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A B C D E F G H I J K

48" C515 FLG X FLG

36.00

35.50

2.81

YEAR
CLOW
2438
1000000
AWWA
C515
250
DI
USA
X
1000000

XX

XX

FLG END:
ANSI B16.1
CLASS 125
44 X $\varnothing$ 1.63
ON $\varnothing$ 56.00 B.C.

78.00

58.25

29.75

40.50

67.50

48" C515 FLG X MJ

COVER DIMENSIONS:

- Width: 36.00
- Height: 17.75
- Bottom Flange Width: 2.00
- Bottom Flange Height: 2.81
- Bottom Flange Total Width: 21.00
- Bottom Flange Total Height: 38.75

FRAME DIMENSIONS:

- Top Flange Width: 39.00
- Top Flange Height: 58.25
- Bottom Flange Width: 20.25
- Bottom Flange Height: 29.75
- Bottom Flange Total Width: 33.75
- Bottom Flange Total Height: 30.38

COVER MARKINGS:

- YEAR
- CLOW
- 2600
- 17.75
- 48
- AWWA
- C515
- 290
- DI
- USA
- X

MANHOLE BODY DIMENSIONS:

- Top Flange Width: 39.00
- Top Flange Height: 58.25
- Bottom Flange Width: 20.25
- Bottom Flange Height: 29.75
- Bottom Flange Total Width: 33.75
- Bottom Flange Total Height: 30.38

MANHOLE BODY MARKINGS:

- MJ END:
- ANSI A21.11
- AWWA C11
- 32 X ϕ 1.38
- ON ϕ 57.50 B.C.
- FLG END:
- ANSI B16.1
- CLASS 125
- 44 X ϕ 1.63
- ON ϕ 56.00 B.C.

48" C515 MJ X MJ

36.00

42.00

2.00

YEAR
CLOW
2638
BENEDY
M&H
48
AWWA
C515
260
DI
USA
X

XK

XK

78.00

58.25

30.38

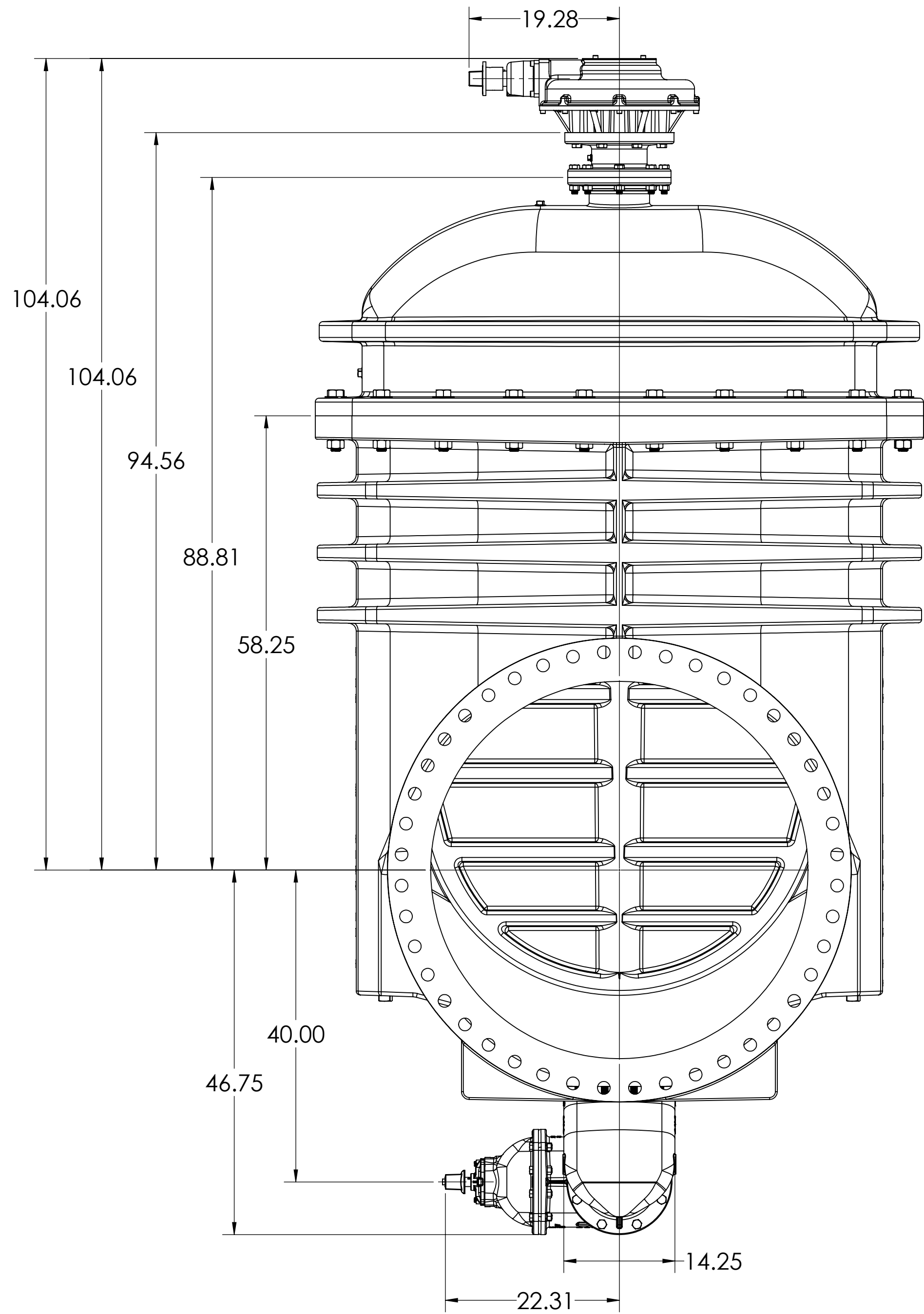
40.50

67.50

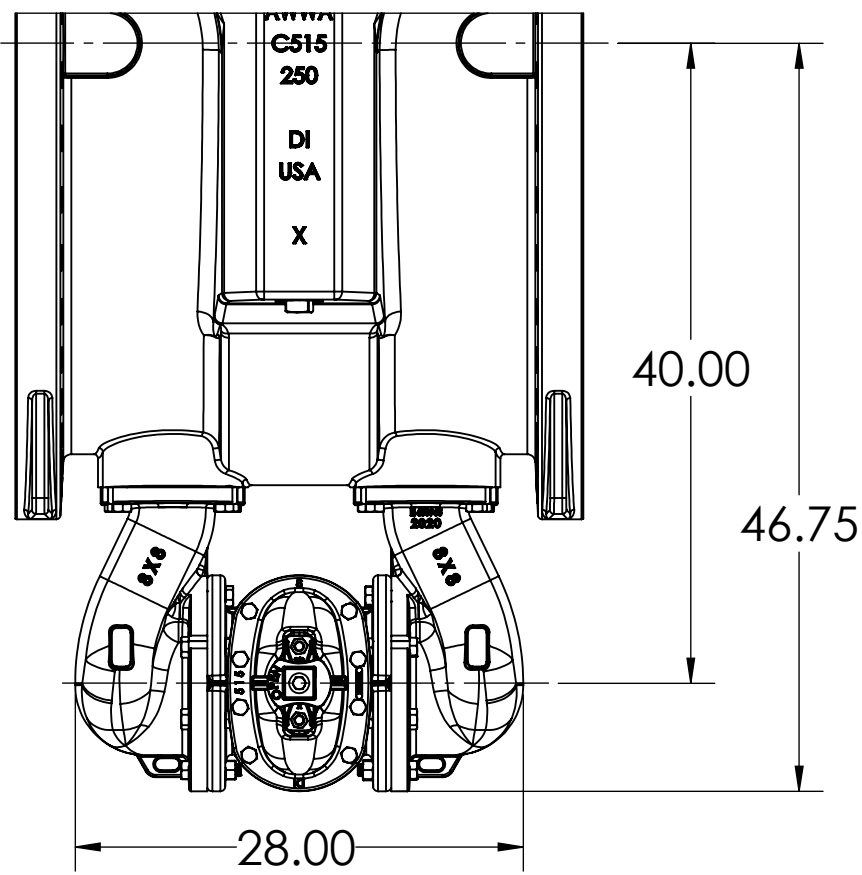
MJ END:
ANSI A21.11
AWWA C111
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OM Ø 57.50 B.C.

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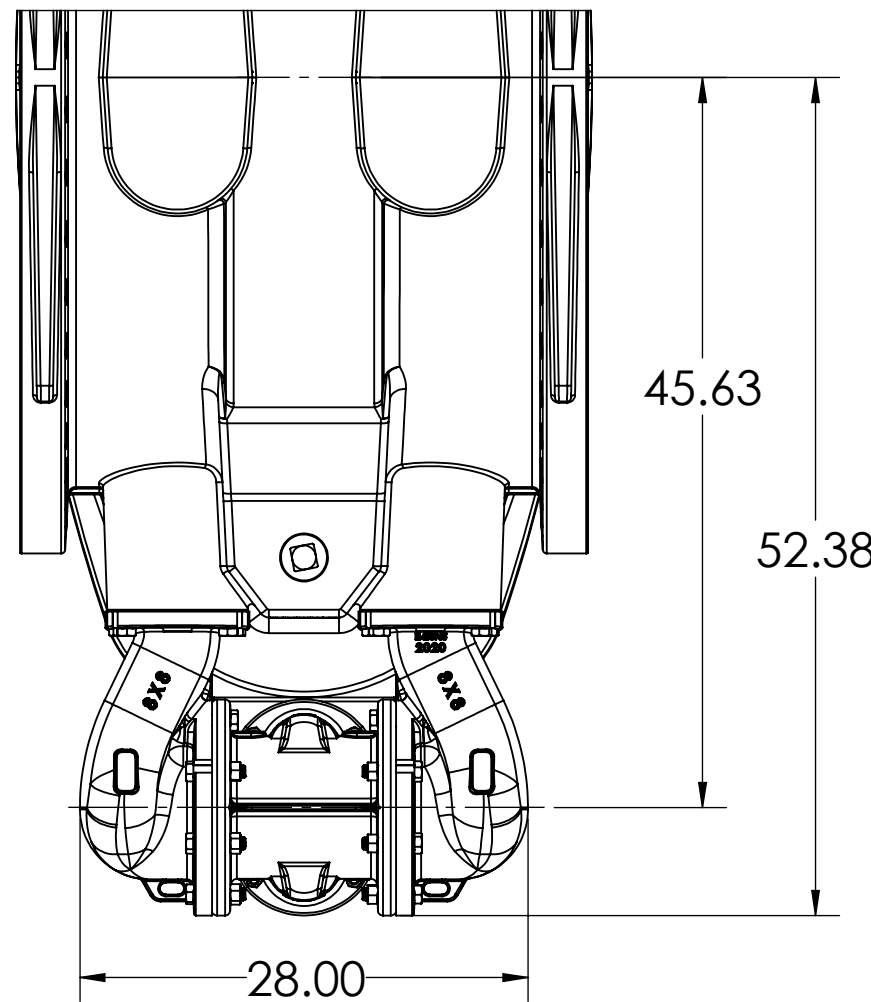
BEVEL GEAR WITH OPTIONAL BOTTOM BYPASS



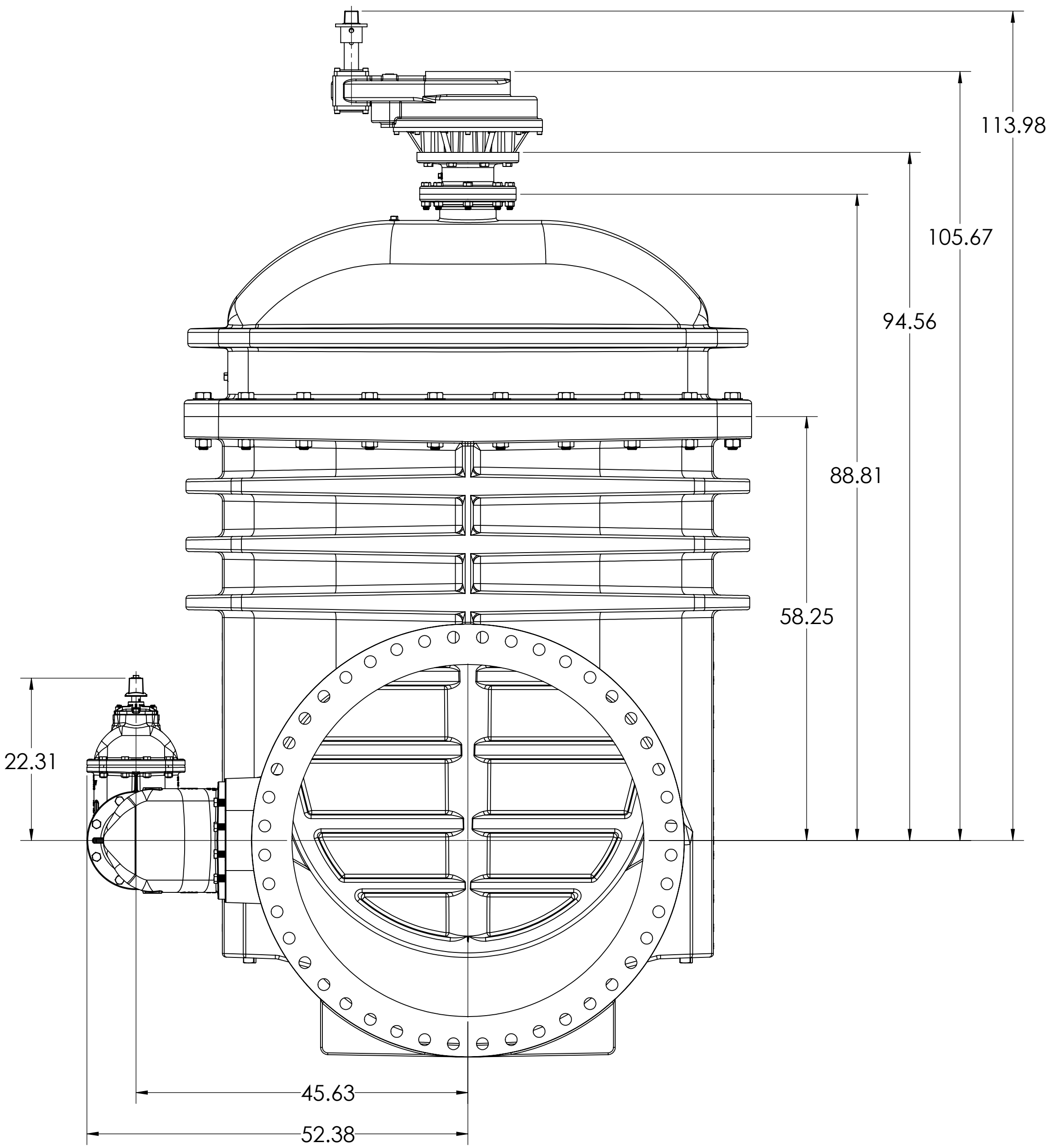
BOTTOM BYPASS



SIDE BYPASS



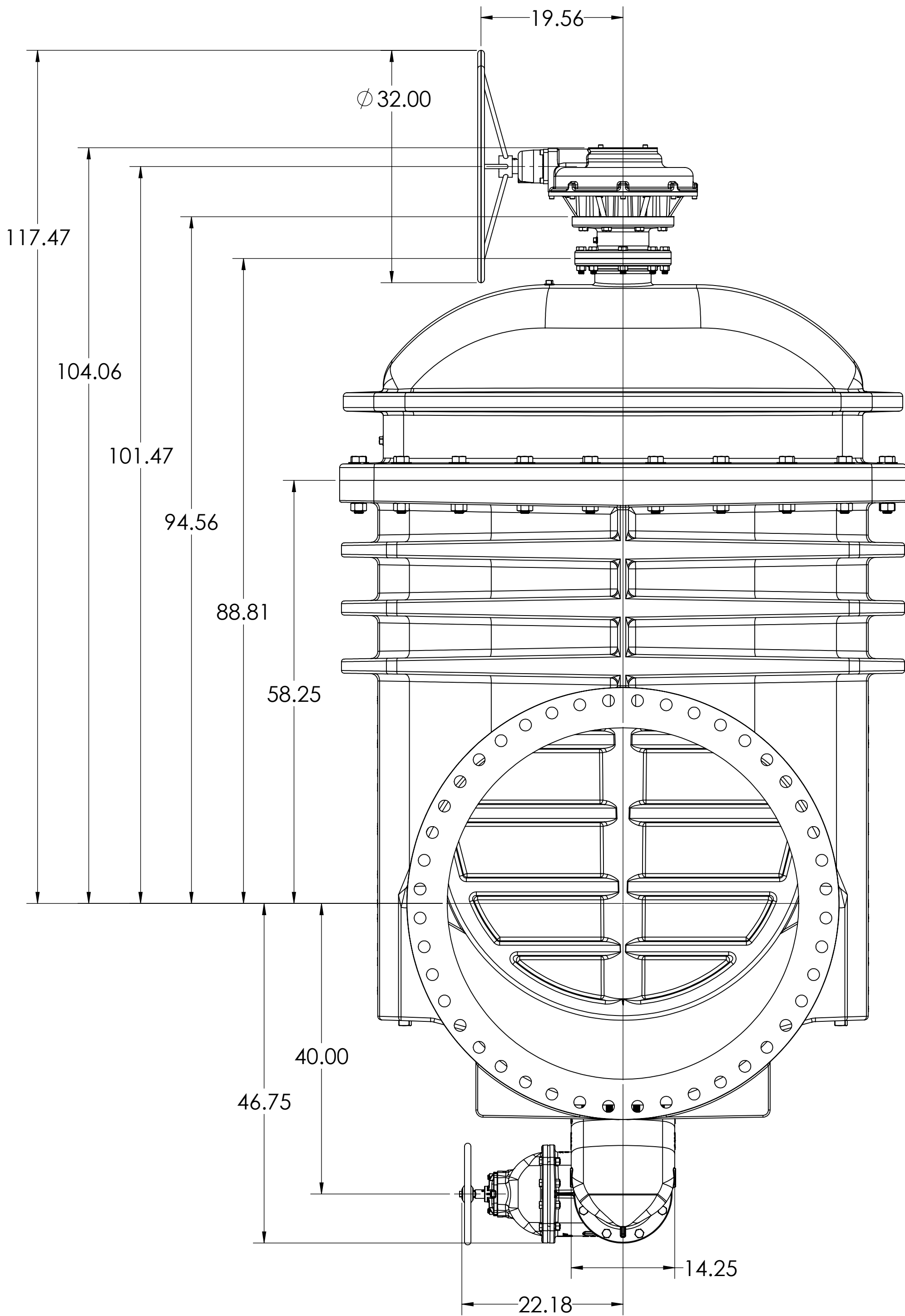
SPUR GEAR WITH OPTIONAL SIDE BYPASS



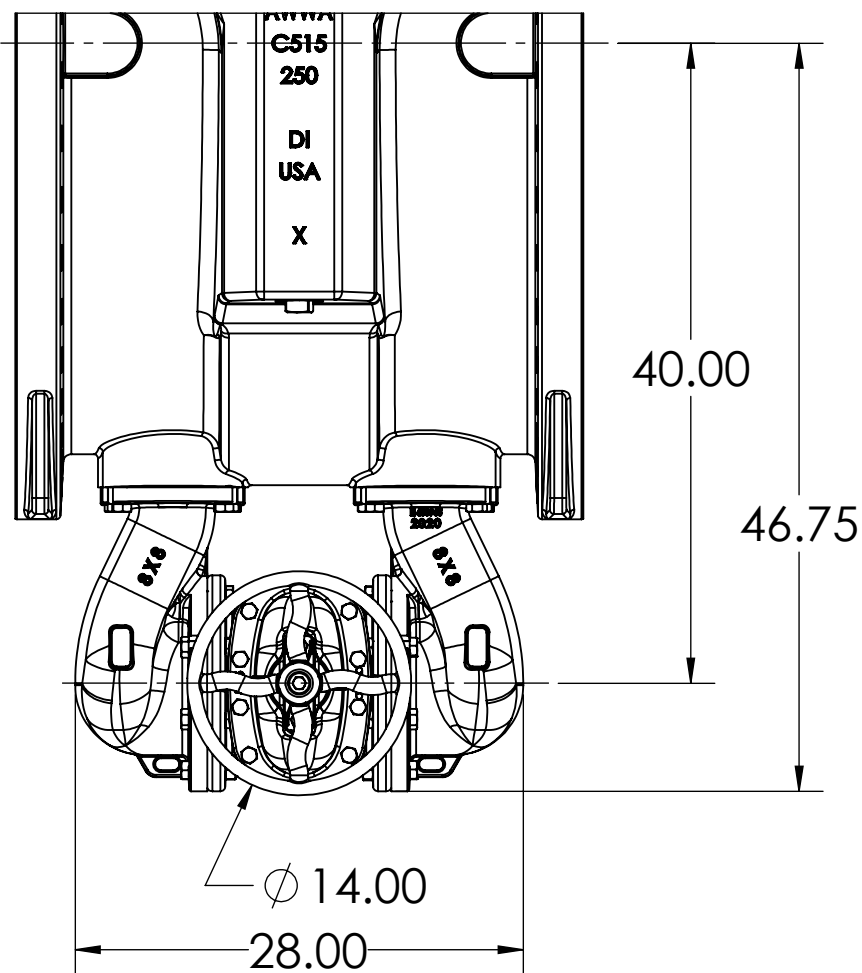
NOTE: GEAR CAN BE ROTATED IN 45° INCREMENTS FOR SPECIAL APPLICATIONS

THIRD ANGLE PROJECTION. STANDARDS: ANSI/ASME Y14.100, Y14.101, AND Y14.102. TOLERANCES: AS FOLLOWS UNLESS OTHERWISE SPECIFIED.				PROPERTY OF MCWANE CORPORATION. ALL DIMENSIONS AND TOLERANCES ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES. NO PARTS OR MATERIALS ARE TO BE USED IN THE CONSTRUCTION OF THIS DRAWING WITHOUT THE APPROVAL OF MCWANE CORPORATION. ALL RIGHTS RESERVED.				REVISIONS		C			
CASTING TOLERANCES				MACHINED DIMENSIONS				MATERIAL		DESCRIPTION			21
6-4": ± 1/32"				DECIMALS: ± 0.005				ESTIMATED WEIGHT		48" RS BODY FLG X FLG W/8" BTM			
4-8": ± 3/64"				FRACTIONS: ± 1/64"				BY: BLS		DATE: 4/8/2021			
8-12": ± 1/16"				ANGLE: ± 1°				SHEET NO.		1:12			
12-18": ± 3/32"				SURFACE FINISH: 125 µin				SHEET NO.		Solidworks 2018 SP2			
18-UP": ± 1/8"				RADIUS: 1/8"				SHEET NO.					
MIN RADII: 1/8"				MIN DRAFT: 2°				SHEET NO.					

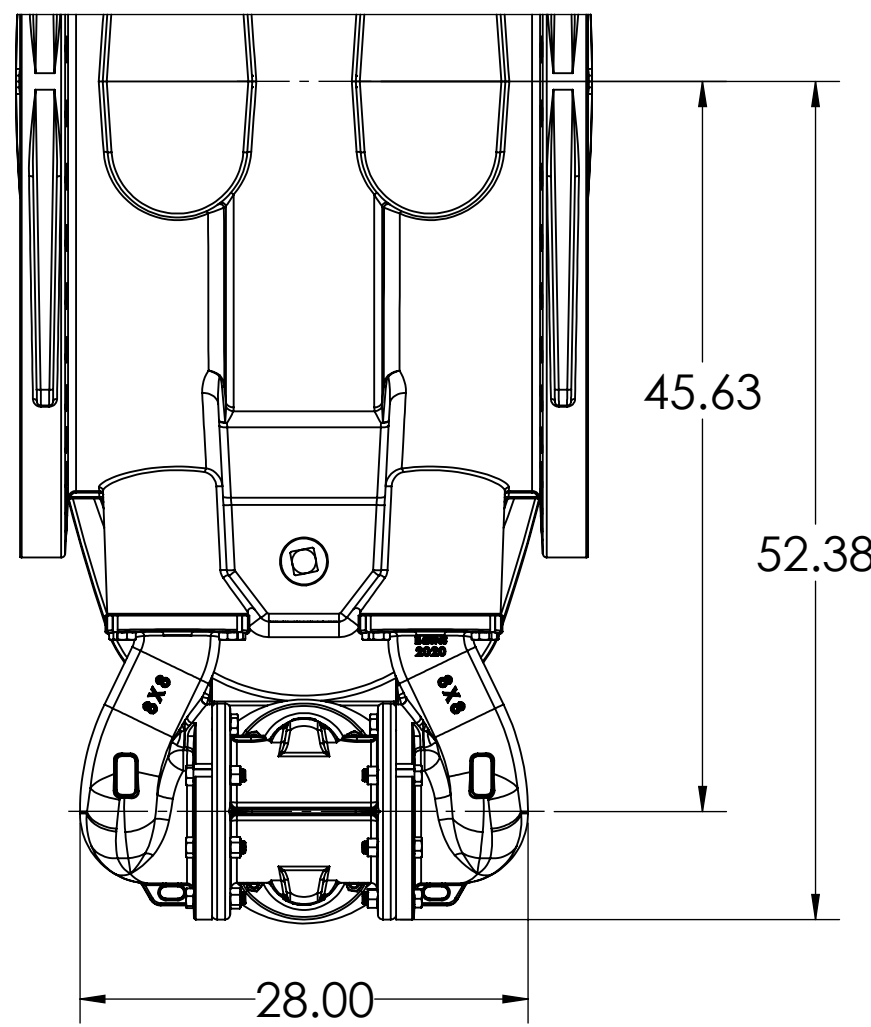
BEVEL GEAR WITH OPTIONAL BOTTOM BYPASS



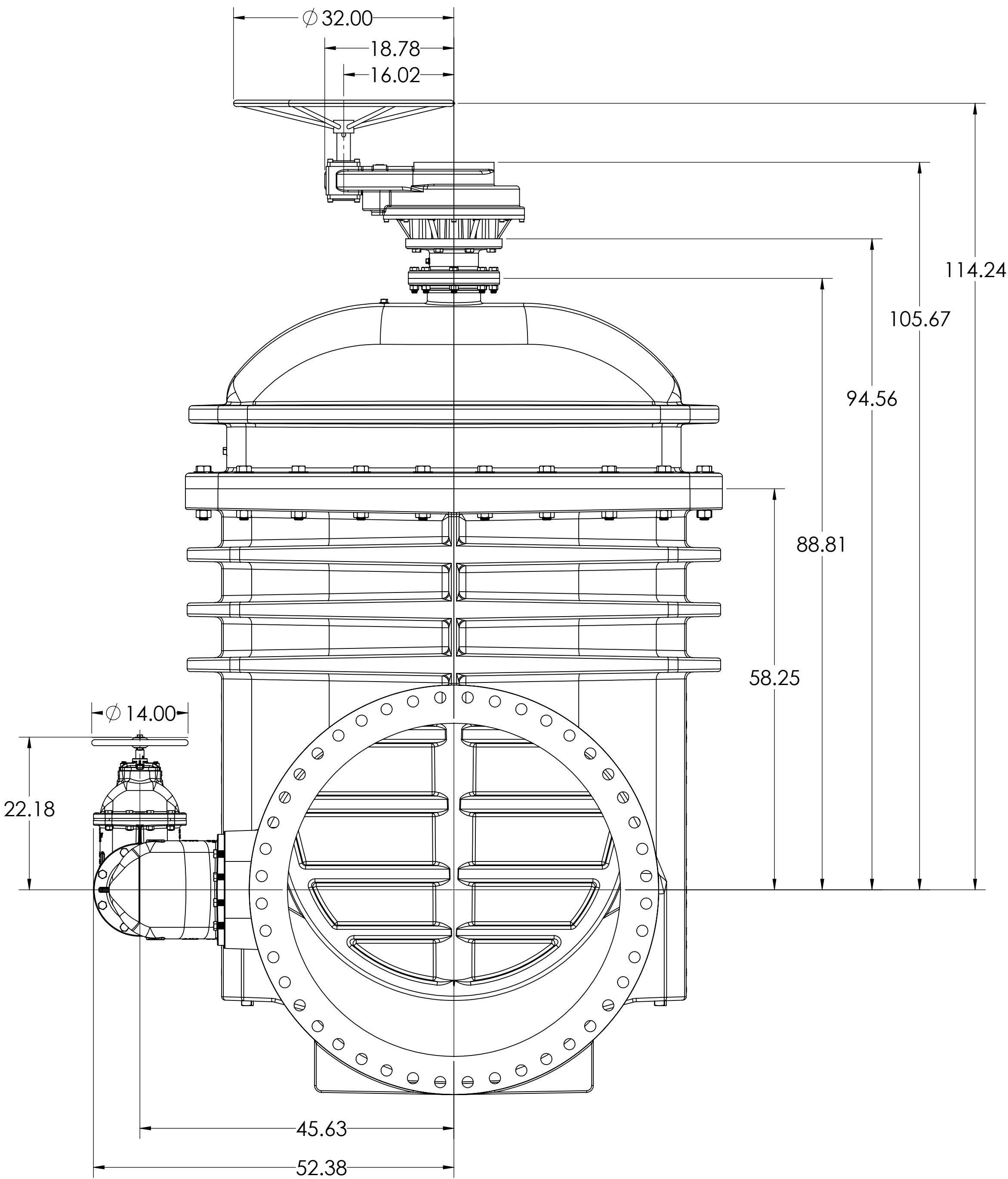
BOTTOM BYPASS



SIDE BYPASS

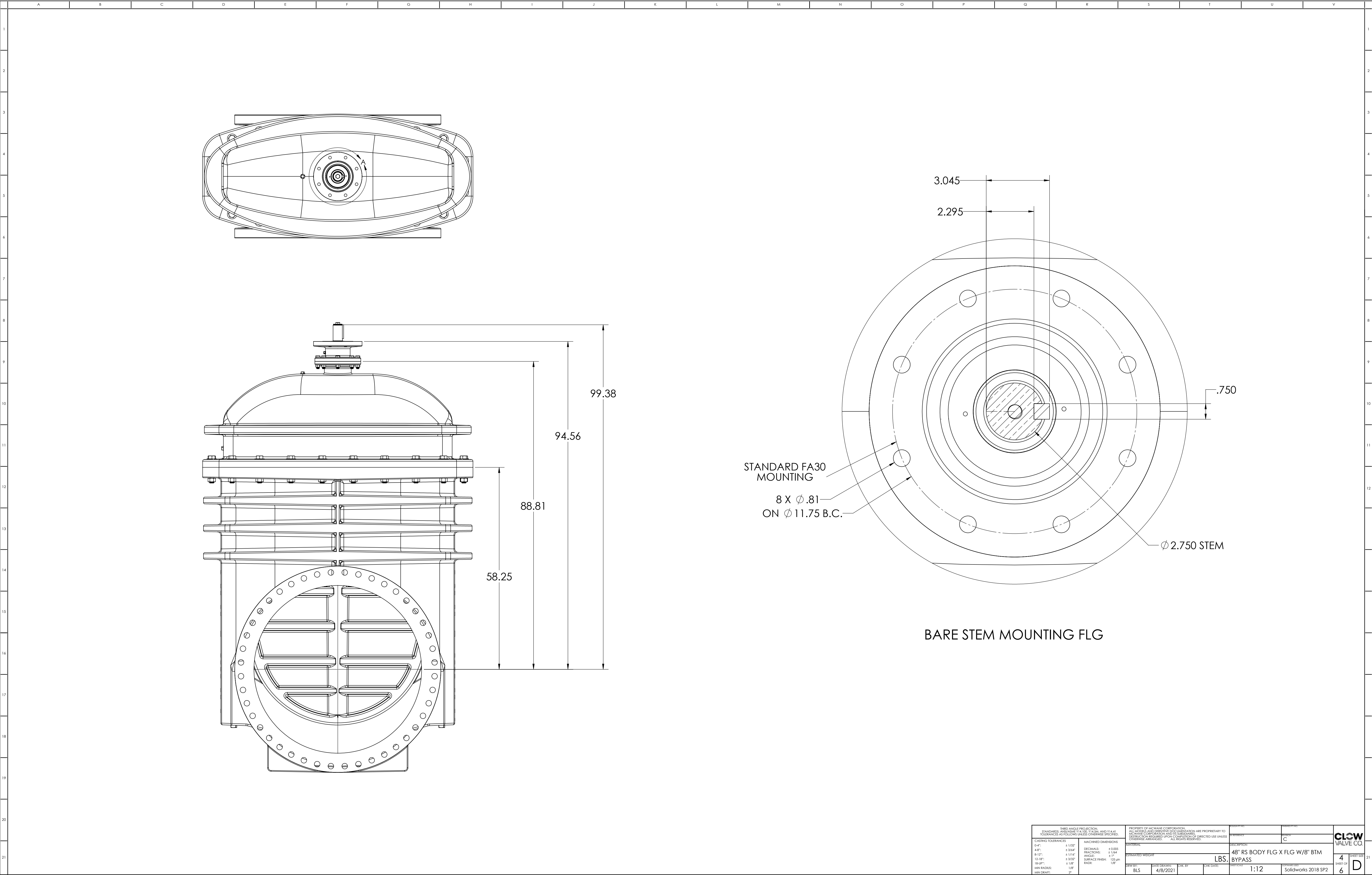


SPUR GEAR WITH OPTIONAL SIDE BYPASS

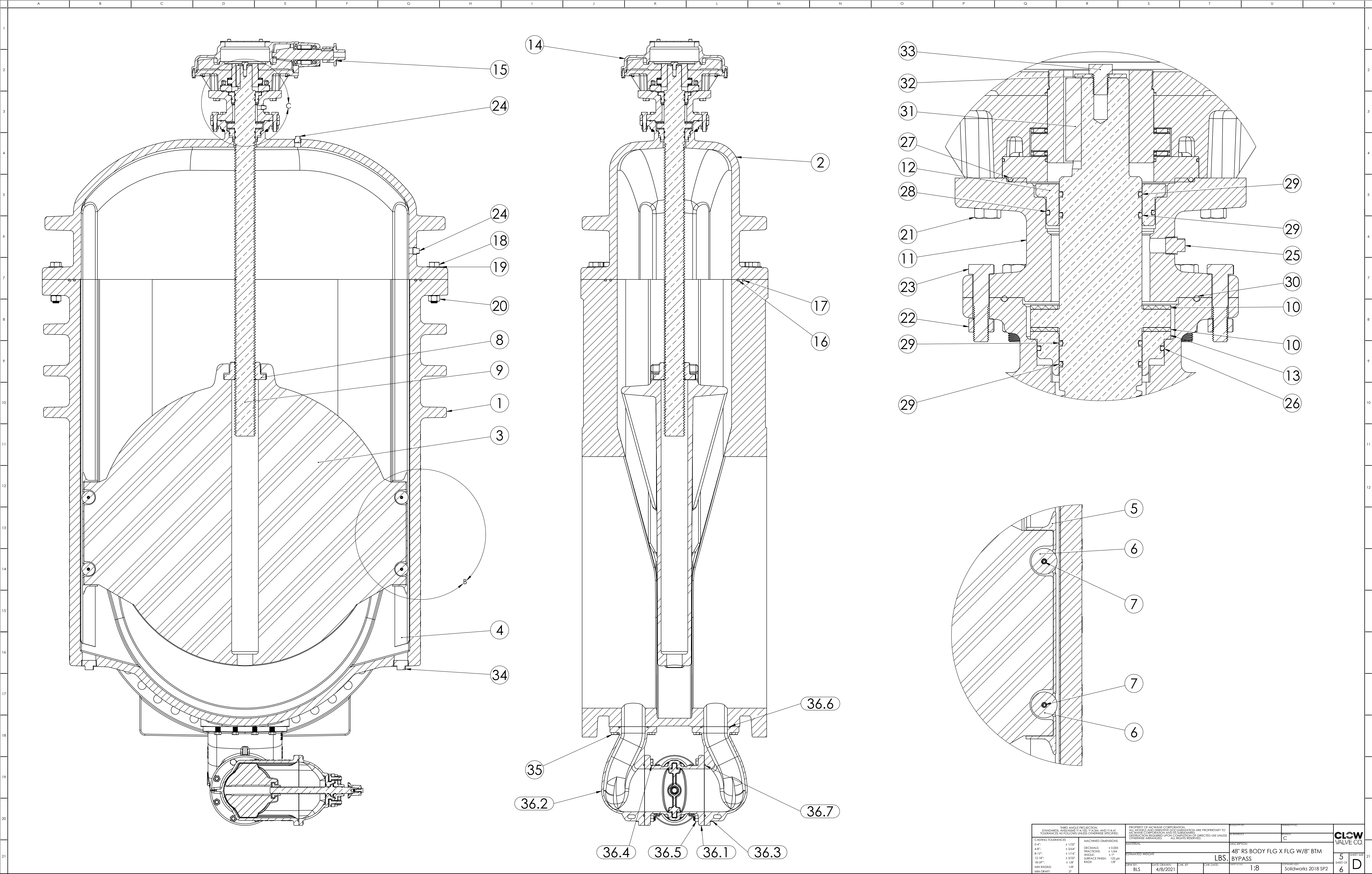


NOTE: GEAR CAN BE ROTATED IN 45° INCREMENTS FOR SPECIAL APPLICATIONS

THIRD ANGLE PROJECTION. STANDARDS AND DIMENSIONS SHALL BE IN INCHES AND DECIMALS THEREOF. TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED.		PROPERTY OF MCWANE CORPORATION. ALL DIMENSIONS AND TOLERANCES ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES. TOLERANCES ARE REQUIRED UNLESS OTHERWISE SPECIFIED OR OTHERWISE ARRANGED. ALL RIGHTS RESERVED.		REVISION	DATE
CASTING TOLERANCES	MACHINED DIMENSIONS	MATERIAL	DESCRIPTION	3	4/8/2021
6-8": ± 1/32"	DECIMALS: ± 0.005	ESTIMATED WEIGHT	48" RS BODY FLG X FLG W/8" BTM	6	
8-12": ± 3/64"	FRACTIONS: ± 1/64"	LBS.	BYPASS		
12-18": ± 1/16"	ANGLE: ± 1°				
18-24": ± 3/32"	SURFACE FINISH: 125 µin				
MIN RADII: ± 1/8"	RADI: 1/8"				
MIN DRAFT: 2°					



THIRD ANGLE PROJECTION. STANDARDS AND DRAWING TITLES T14.2M AND T14.4L TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED.				PROPERTY OF MCWANE CORPORATION. ALL DIMENSIONS AND TOLERANCES ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES. TOLERANCES REQUIRED UPON COMPLETION OF DIRECTED USE UNLESS OTHERWISE ARRANGED. ALL RIGHTS RESERVED.				REVISION	DATE
CASTING TOLERANCES				MACHINED DIMENSIONS				MATERIAL	
0-4":	± 1/32"	DECIMALS:	± 0.005	0-4":	± 0.005	DECIMALS:	± 0.005	ESTIMATED WEIGHT	
4-8":	± 3/64"	FRACTIONS:	± 1/64"	4-8":	± 3/64"	FRACTIONS:	± 1/64"	LBS.	
8-12":	± 1/16"	ANGLE:	± 1°	8-12":	± 1/16"	ANGLE:	± 1°	48" RS BODY FLG X FLG W/8" BTM	
12-18":	± 3/32"	SURFACE FINISH:	125 µin	12-18":	± 3/32"	SURFACE FINISH:	125 µin	BYPASS	
18-24":	± 1/8"	RADIUS:	1/8"	18-24":	± 1/8"	RADIUS:	1/8"	1:12	
MIN RADII:	1/8"			MIN RADII:	1/8"			Solidworks 2018 SP2	
MIN DRAFT:	2°			MIN DRAFT:	2°			4	
DESIGNED BY:	DATE DRAWN:			CHECKED BY:	DATE CHECKED:			6	
BLS	4/8/2021							D	



THIRD ANGLE PROJECTION. STANDARDS AND ANGLES TIA ISO 114.01 AND 114.01. TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED.		PROPERTY OF MCWANE CORPORATION. ALL RIGHTS AND DESIGNATION ARE PROPRIETARY TO MCWANE CORPORATION AND ITS SUBSIDIARIES. REPRODUCTION OR DISTRIBUTION OF THIS DOCUMENT OR ANY PART THEREOF WITHOUT THE WRITTEN PERMISSION OF MCWANE CORPORATION IS PROHIBITED. ALL RIGHTS RESERVED.		REVISION	DATE
CASTING TOLERANCES		MACHINED DIMENSIONS		REVISION	DATE
6-4"	± 1/32"	DECIMALS:	± 0.005	1	4/8/2021
4-6"	± 1/16"	FRACTIONS:	± 1/64"	2	
6-12"	± 1/16"	ANGLE:	± 1°	3	
12-18"	± 3/32"	SURFACE FINISH:	125 µin	4	
18-24"	± 1/8"	RADIUS:	1/8"	5	
MIN RADII:	1/8"			6	
MIN CHAMF:	2°				
ESTIMATED WEIGHT		LBS.		48" RS BODY FLG X FLG W/8" BTM	
BY: BLS		DATE: 4/8/2021		BYPASS	
SCALE: 1:8		SHEET: 5		Solidworks 2018 SP2	
				CLW VALVE CO.	
				5	
				D	

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ITEM NO.	COMPONENT	QTY.	Size	STANDARD MATERIAL	MATERIAL OPTIONS
1	BODY	1		DUCTILE IRON	-
2	COVER	1		DUCTILE IRON	-
3	WEDGE	1		EPDM/DUCTILE IRON	-
4	TRACK	2		316 SS	-
5	SCRAPER	2		C95500	-
6	ROLLER	4		C95400	-
7	COILED SPRING PIN	4	1/2" x 2-3/4"	18-8 SS	316 SS
8	STEM NUT	1		C87850	C87610 (LOW ZINC)
9	STEM	1		C86200	C99500 (LOW ZINC), 304 SS, 316 SS
10	THRUST WASHER	2		NYLATRON	-
11	ACTUATOR EXTENSION	1		DUCTILE IRON	-
12	STEM GUIDE BUSHING	1		C87850	-
13	COVER BUSHIING	1		C87850	-
14	BEVEL GEAR	1		-	SPUR GEAR
15	OPERATING NUT	1		DUCTILE IRON	** ⌀ 32" HANDWHEEL **
16	O-RING	1	0.375" X 48.375"	EPDM	BUNA-N
17	O-RING	1	0.375" X 50.375"	EPDM	BUNA-N
18	CAPSCREW	20	1-1/4" - 7 X 7"	18-8 SS	316 SS
19	FLAT WASHER	20	1-1/4"	18-8 SS	316 SS
20	HEX NUT	20	1-1/4" - 7	18-8 SS	316 SS
21	CAPSCREW	8	3/4" - 10 X 2-1/2"	18-8 SS	316 SS
22	HEX NUT	8	3/4" - 10	18-8 SS	316 SS
23	CAPSCREW	8	3/4" - 10 X 3-1/4"	18-8 SS	316 SS
24	PLUG	2	1" NPT	304 SS	316 SS
25	PLUG	1	1/2" NPT	316 SS	-
26	O-RING	1	#359	EPDM	BUNA-N
27	O-RING	1	#371	EPDM	BUNA-N
28	O-RING	1	#352	EPDM	BUNA-N
29	O-RING	4	#342	EPDM	BUNA-N
30	O-RING	1	#447	EPDM	BUNA-N
31	KEY	1	3/4" X 3/4" X 4"	18-8 SS	-
32	KEY KEEPER	1		C95400	-
33	CAPSCREW	1	3/4" - 10 X 1"	18-8 SS	316 SS
34	PLUG	2	2-1/2" NPT	316 SS	-
35	CAPSCREW	16	3/4" - 10 X 1-3/4"	18-8 SS	316 SS
36	8IN RS BYPASS ASSEMBLY	1		-	-
36.1	08" C515 NRS VALVE ASSEMBLY	1		-	** ⌀ 14" HANDWHEEL
36.2	BYPASS ELBOW	2		DUCTILE IRON	-
36.3	CAPSCREW	12	3/4" - 10 X 3-1/4"	18-8 SS	316 SS
36.4	CAPSCREW	4	3/4" - 10 X 2"	18-8 SS	316 SS
36.5	HEX NUT	12	3/4" - 10	18-8 SS	316 SS
36.6	O-RING	2	#450	EPDM	BUNA-N
36.7	O-RING	2	#448	EPDM	BUNA-N

VALVES CONFORM WITH FOLLOWING STANDARDS

- AWWA C515
- NSF 61

• LOW ZINC BRASS STEM AND STEM NUT AVAILABLE

• 100% DOMESTIC FASTENERS AND ORING OPTIONS AVAILABLE

• OPEN LEFT (COUNTERCLOCKWISE) AND OPEN RIGHT (CLOCKWISE) OPTIONS AVAILABLE

• TURNS TO OPEN FROM FULLY CLOSED: 800

- ±5% WITH STANDARD 8:1 BEVEL OR SPUR GEAR

• AWWA MAXIMUM ALLOWABLE CLOSING TORQUE 250 FT-LB INTO STANDARD GEARING

• OPTIONAL HANDWHEEL CAN BE SUBSTITUTED FOR STANDARD 2" SQUARE OP NUTS

- **NOTE: STANDARD HANDWHEEL SIZE CALLED OUT IN PARTS LIST.**

• OPTIONAL 8" BYPASS VALVE

- TURNS TO OPEN: 26 (±5%)
- MAX ALLOWABLE AWWA CLOSING TORQUE: 150FT-LB

• BOTH BOTTOM BYPASS AND SIDE BYPASS ASSEMBLIES USE THE SAME COMPONENTS

• MAXIMUM PRESSURE RATING 250 PSI

NOTE: LINE ITEMS 35-36 ARE ONLY INCLUDED IN VALVE WITH BOTTOM BYPASS OR SIDE BYPASS OPTIONS.

C	2437	BLS	02/11/25
B	2353	BLS	08/28/24
A		CW	01/31/22
SYM	ECN	DR	DATE

FIRST ANGLE PROJECTION STANDARDS: ANSI/ASME Y14.100, Y14.104, AND Y14.41 TOLERANCES AS FOLLOWS UNLESS OTHERWISE SPECIFIED.		PROPERTY OF MCHWANE CORPORATION ALL MODELS AND SERVICE DOCUMENTATION ARE PROPRIETARY TO MCHWANE CORPORATION AND ARE NOT TO BE REPRODUCED OR OTHERWISE TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF MCHWANE CORPORATION. ALL RIGHTS RESERVED.		DATE: 02/11/25
CASTING TOLERANCES 0-4": ± 1/32" 4-8": ± 3/64" 8-12": ± 1/16" 12-18": ± 3/32" 18-24": ± 1/8" MIN RADII: .07"		MACHINED DIMENSIONS DECIMALS: ± 0.005 FRACTIONS: ± 1/64" ANGLES: ± 1° SURFACE FINISH: 125 µin RADI: 1/8"		DESCRIPTION: 48" RS BODY FLG X FLG W/8" BTM BYPASS
ESTIMATED WEIGHT: LBS.		MATERIAL: 48" RS BODY FLG X FLG W/8" BTM BYPASS		6
DRAWN BY: BLS		DATE: 4/8/2021		6
CHECKED BY:		DATE:		6
APPROVED BY:		DATE:		6
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