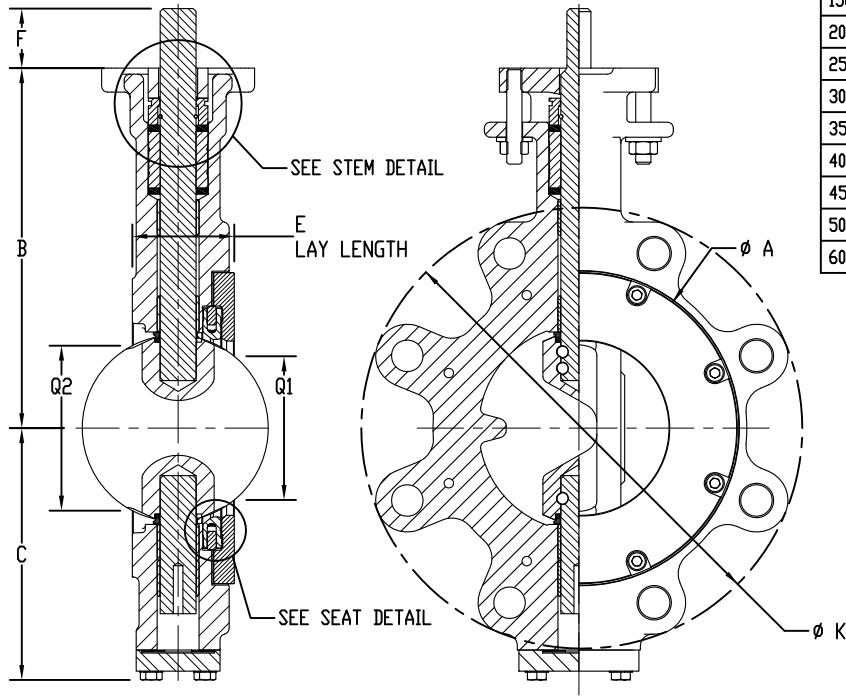
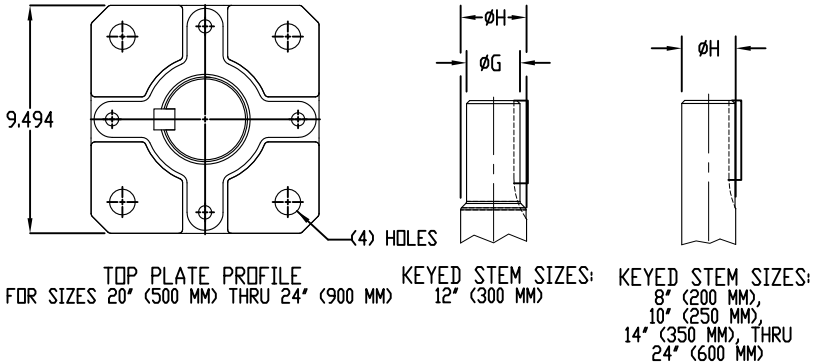
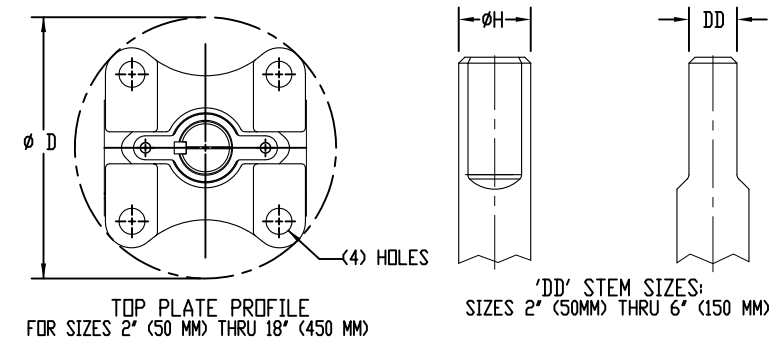


KEYSTONE K-LOK SERIES 37: BARE VALVE



VALVE DIMENSIONS (IMPERIAL: INCHES)																	
SHAFT DIMENSIONS												TAPPED LUG DATA			TOP PLATE DATA		
SIZE	A	B	C	D	E	F	K	Q1	Q2	G	H	DD OR KEYWAY	TAP	NO. HOLES	BOLT CIRCLE	BOLT CIRCLE	HOLE DIA.
2	4.46	6.00	3.98	4.15	2.38	1.27	6.09	1.38	1.88	N/A	0.56	0.38	⅝ -11UNC	8	5	3.25	0.44
2 1/2	4.81	6.00	4.35	4.15	1.88	1.27	7.19	2.19	2.25	N/A	0.56	0.38	¾ -10UNC	8	5.88	3.25	0.44
3	5.31	6.63	4.66	4.15	1.88	1.25	7.88	2.06	2.63	N/A	0.63	0.44	¾ -10UNC	8	6.63	3.25	0.44
4	6.47	7.50	5.25	4.15	2.13	1.25	9.19	3.19	3.63	N/A	0.75	0.50	¾ -10UNC	8	7.88	3.25	0.44
5	7.63	7.56	5.75	4.15	2.31	1.25	10.56	4.31	4.75	N/A	0.75	0.50	¾ -10UNC	8	9.25	3.25	0.44
6	8.88	8.75	6.88	6.07	2.31	1.25	11.94	5.25	5.56	N/A	0.88	0.63	¾ -10UNC	12	10.63	5	0.56
8	11.16	10.13	8.31	6.07	2.88	2.00	14.53	6.75	7.38	N/A	1.13	⅜ x ⅜ x 1⅝	⅝ -9UNC	12	13	5	0.56
10	12.75	11.38	9.63	6.07	3.25	3.00	17.00	8.81	9.31	N/A	1.38	⅝ x ⅝ x 2⅝	1-8UNC	16	15.25	5	0.56
12	15.00	13.00	11.10	8.17	3.63	3.00	19.72	10.63	11.19	1.38	1.50	⅝ x ⅝ x 2⅝	1⅝ -8UN	16	17.75	6.5	0.81
14	16.25	14.38	12.65	8.17	4.63	4.25	22.50	11.81	11.94	N/A	1.88	½ x ⅝ x 4⅝	1⅝ -8UN	20	20.25	6.5	0.81
16	18.50	16.06	13.84	8.17	5.25	4.13	25.00	13.56	13.69	N/A	2.25	½ x ⅝ x 4	1⅝ -8UN	20	22.5	6.5	0.81
18	21.00	17.00	15.02	8.17	5.88	4.22	27.25	15.44	15.50	N/A	2.50	⅝ x ⅝ x 4	1⅝ -8UN	24	24.75	6.5	0.81
20	23.00	20.19	16.34	7.50	6.25	6.50	29.50	17.25	17.38	N/A	2.75	⅝ x ⅝ x 6⅝	1⅝ -8UN	24	27	8	0.81
24	27.25	23.38	19.09	9.50	7.13	6.81	35.00	20.69	20.81	N/A	3.50	⅞ x ⅞ x 5⅝	1⅝ -8UN	24	32	9.75	1.06

VALVE DIMENSIONS (METRIC: MM)																	
SHAFT DIMENSIONS												TAPPED LUG DATA			TOP PLATE DATA		
SIZE	A	B	C	D	E	F	K	Q1	Q2	G	H	DD OR KEYWAY	TAP	NO. HOLES	BOLT CIRCLE	BOLT CIRCLE	HOLE DIA.
50	113	152	101	105	60	32	155	35	48	N/A	14.29	9.53	⅝ -11UNC	8	127	83	11
65	122	152	110	105	48	32	183	56	57	N/A	14.29	9.53	¾ -10UNC	8	149	83	11
80	135	168	118	105	48	32	200	52	67	N/A	15.88	11.11	¾ -10UNC	8	168	83	11
100	165	191	133	105	54	32	233	81	92	N/A	19.05	12.70	¾ -10UNC	8	200	83	11
125	194	192	146	105	59	32	268	110	121	N/A	19.05	12.70	¾ -10UNC	8	235	83	11
150	225	222	174	154	59	32	303	133	141	N/A	22.23	15.88	¾ -10UNC	12	270	127	14
200	283	257	211	154	73	51	369	171	187	N/A	28.58	6.35 X 6.35 X 41	⅞ -9UNC	12	330	127	14
250	324	289	244	154	83	76	432	224	237	N/A	34.93	7.94 X 7.94 X 67	1-8UNC	16	387	127	14
300	381	330	282	208	92	76	501	270	284	34.93	38.10	7.94 X 7.94 X 67	1⅝ -8UN	16	451	165	21
350	413	365	321	208	117	108	572	300	303	N/A	47.63	12.70 X 9.53 X 105	1⅝ -8UN	20	514	165	21
400	470	408	352	208	133	105	635	344	348	N/A	57.15	12.70 X 9.53 X 102	1⅝ -8UN	20	572	165	21
450	533	432	382	208	149	107	692	392	394	N/A	63.50	15.88 X 15.88 X 102	1⅝ -8UN	24	629	165	21
500	584	513	415	191	159	165	749	438	441	N/A	69.85	15.88 X 15.88 X 162	1⅝ -8UN	24	686	203	21
600	692	594	485	241	181	173	889	526	529	N/A	88.90	22.23 X 22.23 X 144	1⅝ -8UN	24	813	248	27

(SEE NOTES PAGE 2)

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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES  
TOLERANCES  
DECIMAL: .XX ± .01  
FRACTIONAL: 1/16 ± 1/64  
SURFACE: 125  
REMOVE ALL BURRS  
BREAK SHARP EDGES  
DO NOT SCALE DRAWING

ECN RELEASE: 08268  
DATE: 06/11/2010  
DRAWN: GG  
CHECK: NLE  
APPROVED: BB  
ENG MAG: BB

REVISIONS					
REV.	ECN	DRAWN	DATE	CHECK	DATE
7	08672	KLJ	11/12/14	JB	11/12/14
EMERSON					
KLOK HPBFV SERIES 37					
2" - 24" ASME 300 - LUGGED					
POLYMER AND ELASTOMER SEAT					
SIZE	C	DWG NO.	SM1280	REV.	7
SCALE	-	WEIGHT	LBS	SHEET	1 OF 2

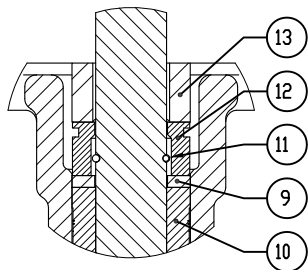
# KEYSTONE K-LOK SERIES 37: BARE VALVE

ITEM NO	DESCRIPTION	QTY	PART NO. & FIG. NO.	REMARKS
1	BODY	1	203-373	
2	DISC	1	204-371	
3	UPPER STEM	1	205-370	205-360 DN 5"
4	LOWER STEM	1	205-371	205-361 DN 14" THRU 18" AND 24"
5	TAPER PIN	3	907-735	QTY 2 DN 2" AND 2-1/2"
6	SPACER	2	253-361	253-371 DN 20"
7	THRUST WASHER	2	275-361	275-371 DN 20"
8	BUSHING	4*	930-360	930-370 DN 20" THRU 24"
9	ANTI-EXTRUSION RING	2	249-360	249-370 DN 20" THRU 24"
10	STEM PACKING	1	928-360	928-370 DN 20" THRU 24"
11	RING, STEM RETENTION	1	979-735	
12	GLAND	1	216-360	216-361 DN 8" THRU 18", 216-370 DN 20", AND 216-371 DN 24"
13	GLAND BRIDGE	1	236-361	236-371 DN 20" THRU 24"
14	STUD	2	902-363	QTY 4 DN 20" THRU 24"
15	WASHER, SPLIT LOCK	2	904-735	QTY 4 DN 20" THRU 24"
16	HEX NUT	2	903-735	QTY 4 DN 20" THRU 24"
17	BOTTOM COVER GASKET	1	921-361	921-371 DN 20" THRU 24"
18	BOTTOM COVER	1	259-361	259-371 DN 20" THRU 24"
19	WASHER, EXT. TOOTH LOCK	4	904-735	
20	SCREW, HEX HD CAP	4	905-735	
20.1	SEAT ASSEMBLY	1	726-360	
20.2	SEAT	1	206-360	
20.3	WIRE STRUCTURE	AR	984-360	
21	SEAT BACKING RING	1	248-360	
22	SEAT RETAINING RING GASKET	1	921-373	921-363 DN 2-1/2", 4", 6" ***SEE NOTE 9 BELOW
23	SEAT RETAINING RING	1	214-373	214-363 DN 4"
24	SCREW, SOCKET HD CAP	**	905-735	***SEE BELOW
25	KEY	1	913-735	DN 8" THRU 24" ONLY
26	SCREW, HEX HD CAP	1	905-735	NOT USED
27	HEX NUT	1	903-735	NOT USED
28	TAG, ID.	1	914-373	
29	TAG, FLOW	1	914-360	
30	TAG, STRAP	1	912-360	QTY 2 DN 14" THRU 24"

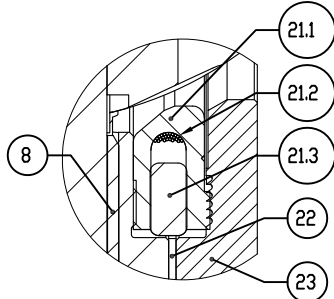
\*ITEM 8 QTY: BUSHING QUANTITY COULD VARY DEPENDING ON BUSHING MATERIAL.  
\*\*ITEM 24 QTY: 2", 2-1/2" QTY 6; 3", 4" QTY 8; 5" QTY 10; 6", 8", 12", 14" QTY 12; 10", 16", 18" QTY 16; 20", 24" QTY 20.

## NOTES:

1. "Q" DIMENSIONS ARE THE MINIMUM ALLOWABLE FLANGE INSIDE DIAMETERS AT THE CENTERED BODY FACE TO PROTECT THE DISC SEALING EDGE FROM DAMAGE WHEN OPENING THE VALVE.
2. SEE DATA PAGE SMD001 FOR ADAPTABILITY CODE LETTER SYMBOL DIMENSIONS REGULATING INTERCHANGEABILITY OF BODY TOP PLATE MOUNTING TO HANDLES, PLATES, GEAR OPERATOR, POWER ACTUATORS, ETC.
3. MAXIMUM VALVE DIFFERENTIAL 740 PSI.
4. STANDARD VALVE TO BE USED BETWEEN ANSI CLASS 300 FLANGES. THE VALVE IS CENTERED BY THE FLANGE STUDS. THE LUGS ARE TAPPED AS SHOWN.
5. PART ITEMS NO. 2, 3, 4, & 5 ARE CONTAINED IN DISC/STEM ASSEMBLY AND ARE MACHINED AS A MATCHED SET. PART ITEM NO. 21.3 IS MOLDED IN ELASTOMER SEAT ASSEMBLY. PART ITEMS NO. 21.2 AND 21.3 ARE CONTAINED IN POLYMER SEAT ASSEMBLY.
6. VALVE LAY LENGTH SIZES 2-1/2" (65 MM) THRU 24" (600 MM) ARE WITHIN TOLERANCE OF MSS SP-68/API-609, SIZE 2" (50MM) DO NOT MEET ANY LAY LENGTH SPECIFICATION.
7. ALL THREADS ARE TAPPED THRU PER TAPPED LUG DATA ON PAGE 1 EXCEPT FOR THOSE BELOW.  
BELOW TAPPED HOLES ARE PER FLANGE FACE.  
10" (250 MM) VALVE HAS (4) HOLES TAPPED 1-8UNC X 1" (25 MM) DP DN 15-1/4" (387 MM) D.B.C.  
14" (350 MM) VALVE HAS (4) HOLES TAPPED 1-1/8-8UNC X 1-3/16" (30 MM) DP DN 20-1/4" (514 MM) D.B.C.  
16" (400 MM) VALVE HAS (4) HOLES TAPPED 1-1/4-8UNC X 1-3/8" (35 MM) DP DN 22-1/2" (572 MM) D.B.C.  
18" (450 MM) VALVE HAS (4) HOLES TAPPED 1-1/4-8UNC X 1-3/8" (35 MM) DP DN 24-3/4" (629 MM) D.B.C.  
20" (500 MM) VALVE HAS (4) HOLES TAPPED 1-1/4-8UNC X 1-1/4" (32 MM) DP DN 27" (686 MM) D.B.C.  
24" (600 MM) VALVE HAS (4) HOLES TAPPED 1-1/2-8UNC X 1-1/2" (38 MM) DP DN 32" (813 MM) D.B.C.
8. DISC STEM ASSEMBLY CONSISTS OF: DISC (2), UPPER STEM (3), LOWER STEM (4), AND TAPER PINS (5).
9. FOR ELASTOMER SEAT, 8" (200 MM) AND LARGER VALVES REQUIRE O-RING. O-RING GROOVE MACHINED IN ITEM 23.



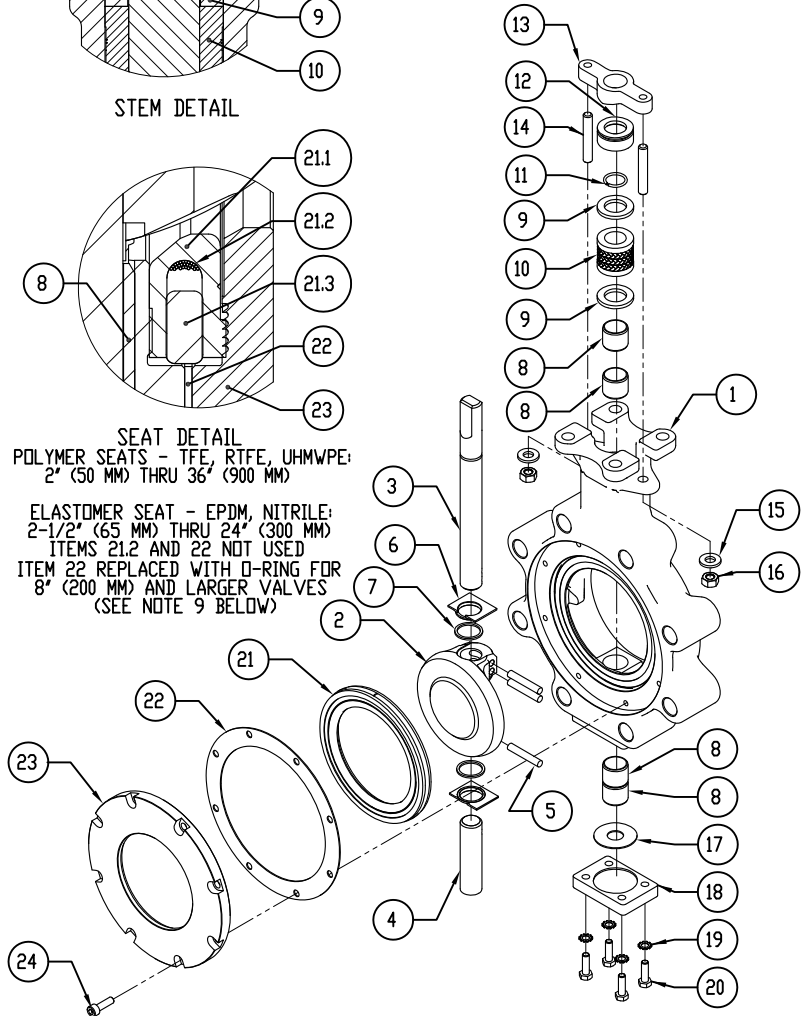
STEM DETAIL



SEAT DETAIL

POLYMER SEATS - TFE, RTFE, UHMWPE:  
2" (50 MM) THRU 36" (900 MM)

ELASTOMER SEAT - EPDM, NITRILE:  
2-1/2" (65 MM) THRU 24" (300 MM)  
ITEMS 21.2 AND 22 NOT USED  
ITEM 22 REPLACED WITH O-RING FOR  
8" (200 MM) AND LARGER VALVES  
(SEE NOTE 9 BELOW)



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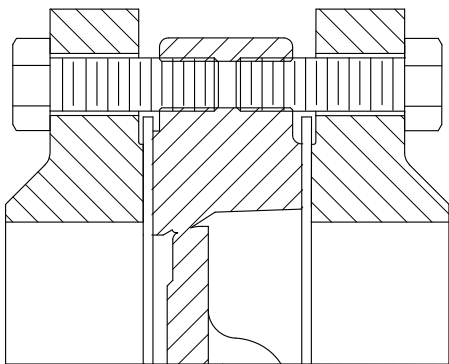
UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES  
DECIMAL  
XXX ± .005  
SURFACE:  
125  
ANGULAR  
± 1/2°  
FRACTIONAL  
± 1/64  
REMOVE ALL BURRS  
BREAK SHARP EDGES  
DO NOT SCALE DRAWING

ECN RELEASE:  
08268  
DRAWN:  
GG  
CHECK:  
NLE  
APPROVED:  
BB  
ENG MAG:  
BB

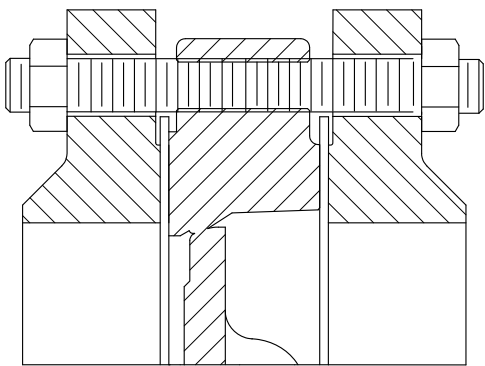
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REV.	ECN	DRAWN	DATE	CHECK	DATE
7	08672	KLJ	11/12/14	JB	11/12/14
EMERSON					
KLOK HPBFV SERIES 37					
2" - 24" ASME 300 - LUGGED					
POLYMER AND ELASTOMER SEAT					
DATE:		DATE:		DATE:	
06/11/2010		05/04/2010		06/10/2010	
DATE:		DATE:		DATE:	
06/11/2010		06/11/2010		06/11/2010	
DATE:		DATE:		DATE:	
06/11/2010		06/11/2010		06/11/2010	
SIZE:		DWG NO:		REV:	
C		SM1280		7	
SCALE:		WEIGHT:		SHEET:	
-		LBS		2 OF 2	

KEYSTONE K-LOK SERIES 37: BOLT LENGTHS

BOLT LENGTHS COMPLY WITH MSS SP-68



VALVE SHOWN WITH BOLTS




VALVE SHOWN WITH ALL THREAD STUDS

LENGTHS OF BOLTS ARE BASED ON:

- 1.) MIN. FLANGE THICKNESS OF WELD NECK FLANGES ASME B16.5
- 2.) GASKET THICKNESS = .062"
- 3.) ANY DEVIATION FROM SPECIFIED COMPONENTS MAY RESULT IN ALTERED BOLT AND ALL THREAD LENGTHS

NOTE:  
WHEN MORE THAN ONE BOLT LENGTH IS SPECIFIED FOR THE SAME VALVE, THE LONGER BOLTS ARE TO BE USED ON THE SEAT RETAINING RING SIDE OF THE VALVE.

VALVE SIZE	HEX HEAD MACH BOLT			ALL THREAD STUD		
	QTY	SIZE	LENGTH	QTY	SIZE	LENGTH
2	16	5/8-11 UNC	X 2	16	5/8-11 UNC	X 2-7/8
2-1/2	16	3/4-10 UNC	X 2	16	3/4-10 UNC	X 3
3	16	3/4-10 UNC	X 2	16	3/4-10 UNC	X 3
4	16	3/4-10 UNC	X 2-1/4	16	3/4-10 UNC	X 3-1/4
5	16	3/4-10 UNC	X 2-1/2	16	3/4-10 UNC	X 3-1/2
6	24	3/4-10 UNC	X 2-1/2	24	3/4-10 UNC	X 3-5/8
8	24	7/8-9 UNC	X 3	24	7/8-9 UNC	X 4-1/8
10	32	1-8 UN	X 3-1/2	32	1-8 UN	X 4-3/4
12	32	1-1/8-8 UN	X 3-3/4	32	1-1/8-8 UN	X 5-1/8
14	32	1-1/8-8 UN	X 4-1/4	32	1-1/8-8 UN	X 5-3/4
	8	1-1/8-8 UN	X 3-1/4	8	1-1/8-8 UN	X 4-5/8
16	32	1-1/4-8 UN	X 4-3/4	32	1-1/4-8 UN	X 6-1/4
	8	1-1/4-8 UN	X 3-1/2	8	1-1/4-8 UN	X 5
18	40	1-1/4-8 UN	X 5-1/4	40	1-1/4-8 UN	X 6-3/4
	8	1-1/4-8 UN	X 3-3/4	8	1-1/4-8 UN	X 5-1/4
20	40	1-1/4-8 UN	X 5-1/2	40	1-1/4-8 UN	X 7-1/8
	8	1-1/4-8 UN	X 4	8	1-1/4-8 UN	X 5-1/2
24	40	1-1/2-8 UN	X 6-1/4	40	1-1/2-8 UN	X 8
	8	1-1/2-8 UN	X 4-1/2	8	1-1/2-8 UN	X 6-1/4
30	48	1-3/4-8 UN	X 8-1/4	48	1-3/4-8 UN	X 10-1/2
	8	1-3/4-8 UN	X 5-3/4	8	1-3/4-8 UN	X 8
36	56	2-8 UN	X 9	56	2-8 UN	X 11-1/4
	8	2-8 UN	X 6-5/8	8	2-8 UN	X 9



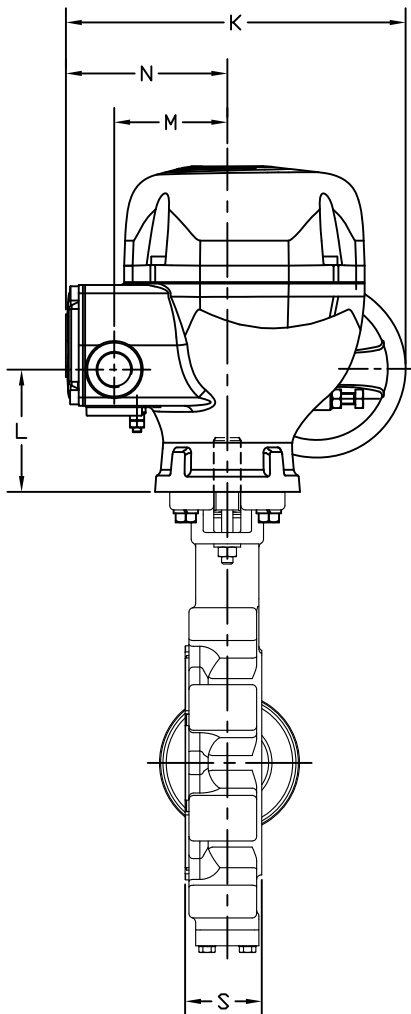
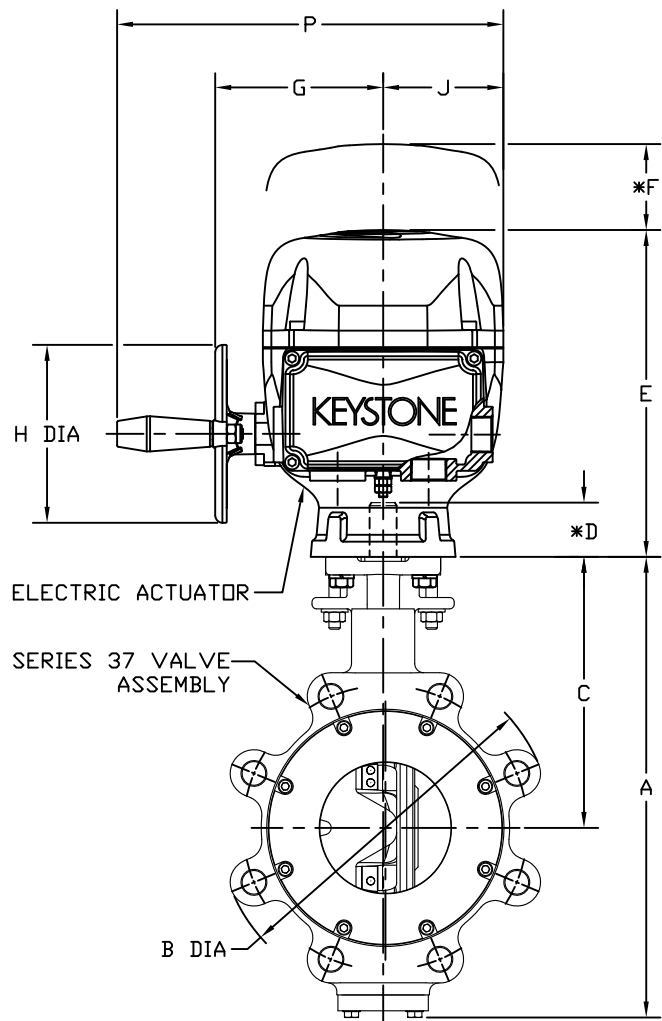
KLOK FIGURE 373 (SERIES 37)  
2" - 36" ASME 300 - LUGGED  
BOLT LENGTHS

SM1320

SHEET 1 OF 1

1	08638	KLJ	8/12/14	JB	8/12/14
NO	ECN	DRAWN	DATE	CHECK	DATE

KEYSTONE K-LOK SERIES 37 WITH KEYSTONE EPI 2 ACTUATOR




ELECTRIC ACTUATOR DIMENSIONS (IMPERIAL: INCHES)												ADAPT. CODE
TYPE	E	F	G	H	J	K	L	M	N	P		
EPI2-6	8 5/16	6 7/8	4 11/16	4 15/16	3 5/16	9 7/16	2 5/8	3 1/8	4 1/2	10 3/4		BAF
EPI2-13	9	6 7/8	4 11/16	4 15/16	3 5/16	9 7/16	3 7/16	3 1/8	4 1/2	10 3/4		BAF
EPI2-25	11 5/16	9 1/8	6 1/16	7 1/8	4 5/16	11 5/8	3 3/4	3 3/4	5 1/8	13 1/8		CAF
EPI2-51	11 5/16	9 1/8	6 1/16	7 1/8	4 5/16	11 5/8	3 3/4	3 3/4	5 1/8	13 1/8		CAF
EPI2-91	14 5/16	9 1/8	6 3/4	9 1/2	4 5/16	13 7/16	6 13/16	4 1/8	5 1/2	13 3/4		DAJ DAK
EPI2-171	18 5/16	9 1/8	6 3/4	9 1/2	10 1/2	13 7/16	10 3/4	4 1/8	5 1/2	19 15/16		DAJ DAK

VALVE DIMENSIONS (IMPERIAL: INCHES)							ADAPT. CODE
SIZE	A	B	C	D	S		
2	10	6 3/32	6	1 1/2	2 3/8		BAB
2 1/2	10 3/8	7 3/16	6	1 1/2	1 7/8		BAB
3	11 3/8	7 7/8	6 5/8	1 1/2	1 7/8		BAC
4	12 13/16	9 3/16	7 1/2	1 1/2	2 1/8		BAD
5	13 3/8	10 9/16	7 9/16	1 1/2	2 5/16		BAD
6	15 11/16	11 15/16	8 3/4	1 1/2	2 5/16		CAE
8	18 1/2	14 17/32	10 1/8	2 1/4	2 7/8		CAF
10	21 1/16	17	11 3/8	3 1/4	3 1/4		CAG
12	24 3/16	19 23/32	13	3 1/4	3 5/8		DAG
14	27 1/16	22 1/2	14 3/8	4 1/2	4 5/8		DAJ
16	29 15/16	25	16 1/16	4 3/8	5 1/4		DAK
18	32 1/16	27 1/4	17	4 1/2	5 7/8		DBA
20	36 9/16	29 1/2	20 3/16	6 3/4	6 1/4		LAX

NOTES:

1. REFER TO INDIVIDUAL SMD DRAWINGS FOR FURTHER DETAILS OF VALVE, OPERATOR AND ADAPTABILITY CODES.
- \* 2. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.



**EMERSON™**

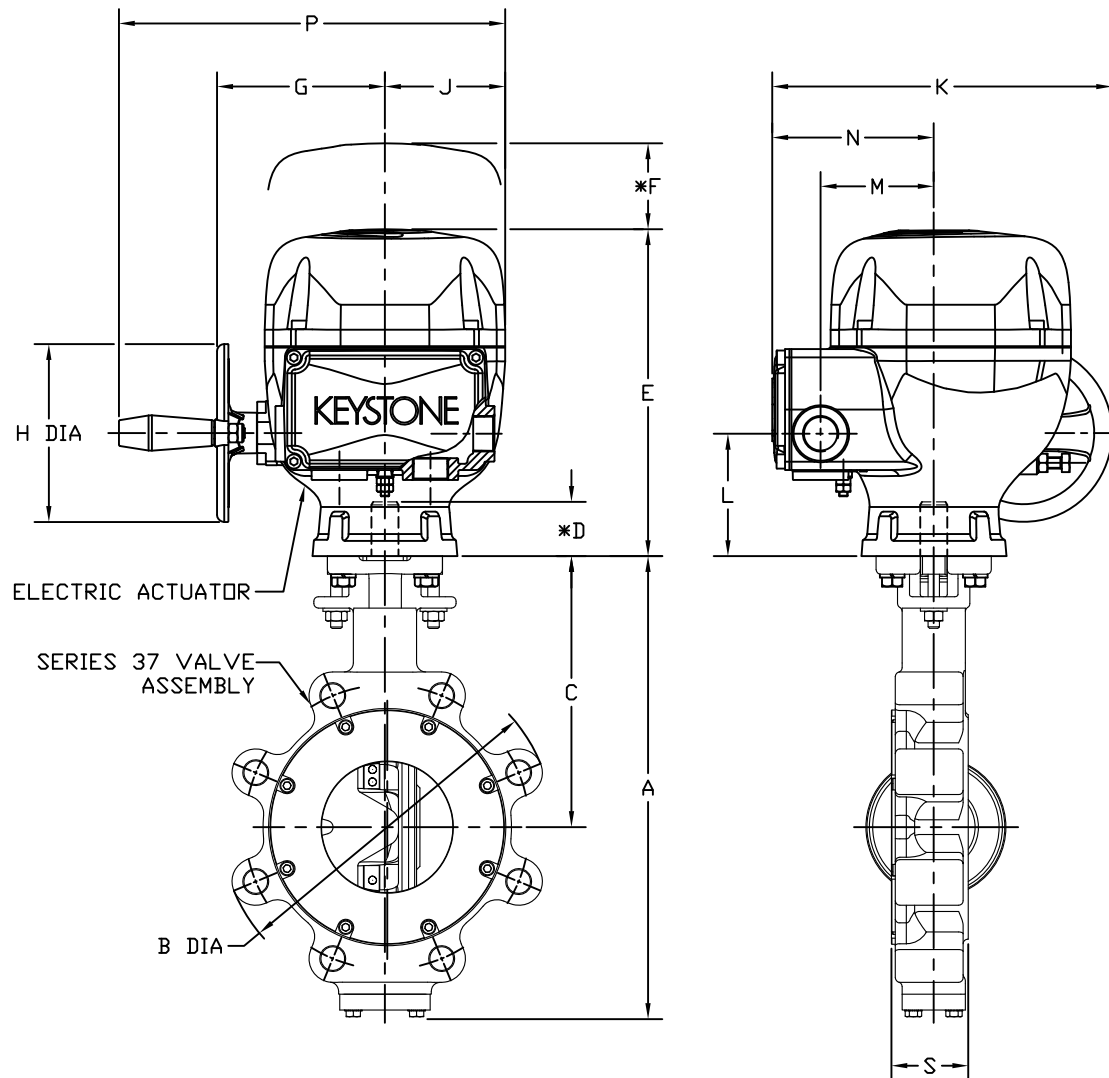
KEYSTONE SERIES 37 HIGH PERFORMANCE  
ASME CLASS 300 BUTTERFLY VALVE  
(LUGGED) WITH EPI2 ELECTRIC ACTUATOR

**SM1312**

1	08491	BCW	01/25/13	JB	01/25/13
NO	ECN	DRAWN	DATE	CHECK	DATE

SHEET 1 OF 3

# KEYSTONE K-LOK SERIES 37 WITH KEYSTONE EPI 2 ACTUATOR



## NOTES:

1. REFER TO INDIVIDUAL SMD DRAWINGS FOR FURTHER DETAILS OF VALVE, OPERATOR AND ADAPTABILITY CODES.
- \* 2. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.

ELECTRIC ACTUATOR DIMENSIONS (METRIC : MM)

TYPE	E	F	G	H	J	K	L	M	N	P	ADAPT. CODE
EPI2-6	211	175	119	125	84	240	67	79	114	273	BAF
EPI2-13	229	175	119	125	84	240	87	79	114	273	BAF
EPI2-25	287	232	154	181	110	295	95	95	130	333	CAF
EPI2-51	287	232	154	181	110	295	95	95	130	333	CAF
EPI2-91	364	232	171	241	110	341	173	105	140	349	DAJ DAK
EPI2-171	465	232	171	241	267	341	273	105	140	506	DAJ DAK

VALVE DIMENSIONS (METRIC: MM)

SIZE	A	B	C	D	S	ADAPT. CODE
50	254	155	152	38	60	BAB
65	264	183	152	38	48	BAB
80	289	200	168	38	48	BAC
100	325	233	191	38	54	BAD
125	340	268	192	38	59	BAD
150	398	303	222	38	59	CAE
200	470	369	257	57	73	CAF
250	535	432	289	83	83	CAG
300	614	501	330	83	92	DAG
350	687	572	365	114	117	DAJ
400	760	635	408	111	133	DAK
450	814	692	432	114	149	DBA
500	929	749	513	171	159	LAX



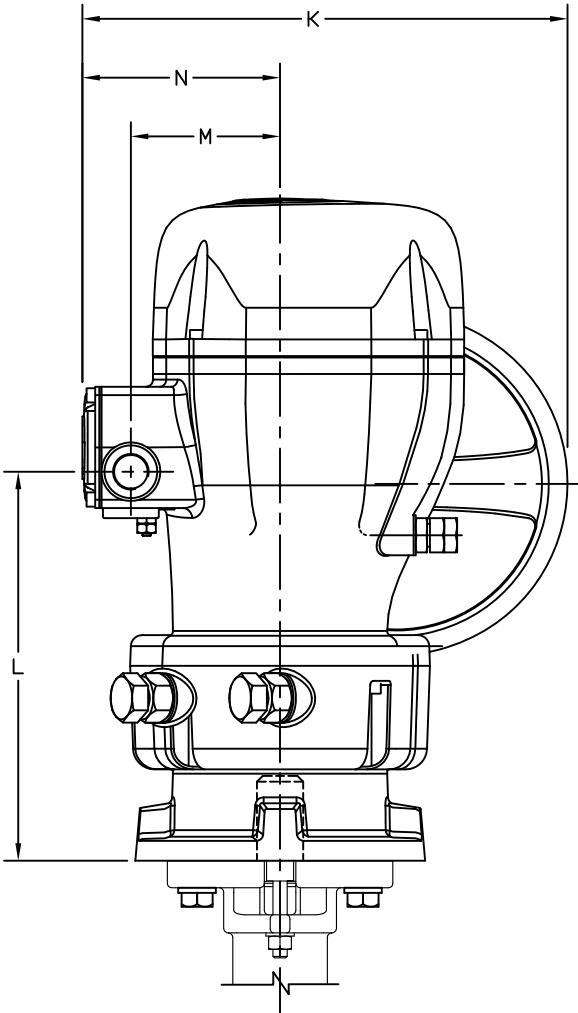
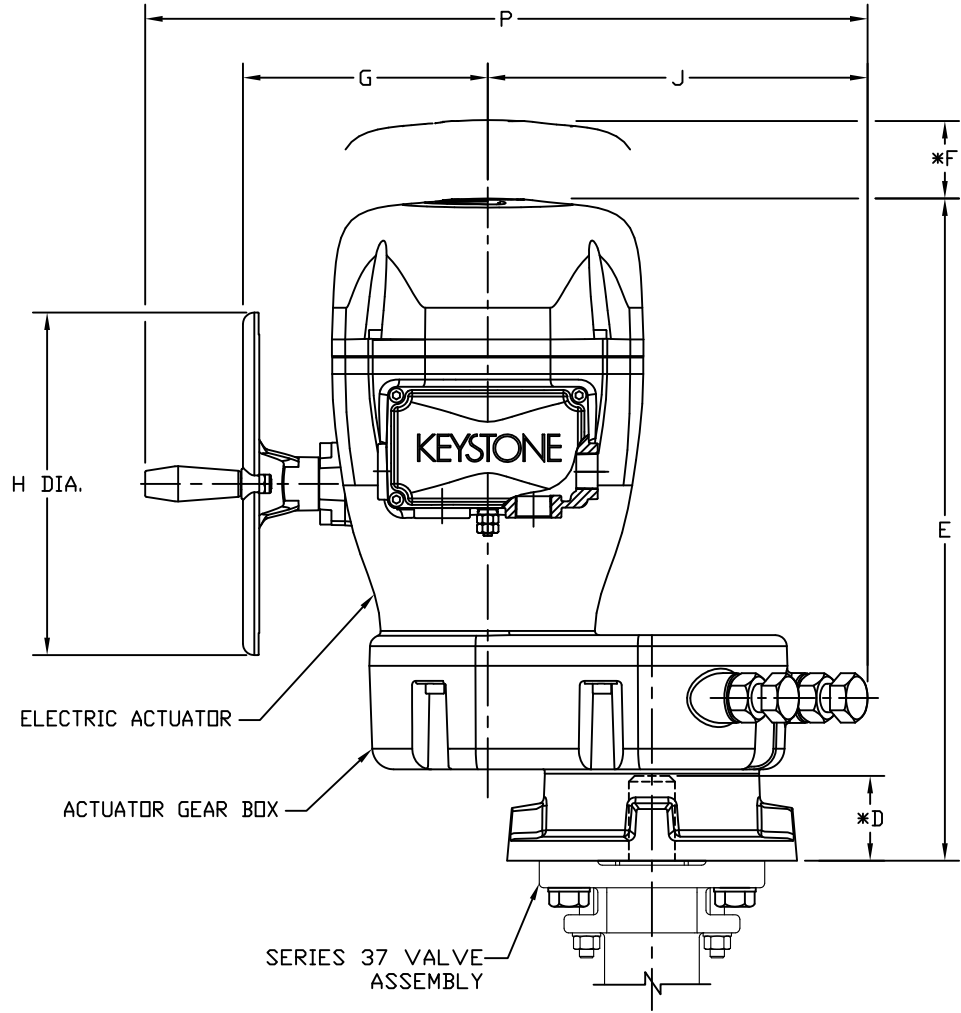
KEYSTONE SERIES 37 HIGH PERFORMANCE  
ASME CLASS 300 BUTTERFLY VALVE  
(LUGGED) WITH EPI2 ELECTRIC ACTUATOR

SM1312

1	08491	BCW	01/25/13	JB	01/25/13
NO	ECN	DRAWN	DATE	CHECK	DATE


SHEET 2 OF 3

KEYSTONE K-LOK SERIES 37 WITH KEYSTONE EPI 2 ACTUATOR



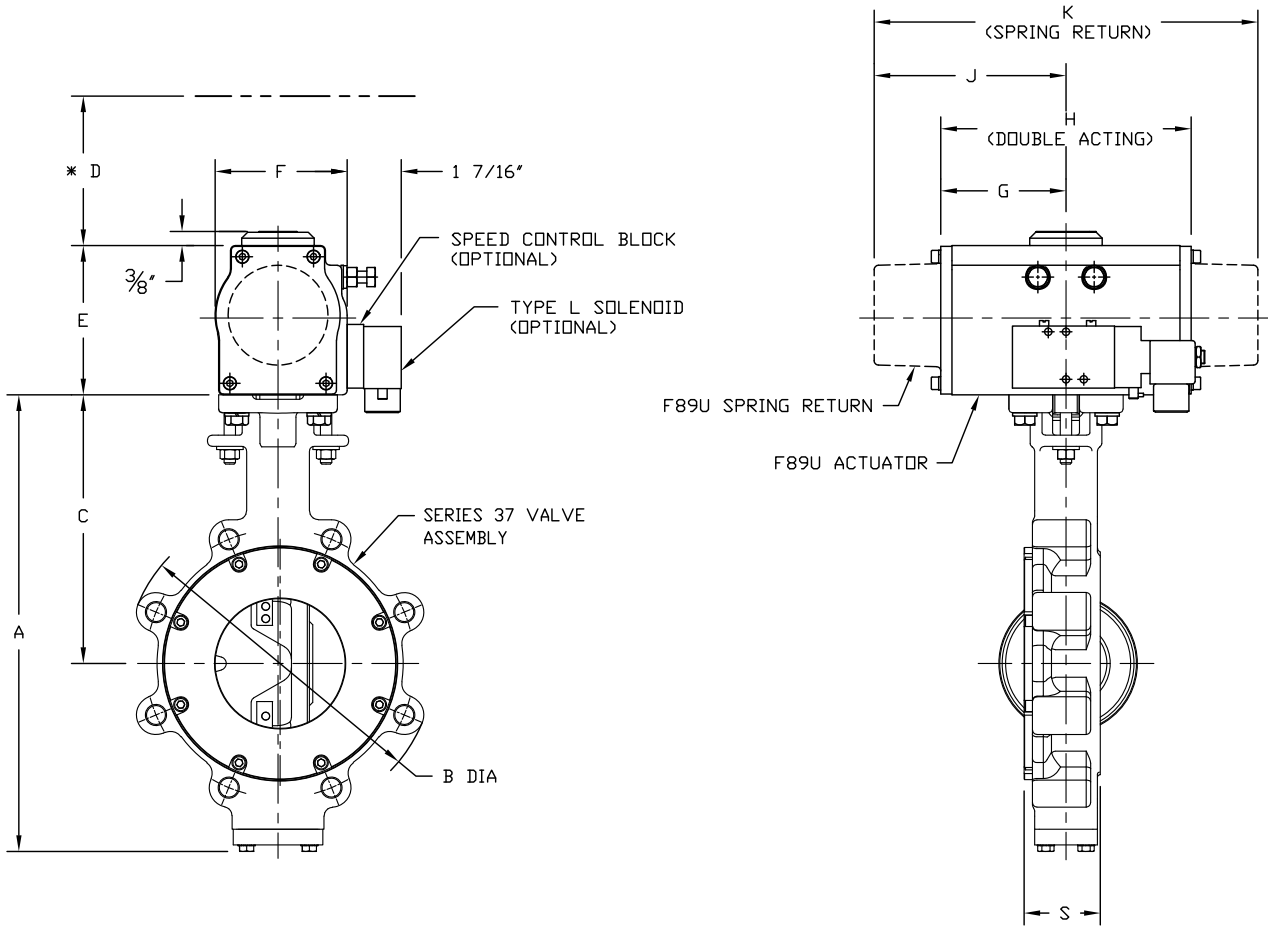
NOTES:

1. REFER TO INDIVIDUAL SMD DRAWINGS FOR FURTHER DETAILS OF VALVE, ACTUATOR AND ADAPTABILITY CODES.
2. GEAR BOX SUPPLIED WITH EPI-171. (THIS SHEET)
- \* 3. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.

 <b>EMERSON™</b>						KEYSTONE SERIES 37 HIGH PERFORMANCE ASME CLASS 300 BUTTERFLY VALVE (LUGGED) WITH EPI2 ELECTRIC ACTUATOR					
1	08491	BCW	01/25/13	JB	01/25/13	SM1312					
NO	ECN	DRAWN	DATE	CHECK	DATE	SHEET 3 OF 3					

KEYSTONE K-LOK SERIES 37 WITH KEYSTONE F89U ACTUATOR

NO	ECN	DRAWN	DATE	CHECK	DATE
0	09042	KLJ	12/04/2018	JWB	12/04/2018



F89U ACTUATOR DIMENSIONS (IMPERIAL: INCHES)							
SIZE	E	F	G	H	J	K	ADAPT. CODE
F89U-003	3 13/32	3 3/32	2 15/32	4 29/32	3 21/32	7 5/16	AAB BAD
F89U-004	3 25/32	3 5/32	2 13/16	5 5/8	4 9/32	8 17/32	AAC BAC
F89U-006	3 31/32	3 7/16	3 11/32	6 21/32	5 1/8	10 7/32	BAD
F89U-009	4 11/16	3 29/32	3 7/16	6 7/8	5 1/16	10 1/8	BAD
F89U-014	5 7/16	4 13/32	3 13/16	7 5/8	6 1/16	12 3/32	BAD
F89U-020	6 1/8	4 27/32	4 21/32	9 5/16	7 15/32	14 29/32	BAF CAF
F89U-032/033	6 3/4	5 3/8	5 19/32	11 5/32	9 1/8	18 7/32	BAF CAF/ BAG CAG
F89U-051/052	8 3/8	6 9/32	5 7/8	11 3/4	9 3/8	18 23/32	BAF CAF/ BAG CAG
F89U-085/086	8 15/16	7 1/2	7 9/16	15 1/8	12 11/32	24 11/16	CAH DAH/ CAJ DAJ
F89U-140/141	10 13/16	9 3/16	8 1/2	16 31/32	14 5/16	28 19/32	CAH DAH/ CAJ DAJ
F89U-240	12 13/16	11 7/16	10	19 31/32	16 21/32	33 9/32	DAK

VALVE DIMENSIONS (IMPERIAL: INCHES)						
SIZE	A	B	C	D	S	ADAPT. CODE
2	10	6 3/32	6	1 1/2	2 3/8	BAB
2 1/2	10 3/8	7 3/16	6	1 1/2	1 7/8	BAB
3	11 3/8	7 7/8	6 5/8	1 1/2	1 7/8	BAC
4	12 13/16	9 3/16	7 1/2	1 1/2	2 1/8	BAD
5	13 3/8	10 9/16	7 9/16	1 1/2	2 5/16	BAD
6	15 11/16	11 15/16	8 3/4	1 1/2	2 5/16	CAE
8	18 1/2	14 17/32	10 1/8	2 1/4	2 7/8	CAF
10	21 1/16	17	11 3/8	3 1/4	3 1/4	CAG
12	24 3/16	19 23/32	13	3 1/4	3 5/8	DAG
14	27 1/16	22 1/2	14 3/8	4 1/2	4 5/8	DAJ
16	29 15/16	25	16 1/16	4 3/8	5 1/4	DAK
18	32 1/16	27 1/4	17	4 1/2	5 7/8	DBA
20	36 9/16	29 1/2	20 3/16	6 3/4	6 1/4	LAX
24	42 1/2	35	23 3/8	7 1/16	7 1/8	MAY

NOTES:

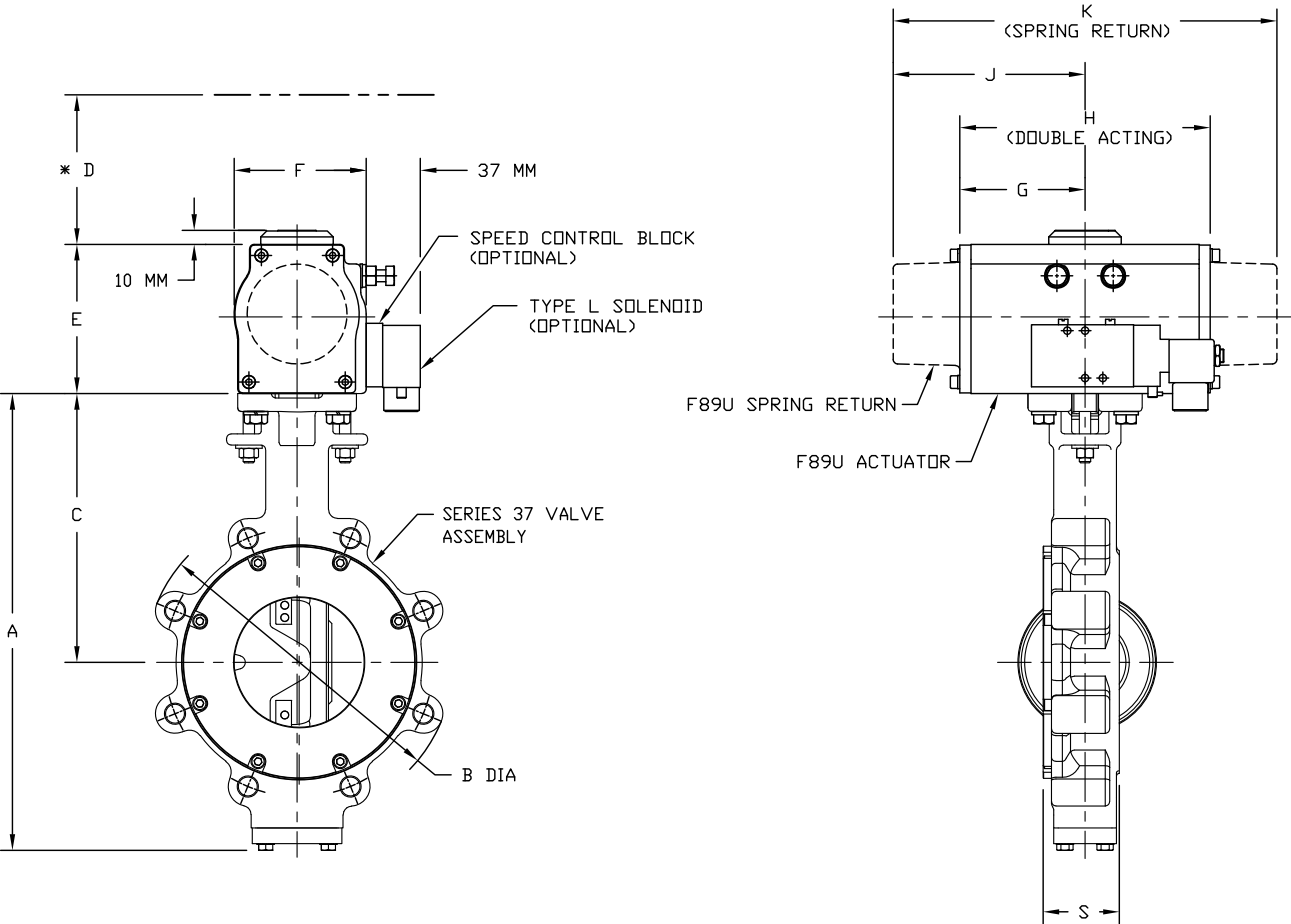
1. REFER TO INDIVIDUAL SMD DRAWINGS FOR FURTHER DETAILS OF VALVE, ACTUATOR AND ADAPTABILITY CODES.
- \* 2. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.
3. SIZING OF ACTUATOR NEEDS TO BE VERIFIED BY APPLICATION.
4. SEE PAGE 3 FOR OPTIONAL ACCESSORIES.

	Size: C	First Issue: 12/04/2018	Drawing Release Location: PASADENA, TEXAS	
	Units: INCH	Latest Issue: 12/04/2018		
	Drawn By: KLJ	KEYSTONE SERIES 37 HIGH PERFORMANCE ASME CLASS 300 BUTTERFLY VALVE (LUGGED) WITH F89U ACTUATOR		
	Checked By: JWB			
Sheet: 1 OF 3		Approved By: JWB	Rev.	
Scale: NTS			SM1378	/ 00



KEYSTONE K-LOK SERIES 37 WITH KEYSTONE F89U ACTUATOR

NO	ECN	DRAWN	DATE	CHECK	DATE
0	09042	KLJ	12/04/2018	JWB	12/04/2018



F89U ACTUATOR DIMENSIONS (METRIC: MM)							
SIZE	E	F	G	H	J	K	ADAPT. CODE
F89U-003	86	79	63	125	93	186	AAB BAD
F89U-004	96	80	72	143	109	217	AAC BAC
F89U-006	101	87	85	169	130	259	BAD
F89U-009	119	99	87	174	129	257	BAD
F89U-014	138	112	97	193	154	307	BAD
F89U-020	155	123	118	236	189	378	BAF CAF
F89U-032/033	171	136	142	283	231	462	BAF CAF/ BAG CAG
F89U-051/052	213	159	149	298	238	476	BAF CAF/ BAG CAG
F89U-085/086	227	190	192	384	314	627	CAH DAH/ CAJ DAJ
F89U-140/141	274	233	216	431	363	726	CAH DAH/ CAJ DAJ
F89U-240	325	290	254	507	423	845	DAK

VALVE DIMENSIONS (METRIC: MM)						
SIZE	A	B	C	D	S	ADAPT. CODE
50	254	155	152	38	60	BAB
65	264	183	152	38	48	BAB
80	289	200	168	38	48	BAC
100	325	233	191	38	54	BAD
125	340	268	192	38	59	BAD
150	398	303	222	38	59	CAE
200	470	369	257	57	73	CAF
250	535	432	289	83	83	CAG
300	614	501	330	83	92	DAG
350	687	572	365	114	117	DAJ
400	760	635	408	111	133	DAK
450	814	692	432	114	149	DBA
500	929	749	513	171	159	LAX
600	1080	889	594	179	181	MAY

- NOTES:
- 1. REFER TO INDIVIDUAL SMD DRAWINGS FOR FURTHER DETAILS OF VALVE, ACTUATOR AND ADAPTABILITY CODES.
  - \* 2. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.
  - 3. SIZING OF ACTUATOR NEEDS TO BE VERIFIED BY APPLICATION.
  - 4. SEE PAGE 3 FOR OPTIONAL ACCESSORIES.

Sheet: 2 OF 3  
Scale: NTS

Size: C  
Units: MM  
Drawn By: KLJ  
Checked By: JWB  
Approved By: JWB

First Issue: 12/04/2018  
Latest Issue: 12/04/2018

Drawing Release Location: PASADENA, TEXAS

KEYSTONE SERIES 37 HIGH PERFORMANCE  
ASME CLASS 300 BUTTERFLY VALVE (LUGGED)  
WITH F89U ACTUATOR

SM1378

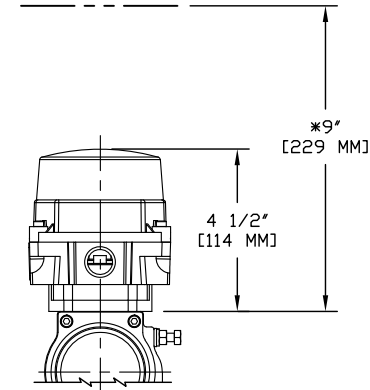
Rev. 00



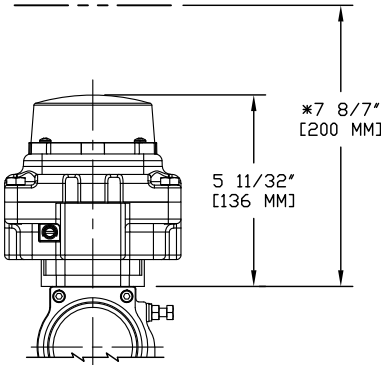
KEYSTONE K-LOK SERIES 37 WITH KEYSTONE F89U ACTUATOR

NO	ECN	DRAWN	DATE	CHECK	DATE
0	09042	KLJ	12/04/2018	JWB	12/04/2018

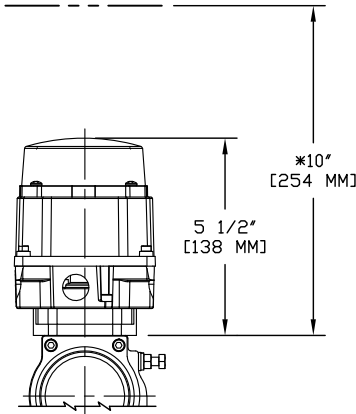
OPTIONAL ACCESSORIES



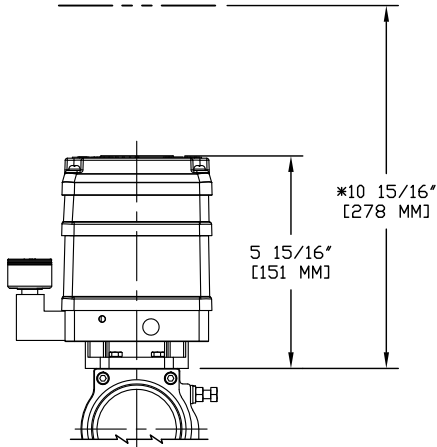
TOPWORX "TVA"  
SWITCHBOX



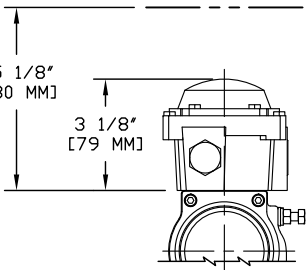
TOPWORX "TXP/TXS"  
SWITCHBOX



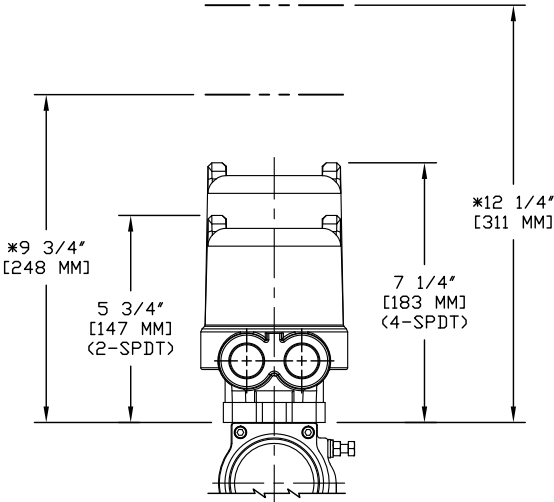
TOPWORX "TVL"  
SWITCHBOX



F20, F20-G, F20-S2, F20-S2-G  
ELECTRO-PNEUMATIC POSITIONER




TYPE "LP" LOW PROFILE  
QUARTER-TURN POSITION INDICATOR



"K" SWITCH  
ROTARY POSITION INDICATOR

NOTE:  
\*1. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.



Sheet: 3 OF 3  
Scale: NTS

Size: C  
Units: MM  
Drawn By: KLJ  
Checked By: JWB  
Approved By: JWB

First Issue: 12/04/2018  
Latest Issue: 12/04/2018

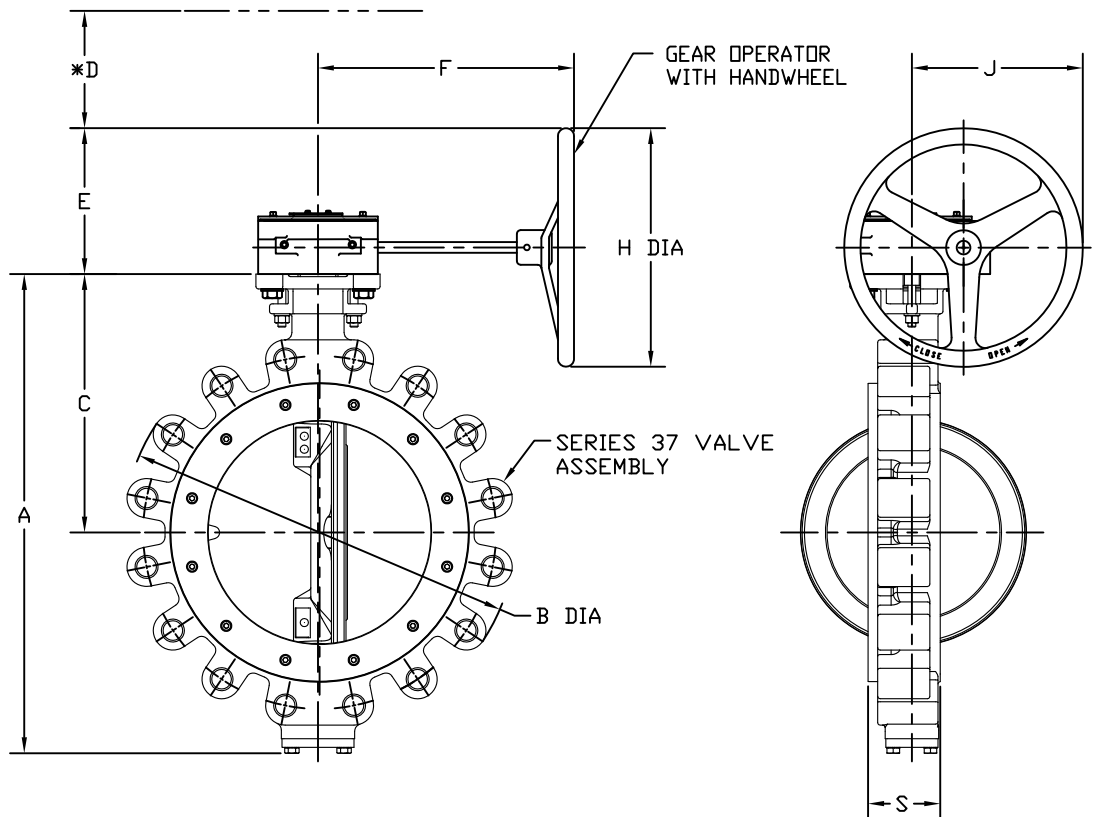
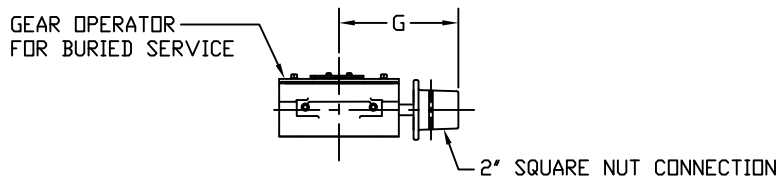
Drawing Release Location: PASADENA, TEXAS

KEYSTONE SERIES 37 HIGH PERFORMANCE  
ASME CLASS 300 BUTTERFLY VALVE (LUGGED)  
WITH F89U ACTUATOR

SM1378

Rev. 00


KEYSTONE K-LOK SERIES 37 WITH GEAR OPERATOR



GEAR OPERATOR DIMENSIONS (IMPERIAL: INCHES)						
PART NUMBER	E	F	G	H	J	ADAPT. CODE
XXX-819-020-423-500 (24:1)	4 1/8	7 7/16	6	6	4 13/16	BAB BAC BAD
XXX-819-120-420-500 (30:1)	7 3/8	12 7/8	6	12	8 5/8	CAD CAE CAF
XXX-819-140-426-500 XXX-819-160-426-500 (50:1)	7 1/2	12 7/8	6	12	9 1/8	CAG DAG CAF DAH DAJ
XXX-819-140-426-562 XXX-819-160-426-562 (50:1)	10 1/2	15 3/8	6	18	12 1/8	
XXX-819-180-430-500 (80:1)	8 1/4	10 13/16	7 3/4	12	10 3/4	DAJ CAF CAG DAG DAH DAK
XXX-819-180-430-564 XXX-819-300-430-500 (80:1)	11 1/4	13 3/16	7 3/4	18	13 3/4	
XXX-819-180-428-000 (180:1)	9 11/16	13	11 11/16	12	13 1/4	DAK DAH DAJ DBA LAX
XXX-819-180-428-161 XXX-819-180-428-360 XXX-819-180-428-370 XXX-819-200-428-370 (180:1)	12 11/16	15 1/4	11 11/16	18	16 1/4	
XXX-819-240-425-138 XXX-819-420-425-000 XXX-819-480-425-000 (300:1)	11 1/8	16 1/4	14 1/2	18	9 1/4	

VALVE DIMENSIONS (IMPERIAL: INCHES)						
SIZE	A	B	C	D	S	ADAPT. CODE
2	10	6 3/32	6	1 1/2	2 3/8	BAB
2 1/2	10 3/8	7 3/16	6	1 1/2	1 7/8	BAB
3	11 3/8	7 7/8	6 5/8	1 1/2	1 7/8	BAC
4	12 13/16	9 3/16	7 1/2	1 1/2	2 1/8	BAD
5	13 3/8	10 9/16	7 9/16	1 1/2	2 5/16	BAD
6	15 11/16	11 15/16	8 3/4	1 1/2	2 5/16	CAE
8	18 1/2	14 17/32	10 1/8	2 1/4	2 7/8	CAF
10	21 1/16	17	11 3/8	3 1/4	3 1/4	CAG
12	24 3/16	19 23/32	13	3 1/4	3 5/8	DAG
14	27 1/16	22 1/2	14 3/8	4 1/2	4 5/8	DAJ
16	29 15/16	25	16 1/16	4 3/8	5 1/4	DAK
18	32 1/16	27 1/4	17	4 1/2	5 7/8	DBA
20	36 9/16	29 1/2	20 3/16	6 3/4	6 1/4	LAX
24	42 1/2	35	23 3/8	7 1/16	7 1/8	MAY

- NOTES:
- 1. REFER TO INDIVIDUAL SMD DRAWINGS FOR FURTHER DETAILS OF VALVE, OPERATOR AND ADAPTABILITY CODES.
  - \* 2. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.
  - 3. A 1" MOUNTING PLATE MAY BE REQUIRED WHEN USING A FIGURE 425 (300:1) GEAR OPERATOR.



**EMERSON™**

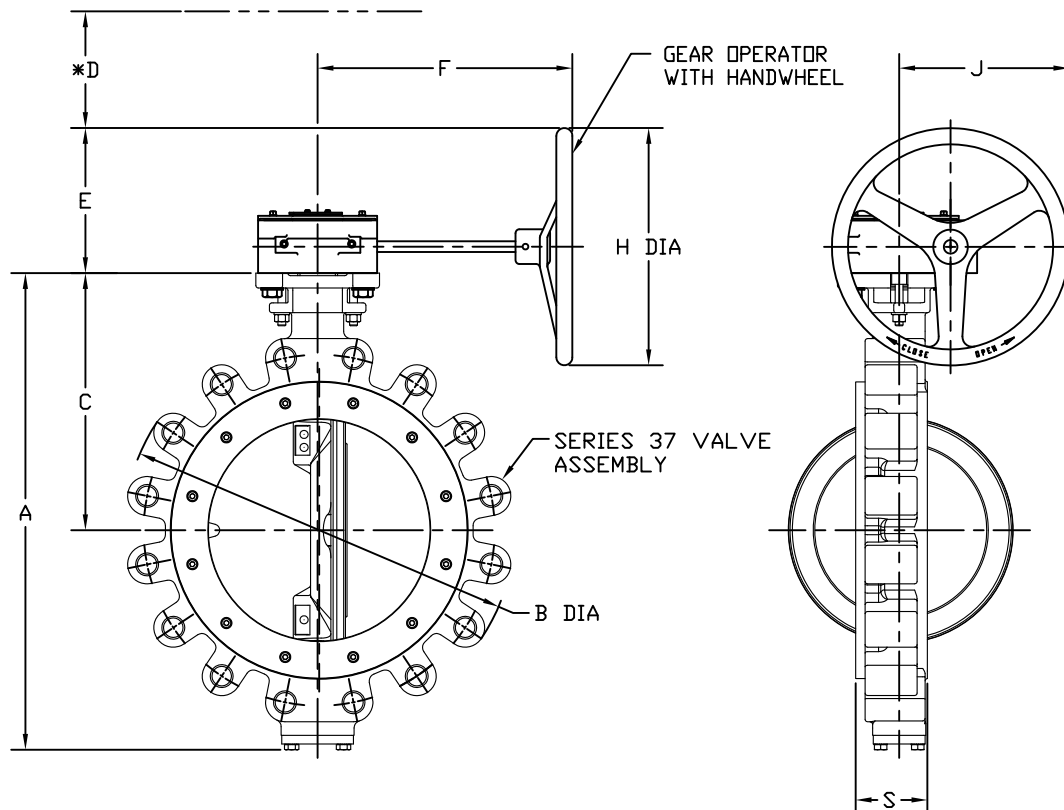
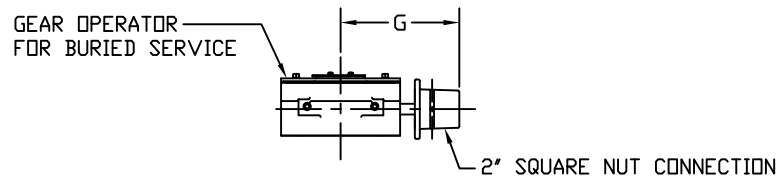
KEYSTONE SERIES 37 HIGH PERFORMANCE  
ASME CLASS 300 BUTTERFLY VALVE  
(LUGGED) WITH GEAR OPERATOR

**SM1309**

2	08491	BCW	01/25/13	JB	01/25/13
NO	ECN	DRAWN	DATE	CHECK	DATE

SHEET 1 OF 3

## KEYSTONE K-LOK SERIES 37 WITH GEAR OPERATOR



NOTES:

1. REFER TO INDIVIDUAL SMD DRAWINGS FOR FURTHER DETAILS OF VALVE, OPERATOR AND ADAPTABILITY CODES.
- \* 2. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.
3. A 1' MOUNTING PLATE MAY BE REQUIRED WHEN USING A FIGURE 425 (300:1) GEAR OPERATOR.

GEAR OPERATOR DIMENSIONS (IMPERIAL: INCHES)							
PART NUMBER	E	F	G	H	J	ADAPT. CODE	
XXX-819-020-423-500 (24:1)	4 1/8	7 7/16	6	6	4 13/16	BAB BAC BAD	
XXX-819-120-420-500 (30:1)	7 3/8	12 7/8	6	12	8 5/8	CAD CAE CAF	
XXX-819-140-426-500 XXX-819-160-426-500 (50:1)	7 1/2	12 7/8	6	12	9 1/8	CAG DAG CAF DAH DAJ	
XXX-819-140-426-562 XXX-819-160-426-562 (50:1)	10 1/2	15 3/8	6	18	12 1/8		
XXX-819-180-430-500 (80:1)	8 1/4	10 13/16	7 3/4	12	10 3/4	DAJ CAF CAG DAG DAH DAK	
XXX-819-180-430-564 XXX-819-300-430-500 (80:1)	11 1/4	13 3/16	7 3/4	18	13 3/4		
XXX-819-180-428-000 (180:1)	9 11/16	13	11 11/16	12	13 1/4	DAK DAH DAJ DBA LAX	
XXX-819-180-428-161 XXX-819-180-428-360 XXX-819-180-428-370 XXX-819-200-428-370 (180:1)	12 11/16	15 1/4	11 11/16	18	16 1/4		
XXX-819-240-425-138 XXX-819-420-425-000 XXX-819-480-425-000 (300:1)	11 1/8	16 1/4	14 1/2	18	9 1/4		MAY MBE DAK LAX MAZ

VALVE DIMENSIONS (METRIC: MM)						
SIZE	A	B	C	D	S	ADAPT. CODE
50	254	155	152	38	60	BAB
65	264	183	152	38	48	BAB
80	289	200	168	38	48	BAC
100	325	233	191	38	54	BAD
125	340	268	192	38	59	BAD
150	398	303	222	38	59	CAE
200	470	369	257	57	73	CAF
250	535	432	289	83	83	CAG
300	614	501	330	83	92	DAG
350	687	572	365	114	117	DAJ
400	760	635	408	111	133	DAK
450	814	692	432	114	149	DBA
500	929	749	513	171	159	LAX
600	1080	889	594	179	181	MAY



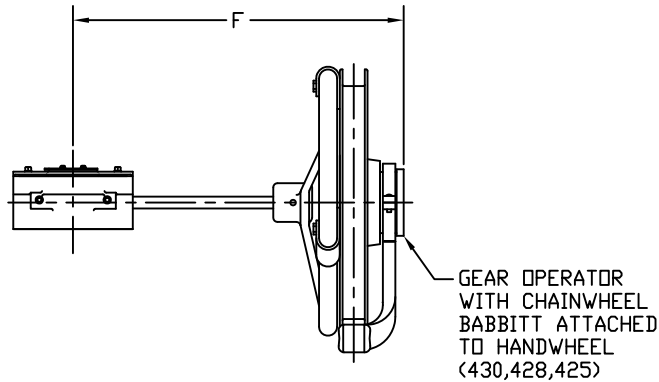
KEYSTONE SERIES 37 HIGH PERFORMANCE  
ASME CLASS 300 BUTTERFLY VALVE  
(LUGGED) WITH GEAR OPERATOR

SM1309

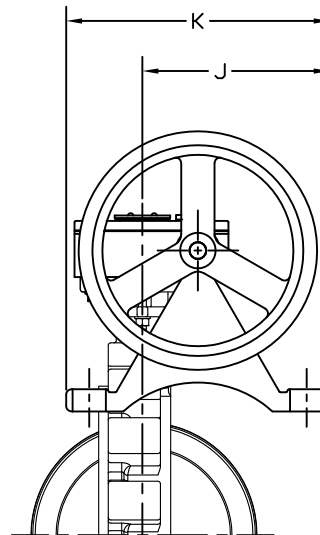
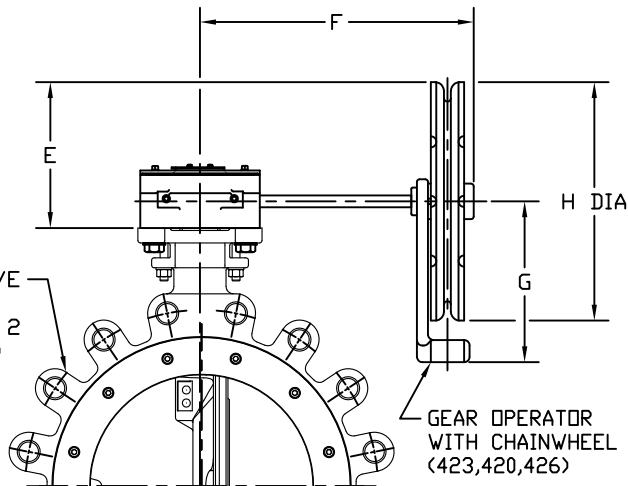
2	08491	BCW	01/25/13	JB	01/25/13
NO	ECN	DRAWN	DATE	CHECK	DATE

SHEET 2 OF 3

# KEYSTONE K-LOK SERIES 37 WITH GEAR OPERATOR



SERIES 37 VALVE ASSEMBLY  
(SEE SHEET 1 & 2 FOR DIMENSIONS)



GEAR OPERATOR DIMENSIONS WITH CHAINWHEEL (IMPERIAL: INCHES)							
PART NUMBER	E	F	G	H	J	K	ADAPT. CODE
XXX-819-020-423-512 (24:1)	4 5/8	7 1/16	4 1/2	7	5 9/16	7 1/2	BAB BAC BAD
XXX-819-120-420-512 (30:1)	6 3/4	12 9/16	7 1/4	10 13/16	6 1/8	7	CAD CAE CAF
XXX-819-140-426-512 XXX-819-160-426-512 (50:1)	6 15/16	12 9/16	7 1/4	10 13/16	6 5/8	7	CAG DAG CAF DAH DAJ
XXX-819-140-426-599 XXX-819-160-426-599 (50:1)	11	19	9	19	6 5/8	7	
XXX-819-180-430-512 (80:1)	8 1/2	13 1/2	6 1/4	12 1/2	8 1/4	7	DAJ CAF CAG DAG DAH DAK
XXX-819-300-430-512 (80:1)	11 3/4	16 3/4	9	19	9	8 1/2	
XXX-819-240-428-012 (180:1)	9 15/16	16 1/2	6 1/4	12 1/2	10 3/4	7	DAK DAH LAX DAJ
XXX-819-180-428-012 XXX-819-200-428-012 (180:1)	13 3/16	17 1/2	9	19	11 1/2	8 1/2	
XXX-819-420-425-012 XXX-819-480-425-012 (300:1)	11 5/8	20	9	19	4 1/2	8 1/2	DAK LAX MAZ

GEAR OPERATOR DIMENSIONS WITH CHAINWHEEL (METRIC: MM)							
PART NUMBER	E	F	G	H	J	K	ADAPT. CODE
XXX-819-020-423-512 (24:1)	118	179	114	178	141	191	BAB BAC BAD
XXX-819-120-420-512 (30:1)	172	319	184	275	156	178	CAD CAE CAF
XXX-819-140-426-512 XXX-819-160-426-512 (50:1)	235	319	184	380	168	178	CAG DAG CAF DAH DAJ
XXX-819-140-426-599 XXX-819-160-426-599 (50:1)	180	483	229	483	168	178	
XXX-819-180-430-512 (80:1)	216	343	159	318	210	178	DAJ CAF CAG DAG DAH DAK
XXX-819-300-430-512 (80:1)	299	425	229	483	229	216	
XXX-819-240-428-012 (180:1)	252	419	159	318	273	178	DAK DAH LAX DAJ
XXX-819-180-428-012 XXX-819-200-428-012 (180:1)	335	445	229	483	292	216	
XXX-819-420-425-012 XXX-819-480-425-012 (300:1)	295	508	229	483	114	216	DAK LAX MAZ

## NOTE:

1. A 1" MOUNTING PLATE MAY BE REQUIRED WHEN USING A FIGURE 425 (300:1) GEAR OPERATOR.



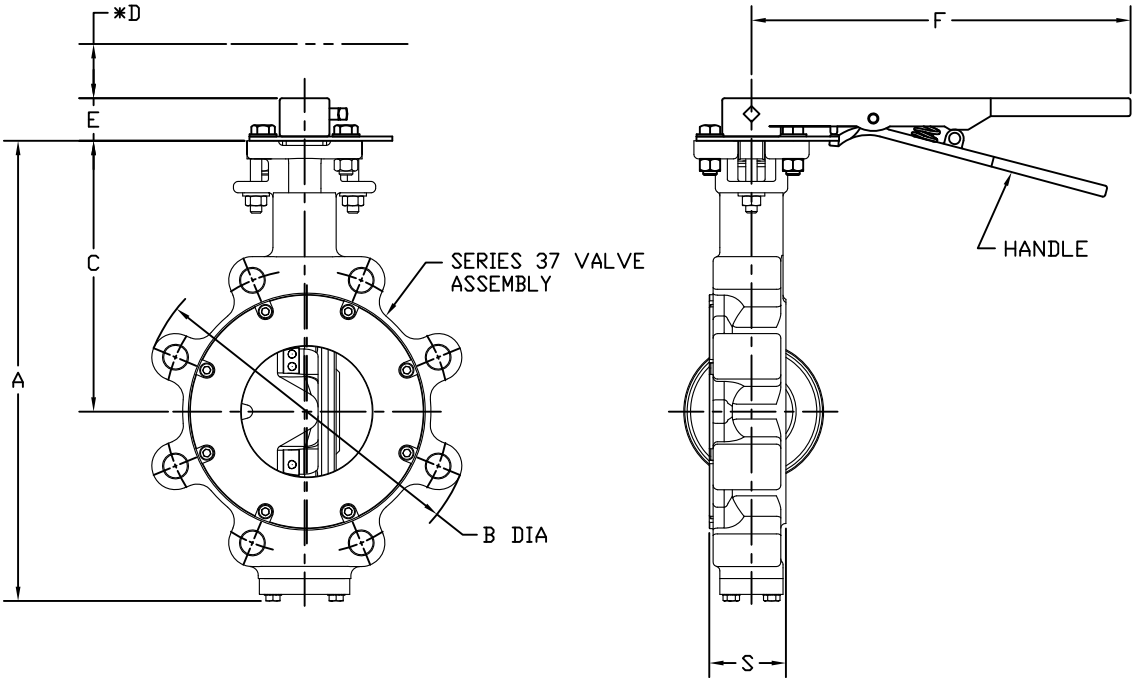
KEYSTONE SERIES 37 HIGH PERFORMANCE  
ASME CLASS 300 BUTTERFLY VALVE  
(LUGGED) WITH GEAR OPERATOR

SM1309

2	08491	BCW	01/25/13	JB	01/25/13
NO	ECN	DRAWN	DATE	CHECK	DATE

SHEET 3 OF 3

KEYSTONE K-LOK SERIES 37 WITH HANDLE




HANDLE DIMENSIONS						
IMPERIAL: INCHES			METRIC: MM			
ADAPT. CODE	E	F	ADAPT. CODE	E	F	
BAB	1 1/2	10 1/2	BAB	38	267	
BAC	1 1/2	10 1/2	BAC	38	267	
BAD	1 1/2	10 1/2	BAD	38	267	
CAD	1 1/2	14	CAD	38	356	
CAE	1 1/2	14	CAE	38	356	
VALVE DIMENSIONS (METRIC: MM)						
SIZE	A	B	C	D	S	ADAPT. CODE
50	254	155	152	38	60	BAB
65	264	183	152	38	48	BAB
80	289	200	168	38	48	BAC
100	325	233	191	38	54	BAD
125	340	268	192	38	59	BAD
150	398	303	222	38	59	CAE
VALVE DIMENSIONS (IMPERIAL: INCHES)						
SIZE	A	B	C	D	S	ADAPT. CODE
2	10	6 3/32	6	1 1/2	2 3/8	BAB
2 1/2	10 3/8	7 3/16	6	1 1/2	1 7/8	BAB
3	11 3/8	7 7/8	6 5/8	1 1/2	1 7/8	BAC
4	12 13/16	9 3/16	7 1/2	1 1/2	2 1/8	BAD
5	13 3/8	10 9/16	7 9/16	1 1/2	2 5/16	BAD
6	15 11/16	11 15/16	8 3/4	1 1/2	2 5/16	CAE

NOTES:

1. REFER TO INDIVIDUAL SMD DRAWINGS FOR FURTHER DETAILS OF VALVE, HANDLE AND ADAPTABILITY CODES.

\*2. MINIMUM CLEARANCE REQUIRED FOR REMOVAL OF HANDLE.

  
**EMERSON**<sup>™</sup>

1	08491	BCW	01/25/13	JB	01/25/13
NO	ECN	DRAWN	DATE	CHECK	DATE

KEYSTONE SERIES 37 HIGH PERFORMANCE  
ASME CLASS 300 BUTTERFLY VALVE  
(LUGGED) WITH HANDLE

SM1308

SHEET 1 OF 1