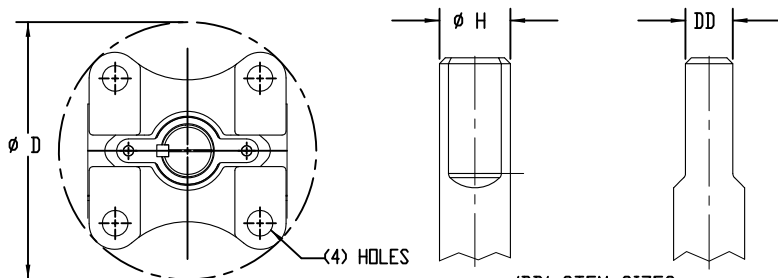
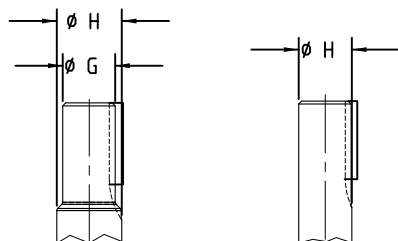


KEYSTONE K-LOK SERIES 36: BARE VALVE



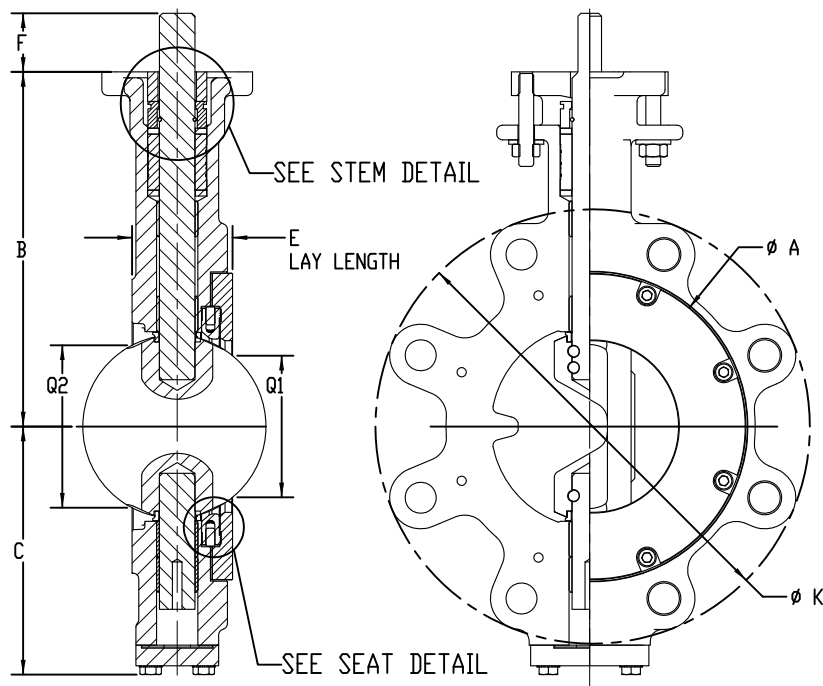
TOP PLATE PROFILE
FOR SIZES 2" (50 MM) THRU 24" (600 MM)

'DD' STEM SIZES:
SIZES 2" (50MM) THRU 6" (150 MM)



KEYED STEM SIZES:
10" (250 MM)
12" (300 MM)
16" (400 MM)
24" (600 MM)

KEYED STEM SIZES:
8" (200 MM), *10" (250 MM),
14" (350 MM), 18" (450 MM),
20" (500 MM)



(SEE NOTES PAGE 2)

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.	ADAPT. CODE	WEIGHT (LBS)	
2	4.46	6.00	4.00	4.15	2.38	1.27	5.88	1.38	1.88	N/A	0.56	0.38	5/8-11UNC	4	4.75	3.25	0.44	BAB	12	
2 1/2	4.76	6.00	4.35	4.15	1.88	1.27	6.56	2.19	2.25	N/A	0.56	0.38	5/8-11UNC	4	5.5	3.25	0.44	BAB	12	
3	5.28	6.63	4.98	4.15	1.88	1.25	7.09	2.13	2.63	N/A	0.63	0.44	5/8-11UNC	4	6	3.25	0.44	BAC	15	
4	6.47	7.50	5.25	4.15	2.13	1.25	8.59	3.19	3.63	N/A	0.75	0.50	5/8-11UNC	8	7.5	3.25	0.44	BAD	23	
5	7.59	7.56	5.75	4.15	2.25	1.25	9.81	4.38	4.75	N/A	0.75	0.50	3/4-10UNC	8	8.5	3.25	0.44	BAD	30	
6	8.88	8.75	5.87	6.07	2.25	1.25	11.00	5.25	5.56	N/A	0.75	0.50	3/4-10UNC	8	9.5	5	0.56	CAD	40	
6*	8.88	8.75	5.87	6.07	2.25	1.25	11.00	5.25	5.56	N/A	0.88	0.63	3/4-10UNC	8	9.5	5	0.56	CAE	40	
8	10.63	10.13	8.31	6.07	2.50	2.00	13.25	7.00	7.38	N/A	1.13	¼ x ¼ x 1½	3/4-10UNC	8	11.75	5	0.56	CAF	60	
10	12.75	11.38	9.62	6.07	2.81	2.00	15.78	9.13	9.31	1.13	1.38	¼ x ¼ x 1½	7/8-9UNC	12	14.25	5	0.56	CAF	89	
10*	12.75	11.38	9.62	6.07	2.81	3.00	15.78	9.13	9.31	N/A	1.38	¾ x ¾ x 2½	7/8-9UNC	12	14.25	5	0.56	CAG	90	
12	15.00	13.00	10.60	8.17	3.19	3.00	18.75	10.94	11.19	1.38	1.50	¾ x ¾ x 2½	7/8-9UNC	12	17	6.5	0.81	DAG	147	
14	16.25	13.25	11.85	8.17	3.63	3.00	20.75	11.75	12.25	N/A	1.63	¾ x ¾ x 2½	1-8UNC	12	18.75	6.5	0.81	DAH	182	
16	18.50	14.50	12.98	8.17	4.00	3.00	23.25	13.38	14.13	1.63	1.75	¾ x ¾ x 2½	1-8UNC	16	21.25	6.5	0.81	DAH	213	
18	21.00	16.00	13.75	8.17	4.50	4.06	25.00	15.56	15.94	N/A	1.88	½ x ¾ x 4	1-1/8-8UN	16	22.75	6.5	0.81	DAJ	350	
20	23.00	17.44	15.19	8.22	5.00	4.31	27.25	17.31	17.69	N/A	2.25	½ x ¾ x 4	1-1/8-8UN	20	25	6.5	0.81	DAK	458	
24	27.25	19.69	17.56	8.22	6.06	4.25	32.00	20.63	21.06	2.25	2.50	½ x ¾ x 4	1-1/4-8UN	20	29.5	6.5	0.81	DAK	704	

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.	ADAPT. CODE	WEIGHT (KG)
50	113	152	102	105	60	32	149	35	48	N/A	14.29	9.53	5/8-11UNC	4	121	83	11	BAB	5
65	121	152	110	105	48	32	167	56	57	N/A	14.29	9.53	5/8-11UNC	4	140	83	11	BAB	5
80	131	168	126	105	48	32	180	54	67	N/A	15.88	11.11	5/8-11UNC	4	152	83	11	BAC	7
100	164	191	133	105	54	32	218	81	92	N/A	19.05	12.70	5/8-11UNC	8	191	83	11	BAD	10
125	193	192	146	105	57	32	249	111	121	N/A	19.05	12.70	3/4-10UNC	8	216	83	11	BAD	14
150	225	222	149	154	57	32	279	133	141	N/A	19.05	12.70	3/4-10UNC	8	241	127	14	CAD	18
※150	225	222	149	154	57	32	279	133	141	N/A	22.23	15.88	3/4-10UNC	8	241	127	14	CAE	18
200	270	257	211	154	64	51	337	178	187	N/A	28.58	6.35 X 6.35 X 41	3/4-10UNC	8	298	127	14	CAF	27
250	324	289	244	154	71	51	401	232	236	28.58	34.93	6.35 X 6.35 X 41	7/8-9UNC	12	362	127	14	CAF	40
※250	324	289	244	154	71	76	401	232	236	N/A	34.93	7.94 X 7.94 X 67	7/8-9UNC	12	362	127	14	CAG	41
300	381	330	269	208	81	76	476	278	284	34.93	38.10	7.94 X 7.94 X 67	7/8-9UNC	12	432	165	21	DAG	67
350	413	337	301	208	92	76	527	298	311	N/A	41.28	9.53 X 9.53 X 67	1-8UNC	12	476	165	21	DAH	83
400	470	368	330	208	102	76	591	340	359	41.28	44.45	9.53 X 9.53 X 67	1-8UNC	16	540	165	21	DAH	97
450	533	406	349	208	114	103	635	395	405	N/A	47.63	12.70 X 9.53 X 105	1-1/8-8UN	16	578	165	21	DAJ	159
500	584	443	386	209	127	109	692	440	449	N/A	57.15	12.70 X 9.53 X 102	1-1/8-8UN	20	635	165	21	DAK	208
600	692	500	446	209	154	108	813	524	535	57.15	63.50	12.70 X 9.53 X 102	1-1/4-8UN	20	749	165	21	DAK	319

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UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
DECIMAL
XX ± .01
XXX ± .003
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
DATE: 06/11/2010
THIRD ANGLE PROJECTION

REVISIONS
REV. ECN DRAWN DATE CHECK DATE
6 08672 KLJ 11/12/14 JB 11/12/14
EMERSON
KLOK HPBFV SERIES 36
2" - 24" ASME 150 - LUGGED
POLYMER AND ELASTOMER SEAT
SIZE: C DWG NO: SM1278 REV: 6
SCALE: - WEIGHT: LBS SHEET: 1 OF 2

KEYSTONE K-LOK SERIES 36: BARE VALVE

ITEM NO	DESCRIPTION	QTY	PART NO. & FIG. NO.	REMARKS
1	BODY	1	203-363	
2	DISC	1	204-371	204-361 DN 8" THRU 24"
3	UPPER STEM	1	205-370	205-360 DN 5", 6", 10", 14" THRU 24"
4	LOWER STEM	1	205-371	205-361 DN 14" THRU 24"
5	TAPER PIN	3	907-735	QTY 2 ON 2" AND 2-1/2"
6	SPACER	2	253-361	
7	THRUST WASHER	2	275-361	
8	BUSHING	4*	930-360	
9	ANTI-EXTRUSION RING	2	249-360	
10	STEM PACKING	1	928-360	
11	RING, STEM RETENTION	1	979-735	
12	GLAND	1	216-360	216-361 DN 8" THRU 24"
13	GLAND BRIDGE	1	236-361	
14	STUD	2	902-363	
15	WASHER, SPLIT LOCK	2	904-735	
16	HEX NUT	2	903-735	
17	BOTTOM COVER GASKET	1	921-361	
18	BOTTOM COVER	1	259-361	
19	WASHER, EXT. TOOTH LOCK	4	904-735	
20	SCREW, HEX HD CAP	4	905-735	
21	SEAT ASSEMBLY	1	726-360	
21.1	SEAT	1	206-360	
21.2	WIRE STRUCTURE	AR	984-360	
21.3	SEAT BACKING RING	1	248-360	
22	SEAT RETAINING RING GASKET	1	921-363	***SEE NOTE 8 BELOW
23	SEAT RETAINING RING	1	214-363	
24	SCREW, SOCKET HD CAP	**	905-735	*SEE BELOW
25	KEY	1	913-735	DN 8" THRU 24" ONLY
28	TAG, ID.	1	914-363	
29	TAG, FLOW	1	914-360	
30	TAG, STRAP	1	912-360	QTY 2 ON 14" THRU 24"

*ITEM 8 QTY: BUSHING QUANTITY COULD VARY DEPENDING ON BUSHING MATERIAL.

**ITEM 24 QTY: 2", 2-1/2", 3" QTY 6; 4", 5", 8" QTY 8; 10", 12", 14" QTY 10; 6", 16", 18", 20" QTY 12; 24" QTY 16.
ITEM 26 AND 27 ARE NOT USED.

NOTES:

- "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.
- 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.
- STANDARD VALVE TO BE USED BETWEEN ANSI CLASS 125 OR 150 FLANGES. THE VALVE IS CENTERED BY THE FLANGE STUDS. THE LUGS ARE TAPPED AS SHOWN.
- 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.

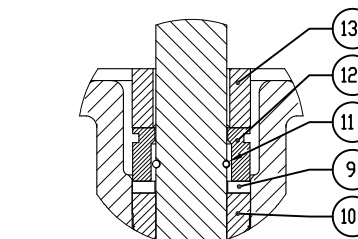
- VALVE LAY LENGTH SIZES 2-1/2" (65 MM) THRU 24" (600 MM) ARE WITHIN TOLERANCE OF MSS SP-68/API-609, SIZES 2" (50MM) DO NOT MEET ANY LAY LENGTH SPECIFICATION.

- *6. FOR UHMWPE SEAT, ALL SIZES USE ELECTROLESS NICKEL PLATED DISCS. 6" (150 MM) AND 10" (250 MM) VALVES USE LARGER UPPER STEM (205-370) CONNECTION DIAMETERS.

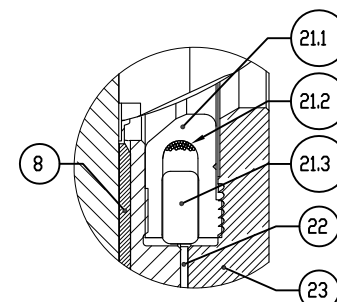
- DISC STEM ASSEMBLY CONSISTS OF: DISC (2), UPPER STEM (3), LOWER STEM (4), AND TAPER PINS (5).

- ***8. FOR ELASTOMER SEAT, 8" (200 MM) AND LARGER VALVES REQUIRE O-RING. O-RING GROOVE MACHINED IN ITEM 23.

SEE NOTE 6



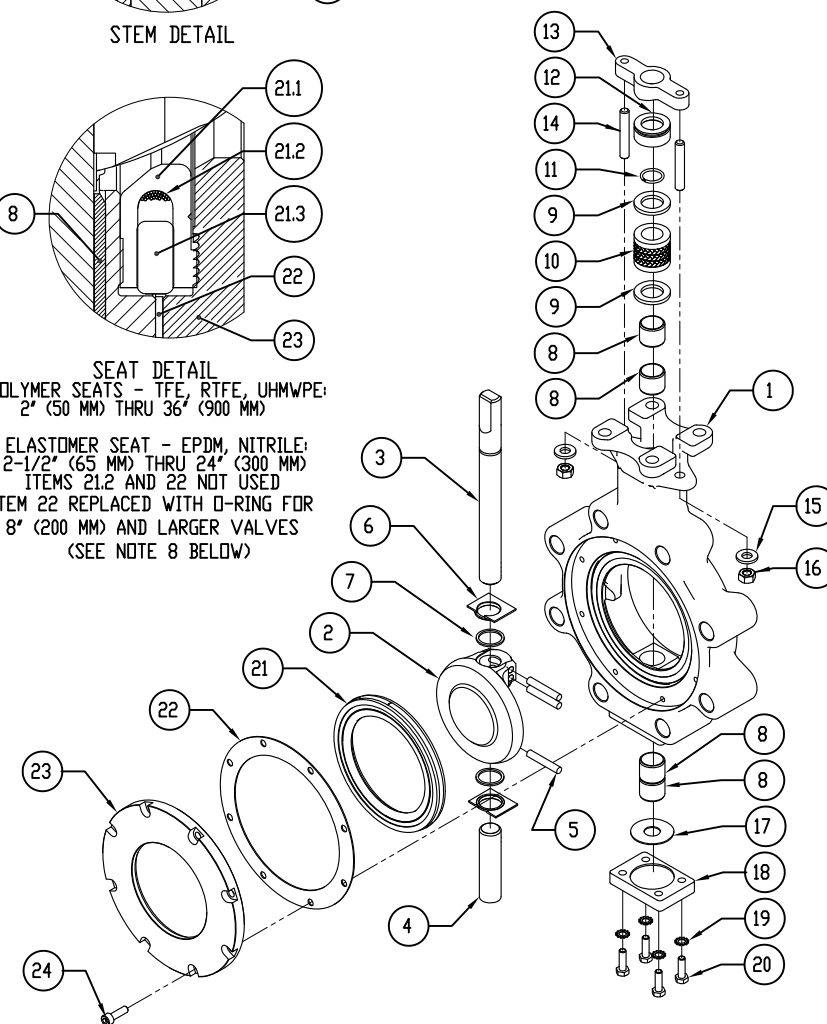
STEM DETAIL



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 8 BELOW)



NOT SHOWN

NOT SHOWN

NOT SHOWN

NOT SHOWN

REVISIONS					
REV.	ECN	DRAWN	DATE	CHECK	DATE
6	08672	KLJ	11/12/14	JB	11/12/14

ECN RELEASE: 08268	DATE: 06/11/2010	EMERSON.			
DRAWN: GG	DATE: 05/04/2010	KLOK HPBFV SERIES 36			
CHECK: NLE	DATE: 06/10/2010	2" - 24" ASME 150 - LUGGED			
APPROVED: BB	DATE: 06/11/2010	POLYMER AND ELASTOMER SEAT			
ENG MAG: BB	DATE: 06/11/2010	SM1278			

TITLE: KLOK HPBFV SERIES 36	REV: 6
2" - 24" ASME 150 - LUGGED	
POLYMER AND ELASTOMER SEAT	
SIZE: C	
DWG NO: SM1278	
SCALE: -	
WEIGHT: LBS	
SHEET: 2 OF 2	

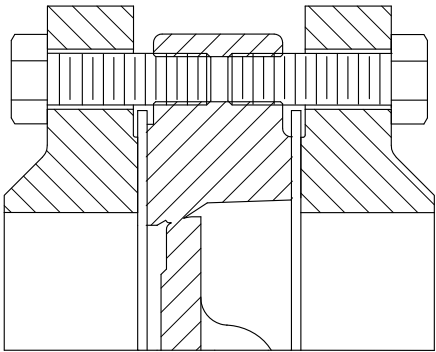
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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES
TOLERANCES
DECIMAL XX ± .01
XXX ± .003
SURFACE: 125
FRACTIONAL: ± 1/64
REMOVE ALL BURRS
BREAK SHARP EDGES
DO NOT SCALE DRAWING

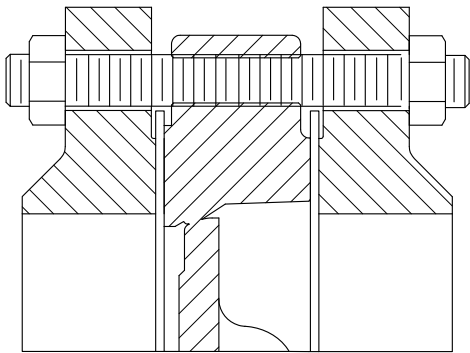
THIRD ANGLE PROJECTION

KEYSTONE K-LOK SERIES 36: 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	8	5/8-11	UNC X 2	8	5/8-11	UNC X 2-7/8
2-1/2	8	5/8-11	UNC X 1-3/4	8	5/8-11	UNC X 2-5/8
3	8	5/8-11	UNC X 1-3/4	8	5/8-11	UNC X 2-5/8
4	16	5/8-11	UNC X 2	16	5/8-11	UNC X 2-3/4
5	16	3/4-10	UNC X 2	16	3/4-10	UNC X 3
6	8	3/4-10	UNC X 2	8	3/4-10	UNC X 3
	8	3/4-10	UNC X 2-1/4	8	3/4-10	UNC X 3-1/4
8	16	3/4-10	UNC X 2-1/4	16	3/4-10	UNC X 3-3/8
10	24	7/8-9	UNC X 2-1/2	24	7/8-9	UNC X 3-5/8
12	24	7/8-9	UNC X 2-3/4	24	7/8-9	UNC X 3-7/8
14	24	1-8	UN X 3-1/4	24	1-8	UN X 4-1/2
16	32	1-8	UN X 3-1/2	32	1-8	UN X 4-3/4
18	32	1-1/8-8	UN X 3-3/4	32	1-1/8-8	UN X 5-1/4
20	32	1-1/8-8	UN X 4	32	1-1/8-8	UN X 5-1/2
	4	1-1/8-8	UN X 3-1/2	8	1-1/8-8	UN X 4-7/8
	4	1-1/8-8	UN X 3-1/4			
24	40	1-1/4-8	UN X 4-3/4	40	1-1/4-8	UN X 6-3/8
30	48	1-1/4-8	UN X 6-1/2	48	1-1/4-8	UN X 8
	8	1-1/4-8	UN X 4-3/4	8	1-1/4-8	UN X 6-1/4
36	56	1-1/2-8	UN X 7-1/2	56	1-1/2-8	UN X 9-1/4
	8	1-1/2-8	UN X 5-3/4	8	1-1/2-8	UN X 7-1/2



EMERSON™

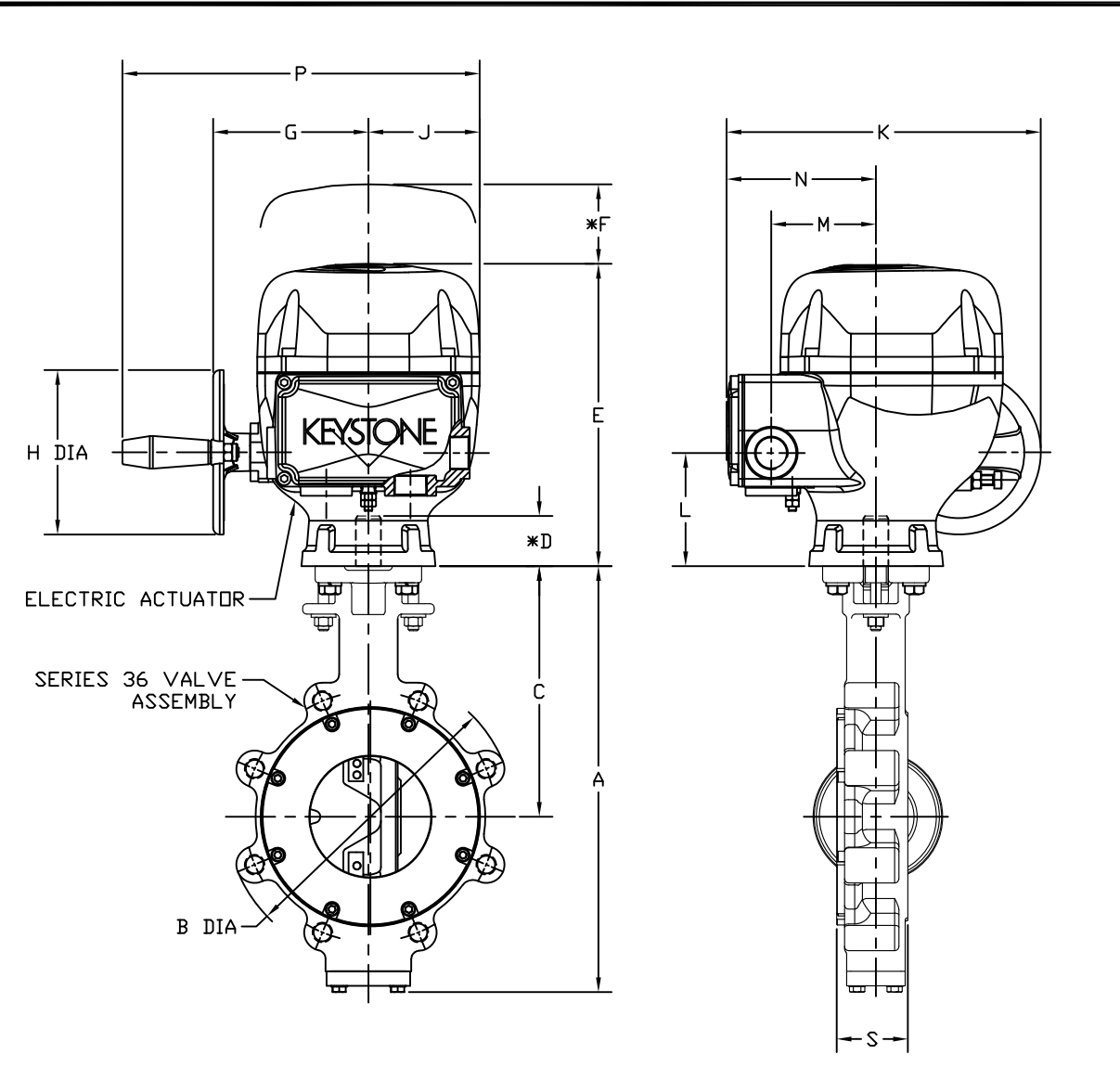
KLOK FIGURE 363 (SERIES 36)
2" - 36" ASME 150 - LUGGED
BOLT LENGTHS

SM1318

1	08666	KLJ	9/08/14	JB	9/08/14
NO	ECN	DRAWN	DATE	CHECK	DATE

SHEET 1 OF 1

KEYSTONE K-LOK SERIES 36 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	5 27/32	6	1 1/2	2 3/8		BAB
2 1/2	10 3/8	6 9/16	6	1 1/2	1 7/8		BAB
3	11 5/8	7 3/32	6 5/8	1 1/2	1 7/8		BAC
4	12 13/16	8 19/32	7 1/2	1 1/2	2 1/8		BAD
5	13 3/8	9 13/16	7 9/16	1 1/2	2 1/4		BAD
6	14 11/16	11	8 3/4	1 1/2	2 1/4		CAD CAE
8	18 1/2	13 1/4	10 1/8	2 1/4	2 1/2		CAF
10	21 1/16	15 25/32	11 3/8	2 1/4	2 13/16		CAF CAG
12	23 5/8	18 3/4	13	3 1/4	3 3/16		DAG
14	25 15/16	20 3/4	13 1/4	3 1/4	3 5/8		DAH
16	28 5/8	23 1/4	14 1/2	3 1/4	4		DAH
18	29 3/4	25	16	4 1/2	4 1/2		DAJ
20	32 5/8	27 1/4	17 7/16	4 1/2	5		DAK

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.



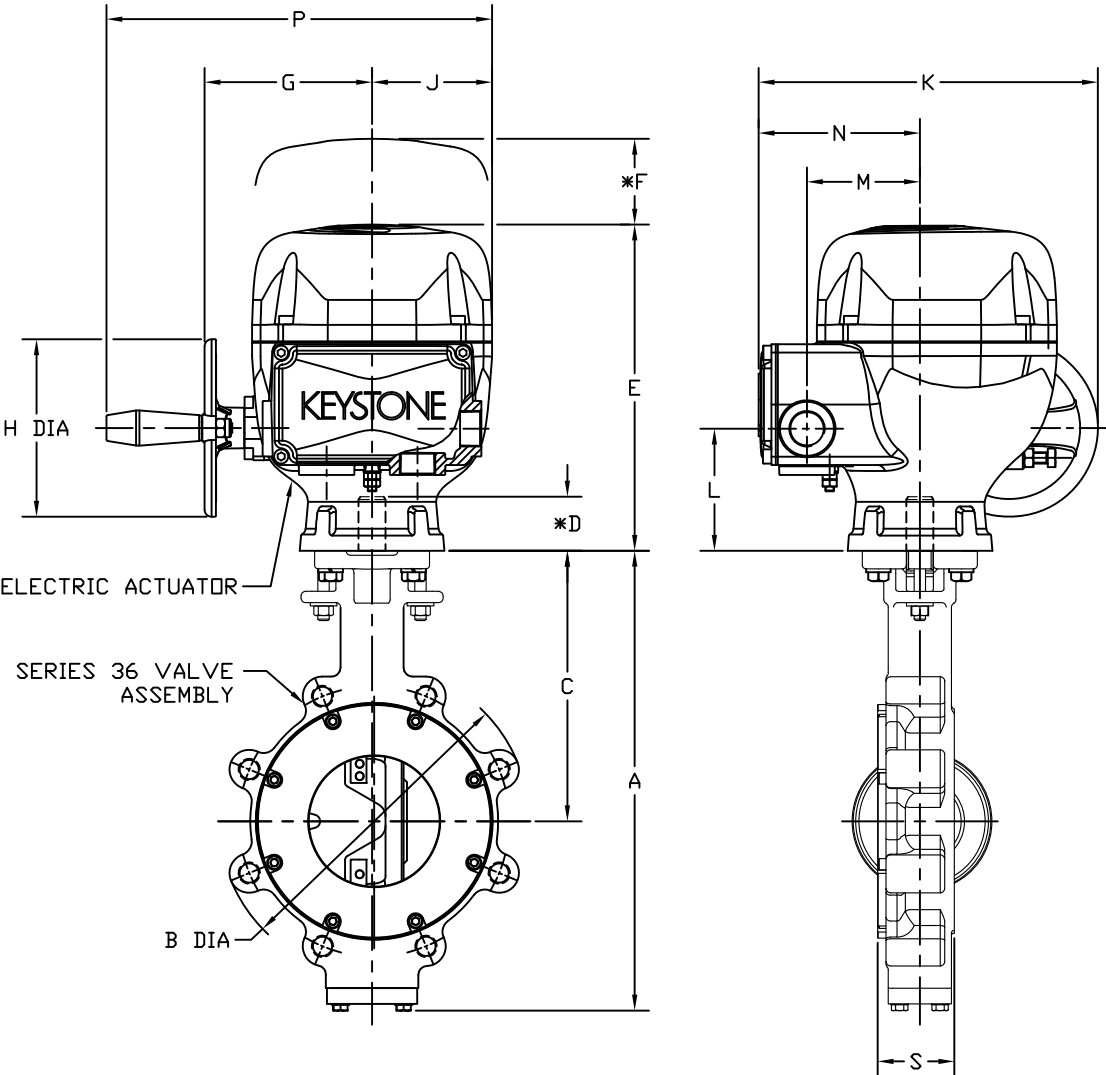
KEYSTONE SERIES 36 HIGH PERFORMANCE
ASME CLASS 150 BUTTERFLY VALVE
(LUGGED) WITH EPI2 ELECTRIC ACTUATOR

SM1302

SHEET 1 OF 3

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

KEYSTONE K-LOK SERIES 36 WITH KEYSTONE EPI 2 ACTUATOR



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	148	152	38	60	BAB
65	264	167	152	38	48	BAB
80	295	180	168	38	48	BAC
100	325	218	191	38	54	BAD
125	340	249	192	38	57	BAD
150	373	280	222	38	57	CAD CAE
200	470	337	257	57	64	CAF
250	535	401	289	57	71	CAF CAG
300	600	476	330	83	81	DAG
350	659	527	337	83	92	DAH
400	727	591	368	83	102	DAH
450	756	635	406	114	114	DAJ
500	829	692	443	114	127	DAK

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

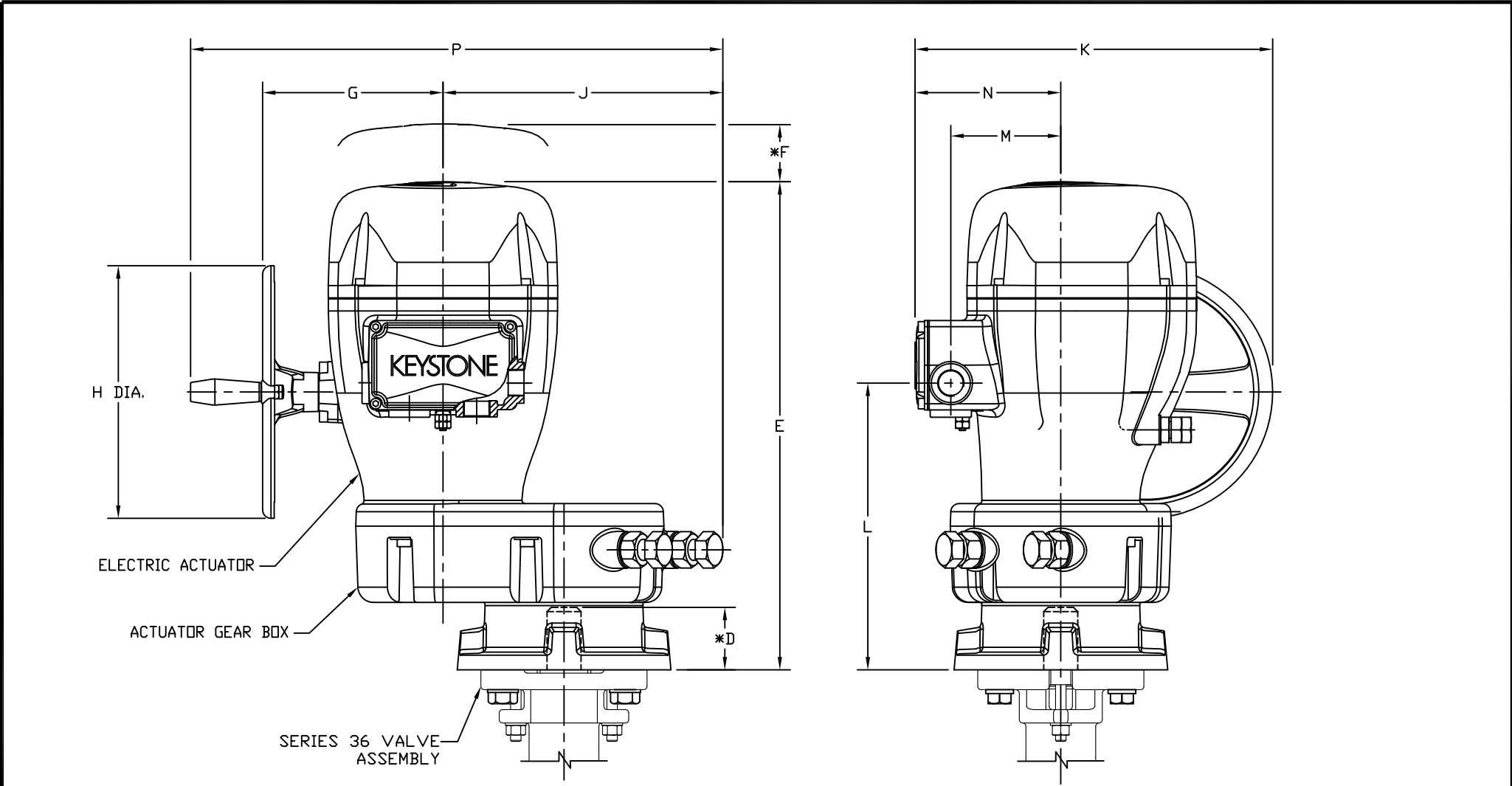
KEYSTONE SERIES 36 HIGH PERFORMANCE
ASME CLASS 150 BUTTERFLY VALVE
(LUGGED) WITH EPI2 ELECTRIC ACTUATOR

SM1302

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

SHEET 2 OF 3

KEYSTONE K-LOK SERIES 36 WITH KEYSTONE EPI 2 ACTUATOR



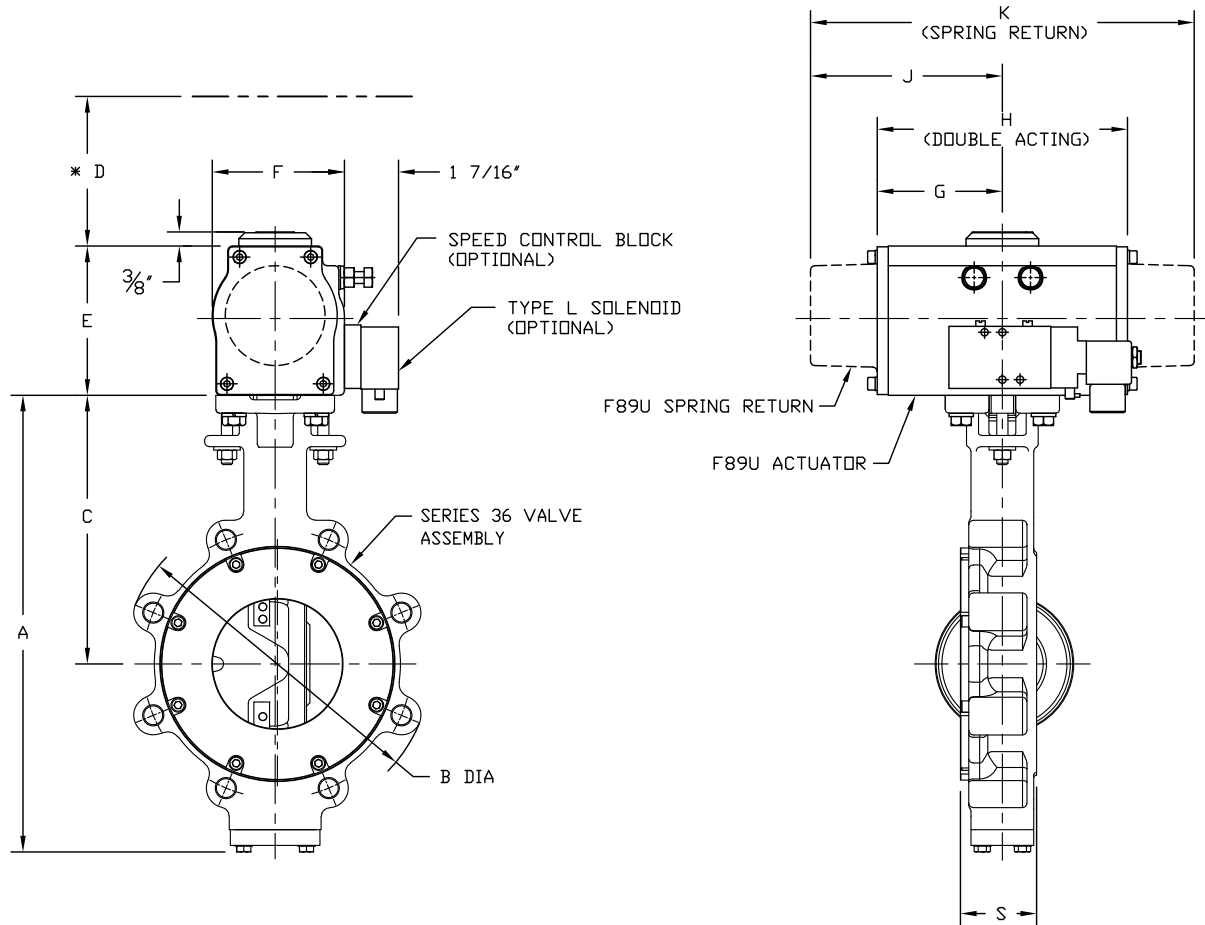
NOTES:

- 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.

 EMERSON™						KEYSTONE SERIES 36 HIGH PERFORMANCE ASME CLASS 150 BUTTERFLY VALVE (LUGGED) WITH EPI2 ELECTRIC ACTUATOR	
1	08491	BCW	1/25/13	JB	1/25/13	SM1302	
NO	ECN	DRAWN	DATE	CHECK	DATE	SHEET 3 OF 3	

KEYSTONE K-LOK SERIES 36 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	5 27/32	6	1 1/2	2 3/8	BAB
2 1/2	10 3/8	6 9/16	6	1 1/2	1 7/8	BAB
3	11 5/8	7 3/32	6 5/8	1 1/2	1 7/8	BAC
4	12 13/16	8 19/32	7 1/2	1 1/2	2 1/8	BAD
5	13 3/8	9 13/16	7 9/16	1 1/2	2 1/4	BAD
6	14 11/16	11	8 3/4	1 1/2	2 1/4	CAD CAE
8	18 1/2	13 1/4	10 1/8	2 1/4	2 1/2	CAF
10	21 1/16	15 25/32	11 3/8	2 1/4	2 13/16	CAF CAG
12	23 5/8	18 3/4	13	3 1/4	3 3/16	DAG
14	25 15/16	20 3/4	13 1/4	3 1/4	3 5/8	DAH
16	28 5/8	23 1/4	14 1/2	3 1/4	4	DAH
18	29 3/4	25	16	4 1/2	4 1/2	DAJ
20	32 5/8	27 1/4	17 7/16	4 1/2	5	DAK
24	37 1/4	32	19 11/16	4 1/2	6 1/16	DAK

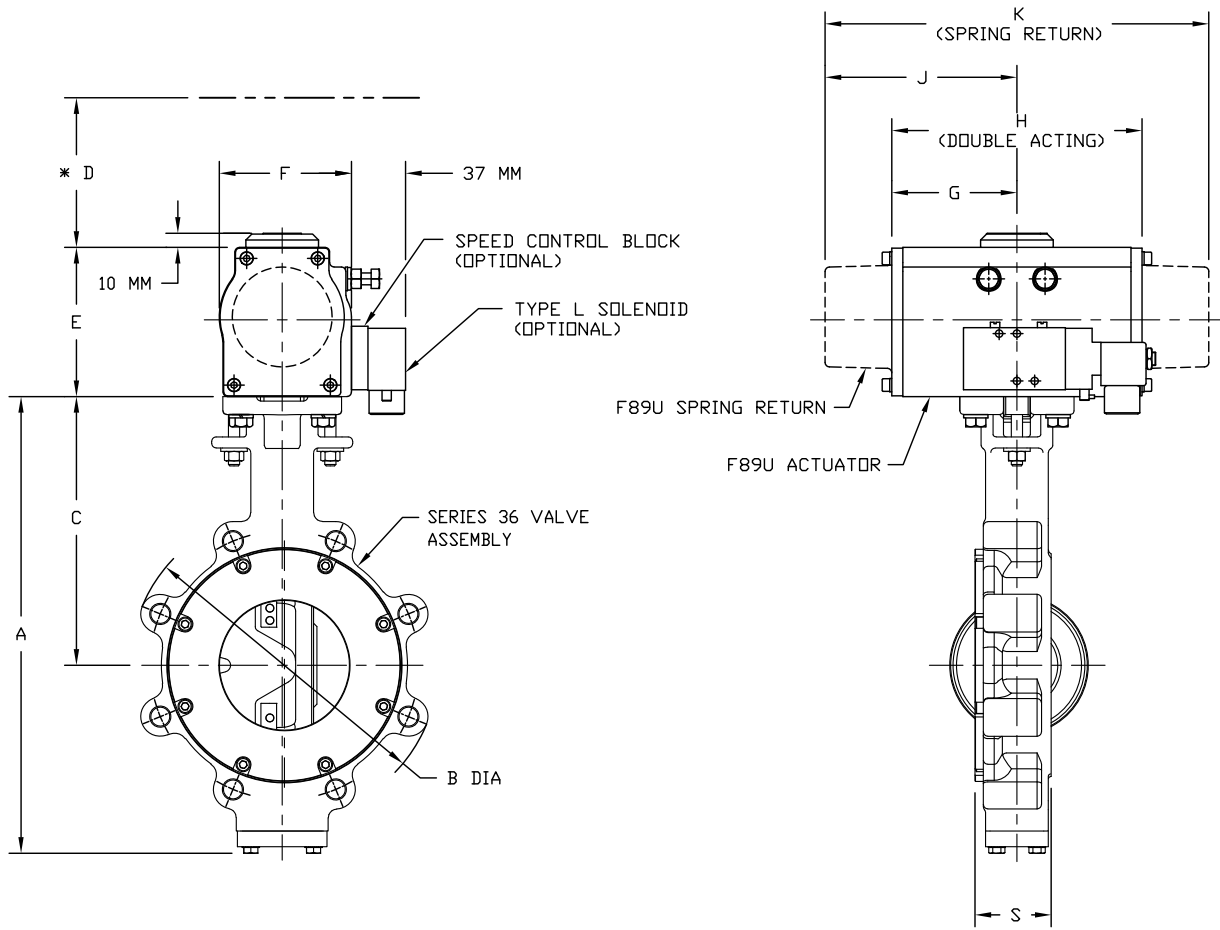
NOTES:

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 36 HIGH PERFORMANCE ASME CLASS 150 BUTTERFLY VALVE (LUGGED) WITH F89U ACTUATOR		
	Checked By: JWB			
Sheet: 1 OF 3		Approved By: JWB	Rev.	
Scale: NTS			SM1376	/ 00

KEYSTONE K-LOK SERIES 36 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	148	152	38	60	BAB
65	264	167	152	38	48	BAB
80	295	180	168	38	48	BAC
100	325	218	191	38	54	BAD
125	340	249	192	38	57	BAD
150	373	279	222	38	57	CAD CAE
200	470	337	257	57	64	CAF
250	535	401	289	57	71	CAF CAG
300	600	476	330	83	81	DAG
350	659	527	337	83	92	DAH
400	727	591	368	83	102	DAH
450	756	635	406	114	114	DAJ
500	829	692	443	114	127	DAK
600	946	813	500	114	154	DAK

NOTES:

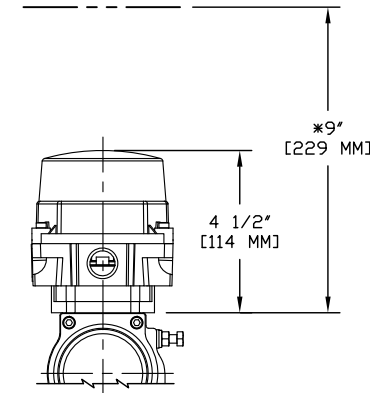
1. REFER TO INDIVIDUAL SMD DRAWINGS FOR FURTHER DETAILS OF VALVE, ACTUATOR AND ADAPTABILITY CODES.
- * 2. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.
3. SIZING OF ACTUATOR NEEDS TO BE VERIFIED BY APPLICATION.
4. SEE PAGE 3 FOR OPTIONAL ACCESSORIES.

	Size: C	First Issue: 12/04/2018	Drawing Release Location: PASADENA, TEXAS
	Units: MM	Latest Issue: 12/04/2018	
	Drawn By: KLJ	KEYSTONE SERIES 36 HIGH PERFORMANCE ASME CLASS 150 BUTTERFLY VALVE (LUGGED)	
	Checked By: JWB	WITH F89U ACTUATOR	
Sheet: 2 OF 3		Approved By: JWB	Rev. 00
Scale: NTS			
SM1376			

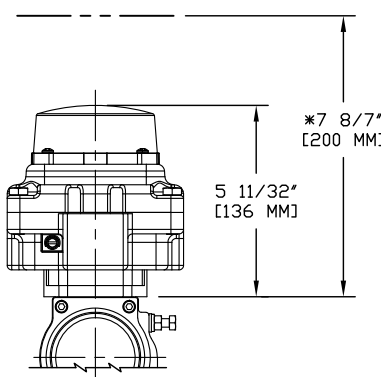
KEYSTONE K-LOK SERIES 36 WITH KEYSTONE F89U ACTUATOR

OPTIONAL ACCESSORIES

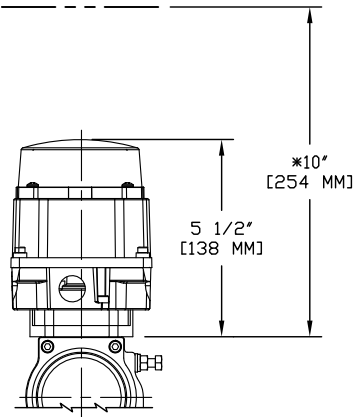
NO	ECN	DRAWN	DATE	CHECK	DATE
0	09042	KLJ	12/04/2018	JWB	12/04/2018



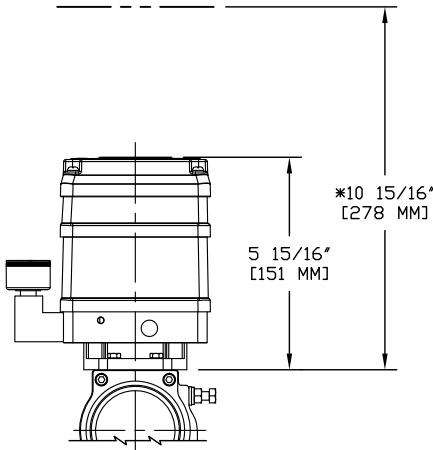
TOPWORX "TVA"
SWITCHBOX



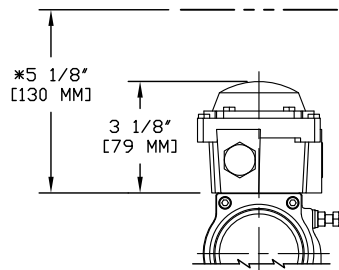
TOPWORX "TXP/TXS"
SWITCHBOX



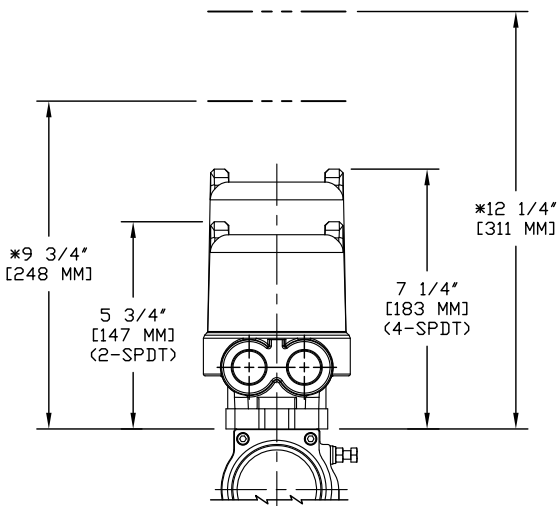
TOPWORX "TVL"
SWITCHBOX



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

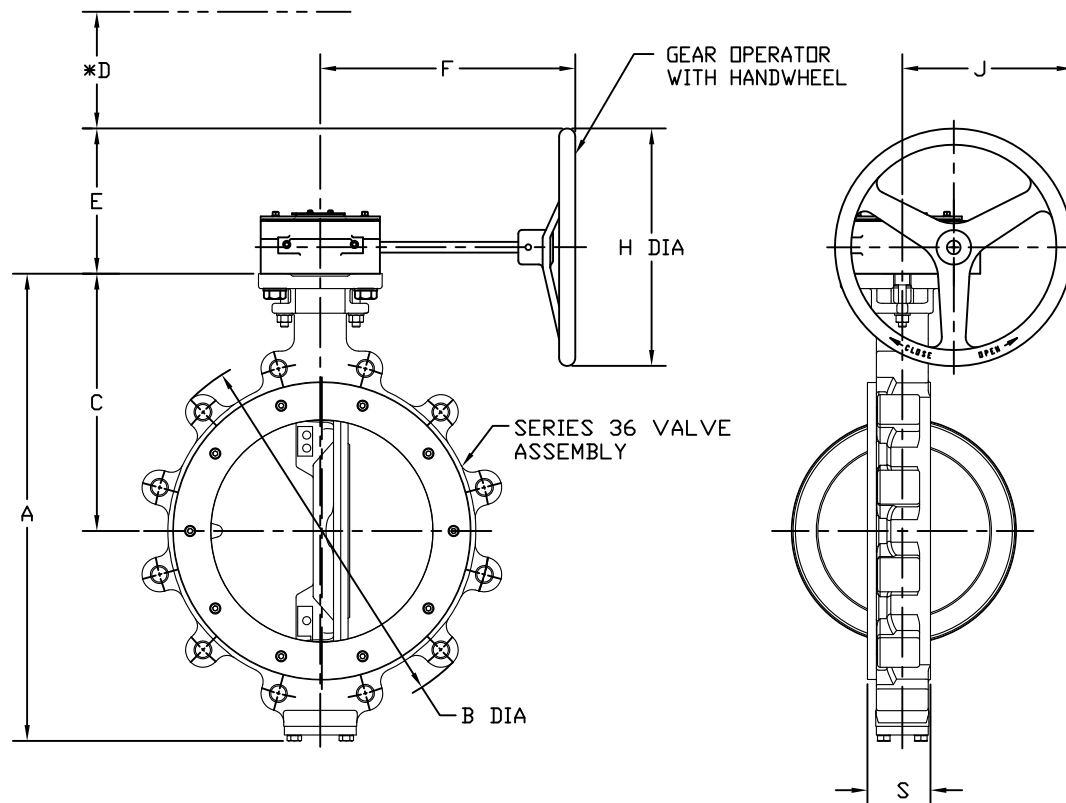
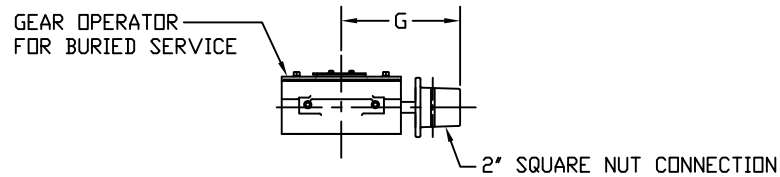
Drawing no.
SM1376

Drawing Release Location:
PASADENA, TEXAS

KEYSTONE SERIES 36 HIGH PERFORMANCE
ASME CLASS 150 BUTTERFLY VALVE (LUGGED)
WITH F89U ACTUATOR

Rev. 00

KEYSTONE K-LOK SERIES 36 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	

VALVE DIMENSIONS (IMPERIAL: INCHES)

SIZE	A	B	C	D	S	ADAPT. CODE
2	10	5 27/32	6	1 1/2	2 3/8	BAB
2 1/2	10 3/8	6 9/16	6	1 1/2	1 7/8	BAB
3	11 5/8	7 3/32	6 5/8	1 1/2	1 7/8	BAC
4	12 13/16	8 19/32	7 1/2	1 1/2	2 1/8	BAD
5	13 3/8	9 13/16	7 9/16	1 1/2	2 1/4	BAD
6	14 11/16	11	8 3/4	1 1/2	2 1/4	CAD CAE
8	18 1/2	13 1/4	10 1/8	2 1/4	2 1/2	CAF
10	21 1/16	15 25/32	11 3/8	2 1/4	2 13/16	CAF CAG
12	23 5/8	18 3/4	13	3 1/4	3 3/16	DAG
14	25 15/16	20 3/4	13 1/4	3 1/4	3 5/8	DAH
16	28 5/8	23 1/4	14 1/2	3 1/4	4	DAH
18	29 3/4	25	16	4 1/2	4 1/2	DAJ
20	32 5/8	27 1/4	17 7/16	4 1/2	5	DAK
24	37 1/4	32	19 11/16	4 1/2	6 1/16	DAK
30	45 1/4	38 1/2	24 1/2	7 1/4	7 3/8	MAZ
36	52 5/8	45 3/8	28 3/8	8 1/4	8 1/2	MBE



EMERSON

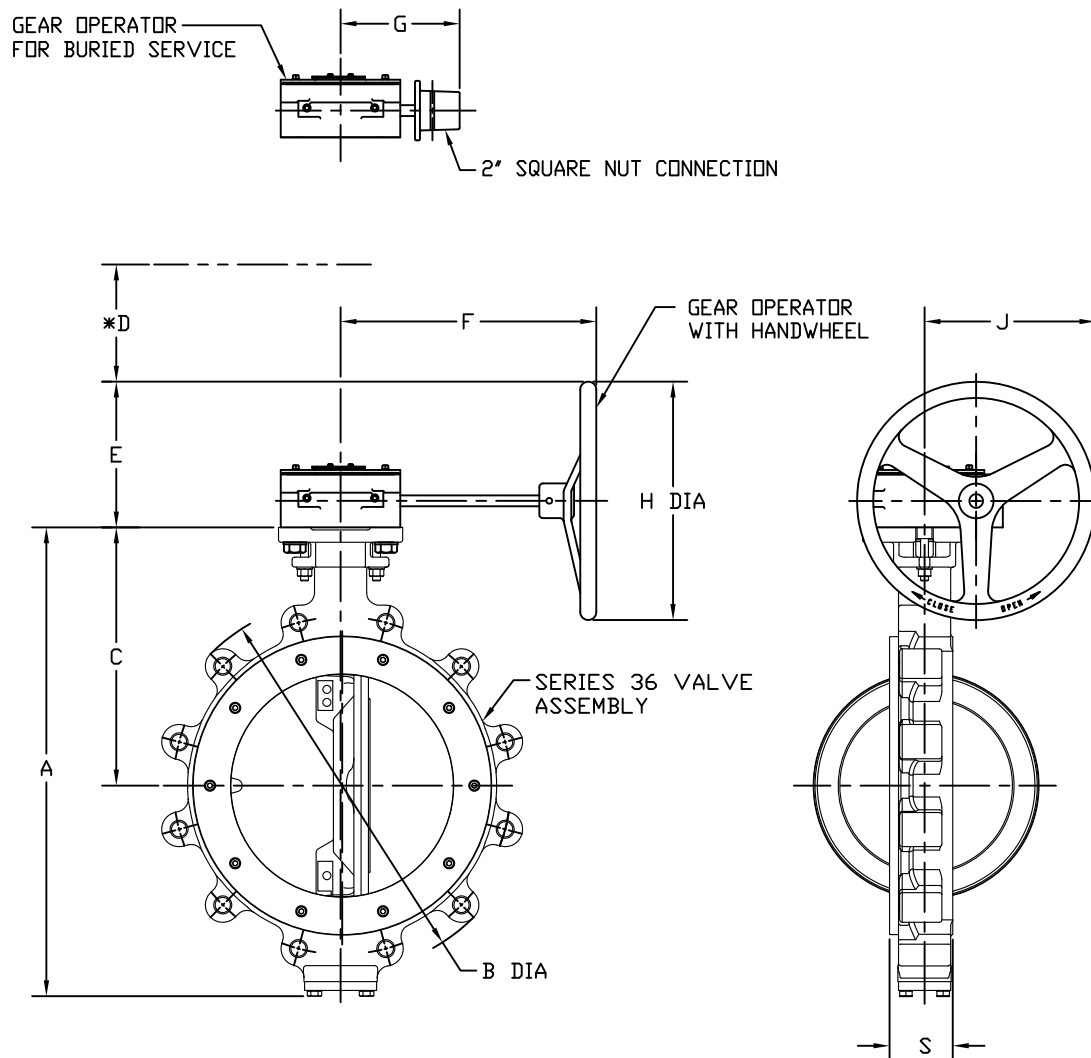
KEYSTONE SERIES 36 HIGH PERFORMANCE
ASME CLASS 150 BUTTERFLY VALVE
(LUGGED) WITH GEAR OPERATOR

SM1299

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

SHEET 1 OF 3

KEYSTONE K-LOK SERIES 36 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 (METRIC: MM)

PART NUMBER	E	F	G	H	J	ADAPT. CODE
XXX-819-020-423-500 (24:1)	105	189	152	152	122	BAB BAC BAD
XXX-819-120-420-500 (30:1)	187	327	152	305	219	CAD CAE CAF
XXX-819-140-426-500 XXX-819-160-426-500 (50:1)	191	327	152	305	232	CAG DAG CAF DAH DAJ
XXX-819-140-426-562 XXX-819-160-426-562 (50:1)	267	391	152	457	308	
XXX-819-180-430-500 (80:1)	210	275	197	305	273	DAJ CAF CAG DAG DAH DAK
XXX-819-180-430-564 XXX-819-300-430-500 (80:1)	286	335	197	457	349	
XXX-819-180-428-000 (180:1)	246	330	297	305	337	DAK DAH DAJ DBA LAX
XXX-819-180-428-161 XXX-819-180-428-360 XXX-819-200-428-370 (180:1)	322	387	297	457	413	
XXX-819-240-425-138 XXX-819-420-425-000 XXX-819-480-425-000 (300:1)	283	413	368	457	235	MAY MBE DAK LAX MAZ

VALVE DIMENSIONS (METRIC: MM)

SIZE	A	B	C	D	S	ADAPT. CODE
50	254	148	152	38	60	BAB
65	264	167	152	38	48	BAB
80	295	180	168	38	48	BAC
100	325	218	191	38	54	BAD
125	340	249	192	38	57	BAD
150	373	279	222	38	57	CAD CAE
200	470	337	257	57	64	CAF
250	535	401	289	57	71	CAF CAG
300	600	476	330	83	81	DAG
350	659	527	337	83	92	DAH
400	727	591	368	83	102	DAH
450	756	635	406	114	114	DAJ
500	829	692	443	114	127	DAK
600	946	813	500	114	154	DAK
750	1149	978	622	184	187	MAZ
900	1337	1153	721	210	216	MBE



EMERSON

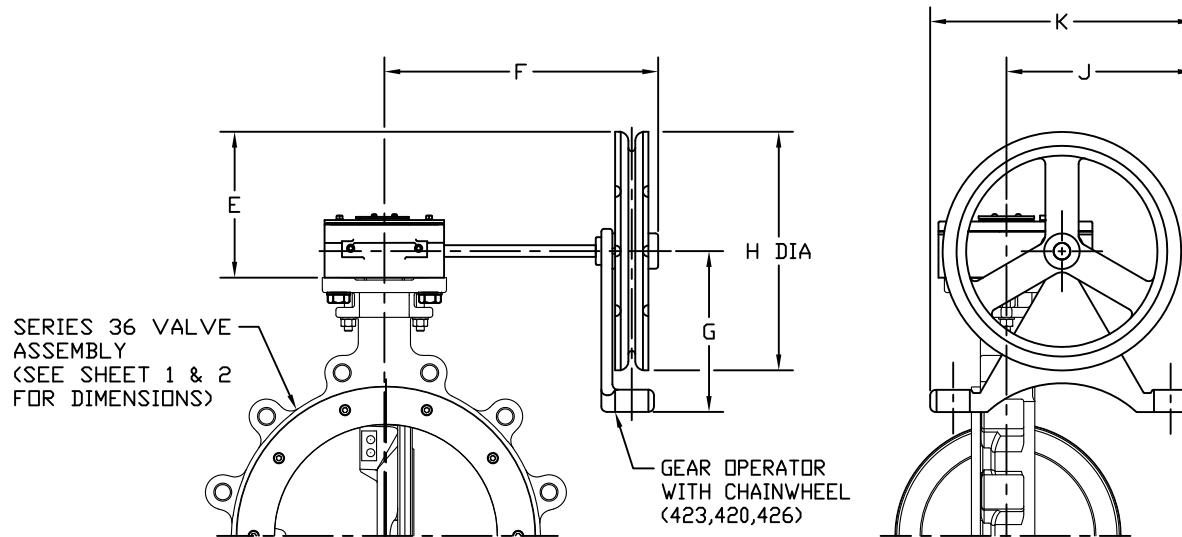
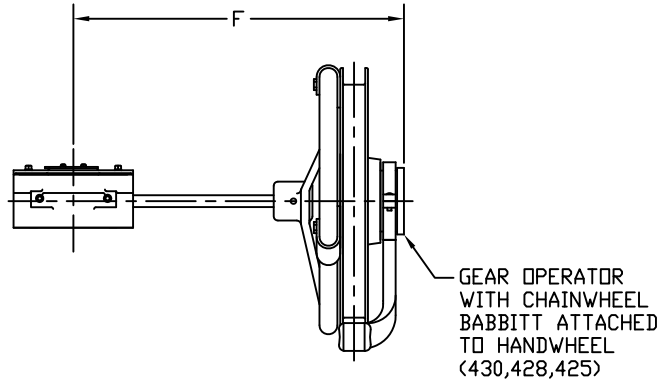
KEYSTONE SERIES 36 HIGH PERFORMANCE
ASME CLASS 150 BUTTERFLY VALVE
(LUGGED) WITH GEAR OPERATOR

SM1299

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

SHEET 2 OF 3

KEYSTONE K-LOK SERIES 36 WITH GEAR OPERATOR



GEAR OPERATOR DIMENSIONS WITH CHAINEHEEL (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 CHAINEHEEL (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.



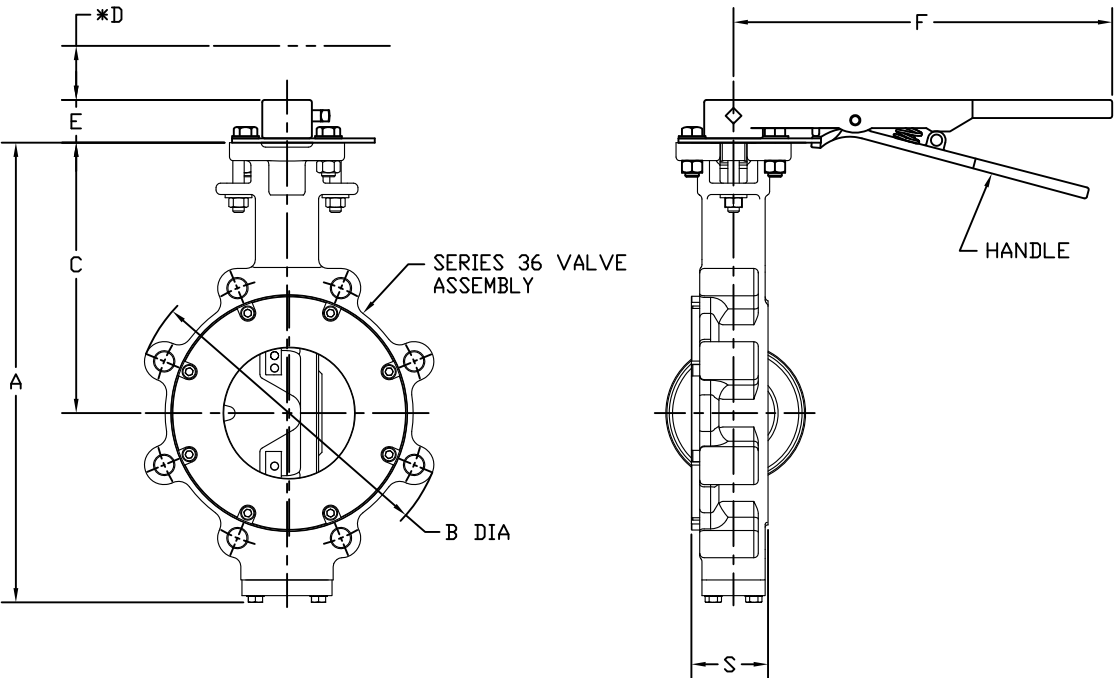
KEYSTONE SERIES 36 HIGH PERFORMANCE
ASME CLASS 150 BUTTERFLY VALVE
(LUGGED) WITH GEAR OPERATOR

SM1299

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

SHEET 3 OF 3

KEYSTONE K-LOK SERIES 36 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	148	152	38	60	BAB
65	264	167	152	38	48	BAB
80	295	180	168	38	48	BAC
100	325	218	191	38	54	BAD
125	340	249	192	38	57	BAD
150	373	279	222	38	57	CAD CAE
VALVE DIMENSIONS (IMPERIAL: INCHES)						
SIZE	A	B	C	D	S	ADAPT. CODE
2	10	5 27/32	6	1 1/2	2 3/8	BAB
2 1/2	10 3/8	6 9/16	6	1 1/2	1 7/8	BAB
3	11 5/8	7 3/32	6 5/8	1 1/2	1 7/8	BAC
4	12 13/16	8 19/32	7 1/2	1 1/2	2 1/8	BAD
5	13 3/8	9 13/16	7 9/16	1 1/2	2 1/4	BAD
6	14 11/16	11	8 3/4	1 1/2	2 1/4	CAD 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

KEYSTONE SERIES 36 HIGH PERFORMANCE
ASME CLASS 150 BUTTERFLY VALVE
(LUGGED) WITH HANDLE

SM1298

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

SHEET 1 OF 1