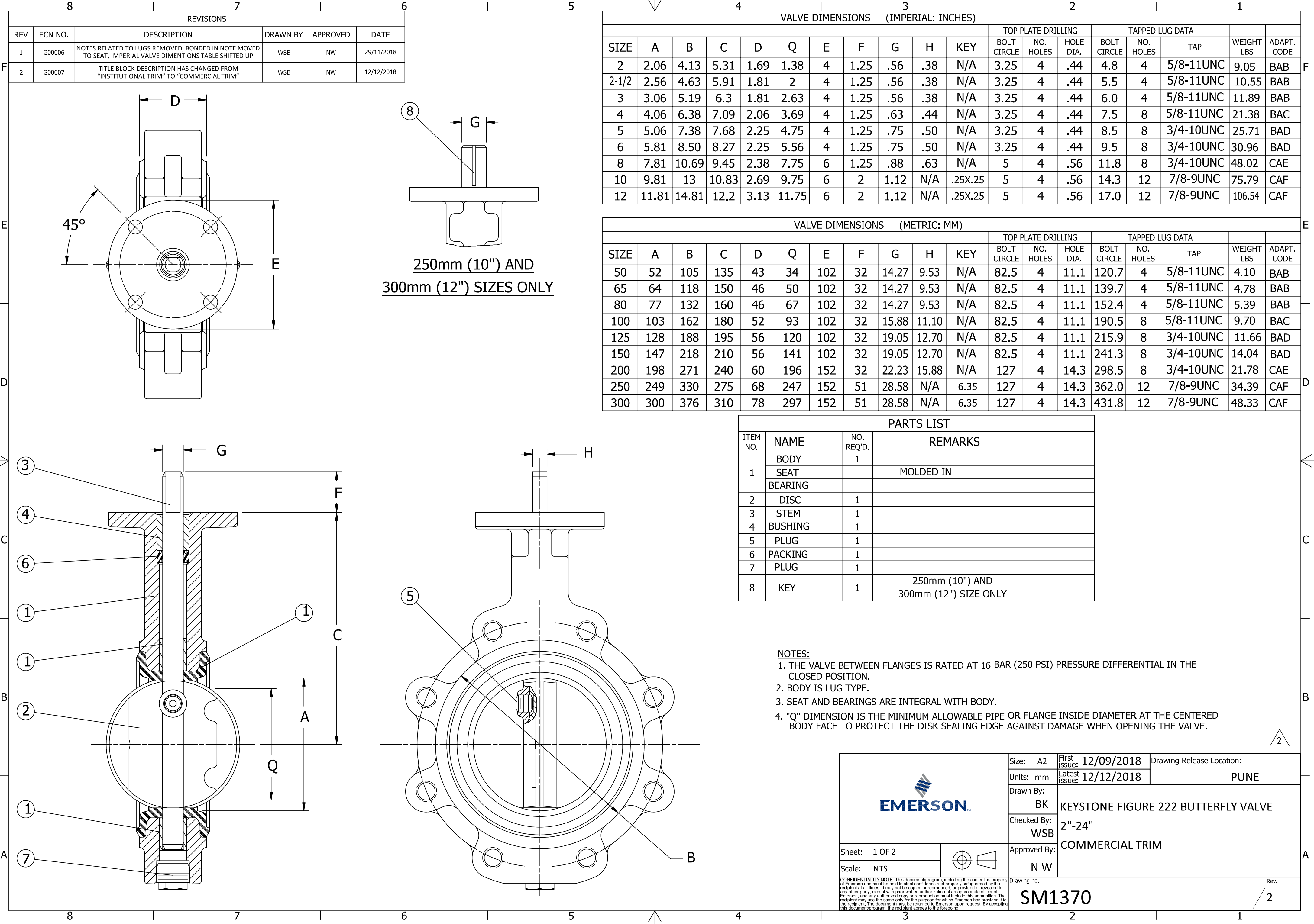
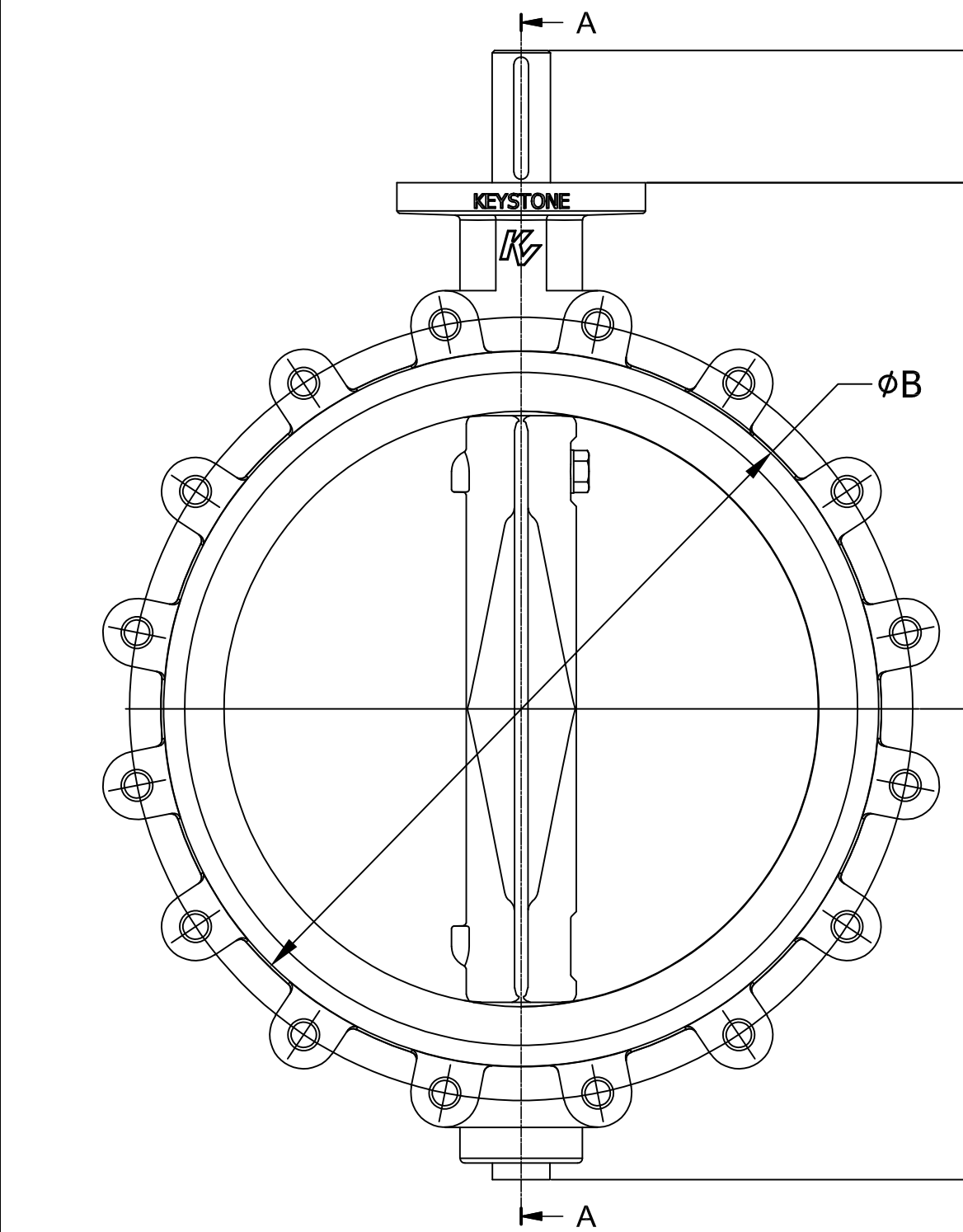
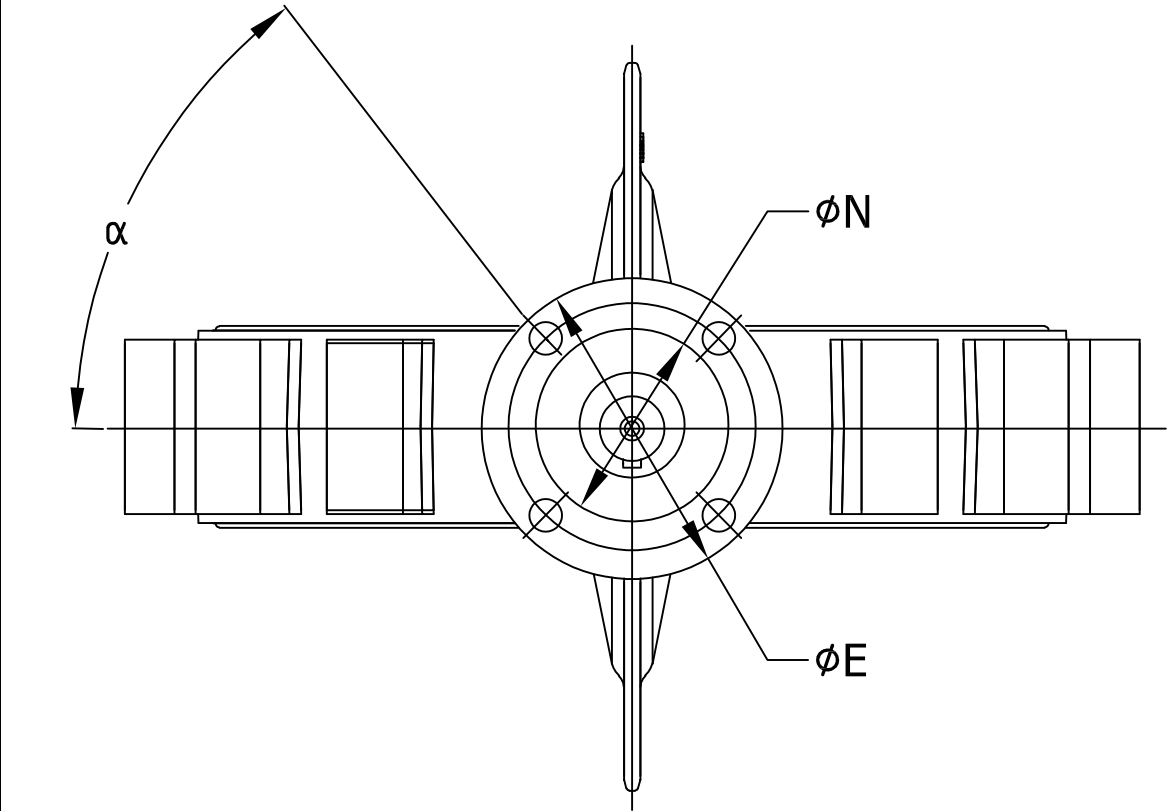


KEYSTONE FIGURE 222 BARE VALVE

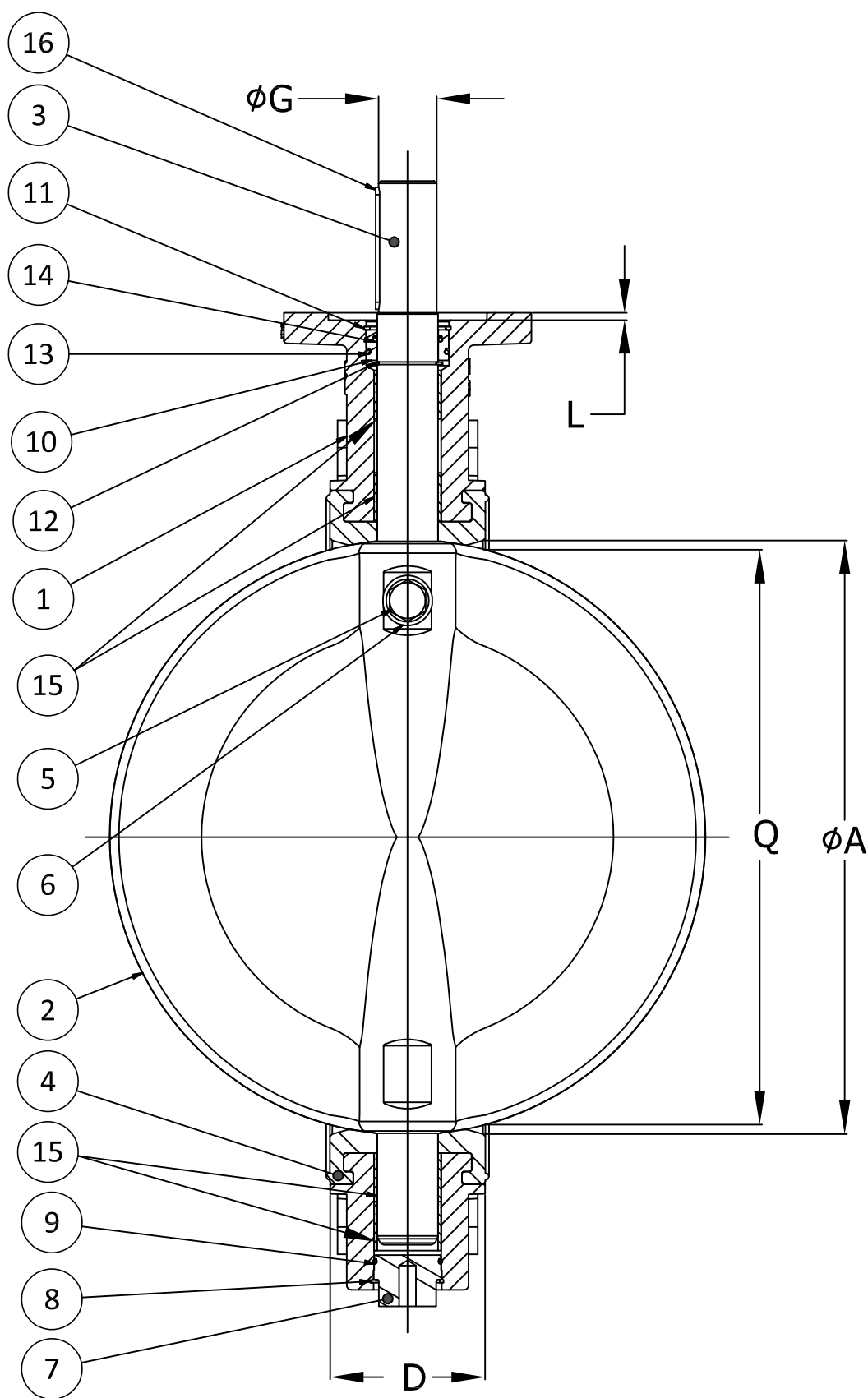


KEYSTONE FIGURE 222 BARE VALVE

REVISIONS					
REV	ECN NO.	DESCRIPTION	DRAWN BY	APPROVED	DATE
1	G00006	NOTES RELATED TO LUGS REMOVED, BONDED IN NOTE MOVED TO SEAT, IMPERIAL VALVE DIMENTIONS TABLE SHIFTED UP	WSB	NW	29/11/2018
2	G00007	TITLE BLOCK DESCRIPTION HAS CHANGED FROM "INSTITUTIONAL TRIM" TO "COMMERCIAL TRIM"	WSB	NW	12/12/2018



SECTION A-A



SECTION A-A

VALVE DIMENSIONS (IMPERIAL: INCHES)

											SHAFT		TOP PLATE DRILLING				TAPPED LUG DATA				ADAPT. CODE	WEIGHT (LBS.)
SIZE	A	B	C	D	E	F	K	L	N	Q	G	KEY	BOLT CIRCLE	NO. HOLES	α	HOLE DIA.	BOLT CIRCLE	NO. HOLES	TAP	DEPTH		
14	12.80	16.38	12.80	3.07	5.90	2.99	10.24	--	--	12.51	1.38	5/16x5/16	5.0	4	45°	0.53	18.8	12	1-8UNC	THRU	CAG	115
16	14.96	18.66	14.17	4.02	5.90	2.99	11.73	--	--	14.50	1.38	5/16x5/16	5.0	4	45°	0.53	21.3	16	1-8UNC	THRU	CAG	194
18	17.09	21.02	15.55	4.49	8.00	2.99	13.15	0.24	5.12	16.58	1.63	3/8x3/8	6.5	4	45°	0.87	22.8	16	1-1/8-8UN	THRU	DAH	236
20	19.13	23.19	16.93	5.00	8.00	4.25	15.16	0.24	5.12	18.56	1.87	1/2x3/8	6.5	4	45°	0.87	25.0	20	1-1/8-8UN	THRU	DAJ	355
24	23.03	27.20	19.69	6.06	8.00	4.25	17.95	0.24	5.12	22.35	1.87	1/2x3/8	6.5	4	45°	0.87	29.5	20	1-1/4-8UN	THRU	DAJ	518

VALVE DIMENSIONS (METRIC: MILLIMETERS)

											SHAFT		TOP PLATE DRILLING				TAPPED LUG DATA				ADAPT. CODE	WEIGHT (KG.)
SIZE	A	B	C	D	E	F	K	L	N	Q	G	KEY	BOLT CIRCLE	NO. HOLES	α	HOLE DIA.	BOLT CIRCLE	NO. HOLES	TAP	DEPTH		
350	325	416	325	78	150	76	260	--	--	318	35	8 x 8	127	4	45°	13.5	476.3	12	1-8UNC	THRU	CAG	52
400	380	474	360	102	150	76	298	--	--	368	35	8 x 8	127	4	45°	13.5	539.8	16	1-8UNC	THRU	CAG	88
450	434	534	395	114	200	76	334	6	130	421	41.35	9.5 x 9.5	165	4	45°	22	577.9	16	1-1/8-8UN	THRU	DAH	107
500	486	589	430	127	200	108	385	6	130	471	47.60	12.7 x 9.5	165	4	45°	22	635	20	1-1/8-8UN	THRU	DAJ	161
600	585	691	500	154	200	108	456	6	130	568	47.60	12.7 x 9.5	165	4	45°	22	749.3	20	1-1/4-8UN	THRU	DAJ	235


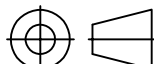
PARTS LIST

ITEM	DESCRIPTION	QTY	COMMENTS
1	BODY	1	
2	DISC	1	
3	SHAFT	1	
4	SEAT	1	BONDED-IN
5	DISC SCREW	1	
6	O-RING	1	
7	PLUG	1	
8	CIRCLIP PLUG	1	
9	O-RING PLUG	1	
10	BOP BUSH	1	
11	CIRCLIP BODY	1	
12	CIRCLIP SHAFT	1	
13	O-RING BODY	1	
14	O-RING SHAFT	1	
15	BEARING	*4	
16	PARALLEL KEY	1	

* QTY. 2 ON 14" (350MM) VALVE

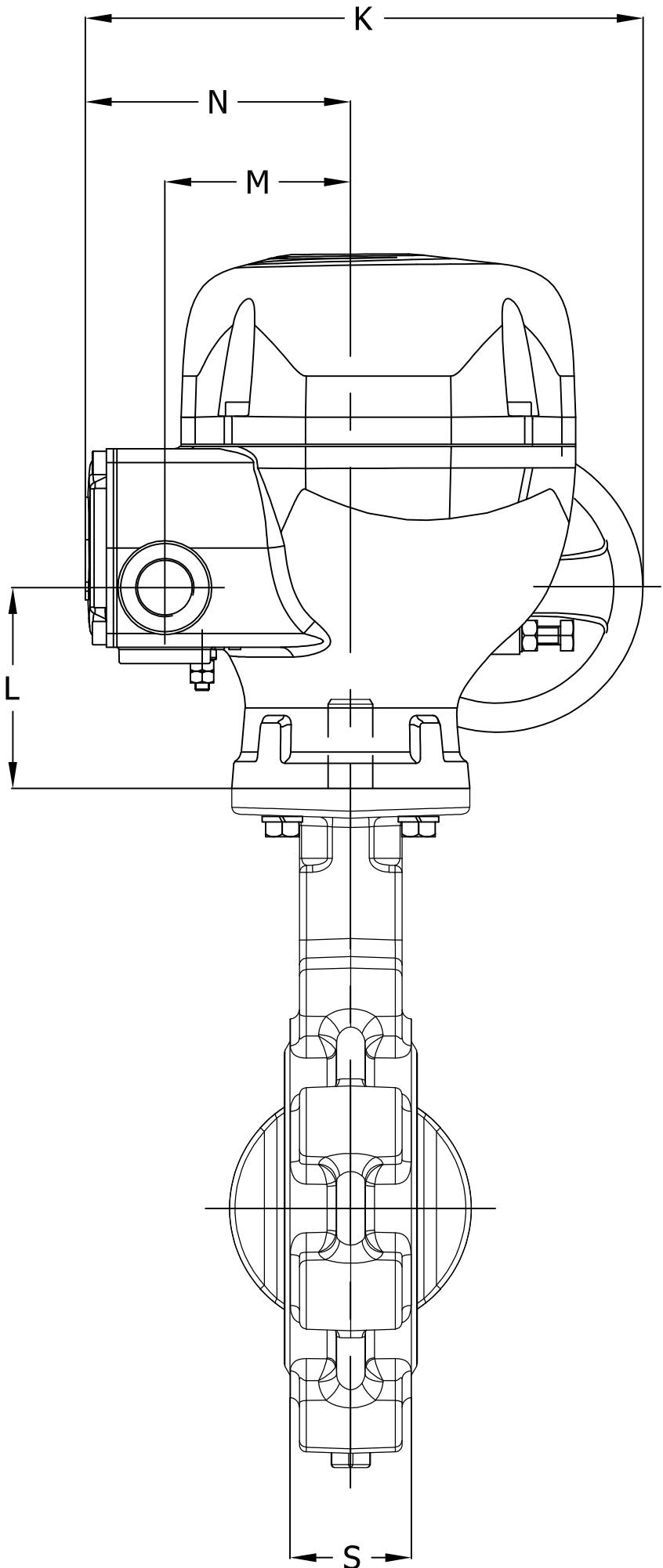
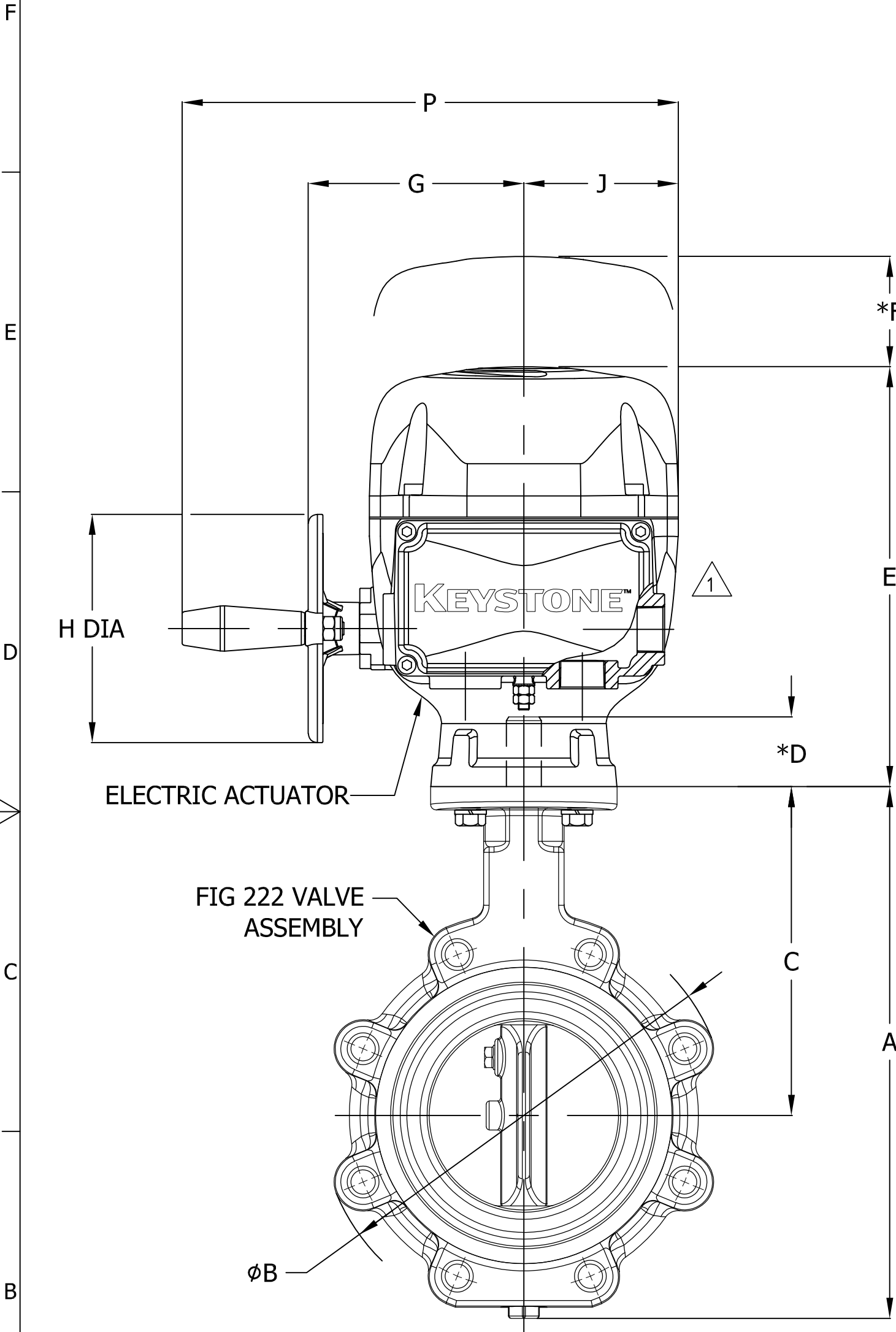
NOTES:

1. THE VALVE IS RATED AT 150 PSI (10 BAR) PRESSURE DIFFERENTIAL IN THE CLOSED POSITION.
2. WEIGHT MAY VARY DEPENDING ON TRIM MATERIALS USED.
3. "Q" DIMENSION IS THE MINIMUM ALLOWABLE PIPE OR FLANGE INSIDE DIAMETER AT THE CENTERED BODY FACE TO PROTECT THE DISC SEALING EDGE AGAINST DAMAGE WHEN OPENING THE VALVE.

		Size: A2	First issue: 12/09/2018	Drawing Release Location: PUNE	
		Units: mm	Latest issue: 12/12/2018		
		Drawn By: BK	KEYSTONE FIGURE 222 BUTTERFLY VALVE 2"-24" COMMERCIAL TRIM		
		Checked By: WSB			
Sheet: 2 OF 2		Approved By: N W			
Scale: NTS					
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KEYSTONE FIGURE 222 WITH KEYSTONE EPI 2 ACTUATOR

REVISIONS					
REV	ECN NO.	DESCRIPTION	DRAWN BY	APPROVED	DATE
1	G00007	TITLE BLOCK DESCRIPTION HAS CHANGED FROM "INSTITUTIONAL TRIM" TO "COMMERCIAL TRIM"	WSB	NW	12/12/2018




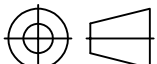
ELECTRIC ACTUATOR DIMENSIONS (IMPERIAL: INCHES)

TYPE	E	F	G	H	J	K	L	M	N	P	ADAPT. CODE
EPI2-6	8.27	6.88	4.65	4.92	3.33	9.40	2.64	3.13	4.47	10.70	BAF
EPI2-13	9.02	6.88	4.65	4.92	3.33	9.40	3.39	3.13	4.47	10.70	BAF
EPI2-25	11.30	9.05	6.06	7.09	4.29	11.63	3.74	3.74	5.08	13.07	CAF
EPI2-51	11.30	9.05	6.06	7.09	4.29	11.63	3.74	3.74	5.08	13.07	CAF
EPI2-91	14.33	9.05	6.75	9.45	4.29	13.39	6.79	4.11	5.45	13.74	DAJ DAK
EPI2-171	18.27	9.05	6.75	9.45	10.47	13.39	10.72	4.11	5.45	19.92	DAJ DAK

VALVE DIMENSIONS (IMPERIAL: INCHES)

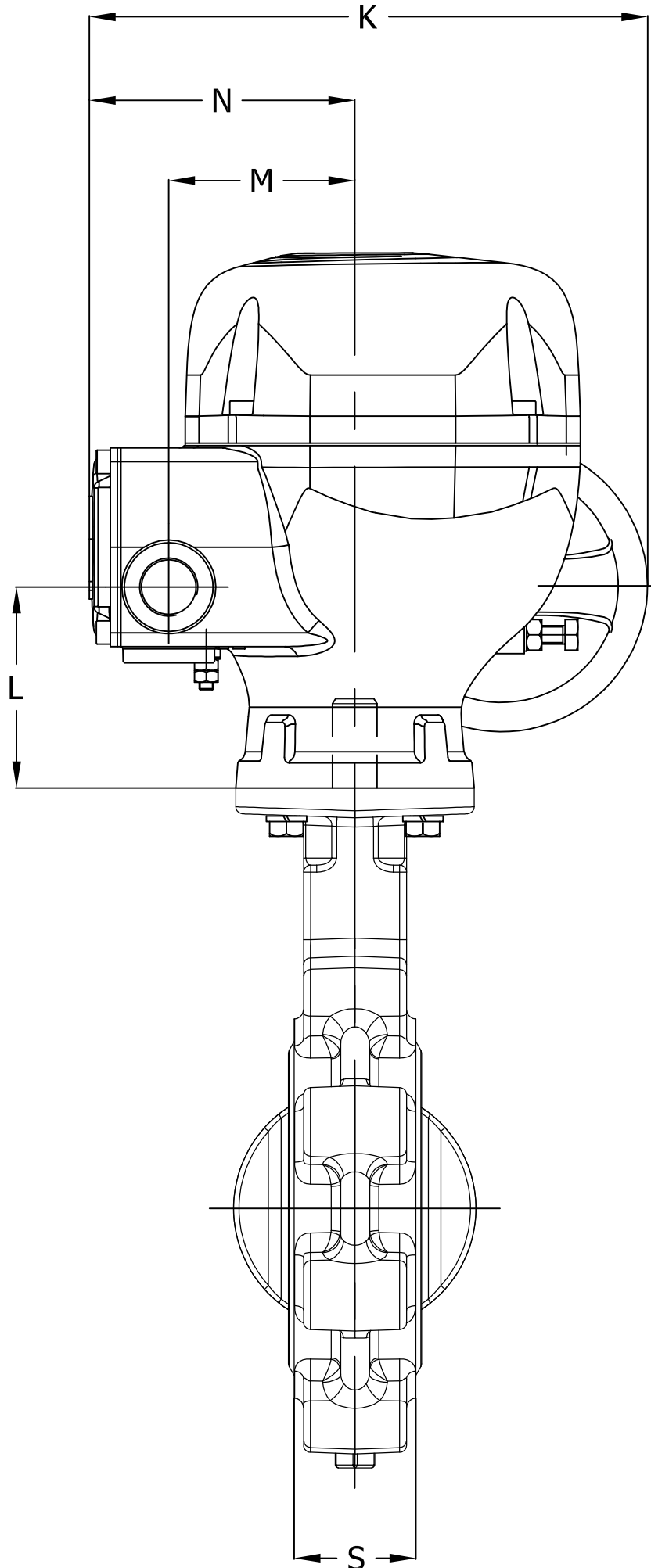
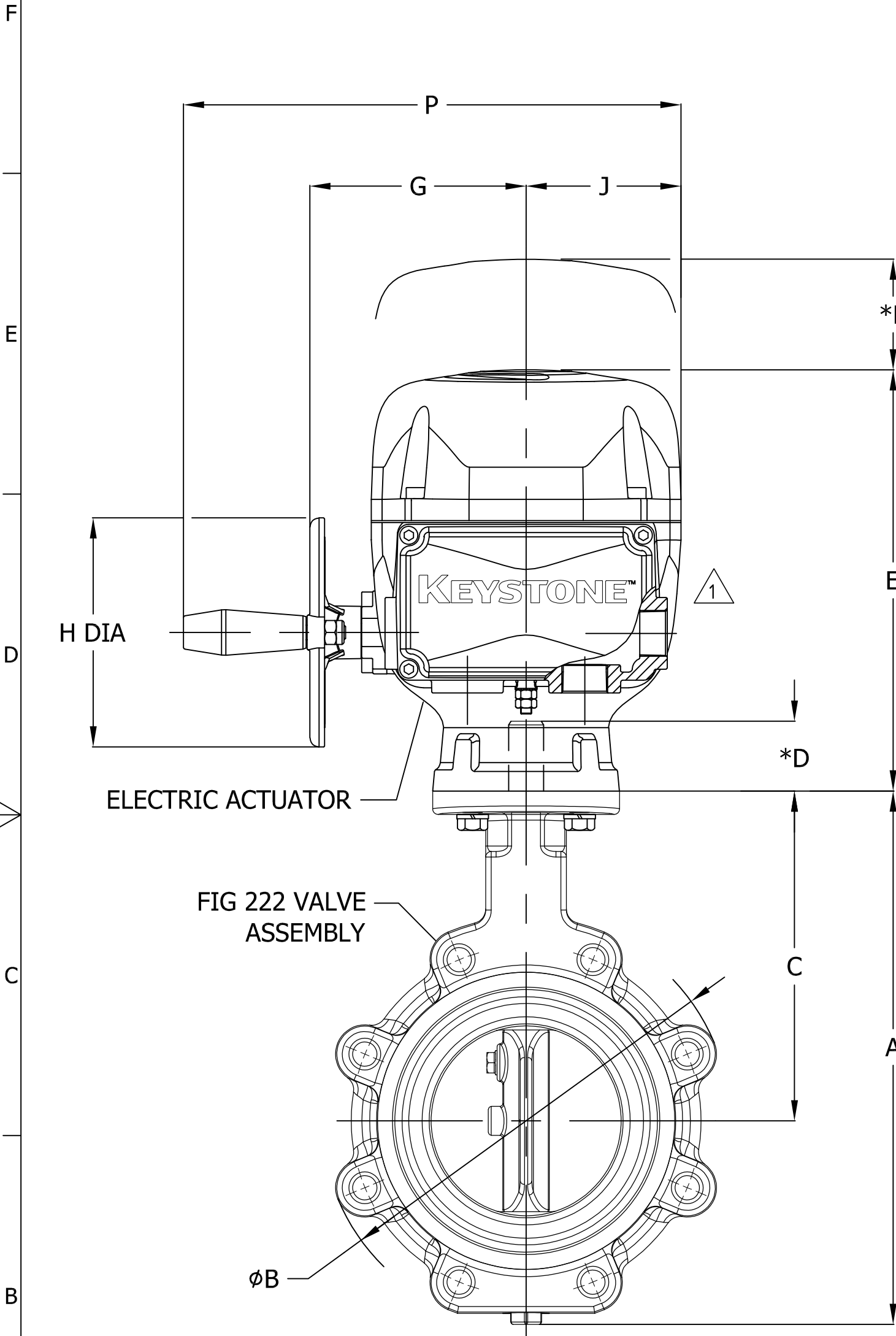
SIZE	A	B	C	D	S	ADAPT. CODE
2	8.63	6.03	5.31	1.5	1.69	BAB
2 1/2	9.42	6.78	5.91	1.5	1.81	BAB
3	10.13	7.24	6.3	1.5	1.81	BAB
4	11.46	8.78	7.09	1.5	2.06	BAC
5	13.15	10	7.68	1.5	2.25	BAD
6	14.12	10.98	8.27	1.5	2.25	BAD
8	16.55	13.23	9.45	1.5	2.38	CAE
10	19.23	15.98	10.83	2.25	2.69	CAF
12	21.86	18.74	12.2	2.25	3.13	CAF
14	23.04	20.71	12.80	3.50	3.07	CAG
16	25.90	23.46	14.17	3.50	4.02	CAG
18	28.70	24.96	15.55	3.50	4.49	DAH
20	32.09	28.50	16.93	4.75	5.00	DAJ

- NOTES:
- REFER TO INDIVIDUAL SMO DRAWINGS FOR FURTHER DETAILS OF VALVE, ACTUATOR AND ADAPTABILITY CODES.
 - * MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.
 - SIZING OF ACTUATOR NEEDS TO BE VERIFIED BY APPLICATION.

		Size: A2	First issue: 03/09/2018	Drawing Release Location: PUNE	
		Units: mm	Latest issue: 12/12/2018		
		Drawn By: BK	KEYSTONE FIGURE 222 VALVE ASSEMBLY WITH EPI2 ELECTRIC ACTUATOR 2"-20" COMMERCIAL TRIM		
		Checked By: WSB			
Sheet: 1 OF 3		Approved By: N W			
Scale: NTS		Drawing no. SM1373			
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KEYSTONE FIGURE 222 WITH KEYSTONE EPI 2 ACTUATOR

REVISIONS					
REV	ECN NO.	DESCRIPTION	DRAWN BY	APPROVED	DATE
1	G00007	TITLE BLOCK DESCRIPTION HAS CHANGED FROM "INSTITUTIONAL TRIM" TO "COMMERCIAL TRIM"	WSB	NW	12/12/2018



NOTES:


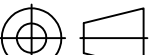
1. REFER TO INDIVIDUAL SMO DRAWINGS FOR FURTHER DETAILS OF VALVE, ACTUATOR AND ADAPTABILITY CODES.
- * 2. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.
3. SIZING OF ACTUATOR NEEDS TO BE VERIFIED BY APPLICATION.

ELECTRIC ACTUATOR DIMENSIONS (METRIC : MM)

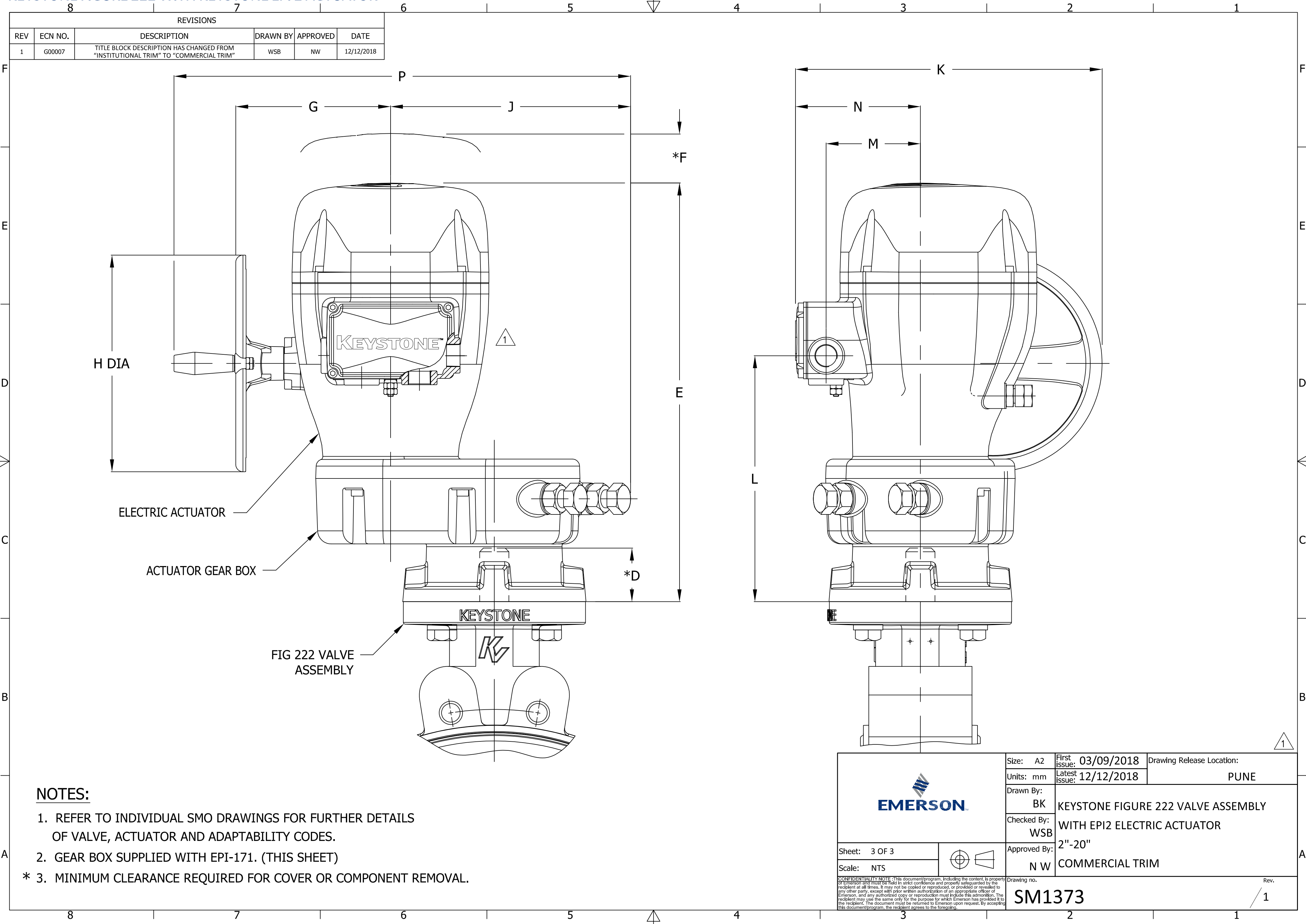
TYPE	E	F	G	H	J	K	L	M	N	P	ADAPT. CODE
EPI2-6	210	175	118	125	85	239	67	80	114	272	BAF
EPI2-13	229	175	118	125	85	239	86	80	114	272	BAF
EPI2-25	287	230	154	180	109	295	95	95	129	332	CAF
EPI2-51	287	230	154	180	109	295	95	95	129	332	CAF
EPI2-91	364	230	171	240	109	340	172	104	138	349	DAJ DAK
EPI2-171	464	230	171	240	266	340	272	104	138	506	DAJ DAK

VALVE DIMENSIONS (METRIC: MM)

SIZE	A	B	C	D	S	ADAPT. CODE
50	219	153	135	38	43	BAB
65	239	172	150	38	46	BAB
80	257	184	160	38	46	BAB
100	291	223	180	38	52	BAC
125	334	254	195	38	56	BAD
150	359	279	210	38	56	BAD
200	420	336	240	38	60	CAE
250	488	406	275	57	68	CAF
300	555	476	310	57	78	CAF
350	585	526	325	89	78	CAG
400	658	596	360	89	102	CAG
450	729	634	395	89	114	DAH
500	815	724	430	121	127	DAJ

	Size: A2	First Issue: 03/09/2018	Drawing Release Location: PUNE
	Units: mm	Latest Issue: 12/12/2018	
	Drawn By: BK	KEYSTONE FIGURE 222 VALVE ASSEMBLY WITH EPI2 ELECTRIC ACTUATOR 2"-20" COMMERCIAL TRIM	
	Checked By: WSB		
Approved By: N W			
Sheet: 2 OF 3		Drawing no. SM1373 Rev. 1	
Scale: NTS			

KEYSTONE FIGURE 222 WITH KEYSTONE EPI 2 ACTUATOR



KEYSTONE FIGURE 222 WITH KEYSTONE F89 ACTUATOR

REVISIONS					
REV	ECN NO.	DESCRIPTION	DRAWN BY	APPROVED	DATE
1	G00007	TITLE BLOCK DESCRIPTION HAS CHANGED FROM "INSTITUTIONAL TRIM" TO "COMMERCIAL TRIM"	WSB	NW	12/12/2018

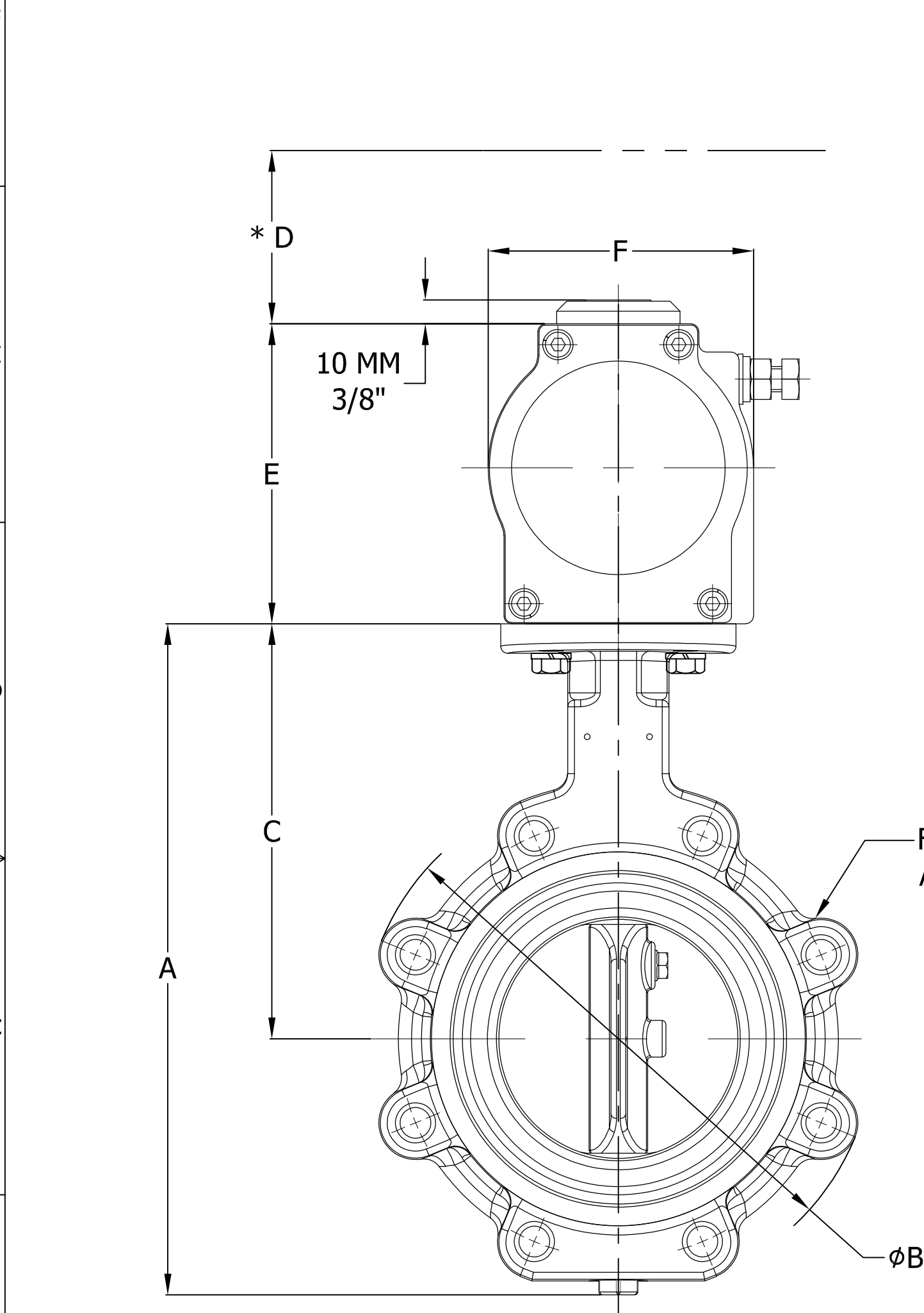
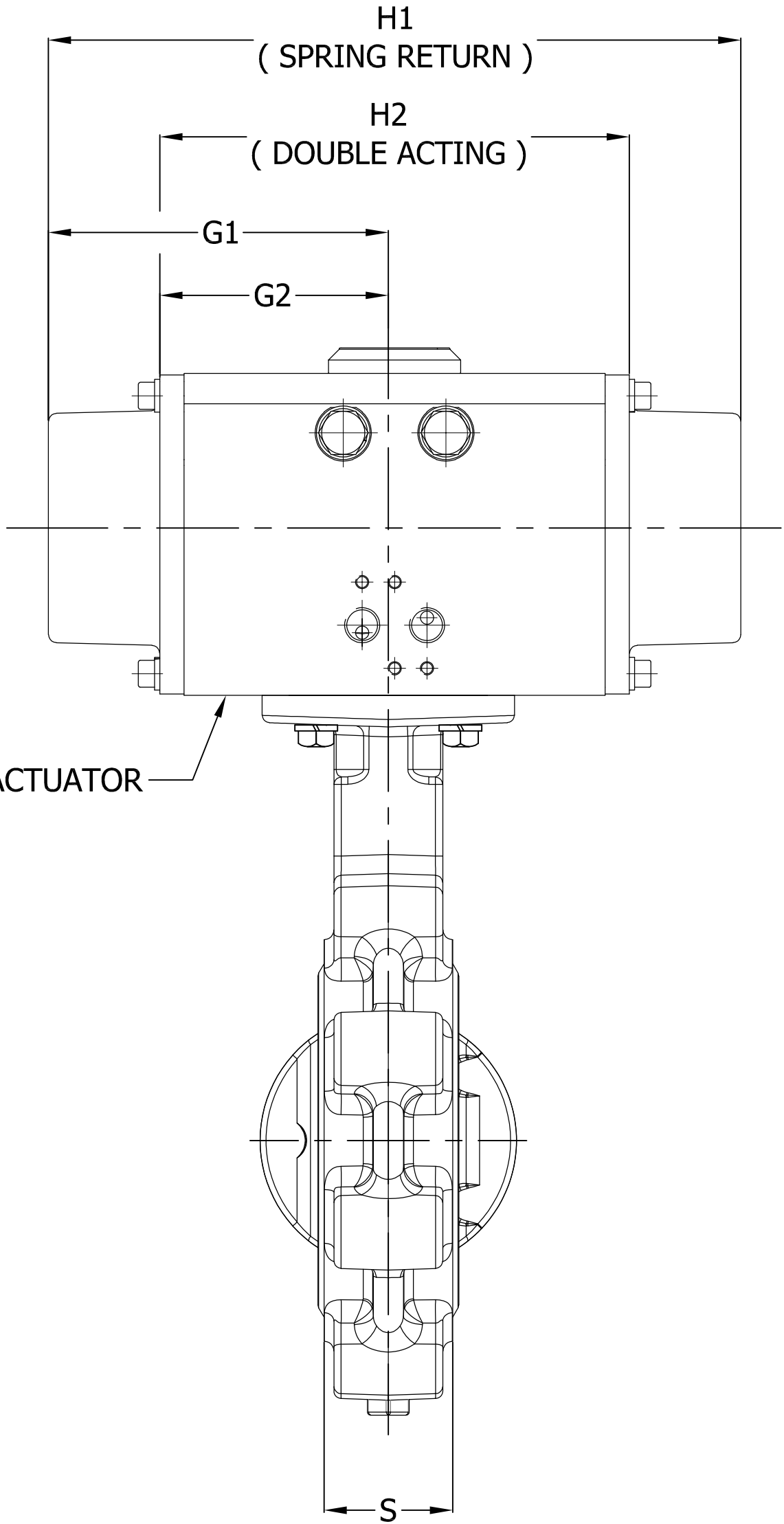


FIGURE 222 VALVE ASSEMBLY

F89 ACTUATOR




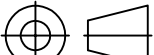
F89 ACTUATOR DIMENSIONS (IMPERIAL: INCHES)						
SIZE	E	F	G1	G2	H1	H2
F89U-003	3.39	3.09	3.65	2.45	7.30	4.90
F89U-004	3.78	3.15	4.27	2.82	8.53	5.63
F89U-006	3.97	3.42	5.10	3.33	10.20	6.65
F89U-009	4.69	3.91	5.05	3.43	10.10	6.85
F89U-014	5.42	4.41	6.04	3.80	12.07	7.60
F89U-020	6.10	4.82	7.45	4.65	14.89	9.29
F89U-032/033	6.73	5.35	9.10	5.57	18.20	11.14
F89U-051/052	8.37	6.26	9.36	5.87	18.72	11.73
F89U-085/086	8.94	7.48	12.35	7.56	24.69	15.12
F89U-140	10.79	9.17	14.29	8.49	28.58	16.97
F89U-240	12.80	11.42	16.64	9.98	33.27	19.96
F89 ACTUATOR DIMENSIONS (METRIC: MM)						
SIZE	E	F	G1	G2	H1	H2
F89U-003	86	79	93	63	186	125
F89U-004	96	80	109	72	217	143
F89U-006	101	87	130	85	259	169
F89U-009	119	99	129	87	257	174
F89U-014	138	112	154	97	307	193
F89U-020	155	123	189	118	378	236
F89U-032/033	171	136	231	142	462	283
F89U-051/052	213	159	238	149	476	298
F89U-085/086	227	190	314	192	627	384
F89U-140	274	233	363	216	726	431
F89U-240	325	290	423	254	845	507

VALVE DIMENSIONS (IMPERIAL: INCHES)						
SIZE	A	øB	C	D	S	ADAPT. CODE
2	8.63	6.02	5.31	1.50	1.69	BAB
2 1/2	9.43	6.77	5.91	1.50	1.81	BAB
3	10.13	7.25	6.30	1.50	1.81	BAB
4	11.46	8.76	7.09	1.50	2.05	BAC
5	13.05	10.00	7.68	1.50	2.20	BAD
6	14.12	10.98	8.27	1.50	2.20	BAD
8	16.54	13.23	9.45	1.50	2.36	CAE
10	19.23	15.98	10.83	2.25	2.68	CAF
12	21.88	18.74	12.20	2.25	3.07	CAF
14	23.04	20.71	12.80	3.50	3.07	CAG
16	25.90	23.46	14.17	3.50	4.02	CAG
18	28.70	24.96	15.55	3.50	4.49	DAH
20	32.09	28.50	16.93	4.75	5.00	DAJ
24	37.64	32.91	19.69	4.75	6.06	DAJ

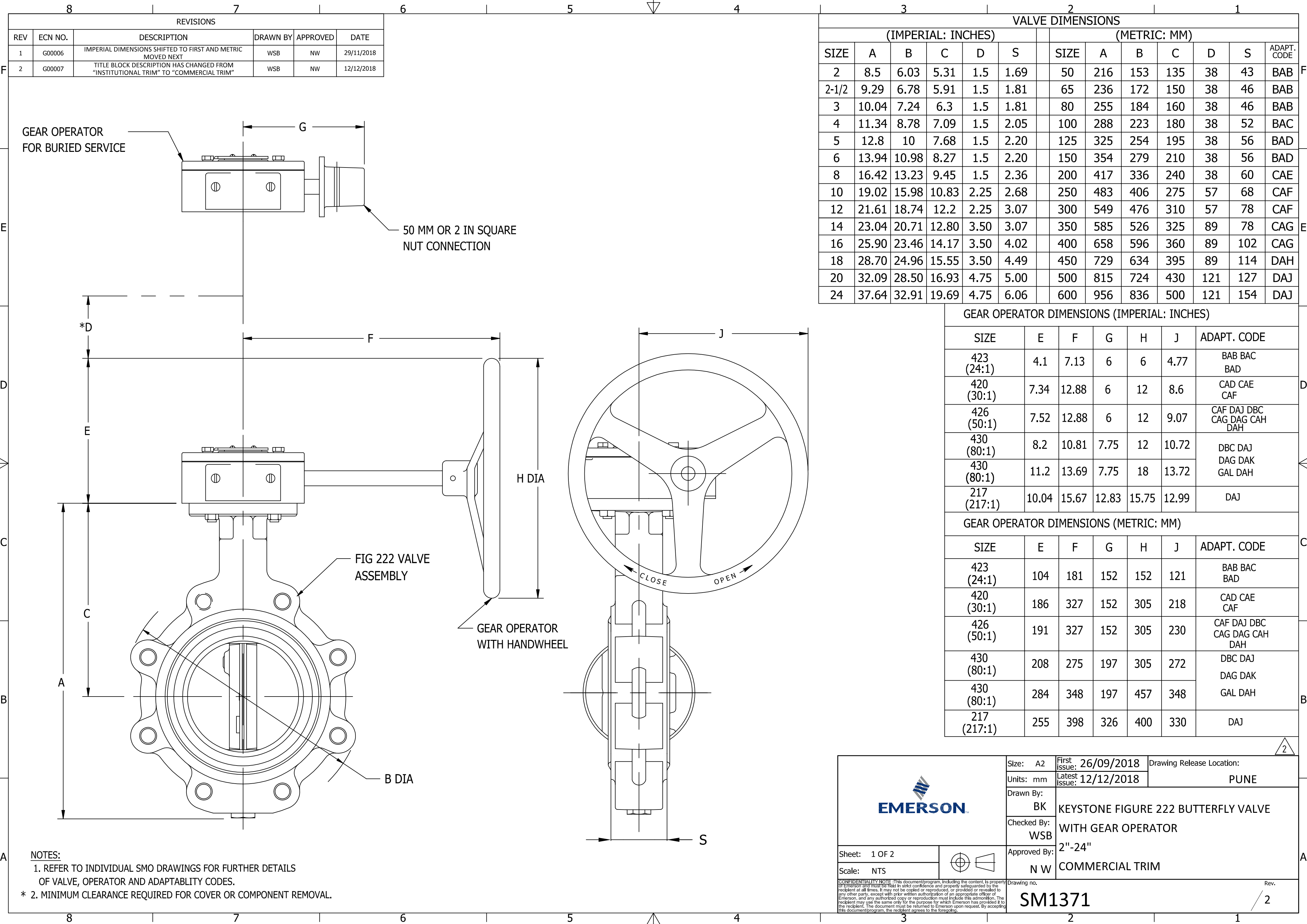
VALVE DIMENSIONS (METRIC: MM)						
SIZE	A	øB	C	D	S	ADAPT. CODE
50	219	153	135	38	43	BAB
65	240	172	150	38	46	BAB
80	257	184	160	38	46	BAB
100	291	223	180	38	52	BAC
125	331	254	195	38	56	BAD
150	359	279	210	38	56	BAD
200	420	336	240	38	60	CAE
250	488	406	275	57	68	CAF
300	556	476	310	57	78	CAF
350	585	526	325	89	78	CAG
400	658	596	360	89	102	CAG
450	729	634	395	89	114	DAH
500	815	724	430	121	127	DAJ
600	956	836	500	121	154	DAJ

NOTES:

- REFER TO INDIVIDUAL SMO DRAWINGS FOR FURTHER DETAILS OF VALVE, ACTUATOR AND ADAPTABILITY CODES.
- MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.
- SIZING OF ACTUATOR NEEDS TO BE VERIFIED BY APPLICATION.

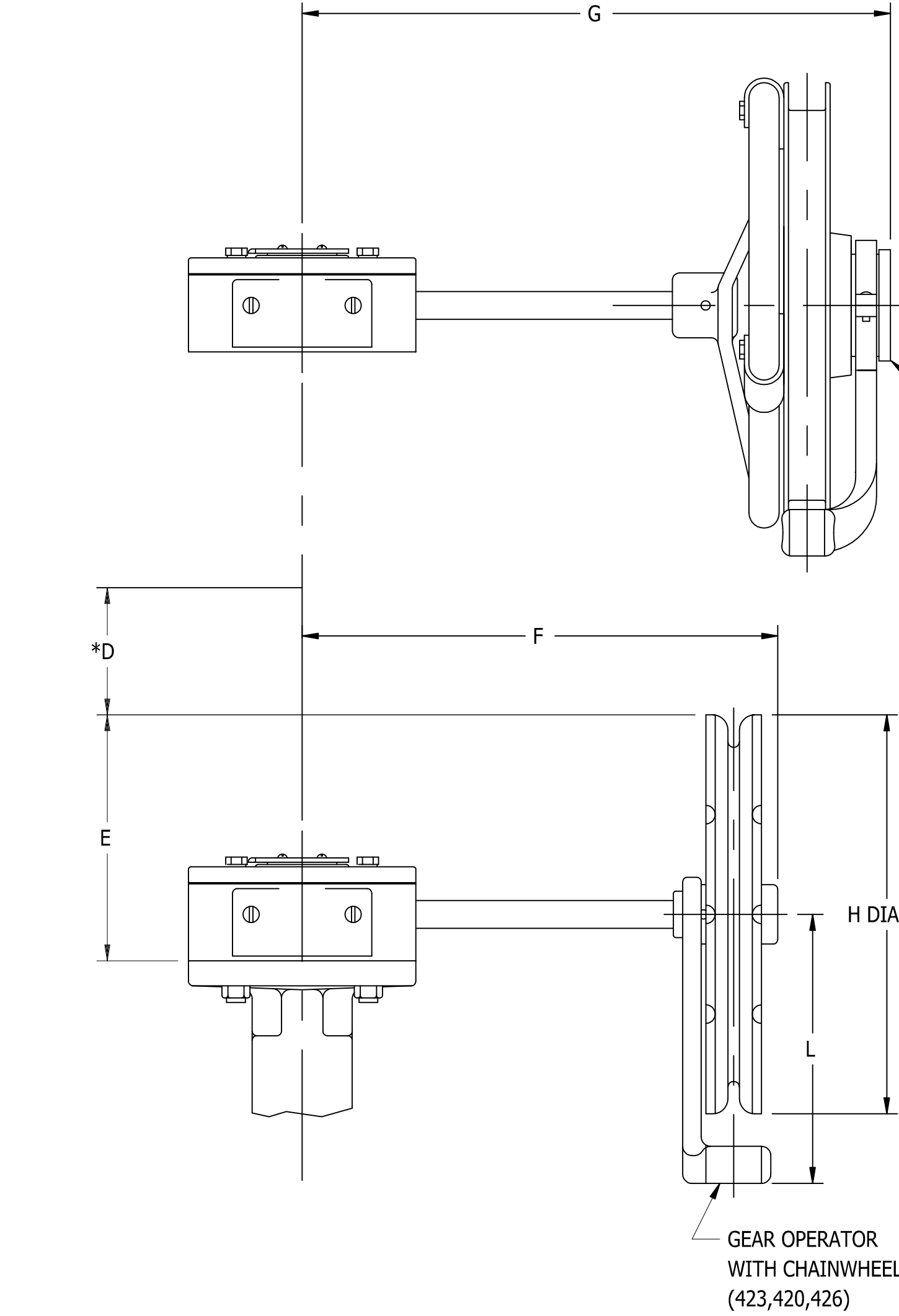
		Size: A2	First issue: 17/09/2018	Drawing Release Location: PUNE	
		Units: mm	Latest issue: 12/12/2018		
		Drawn By: BK	KEYSTONE FIGURE 222 VALVE ASSEMBLY WITH F89 ACTUATOR 2"-24" COMMERCIAL TRIM		
		Checked By: WSB			
Sheet: 1 OF 1		Approved By: N W			
Scale: NTS					
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		SM1374		1	

KEYSTONE FIGURE 222 WITH GEAR OPERATOR



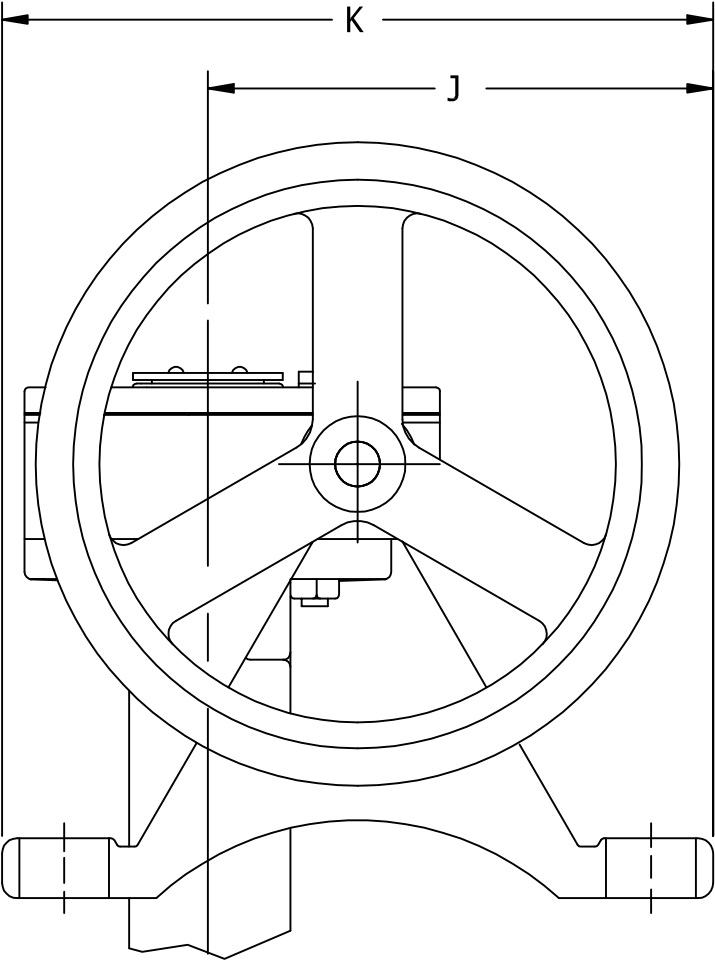
KEYSTONE FIGURE 222 WITH GEAR OPERATOR

REVISIONS					
REV	ECN NO.	DESCRIPTION	DRAWN BY	APPROVED	DATE
1	G00006	IMPERIAL DIMENSIONS SHIFTED TO FIRST AND METRIC MOVED NEXT	WSB	NW	29/11/2018
2	G00007	TITLE BLOCK DESCRIPTION HAS CHANGED FROM "INSTITUTIONAL TRIM" TO "COMMERCIAL TRIM"	WSB	NW	12/12/2018


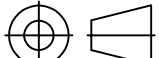


GEAR OPERATOR
WITH CHAINWHEEL
BABBITT ATTACHED
TO HANDWHEEL
(430, 217)

GEAR OPERATOR
WITH CHAINWHEEL
(423,420,426)



GEAR OPERATOR DIMENSIONS WITH CHAINWHEEL (IMPERIAL: INCHES)								
SIZE	E	F	G	H	J	K	L	ADAPT. CODE
423 (24:1)	4.6	7.06	9	7	5.52	7.5	4.5	BAB BAC BAD
420 (30:1)	6.74	12.56	14.94	10.81	6.1	7	7.25	CAD CAE CAF
426 (50:1)	9.22	12.56	10.81	14.94	6.57	7	7.25	CAF DAJ DBC CAG DAG CAH DAH
430 (80:1)	8.45	10.94	13.44	12.5	8.22	7	6.25	DBC DAJ DAG DAK GAL DAH
430 (80:1)	11.7	11.44	16.81	19	8.97	8.5	9	
217 (217:1)	11.55	-	19.05	18.75	14.50	18.75	9.38	DAJ
GEAR OPERATOR DIMENSIONS WITH CHAINWHEEL (METRIC: MM)								
SIZE	E	F	G	H	J	K	L	ADAPT. CODE
423 (24:1)	117	179	229	178	140	191	114	BAB BAC BAD
420 (30:1)	171	319	379	275	155	178	184	CAD CAE CAF
426 (50:1)	234	319	275	379	167	178	184	CAF DAJ DBC CAG DAG CAH DAH
430 (80:1)	215	278	341	318	209	178	159	DBC DAJ DAG DAK GAL DAH
430 (80:1)	297	291	427	483	228	216	229	
217 (217:1)	293	-	484	476	368	476	238	DAJ

		Size: A2	First issue: 26/09/2018	Drawing Release Location: PUNE	
		Units: mm	Latest issue: 12/12/2018		
		Drawn By: BK	KEYSTONE FIGURE 222 BUTTERFLY VALVE WITH GEAR OPERATOR 2"-24" COMMERCIAL TRIM		
		Checked By: WSB			
Approved By: N W					
Sheet: 2 OF 2		Drawing no.			
Scale: NTS		SM1371			
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				Rev. 2	

KEYSTONE FIGURE 222 WITH HANDLE

REVISIONS					
REV	ECN NO.	DESCRIPTION	DRAWN BY	APPROVED	DATE
1	G00006	IMPERIAL DIMENSIONS SHIFTED TO FIRST AND METRIC MOVED NEXT	WSB	NW	29/11/2018
2	G00007	TITLE BLOCK DESCRIPTION HAS CHANGED FROM "INSTITUTIONAL TRIM" TO "COMMERCIAL TRIM"	WSB	NW	12/12/2018

VALVE DIMENSIONS											ADAPT. CODE
(IMPERIAL: INCHES)					(METRIC: MM)						
SIZE	A	B	C	D	SIZE	A	B	C	D		
2	8.5	6.03	5.31	1.5	50	216	153	135	38	BAB	
2-1/2	9.29	6.78	5.91	1.5	65	236	172	150	38	BAB	
3	10.04	7.24	6.3	1.5	80	255	184	160	38	BAB	
4	11.34	8.78	7.09	1.5	100	288	223	180	38	BAC	
5	12.8	10	7.68	1.5	125	325	254	195	38	BAD	
6	13.94	10.98	8.27	1.5	150	354	279	210	38	BAD	
8	16.42	13.23	9.45	1.5	200	417	336	240	38	CAE	

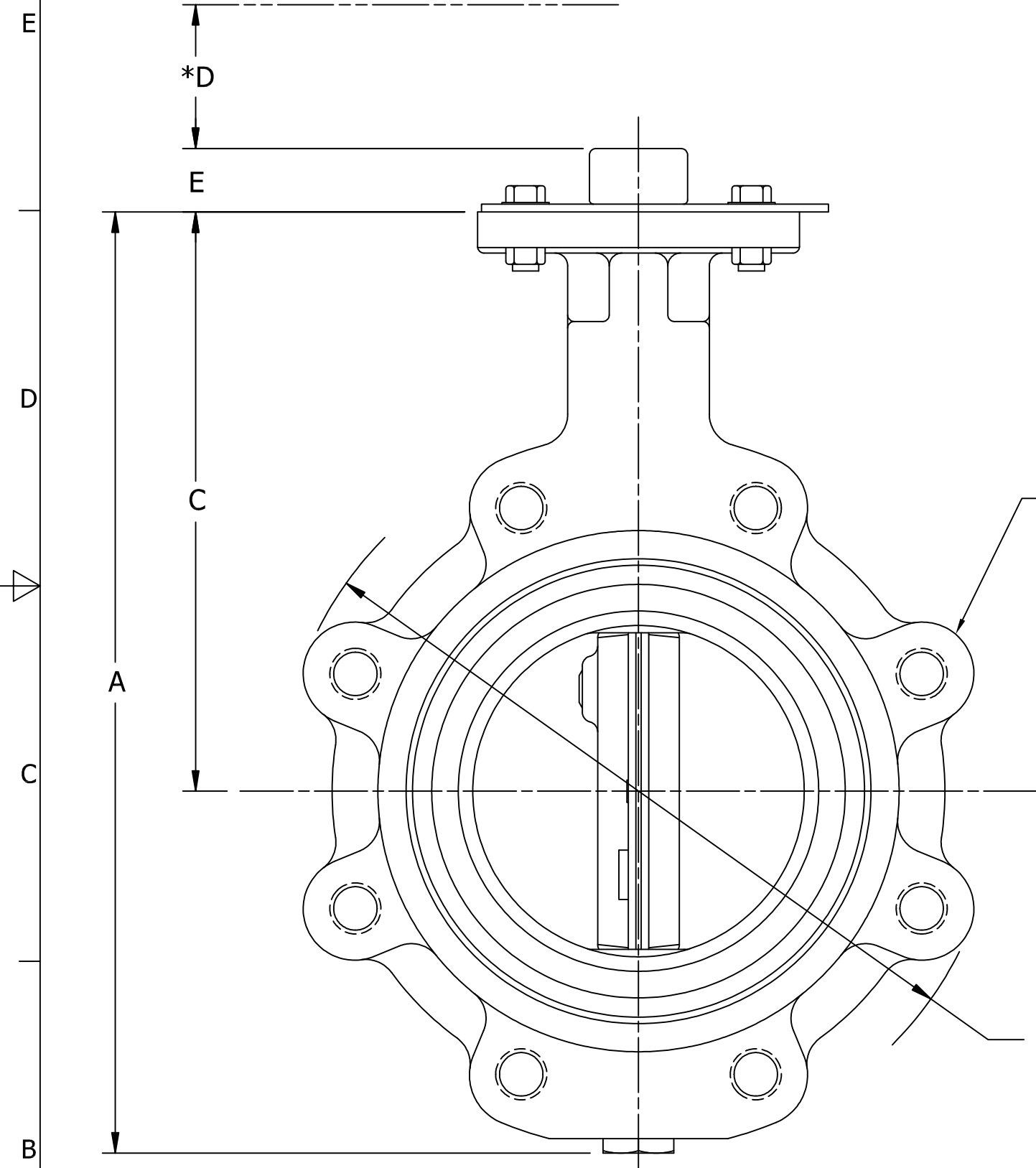
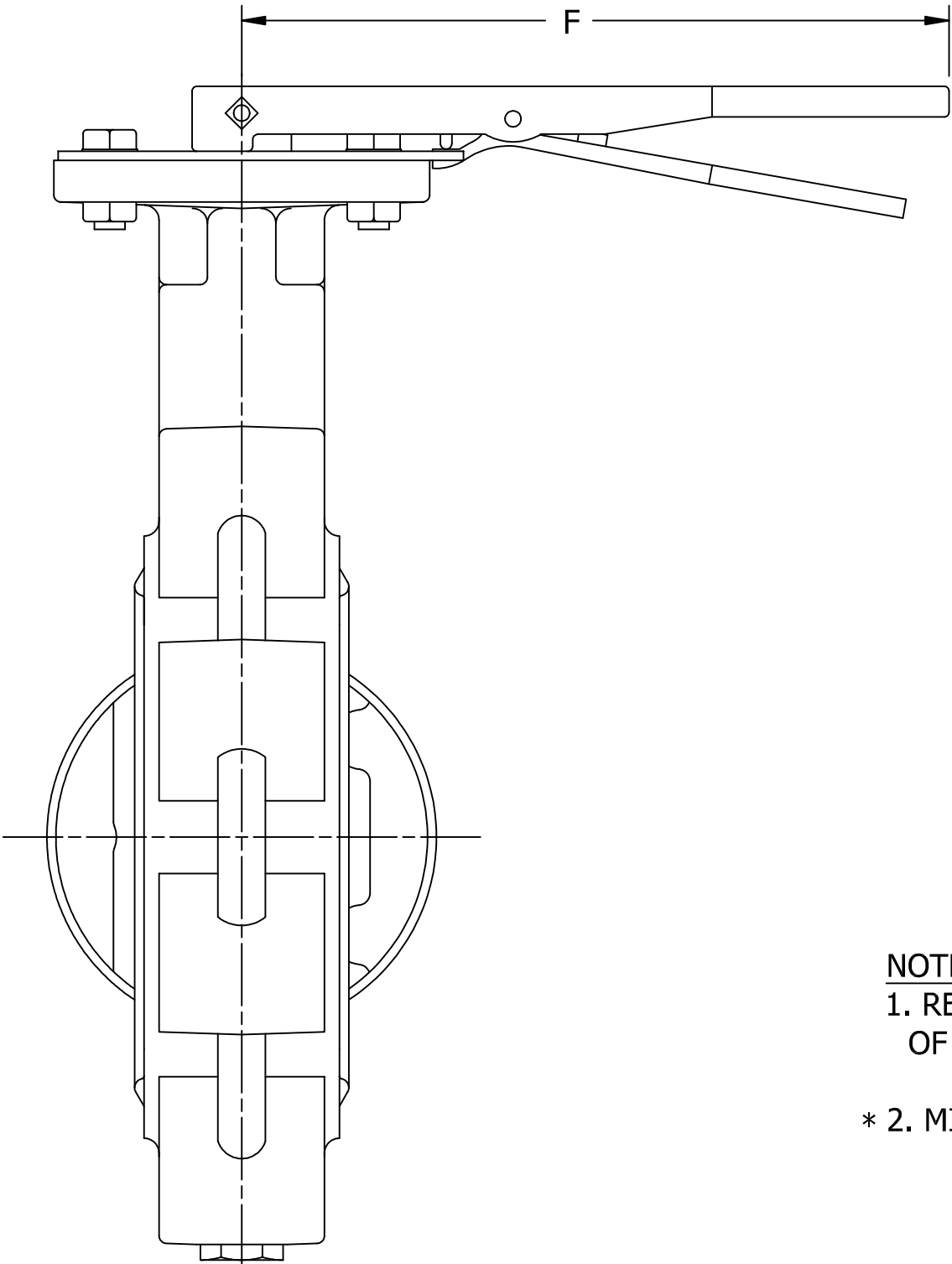

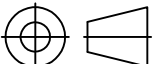


FIG 222 VALVE ASSEMBLY



HANDLE DIMENSIONS					
(IMPERIAL: INCHES)			(METRIC: MM)		
ADAPT. CODE	E	F	ADAPT. CODE	E	F
BAB	1.5	10.5	BAB	38	267
BAC	1.5	10.5	BAC	38	267
BAD	1.5	10.5	BAD	38	267
CAD	1.5	14	CAD	38	356
CAE	1.5	14	CAE	38	356

- NOTES:
1. REFER TO INDIVIDUAL SMO DRAWINGS FOR FURTHER DETAILS OF VALVE, ACTUATOR AND ADAPTABILITY CODES.
- * 2. MINIMUM CLEARANCE REQUIRED FOR COVER OR COMPONENT REMOVAL.

		Size: A2	First issue: 03/09/2018	Drawing Release Location:
		Units: mm	Latest issue: 12/12/2018	PUNE
		Drawn By: BK	KEYSTONE FIGURE 222 BUTTERFLY VALVE WITH HANDLE 2"-8" COMMERCIAL TRIM	
		Checked By: WSB		
Sheet: 1 OF 1		Approved By: N W		
Scale: NTS				
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			SM1372	2