

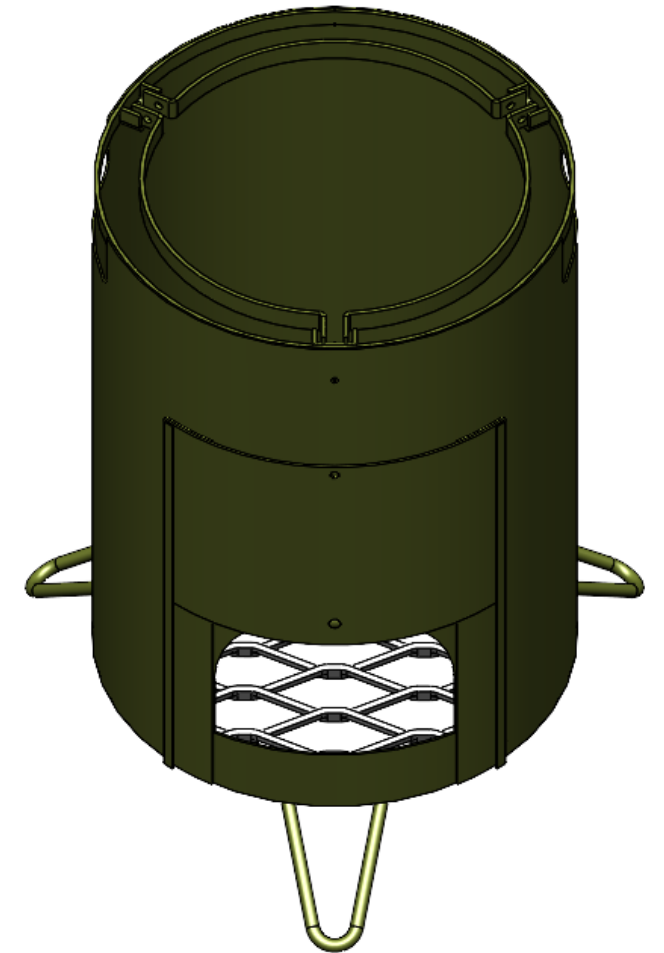
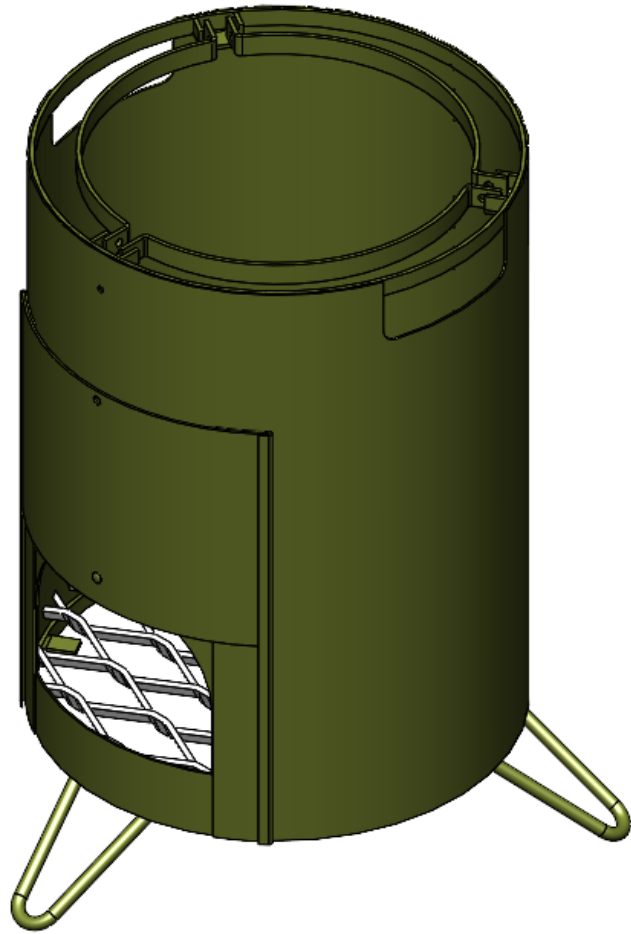
Alco 'Firefly' Steam Charging Set

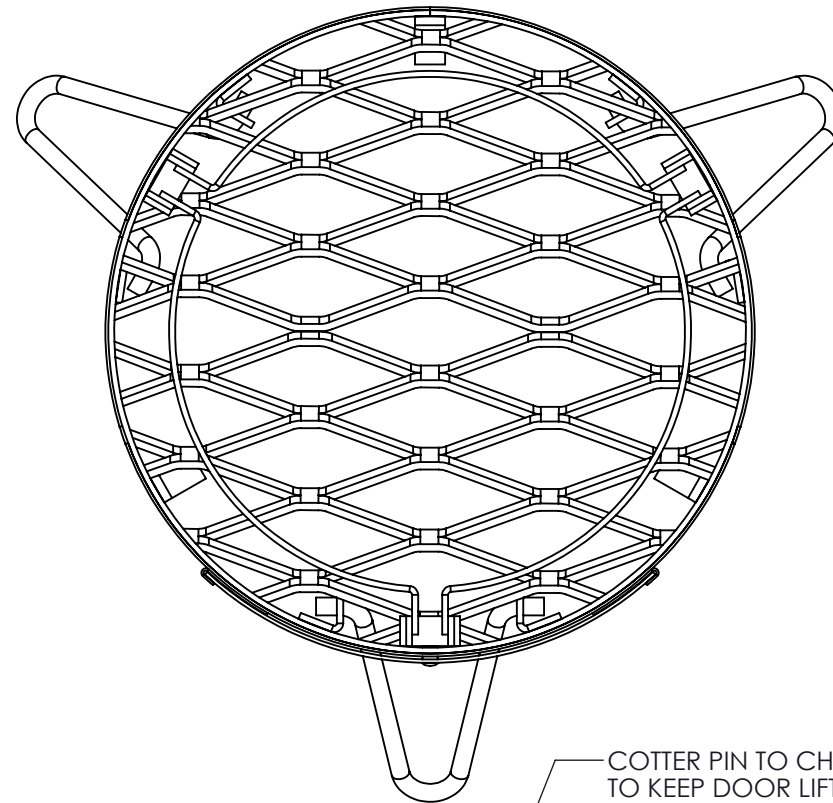
Furnace, Sliding Door Type

Arthur Lyon & Co. Ltd.

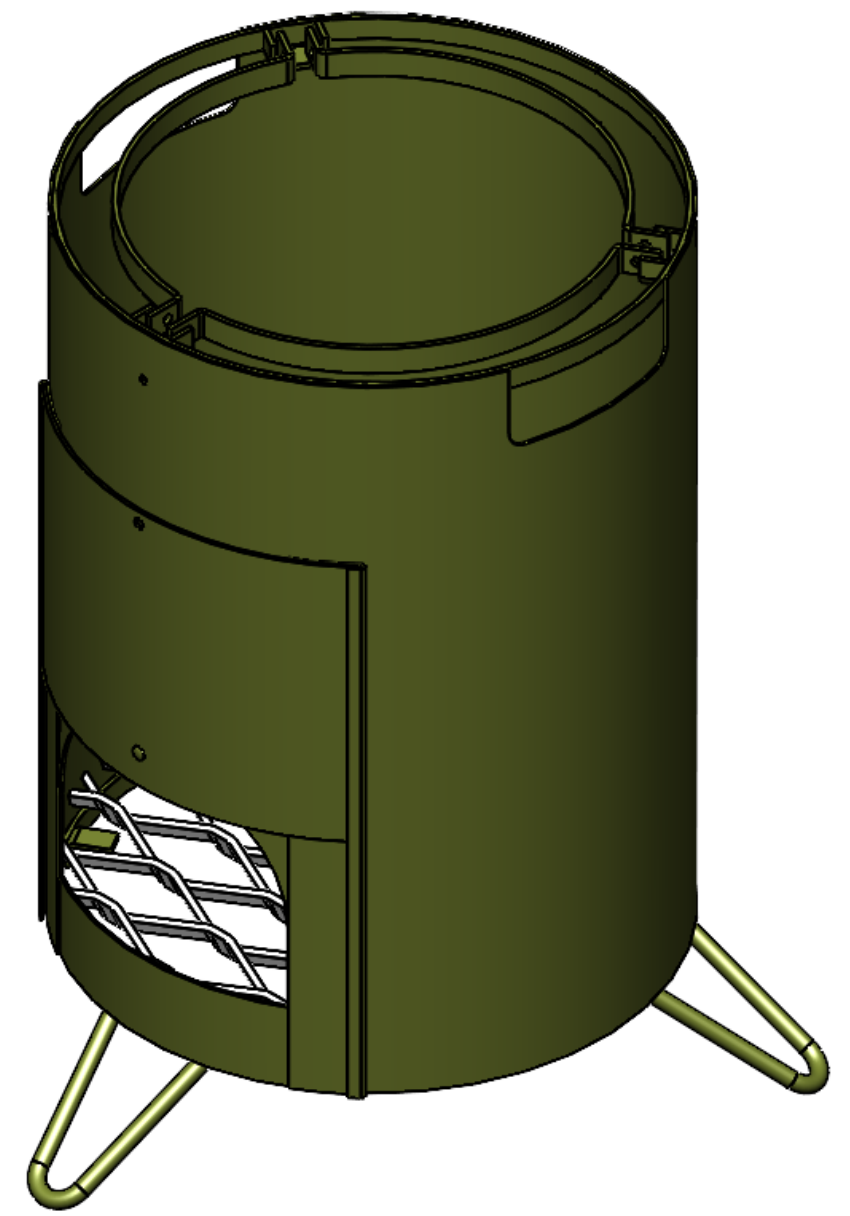
London, England

1944

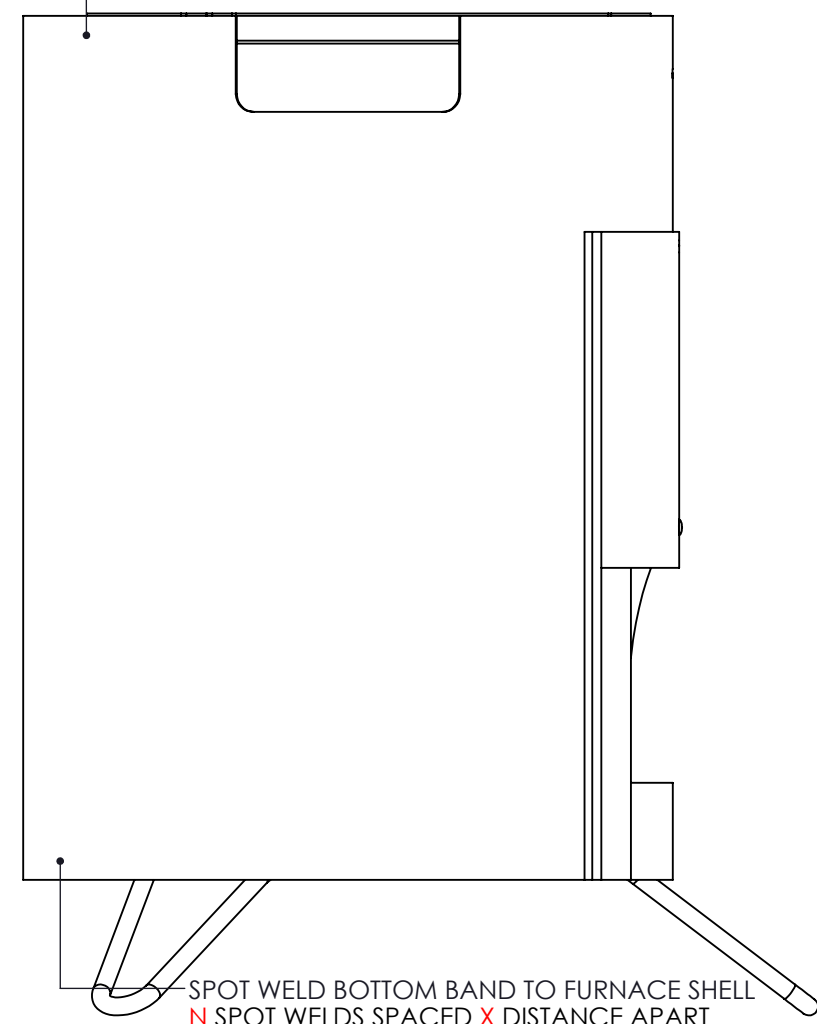




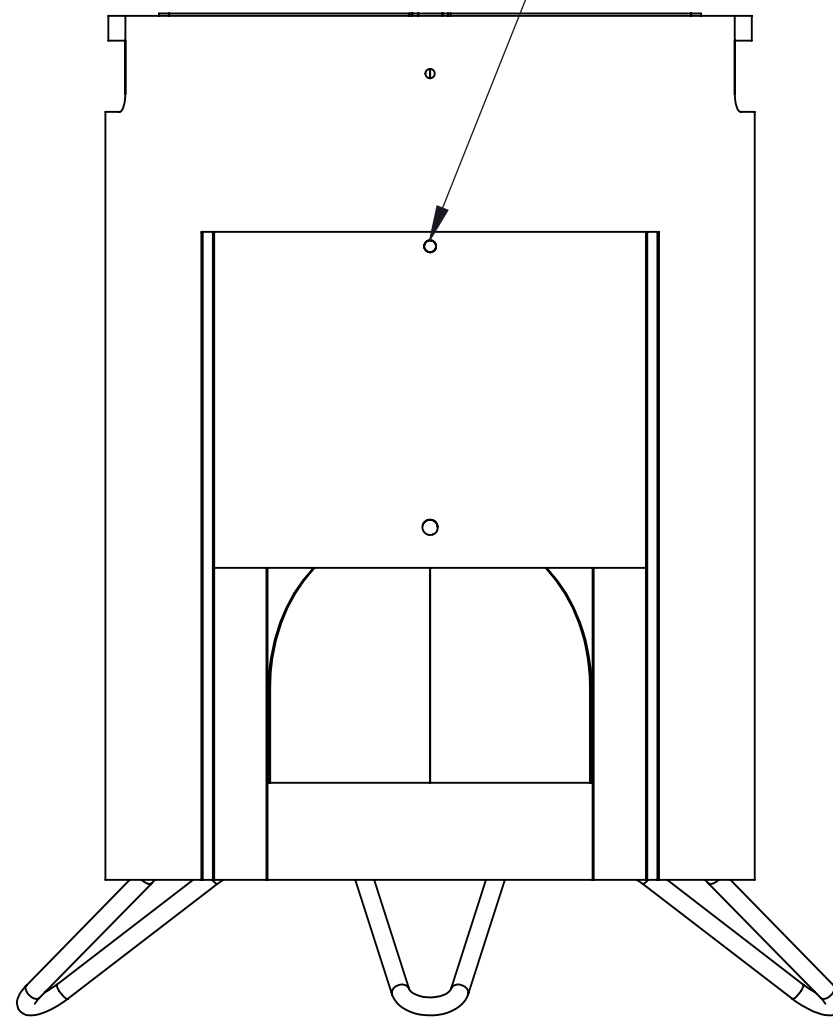
COTTER PIN TO CHAIN TO RIVET
TO KEEP DOOR LIFTED



SPOT WELD TOP BAND TO FURNACE SHELL
N SPOT WELDS SPACED X DISTANCE APART
ALIGN WITH ONE SUPPORT SHELF FACING FRONT AND CENTER



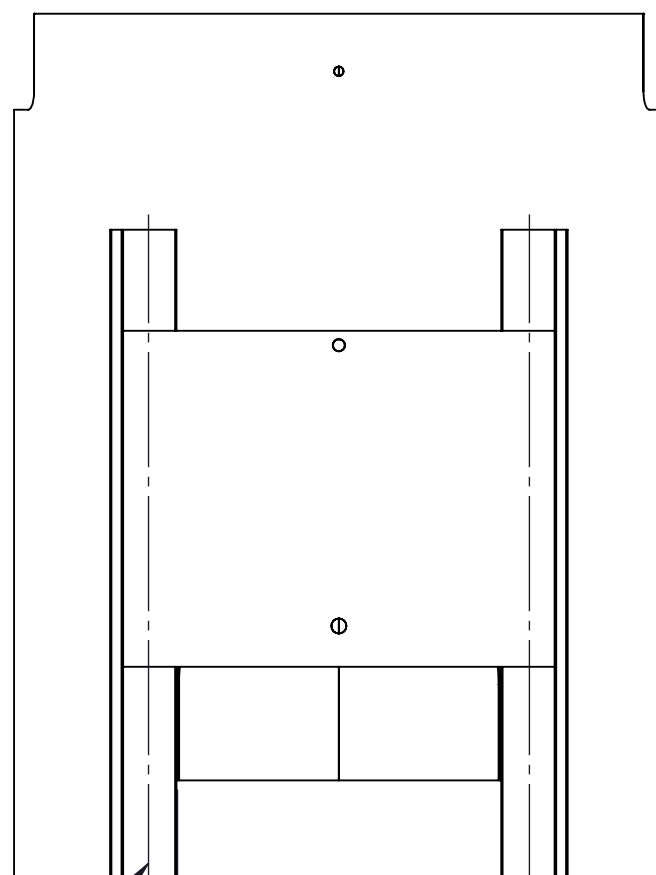
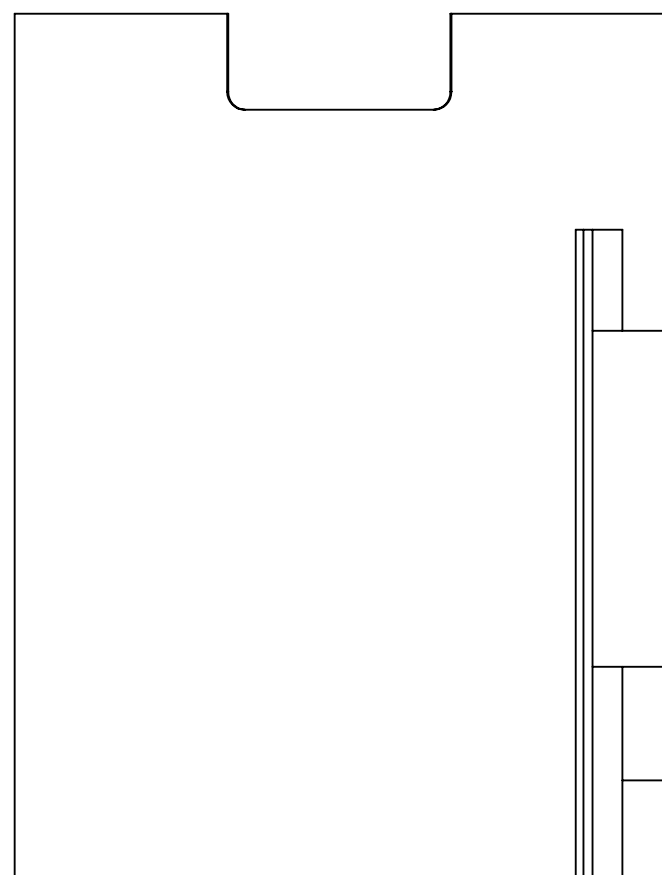
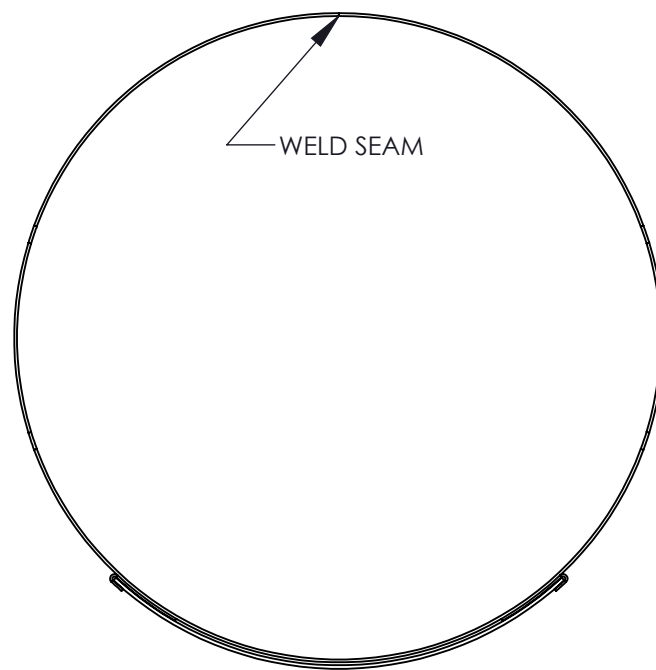
SPOT WELD BOTTOM BAND TO FURNACE SHELL
N SPOT WELDS SPACED X DISTANCE APART
ALIGN WITH ONE LEG FRONT AND CENTER



UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
DO NOT SCALE DRAWING
X.X ± .02
X.XX ± .01
X.XXX ± .005
X.XXXX ± .0005
ANGLES ± 1°
FRACTIONS ± 1/64

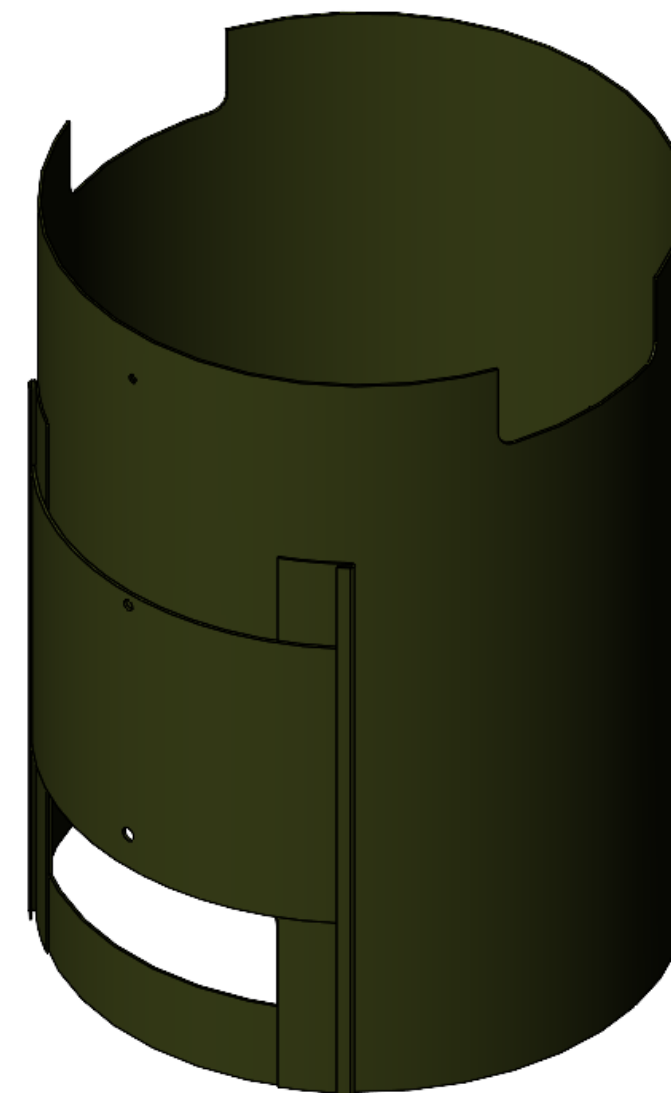
SolidWorks 11 x 17

ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
PART DESC	FURNACE - COMPLETE ASSEMBLY		
MATERIAL	1X SHELL, 1X TOP BAND, 1X BOT BAND SUBS		
QTY REQ'D	1	DWG SCALE	1:4
R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	

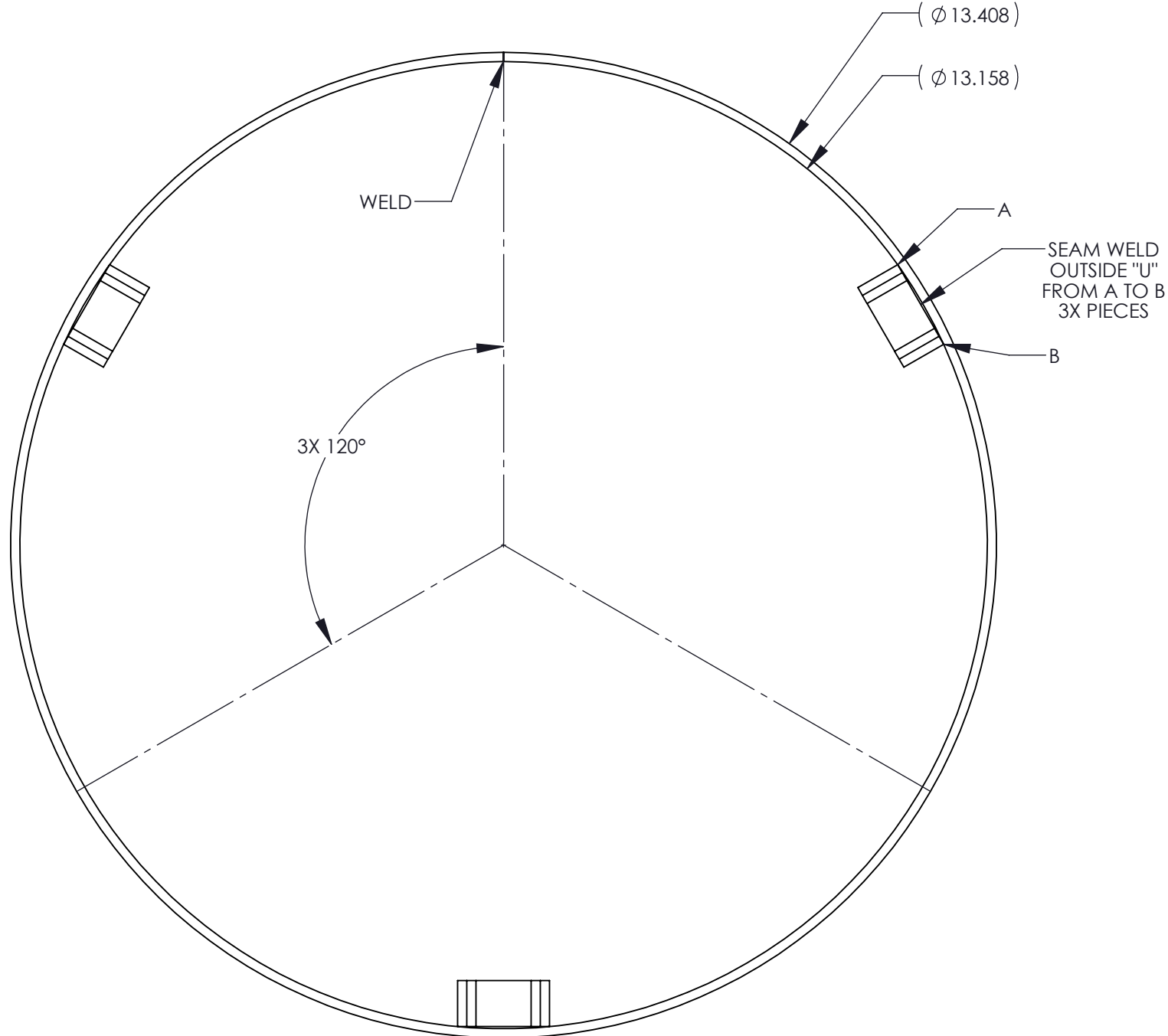
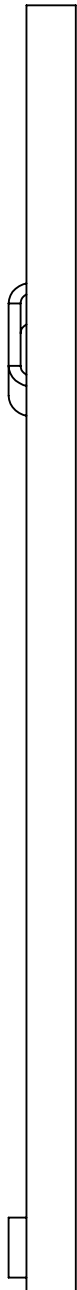
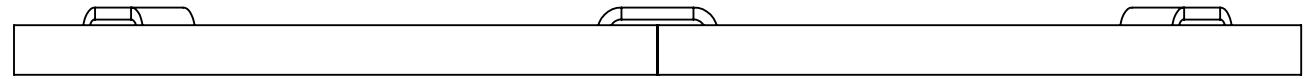


N SPOT WELDS
Y DISTANCE APART
ALONG CENTERLINE
FOR EACH RAIL

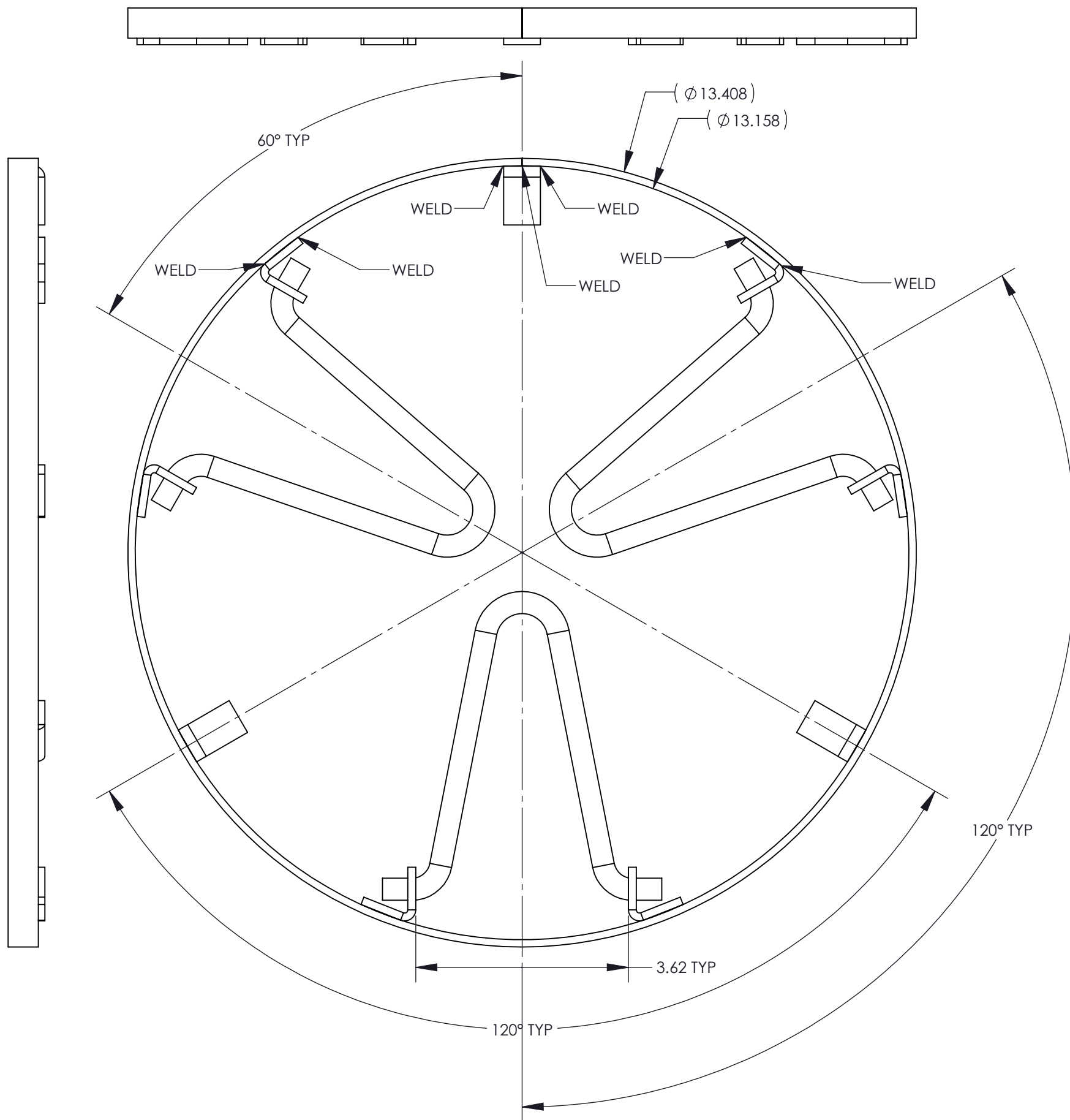
2X 1/16"
OFFSET FROM
OPENING EDGE



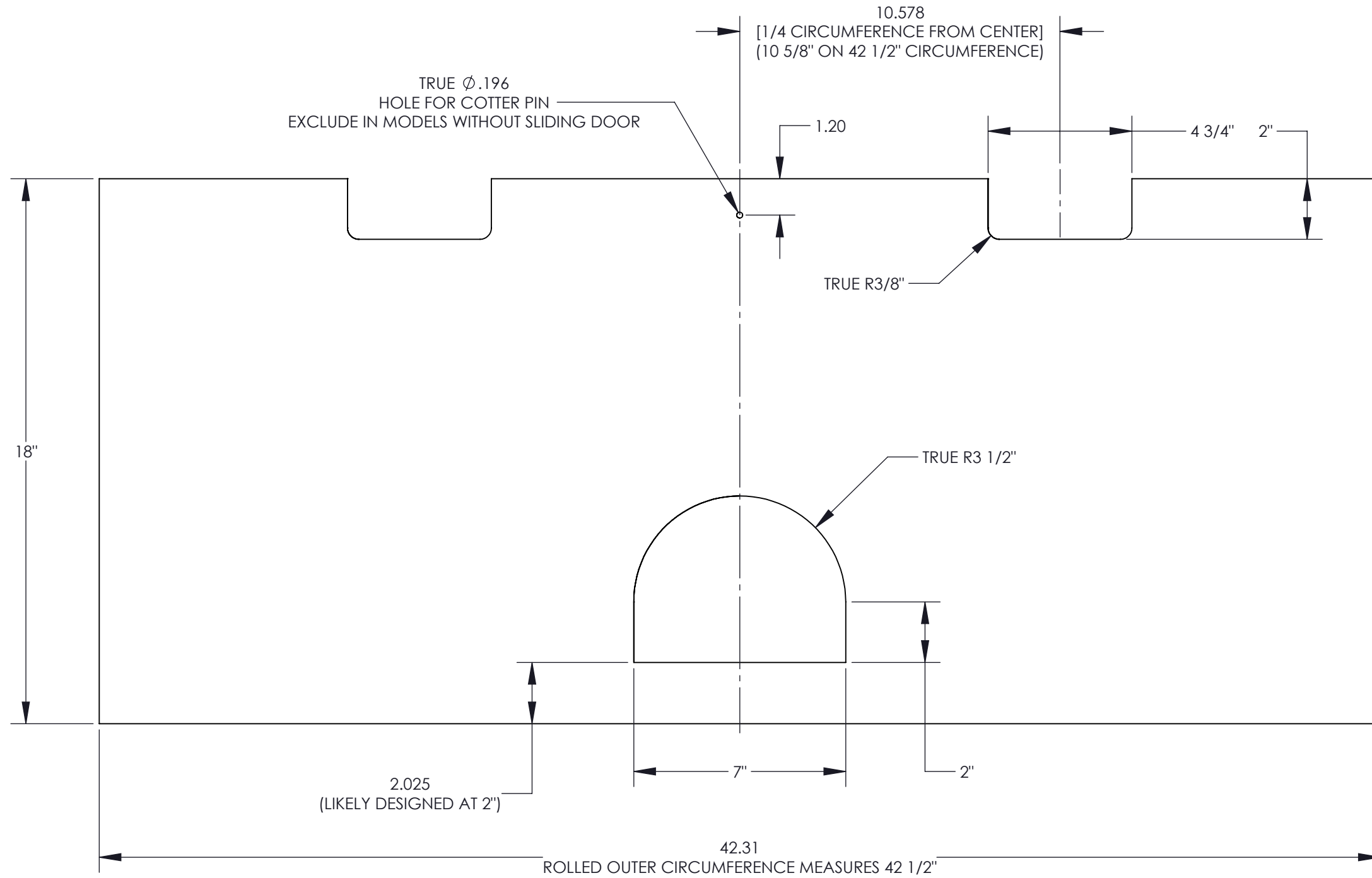
<p>UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING</p> <p>X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64</p>	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - SHELL SUBASSEMBLY		
	MATERIAL	1X SHELL, 1X DOOR, 2X SLIDING DOOR RAILS		
	QTY REQ'D	1	DWG SCALE	1:4
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	



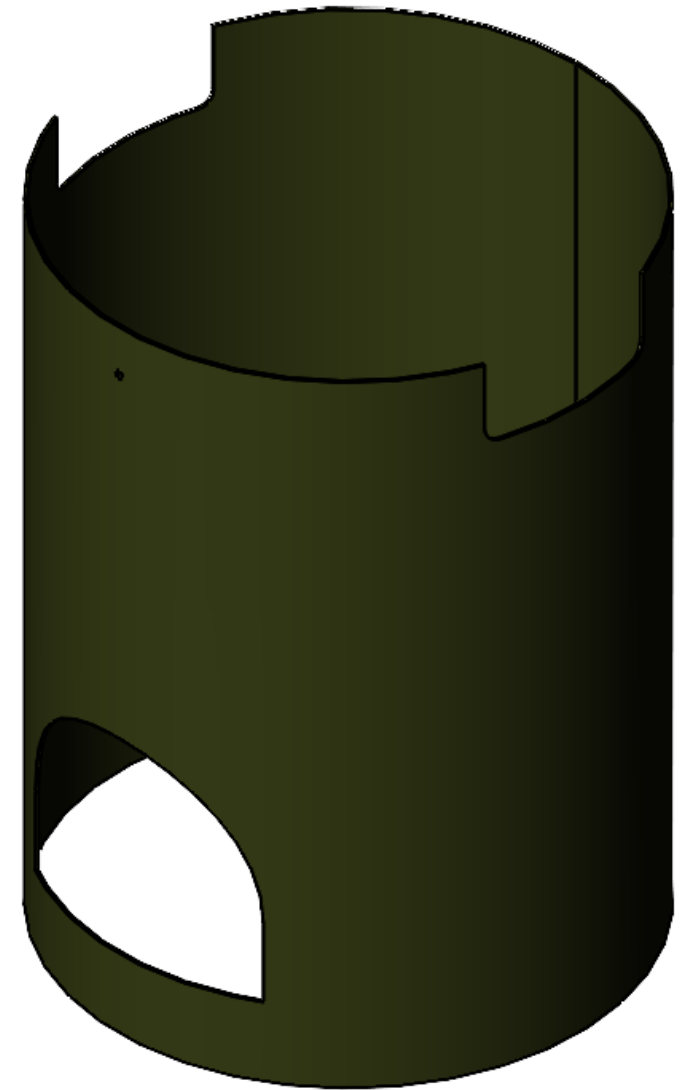
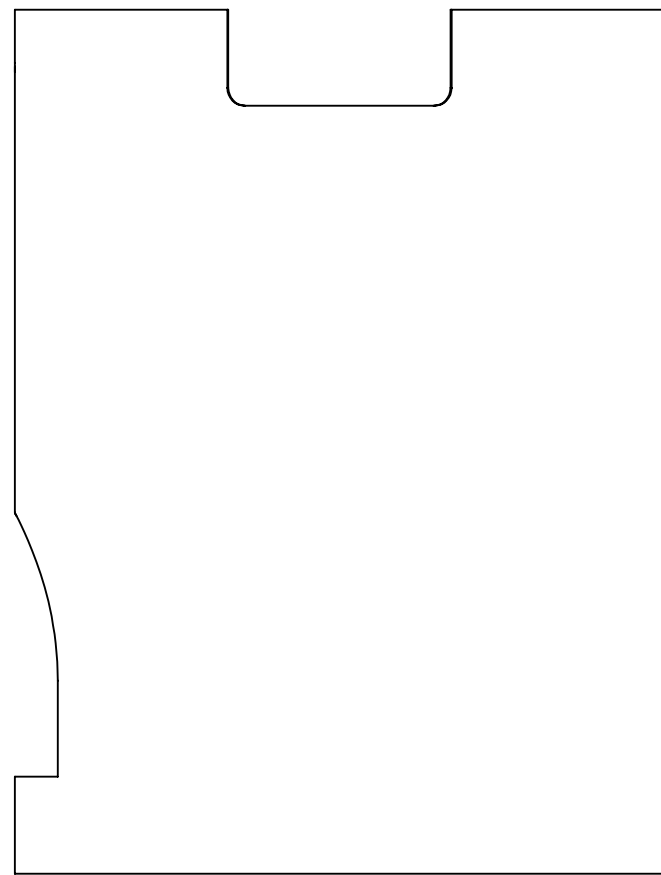
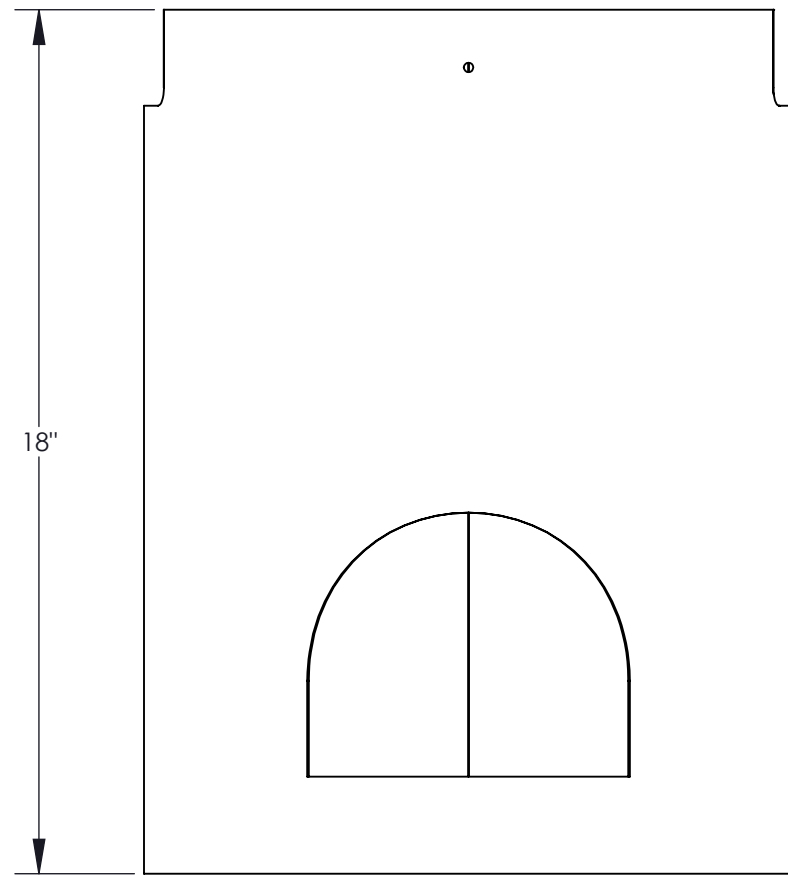
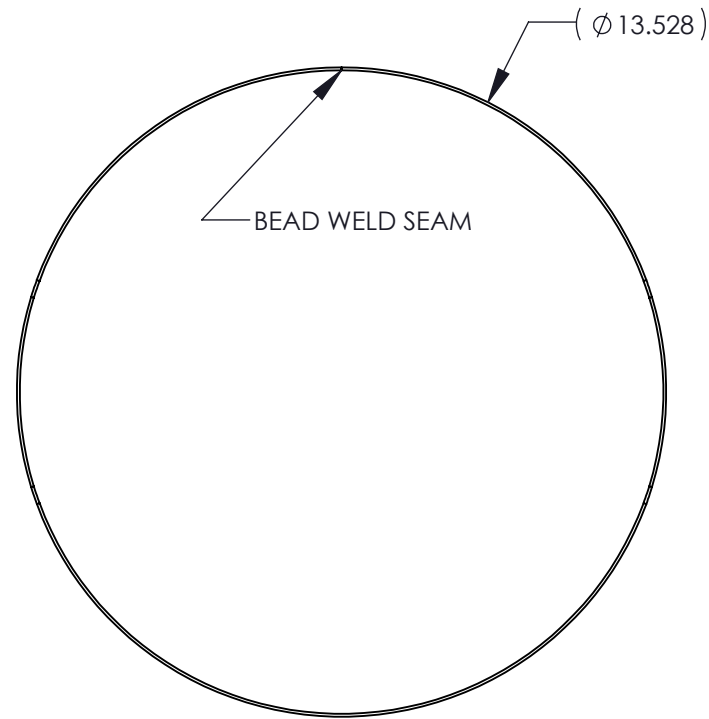
<p>UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING</p> <p>X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64</p>	<p>ARTHUR LYON & CO. LTD. LONDON, ENGLAND</p>		<p>ALCO 'FIREFLY' STEAM CHARGING SET</p>	
	PART DESC	FURNACE - TOP BAND SUBASSEMBLY		
	MATERIAL	1X BAND, 3X U-SHAPED BOILER SUPPORTS		
	QTY REQ'D	1	DWG SCALE	1:2
SolidWorks 11 x 17	<p>R. ZOWNIR ALCOFIREFLY.COM</p>		<p>DRAWN BASED ON BOILER SERIAL NUMBER 58533</p>	



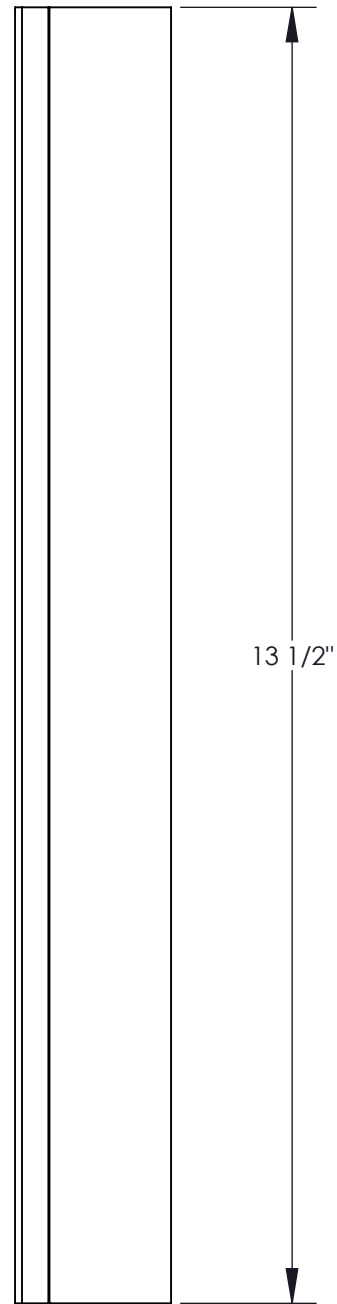
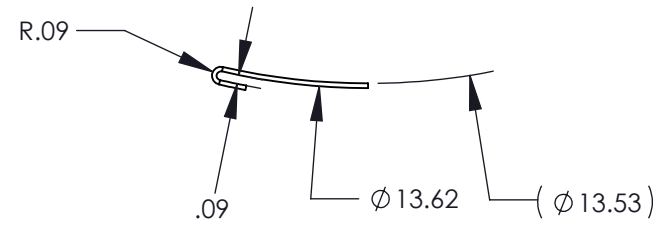
<p>UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING</p> <p>X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64</p>	<p>ARTHUR LYON & CO. LTD. LONDON, ENGLAND</p>		<p>ALCO 'FIREFLY' STEAM CHARGING SET</p>	
	PART DESC	FURNACE - BOTTOM BAND SUBASSEMBLY		
	MATERIAL	1X BAND, 3X L SUPPORT, 6X V HINGE, 3X LEGS		
	QTY REQ'D	1	DWG SCALE	1:2
<p>SolidWorks 11 x 17</p>	<p>R. ZOWNIR ALCOFIREFLY.COM</p>		<p>DRAWN BASED ON BOILER SERIAL NUMBER 58533</p>	



UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - SHELL		
	MATERIAL	16 GAUGE (.0598") OR 1/16" MILD STEEL		
	QTY REQ'D	1	DWG SCALE	1:4
	ROLLED TO OUTER DIAMETER OF 13.528" BASED ON MEASURED CIRCUMFERENCE OF 42 1/2" MEASURED THICKNESS AT .062" WITHOUT PAINT			
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	

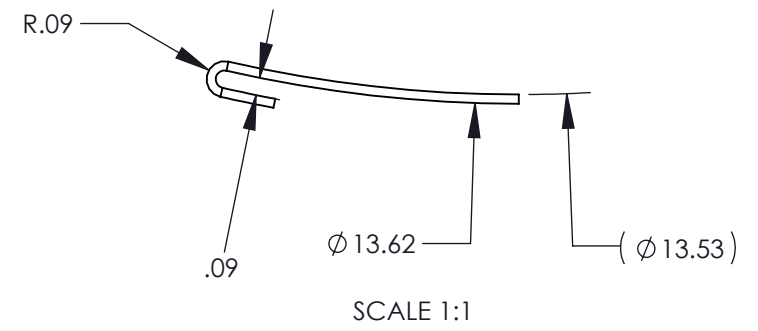
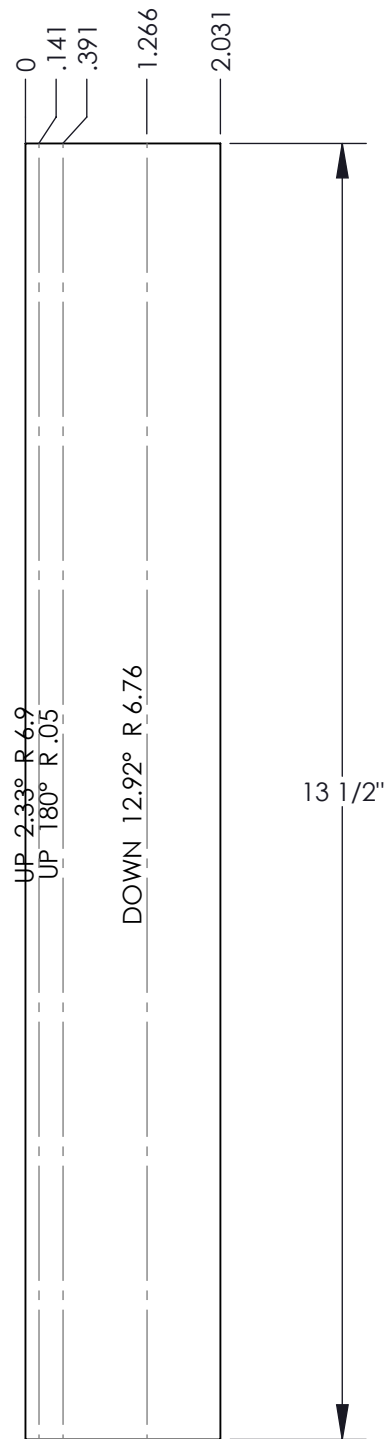


UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - SHELL		
	MATERIAL	16 GAUGE (.0598") MILD STEEL		
	QTY REQ'D	1	DWG SCALE	1:4
	FLAT ROLLED TO OUTER DIAMETER OF 13.528" (BASED ON MEASURED 42.5" CIRCUMFERENCE) SEAM BEAD WELDED			
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	

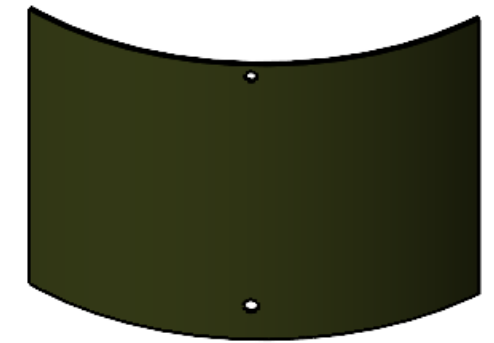
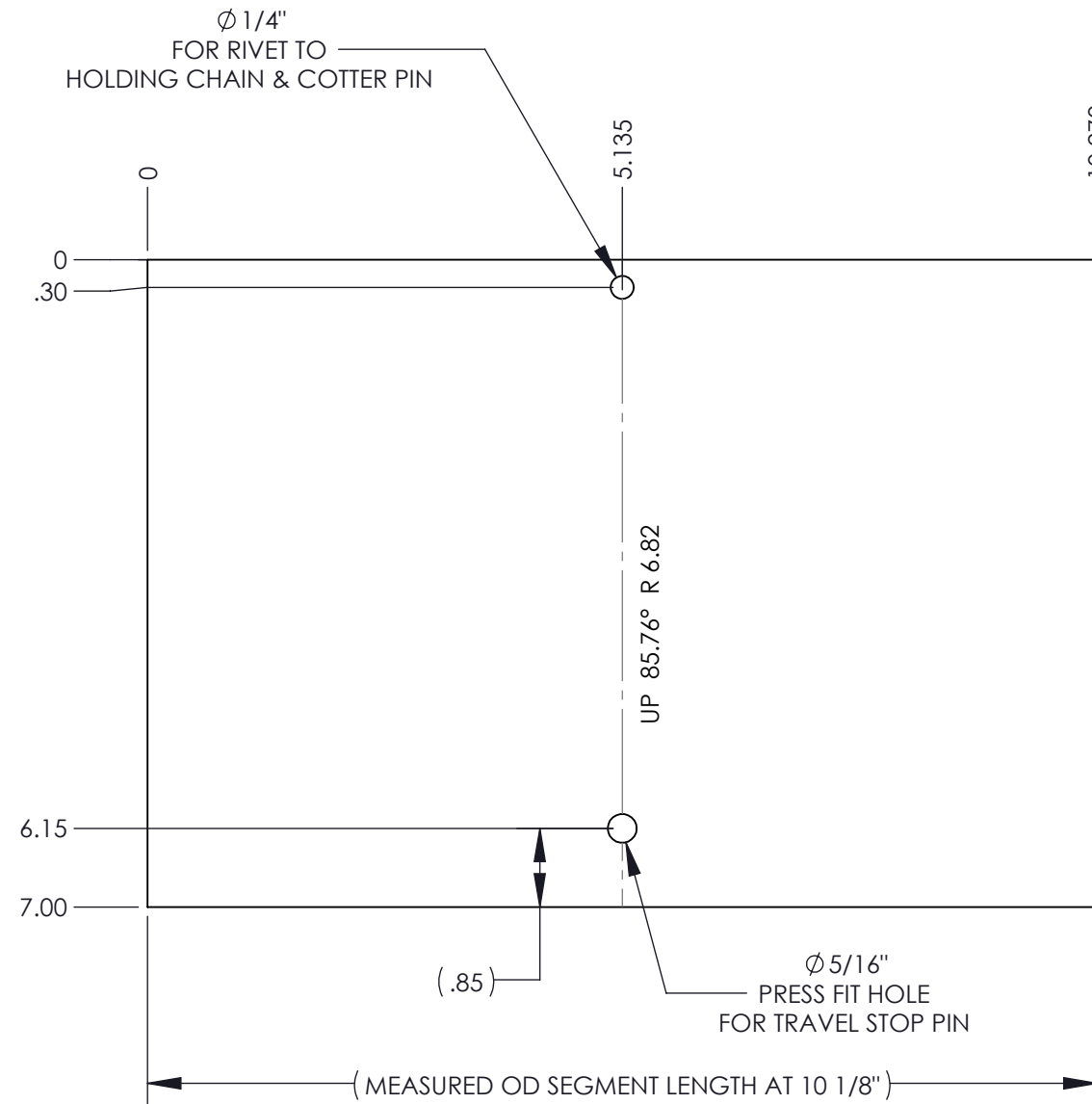
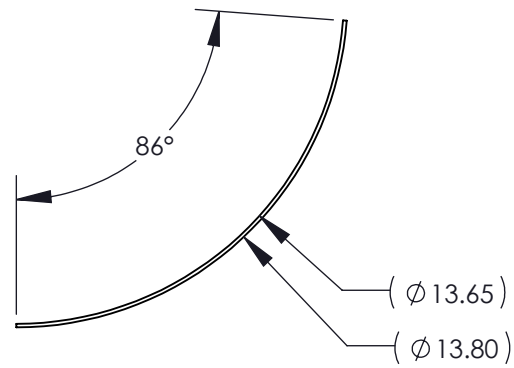
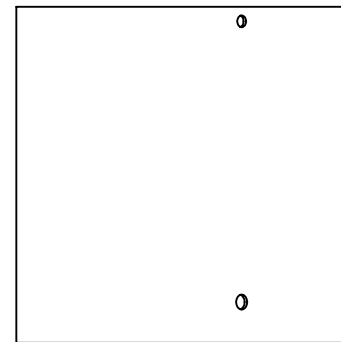
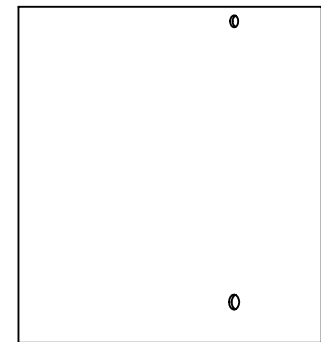


.35
MEASURED 3/8"-7/16" OD SEGMENT

1.627
MEASURED 1-5/8 OD SEGMENT

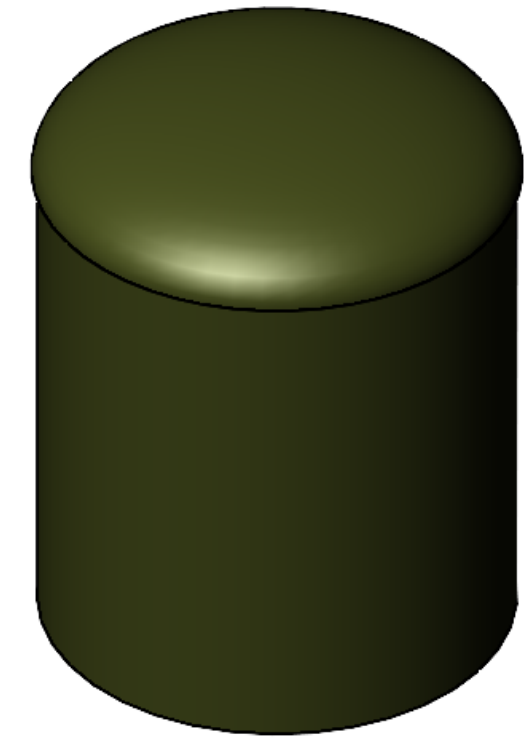
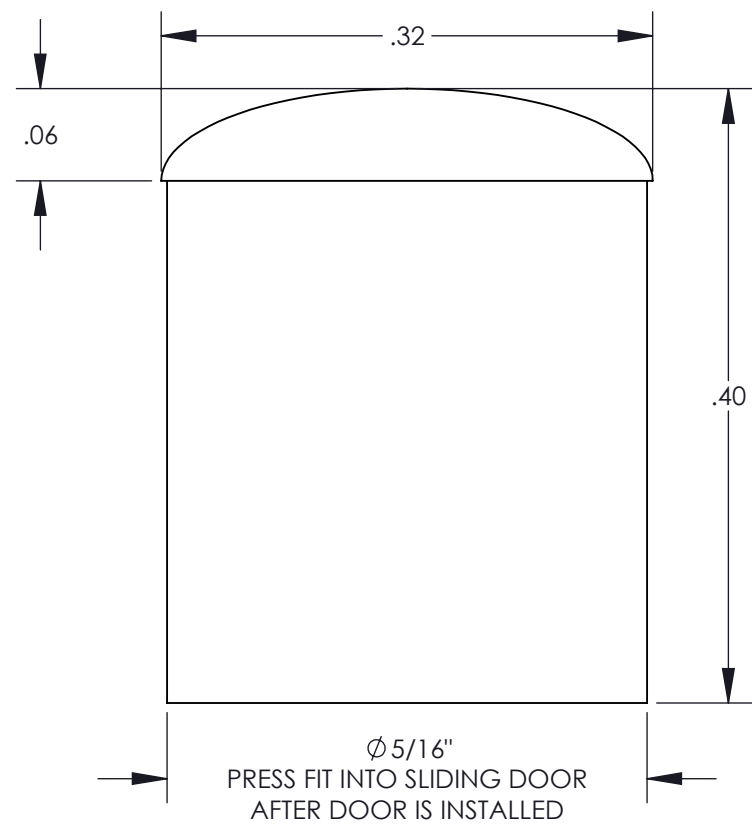
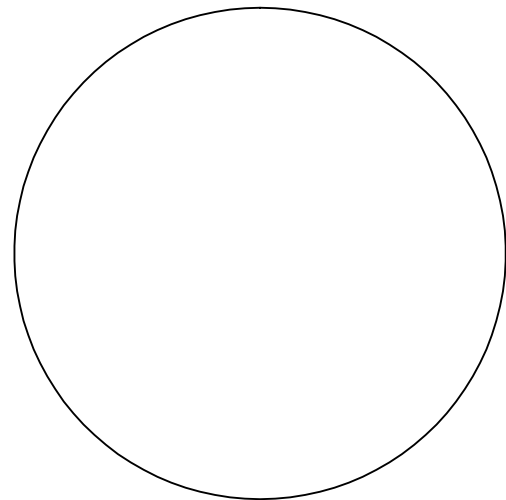


UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - DOOR SLIDE RAIL		
	MATERIAL	18 GAUGE (.0478") MILD STEEL		
	QTY REQ'D	2	DWG SCALE	1:2
	THICKNESS MEASURED AT .058" WITH PAINT, SO PROBABLY .050 BARE			
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	

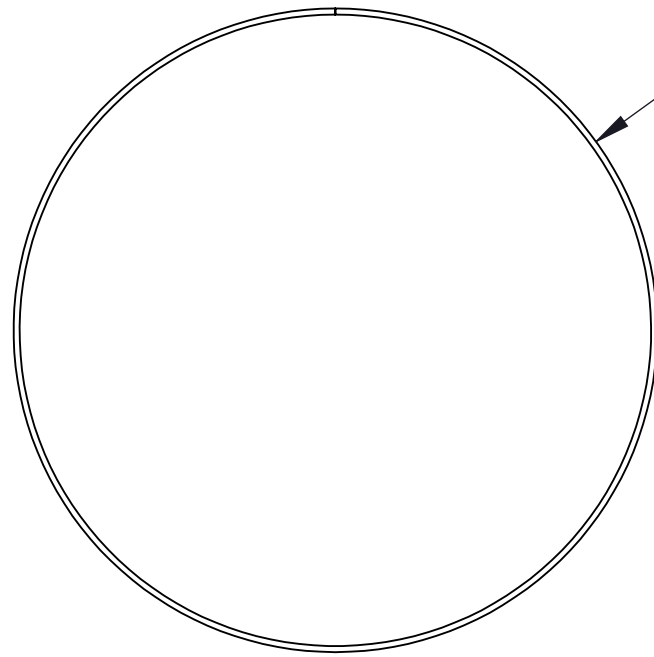
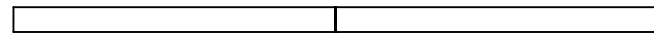


SCALE 1:2

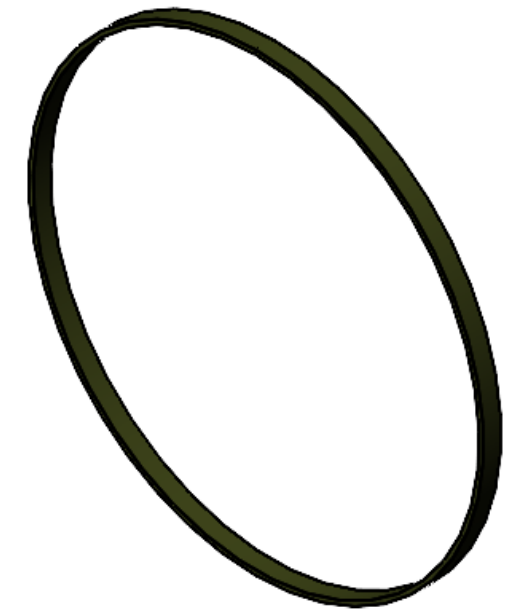
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - SLIDING DOOR		
	MATERIAL	14 GAUGE (.0747") MILD STEEL		
	QTY REQ'D	1	DWG SCALE	1:4
MEASURED THICKNESS WITH PAINT AT .079"-.080". MOST LIKELY 14 GAUGE.				
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	



UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - SLIDING DOOR STOP PIN		
	MATERIAL	Ø 1/4" MILD STEEL ROD		
	QTY REQ'D	1	DWG SCALE	8:1
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	



Ø 13.408



.515
.510
O
.520-.525 WITH PAINT

UP 359.99° R 6.58

41.73

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
DO NOT SCALE DRAWING
X.X ± .02
X.XX ± .01
X.XXX ± .005
X.XXXX ± .0005
ANGLES ± 1°
FRACTIONS ± 1/64

ARTHUR LYON & CO. LTD.
LONDON, ENGLAND

ALCO 'FIREFLY'
STEAM CHARGING SET

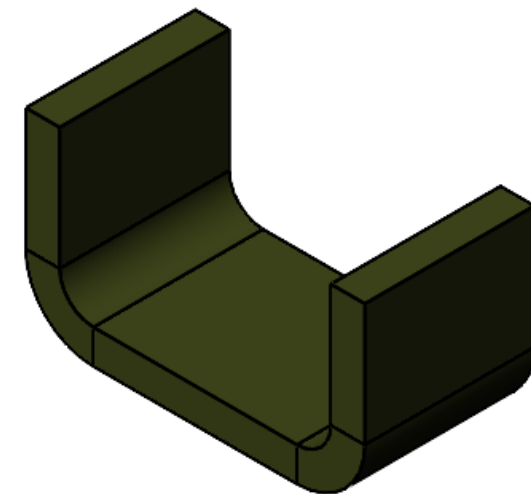
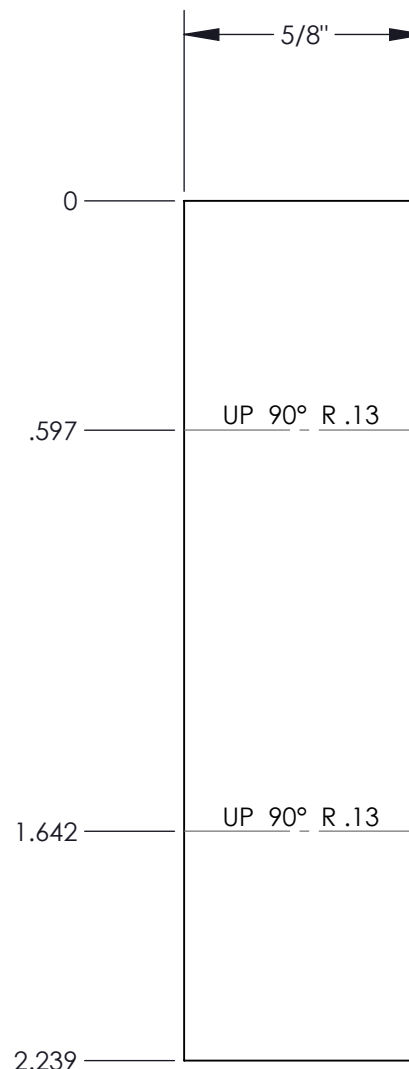
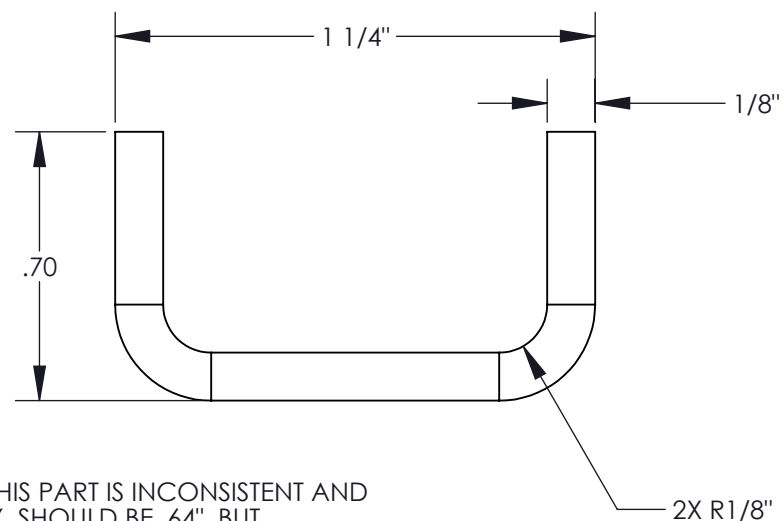
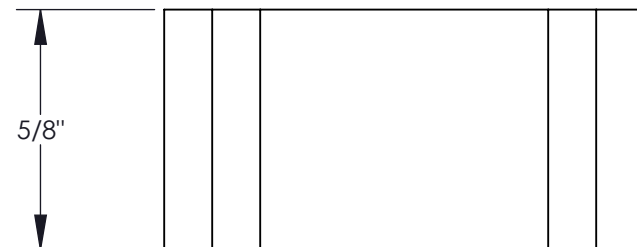
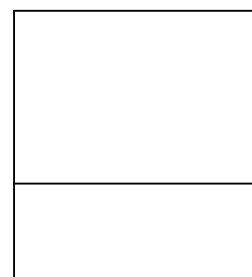
PART DESC	FURNACE - INNER BAND		
MATERIAL	1/8" THICK MILD STEEL		
QTY REQ'D	2	DWG SCALE	1:4

ROLLED INTO HOOP AND SEAM WELDED FROM INNER
DIAMETER
THICKNESS WITH PAINT MEASURED AT .135"

SolidWorks 11 x 17

R. ZOWNIR
ALCOFIREFLY.COM

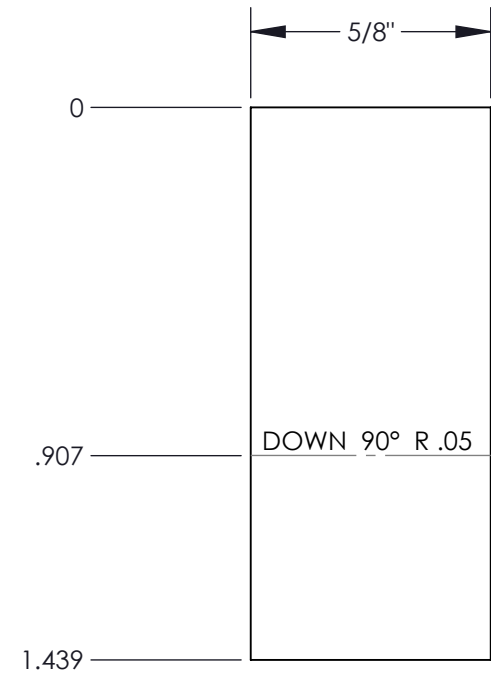
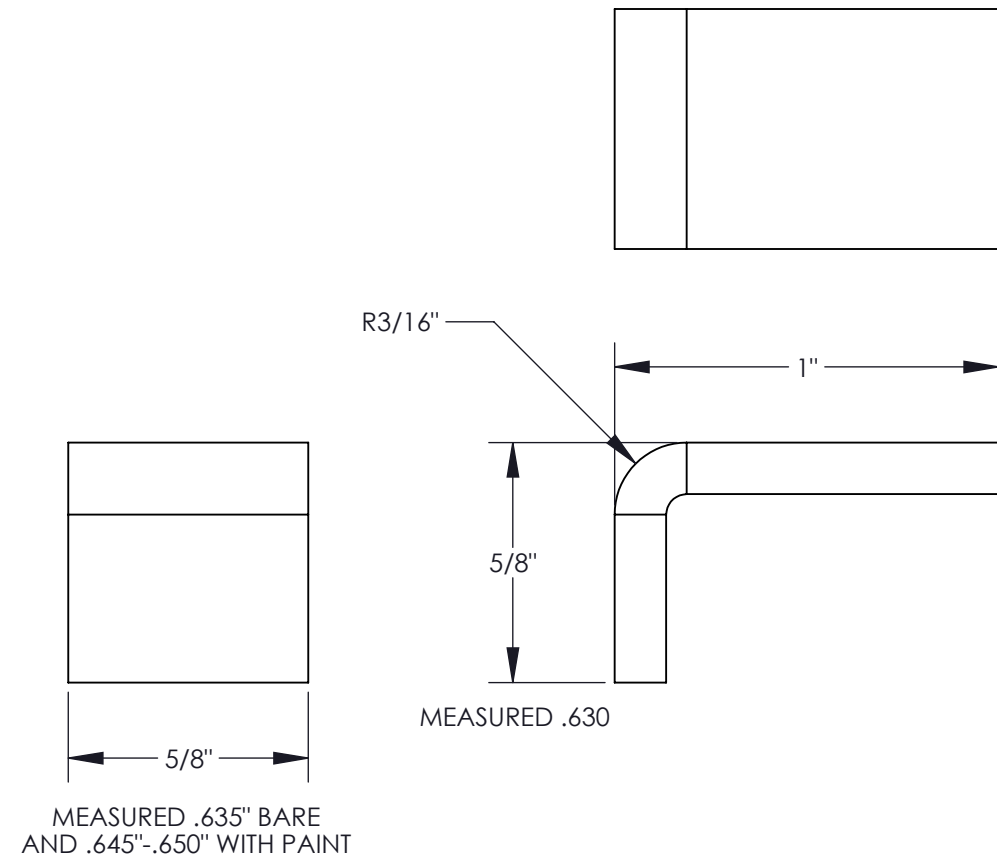
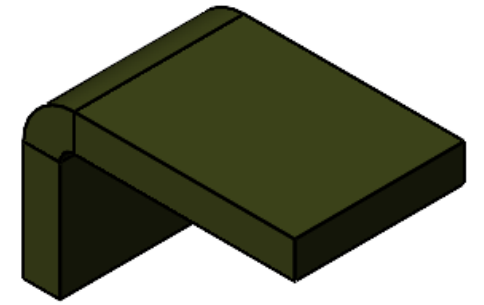
DRAWN BASED ON BOILER
SERIAL NUMBER 58533



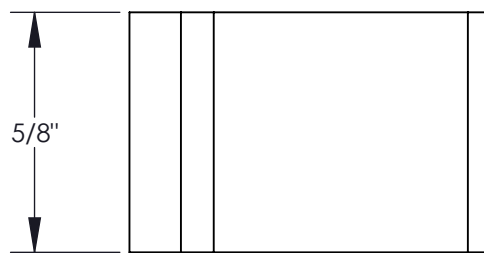
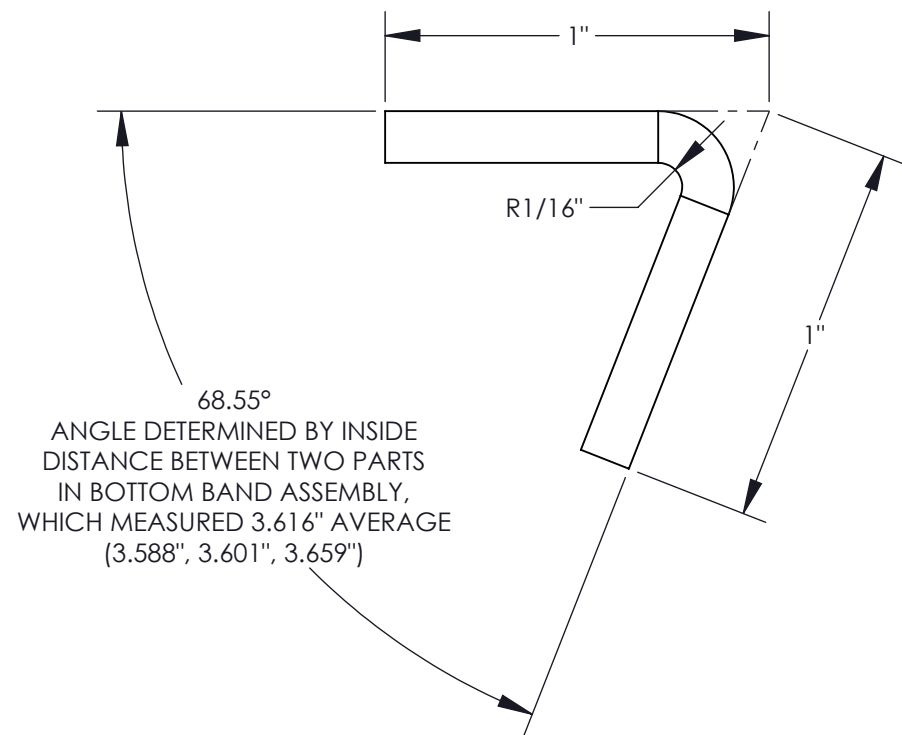
THE ACTUAL HEIGHT OF THIS PART IS INCONSISTENT AND UNEVEN. THEORETICALLY, SHOULD BE .64", BUT MEASUREMENTS INCLUDED .680", .690", .715".

THE HEIGHT BEING TALLER THAN THEORETICAL IS APPARENT FROM THE TOPS BEING SLIGHTLY PROUD OF THE BAND THESE ARE WELDED TO.

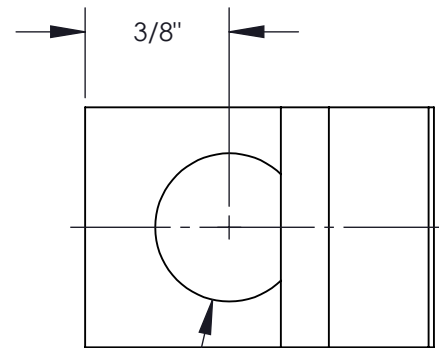
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - BOILER SUPPORT SHELF		
	MATERIAL	10 GAUGE (.1345") OR 1/8" MILD STEEL		
	QTY REQ'D	3	DWG SCALE	2:1
	THICKNESS MEASURED AT .133"-.135" WITH PAINT AND SOME BARE SPOTS WITHOUT PAINT AT .130". MOST LIKELY NOMINALLY 1/8" THICK.			
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	



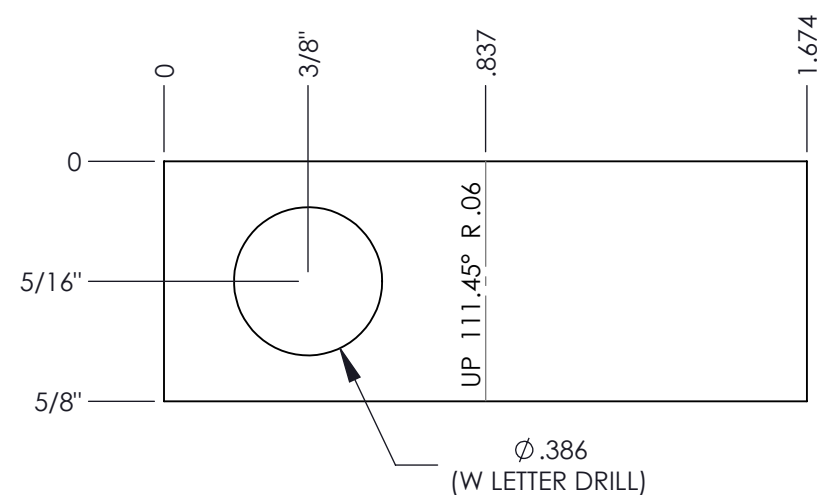
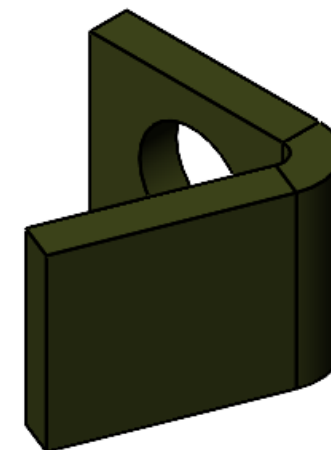
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - GRATING SUPPORT		
	MATERIAL	10 GAUGE (.1345") OR 1/8" MILD STEEL		
	QTY REQ'D	3	DWG SCALE	2:1
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	



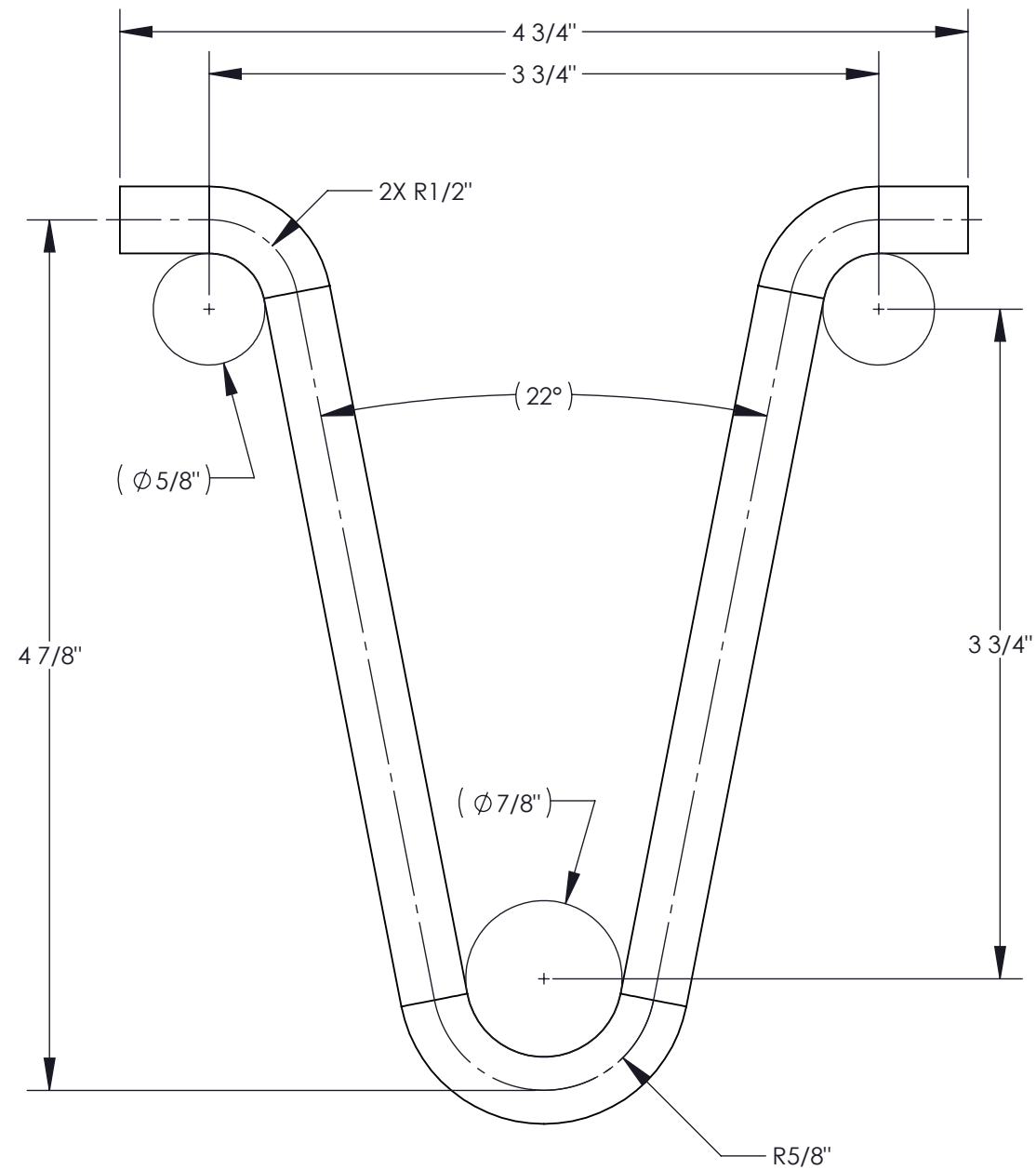
MEASURED .642"-.650" WITH PAINT



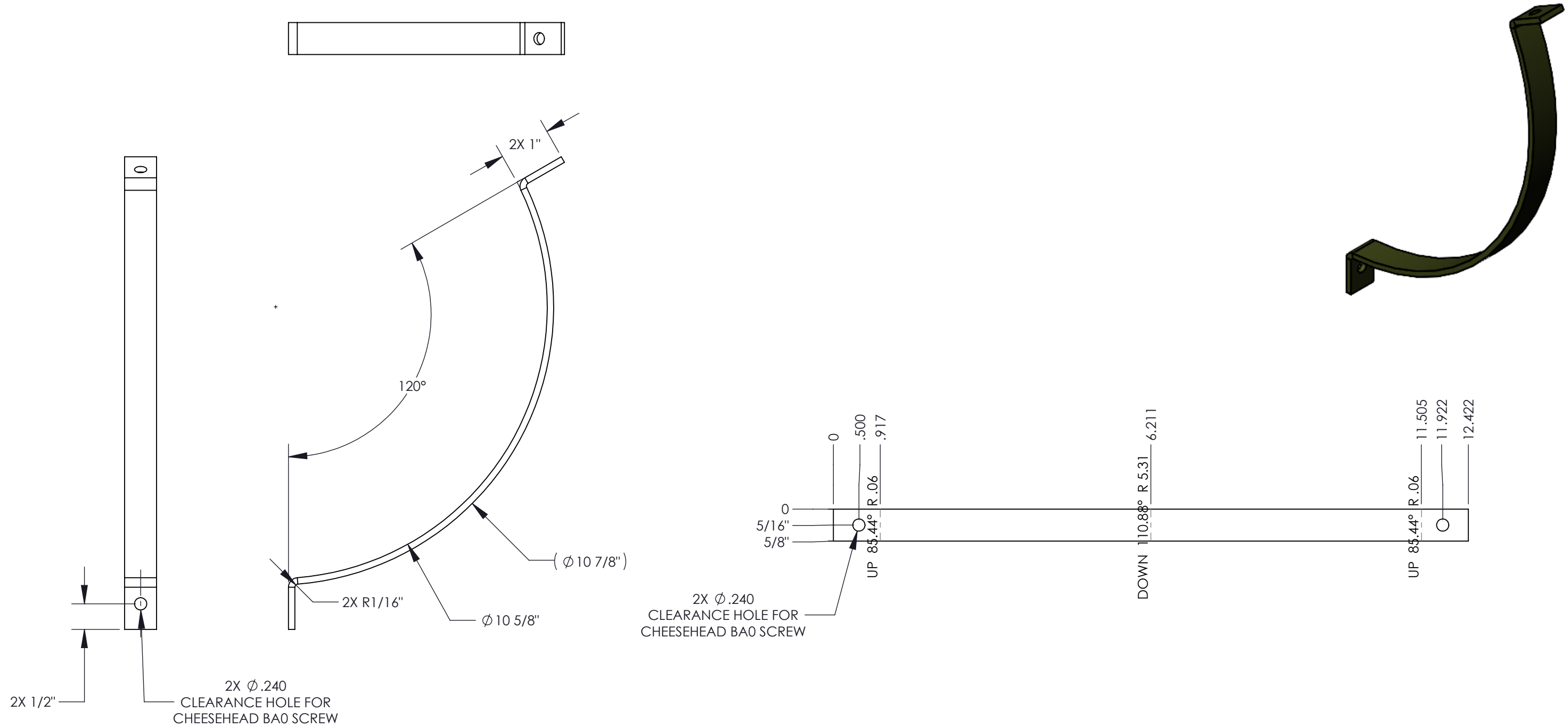
Ø .386
(W LETTER DRILL)



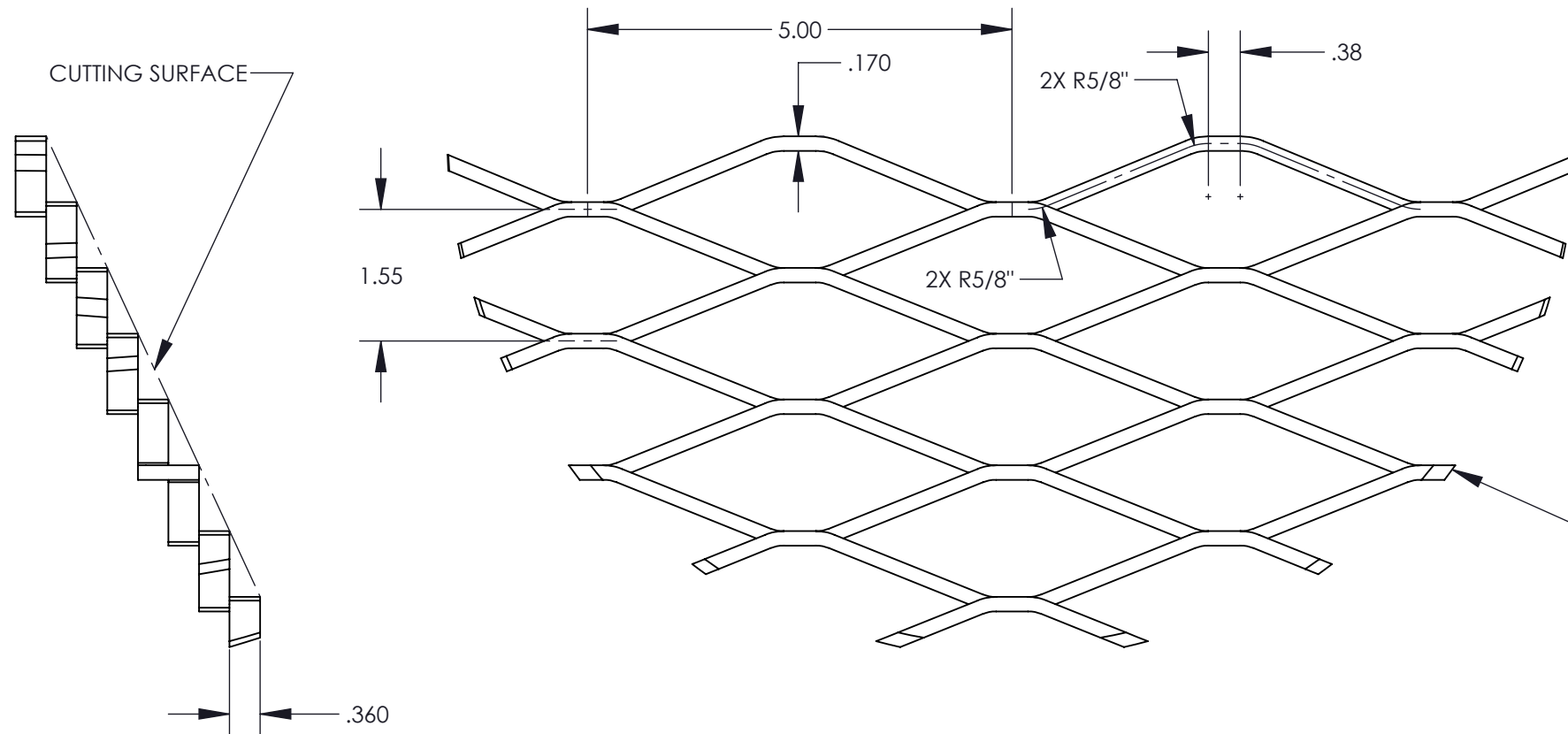
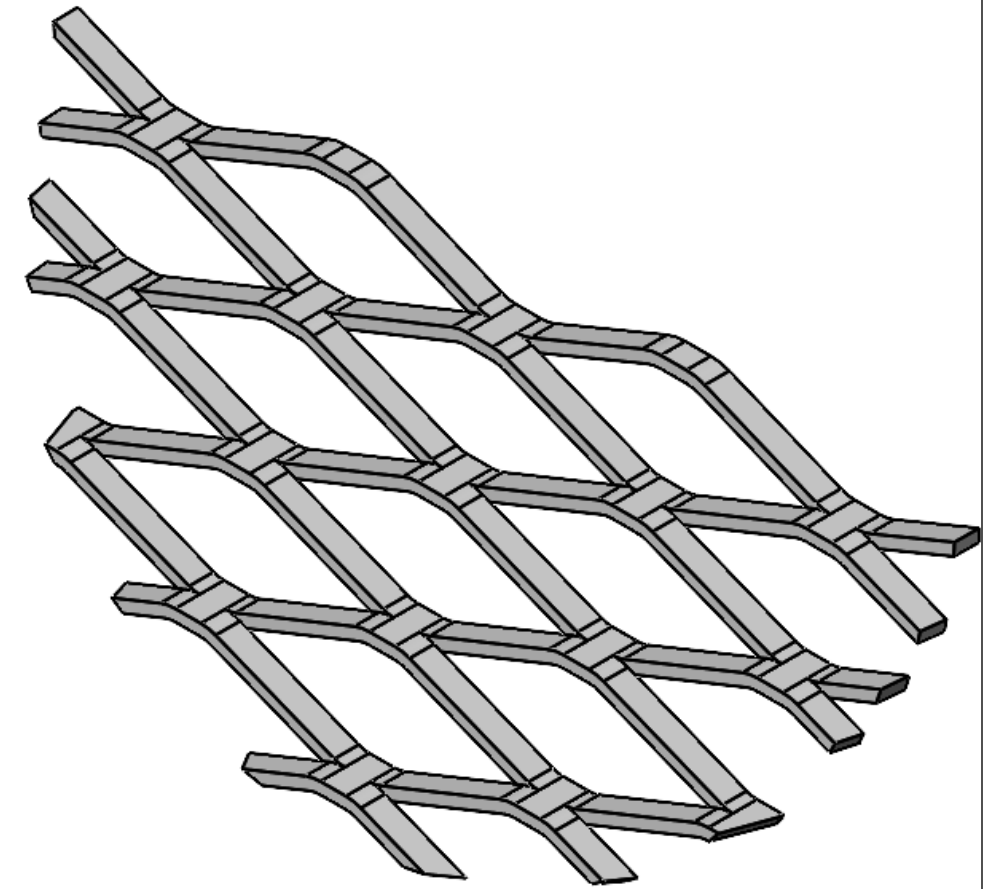
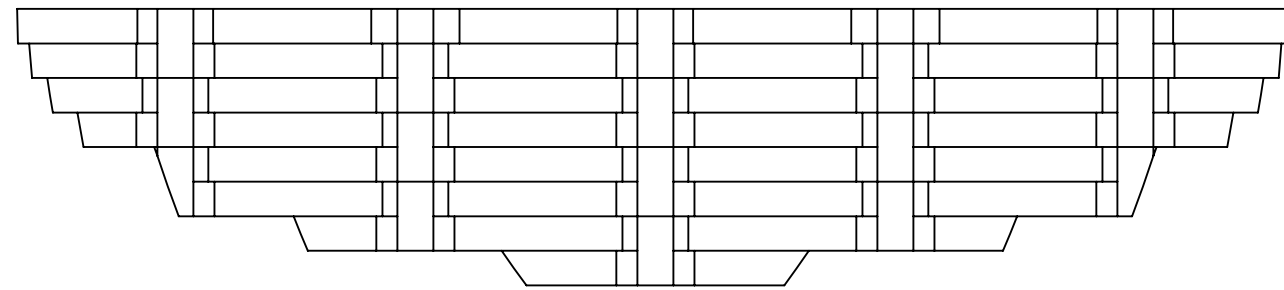
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - LEG HINGE		
	MATERIAL	10 GAUGE (.1345") OR 1/8" MILD STEEL		
	QTY REQ'D	6	DWG SCALE	2:1
MEASURED THICKNESS AT .144"-.150" WITH PAINT AND .127"-.130" WITHOUT PAINT				
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	



UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - LEG		
	MATERIAL	ϕ 3/8" MILD STEEL ROD		
	QTY REQ'D	3	DWG SCALE	1:1
	MEASURED ANGLE OF LEG RANGED FROM 22°-25°			
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	



UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X \pm .02 X.XX \pm .01 X.XXX \pm .005 X.XXXX \pm .0005 ANGLES \pm 1° FRACTIONS \pm 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - BOILER STRAP		
	MATERIAL	10 GAUGE (.1345") OR 1/8" MILD STEEL		
	QTY REQ'D	3	DWG SCALE	1:2
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	



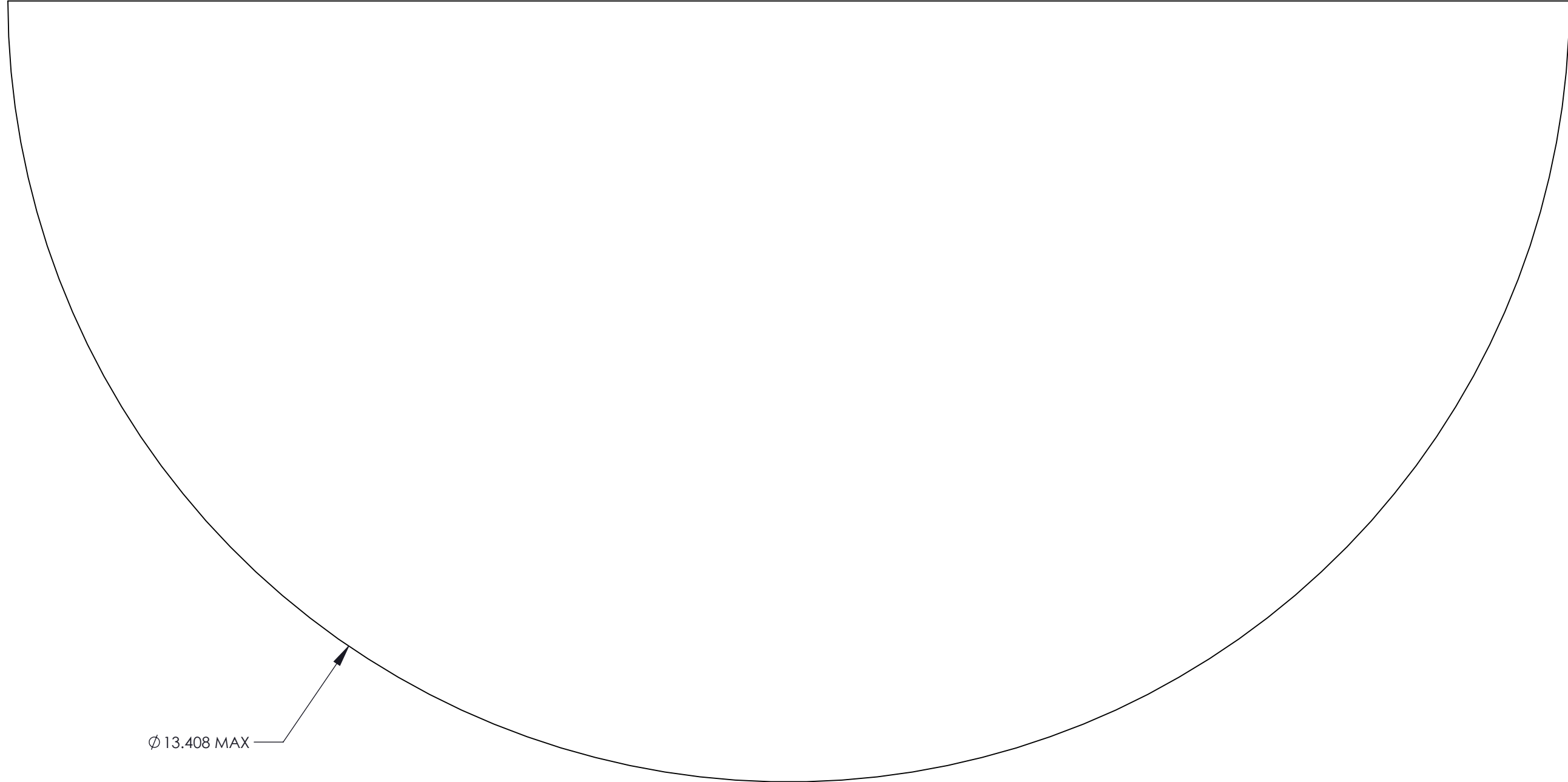
GRATING MATERIAL IS LAID FLAT AND CUT TO ϕ 13.30"-13.40".

IT IS IMPORTANT THAT EACH PAIR IS CUT AT THE SAME CENTER OFFSET RELATIVE TO THE DIAMOND PATTERN, SO THAT THE TWO HALVES WILL COME TOGETHER PROPERLY WITHIN THE CIRCULAR BOUNDARY OF THE FURNACE SHELL ID.

EXPANDED STEEL GRATING SPECIFICATION:

SHEET METAL THICKNESS: .170"
 STRIP WIDTH: .360"
 DIAMOND WIDTH (CENTER-TO-CENTER): 5"
 DIAMOND HEIGHT (CENTER-TO-CENTER): 1.55"
 CENTER FLAT: 5/8" (POINT OF TANGENCY)
 CORNER RADIUS: 5/8"

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING X.X ± .02 X.XX ± .01 X.XXX ± .005 X.XXXX ± .0005 ANGLES ± 1° FRACTIONS ± 1/64	ARTHUR LYON & CO. LTD. LONDON, ENGLAND		ALCO 'FIREFLY' STEAM CHARGING SET	
	PART DESC	FURNACE - FIRE GRATE HALF		
	MATERIAL	EXPANDED STEEL GRATING (SPECS NOTED)		
	QTY REQ'D	4	DWG SCALE	1:2
EXTRA PAIR SUPPLIED WITH EACH GENERATOR SET (CONSUMABLE ITEM)				
SolidWorks 11 x 17	R. ZOWNIR ALCOFIREFLY.COM		DRAWN BASED ON BOILER SERIAL NUMBER 58533	



Ø 13.408 MAX

EXPANDED STEEL GRATING SPECIFICATION:

SHEET METAL THICKNESS: .170"
 STRIP WIDTH: .360"
 DIAMOND WIDTH (CENTER-TO-CENTER): 5"
 DIAMOND HEIGHT (CENTER-TO-CENTER): 1.55"
 CENTER FLAT: 5/8" (POINT OF TANGENCY)
 CORNER RADIUS: 5/8"

UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS ARE IN INCHES
 DO NOT SCALE DRAWING
 X.X ± .02
 X.XX ± .01
 X.XXX ± .005
 X.XXXX ± .0005
 ANGLES ± 1°
 FRACTIONS ± 1/64

SolidWorks 11 x 17

ARTHUR LYON & CO. LTD.
 LONDON, ENGLAND

ALCO 'FIREFLY'
 STEAM CHARGING SET

PART DESC	FURNACE - FIRE GRATE HALF		
MATERIAL	EXPANDED STEEL GRATING (SPECS NOTED)		
QTY REQ'D	4	DWG SCALE	1:1

EXTRA PAIR SUPPLIED WITH EACH GENERATOR SET
 (CONSUMABLE ITEM)

R. ZOWNIR
 ALCOFIREFLY.COM

DRAWN BASED ON BOILER
 SERIAL NUMBER 58533