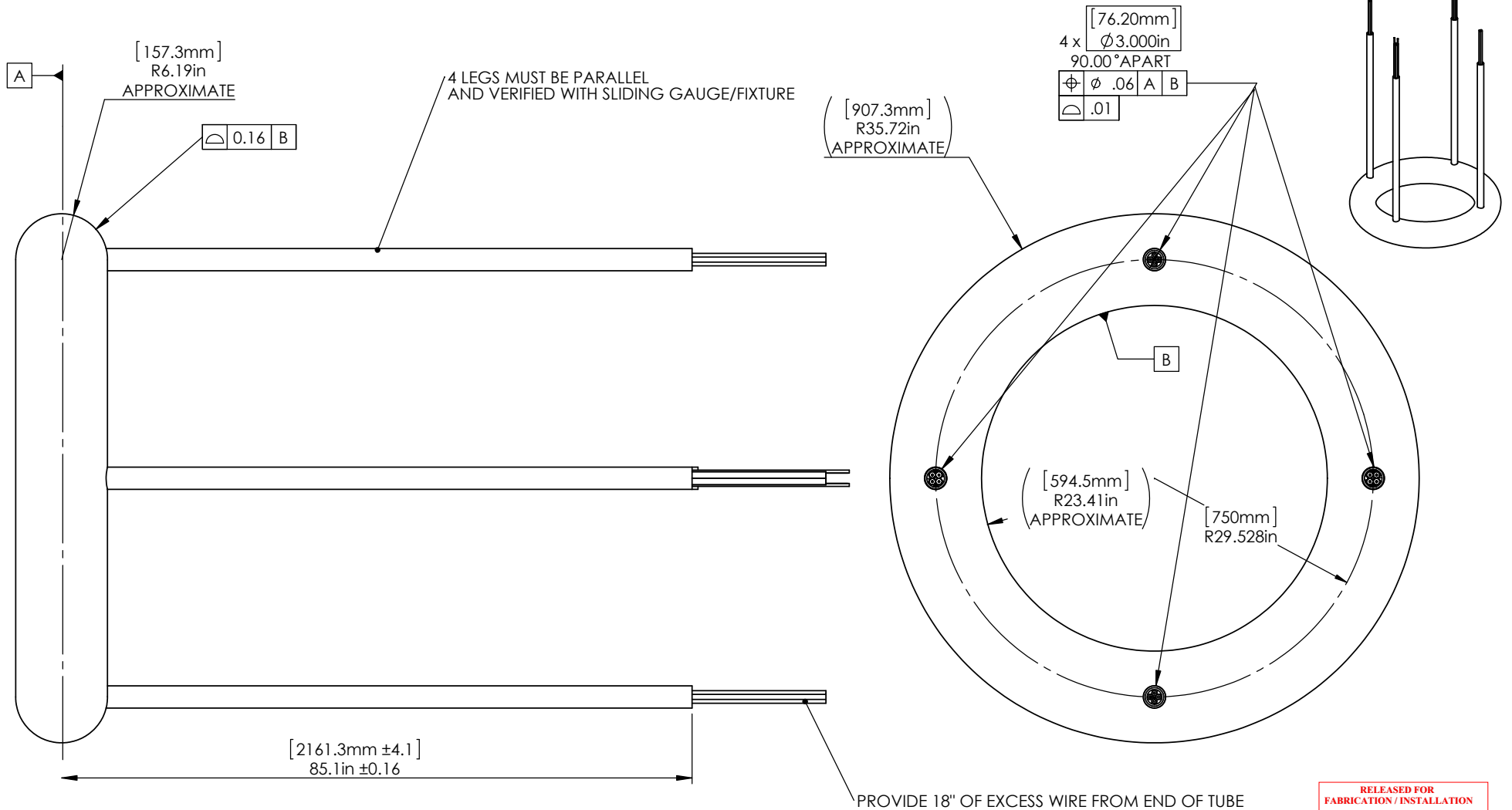


FLARE FLUX CORE ASSEMBLY



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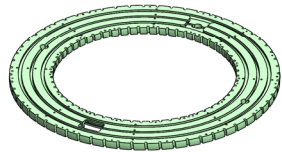
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		TOLERANCES:	CHECKED	J MITCHELL	
		FRACTIONAL ± 0.1	ENG APPR.	M KALISH	
		ANGULAR: MACH ± BEND ±	MFG APPR.		
		TWO PLACE DECIMAL ± 0.01			
		THREE PLACE DECIMAL ± 0.005			
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
		MATERIAL	COMMENTS:		
		FINISH			
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APPLICATION		DO NOT SCALE DRAWING			

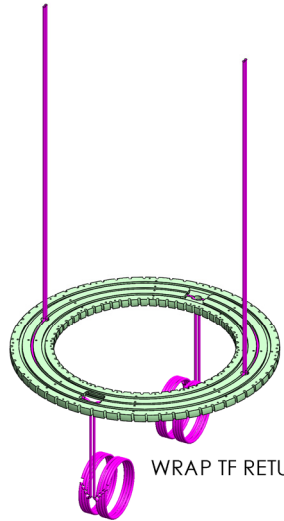
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FLARE FLUX CORE ASSEMBLY PROCESS

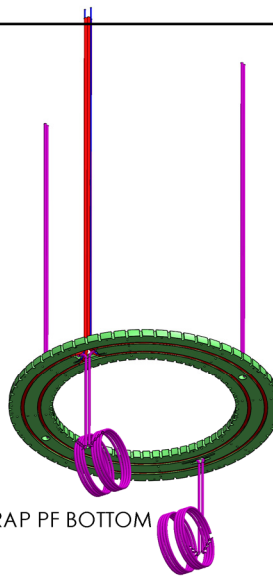
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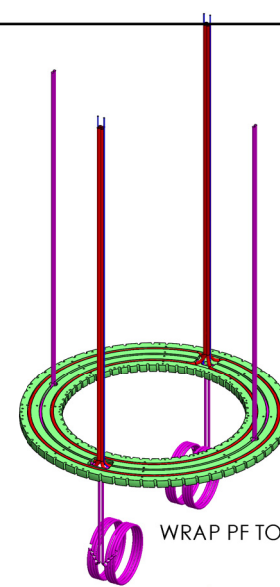
G-10 MIDDLE



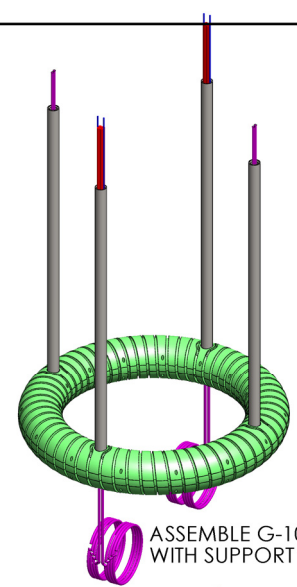
WRAP TF RETURN



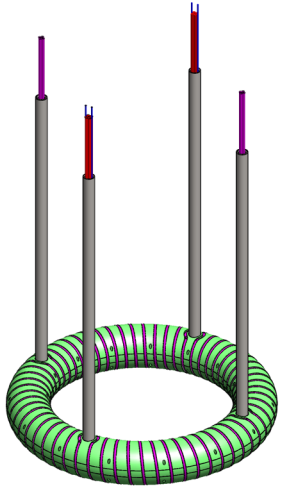
WRAP PF BOTTOM



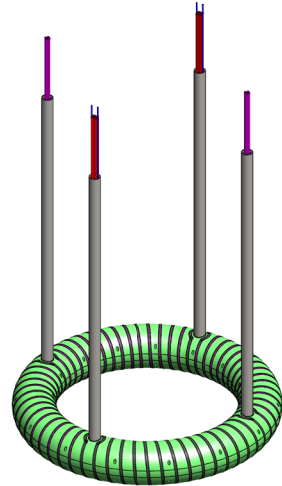
WRAP PF TOP



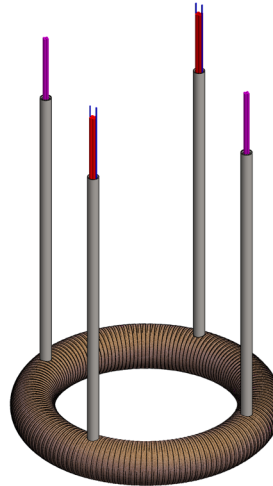
ASSEMBLE G-10 CORE WITH SUPPORT TUBES



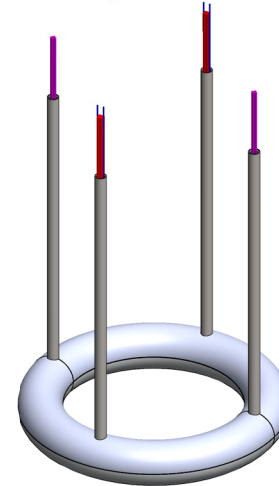
WRAP TF AND INSERT SUPPOR TUBE O-RINGS



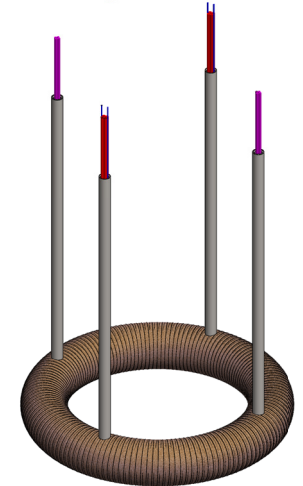
EPOXY PUTTY FILL TF GROOVES,



1ST EPOXY TAPE WRAP 3 WINDINGS, 1/2 LAPPED



ALUMINUM SHELLS AND EPOXY INTO GAPS

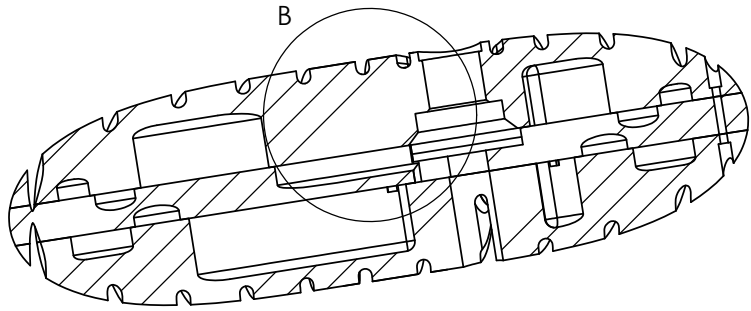


2ND EPOXY TAPE WRAP 6 WINDINGS, 1/2 LAPPED

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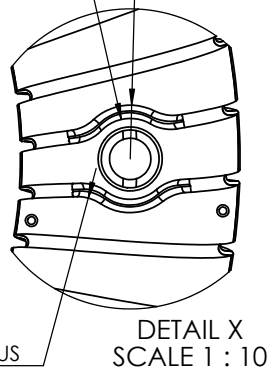
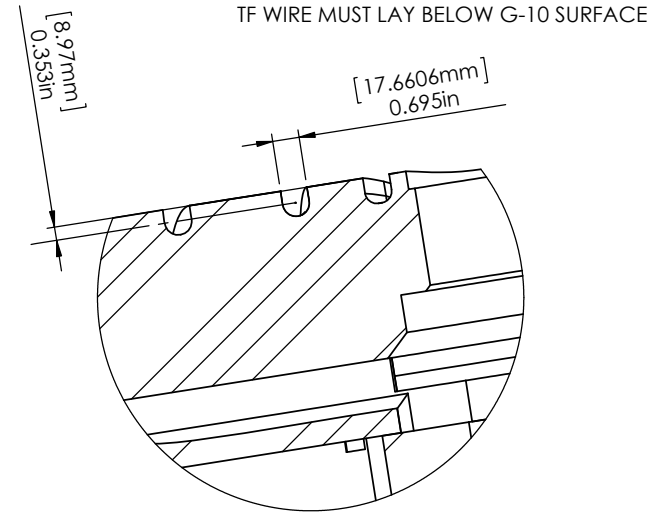
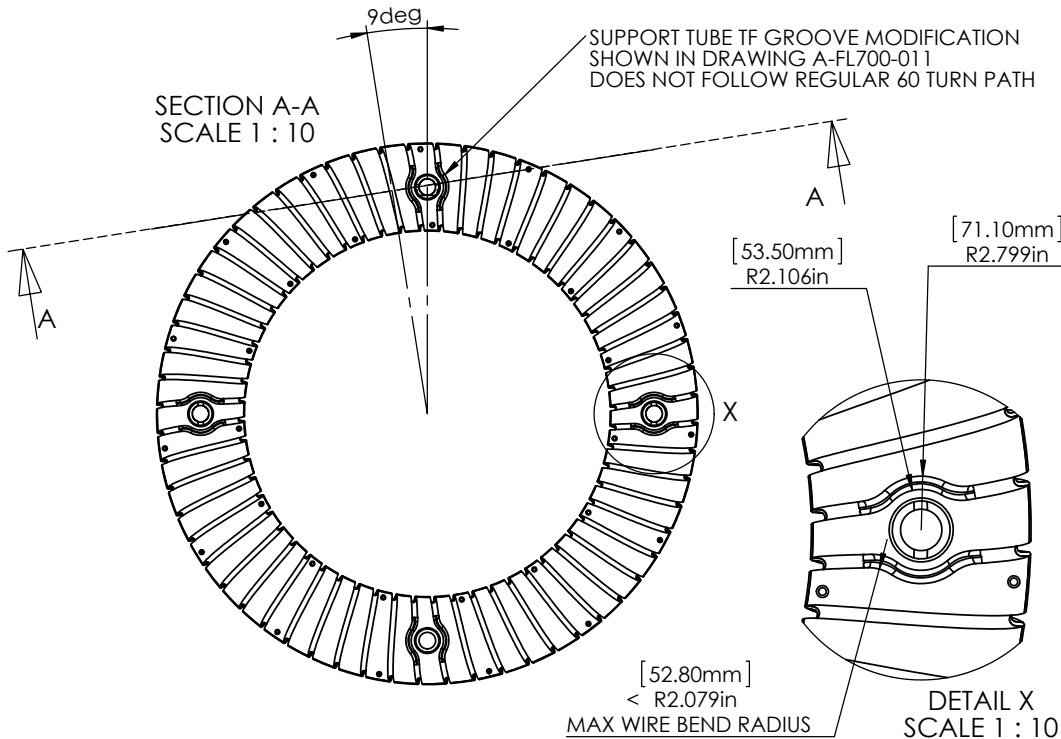
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		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL		FLARE Flux Core TOTAL Assem REV J 3-10-15 A-FL700-001	
		MATERIAL	ENG APPR.	M KALISH		SIZE	DWG. NO.
NEXT ASSY	USED ON	FINISH	MFG APPR.			A	A-FL700-001
APPLICATION		DO NOT SCALE DRAWING	Q.A.			SCALE: 1:50	WEIGHT:
			COMMENTS:				REV
							SHEET 2 OF 2



TOROIDAL CUT

- 60 TURNS
- START TURNS AT 9 DEGREE OFFSET
- WHEN LAYERS ASSEMBLED AND PINNED SAND SMOOTH WIRE GROOVE TRANSITION BETWEEN LAYERS
- DEBURR ALL EDGES



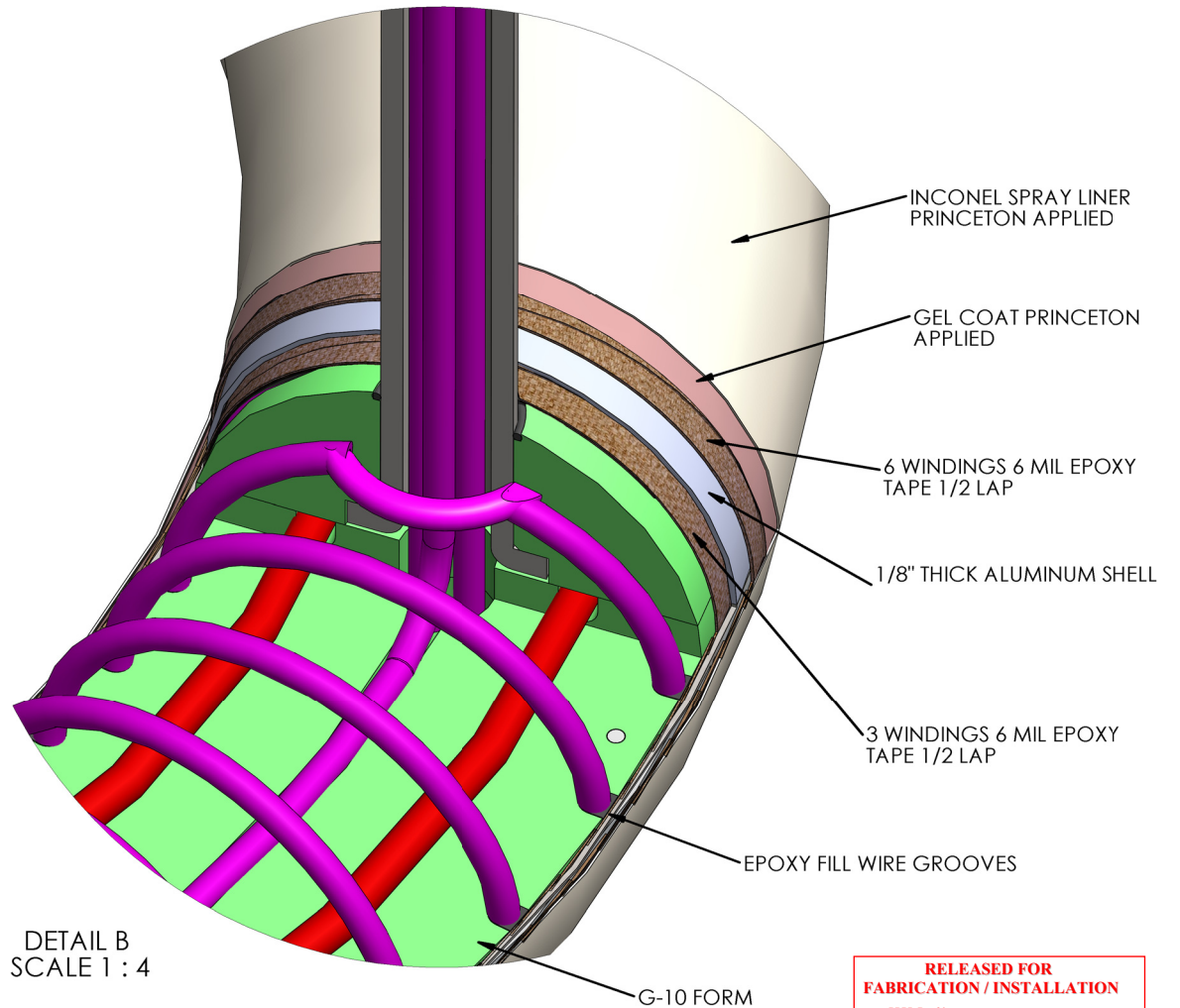
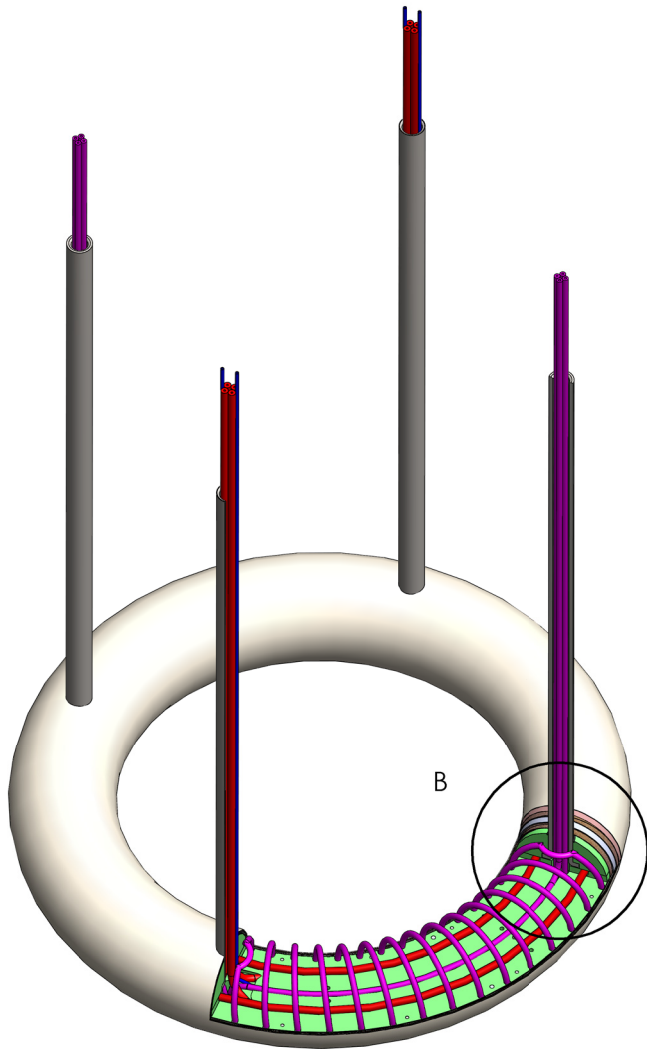
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DEBURR ALL EDGES

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		MATERIAL	ENG APPR.	M KALISH	
		FINISH	MFG APPR.		
NEXT ASSY	USED ON		Q.A.		SIZE
APPLICATION		DO NOT SCALE DRAWING	COMMENTS:		DWG. NO.
					A A-FL700-004
					REV
					SCALE: 1:25
					WEIGHT: 837 LBS
					SHEET 2 OF 2



DETAIL B
SCALE 1 : 4

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		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL	TITLE: FLARE Flux Core Assem REV J A- FL700-006						
		MATERIAL	ENG APPR.	M KALISH							
		FINISH	MFG APPR.								
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SIZE	DWG. NO.	REV									
A	A-FL700-006										
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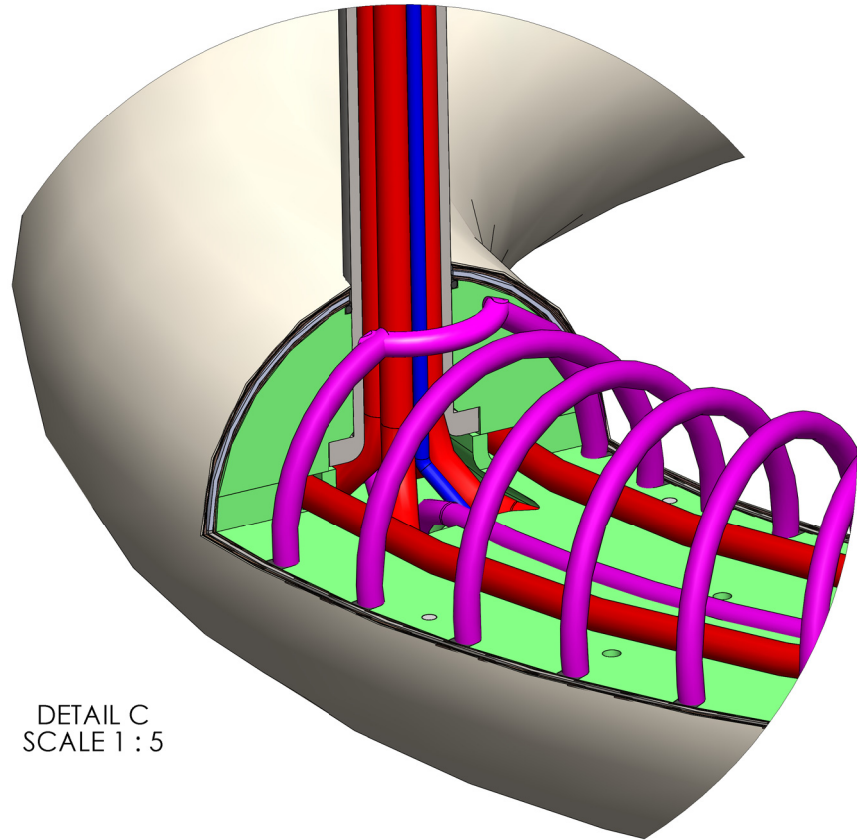
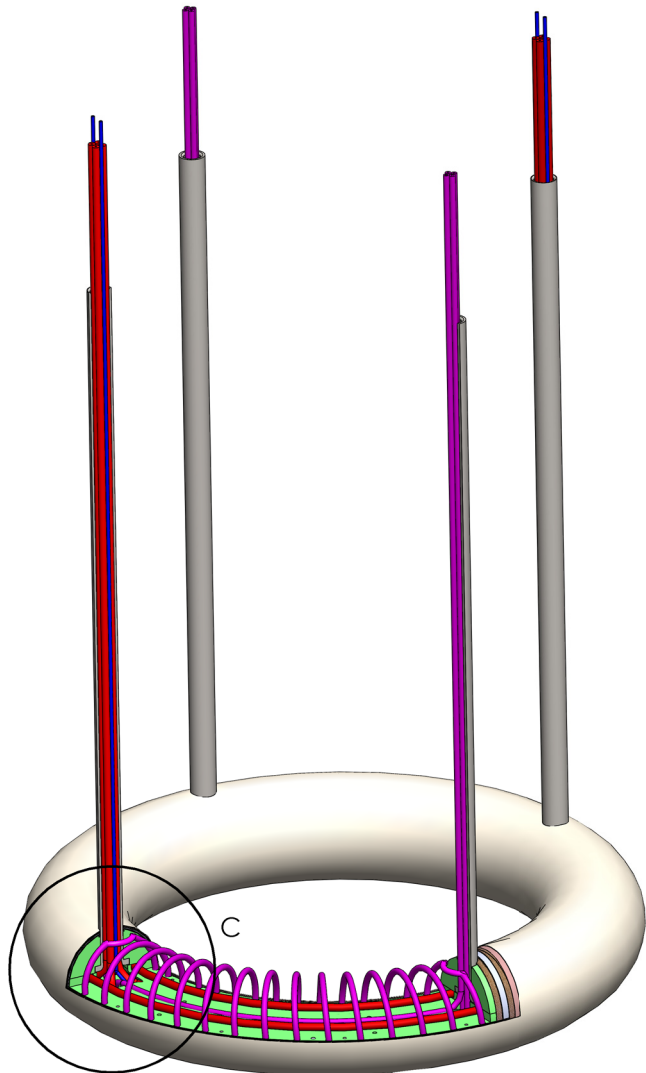
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3

2

1

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DETAIL C
SCALE 1 : 5

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APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:15 WEIGHT: SHEET 2 OF 4

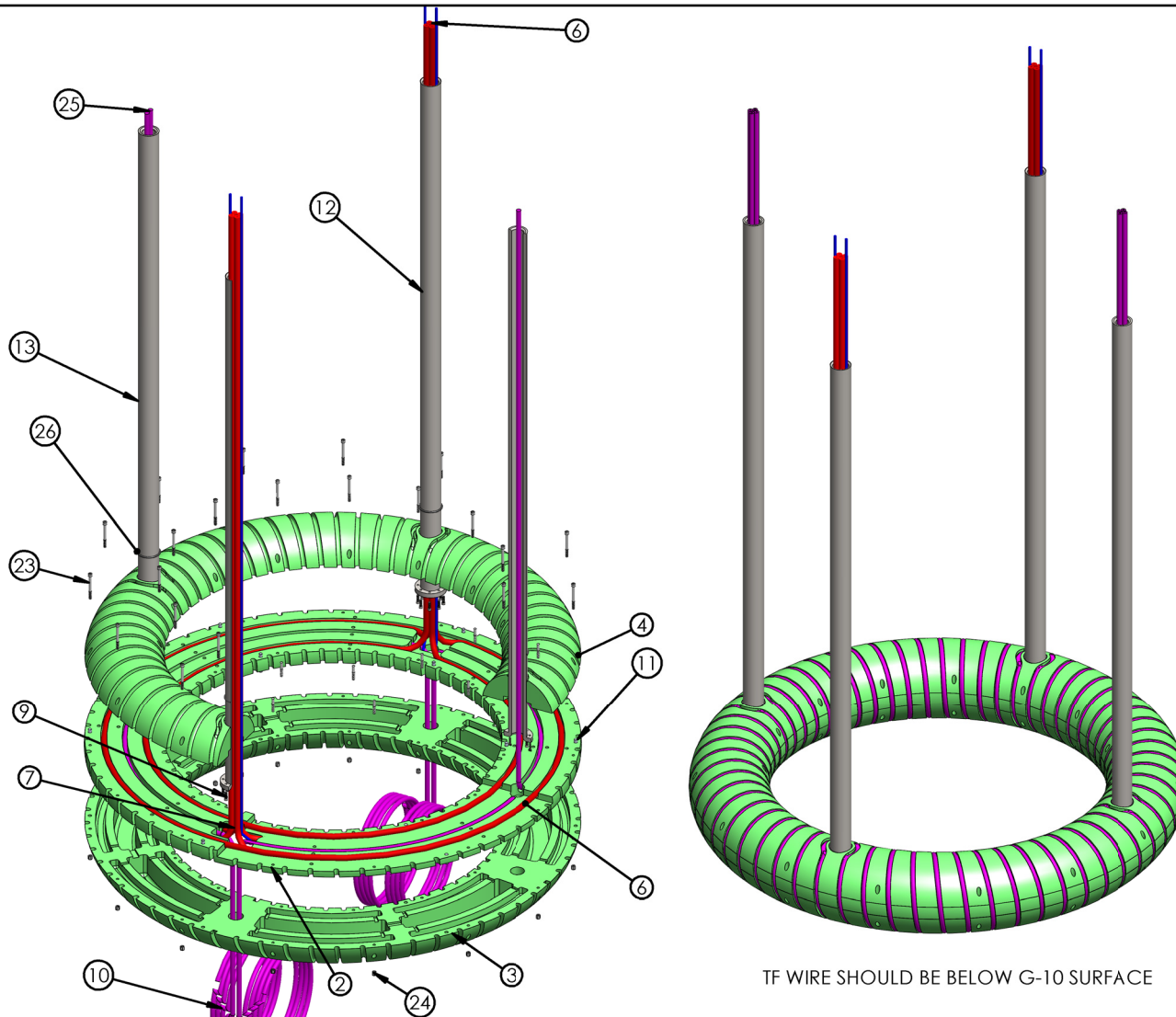
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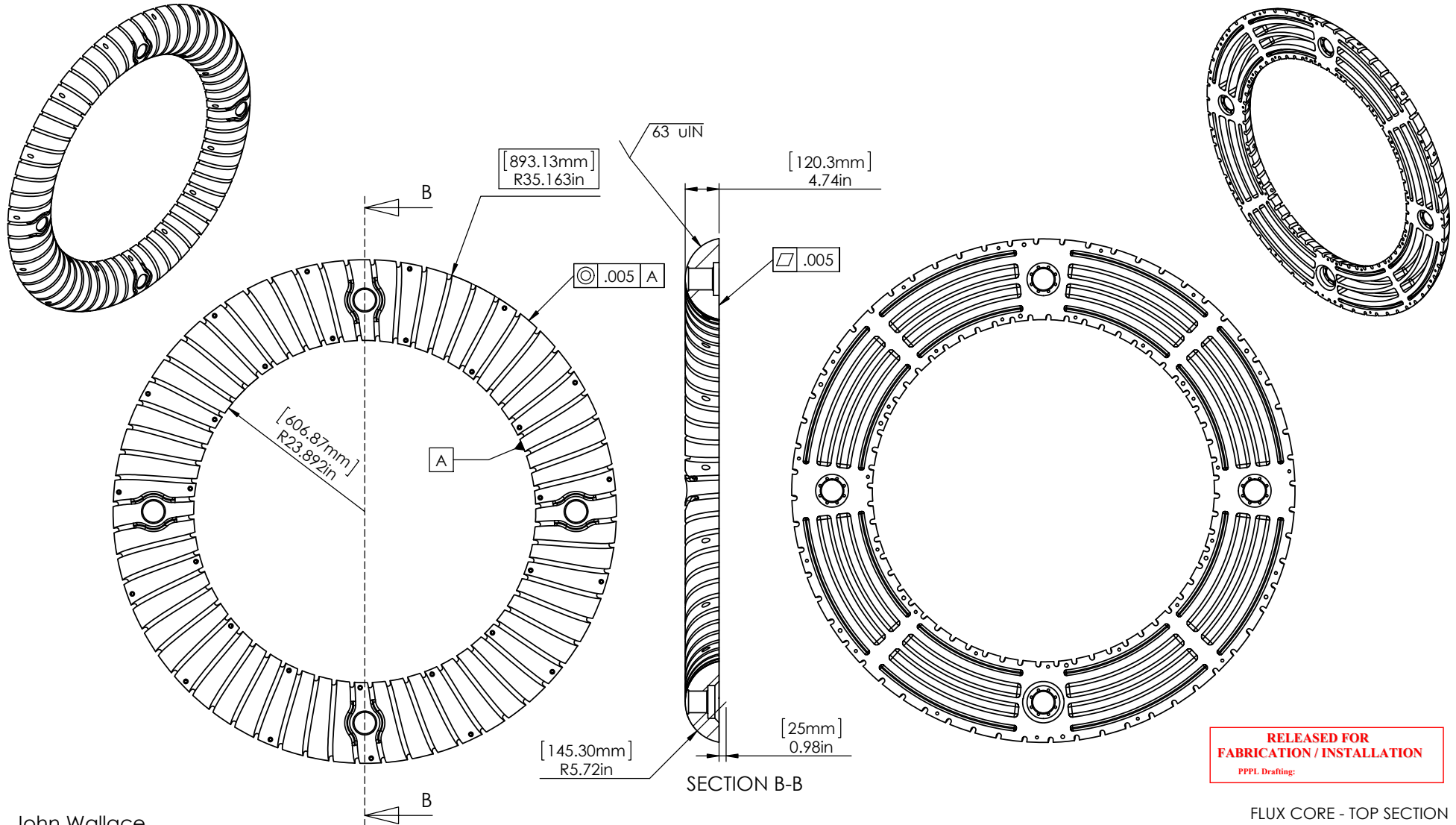
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3	FLARE FLUX CORE REV H BOT 3-3-15 A-FL700-014	1
4	FLARE FLUX CORE REV H TOP 3-3-15 A-FL700-011	1
5	FLARE FLUX CORE TF Wire Left quarter 12-17-14 A-FL700-052	2
6	FLARE FLUX CORE PF Wire REV G 21mm top wire A-FL700-051	1
7	FLARE FLUX CORE PF Wire REV G for 21mm bottom wire A-FL700-051	1
8	FLARE FLUX CORE TF Wire Right quarter 12-17-14 A-FL700-052	2
9	SHCAP SS 0.3125-18 X 1 MCM 92185A583SLDPR	32
10	FLARE FLUX CORE TF Wire Left quarter 15 turn for Assembly A-FL700-052	2
11	McMaster Carr 0.5in x 3in dowel pin 97395A785	12
12	FLARE FLUX CORE Support Tube PF A-FL700-042	2
13	FLARE FLUX CORE Support Tube TF A-FL700-041	2
14	FLARE FLUX CORE REV G Quarters 12-19-14 rot TF Groove fill	1
15	FLARE FLUX CORE REV G 1-27-15 Support Tube SEAL FILL	4
20	FLARE FLUX CORE TF Wire support tube fix	4
22	FLARE FLUX CORE AI Shell EDGE EPOXY FILL	1
23	SHCAP SS 0.375-16 X 3.75 MCM 92196A639	30
24	HEXNUT COUPLING NUT SS 0.375-16 MCM 90104A010	30
25	MirrorPPL MRX FLARE FLUX CORE TF Wire Left quarter 15 turn for Assembly	2
26	O-ring 337 3in ID 0.21 wide	4

TF WIRE SHOULD BE BELOW G-10 SURFACE

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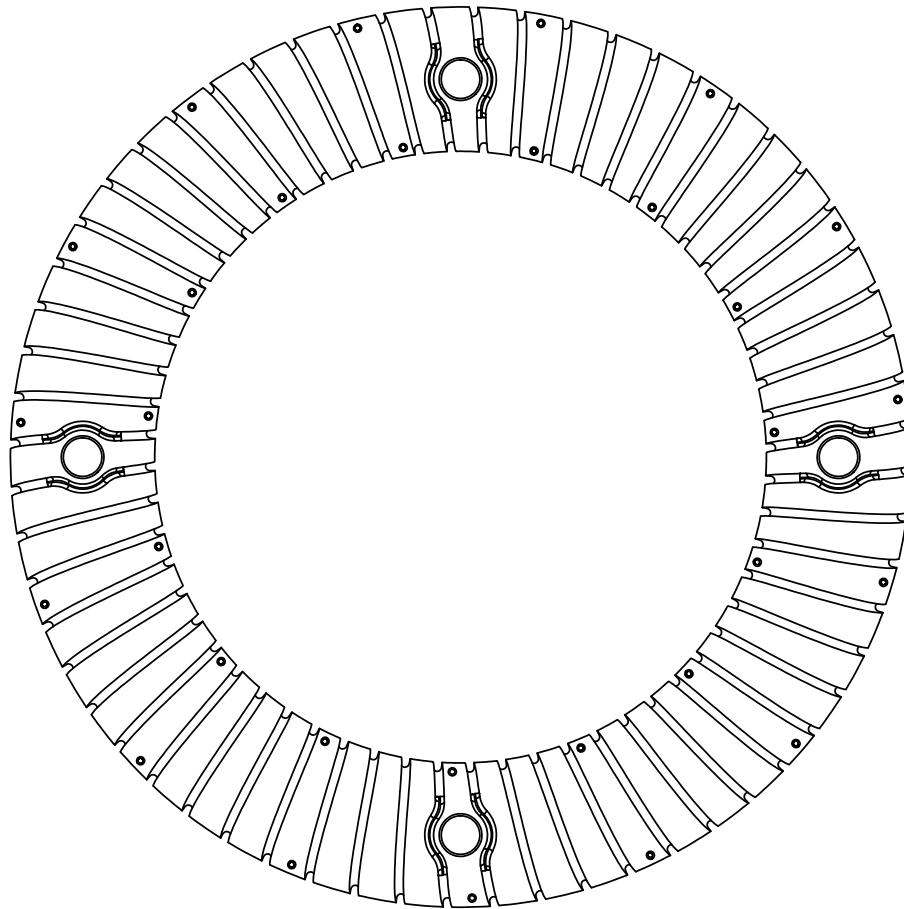
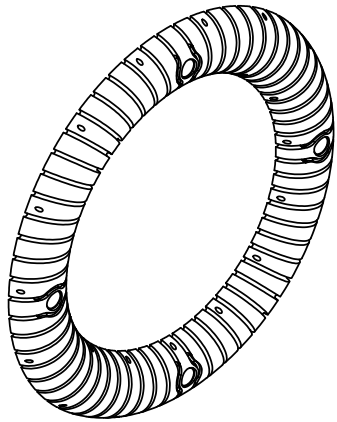
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FLUX CORE - TOP SECTION

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	3/13/15	TITLE: FLARE FLUX CORE REV H TOP 3- 10-15 A-FL700-011		
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		MATERIAL	ENG APPR.	M KALISH				
		G-10	MFG APPR.					
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APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:20	WEIGHT:	SHEET 1 OF 7

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FLUX CORE TOP SECTION - TOP VIEW

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			ENG APPR.	M KALISH		
			MFG APPR.			
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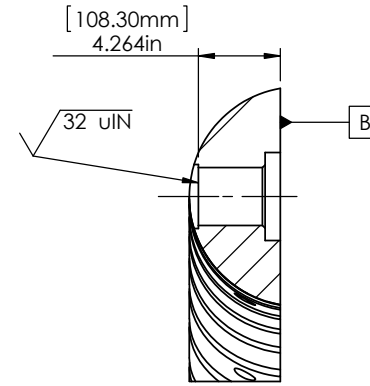
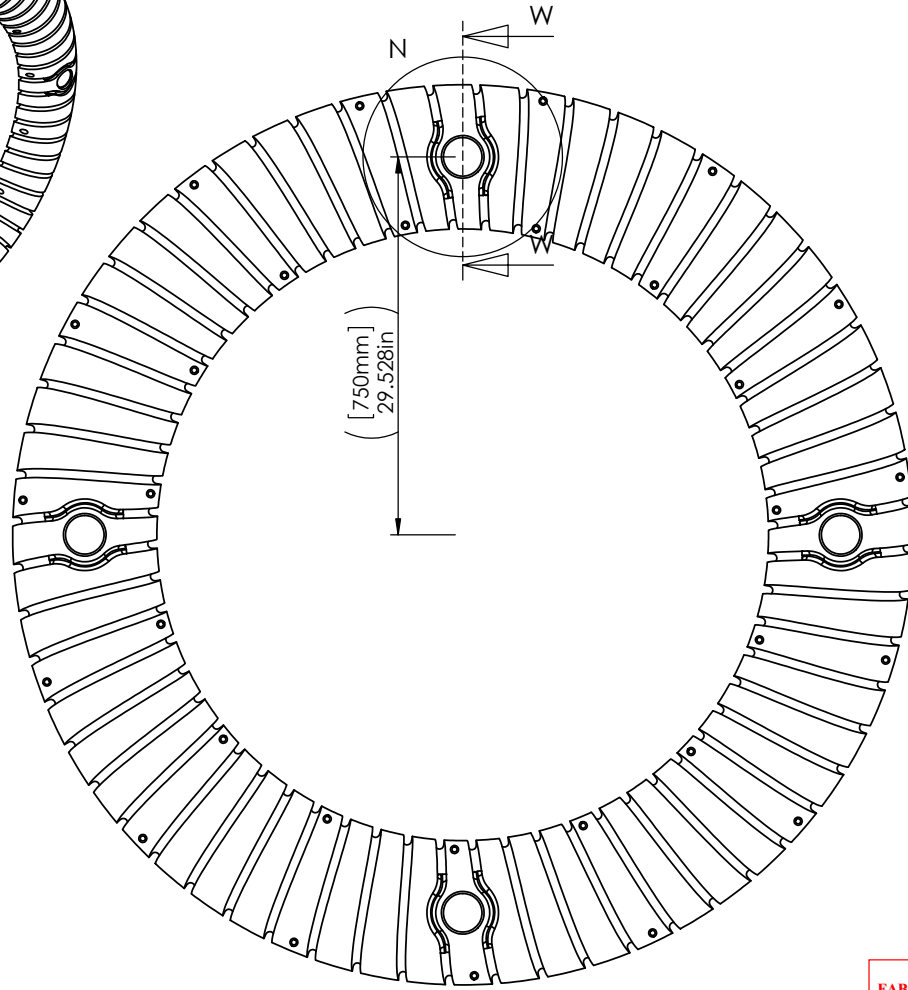
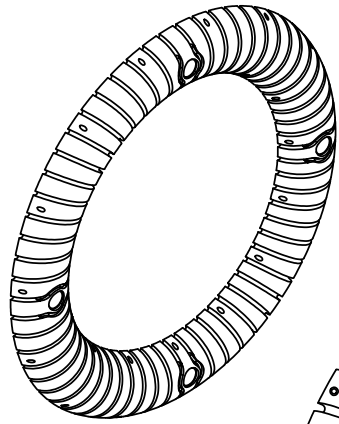
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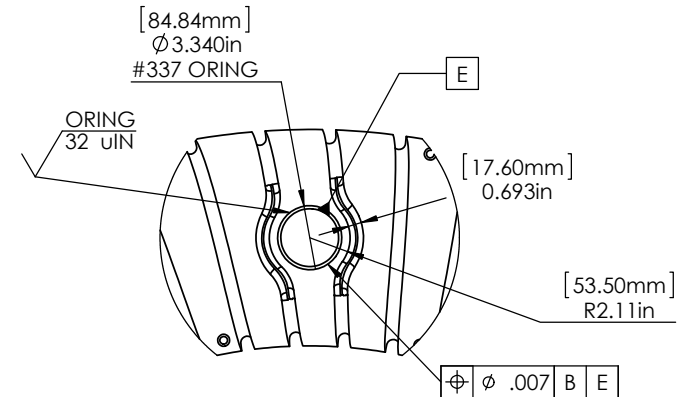
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SECTION W-W
SCALE 1 : 10



DETAIL N
SCALE 1 : 10

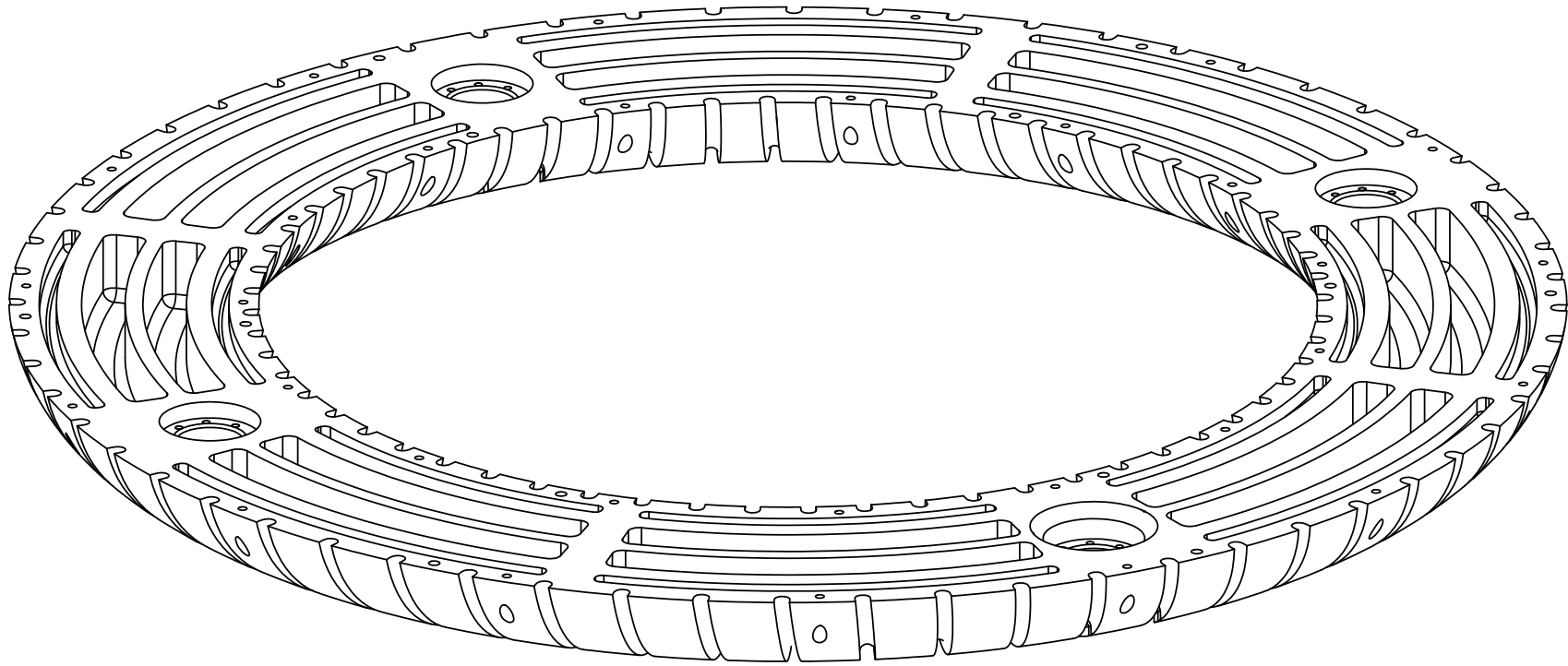
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FLUX CORE TOP SECTION - TOP VIEW

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		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL		
		MATERIAL G-10	ENG APPR.	M KALISH		
		FINISH	MFG APPR.			
NEXT ASSY	USED ON		Q.A.			SIZE DWG. NO. REV
APPLICATION		DO NOT SCALE DRAWING	COMMENTS:			A A-FL700-011
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FLUX CORE TOP SECTION - BOTTOM VIEW TRIMETRIC

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			ENG APPR.	M KALISH				
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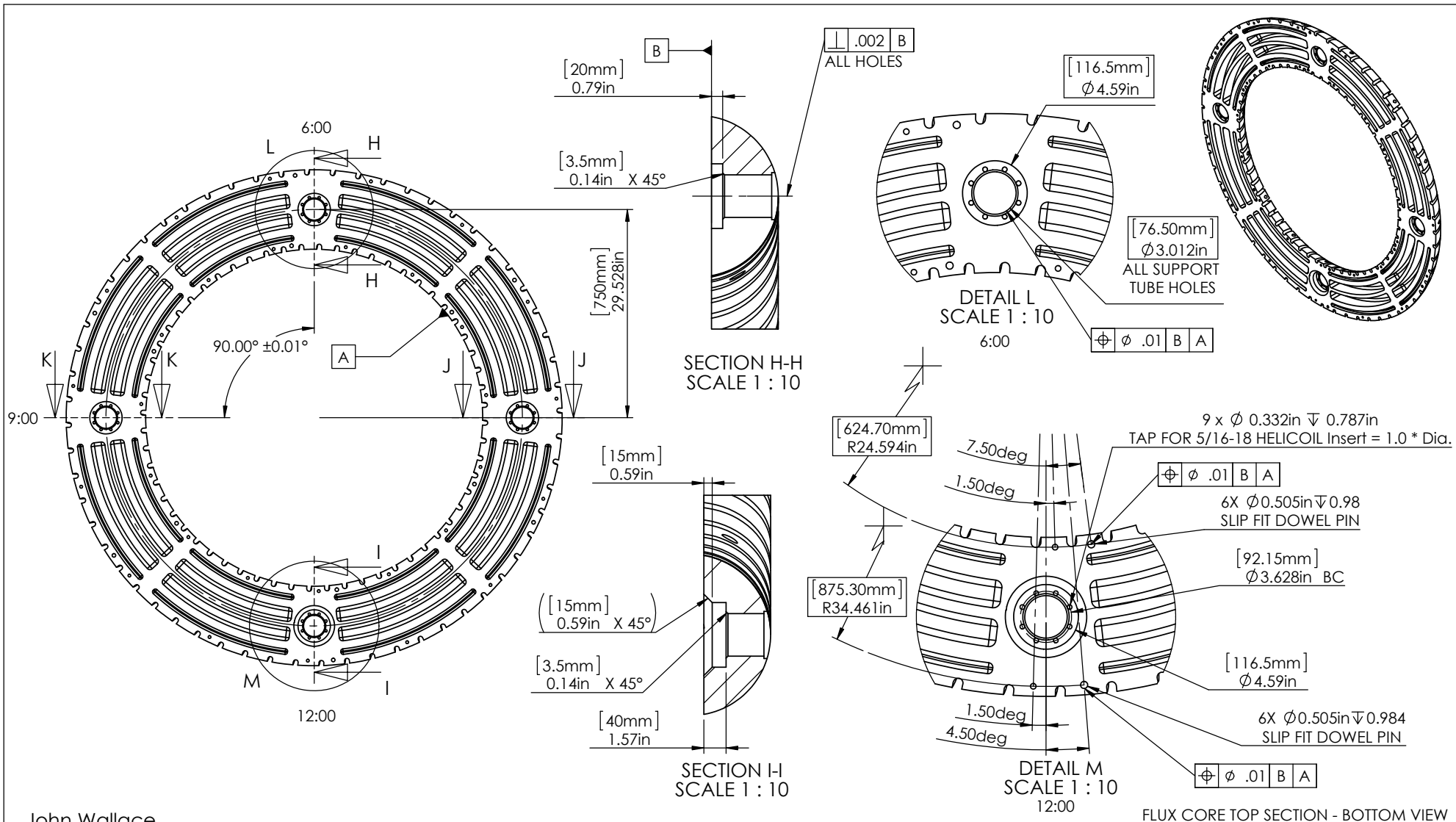
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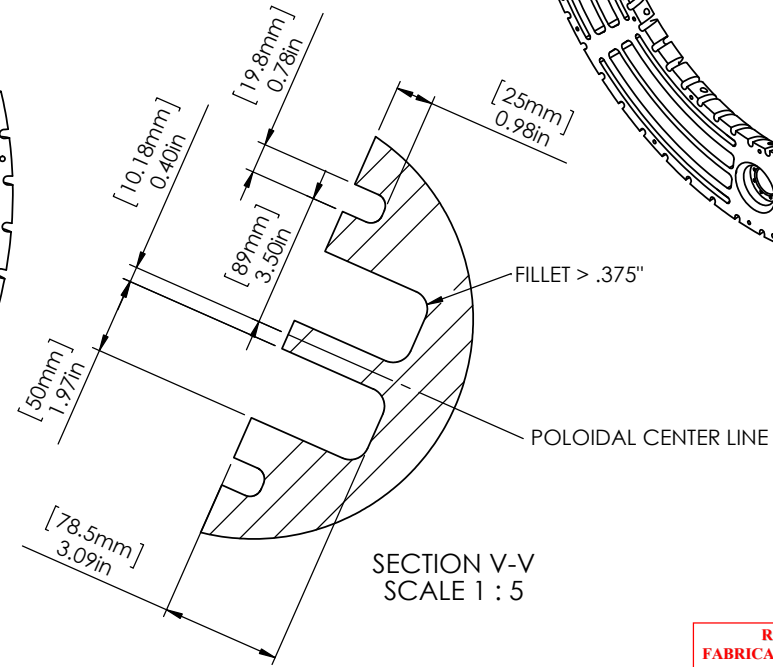
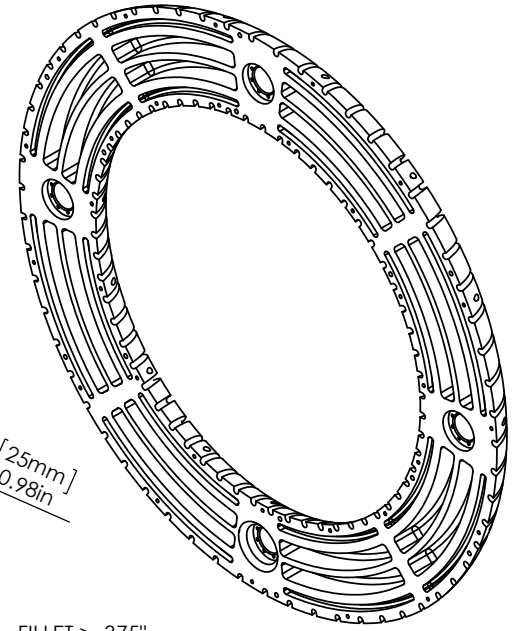
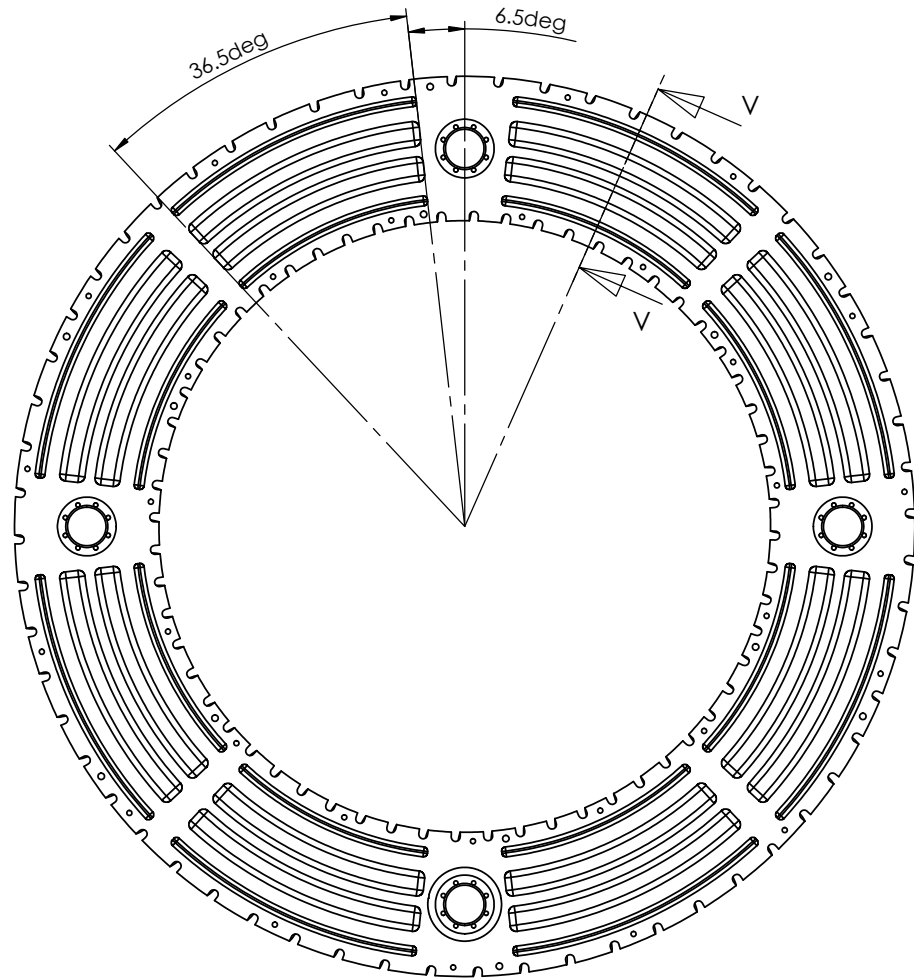


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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	3/13/15
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL	
		MATERIAL	ENG APPR.	M KALISH	
		G-10	MFG APPR.		
		FINISH	Q.A.		
NEXT ASSY	USED ON		COMMENTS:		
			<div style="border: 1px solid red; padding: 2px; display: inline-block;"> RELEASED FOR FABRICATION / INSTALLATION <small>PPPL Drafting</small> </div>		
APPLICATION		DO NOT SCALE DRAWING			

QUANTITY = 2		
TITLE: FLARE FLUX CORE REV H TOP 3-10-15 A-FL700-011		
SIZE	DWG. NO.	REV
A	A-FL700-011	
SCALE: 1:20	WEIGHT:	SHEET 6 OF 7



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FLUX CORE TOP SECTION - BOTTOM CROSS-SECTIONS

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	3/13/15	TITLE: FLARE FLUX CORE REV H TOP 3-10-15 A-FL700-011
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL		
		MATERIAL G-10	ENG APPR.	M KALISH		
		FINISH	MFG APPR.			
NEXT ASSY	USED ON		Q.A.	COMMENTS:		SIZE DWG. NO. REV
APPLICATION		DO NOT SCALE DRAWING				A A-FL700-011
						SCALE: 1:15 WEIGHT: SHEET 7 OF 7

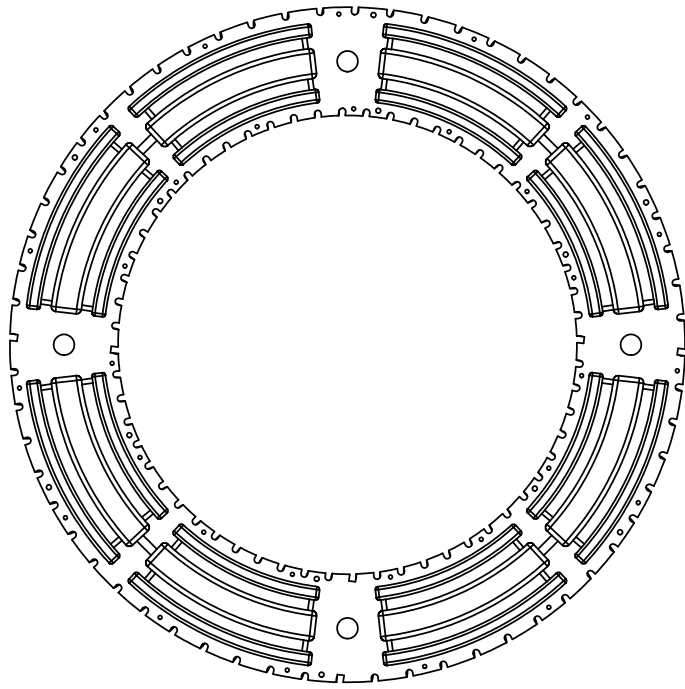
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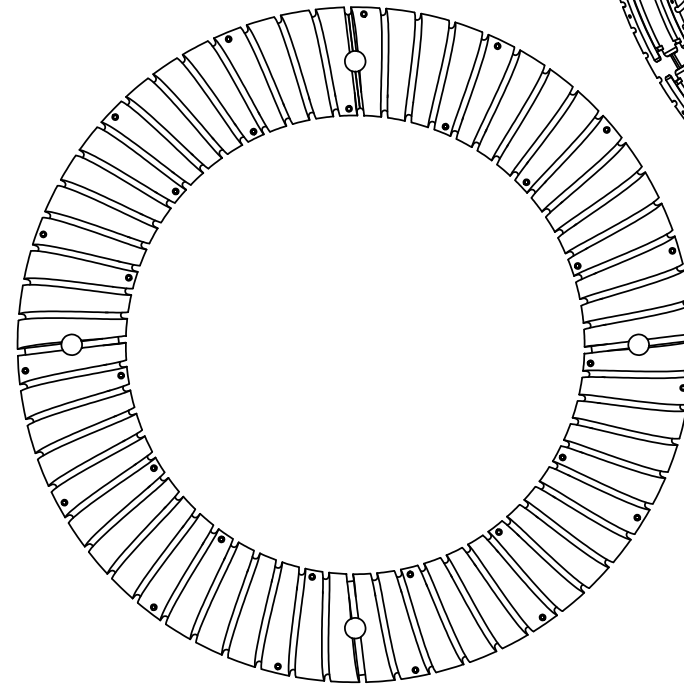
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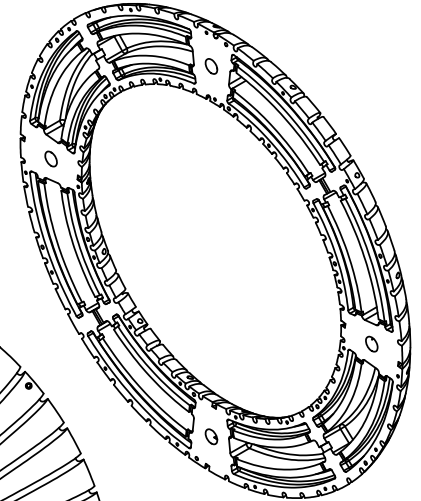
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TOP VIEW



BOTTOM VIEW



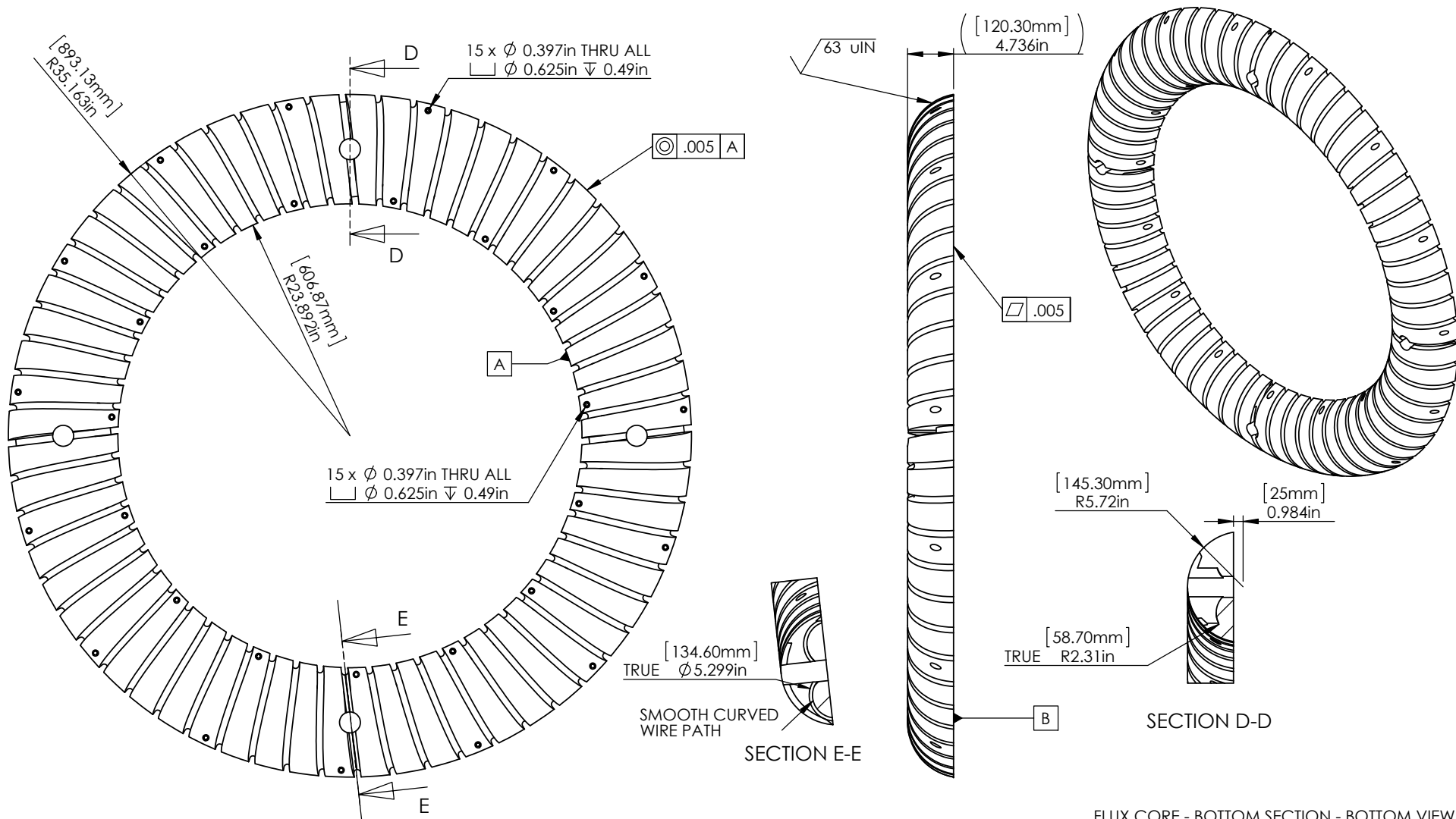
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FLUX CORE - BOTTOM SECTION

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH \pm BEND \pm TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	3/13/15	TITLE: FLARE FLUX CORE REV H Bottom 3-3-15 A-FL700-014		
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL				
		MATERIAL G-10	ENG APPR.	M KALISH				
		FINISH	MFG APPR.					
NEXT ASSY	USED ON		Q.A.	COMMENTS:		SIZE	DWG. NO.	REV
APPLICATION		DO NOT SCALE DRAWING				A	A-FL700-014	
						SCALE: 1:20	WEIGHT:	SHEET 1 OF 5



FLUX CORE - BOTTOM SECTION - BOTTOM VIEW

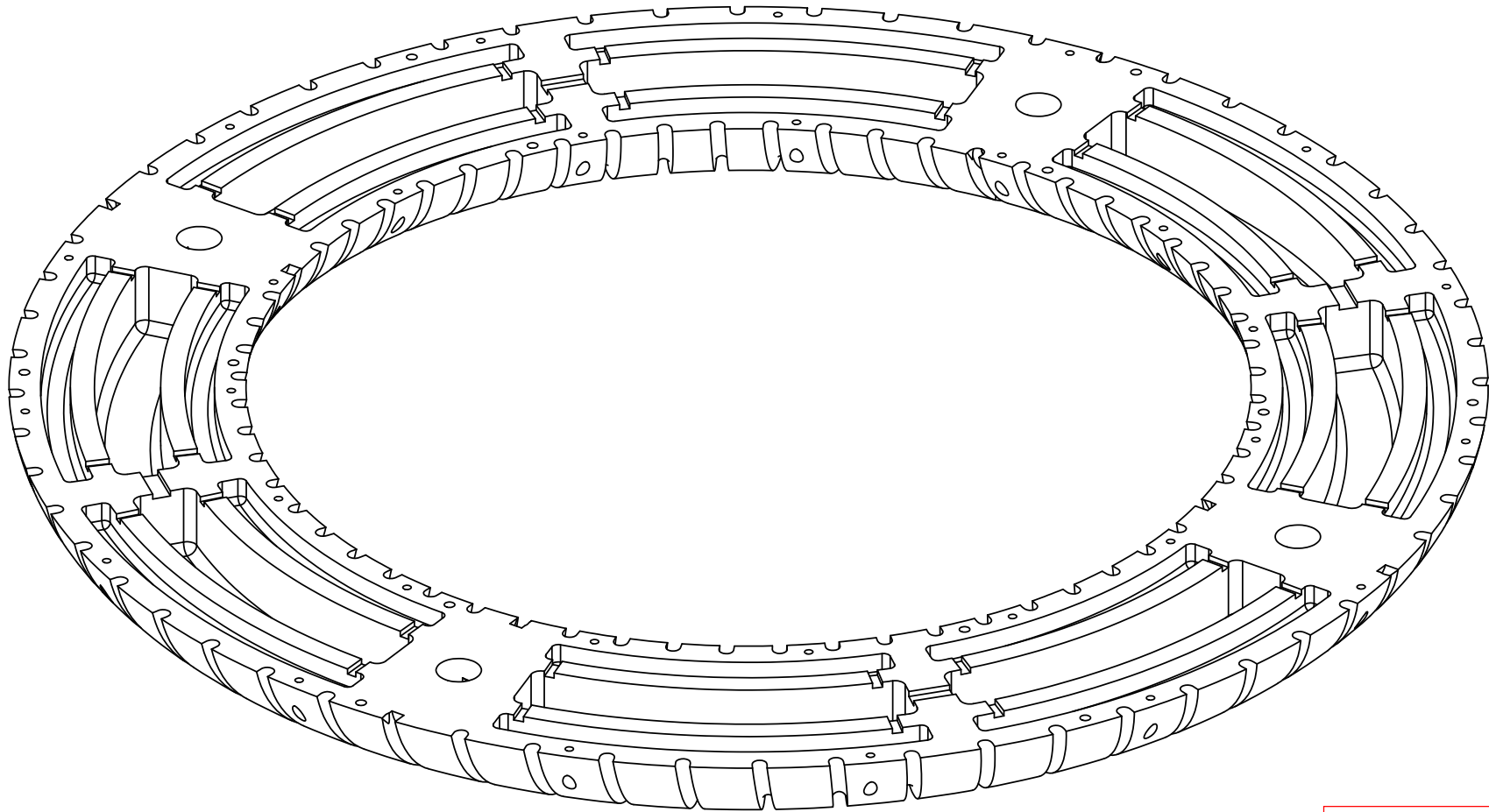
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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES	DRAWN	J WALLACE	3/13/15
		TOLERANCES:	CHECKED	J MITCHELL	
		FRACTIONAL ± 0.1	ENG APPR.	M KALISH	
		ANGULAR: MACH \pm BEND \pm	MFG APPR.		
		TWO PLACE DECIMAL ± 0.01	Q.A.		
		THREE PLACE DECIMAL ± 0.005	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		G-10			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			

QUANTITY = 2
 TITLE:
 FLARE FLUX CORE REV H Bottom
 3-3-15 A-FL700-014

SIZE	DWG. NO.	REV
A	A-FL700-014	
SCALE: 1:15	WEIGHT:	SHEET 2 OF 5



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FLUX CORE - BOTTOM SECTION - TOP VIEW TRIMETRIC

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH \pm BEND \pm TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	3/13/15	TITLE: FLARE FLUX CORE REV H Bottom 3-3-15 A-FL700-014
			CHECKED	J MITCHELL		
			ENG APPR.	M KALISH		
			MFG APPR.			
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		MATERIAL	COMMENTS:			
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NEXT ASSY	USED ON					
APPLICATION		DO NOT SCALE DRAWING				

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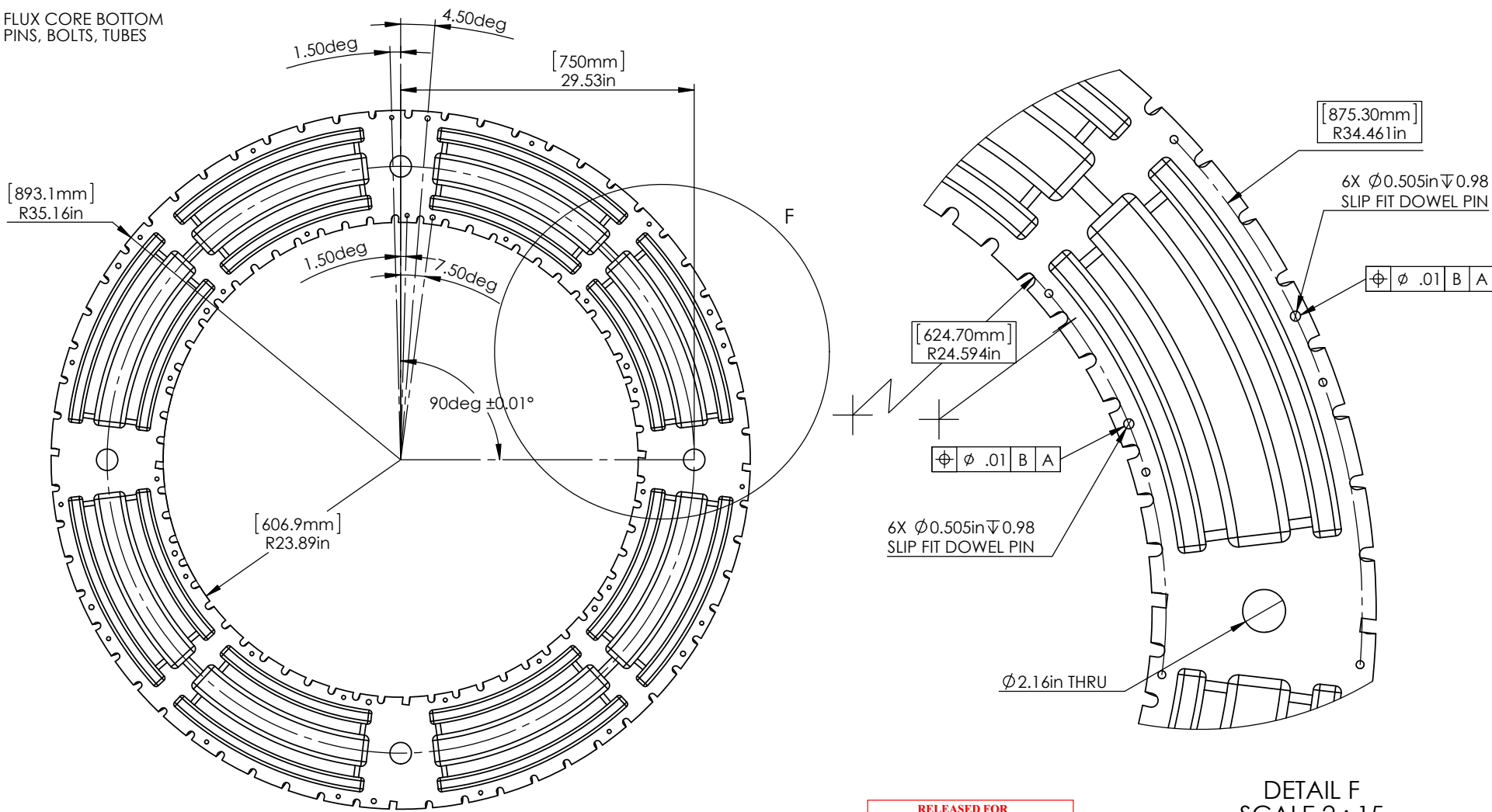
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3

2

1

FLUX CORE BOTTOM
PINS, BOLTS, TUBES



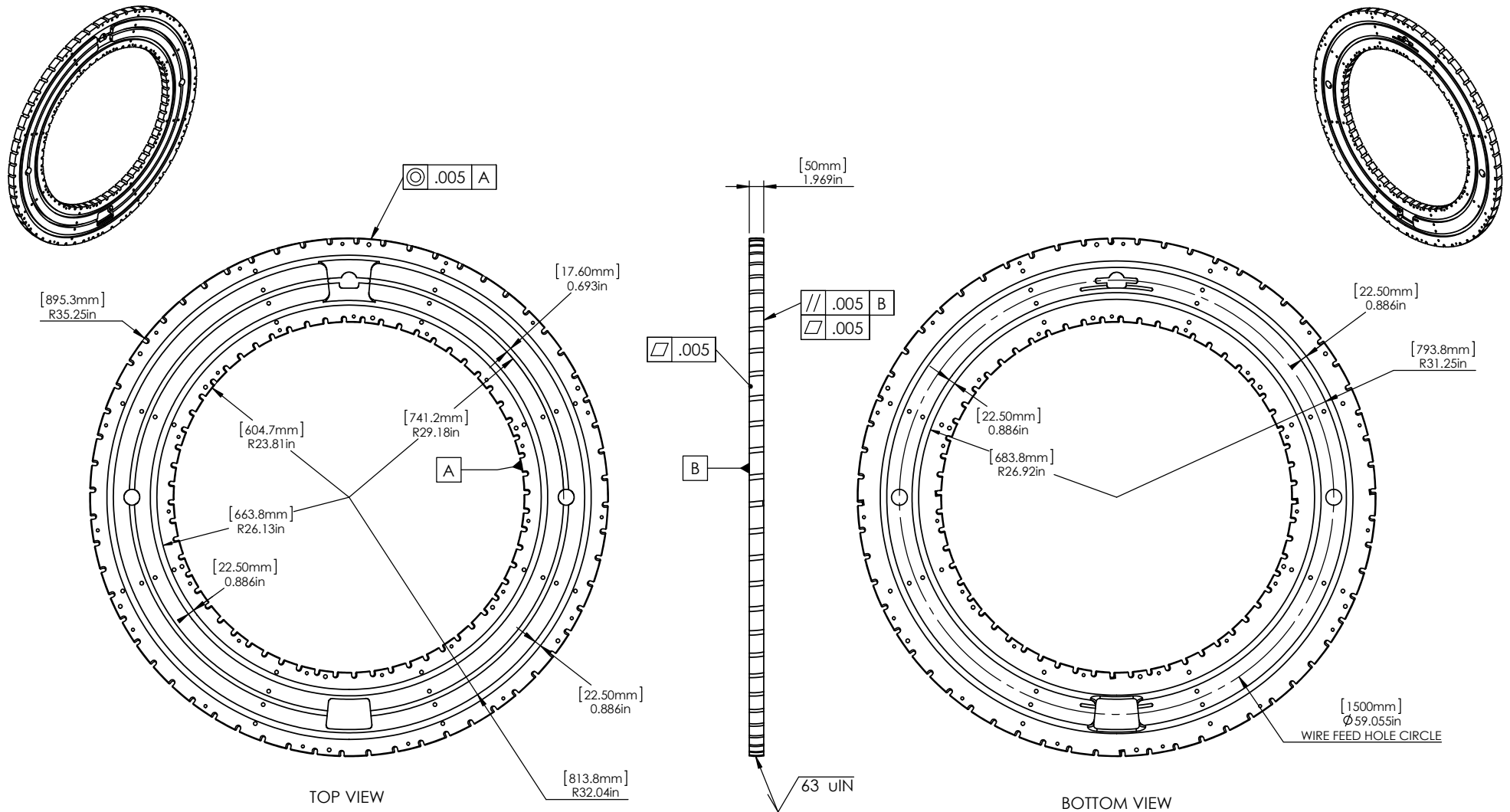
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DETAIL F
SCALE 2 : 15

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ±0.01 THREE PLACE DECIMAL ±0.005	DRAWN	J WALLACE	3/13/15
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL	TITLE: FLARE FLUX CORE REV H Bottom 3-3-15 A-FL700-014
		MATERIAL	ENG APPR.	M KALISH	
		G-10	MFG APPR.		
NEXT ASSY	USED ON	FINISH	Q.A.	COMMENTS:	SIZE DWG. NO. REV
APPLICATION		DO NOT SCALE DRAWING			A A-FL700-014
			SCALE: 1:15	WEIGHT:	SHEET 4 OF 5



TOP VIEW

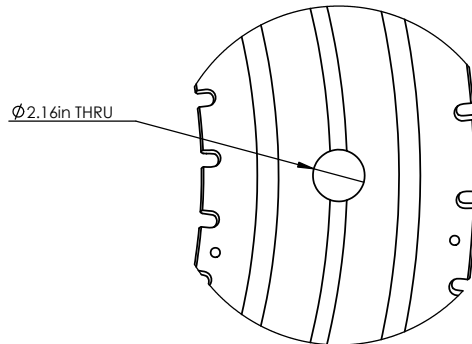
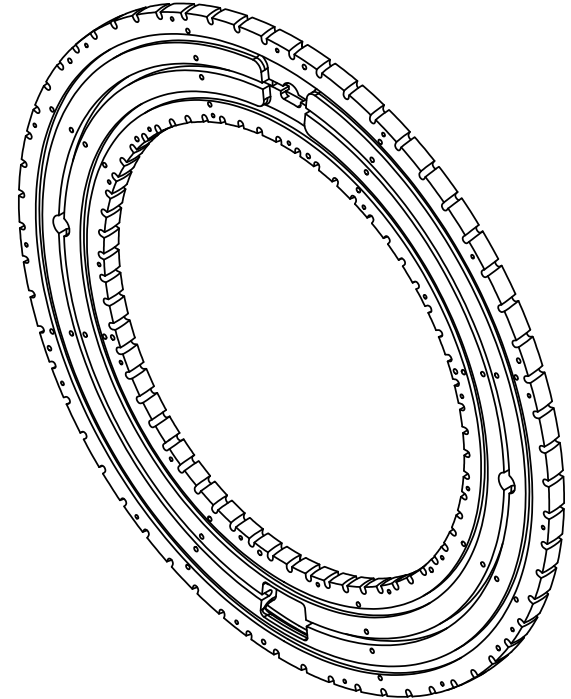
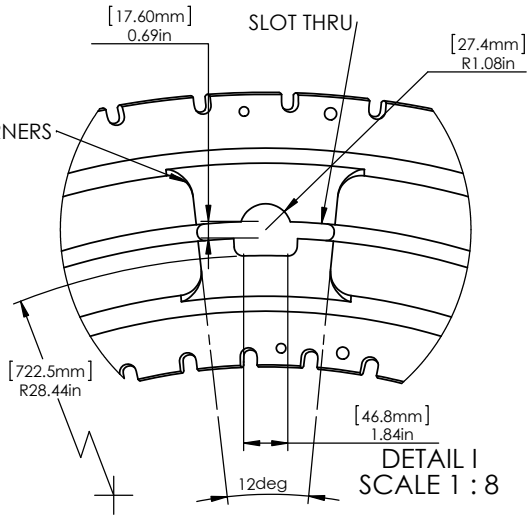
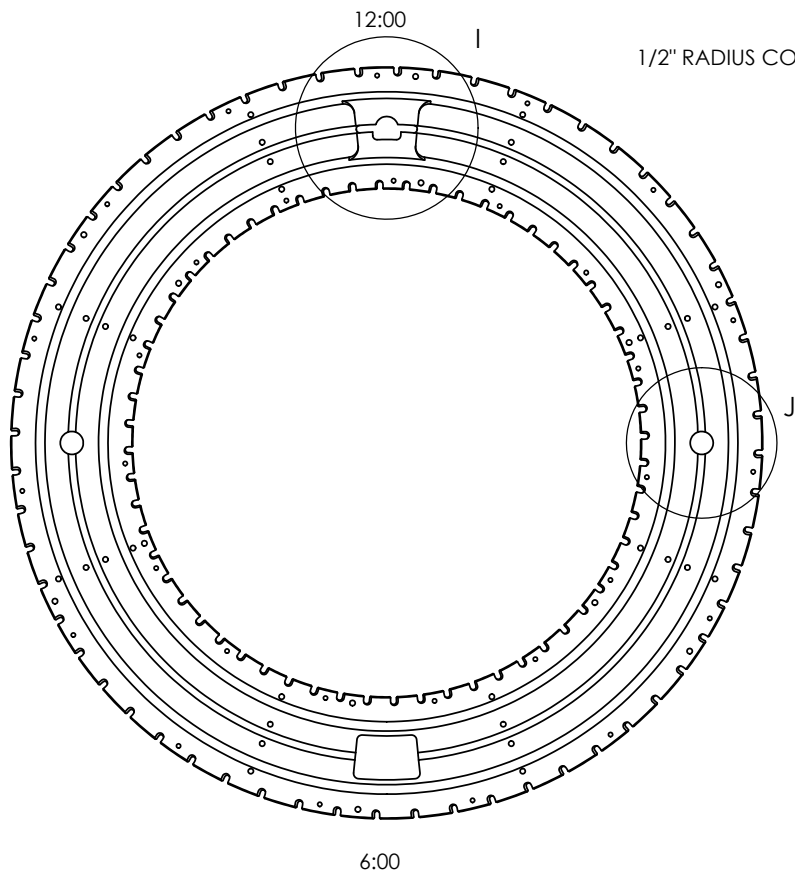
BOTTOM VIEW

FLUX CORE MID SECTION

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	3/13/15	TITLE: FLARE FLUX CORE REV H MID 3-3-15 A-FL700-021		
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL				
		MATERIAL G-10	ENG APPR.	M KALISH				
		FINISH	MFG APPR.					
NEXT ASSY	USED ON		Q.A.	COMMENTS:		SIZE	DWG. NO.	REV
APPLICATION		DO NOT SCALE DRAWING	<div style="border: 1px solid red; padding: 2px; text-align: center;"> RELEASED FOR FABRICATION / INSTALLATION <small>PPPL Drafting</small> </div>			A	A-FL700-021	
						SCALE: 1:20	WEIGHT:	SHEET 1 OF 6



DETAIL J
SCALE 1 : 8

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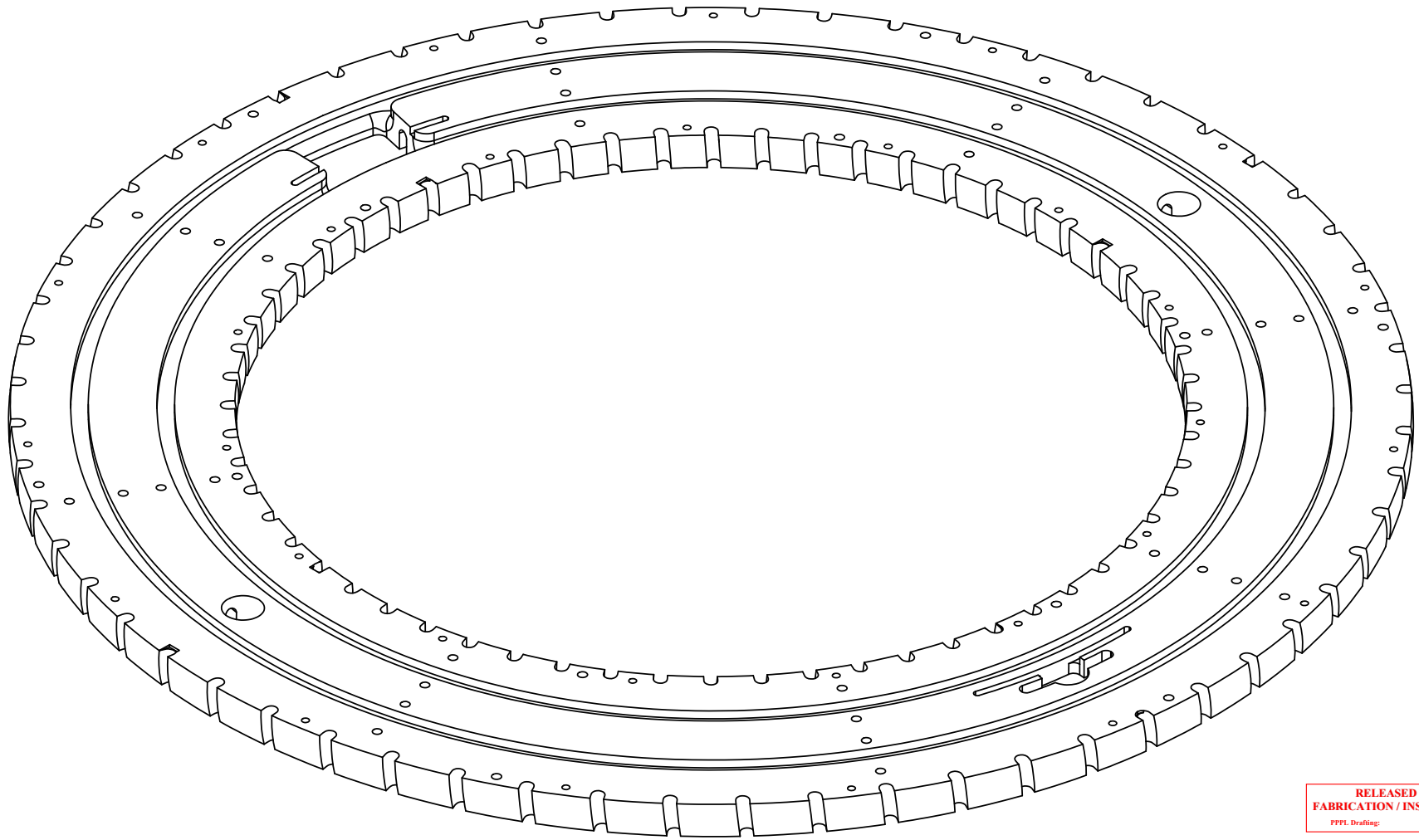
MID SECTION TOP VIEW

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	3/13/15
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL	
		MATERIAL G-10	ENG APPR.	M KALISH	
		FINISH	MFG APPR.		
NEXT ASSY	USED ON		Q.A.		
			COMMENTS:		
APPLICATION		DO NOT SCALE DRAWING			

QUANTITY = 2		
TITLE: FLARE FLUX CORE REV H MID 3- 3-15 A-FL700-021		
SIZE A	DWG. NO. A-FL700-021	REV
SCALE: 1:18	WEIGHT:	SHEET 3 OF 6



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MID SECTION BOTTOM VIEW TRIMETRIC

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			DRAWN	J WALLACE	3/13/15
			CHECKED	J MITCHELL	
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		MATERIAL G-10	COMMENTS:		
NEXT ASSY	USED ON	FINISH	TITLE: FLARE FLUX CORE REV H MID 3- 3-15 A-FL700-021		
APPLICATION		DO NOT SCALE DRAWING			
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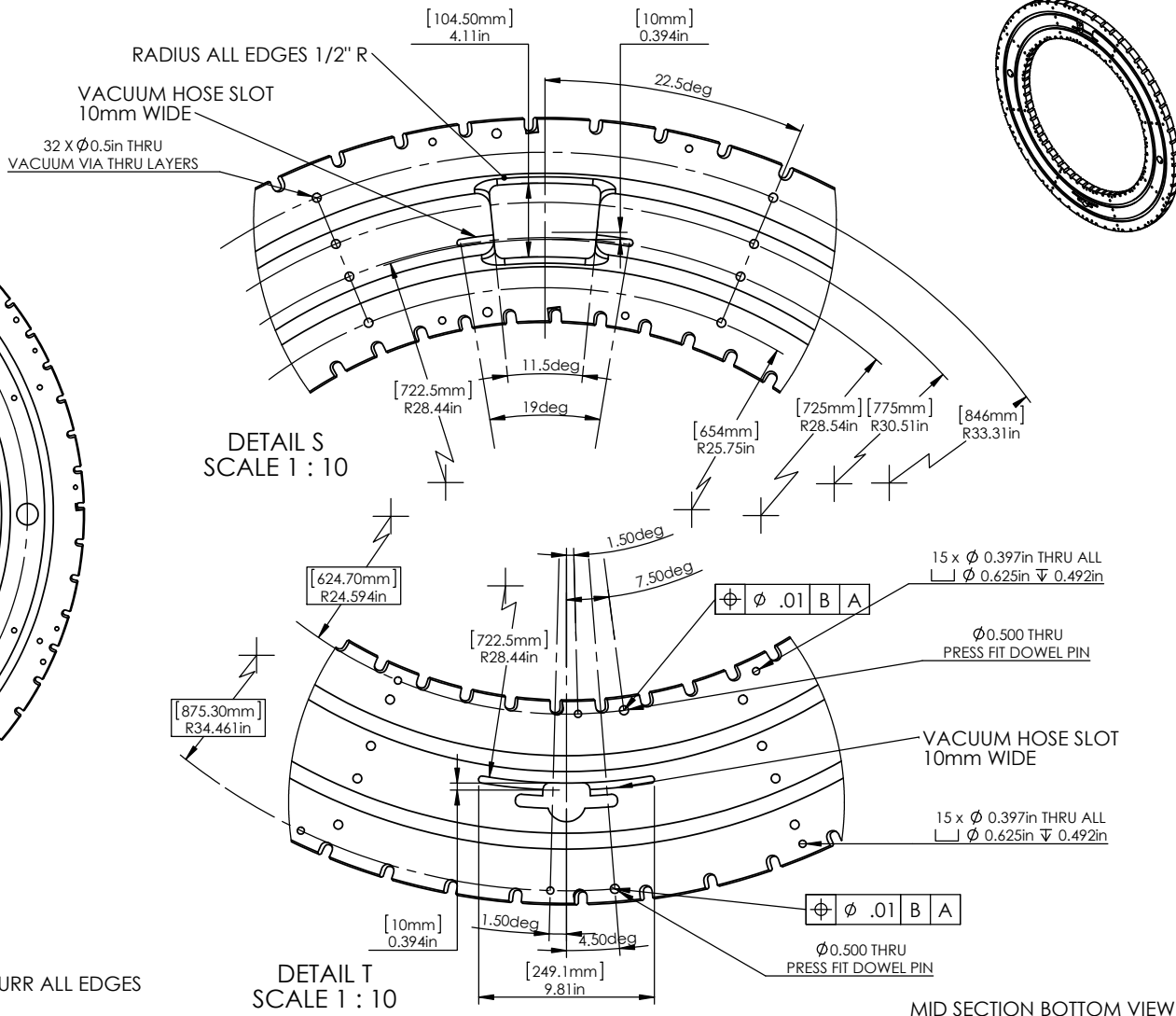
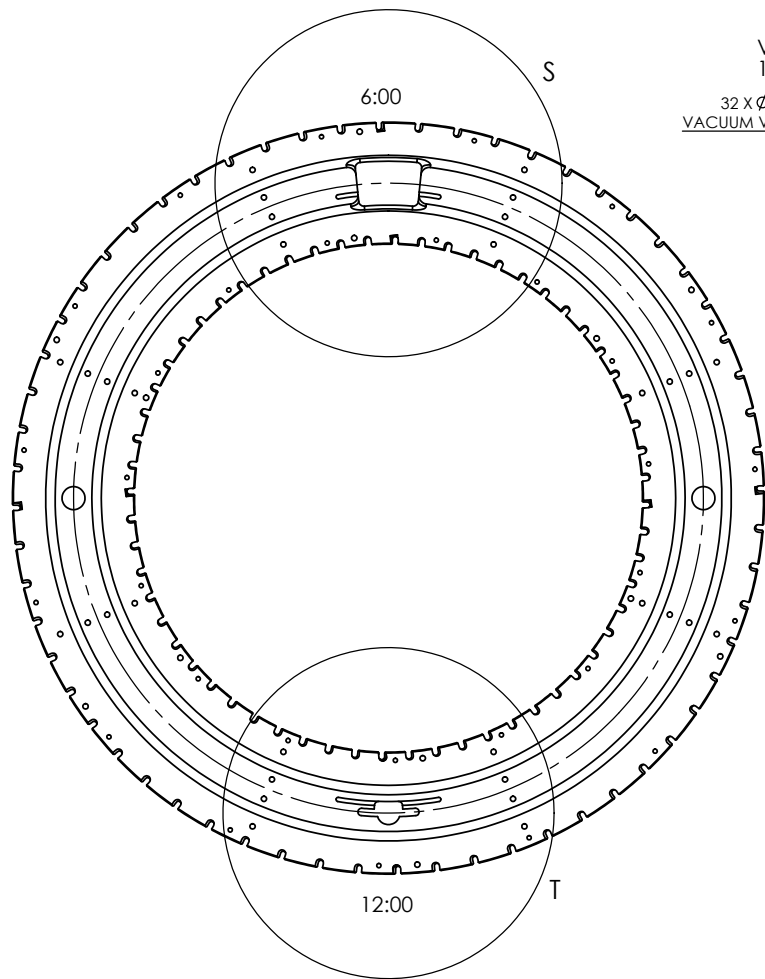
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3

2

1

MID SECTION BOTTOM VIEW
PINS, BOLTS, VACUUM AND WIRE HOLES



DEBURR ALL EDGES

MID SECTION BOTTOM VIEW

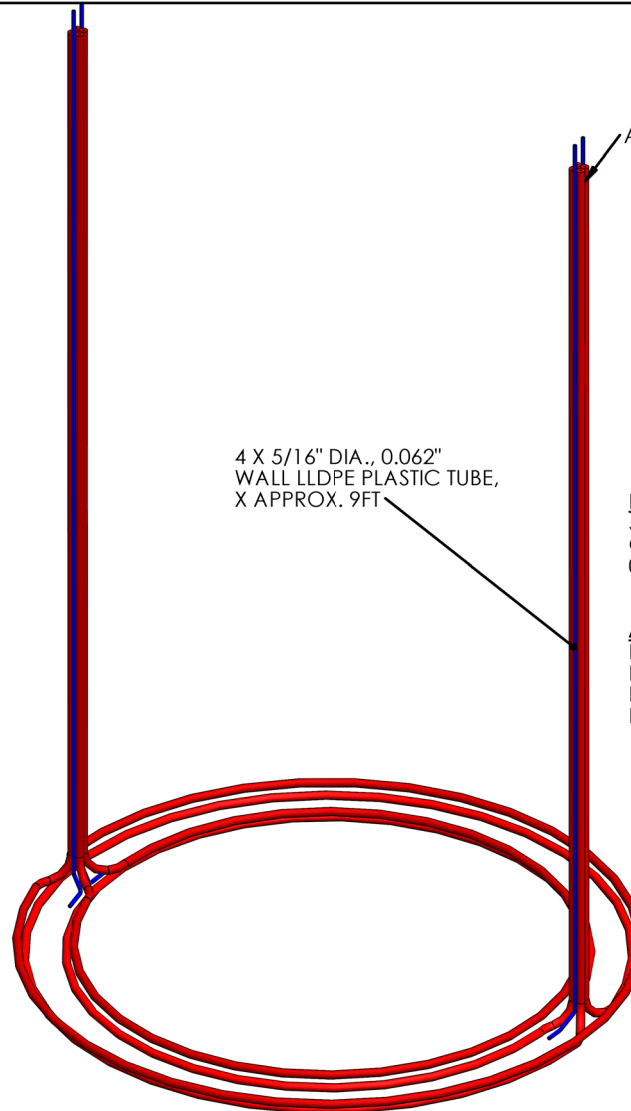
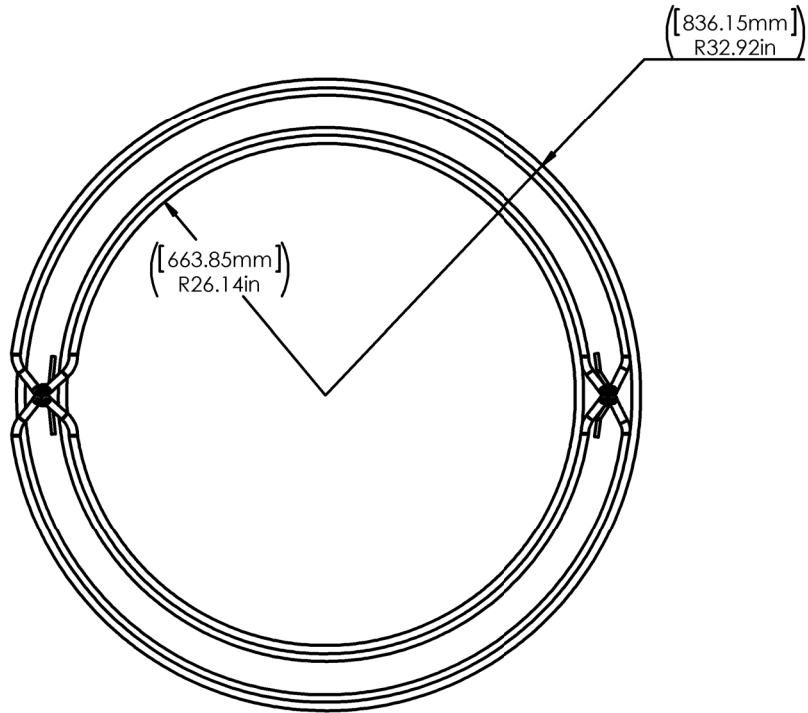
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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL	TITLE: FLARE FLUX CORE REV H MID 3- 3-15 A-FL700-021
		MATERIAL	ENG APPR.	M KALISH	
		G-10	MFG APPR.		
NEXT ASSY	USED ON	FINISH	Q.A.		SIZE DWG. NO. REV A A-FL700-021
APPLICATION		DO NOT SCALE DRAWING	COMMENTS: <div style="border: 1px solid red; padding: 2px; display: inline-block;">RELEASED FOR FABRICATION / INSTALLATION PPPL Drafting:</div>		

SCALE: 1:18 WEIGHT: SHEET 6 OF 6

PPPL FLARE PF WINDING ASSEMBLY



ALLOW FOR >18" BEYOND SUPPORT TUBES

4 X 5/16" DIA., 0.062" WALL LLDPE PLASTIC TUBE, X APPROX. 9FT

NOTE: USE NEW ENGLAND WIRE 238 MCM 5X5X3/80/34 BARE COPPER AROUND COPPER TUBE, 0.085" TPE TO 0.852" + 0.025"/-.014" OD, QUOTE # 28496

APPROXIMATE WIRE LENGTHS:
 PF BOTTOM OUTER LOOP = 33.7 FT EACH
 PF BOTTOM INNER LOOP = 31.5 FT EACH
 PF TOP OUTER LOOP = 34 FT EACH
 PF TOP INNER LOOP = 31 FT EACH

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH \pm BEND \pm TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN J WALLACE	3/13/15	TITLE: FLARE Flux Core PF Wire Assem A-FL700-051
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED J MITCHELL		
		MATERIAL	ENG APPR. M KALISH		
		FINISH	MFG APPR.		
NEXT ASSY	USED ON		Q.A.		SIZE DWG. NO. REV
APPLICATION		DO NOT SCALE DRAWING	COMMENTS:		A A-FL700-051
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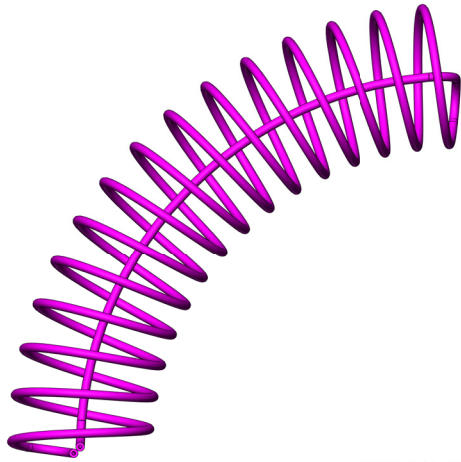
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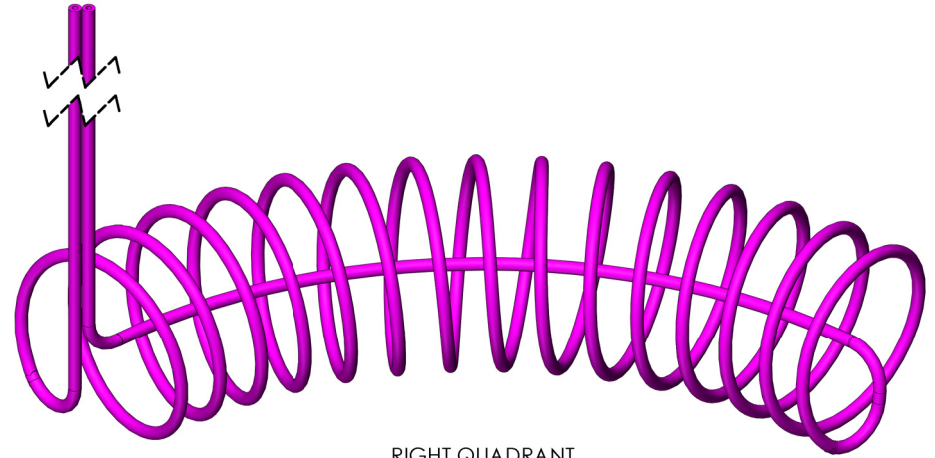
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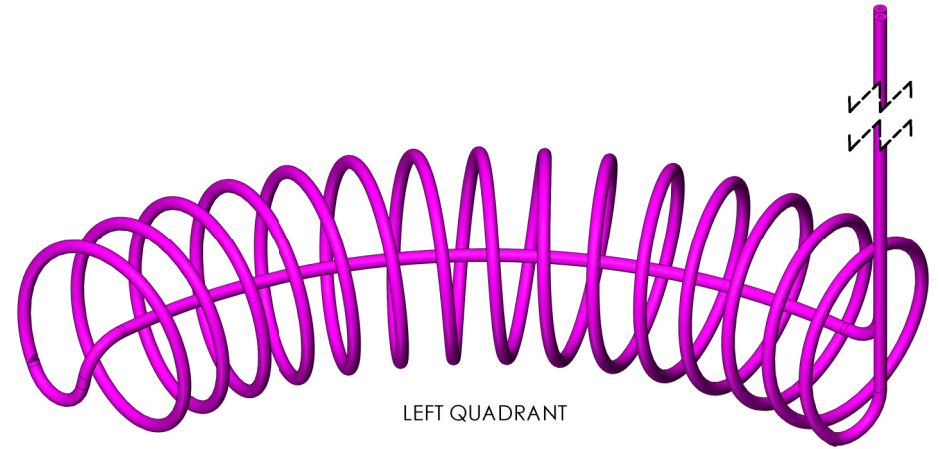
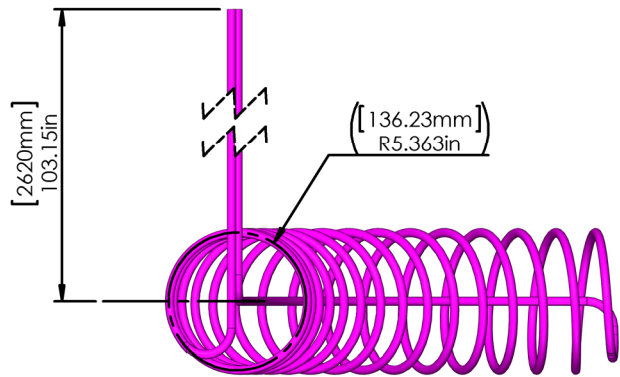
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RIGHT QUADRANT



RIGHT QUADRANT



LEFT QUADRANT

NOTE: USE NEW ENGLAND WIRE 133 MCM 5X5X135/34 BARE COPPER ROPE-LAY AROUND TUBE, 0.075" TPE TO 0.665" + 0.020"/-0.01" OD, QUOTE # 28511

EACH QUADRANT = 762 INCHES = 63.5 FT OF WIRE

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH \pm BEND \pm TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	3/13/15	TITLE: FLARE FLUX CORE TF Wire Right quarter 12-17-14 A-FL700-052		
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL				
		MATERIAL	ENG APPR.	M KALISH				
		FINISH	MFG APPR.					
NEXT ASSY	USED ON		Q.A.			SIZE	DWG. NO.	REV
APPLICATION		DO NOT SCALE DRAWING	COMMENTS:			A	A-FL700-052	
			SCALE: 1:15	WEIGHT:	SHEET 1 OF 1			

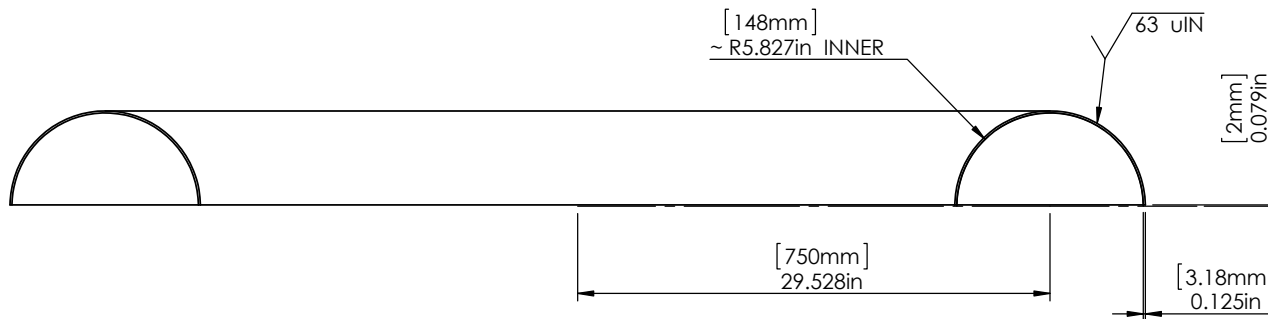
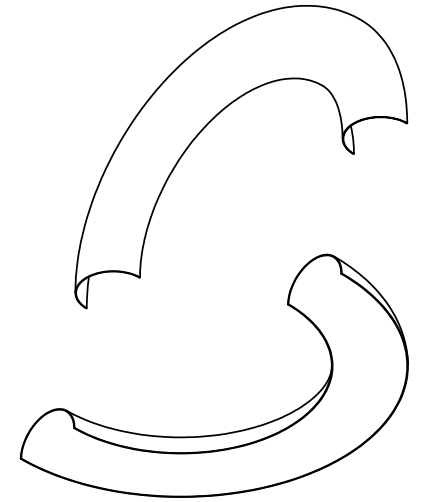
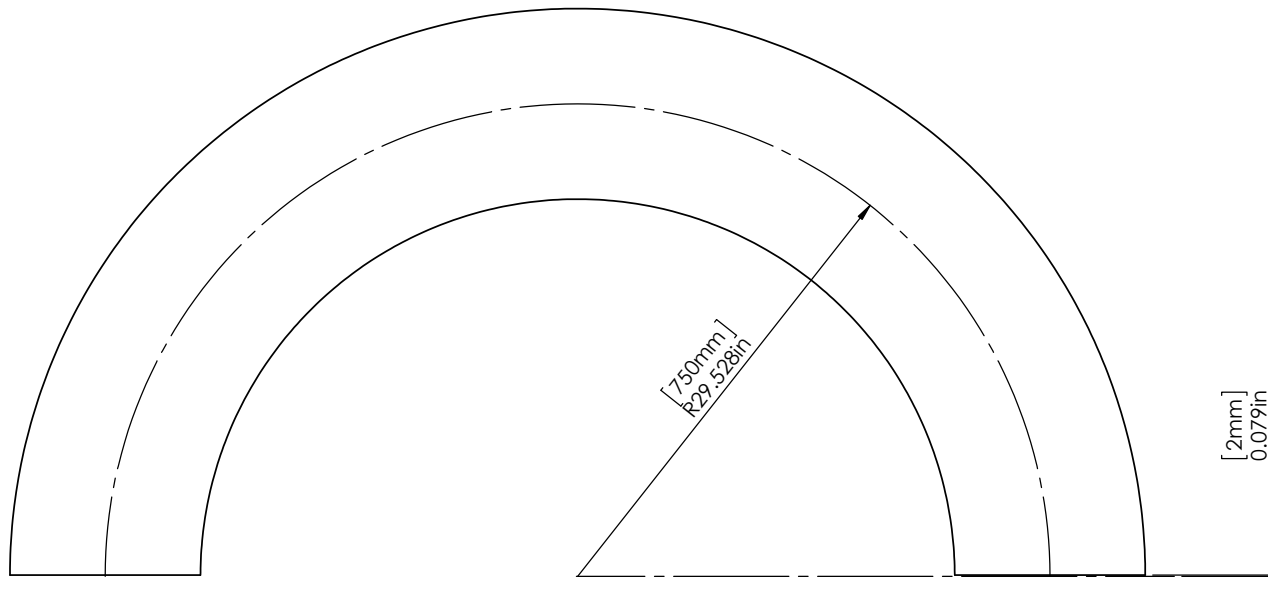
5

4

3

2

1



MAINTAIN UNIFORM SHELL THICKNESS
+/- 0.005"

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VACUUM PART

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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 0.1 ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	DRAWN	J WALLACE	3/13/15
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED	J MITCHELL	
		MATERIAL AL 3003	ENG APPR.	M KALISH	
NEXT ASSY	USED ON	FINISH	MFG APPR.		
APPLICATION		DO NOT SCALE DRAWING	Q.A.		
			COMMENTS:		

QUANTITY = 4		
TITLE: FLARE FLUX CORE Al Shell 0.125in thick Lower A-FL700-062		
SIZE	DWG. NO.	REV
A	A-FL700-062	
SCALE: 1:12	WEIGHT:	SHEET 1 OF 1

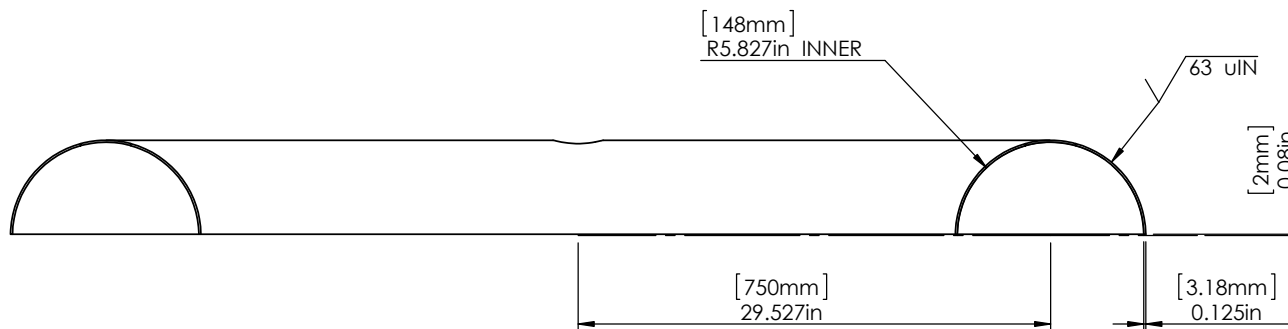
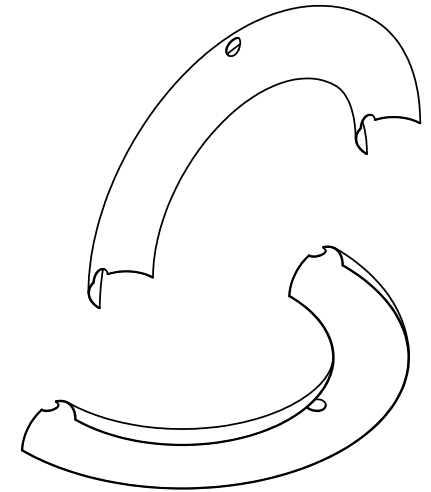
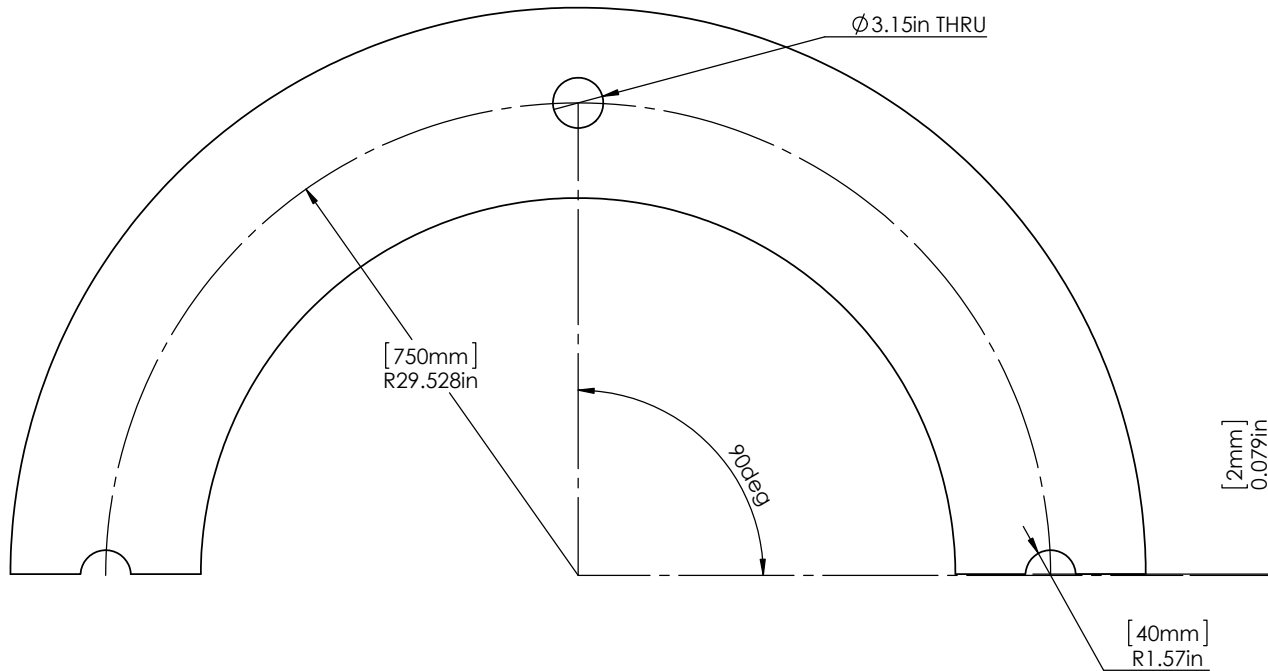
5

4

3

2

1



RELEASED FOR
FABRICATION / INSTALLATION
PPPL Drafting

MAINTAIN UNIFORM SHELL THICKNESS
+/- 0.005"

VACUUM PART

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES	DRAWN	J WALLACE	3/13/15
		TOLERANCES:	CHECKED	J MITCHELL	
		FRACTIONAL ± 0.1	ENG APPR.	M KALISH	
		ANGULAR: MACH ± BEND ±	MFG APPR.		
		TWO PLACE DECIMAL ±0.01	Q.A.		
		THREE PLACE DECIMAL ±0.005	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		AL 3003			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			

QUANTITY = 4		
TITLE: FLARE FLUX CORE Al Shell 0.125in thick upper A-FL700-064		
SIZE	DWG. NO.	REV
A	A-FL700-064	
SCALE: 1:12	WEIGHT:	SHEET 1 OF 1

5

4

3

2

1