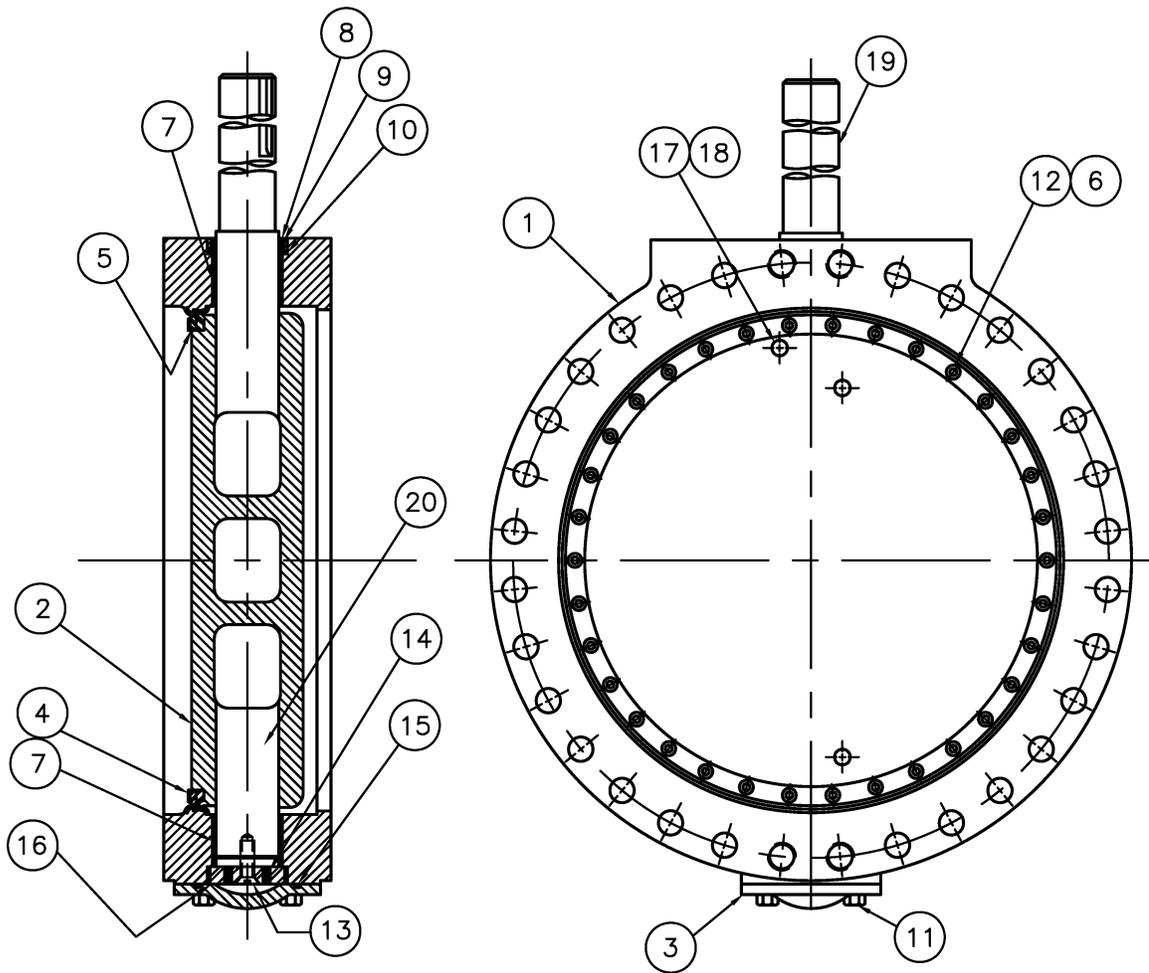


ITEM #	DESCRIPTION	MATERIAL
1A	VALVE BODY	DUCTILE IRON, ASTM A-536, Grade 70-50-05
1B	BODY RING (Permanently Attached)	304 STAINLESS STEEL
1C	BODY O-RING (Permanently Attached)	BUNA-N
2	VANE	DUCTILE IRON, ASTM A-536, Grade 70-50-05
3	END COVER PLATE	DUCTILE IRON, ASTM A-536, Grade 70-50-05
4	RUBBER VANE SEAT RING	EPDM
5	SEGMENTED CLAMP RING (4)	304 STAINLESS STEEL, ASTM A-276
6	SEALING WASHER	NYLON
7	SHAFT SLEEVE BEARING	FIBERGLIDE BACKED WITH STAINLESS STEEL
8	SHAFT O-RING CARTRIDGE	BRONZE
9	O-RING SHAFT SEALS (2)	BUNA-N
10	OUTSIDE O-RING CARTRIDGE SEAL	BUNA-N
11	END COVER PLATE HEX BOLTS	STEEL, ASTM A-307,ELECTRO ZINC PLATED
12	FLAT HEAD SOCKET SCREW (For Rubber Vane Seat Ring)	18-8 STAINLESS STEEL (WITH LOCTITE)
13	FLAT HEAD SOCKET SCREW (For Thrust Bearing)	18-8 STAINLESS STEEL (WITH NYLON INSERT)
14	ALLEN HEAD SET SCREW (For Thrust Bearing)	18-8 STAINLESS STEEL (WITH NYLON INSERT)
15	END COVER PLATE O-RING	BUNA-N
16	THRUST BEARING	BRONZE
17	TAPER PIN (3)	416 STAINLESS STEEL
18	TAPER PIN O-RING (3)	BUNA-N
19	TAPER PIN WASHER (3)	416 STAINLESS STEEL
20	TAPER PIN BOLT (3)	304 STAINLESS STEEL
21	SHAFT (OPERATOR)	304 STAINLESS STEEL
22	SHAFT (THRUST SIDE)	304 STAINLESS STEEL

CLOW VALVE COMPANY  
OSKALOOSA, IOWA  
A DIVISION OF MCWANE INC.

DWN: MMR  
DATE: 8/18/11  
DWG. NO.  
BFE-15-14AA

30" & 36" STYLE 1450  
CLASS 150 BUTTERFLY VALVE  
SUB-ASSEMBLY / MATERIAL LIST  
(NON-ADJUSTABLE PACKING)  
FLANGED ENDS

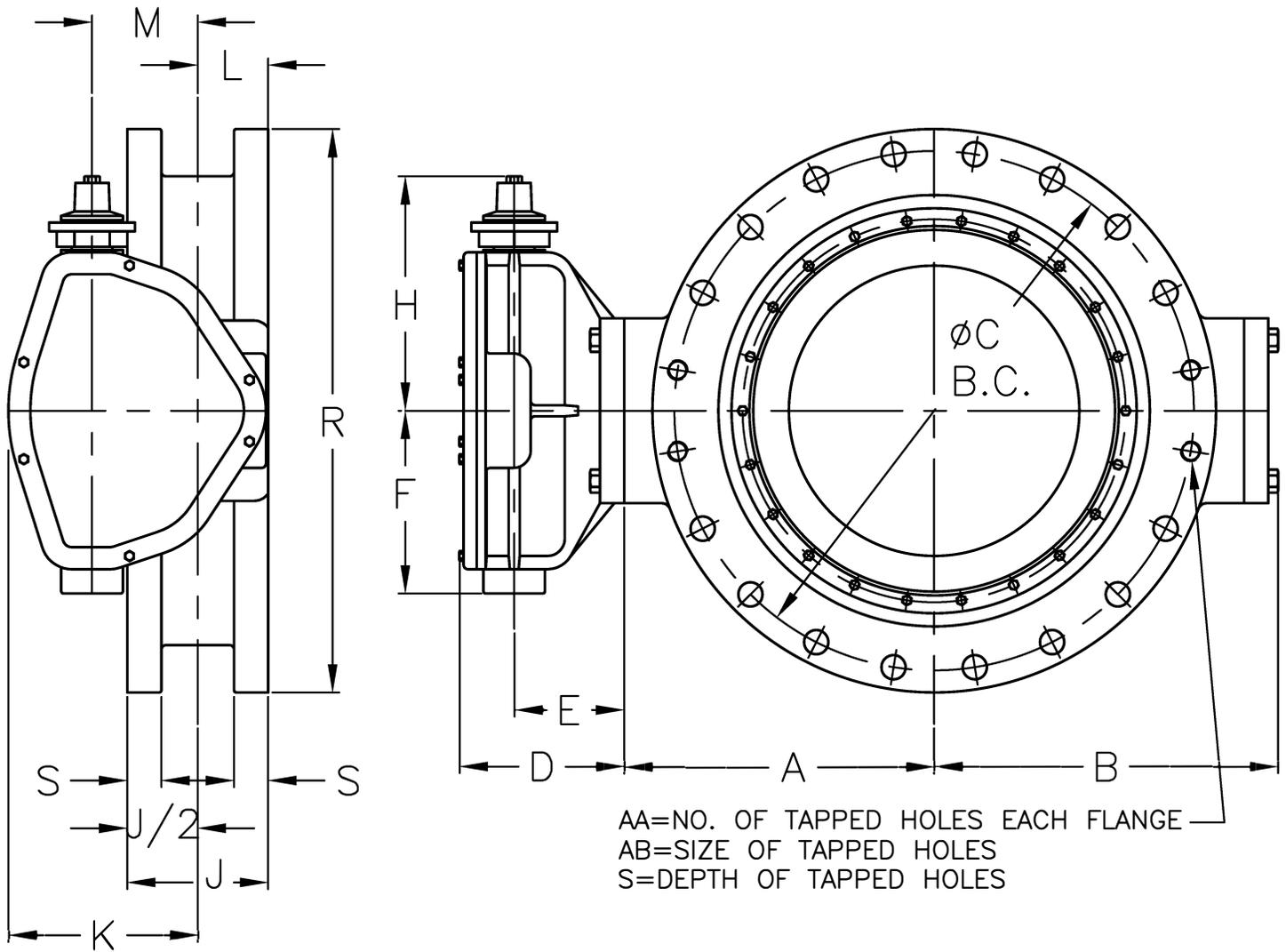


ITEM NO.	DESCRIPTION	MATERIAL
1	BODY, VALVE	DUCTILE IRON, ASTM A-536, GR. 70-50-05 W/304 STN. STL. SEAT
2	VANE	DUCTILE IRON, ASTM A-536 GR. 70-50-05
3	END COVER	DUCTILE IRON, ASTM A-536 GR. 70-50-05
4	SEAT RING, VANE	EPDM
5	CLAMP RING, SEAT	304 STAINLESS STEEL
6	SEALING WASHER	NYLON
7	BUSHING, BODY	FIBERGLIDE
8	CARTRIDGE, SHAFT	BRONZE
9	SEAL, SHAFT	BUNA-N
10	SEAL, CARTRIDGE	BUNA-N
11	BOLT, END COVER	COMMERCIAL STEEL
12	SOCKET SCREW ~ FLAT HEAD	18-8 STAINLESS STEEL W/NYLOK INSERT
13	SOCKET SCREW ~ FLAT HEAD	18-8 STAINLESS STEEL W/NYLOK INSERT
14	SET SCREW ~ FLAT POINT	18-8 STAINLESS STEEL W/NYLOK INSERT
15	END COVER SEAL	BUNA-N
16	THRUST BEARING PLATE	BRONZE
17	TAPER PIN	416 STAINLESS STEEL
18	TAPER PIN BOLT	18-8 STAINLESS STEEL
19	SHAFT (OPERATOR)	304 STAINLESS STEEL
20	SHAFT (THRUST)	304 STAINLESS STEEL

CLOW VALVE COMPANY  
OSKALOOSA, IOWA  
A DIVISION OF MCWANE INC.

DWN: MMR  
DATE: 7/14/11  
DWG. NO.  
BFE-15-14AB

42" & 48" STYLE 1450  
CLASS 150 BUTTERFLY VALVE  
SUB-ASSEMBLY / MATERIAL LIST  
(NON-ADJUSTABLE PACKING)  
FLANGED ENDS



	OPERATOR MODEL	D	E	F	H	K	L	M	N
30" & 36"	2200	9 1/16	6 1/4	10 3/8	14 5/16	10 3/4	3 7/8	6	72
42"	4350	10 3/16	6 1/16	14 5/16	18	13 5/16	4 3/16	7 1/2	90

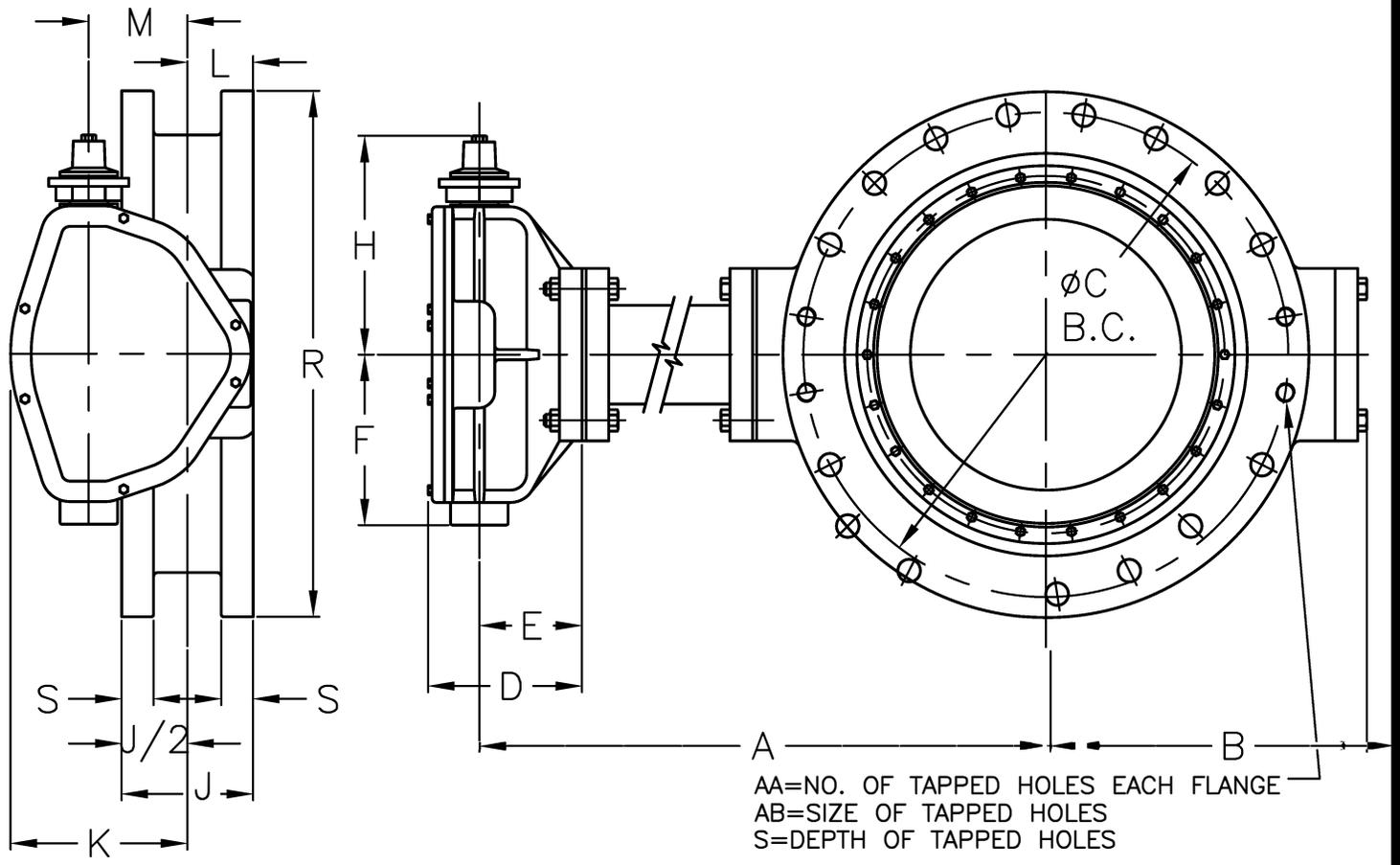
VALVE SIZE	A	B	C	J	P	Q	R	S	AA	AB	WEIGHT
30"	20.625	21.50	36	12	28	1.250	38.750	2.125	4	1.250-7	1790
36"	24.250	25.06	42.750	12	32	1.500	46	2.375	4	1.500-6	2515
42"	28.250	28.88	49.500	12	36	1.500	53	2.625	4	1.500-6	4405

- NOTE 1: FLOW MAY BE IN EITHER DIRECTION  
 NOTE 2: VALVE SHAFT WILL MEET OR EXCEED REQUIREMENTS OF SHAFT TABLE PER AWWA STANDARD C-504 FOR APPLICABLE CLASS.  
 NOTE 3: REFERENCE AWWA C-504 FLANGES & DRILLING (A.N.S.I. 125)  
 NOTE 4: "N" = NUMBER OF TURNS TO CLOSE  
 NOTE 5: "P" = NUMBER OF BOLTS ON EACH FLANGE  
 NOTE 6: "Q" = DIAMETER OF BOLTS  
 NOTE 7: OPERATED BY 2" AWWA OPERATING / WRENCH NUT

CLOW VALVE COMPANY  
 OSKALOOSA, IOWA  
 A DIVISION OF MCWANE INC.

DWN: TRIJ  
 DATE: 1/1/11  
 DWG. NO.  
 BFE-15-14B

30" THRU 42" STYLE 1450  
 CLASS 150 BUTTERFLY VALVE  
 BURIED OPERATOR  
 FLANGED ENDS



	OPERATOR MODEL	D	E	F	H	K	L	M	N
30" & 36"	2200	9 1/16	6 1/4	10 3/8	14 5/16	10 3/4	3 7/8	6	72
42"	4350	10 3/16	6 1/16	14 5/16	18	13 5/16	4 3/16	7 1/2	90

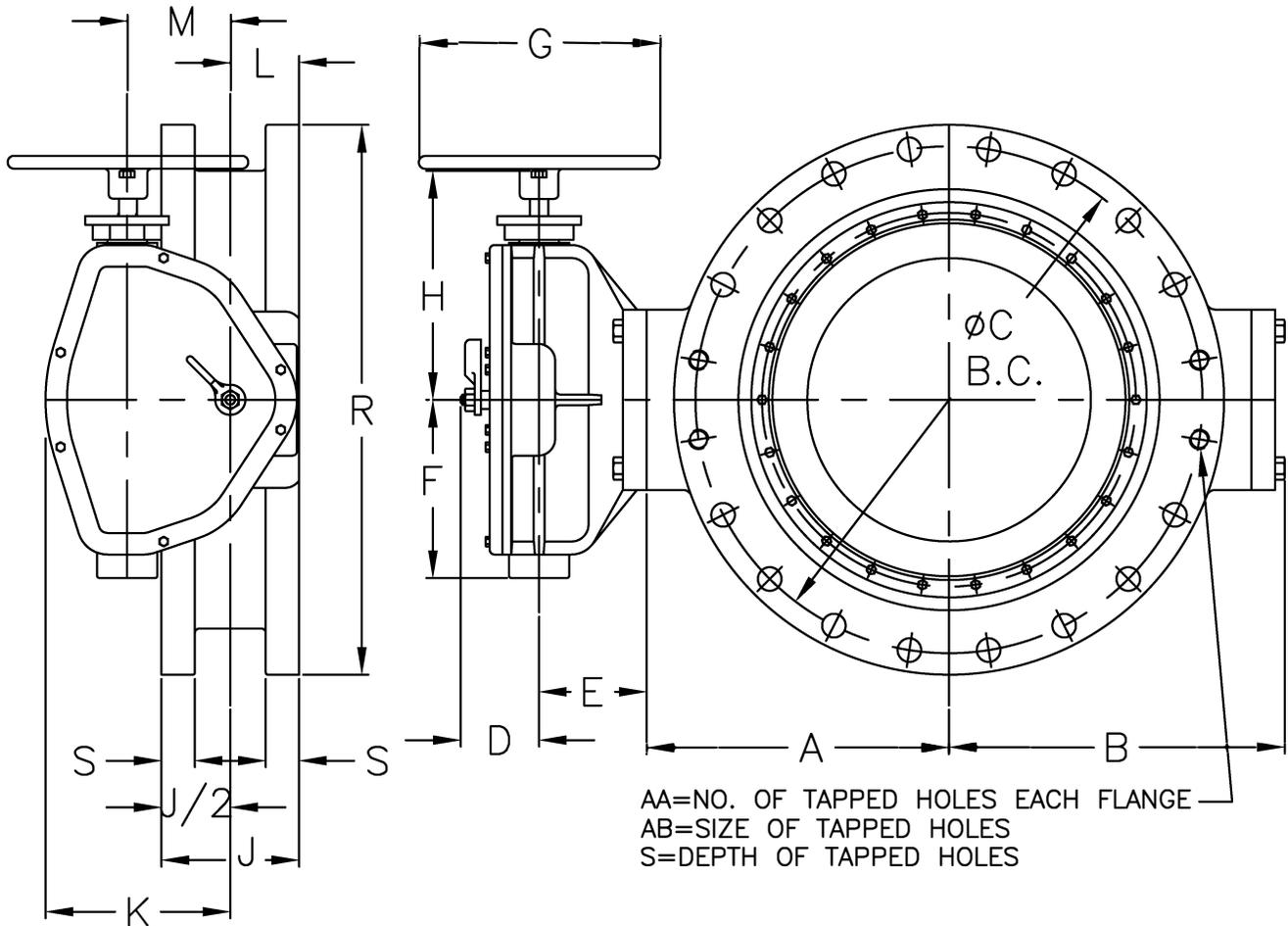
VALVE SIZE	A	B	C	J	P	Q	R	S	AA	AB	WEIGHT
30"	NOTE AA	21.50	36	12	28	1.250	38.750	2.125	4	1.250-7	1790
36"	NOTE AA	25.06	42.750	12	32	1.500	46	2.375	4	1.500-6	2515
42"	NOTE AA	28.88	49.500	12	36	1.500	53	2.625	4	1.500-6	4405

- NOTE 1: FLOW MAY BE IN EITHER DIRECTION  
 NOTE 2: VALVE SHAFT WILL MEET OR EXCEED REQUIREMENTS OF SHAFT TABLE PER AWWA STANDARD C-504 FOR APPLICABLE CLASS.  
 NOTE 3: REFERENCE AWWA C-111 (A.N.S.I. A21-11)  
 NOTE 4: "N" = NUMBER OF TURNS TO CLOSE  
 NOTE 5: "P" = NUMBER OF BOLTS ON EACH FLANGE  
 NOTE 6: "Q" = DIAMETER OF BOLTS  
 NOTE 7: OPERATED BY 2" AWWA OPERATING / WRENCH NUT  
 NOTE 8: 2200 OPERATOR ON 30" & 36"--4350 OPERATOR ON 42"  
 NOTE 9: MAXIMUM LENGTH OF TORQUE TUBE (15 FEET)--BONNET SUPPORTS SHOULD BE USED ON ALL BONNETS EXCEEDING 6 FEET CENTERLINE OF VALVE TO CENTERLINE OF OPERATOR. ALL BONNET SUPPORTS SHALL BE SUPPLIED BY CUSTOMER  
 NOTE AA: "A" VARIES TO ENGINEER SPECIFICATIONS  
 \*NOTE AB: APPROXIMATE WEIGHT PER EACH FOOT OF EXTENDED BONNET 150lbs (30"-42")

CLOW VALVE COMPANY  
 OSKALOOSA, IOWA  
 A DIVISION OF MCWANE INC.

DWN: TRIJ  
 DATE: 8/12/11  
 DWG. NO.  
 BFE-15-14C

30" THRU 42" STYLE 1450  
 CLASS 150 BUTTERFLY VALVE  
 WITH EXTENDED BONNET  
 BURIED OPERATOR  
 FLANGED ENDS



	OPERATOR MODEL	D	E	F	G	H	K	L	M	N
30" & 36"	2200	4 3/16	6 1/4	10 3/8	18	14 5/16	10 3/4	3 7/8	6	72
42"	4350	5 5/8	6 1/16	14 5/16	27	18	13 5/16	4 3/16	7 1/2	90

VALVE SIZE	A	B	C	J	P	Q	R	S	AA	AB	WEIGHT
30"	20.625	21.50	36	12	28	1.250	38.750	2.125	4	1.250-7	1790
36"	24.250	25.06	42.750	12	32	1.500	46	2.375	4	1.500-6	2515
42"	28.250	28.88	49.500	12	36	1.500	53	2.625	4	1.500-6	4405

NOTE 1: FLOW MAY BE IN EITHER DIRECTION

NOTE 2: VALVE SHAFT WILL MEET OR EXCEED REQUIREMENTS OF SHAFT TABLE PER AWWA STANDARD C-504 FOR APPLICABLE CLASS.

NOTE 3: REFERENCE AWWA C-504 FLANGES & DRILLING (A.N.S.I. 125)

NOTE 4: "N" = NUMBER OF TURNS TO CLOSE

NOTE 5: "P" = NUMBER OF BOLTS ON EACH FLANGE

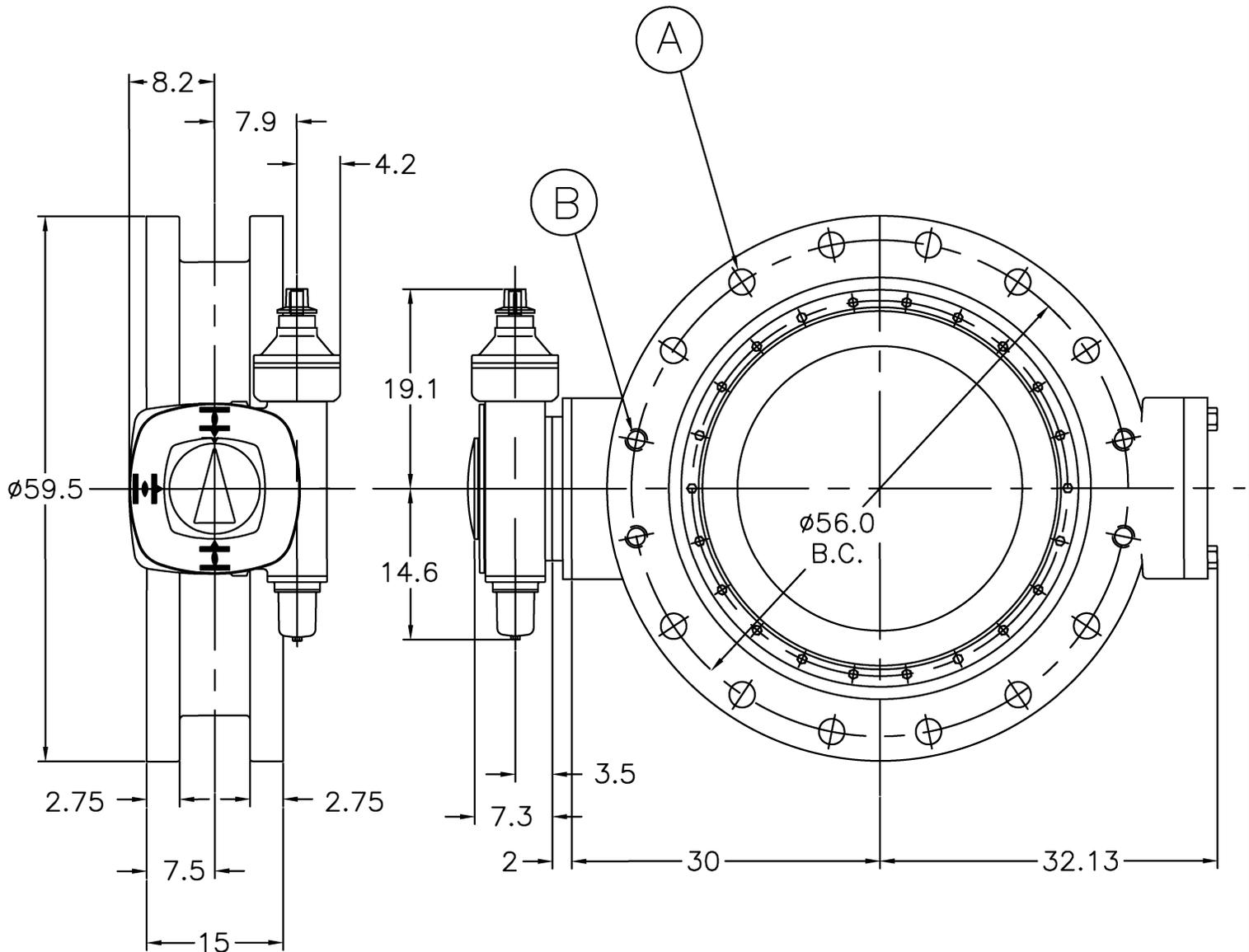
NOTE 6: "Q" = DIAMETER OF BOLTS

CLOW VALVE COMPANY  
 OSKALOOSA, IOWA  
 A DIVISION OF MCWANE INC.

DWN: TRIJ  
 DATE: 8/12/11  
 DWG. NO.  
 BFE-15-14D

30" THRU 42" STYLE 1450  
 CLASS 150 BUTTERFLY VALVE  
 POSITION INDICATOR  
 HANDWHEEL OPERATOR  
 FLANGED ENDS





NOTE 1: FLOW MAY BE IN EITHER DIRECTION

NOTE 2: VALVE SHAFT WILL MEET OR EXCEED REQUIREMENTS OF SHAFT TABLE PER AWWA STANDARD C-504 FOR APPLICABLE CLASS.

NOTE 3: REFERENCE AWWA C-504-B & DRILLING (A.N.S.I. 125)

NOTE 4: NUMBER OF TURNS TO CLOSE = 108

NOTE 5: OPERATED BY 2" AWWA OPERATING / WRENCH NUT

NOTE 6: A = (44)  $\phi 1.50$ " BOLTS PER FLANGE

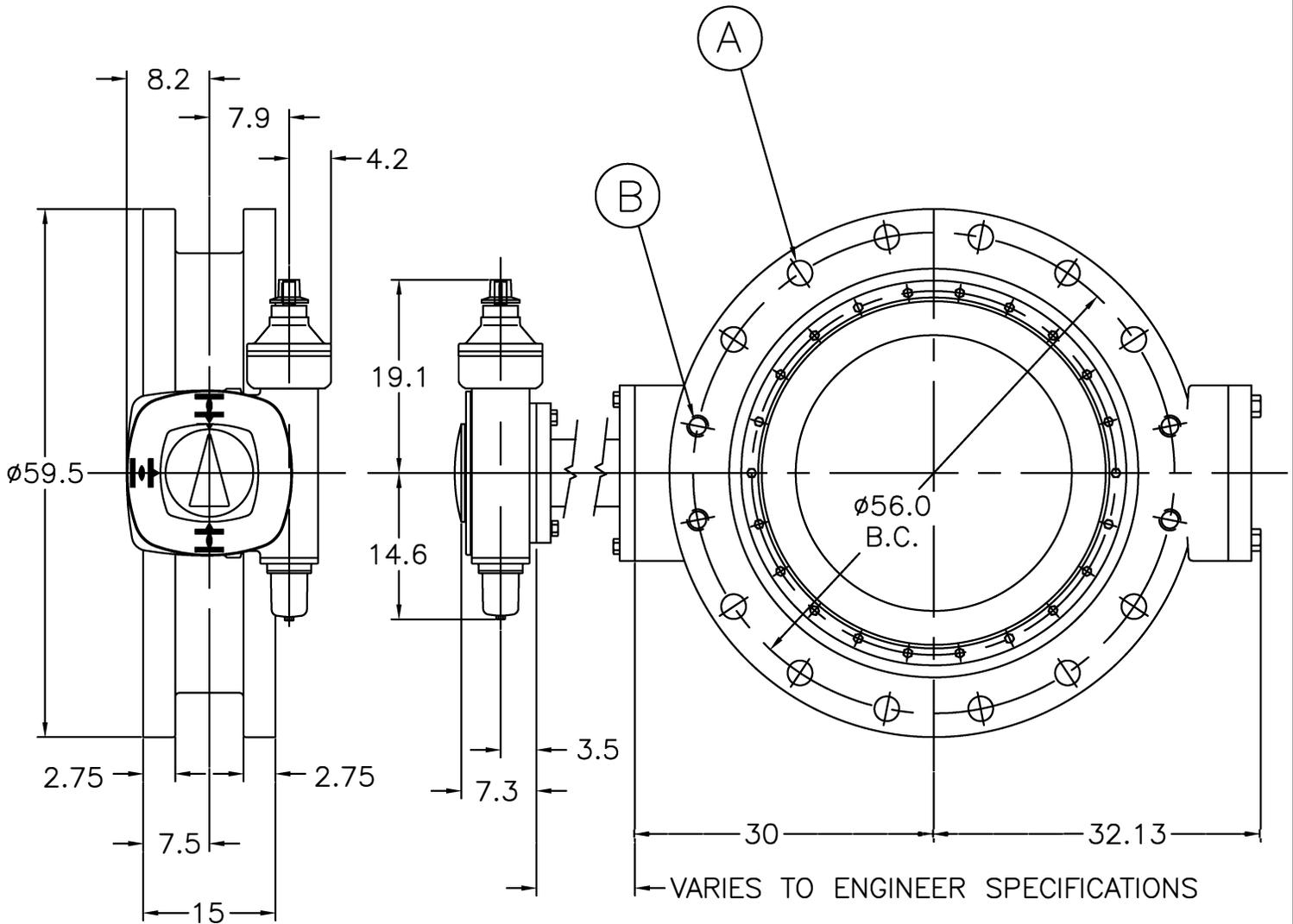
NOTE 7: B = (8) 1.50-6 UNC x 2.25 DEEP TAPPED HOLES EACH FLANGE

NOTE 8: APPROXIMATE WEIGHT = 6300lbs.

CLOW VALVE COMPANY  
OSKALOOSA, IOWA  
A DIVISION OF MCWANE INC.

DWN: TRIJ  
DATE: 8/25/11  
DWG. NO.  
BFE-15-48A

48" STYLE 1450  
CLASS 150 BUTTERFLY VALVE  
(AUMA GS200.3/GZ200.3:8 GEAR BOX)  
BURIED OPERATOR  
FE X FE ENDS

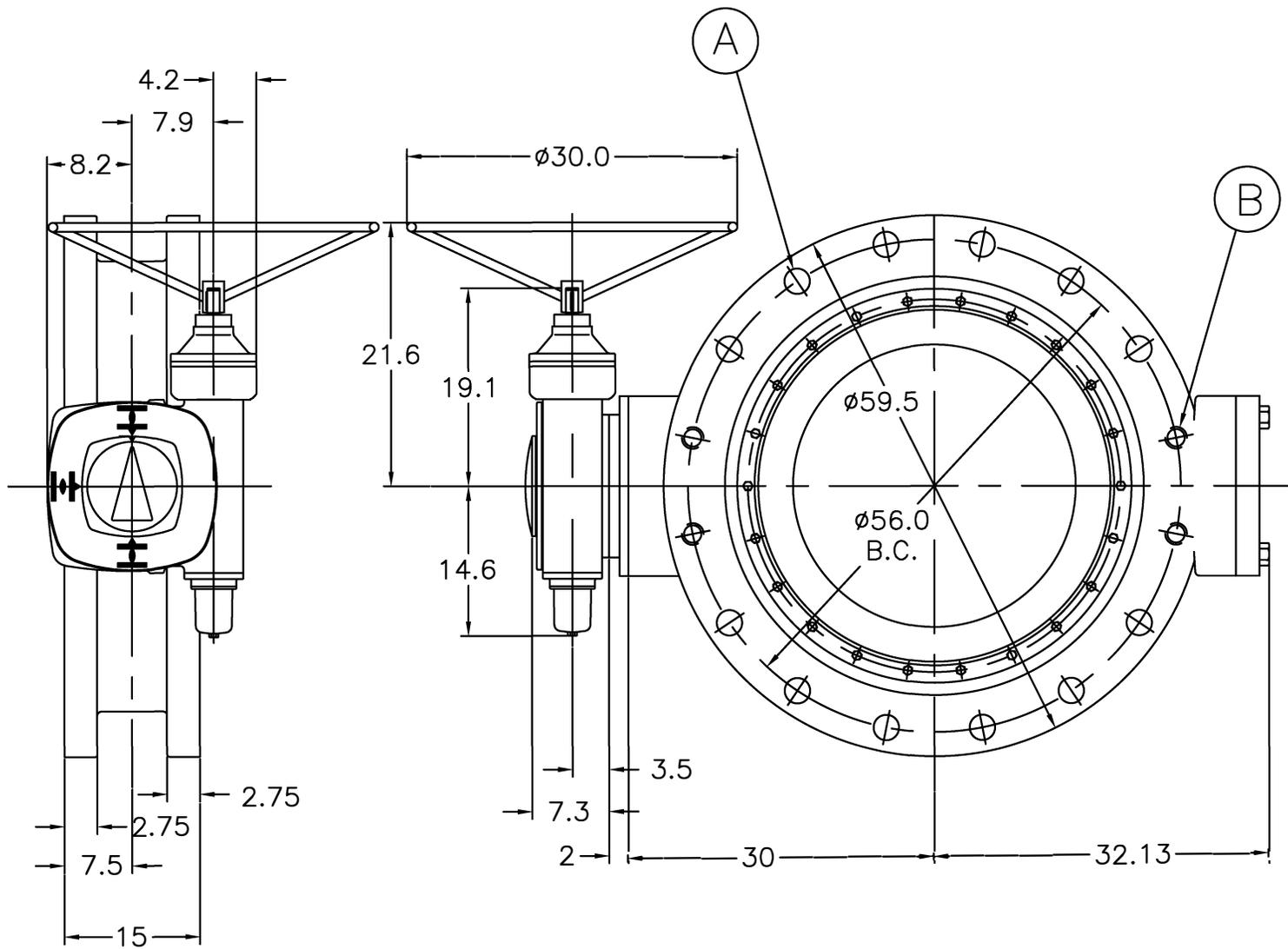


- NOTE 1: FLOW MAY BE IN EITHER DIRECTION  
 NOTE 2: VALVE SHAFT WILL MEET OR EXCEED REQUIREMENTS OF SHAFT TABLE PER AWWA STANDARD C-504 FOR APPLICABLE CLASS.  
 NOTE 3: REFERENCE AWWA C-504-B & DRILLING (A.N.S.I. 125)  
 NOTE 4: NUMBER OF TURNS TO CLOSE = 108  
 NOTE 5: OPERATED BY 2" AWWA OPERATING / WRENCH NUT  
 NOTE 6: A = (44)  $\phi 1.50$ " BOLTS PER FLANGE  
 NOTE 7: B = (8) 1.50-6 UNC x 2.25 DEEP TAPPED HOLES EACH FLANGE  
 NOTE 8: APPROXIMATE WEIGHT = 6300lbs.

CLOW VALVE COMPANY  
 OSKALOOSA, IOWA  
 A DIVISION OF MCWANE INC.

DWN: TRIJ  
 DATE: 8/25/11  
 DWG. NO.  
 BFE-15-AA2

48" STYLE 1450  
 CLASS 150 BUTTERFLY VALVE  
 (AUMA GS200.3/GZ200.3:8 GEAR BOX)  
 BURIED OPERATOR & EXTENDED BONNET  
 FE X FE ENDS



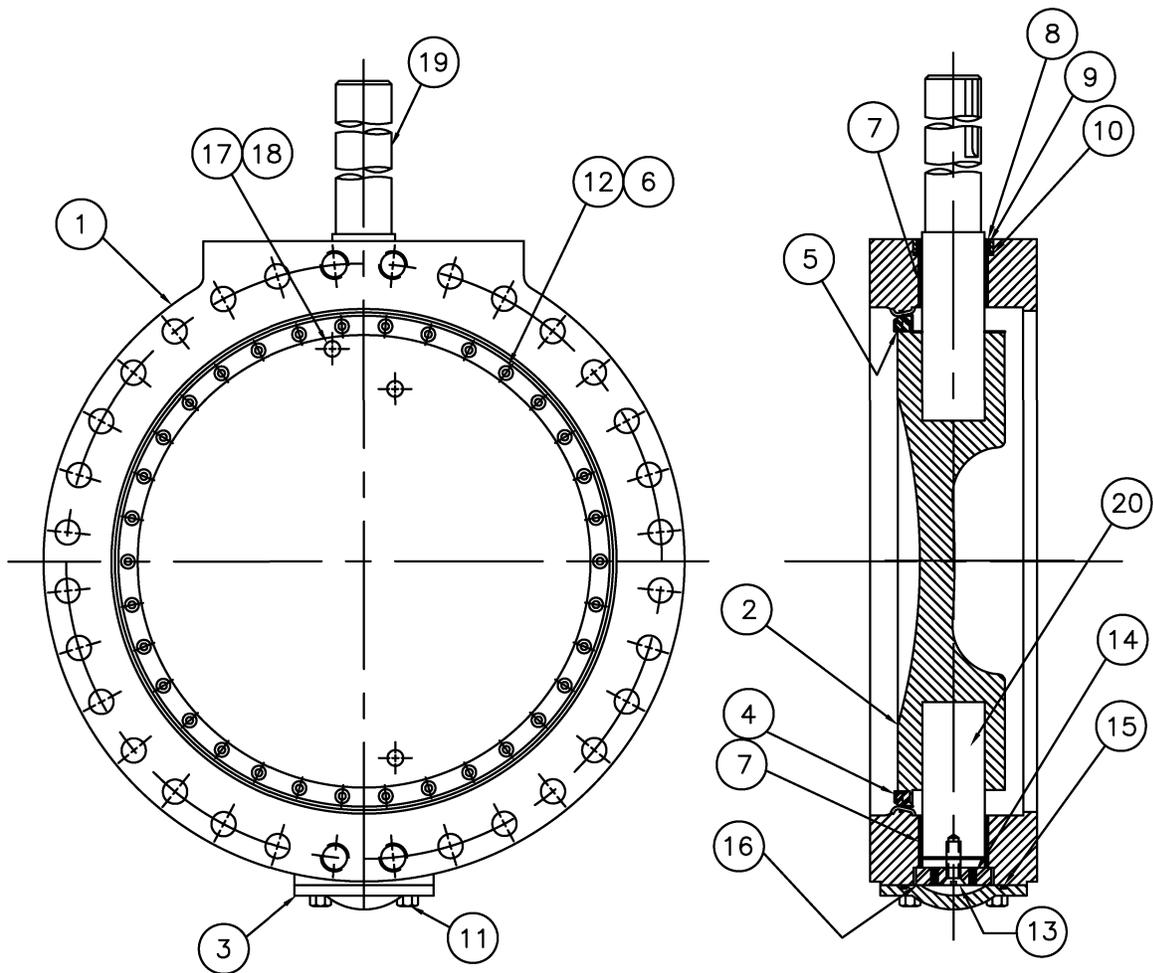
- NOTE 1: FLOW MAY BE IN EITHER DIRECTION
- NOTE 2: VALVE SHAFT WILL MEET OR EXCEED REQUIREMENTS OF SHAFT TABLE PER AWWA STANDARD C-504 FOR APPLICABLE CLASS.
- NOTE 3: REFERENCE AWWA C-504-B & DRILLING (A.N.S.I. 125)
- NOTE 4: NUMBER OF TURNS TO CLOSE = 108
- NOTE 5: MANUAL POSITION INDICATOR
- NOTE 6: A = (44)  $\phi 1.50$ " BOLTS PER FLANGE
- NOTE 7: B = (8) 1.50-6 UNC x 2.25 DEEP TAPPED HOLES EACH FLANGE
- NOTE 8: APPROXIMATE WEIGHT = 6300lbs.

CLOW VALVE COMPANY  
 OSKALOOSA, IOWA  
 A DIVISION OF MCWANE INC.

DWN: TRIJ  
 DATE: 9/19/11  
 DWG. NO.  
 BFE-15-48B

48" STYLE 1450  
 CLASS 150 BUTTERFLY VALVE  
 (AUMA GS200.3/GZ200.3:8 GEAR BOX)  
 HANDWHEEL OPERATOR  
 FE X FE ENDS



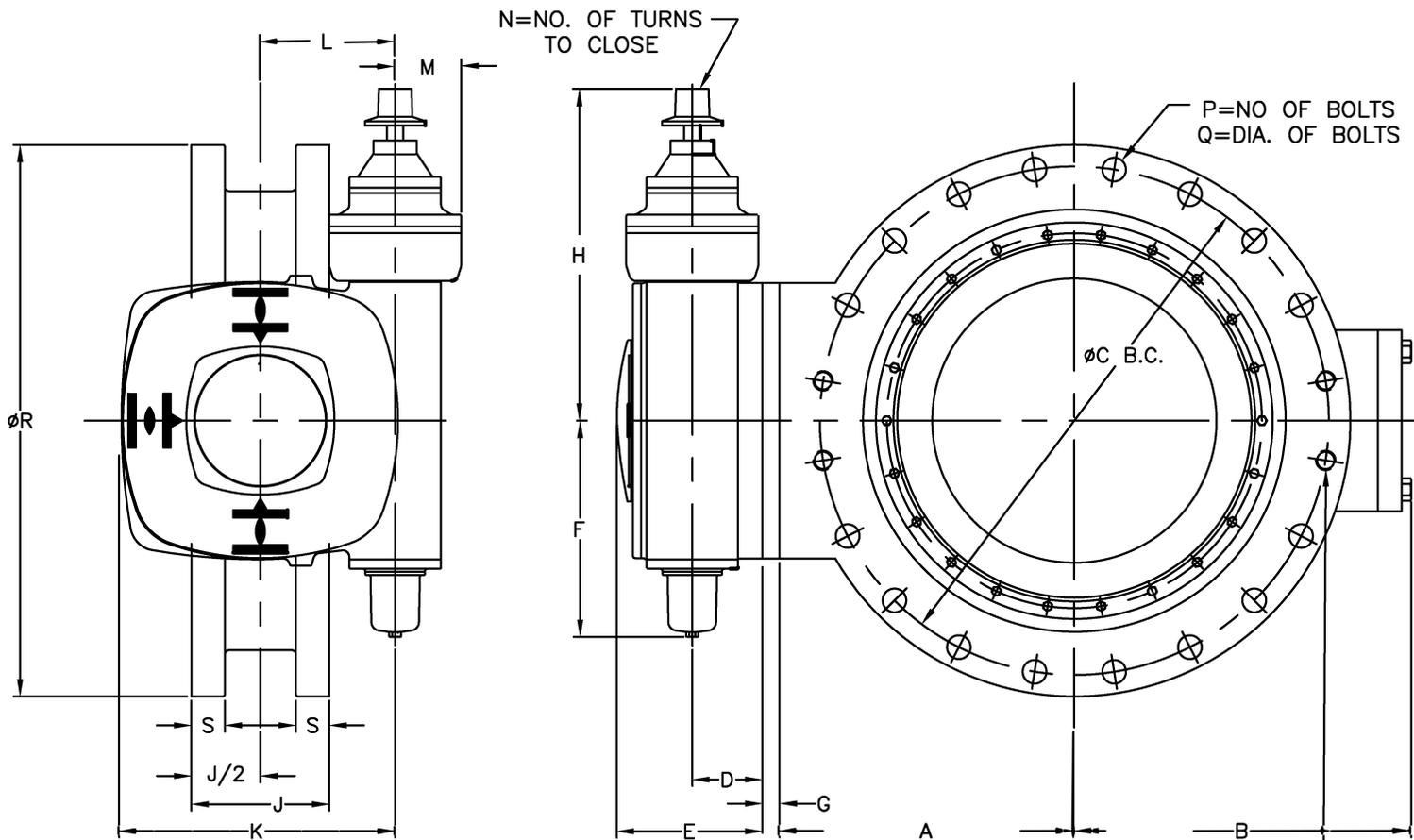


ITEM NO.	DESCRIPTION	MATERIAL
1	BODY, VALVE	DUCTILE IRON, ASTM A-536, GR. 70-50-05 W/304 STN. STL. SEAT
2	VANE	DUCTILE IRON, ASTM A-536, GR. 70-50-05
3	END COVER	FABRICATED A-36 STEEL
4	SEAT RING, VANE	EPDM
5	CLAMP RING, SEAT	304 STAINLESS STEEL
6	SEALING WASHER	NYLON
7	BUSHING, BODY	FIBERGLIDE
8	CARTRIDGE, SHAFT	BRONZE
9	SEAL, SHAFT	BUNA-N
10	SEAL, CARTRIDGE	BUNA-N
11	BOLT, END COVER	COMMERCIAL STEEL
12	SOCKET SCREW ~ FLAT HEAD	18-8 STAINLESS STEEL W/NYLOK INSERT
13	SOCKET SCREW ~ FLAT HEAD	18-8 STAINLESS STEEL W/NYLOK INSERT
14	SET SCREW ~ FLAT POINT	18-8 STAINLESS STEEL W/NYLOK INSERT
15	END COVER SEAL	BUNA-N
16	THRUST BEARING PLATE	BRONZE
17	TAPER PIN	416 STAINLESS STEEL
18	TAPER PIN BOLT	18-8 STAINLESS STEEL
19	SHAFT (OPERATOR)	304 STAINLESS STEEL
20	SHAFT (THRUST)	304 STAINLESS STEEL

CLOW VALVE COMPANY  
OSKALOOSA, IOWA  
A DIVISION OF MCWANE INC.

DWN: TRIJ  
DATE: 8/16/11  
DWG. NO.  
BFE-15-54A

54" STYLE 1450  
CLASS 150 BUTTERFLY VALVE  
SUB-ASSEMBLY / MATERIAL LIST  
(NON-ADJUSTABLE PACKING)  
FLANGED ENDS



AA=NO. OF TAPPED HOLES EACH FLANGE  
 AB=SIZE OF TAPPED HOLES  
 AC=DEPTH OF TAPPED HOLES

VALVE SIZE	A	B	C	G	J
54"	33.125	34.8	62.75	2.00	15.00

VALVE SIZE	P	Q	R	S	AA	AB	AC
54"	44	1.75	66.25	3	12	1 3/4-5	2.25

OPERATOR MODEL	D	E	F	H	K	L	M	N
GS 250.3/GZ250.3:8	5.1	9.2	15.8	22.0	19.8	9.8	4.8	103

- NOTE 1: FLOW MAY BE IN EITHER DIRECTION  
 NOTE 2: VALVE SHAFT WILL MEET OR EXCEED REQUIREMENTS OF SHAFT TABLE PER AWWA STANDARD C-504 FOR APPLICABLE CLASS.  
 NOTE 3: REFERENCE AWWA C-504 FLANGES & DRILLING (A.N.S.I. 125)  
 NOTE 4: "N" = NUMBER OF TURNS TO CLOSE  
 NOTE 5: "P" = NUMBER OF BOLTS ON EACH FLANGE  
 NOTE 6: "Q" = DIAMETER OF BOLTS  
 NOTE 7: OPERATED BY 2" AWWA OPERATING / WRENCH NUT

CLOW VALVE COMPANY  
 OSKALOOSA, IOWA  
 A DIVISION OF MCWANE INC.

DWN: TRIJ  
 DATE: 8/17/11  
 DWG. NO.  
 BFE-15-54B

54" STYLE 1450  
 CLASS 150 BUTTERFLY VALVE  
 BURIED OPERATOR  
 (AUMA GS250.3/GZ250.3:8)  
 FLANGED ENDS