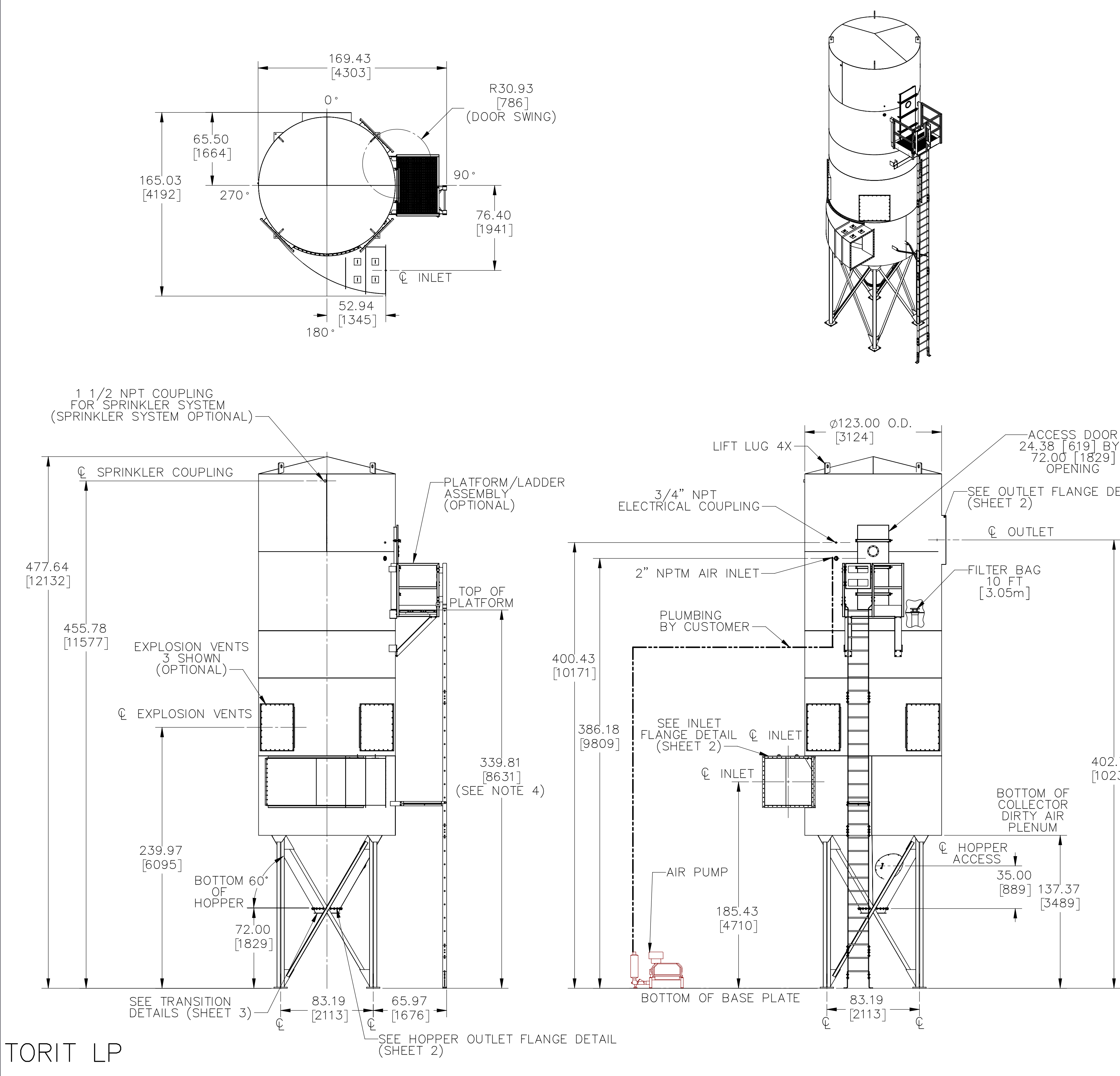


AG8588703 A SECT:1:SDRW Tuesday, August 10, 2021 12:17:23 PM

THIS DOCUMENT CONTAINS INFORMATION THAT IS CONFIDENTIAL AND/OR PROPRIETARY TO DONALDSON COMPANY, INC. ALL RIGHTS TO DISCLOSE, COPY, REPRODUCE, MANUFACTURE FROM OR DISPOSE OF THIS DOCUMENT OR ITS CONTENTS ARE RESERVED UNLESS SPECIFIED IN WRITING BY DONALDSON.



TORIT LP

REVISIONS		
REV	DESCRIPTION	DWN/DATE
2	SHT 1: OPERATING TEMP WAS 150°F [66°C] MAX 202106033	P GIVEN 8/10/2021

SPECIFICATIONS FOR MODEL 232RFW10 WITH INVOLUTE INLET	
NO. OF FILTER BAGS	232 BAGS
FILTER BAG DIMENSIONS	3.00 X 6.00 X 120 LONG [76 X 152 X 3048 LONG]
ACTUAL FILTER AREA	3,018 SQ FEET [280 SQ METERS]
STANDARD FILTER MATERIAL	DURA LIFE 10.5 OZ/SQ YARD
HOUSING RATING	-20" WG [-508mmwg]
P-RED	0.20 BAR
OPERATING TEMPERATURE	100° F [38° C] MAXIMUM
STANDARD FINISH	TORIT BLUE OR STORM WHITE EXTERIOR
	PRIMER INTERIOR
	SAFETY YELLOW LADDERS & PLATFORM
APPROXIMATE WEIGHT	13,500 LBS [6,124 KG]
CLEANING BLOWER (AIR PUMP)	7.5 HP [5.52 kW], 150 SCFM [255 m ³ /h] @ 5
	PSIG [34.5 kPa] AVG (7.5 PSIG [51.7 kPa MAX])
AIR DRIVE MANIFOLD	1/3 HP 208-230/460V, 3 PH, 60 HZ, TEFC,
	56C FRAME MOTOR
SOLENOID VALVE	120 VAC 60 HZ NEMA 4, 7 ,9
REMOTE MOUNTED TIMER	120 VAC 50-60 HZ (NEMA 4)

IBC 2018 SPECIFICATIONS	
RISK CATEGORY II	
BASIC WIND SPEED AND EXPOSURE	115 MPH [185 km/hr] (3 SEC GUST)EXPOSURE C
SEISMIC SPECTRAL ACCELERATION	S _v /S=1.5 & S ₁ =0.6, SITE CLASS D
GROUND SNOW LOAD	P _g : 40 PSF [195 kg/m ²]
ROOF LIVE LOAD	L _r : 20 PSF [98 kg/m ²]
COLLECTOR BASE AT GRADE	

EXPLOSION VENT (OPTIONAL)	
IEP KER EXPLOSION VENT	
NOMINAL SIZE	35.5 X 45 [902 X 1143]
RELIEF AREA:	8.62 FT ² [0.8 m ²]
NOMINAL BURST PRESSURE	1.45 PSI @ 68°F [0.099 BAR]

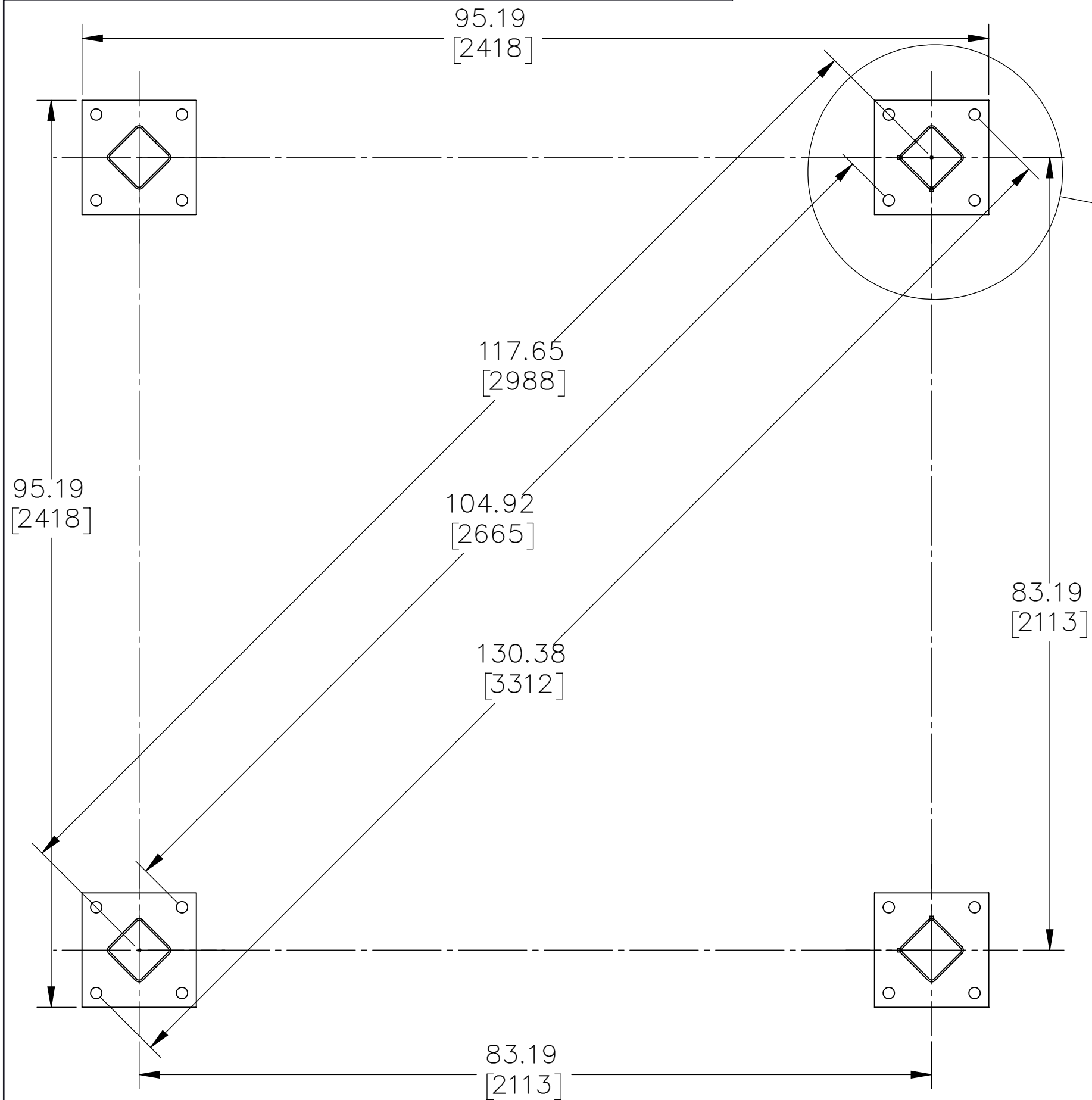
MISCELLANEOUS INFORMATION	
10GA CARBON STEEL HOUSING CONSTRUCTION: 10GA CARBON STEEL ROOF	
1/4 CARBON STEEL TUBE SHEET	
INTERNAL CLEANING MECHANISM	
60 DEGREE HOPPER	

NOTES:	
1. DO NOT INSTALL OR OPERATE THIS EQUIPMENT UNTIL HAVING READ AND UNDERSTOOD THE INSTRUCTIONS AND WARNINGS AND INSTRUCTIONS IN THE INSTALLATION AND OPERATION MANUAL. FOR A REPLACEMENT MANUAL CONTACT DONALDSON COMPANY INC. (808) 365-1331.	
2. NFPA 68 2018 EDITION EXPLOSION VENT DUCTING LONGER THAN ONE HYDRAULIC DIAMETER OR WITH BENDS, ELBOWS OR OBSTRUCTIONS ENTAILS SIGNIFICANT DERATING OF THE EXPLOSION VENT. ALL PROPOSALS INCLUDING EXPLOSION VENT DUCTS OTHER THAN SHORT, STRAIGHT OPEN DUCTS SHOULD ALSO BE REFERRED TO DCI ENGINEERING FOR VENT PERFORMANCE CALCULATION AND DERATING, OR CUSTOM VENT SOLUTION. ANY EXPLOSION VENT DUCTING TO BE DESIGNED AND SUPPLIED BY OTHERS.	
3. DIMENSIONS ARE IN INCHES AND [MILLIMETERS].	
4. LADDER SAFETY SYSTEM OR PERSONAL FALL ARREST SYSTEM TO BE PROVIDED BY PROCESS OWNER OR BY OTHERS WHERE REQUIRED.	
5. CLOCKWISE INVOLUTE INLET SHOWN.	

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

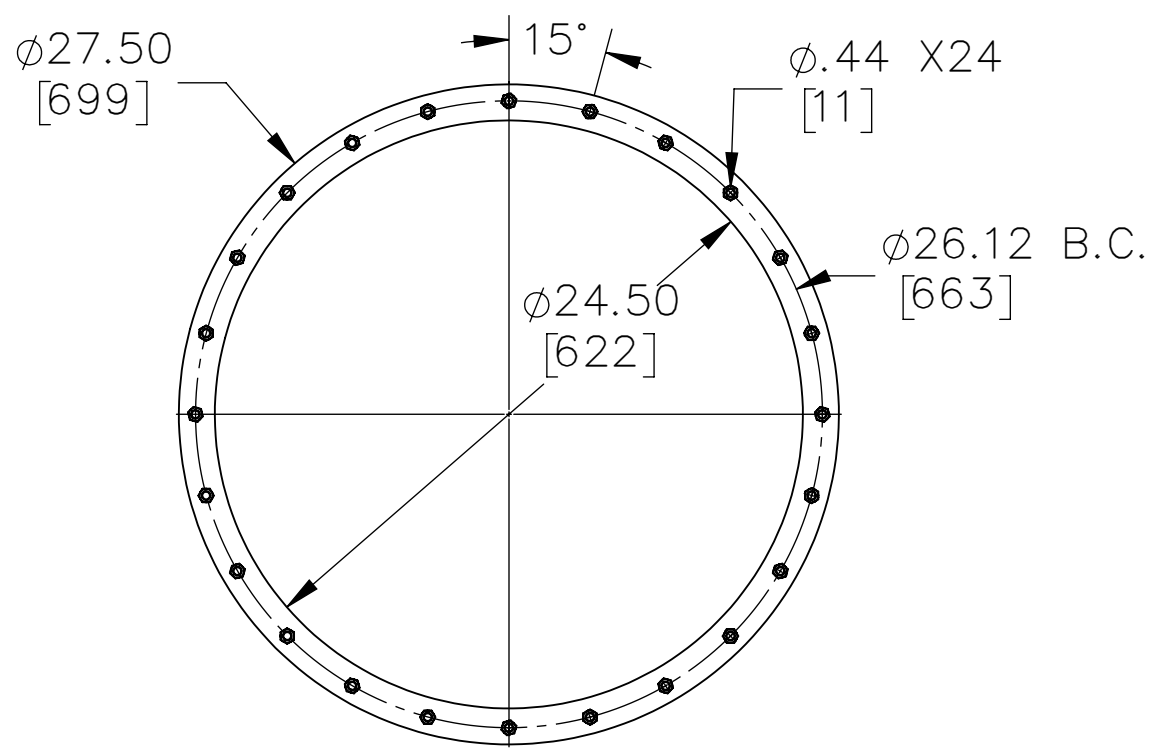
MATERIAL	RELEASE NO. 201803372	TITLE 232RFW10 INVOLUTE ASSEMBLY		 Donaldson Co., Inc. Minneapolis, USA
	DATE 3/18/2020			
REFERENCE	EXP. DATE	NUMBER RFW AG8588703		 IAF
	DWN R OTT			
PREVIOUS DRAWING NO.	DATE 3/18/2020	SCALE NONE	SHEET 1 OF 3	REVISION
	CHK L SCHMIDT	C/C SW/CADD		2
DO NOT SCALE	TOLERANCES UNLESS OTHERWISE SPECIFIED	DATE 3/18/2020	SECTIONAL SIZE	OUTLINE SIZE
	2 PL ± .03 3 PL ± .015 ANGLES ± 2°	APVD L SCHMIDT	DESIGN CONTROL A004	DWG LOCATION A101
THIRD ANGLE PROJECTION		COPYRIGHT © DONALDSON COMPANY, INC.		VERSION A

THIS DOCUMENT CONTAINS INFORMATION THAT IS CONFIDENTIAL AND/OR PROPRIETARY TO DONALDSON COMPANY, INC. ALL RIGHTS TO DISCLOSE, COPY, REPRODUCE, MANUFACTURE FROM OR DISPOSE OF THIS DOCUMENT OR ITS CONTENTS ARE RESERVED UNLESS SPECIFIED IN WRITING BY DONALDSON.



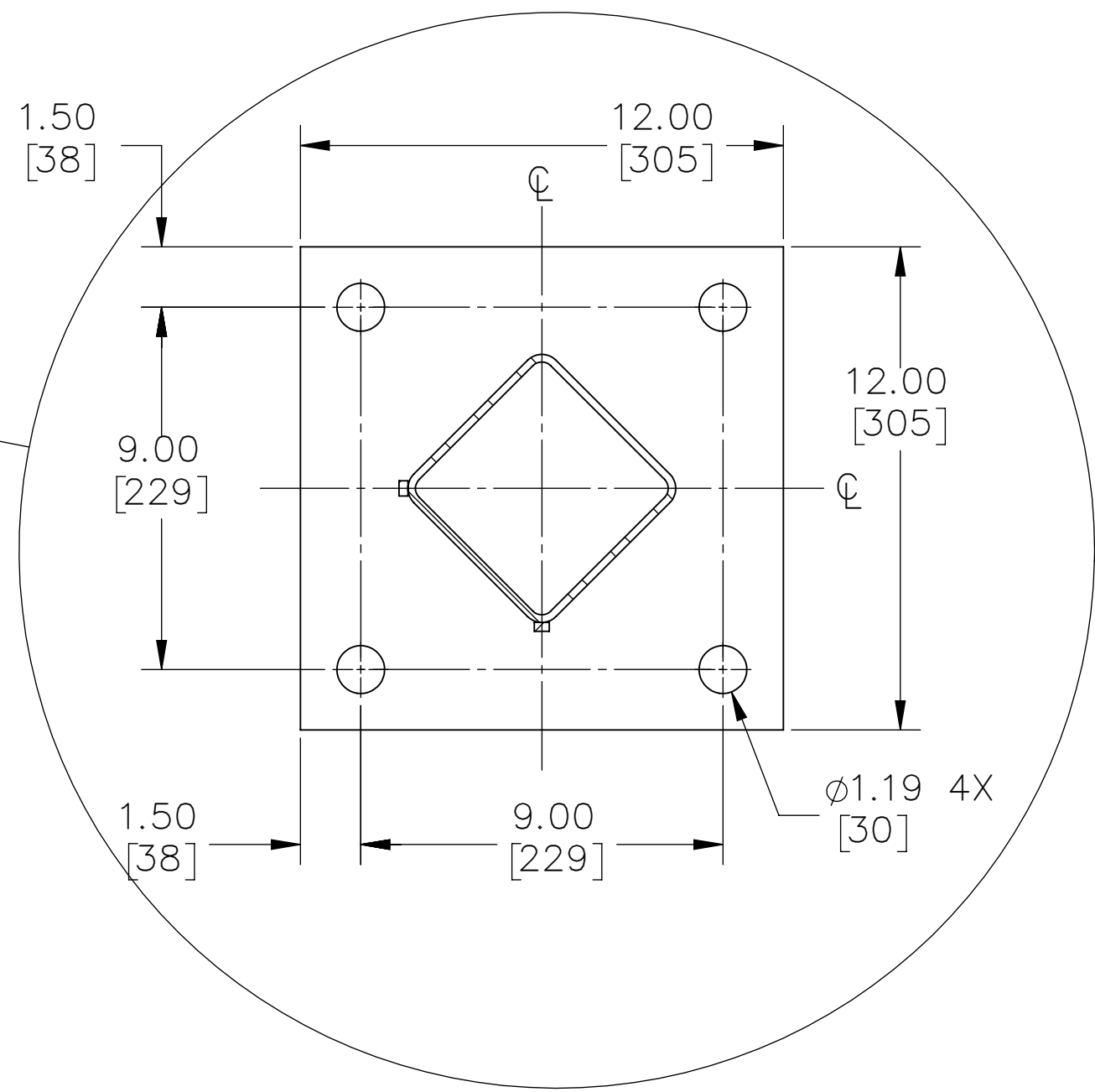
ANCHOR BOLT PLAN

ANCHOR BOLTS BY OTHERS. FINAL SELECTION WILL DEPEND ON JOBSITE LOAD CONDITIONS, FOUNDATION DESIGN, LOCAL CODES, ETC. CONSULT PRODUCT IOM FOR GENERAL INSTALLATION INFORMATION.



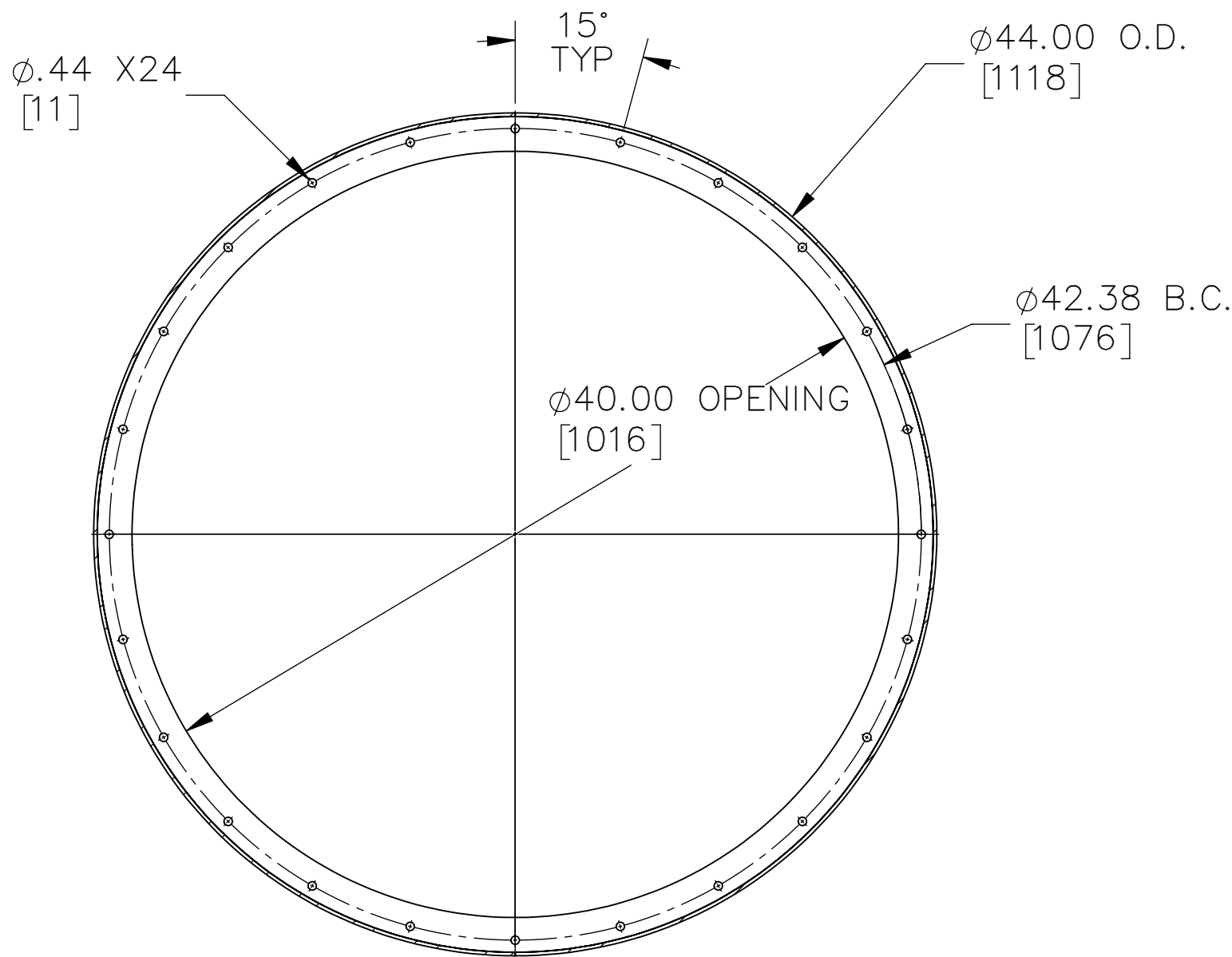
HOPPER OUTLET FLANGE DETAIL

TORIT LP

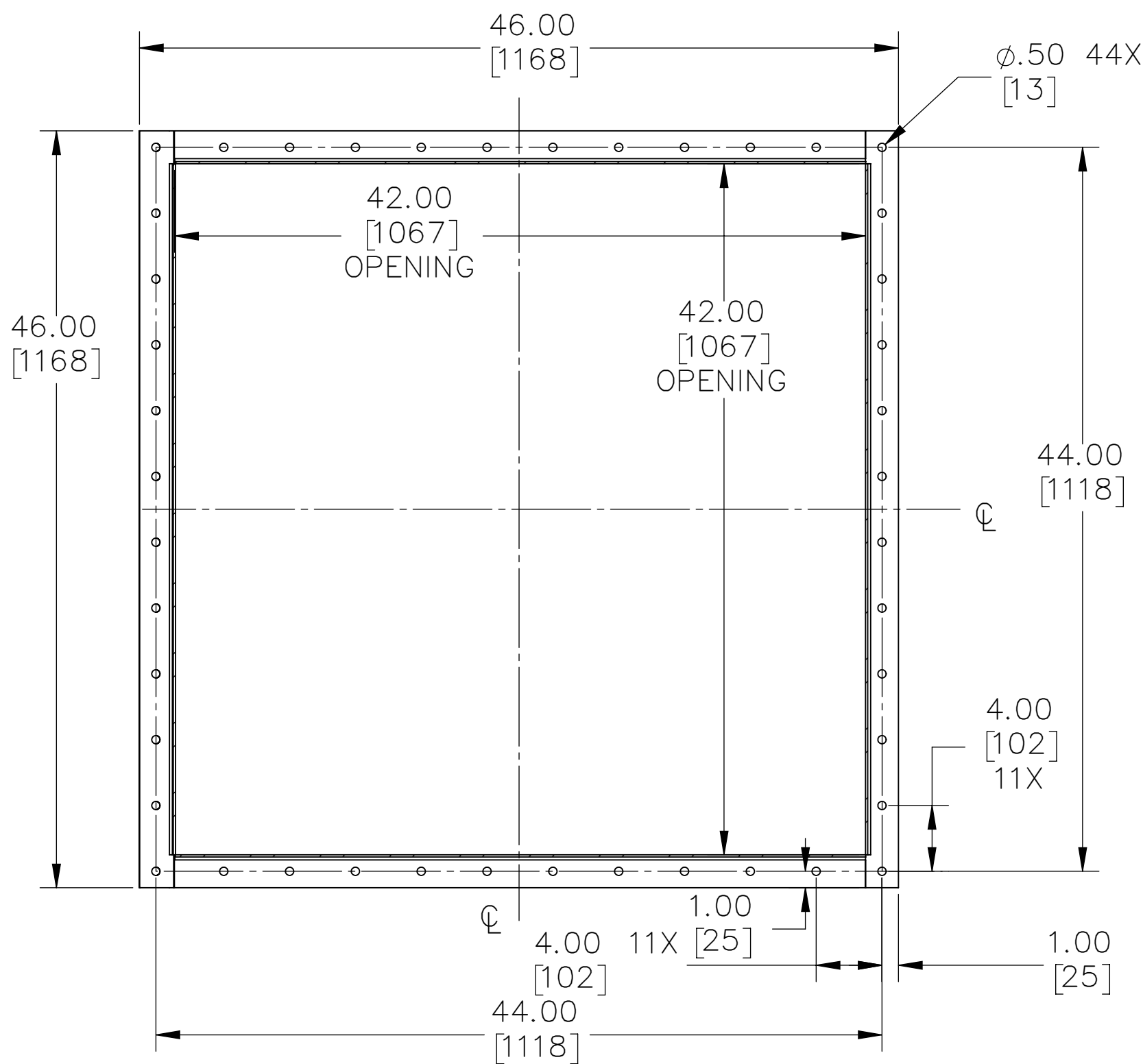


FOOTPAD DETAIL

4 PLACES
(PLATE IS 1.00 [25] THK)

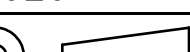


OUTLET FLANGE DETAIL



INLET FLANGE DETAIL

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

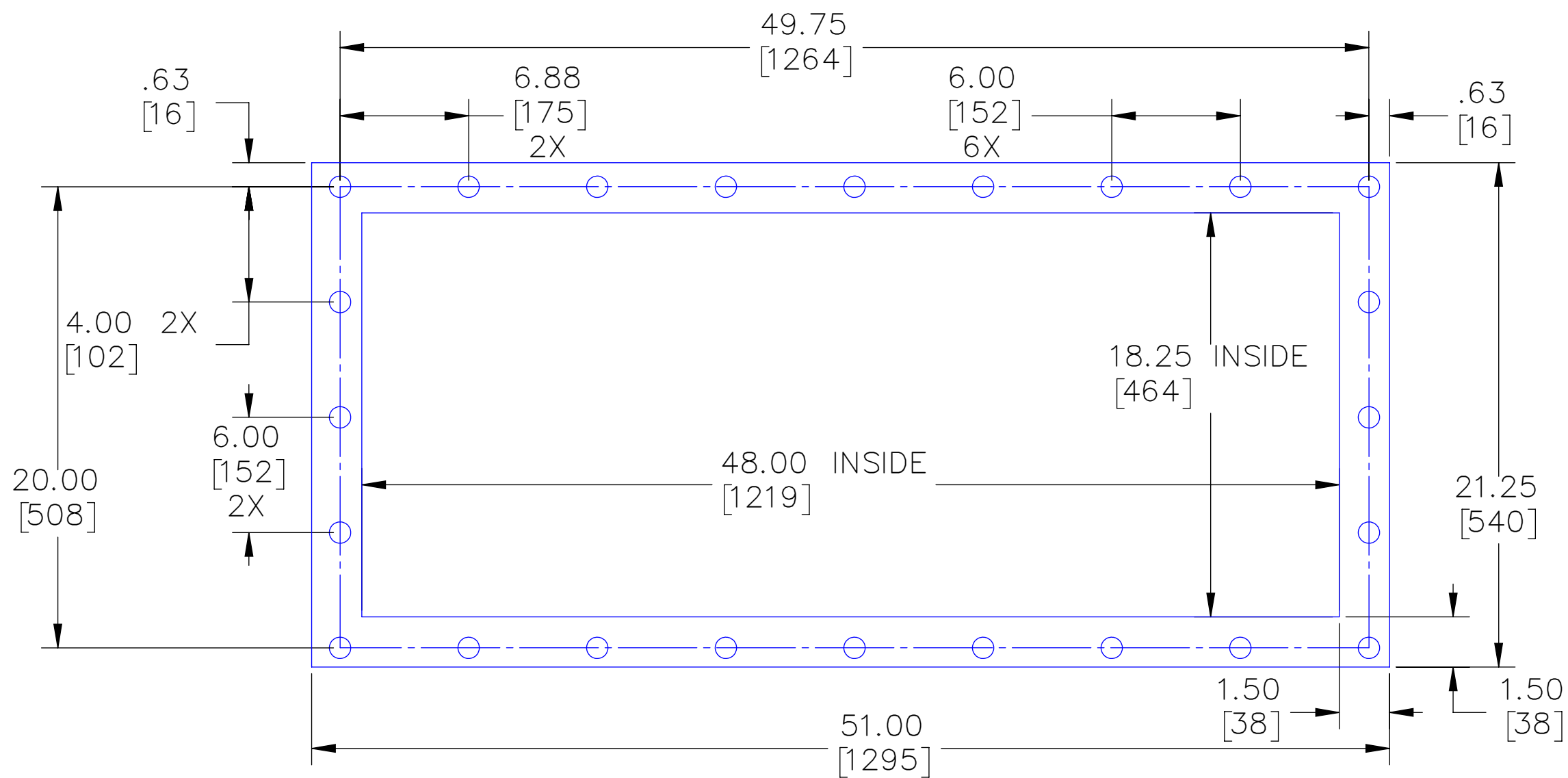
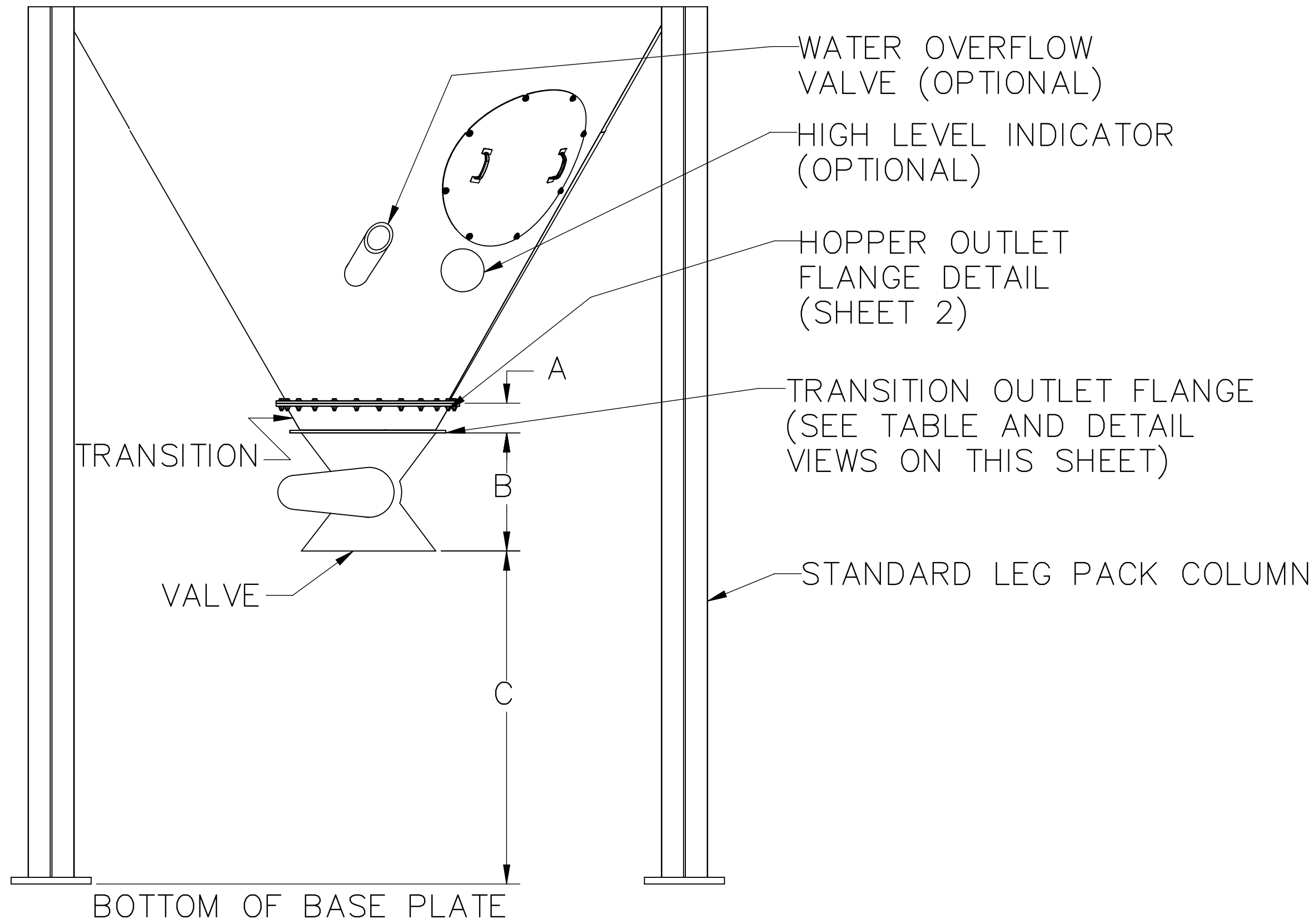
MATERIAL		RELEASE NO. 201803372		TITLE 232RFW10 INVOLUTE ASSEMBLY			 Donaldson. Donaldson Co. Inc. Minneapolis, USA										
		DATE 3/18/2020															
		EXP DATE															
REFERENCE		DWN R OTT		NUMBER													
		DATE 3/18/2020		RFW AG8588703													
		CHK L SCHMIDT															
		DATE 3/18/2020		SCALE NONE		SHEET 2 OF 3		REVISION									
PREVIOUS DRAWING NO.		APVD L SCHMIDT		C/C		SW/CADD		2									
DO NOT SCALE	TOLERANCES UNLESS OTHERWISE SPECIFIED	2 PL ± .03		THIRD ANGLE PROJECTION 	SECTIONAL SIZE		OUTLINE SIZE		IAF								
		3 PL ± .015															
ANGLES ± 2°										DESIGN CONTROL A004 DWG LOCATION A101		VERSION A					
COPYRIGHT © DONALDSON COMPANY, INC.														L		D	



IAF

AG8588703_A_SECT1.SLDDRW
Tuesday, August 10, 2021 12:17:23 PM

THIS DOCUMENT CONTAINS INFORMATION THAT IS CONFIDENTIAL AND/OR PROPRIETARY TO DONALDSON COMPANY, INC. ALL RIGHTS TO DISCLOSE, COPY, REPRODUCE, MANUFACTURE FROM OR DISPOSE OF THIS DOCUMENT OR ITS CONTENTS ARE RESERVED UNLESS SPECIFIED IN WRITING BY DONALDSON.



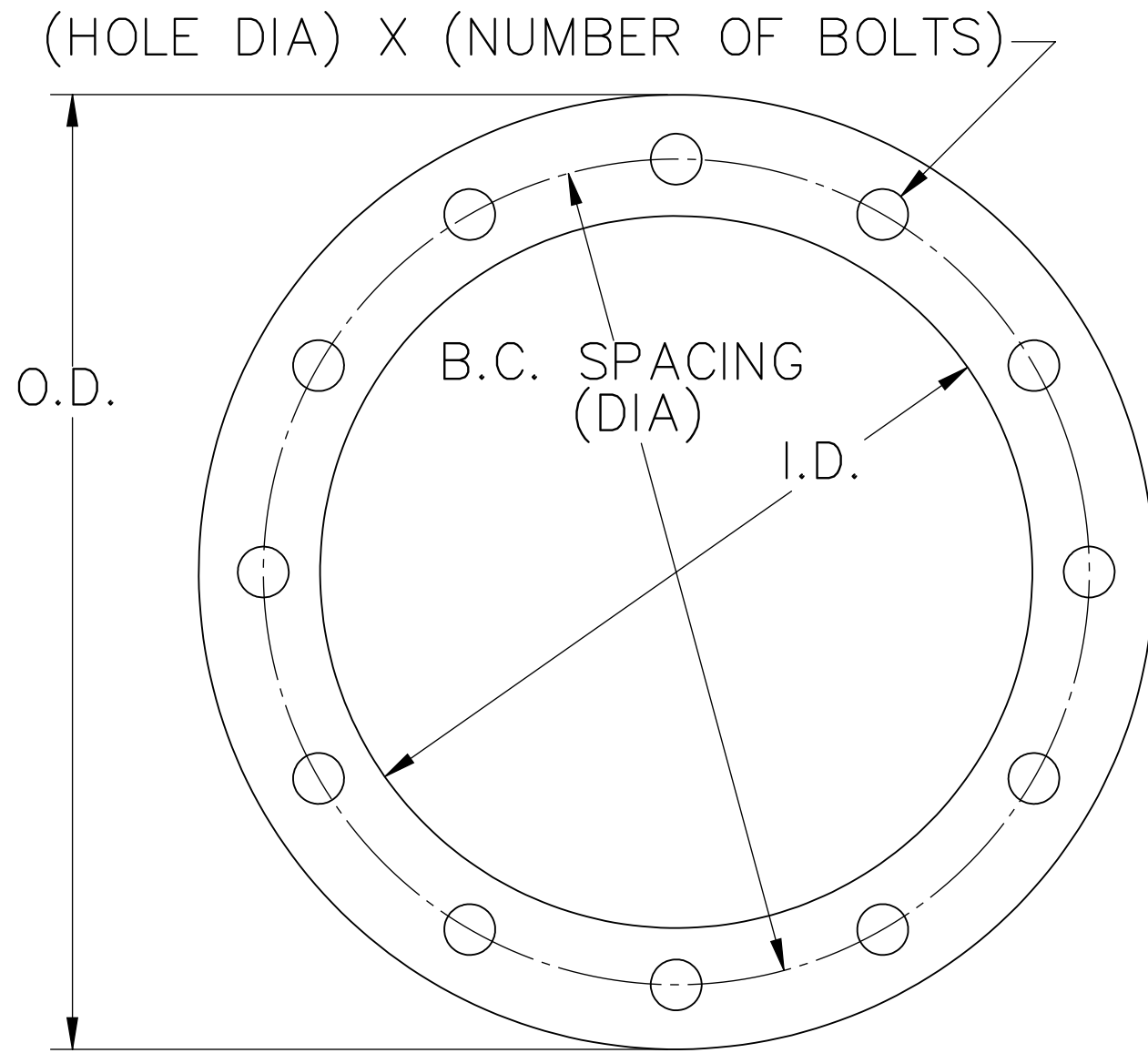
TYPICAL LIVE BOTTOM HOPPER ASSEMBLY
TRANSITION OUTLET FLANGE

TORIT LP

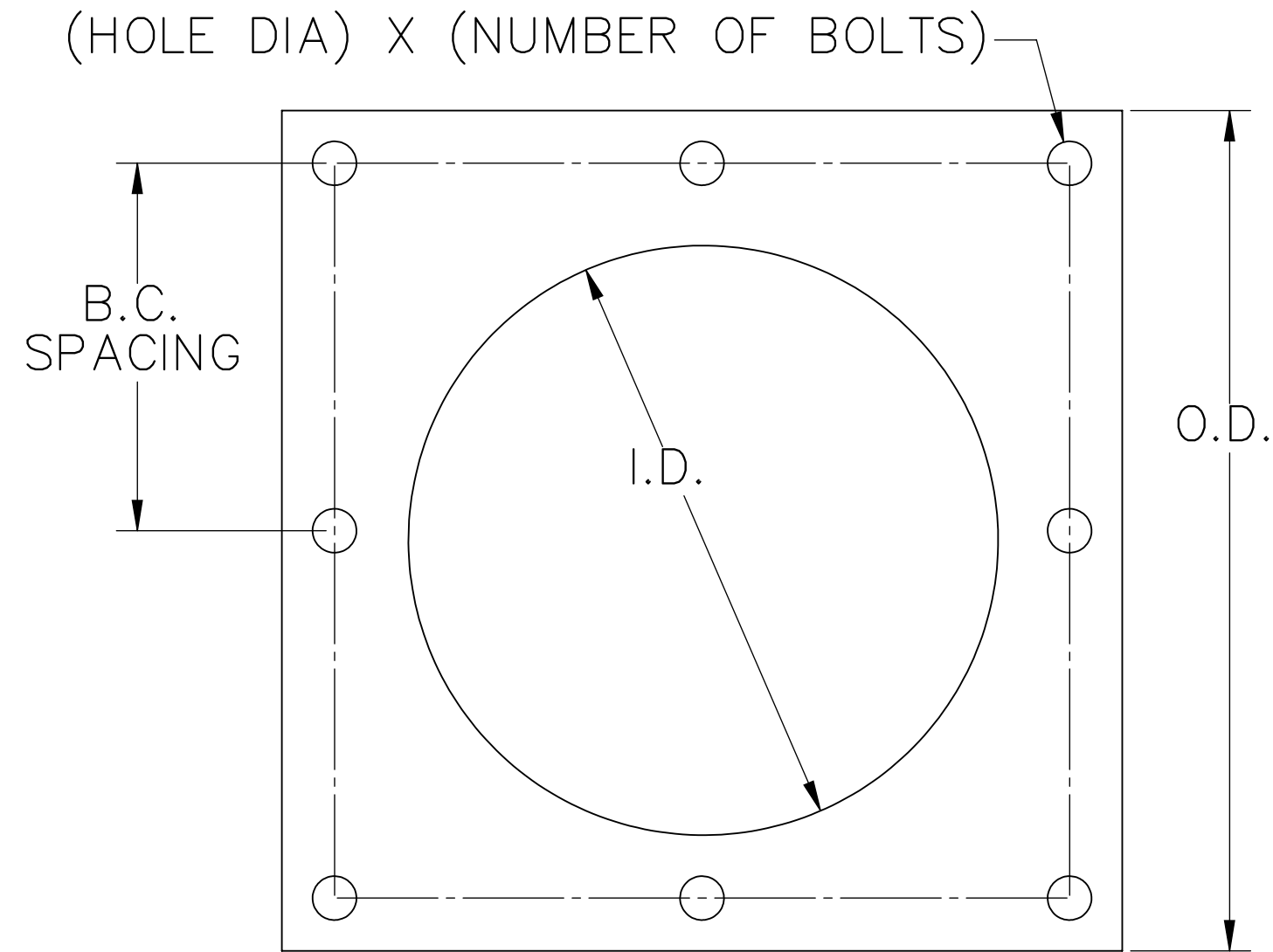
AN, FT, AND LIVE BOTTOM HOPPER ASSEMBLY ROTARY VALVE AND TRANSITION DIMENSIONS

VALVE	A	B	C	I.D.	O.D.	NUMBER OF BOLTS	HOLE DIA	B.C. SPACING
8AN	14.88 [378]	19.00 [483]	38.12 [968]	8.00 [203]	11.25 [286]	8	0.438 [11]	10.00 [254]
10AN	13.14 [334]	23.00 [584]	35.86 [911]	10.00 [254]	13.25 [337]	12	0.438 [11]	12.00 [305]
12AN	11.41 [290]	27.00 [686]	33.59 [853]	12.00 [305]	15.25 [387]	12	0.438 [11]	14.00 [356]
16AN	7.73 [196]	35.00 [889]	29.27 [743]	16.25 [413]	19.25 [489]	16	0.438 [11]	18.00 [441]
20AN	4.37 [111]	43.40 [1102]	24.23 [615]	20.38 [518]	23.39 [594]	24	0.438 [11]	22.00 [539]
24AN ₁	N/A ₁	49.50 [1257]	22.50 [572]	24.50 [622]	27.50 [699]	24	0.438 [11]	26.10 [639]
16FT _{1, 2}	N/A _{1, 2}	28.00 [711]	64.29 [1633]	16.00 [406]	22.00 [559]	16	0.563 [14]	5.00 [123]
24FT _{1, 2}	N/A _{1, 2}	42.00 [1067]	50.29 [1277]	24.00 [610]	30.00 [762]	24	0.688 [17]	5.50 [135]
48 LBH W/10" AN ₂	26.81 [681] ₂	39.10 [993]	26.38 [670]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W 12" AN ₂	26.81 [681] ₂	42.60 [1082]	22.88 [581]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W/10" FT ₂	26.81 [681] ₂	33.13 [842]	32.25 [822]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W/12" FT ₂	26.81 [681] ₂	36.75 [933]	28.73 [730]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W/10" MEYER HDX ₂	26.81 [681] ₂	31.12 [790]	34.36 [873]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W/12" MEYER HDX ₂	26.81 [681] ₂	34.00 [864]	31.48 [800]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL

1. VALVE DOES NOT REQUIRE ADDITIONAL TRANSITION
2. FT VALVES AND LIVE BOTTOM HOPPER (LBH) ASSEMBLIES REQUIRE TRUNCATED HOPPER SIZE. SEE MODBILL FOR OPTIONS



TYPICAL AN TRANSITION
OUTLET FLANGE



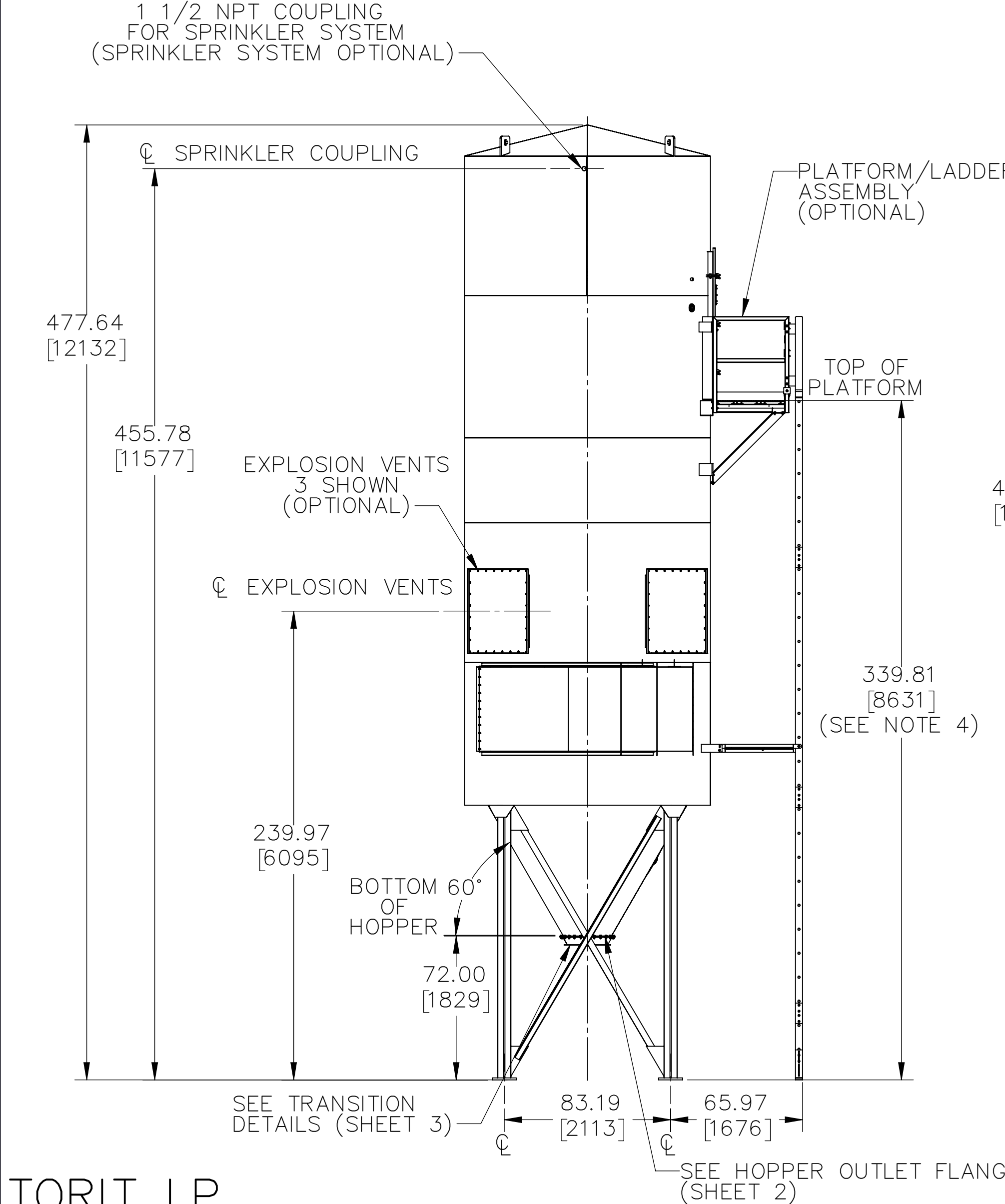
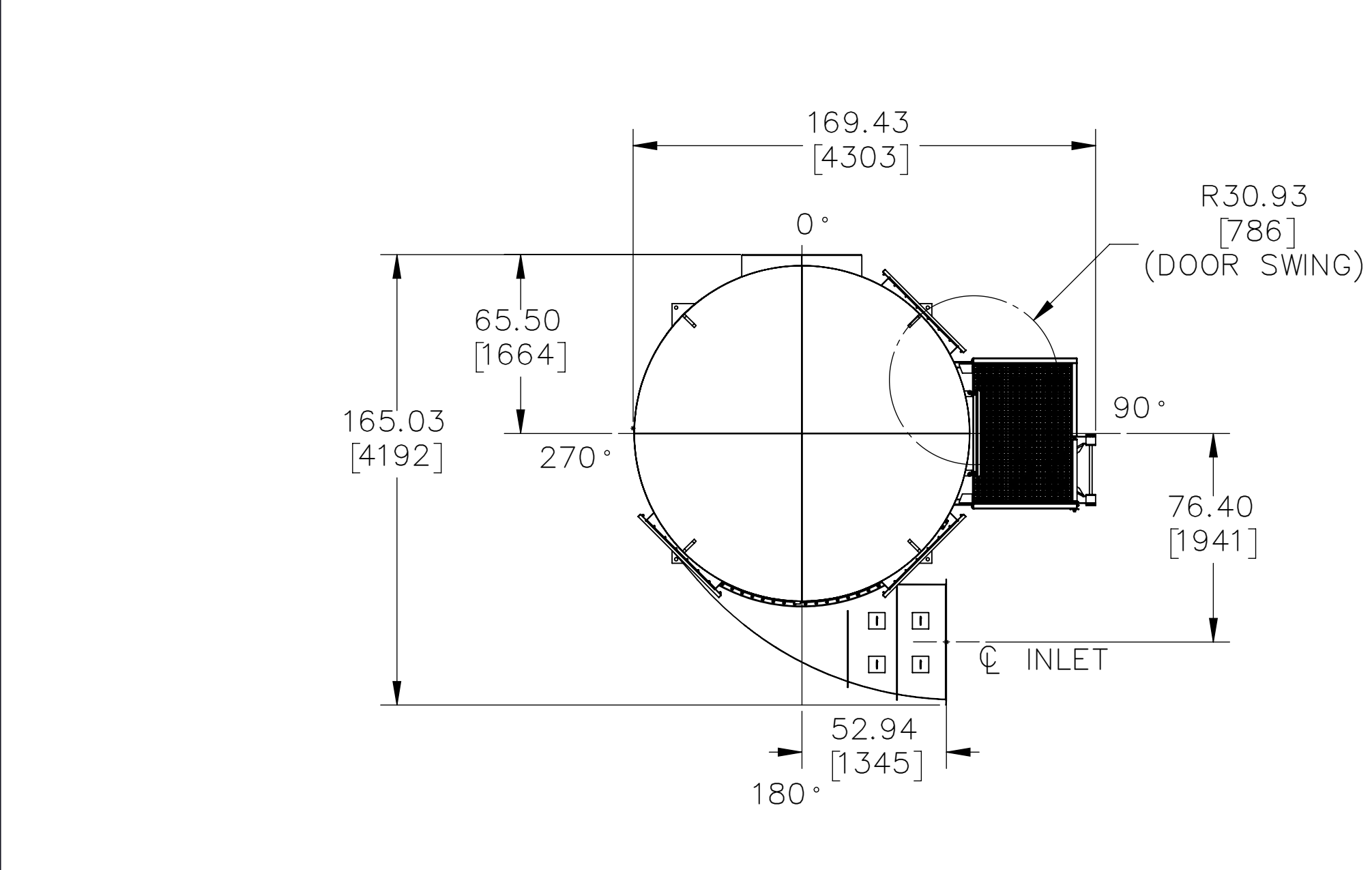
TYPICAL FT TRANSITION OUTLET FLANGE
(SQUARE PROFILE)

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES
AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

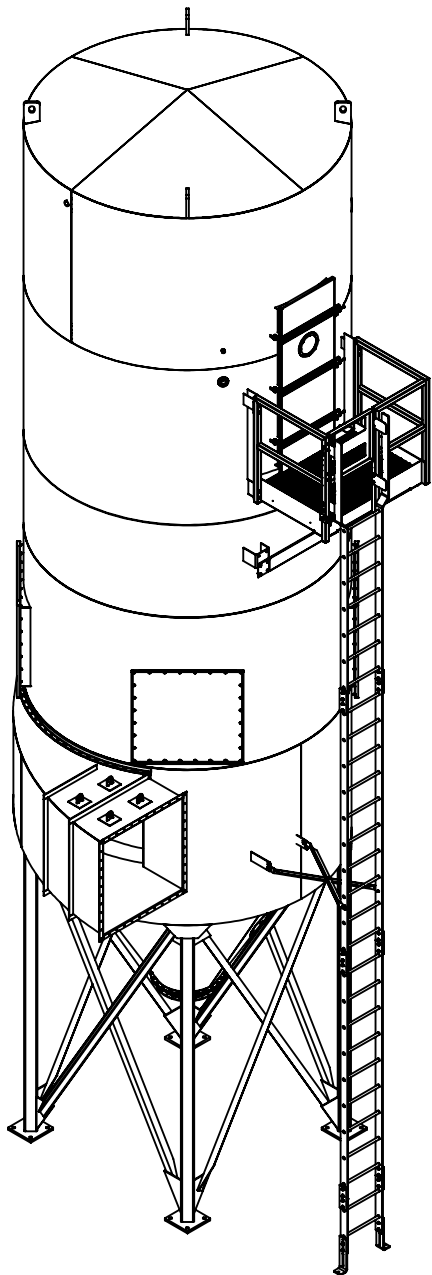
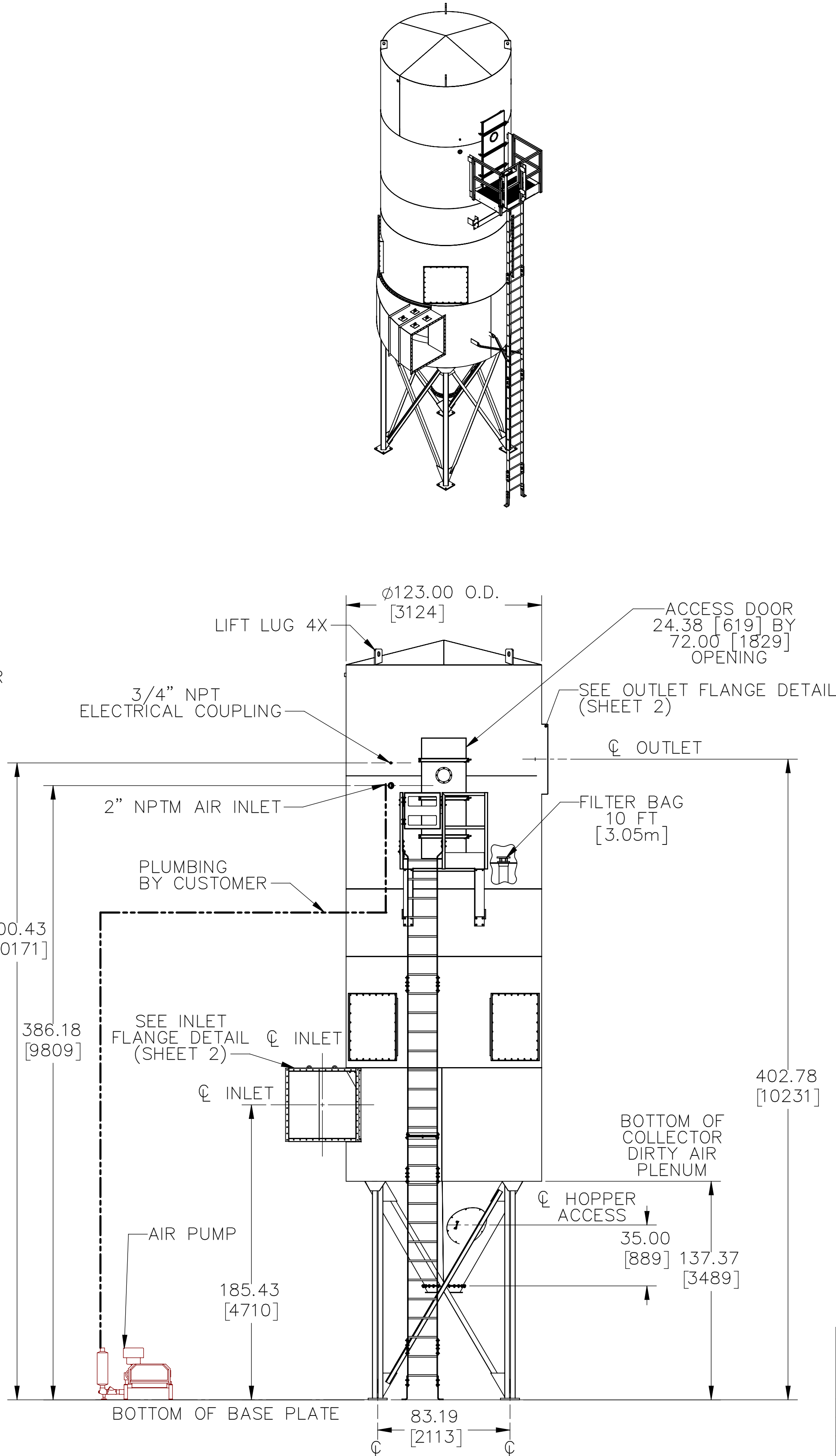
MATERIAL	RELEASE NO. 201803372 DATE 3/18/2020 EXP. DATE DWN R OTT	TITLE 232RFW10 INVOLUTE ASSEMBLY		 Donaldson Co., Inc. Minneapolis, USA
REFERENCE	DATE 3/18/2020 CHK L SCHMIDT	NUMBER RFW AG8588703		
PREVIOUS DRAWING NO.	APVD L SCHMIDT DATE 3/18/2020	SCALE NONE	SHEET 3 OF 3	
DO NOT SCALE	TOLERANCES UNLESS OTHERWISE SPECIFIED 2 PL ± .03 3 PL ± .015 ANGLES ± 2°	THIRD ANGLE PROJECTION	C/C SW/CADD SECTIONAL SIZE OUTLINE SIZE	REVISION 2
DESIGN CONTROL A004		DWG LOCATION A101		VERSION A
COPYRIGHT © DONALDSON COMPANY, INC. L D				

AG8588704_A_SECT1.SDDRW Tuesday, August 10, 2021 2:31:30 PM

THIS DOCUMENT CONTAINS INFORMATION THAT IS CONFIDENTIAL AND/OR PROPRIETARY TO DONALDSON COMPANY, INC. ALL RIGHTS TO DISCLOSE, COPY, REPRODUCE, MANUFACTURE FROM OR DISPOSE OF THIS DOCUMENT OR ITS CONTENTS ARE RESERVED UNLESS SPECIFIED IN WRITING BY DONALDSON.



TORIT LP



REVISIONS		
REV	DESCRIPTION	DWN/DATE
2	SHT 1: OPERATING TEMP WAS 150°F [66°C] MAX 202106033	P GIVEN 8/10/2021

SPECIFICATIONS FOR MODEL 276RFW10 WITH INVOLUTE INLET	
NO. OF FILTER BAGS	276 BAGS
FILTER BAG DIMENSIONS	3.00 X 6.00 X 120 LONG [76 X 152 X 3048 LONG]
ACTUAL FILTER AREA	3,590 SQ FEET [333 SQ METERS]
STANDARD FILTER MATERIAL	DURA LIFE 10.5 OZ/SQ YARD
HOUSING RATING	-20" WG [-508mmwg]
P-RED	0.20 BAR
OPERATING TEMPERATURE	100° F [38° C] MAXIMUM
STANDARD FINISH	TORIT BLUE OR STORM WHITE EXTERIOR
	PRIMER INTERIOR
	SAFETY YELLOW LADDERS & PLATFORM
APPROXIMATE WEIGHT	13,500 LBS [6,124 KG]
CLEANING BLOWER (AIR PUMP)	7.5 HP [5.52 kW], 150 SCFM [255 m ³ /h] @ 5
	PSIG [34.5 kPa] AVG (7.5 PSIG [51.7 kPa MAX])
AIR DRIVE MANIFOLD	1/3 HP 208-230/460V, 3 PH, 60 HZ, TEFC,
	56C FRAME MOTOR
SOLENOID VALVE	120 VAC 60 HZ NEMA 4, 7 ,9
REMOTE MOUNTED TIMER	120 VAC 50-60 HZ (NEMA 4)

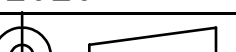
IBC 2018 SPECIFICATIONS	
RISK CATEGORY II	
BASIC WIND SPEED AND EXPOSURE	115 MPH [185 km/hr] (3 SEC GUST)EXPOSURE C
SEISMIC SPECTRAL ACCELERATION	S/S=1.5 & S/1=0.6, SITE CLASS D
GROUND SNOW LOAD	P _g : 40 PSF [195 kg/m ²]
ROOF LIVE LOAD	L _r : 20 PSF [98 kg/m ²]
COLLECTOR BASE AT GRADE	

EXPLOSION VENT (OPTIONAL)	
EP KER EXPLOSION VENT	
NOMINAL SIZE	35.5 X 36 [902 X 914]
RELIEF AREA:	8.62 FT ² [0.8 m ²]
NOMINAL BURST PRESSURE	1.45 PSI @ 68°F [0.099 BAR]

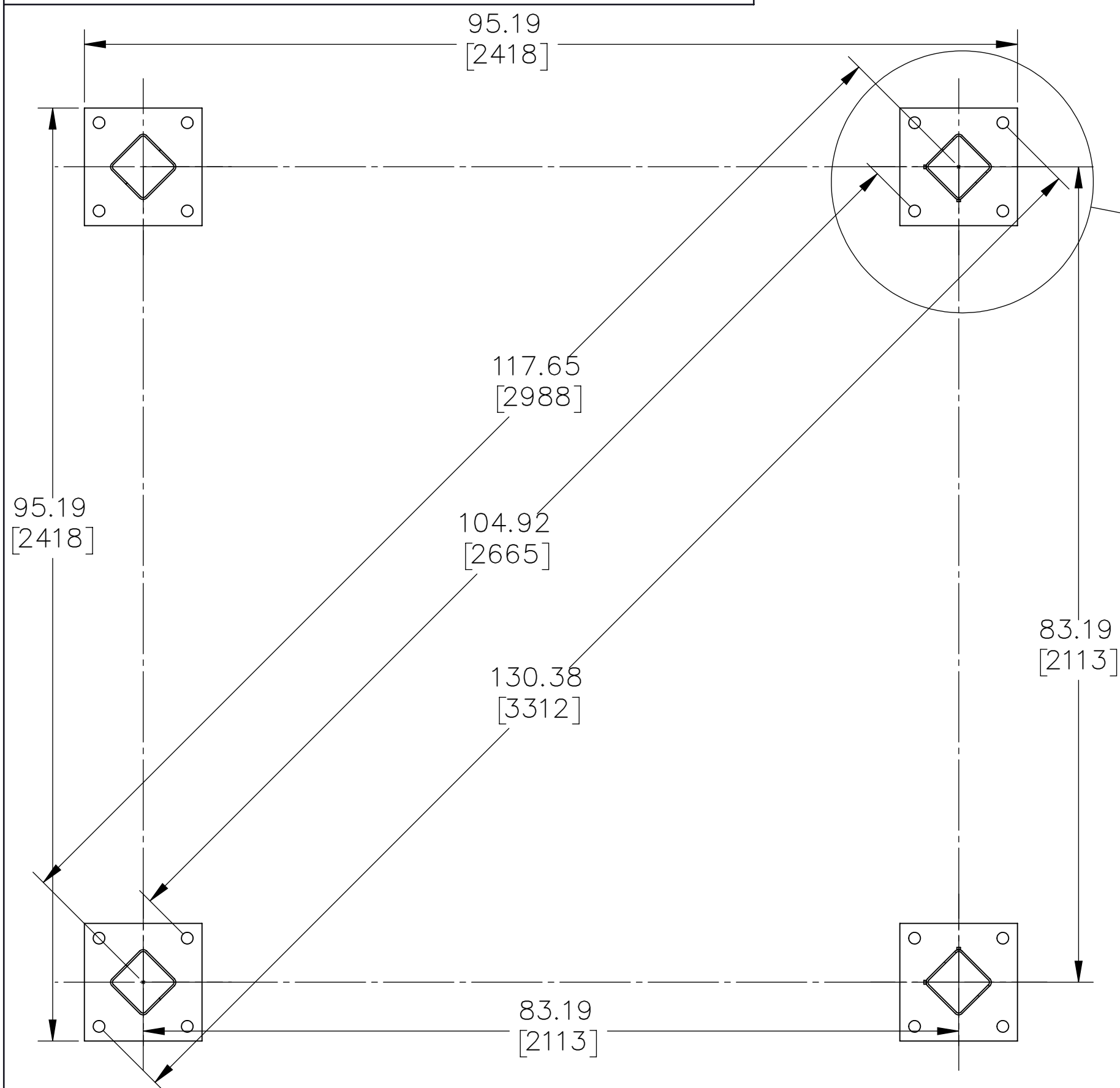
MISCELLANEOUS INFORMATION	
10GA CARBON STEEL HOUSING CONSTRUCTION: 10GA CARBON STEEL ROOF	
1/4 CARBON STEEL TUBE SHEET	
INTERNAL CLEANING MECHANISM	
60 DEGREE HOPPER	

- NOTES:
- DO NOT INSTALL OR OPERATE THIS EQUIPMENT UNTIL HAVING READ AND UNDERSTOOD THE INSTRUCTIONS AND WARNINGS AND INSTRUCTIONS IN THE INSTALLATION AND OPERATION MANUAL. FOR A REPLACEMENT MANUAL CONTACT DONALDSON COMPANY INC. (808) 365-1331.
 - NFPA 68 2018 EDITION
EXPLOSION VENT DUCTING LONGER THAN ONE HYDRAULIC DIAMETER OR WITH BENDS, ELBOWS OR OBSTRUCTIONS ENTAILS SIGNIFICANT DERATING OF THE EXPLOSION VENT. ALL PROPOSALS INCLUDING EXPLOSION VENT DUCTS OTHER THAN SHORT, STRAIGHT OPEN DUCTS SHOULD ALSO BE REFERRED TO DCI ENGINEERING FOR VENT PERFORMANCE CALCULATION AND DERATING, OR CUSTOM VENT SOLUTION. ANY EXPLOSION VENT DUCTING TO BE DESIGNED AND SUPPLIED BY OTHERS.
 - DIMENSIONS ARE IN INCHES AND [MILLIMETERS].
 - LADDER SAFETY SYSTEM OR PERSONAL FALL ARREST SYSTEM TO BE PROVIDED BY PROCESS OWNER OR BY OTHERS WHERE REQUIRED.
 - CLOCKWISE INVOLUTE INLET SHOWN.

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

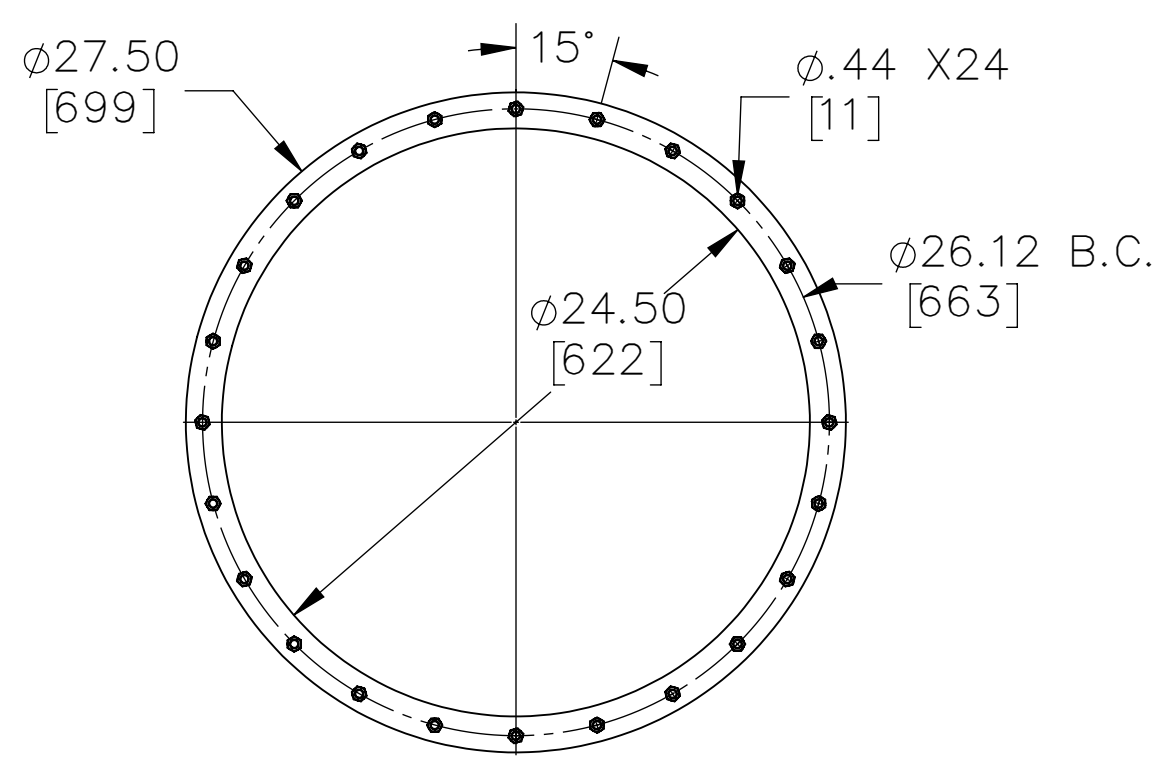
MATERIAL		RELEASE NO. 201803372		TITLE 276RFW10 INVOLUTE ASSEMBLY			 Donaldson. Donaldson Co. Inc. Minneapolis, USA IAF	
		DATE 3/18/2020						
		EXP DATE						
		DWN R OTT		NUMBER				
REFERENCE		DATE 3/18/2020		RFW AG8588704				
		CHK L SCHMIDT						
		DATE 3/18/2020		SCALE NONE		SHEET 1 OF 3	REVISION	
PREVIOUS DRAWING NO.		APVD L SCHMIDT		C/C		SW/CADD	2	
		DATE 3/18/2020		SECTIONAL SIZE		OUTLINE SIZE		
DO NOT SCALE		TOLERANCES UNLESS OTHERWISE SPECIFIED		2 PL ± .03		3 PL ± .015		ANGLES ± 2°
		THIRD ANGLE PROJECTION				DESIGN CONTROL A004		DWG LOCATION A101
						COPYRIGHT © DONALDSON COMPANY, INC.		VERSION A
						L		

THIS DOCUMENT CONTAINS INFORMATION THAT IS CONFIDENTIAL AND/OR PROPRIETARY TO DONALDSON COMPANY, INC. ALL RIGHTS TO DISCLOSE, COPY, REPRODUCE, MANUFACTURE FROM OR DISPOSE OF THIS DOCUMENT OR ITS CONTENTS ARE RESERVED UNLESS SPECIFIED IN WRITING BY DONALDSON.



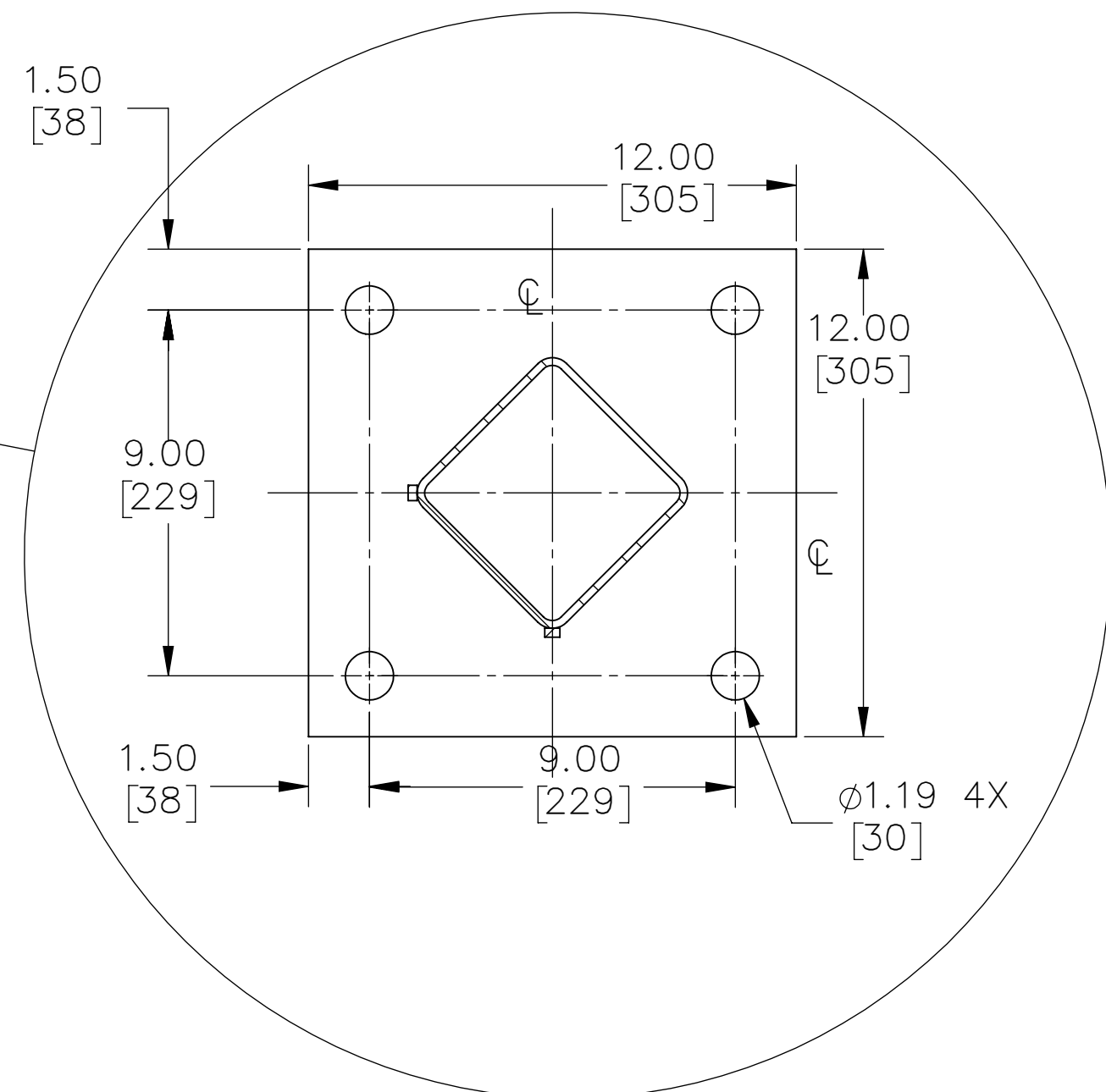
ANCHOR BOLT PLAN

ANCHOR BOLTS BY OTHERS. FINAL SELECTION WILL DEPEND ON JOBSITE LOAD CONDITIONS, FOUNDATION DESIGN, LOCAL CODES, ETC. CONSULT PRODUCT IOM FOR GENERAL INSTALLATION INFORMATION.



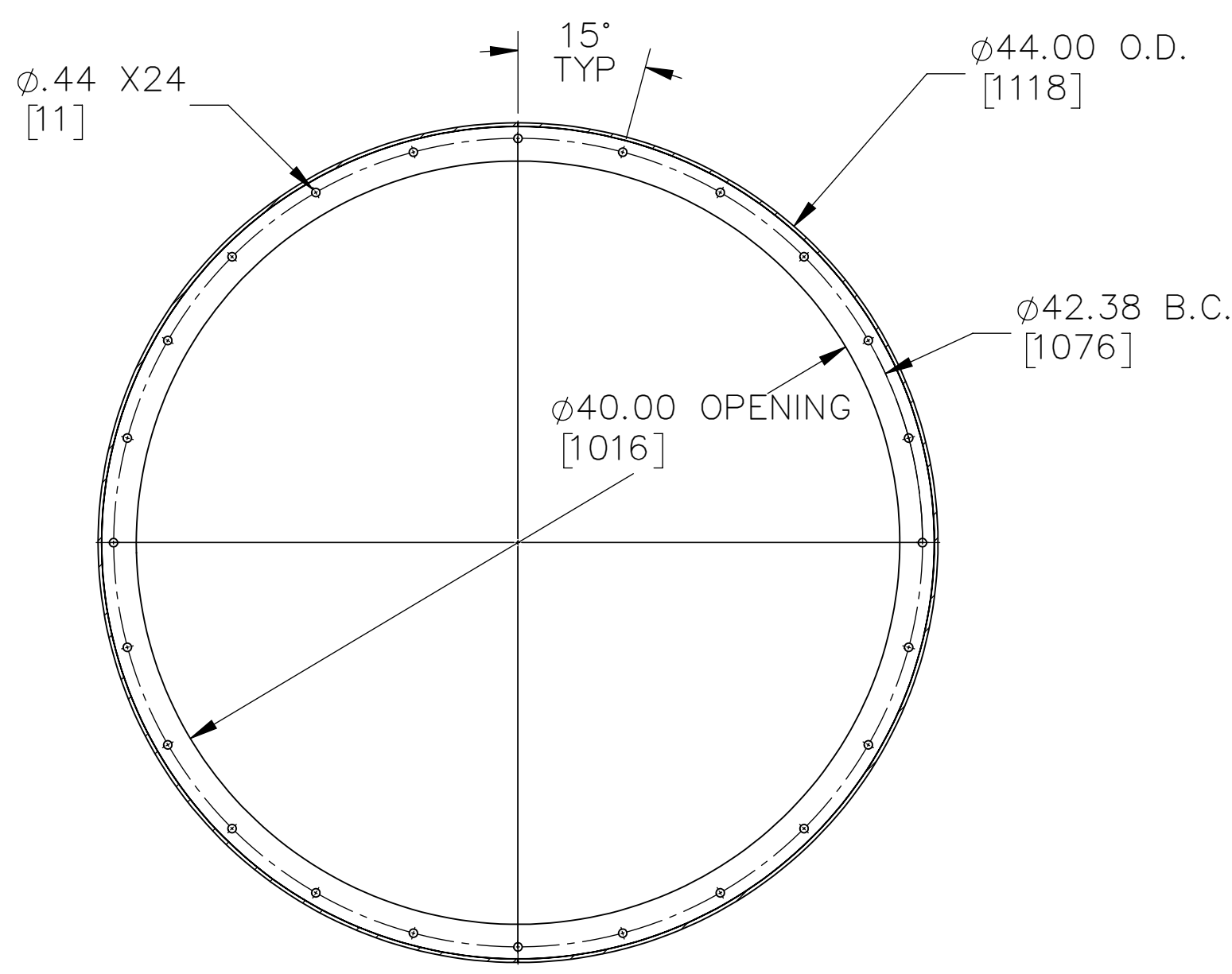
HOPPER OUTLET FLANGE DETAIL

TORIT LP

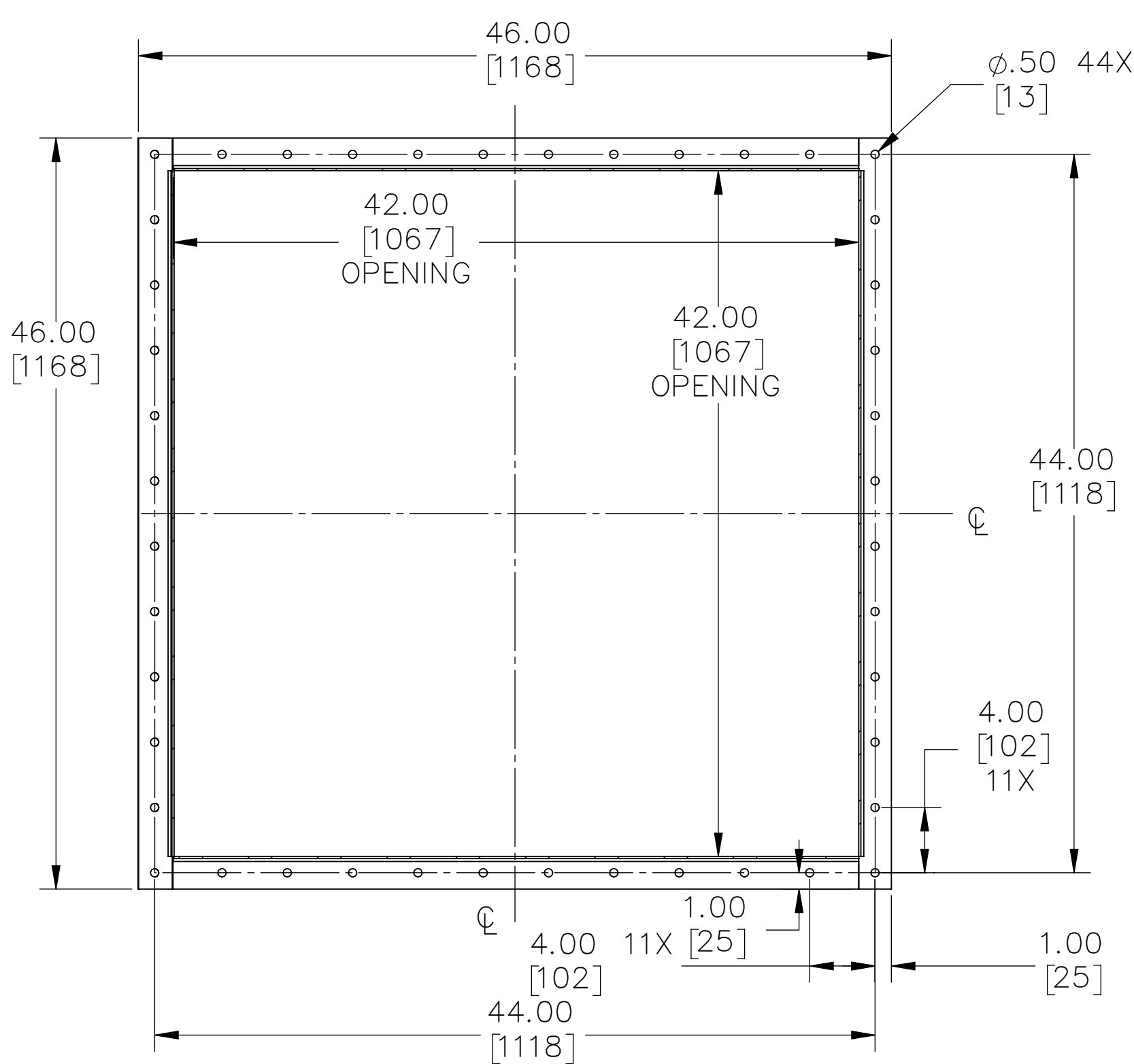


FOOTPAD DETAIL

4 PLACES
(PLATE IS 1.00 [25] THK)

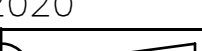


OUTLET FLANGE DETAIL



INLET FLANGE DETAIL

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

MATERIAL		RELEASE NO. 201803372		TITLE 276RFW10 INVOLUTE ASSEMBLY			 Donaldson. Donaldson Co. Inc. Minneapolis, USA			
		DATE 3/18/2020								
		EXP DATE								
REFERENCE		DWN R OTT		NUMBER RFW AG8588704						
		DATE 3/18/2020								
		CHK L SCHMIDT								
		DATE 3/18/2020		SCALE NONE		SHEET 2 OF 3		REVISION		
PREVIOUS DRAWING NO.		APVD L SCHMIDT		C/C		SW/CADD		2		
DO NOT SCALE	TOLERANCES UNLESS OTHERWISE SPECIFIED	2 PL ± .03		THIRD ANGLE PROJECTION 		SECTIONAL SIZE		OUTLINE SIZE		IAF
		3 PL ± .015								
		ANGLES ± 2°								
				DESIGN CONTROL A004 DWG LOCATION A101				VERSION A		
COPYRIGHT © DONALDSON COMPANY, INC.										L



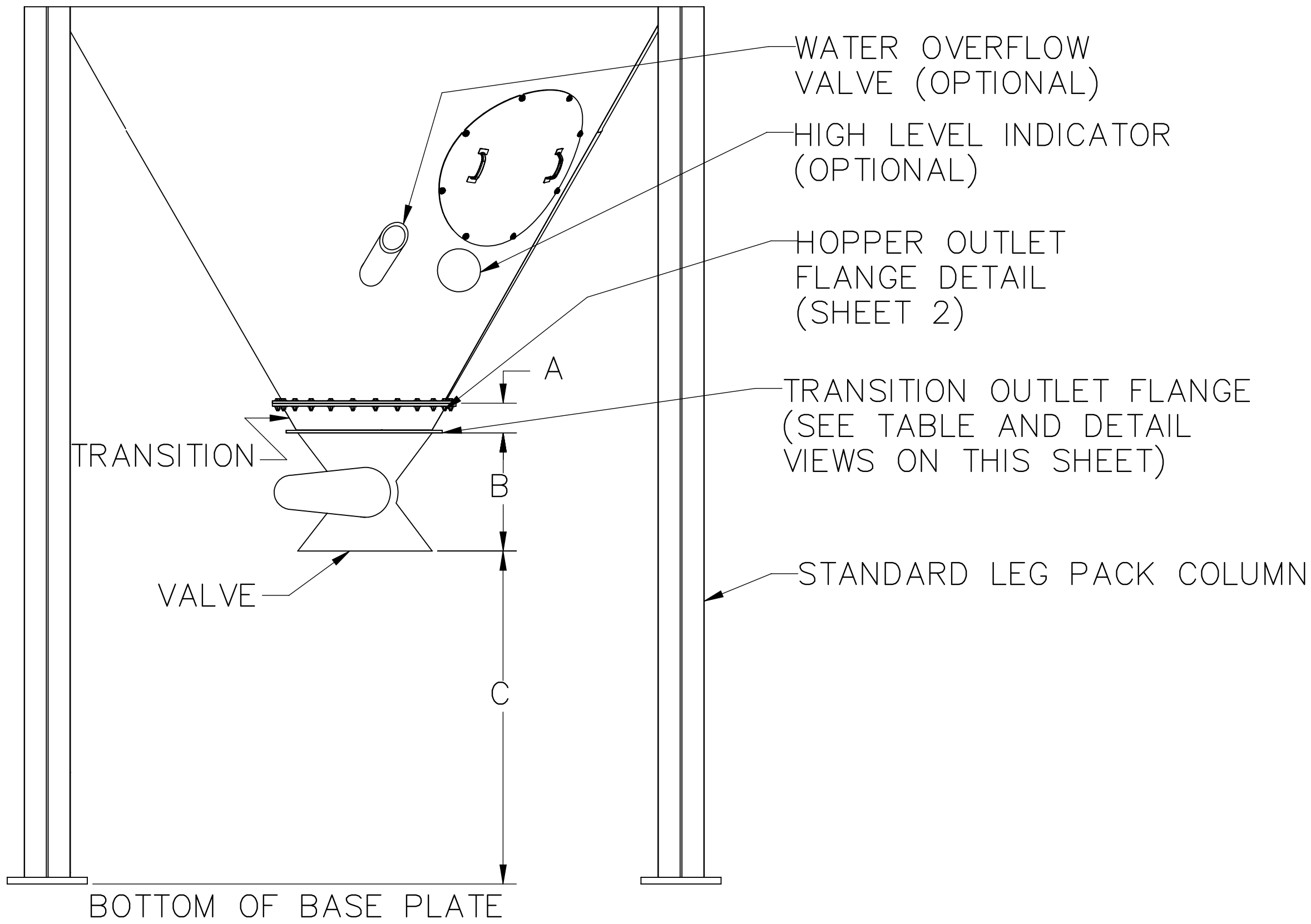
IAF

VERSION A

Tuesday, August 10, 2021 2:31:30 PM

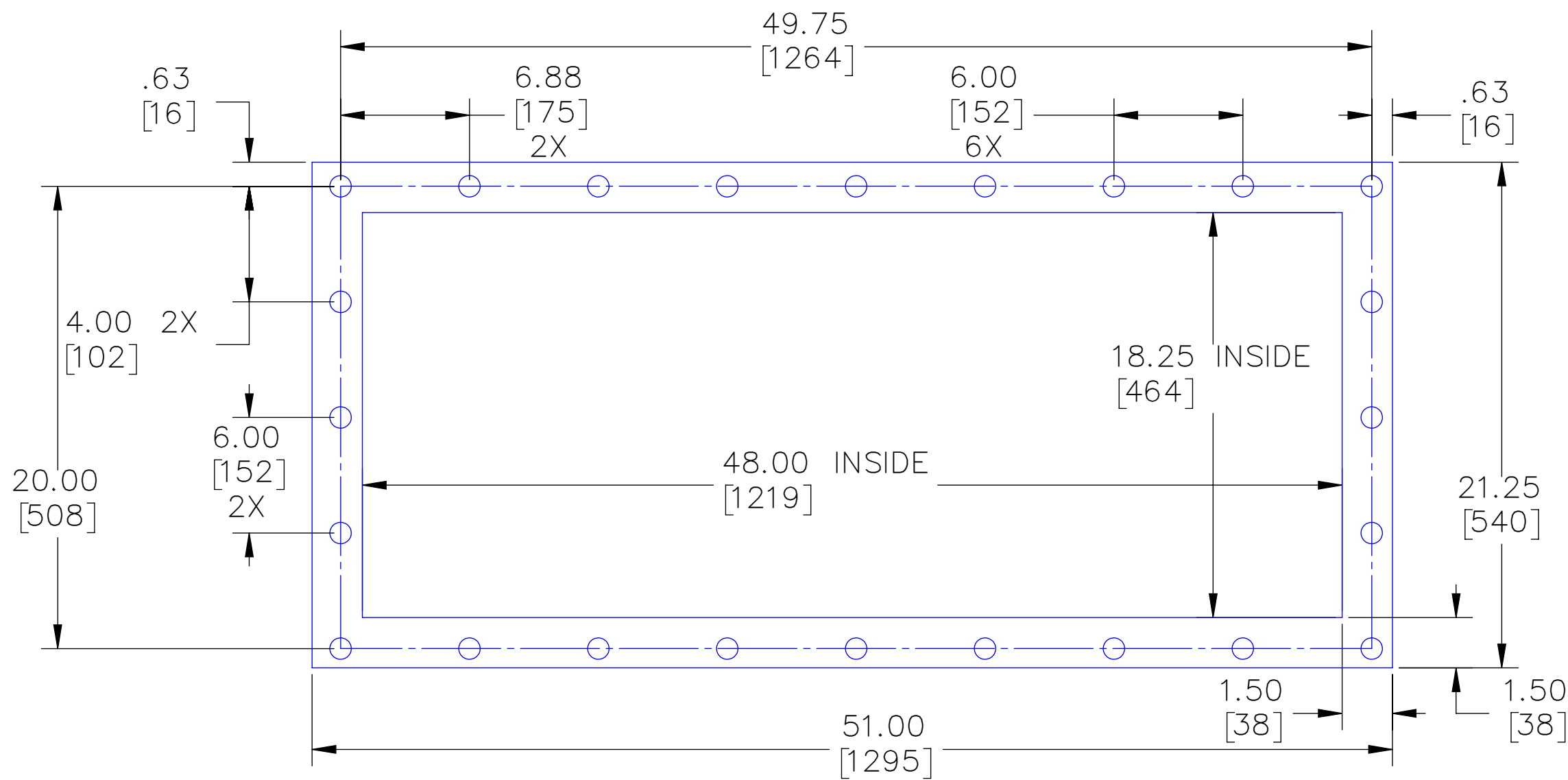
AG8588704_A_SECT1.SLDDRW

THIS DOCUMENT CONTAINS INFORMATION THAT IS CONFIDENTIAL AND/OR PROPRIETARY TO DONALDSON COMPANY, INC. ALL RIGHTS TO DISCLOSE, COPY, REPRODUCE, MANUFACTURE FROM OR DISPOSE OF THIS DOCUMENT OR ITS CONTENTS ARE RESERVED UNLESS SPECIFIED IN WRITING BY DONALDSON.

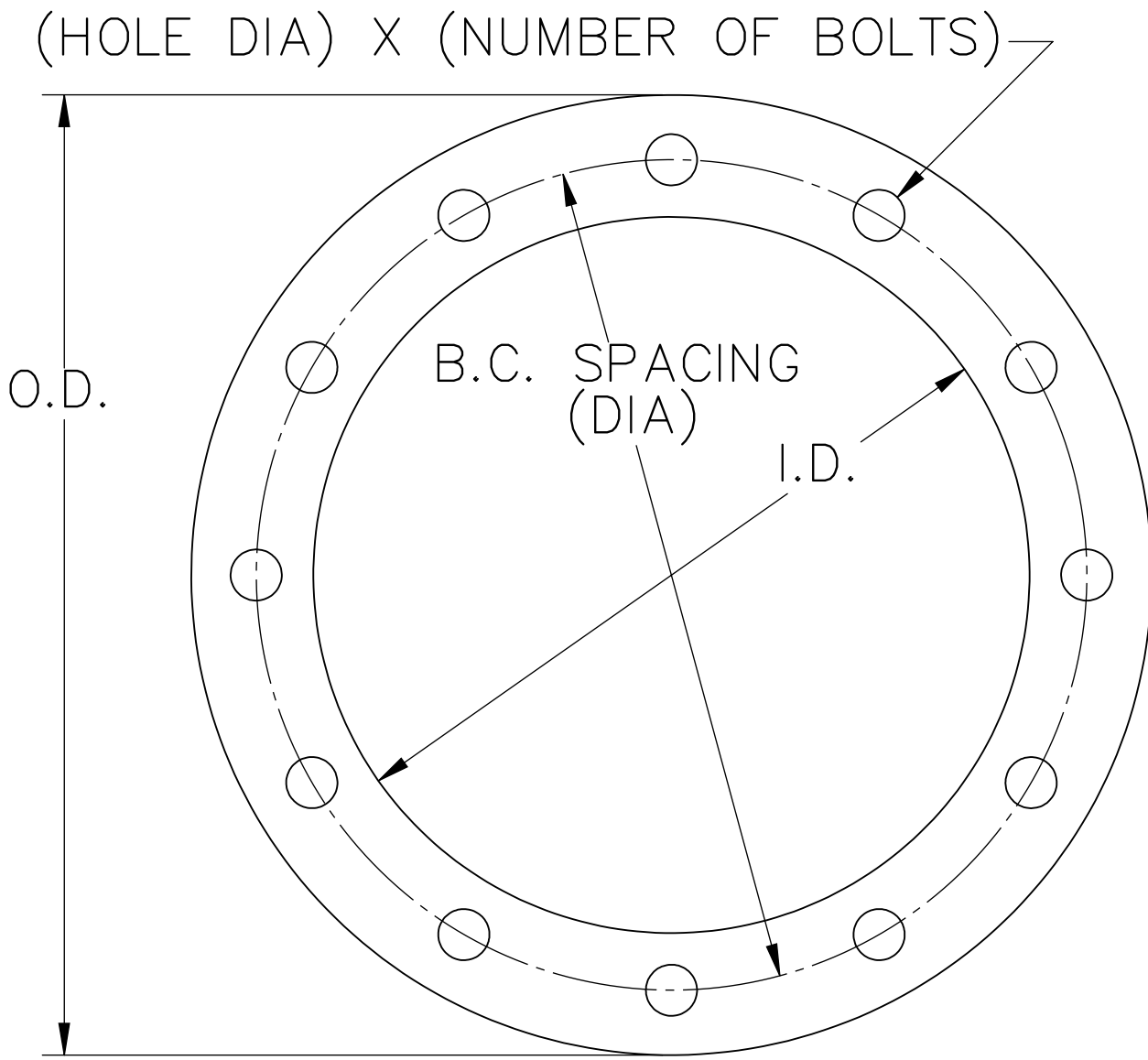


VALVE	A	B	C	I.D.	O.D.	NUMBER OF BOLTS	HOLE DIA	B.C. SPACING
8AN	14.88 [378]	19.00 [483]	38.12 [968]	8.00 [203]	11.25 [286]	8	0.438 [11]	10.00 [254]
10AN	13.14 [334]	23.00 [584]	35.86 [911]	10.00 [254]	13.25 [337]	12	0.438 [11]	12.00 [305]
12AN	11.41 [290]	27.00 [686]	33.59 [853]	12.00 [305]	15.25 [387]	12	0.438 [11]	14.00 [356]
16AN	7.73 [196]	35.00 [889]	29.27 [743]	16.25 [413]	19.25 [489]	16	0.438 [11]	18.00 [441]
20AN	4.37 [111]	43.40 [1102]	24.23 [615]	20.38 [518]	23.39 [594]	24	0.438 [11]	22.00 [539]
24AN ₁	N/A ₁	49.50 [1257]	22.50 [572]	24.50 [622]	27.50 [699]	24	0.438 [11]	26.10 [639]
16FT _{1, 2}	N/A _{1, 2}	28.00 [711]	64.29 [1633]	16.00 [406]	22.00 [559]	16	0.563 [14]	5.00 [123]
24FT _{1, 2}	N/A _{1, 2}	42.00 [1067]	50.29 [1277]	24.00 [610]	30.00 [762]	24	0.688 [17]	5.50 [135]
48 LBH W/10" AN ₂	26.81 [681] ₂	39.10 [993]	26.38 [670]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W 12" AN ₂	26.81 [681] ₂	42.60 [1082]	22.88 [581]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W/10" FT ₂	26.81 [681] ₂	33.13 [842]	32.25 [822]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W/12" FT ₂	26.81 [681] ₂	36.75 [933]	28.73 [730]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W/10" MEYER HDX ₂	26.81 [681] ₂	31.12 [790]	34.36 [873]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL
48 LBH W/12" MEYER HDX ₂	26.81 [681] ₂	34.00 [864]	31.48 [800]	48.00 X 18.00 [1219 X 457]	51.00 X 21.25 [1295 X 540]	24	0.5 [13]	SEE DETAIL

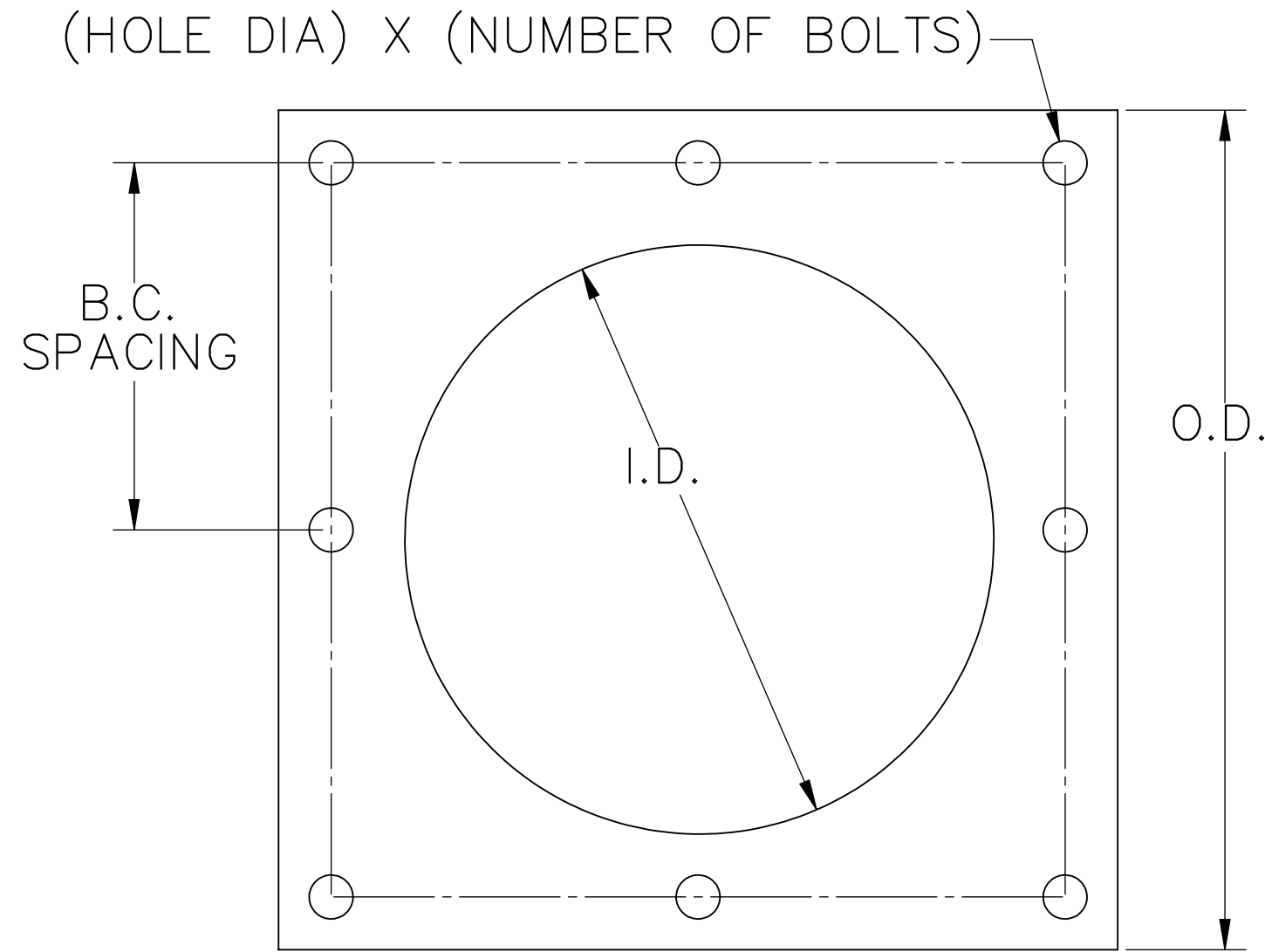
1. VALVE DOES NOT REQUIRE ADDITIONAL TRANSITION
2. FT VALVES AND LIVE BOTTOM HOPPER (LBH) ASSEMBLIES REQUIRE TRUNCATED HOPPER SIZE. SEE MODBILL FOR OPTIONS



TYPICAL LIVE BOTTOM HOPPER ASSEMBLY TRANSITION OUTLET FLANGE

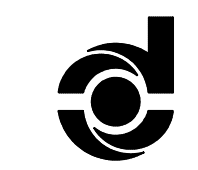


TYPICAL AN TRANSITION OUTLET FLANGE



TYPICAL FT TRANSITION OUTLET FLANGE (SQUARE PROFILE)

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

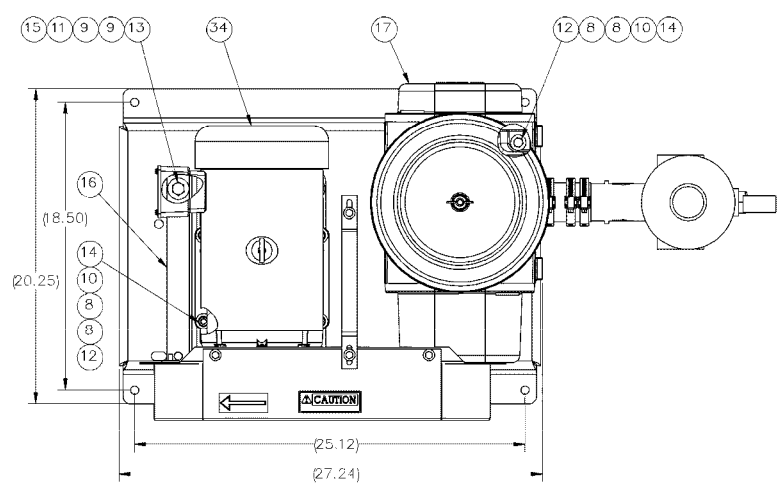
MATERIAL	RELEASE NO. 201803372 DATE 3/18/2020 EXP. DATE DWN R OTT	TITLE 276RFW10 INVOLUTE ASSEMBLY		 Donaldson Co., Inc. Minneapolis, USA	
REFERENCE	DATE 3/18/2020 CHK L SCHMIDT	NUMBER RFW AG8588704			
PREVIOUS DRAWING NO.	DATE 3/18/2020 APVD L SCHMIDT	SCALE NONE	SHEET 3 OF 3		REVISION
DO NOT SCALE	TOLERANCES UNLESS OTHERWISE SPECIFIED 2 PL ± .03 3 PL ± .015 ANGLES ± 2°	DATE 3/18/2020	C/C SW/CADD	2	IAF
THIRD ANGLE PROJECTION	DESIGN CONTROL A004		DWG LOCATION A101		VERSION A
COPYRIGHT © DONALDSON COMPANY, INC. L D					

AG8588704_A_SECT1.SLDDRW Tuesday, August 10, 2021 2:31:30 PM

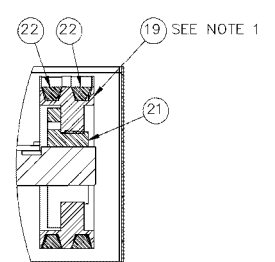
TORIT LP

Monday, May 10 2021 10:06:39 AM
AG8692902_A_SECT1.DRW

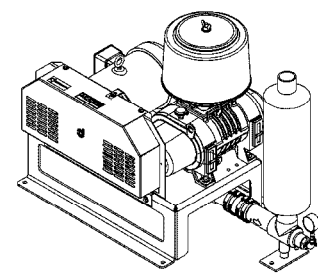
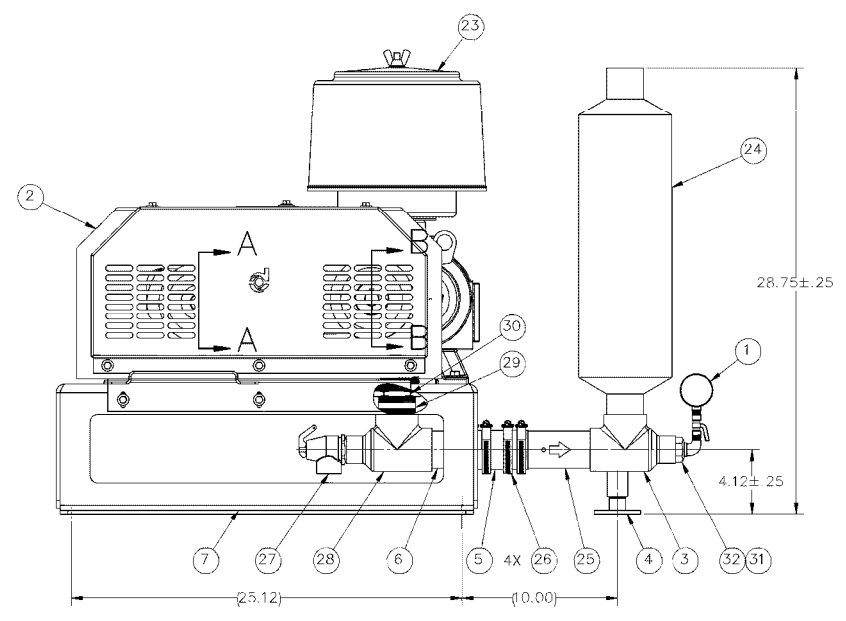
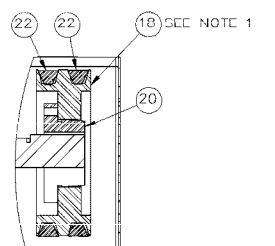
THIS DOCUMENT CONTAINS INFORMATION THAT IS CONFIDENTIAL AND/OR PROPRIETARY TO DONALDSON COMPANY, INC. ALL RIGHTS TO DISCLOSE, COPY, REPRODUCE, MIMIC OR DERIVE FROM OR DISSEMINATE THIS DOCUMENT OR ITS CONTENTS ARE RESERVED UNLESS SPECIFIED IN WRITING BY DONALDSON.



SECTION A-A



SECTION B-B



- NOTES:
1. ALIGN SHEAVES, ITEMS 18 & 19, SO THAT FACES ARE IN-LINE WITHIN .03.
 2. BAND OR SHRINK WRAP OIL, ITEM 33, AND GAUGE VALVE ASSEMBLY, ITEM 1, TO BLOWER PACK IN A PROTECTED LOCATION.
 3. ARROW ON CHECK VALVE, ITEM 25, MUST FACE ELBOW SUPPORT, ITEM 3.

ITEM	QTY	PARTNO	DESCRIPTION
1	1	3EA AG8577503	GAUGE VALVE ASSEMBLY
2	1	3EA AG8692501	FAN GUARD ASSEMBLY PD BLOWER PACK 48-276 RF
3	1	4MA AG8577602	ELBOW SUPPORT
4	1	4MA AG8577603	SILENCER SUPPORT
5	1	5PM 2993400	HOSE 2.375 ID X 4.00 LONG
6	1	6MM 2994000	PIPE T.O.E. BLK
7	1	6MM AG8692304	BASE BLOWER 48-276 RF
8	16	8PP 0900608	WASHER FLT STL ZP TYPE A 3/8 ROHS SERIES W
9	8	8PP 0900610	WASHER FLT STL ZP TYPE A 1/2 ROHS SERIES W
10	8	8PP 0900711	WASHER LK HEL SP STL ZP 3/8 ROHS
11	4	8PP 0900713	WASHER LK HEL SP STL ZP 1/2 ROHS
12	8	8PP 0900806	BOLT HEX STL ZP G1 3/8-16 X 1 1/2 RoHS
13	4	8PP 0900902	BOLT HEX SIL ZP G1 1/2-13 X 1 1/4 RoHS
14	8	8PP 0901110	NUT HEX STL G2 ZP 3/8-16 ROHS
15	4	8PP 0901112	NUT HEX STL G2 ZP 1/2-13 ROHS
16	1	8PP 2990903	SLIDE BASE MOTOR 184
17	1	8PP 2991003	BLOWER LH DRIVE 46-3206
18	1	8PP 2991102	SHEAVE 2 GROOVE A4.8/B5.0
19	1	8PP 2991103	SHEAVE 2 GROOVE A4.8/B5.2
20	1	8PP 2991202	BUSHING SDS 15/16
21	1	8PP 2991203	BUSHING SDS 1 1/8
22	2	8PP 2991403	V-BELT B-40
23	1	8PP 2993003	FILTER SMALL AIR UNIMAZE SIL
24	1	8PP 2993100	SILENCER DISCHARGE 2 INCH NP"
25	1	8PP 2993200	VALVE CHECK, 2 IN
26	4	8PP 2993500	CLAMP WORM DRIVE HOSE 3.0-2.0625
27	1	8PP 2993600	VALVE PRESSURE RELIEF
28	1	8PP 2993702	REDUCING TEE CAST IRON 2x1x2
29	1	8PP 2993903	NIPPLE BLACK 2 IN NPT X 2.50
30	1	8PP 2994100	BUSHING HEX HD 2-1/2 X 2
31	1	8PP 2994200	1" NPT PIPE PLUG CAST IRON
32	1	8PP 5286511	BUSHING REDUCER 1 NPT X 1/4 NPT ROHS
33	1	8PP 7541601	OIL PNEULUBE ISO 100
34	A/R	SCE MBM	MOTOR 5 HP 1725 - 575/60/3

MATERIAL	RELEASE NO 202000055 DATE 5/20/2021 EXP DATE OWN P GIVEN DATE 5/6/2021 CHK R OTT	INTL PD BLOWER PACK 60 HZ 232RF/276RF	 Donaldson Co. Inc. www.donaldson.com
REFERENCE 2994903	DATE 5/6/2021 APPROV R OTT	SUBSET 3EA AG8692902	
APPROX. WT. 355 LBS	DATE 5/6/2021	SCALE NONE SPEED 1 OF 1 C/C SW/CADD	
PREVIOUS DRAWING NO 2994903	DATE 5/6/2021	DESIGNER 0 IAF	
DO NOT SCALE TOLERANCES UNLESS OTHERWISE SPECIFIED 3 PL ± .03 2 PL ± .015 ANGLES 2.2°	DESIGN CONTROL ADD DESIGN LOCATION A101 COPYRIGHT © DONALDSON COMPANY, INC. 1 0	VERSION A	

Application

Volumetric feeding of free flowing powders, granules and other bulk materials.
 The feeder can be upgraded to a loss-in-weight feeder system at any time.

Design

Single screw feeder with interchangeable feeding tools.

All parts in contact with the material being fed are stainless steel. Feeding equipment is easy to disassemble. The horizontal agitator gently moves the bulk material to the large throat and then into the screws. Feeder screws are easily interchangeable.

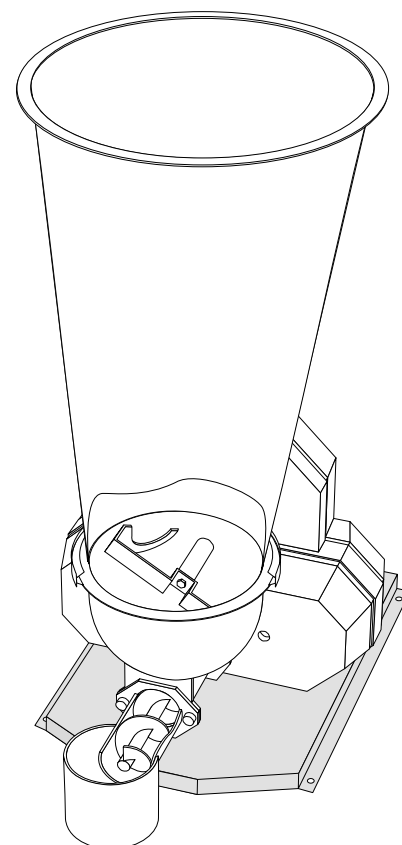
This equipment conforms to CE standards regarding EMC and safety.

Controller: (see separate data sheets)

The SmartConnex™ control system allows individual or multi-component control. Each feeder has its own control module. Connection between feeders, operator interface and smart I/O is via an industrial network. A variety of protocols is available for connection to the plant's host system.

Hazardous Location Options: (see sheet I-000002)

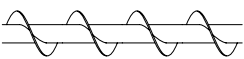
NEC Class II, Div. 2, Groups F & G / Class II, Div. 1, Groups F & G
 Class I, Div. 2, Groups C & D / Class I, Div. 1, Groups C & D
 ATEX 3D/3D, 3D/2D, 3G/3G, 2GD/2GD (outside/inside)



Feed Screws and Sample Feed Rates

Feeder screws are determined based on the material being fed. The theoretical throughput range of 1:100 is influenced by feeder configuration and material characteristics. The sample feed rates below were tested with a free-flowing material (semolina, bulk density 0.783 kg/dm³).

Attention: Actual feed rates depend on individual material characteristics. For feed rates at the upper or lower limits of the theoretical range, check with a Coperion K-Tron Test Lab.

Pitch	DN Screw (Tube)	 Auger screws					 Spiral screws					Gearbox
		ø15 (15)	ø25 (30)	ø40 (40)	ø50 (50)	ø60 (60)	ø15 (15)	ø25 (30)	ø40 (40)	ø45 (50)	ø60 (60)	
coarse	dm³/h	0.78 - 70.1	3.84 - 354	12 - 1041	38 - 2740	54 - 4404	0.76 - 74.4	4.14 - 383	15.2 - 1320	32.8 - 2335	58 - 3669	High
	ft³/h	0.03 - 2.47	0.14 - 12.5	0.42 - 36.7	1.34 - 96.72	1.91 - 155	0.03 - 2.63	0.15 - 13.5	0.54 - 46.6	1.16 - 82.43	2.05 - 130	
	dm³/h	0.15 - 14.5	0.82 - 78	2.7 - 233	7.4 - 657	11 - 1000	0.15 - 15.8	0.83 - 80	3.1 - 287	8.17 - 600	12 - 976	Low
	ft³/h	0.01 - 0.51	0.03 - 2.75	0.1 - 8.22	0.26 - 23.2	0.39 - 35.3	0.01 - 0.56	0.03 - 2.82	0.11 - 10.13	0.29 - 21.18	0.42 - 34.5	
fine	dm³/h	--	1.88 - 183	6.9 - 673	21.7 - 1965	31 - 2752	--	2.16 - 199	8.1 - 794	19.4 - 1690	34 - 3002	High
	ft³/h	--	0.07 - 6.46	0.24 - 23.8	0.77 - 69.4	1.09 - 97.2	--	0.08 - 7.02	0.29 - 28	0.68 - 59.7	1.2 - 106	
	dm³/h	--	0.42 - 37	1.4 - 140	4.4 - 433	6 - 576	--	0.46 - 42	1.7 - 165	4.19 - 393	7 - 639	Low
	ft³/h	--	0.01 - 1.31	0.05 - 4.94	0.16 - 15.3	0.21 - 20.3	--	0.02 - 1.48	0.06 - 5.82	0.15 - 13.9	0.25 - 22.6	

Screw speed (RPM): Gearbox **High (3.6:1)** = 5.6 - 555 **Low (18:1)** = 1.1 - 111

DC motor with KCM controller / Range 1:100 / Max. motor speed 2000 RPM

Vector-duty AC motor with KCM controller / Range 1:100 / Max. motor speed 1750 RPM

Configuration

Description	Alternatives	Remarks	Weight kg (lb)
Vertical agitator	KS: 230/400 VAC 180, 250 W IP55	4D (50 L, 80 L) 6D (110 L, 180L)	25 (55) 36 (79)
Cover	KA: 115/230 VAC 0.25, 0.33 HP or 100/200 VDC 0.33 HP	2D 4D 6D	1 (2.2) 2 (4.4) 3 (6.6)
Extension hopper		2D, 4D or 6D	see below
Horiz. agitator			0.7 (1.5)
Trough	5 L		2.5 (5.5)
Gearbox			15 (33)
Motor	100/200 VDC 450 W IP65	standard: 450 W DC	12 (26.4)
Screws	CKS: 3x230 VAC CKA: 3x220 VAC 370/450 W IP65	see page 1	1 (2.2)
Outlet	Horiz. outlet Vertical outlet Pressure compensation	standard: horiz. outlet	1 (2.2)

Materials:

Product contact parts*: Stainless steel
DIN 1.4404, 1.4435 (AISI 316L)
DIN 1.4409 (ASTM A743 CF3M)

*Horiz. agitator: DIN 1.4034 (AISI 420) standard
DIN 1.4404 (AISI 316L) option

Seals: PTFE, Neoprene, Silicon

Painting: Light gray RAL 7035

Temperature-Limits:

Ambient: 0...40°C [32...104°F]

Material: 0...50°C [32...122°F]

for other material temperatures contact factory

Dimensions mm [in]

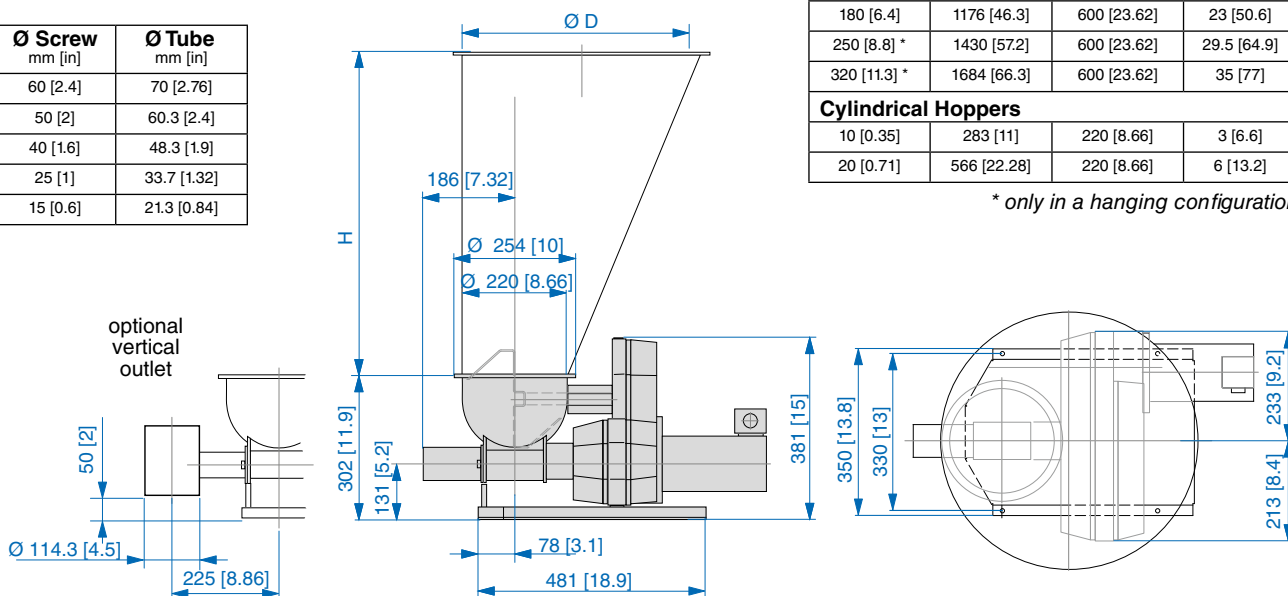
Ø Screw mm [in]	Ø Tube mm [in]
60 [2.4]	70 [2.76]
50 [2]	60.3 [2.4]
40 [1.6]	48.3 [1.9]
25 [1]	33.7 [1.32]
15 [0.6]	21.3 [0.84]

Options

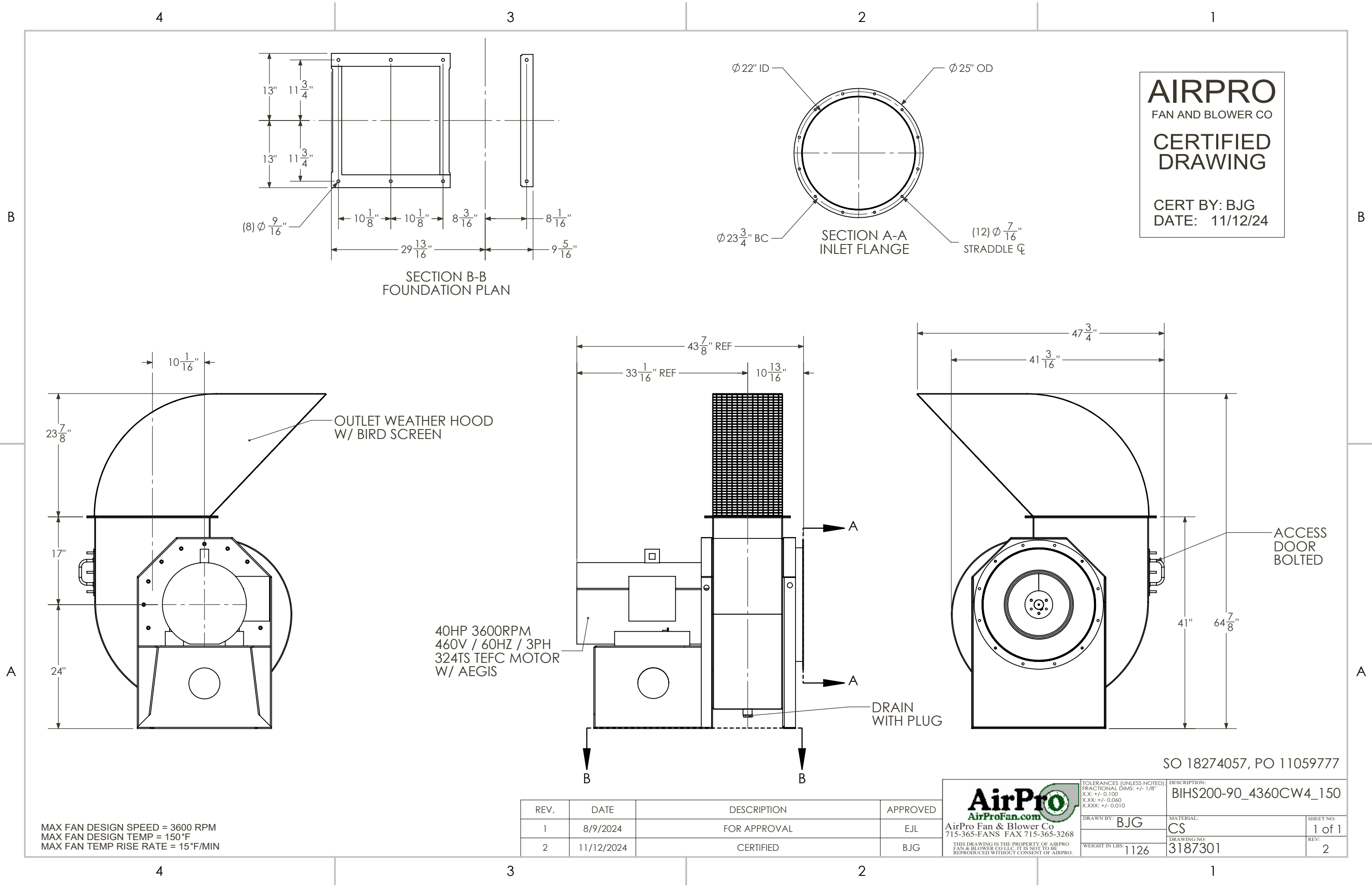
- 1 Standard hopper
- 2 Vertical outlet
- 3 Special paint / finish
- 4 Extended screws

Volume dm³ [ft³]	H mm [in]	D mm [in]	Weight kg [lb]
Asymmetrical Hoppers			
50 [1.76]	615 [24.2]	400 [15.75]	7 [15.4]
80 [2.8]	869 [34.2]	400 [15.75]	11 [24.2]
110 [3.88]	922 [36.3]	600 [23.62]	17 [37.4]
180 [6.4]	1176 [46.3]	600 [23.62]	23 [50.6]
250 [8.8] *	1430 [57.2]	600 [23.62]	29.5 [64.9]
320 [11.3] *	1684 [66.3]	600 [23.62]	35 [77]
Cylindrical Hoppers			
10 [0.35]	283 [11]	220 [8.66]	3 [6.6]
20 [0.71]	566 [22.28]	220 [8.66]	6 [13.2]

* only in a hanging configuration



Caution: these measurements are for general reference only. Please consult dimensional drawing for exact measurements



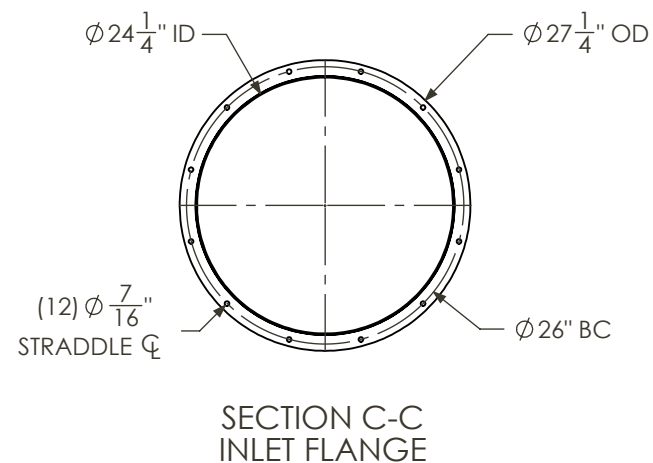
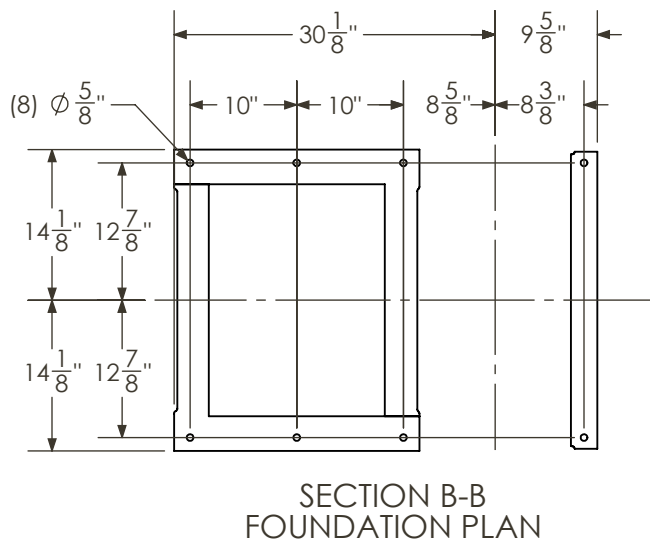
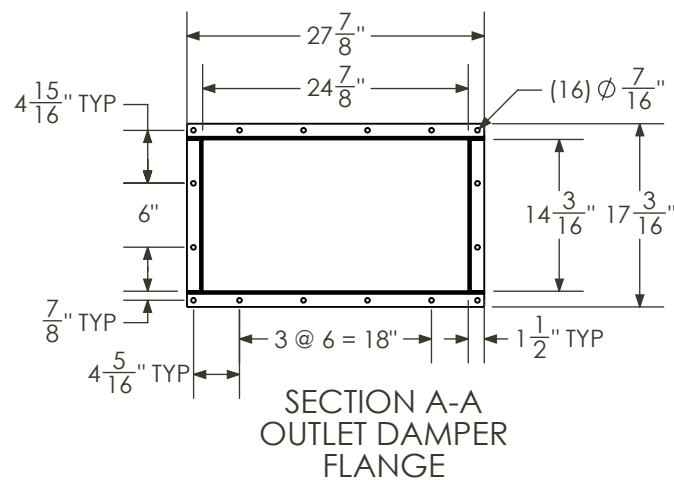
4

3

2

1

B

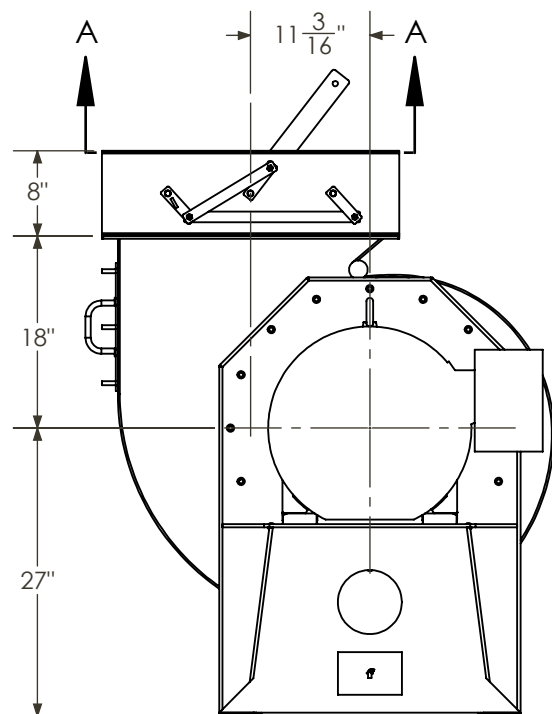


AIRPRO
FAN AND BLOWER CO
**CERTIFIED
DRAWING**

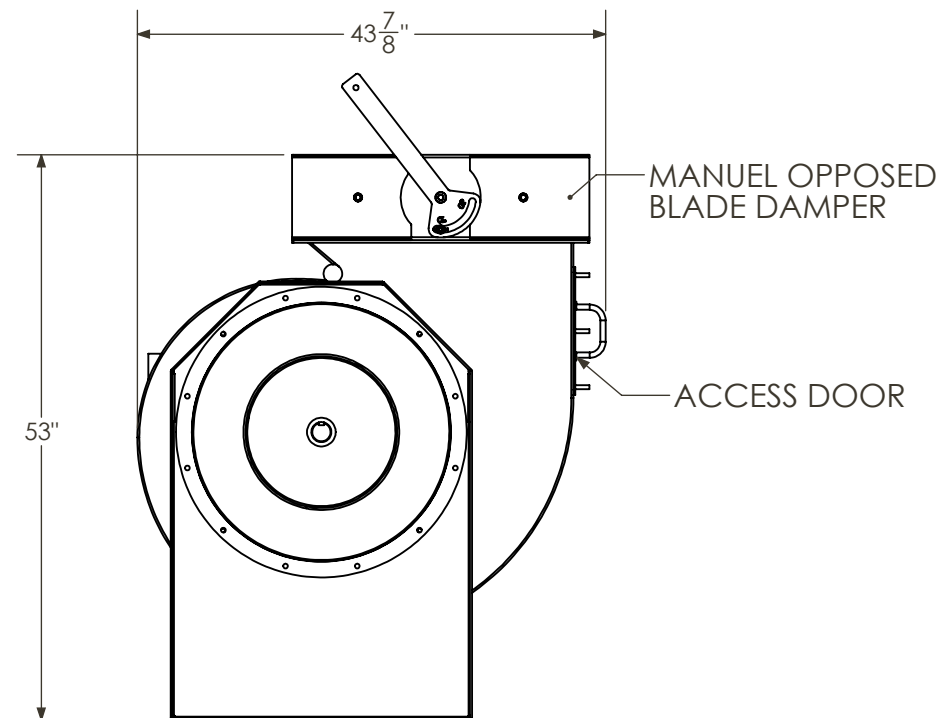
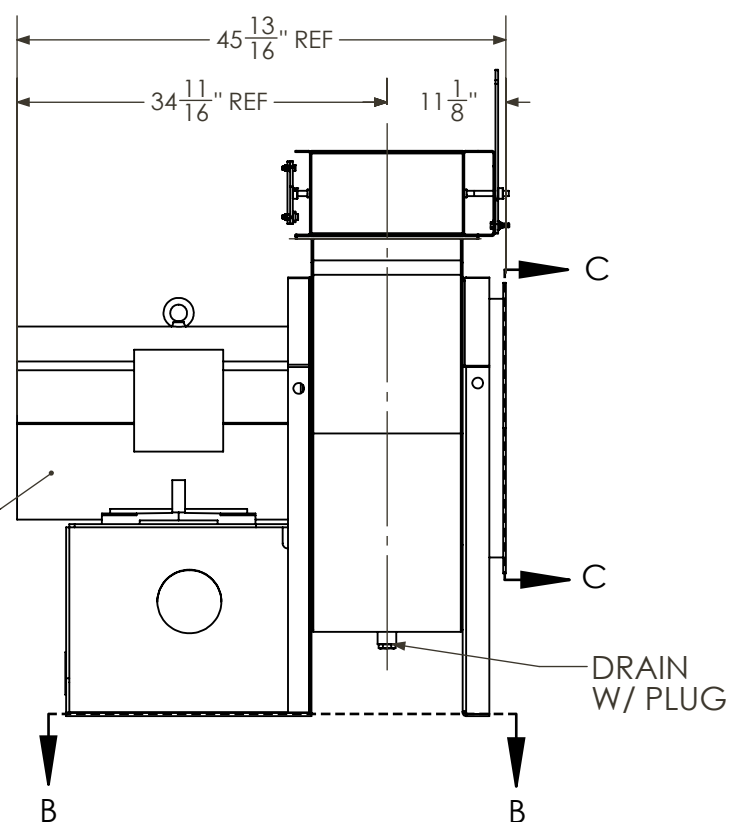
CERT BY: RCH
DATE: 11/27/24

B

A



60 HP 3600 RPM
460 V/ 60 Hz / 3 PH
364TS TEFC MOTOR



A

MAX FAN DESIGN SPEED = 3600 RPM
MAX FAN DESIGN TEMP = 150°F
MAX FAN TEMP RISE RATE = 15°F/MIN

4

3

2

1

REV.	DATE	DESCRIPTION	APPROVED
1	11/27/2024	FOR CERTIFIED	RCH

 AirPro Fan & Blower Co 715-365-FANS FAX 715-365-3268 THIS DRAWING IS THE PROPERTY OF AIRPRO FAN & BLOWER CO LLC. IT IS NOT TO BE REPRODUCED WITHOUT CONSENT OF AIRPRO.	TOLERANCES (UNLESS NOTED): FRACTIONAL DIMS: +/- 1/8" X.X: +/- 0.100 X.XX: +/- 0.060 X.XXX: +/- 0.010		DESCRIPTION: BIHS222-80_4360CW4_150	
	DRAWN BY:	RCH	MATERIAL:	CS
	WEIGHT IN LBS:	1524	DRAWING NO:	3242301
			SHEET NO:	1 of 1
			REV:	1