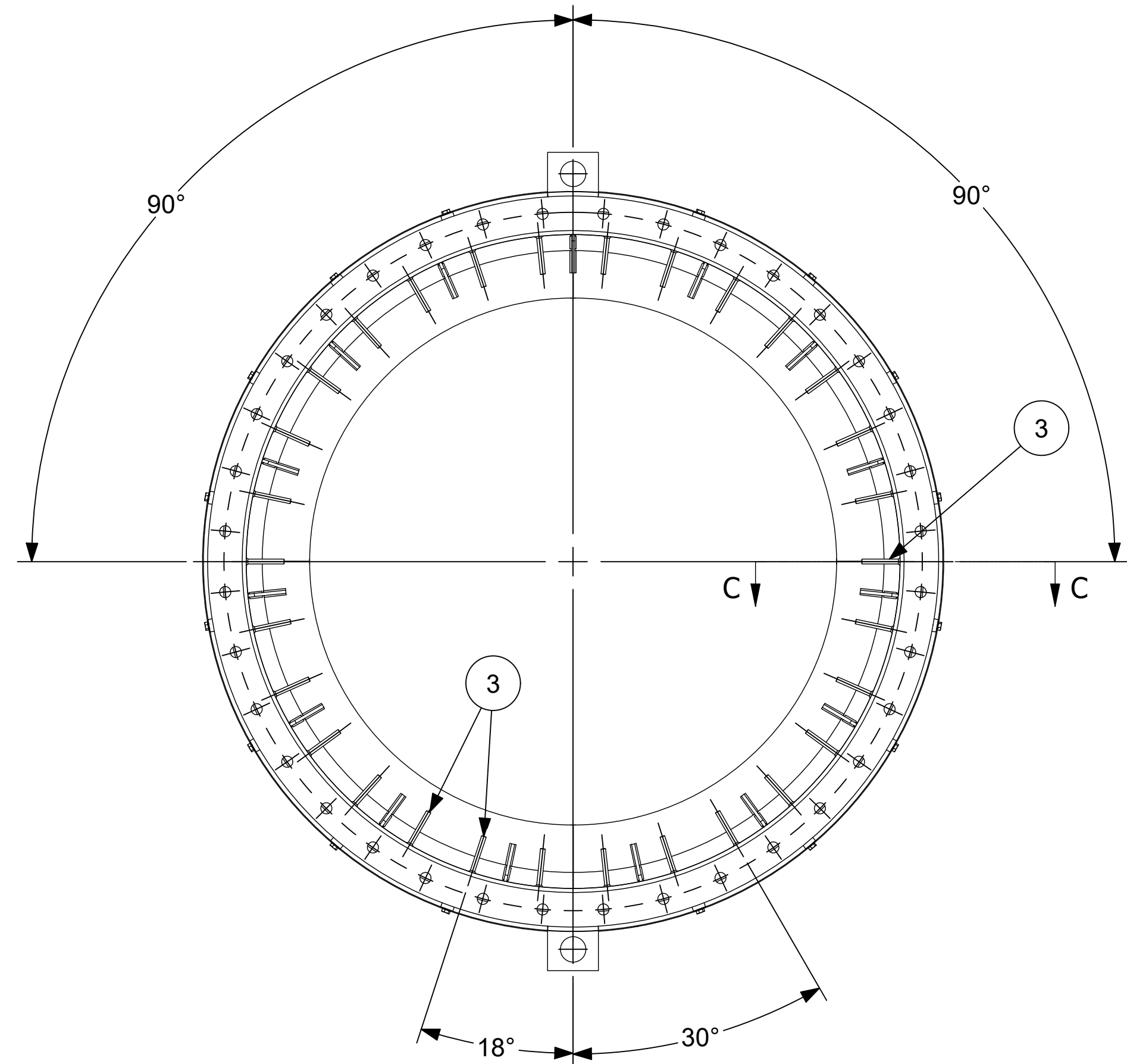
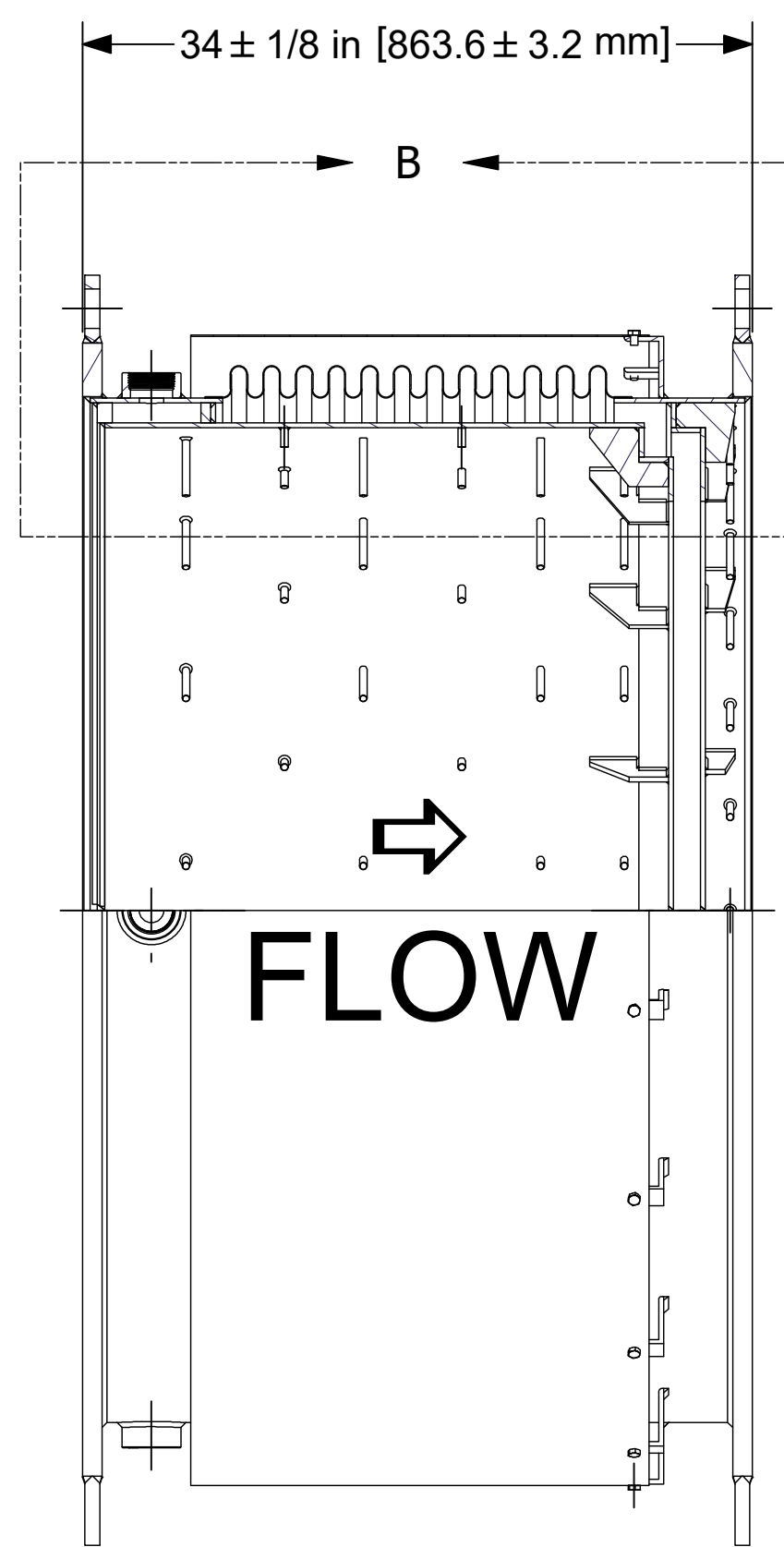
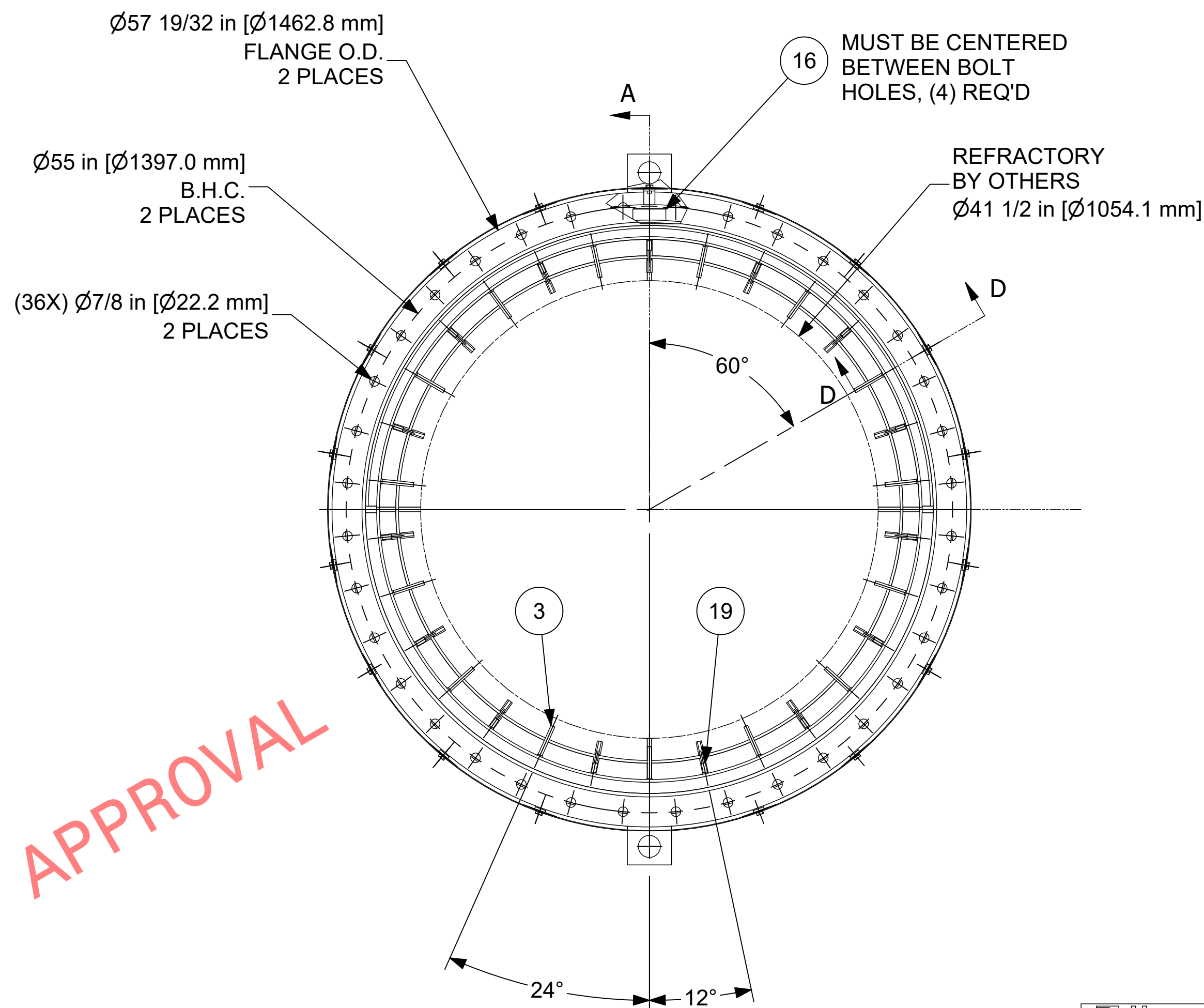


1				
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
ALL	X1	PRELIMINARY RELEASE	2/26/2025	VR/ZT
	X2	FLANGE HOLES WERE 7/8 DIA	4/25/2025	VR/ZT
	X3	FLANGE B.H.C. WAS 60.5", HOLES WERE 1-7/8" DIA. AND O.D. WAS 64"	6/05/2025	VR/ZT

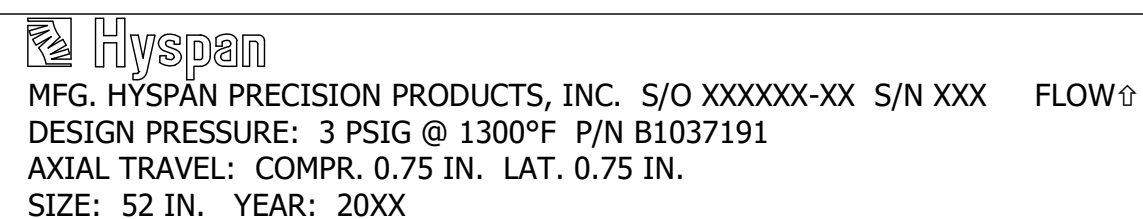


FOR APPROVAL

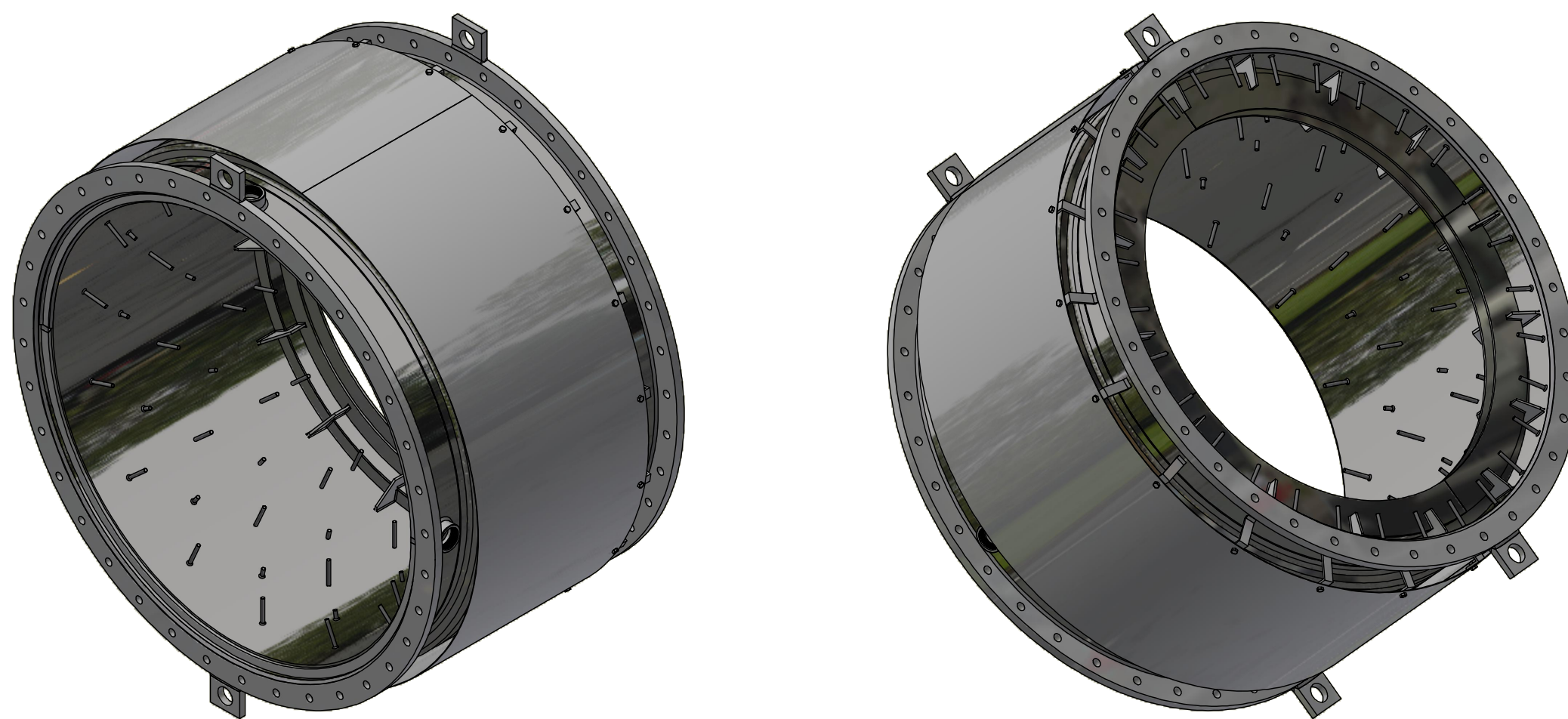
SECTION A-A

DRAWING NOTES:


1. DESIGNED IN ACCORDANCE WITH THE STANDARDS OF THE EXPANSION JOINT MANUFACTURERS ASSOCIATION, 10TH EDITION.
2. EXTERNAL SHIPPING RESTRAINTS (PAINTED YELLOW) TO BE MARKED "REMOVE AFTER INSTALLATION". REMOVE PRIOR TO PRESSURE TESTING.
3. DESIGN CONDITIONS
 - DESIGN PRESSURE : 3 PSIG
 - TEST PRESSURE : JET AIR
 - DESIGN TEMPERATURE : 1,300°F
 - AXIAL TRAVEL : 0.75 IN. COMPRESSION
 - AXIAL SPRING RATE : 244 LB/IN.
 - LATERAL OFFSET : 0.75 IN.
 - LATERAL SPRING RATE : 1,790 LB/IN.
 - EFFECTIVE AREA : 2,259.79 IN²
 - LIFE : 1,000 CYCLESMOTIONS NON-CONCURRENT
4. ALL WELDING PER ASME BOILER AND PRESSURE VESSEL CODE SECTION IX.
5. STANDARD SHOP NDE OF ALL PRESSURE CARRYING WELDS.
6. FLANGE DRILLING TO STRADDLE COMMON CENTERLINE (TYP).
7. FLOW DIRECTION TO BE MARKED ON TWO SIDES OF UNIT WITH BLACK PAINT. FLOW ARROW SHOULD BE 12"LONG BY 6"WIDE.
8. REFRACTORY AND REFRACTORY ANCHORS ON STUDS TO BE INSTALLED BY OTHERS.
9. BELLWS IS DESIGNED FOR A MAXIMUM OPERATING TEMPERATURE OF 1,300°F, HOWEVER DESIGN TEMPERATURE IS SET AT 300°F, TO BE MAINTAINED BY REFRACTORY LINING AND PURGE AIR SYSTEM. MINIMUM COOLING REQUIRED IS 42 SCFM @150°F
10. MATERIAL CERTS REQ'D FOR ITEMS B1037191-01 THRU -16, -19, -21 & -22
11. SHOP BLAST FLANGES TO SSPC-SP10 & PRIME WITH (1) COAT OF TNE MEC SERIES N90E92 OR EQUAL 2.0-3 5 DRY MILS.
12. ENDS TO BE COVERED WITH PLYWOOD FOR SHIPPING
13. COAT EXTERIOR CARBON STEEL SURFACES (IETM B1037191-20 ONLY) WITH ONE COAT OF RUST PREVENTATIVE PAINT.
14. CALCULATED WEIGHT : 1352 LBS. [613 KGS.]

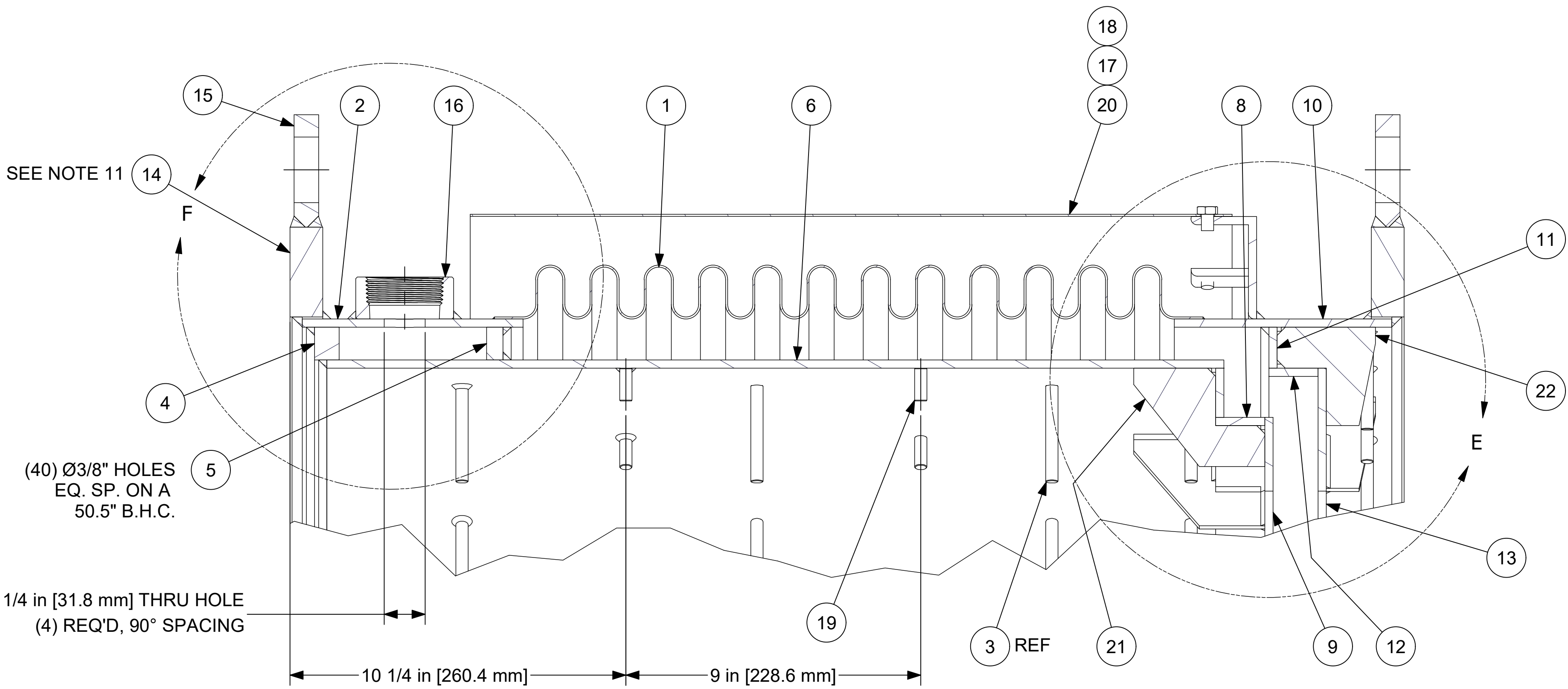


P/N B1037191-23



Parts List				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	B1037191-01	BELLOWS, 52.000 I.D., 5 PLY, 0.012 THK.	ASTM A240-316
2	1	B1037191-02	ROLLED PIPE, 52.0 O.D., 0.250 WALL	ASTM A240-316
3	90	B1037191-03	ROD, TIE, 3/8-16 UNC, 3 LG.	ASTM A193-B8M
4	1	B1037191-04	RING	ASTM A240-316
5	1	B1037191-05	RING	ASTM A240-316
6	1	B1037191-06	ROLLED PIPE	ASTM A240-316
7	1	B1037191-07	RING, PLATE	ASTM A240-316
8	1	B1037191-08	ROLLED PIPE	ASTM A240-316
9	1	B1037191-09	RING, PLATE	ASTM A240-316
10	1	B1037191-10	ROLLED PIPE	ASTM A240-316
11	1	B1037191-11	RING, PLATE	ASTM A240-316
12	1	B1037191-12	ROLLED PIPE	ASTM A240-316
13	1	B1037191-13	RING, PLATE	ASTM A240-316
14	2	B1037191-14	PLATE FLANGE, 57.6 O.D., 1.0 THK.	ASTM A516-70
15	4	B1037191-15	LIFTING LUG	ASTM A240-316
16	4	B1037191-16	HALF COUPLING, NPT FEMALE X BUTT WELD	316SS
17	18	B1037191-17	ANGLE CLIP	S'STL
18	18	B1037191-18	BOLT, HEX HEAD	SAE J429
19	30	B1037191-19	ROD, TIE	ASTM A193-B8M
20	1	B1037191-20	SHROUD, REM.	ASTM A1008-CS-B
21	15	B1037191-21	GUSSET	ASTM A240-316
22	15	B1037191-22	GUSSET	ASTM A240-316
23	1	B1037191-23	TAG	ASTM A240-304

UNLESS OTHERWISE NOTED		DRAWN V.ROBLES	2/26/2025	 <div><div>Hyspan</div><div><div>Hyspan Precision Products, Inc.</div><div>1686 Brandywine Avenue</div><div>Chula Vista, California 91911</div></div><div><div>Phone (619) 421-1355</div><div>Fax (619) 421-1702</div><div>Web www.hyspan.com</div></div></div>		
DIMENSIONS ARE IN INCHES TOLERANCE IN ACCORDANCE WITH EJMA		CHECKED ZT MFG IK/DS/JS			TITLE EXPANSION JOINT, SINGLE, FLANGED ENDS, 52 INCH NOMINAL	
Copyright©2025 Hyspan Precision Products, Inc. All rights reserved.		APPROVED ZT			SIZE	
		Information proprietary to Hyspan Precision Products, Inc. is contained on this drawing. Disclosure or use is expressly prohibited except as agreed to in writing by Hyspan.			D SCALE	B1037191
				CODE IDENT 30009	SHEET 1 OF 3	REV X3

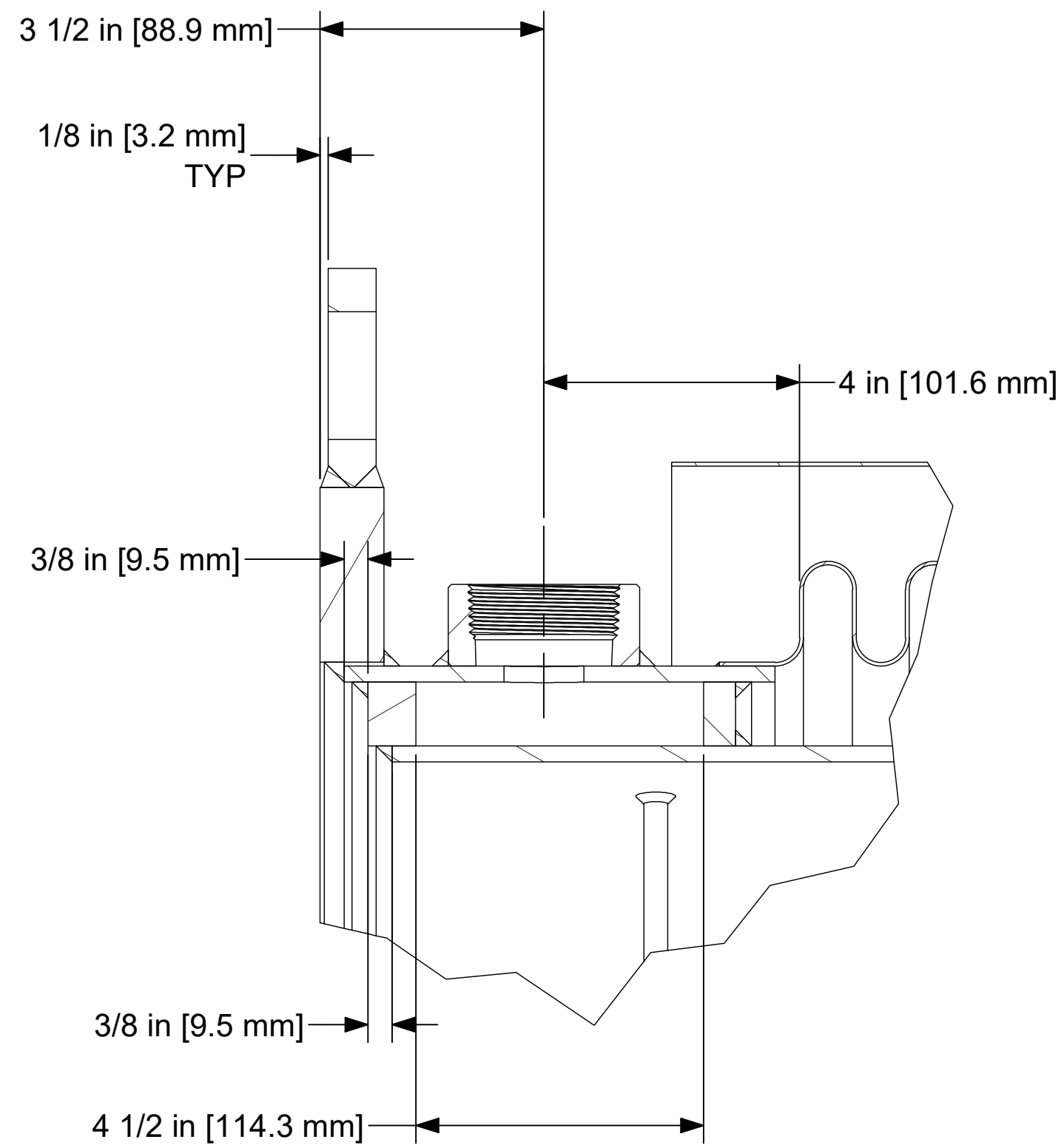


SEE NOTE 11

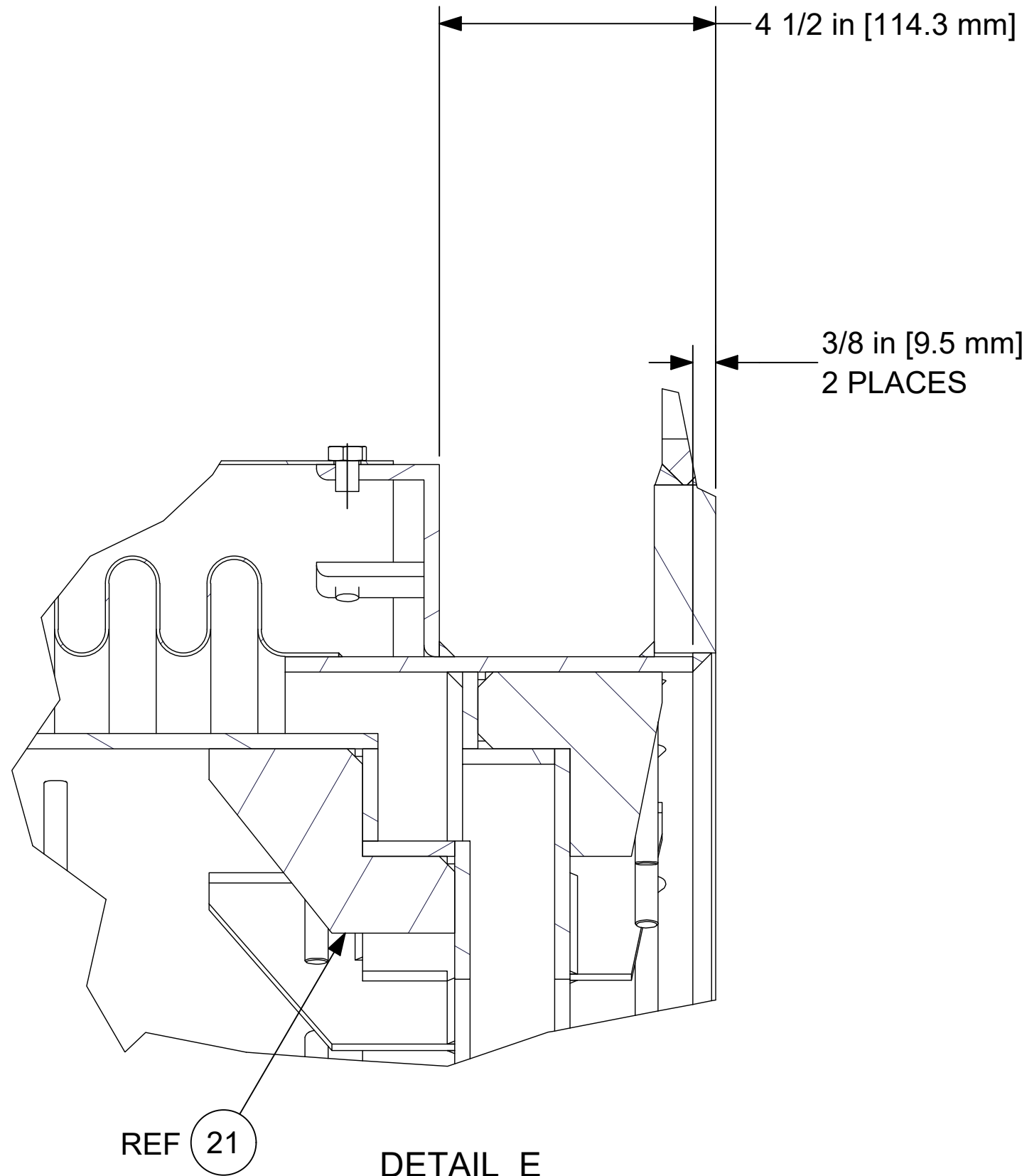
(40) Ø3/8" HOLES
EQ. SP. ON A
50.5" B.H.C.

1 1/4 in [31.8 mm] THRU HOLE
(4) REQ'D, 90° SPACING


DETAIL B



DETAIL F



DETAIL E

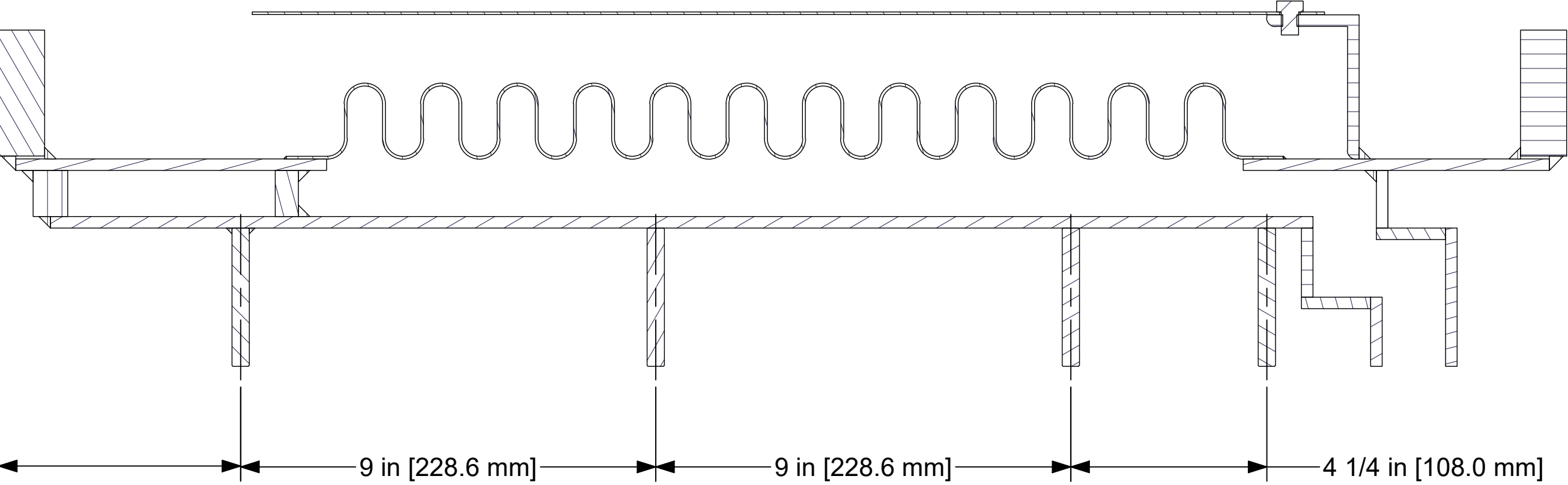
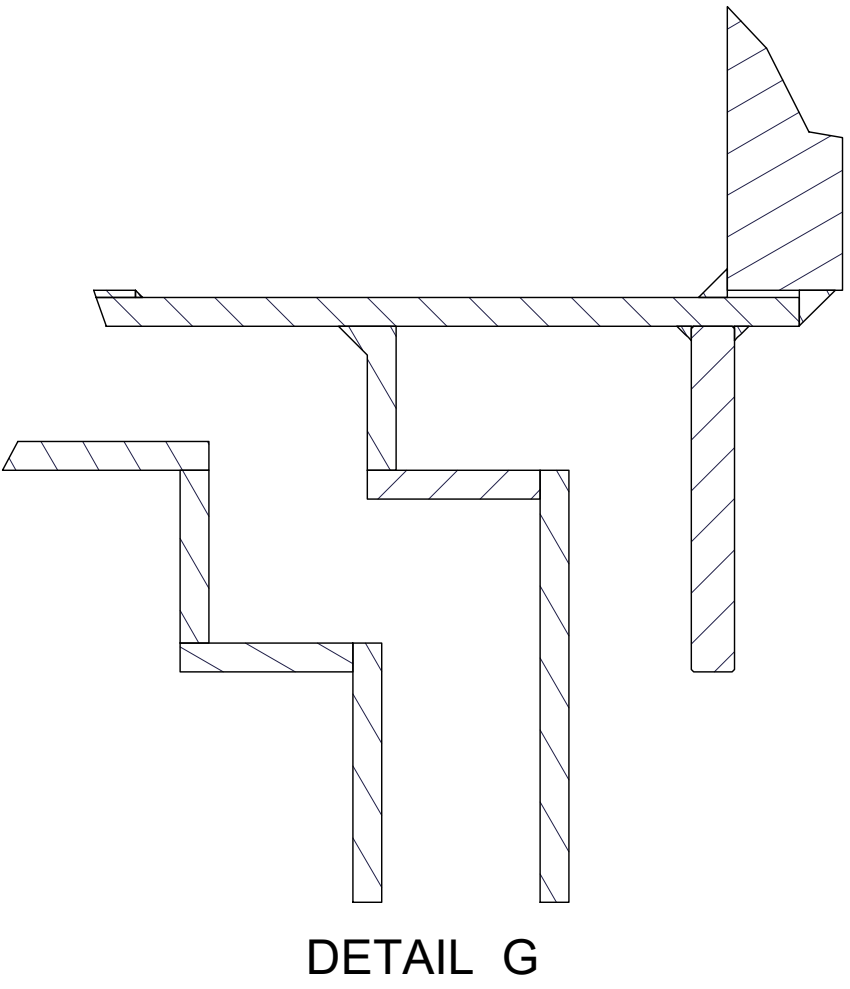
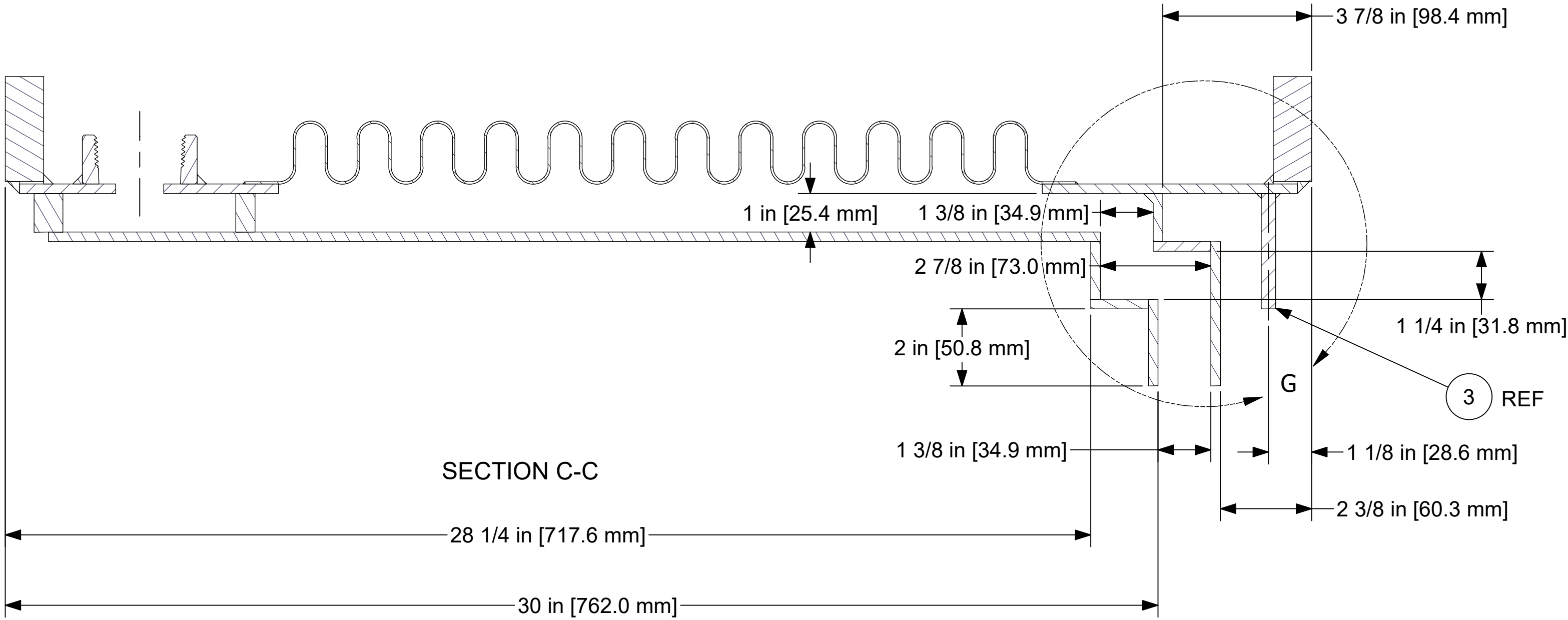
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	CHECKED ZT					
	MFG IK/DS/JS					
	APPROVED ZT					
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SCALE		CODE IDENT 30009		SHEET 2 OF 3		


4

3

2

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	MFG IK/DS/JS				
	APPROVED ZT				
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		SCALE	CODE IDENT 30009	SHEET 3	OF 3