate Drilling				Flange Data						Adapter	Weight (kg)
														BC	No of Holes	Hole Dia.	Flange Type	Retainer Side			Far Side				
																		BC	Tapped Holes	Thread Size	Taped Depth	# Thru Holes	Hole Dia.		
80	133	114	39	28	52	104	168	111	16	11	32	64	210	70	4	10	F07	168	8	.75-10	Thru	8	22	B	21
100	171	127	44	32	72	120	191	111	16	11	32	64	254	70	4	10	F07	200	8	.75-10	Thru	8	22	B	31
150	226	140	49	37	127	159	222	130	22	16	32	114	318	125	4	13	F12	270	12	.75-10	Thru	12	22	D	53
200	278	152	55	41	170	192	254	155	30	22	51	114	394	125	4	14	F12	270	12	.75-10	Thru	12	22	E	88
250	337	165	65	48	217	238	289	155	35	10	51	114	445	125	4	13	F12	330	12	.88-9	Thru	12	25	F	136
300	395	178	70	51	264	277	343	197	35	10	51	165	521	125	4	13	F12	451	16	1.13-8	Thru	16	32	F	196
350	438	191	75	54	268	318	464	264	50	10	64	165	584	165	4	21	F16	514	16	1.13-8	Thru	16	32	G	310
400	495	216	80	57	344	353	533	264	64	16	102	165	648	165	4	21	F16	572	16	1.25-8	Thru	16	35	H	409
450	543	222	92	60	351	392	533	391	64	16	102	298	711	254	8	17	F25	629	20	1.25-8	Thru	20	35	F25-1	530
500	604	229	91	64	394	427	565	391	76	19	102	298	775	254	8	17	F25	686	20	1.25-8	Thru	20	35	F25-2	651
600	730	267	99	70	502	503	654	495	89	16	133	343	914	298	8	21	F30	813	20	1.50-8	Thru	20	41	F30-2	1001
750	889	318	128	92	657	594	819	610	114	19	133	406	1092	356	8	32	F35	997	24	1.75-8	Thru	24	48	F35-3	1730
900	1068	330	152	105	824	689	921	610	127	22	152	406	1270	356	8	32	F35	1168	28	2.00-8	Thru	28	54	F35-4	2323
1050	1159	410	176	119	949	743	1029	660	152	25	165	475	1289	406	8	38	F35	1207	28	1.63-8	Thru	28	44	F35-3	2712

Drawings are for reference only. Please refer to Bray ES drawings on the Bray website, www.bray.com. Bray reserves the right to change product dimensions without notice.

SR Drawing #4B-3/42-im August 2012- Rev. 0

Inquire/P.O. No.: _____

Pg. 9 Customer/Project: _____

Bray Order No.: _____