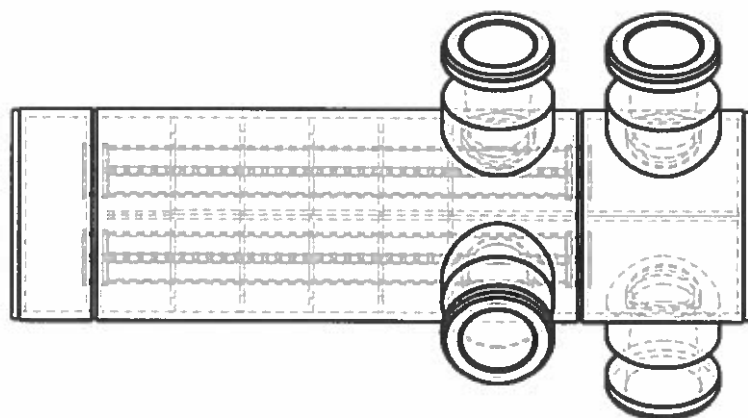
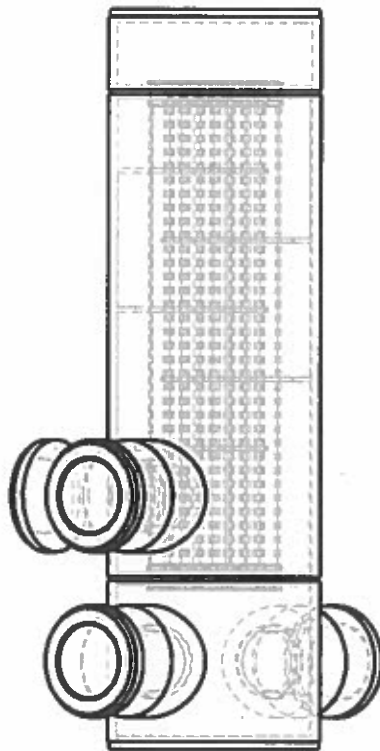


# Heat Exchanger Manufacturing Drawings

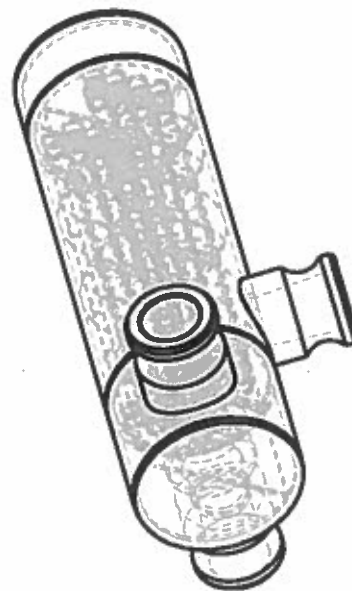
## Group C

### Notes:


- The detailed hole spacing layout for the tube plates and baffles is shown on the “Tube Plate (2 Slots)” this is not repeated on the other drawings to aid clarity
- Where external diameters are set to 64mm these should be machined to fit the nominally 64mm ID stock tube
- Where holes are set to 8mm diameter these should be machined for a clearance fit with the nominally 8mm OD tube
- Where slots are shown as 1.5mm wide these should be machined to fit the nominally 1.5mm thick plastic sheet



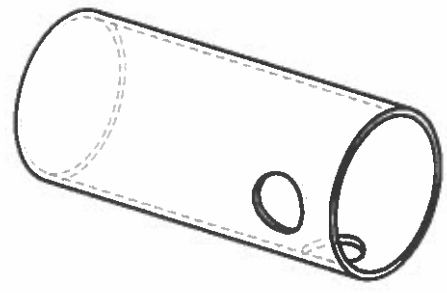
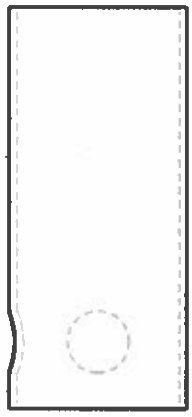
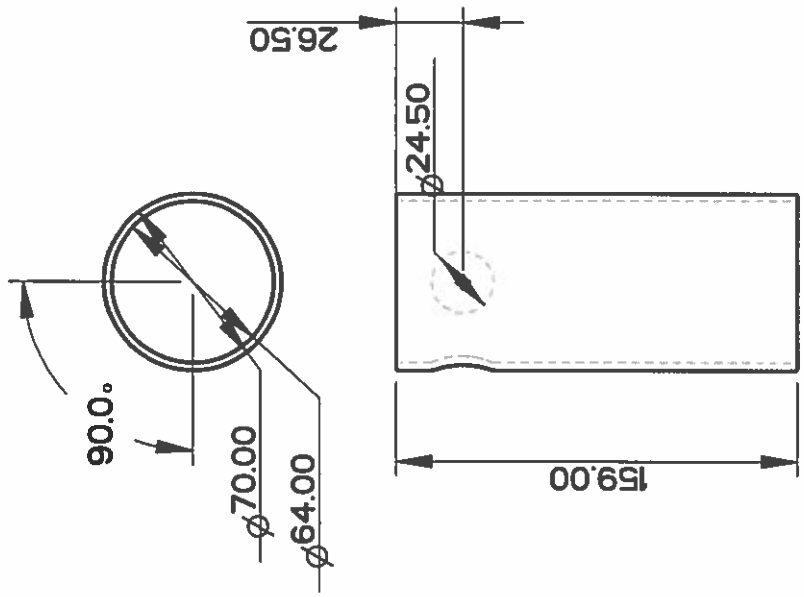
SCALE 0.400



SCALE 0.330

Linear	0.1	material type	Filename		ASSEMBLY	Sheet	• Sheets
Angular	0.5					1	1
Material			Project	Format	Scale	Date	
Drawn			102231 332800	A4	0.200	22-May-18	
Tel.			project no				
e-mail			anoXX@eng.cam.ac.uk				
Sheet							

Cambridge University  
Engineering Department



NOTES  
1) 1 PART REQUIRED

Tolerances		mm	
Units	mm		
Linear	0.1		
Angular	0.5		
Material	material type		
Drawn	A.N. Other		
Tel.	(01223) 332800		
e-mail	enox@eng.cam.ac.uk		
Project	project.no	Format	A4
Scale	0.333	Sheet	1
Date	22-May-18	• Sheets	1



Cambridge University  
Engineering Department

Shell Body

TUBEROODY

Filename

Project

project.no

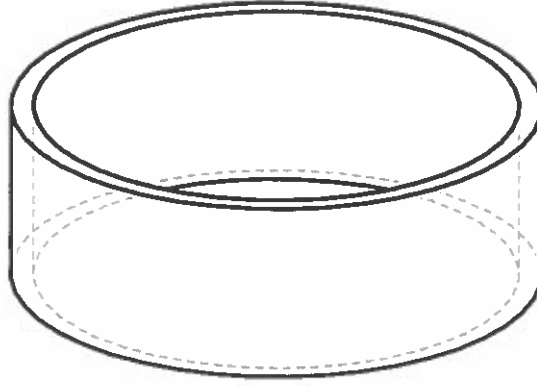
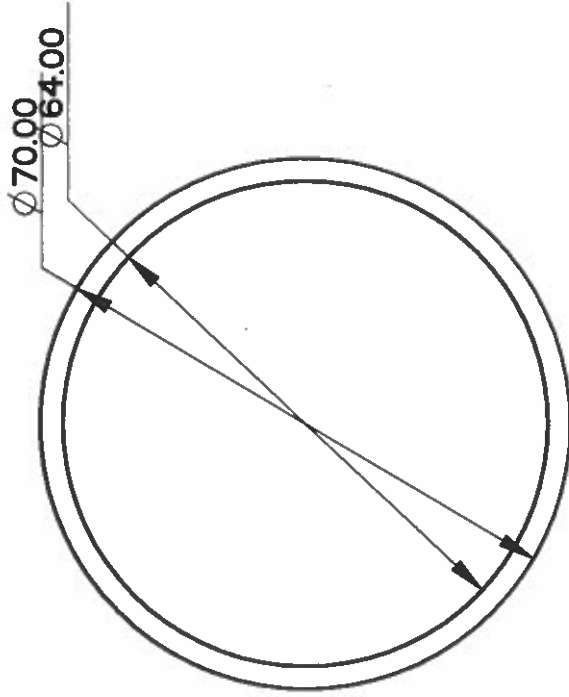


Format

Scale



Data

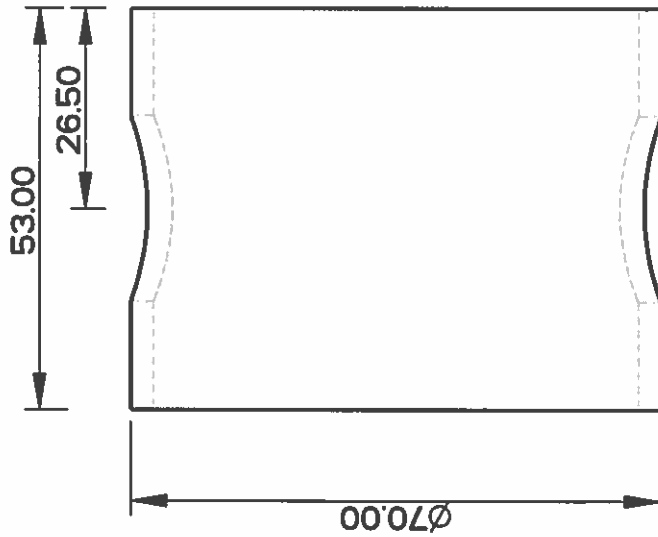
22-May-18



# NOTES

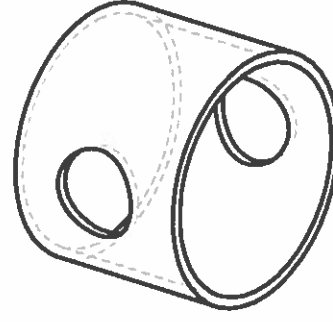
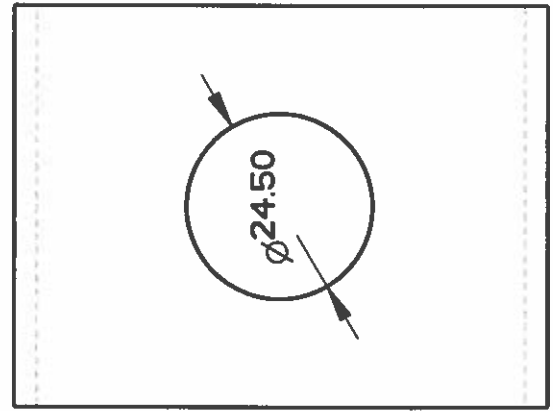
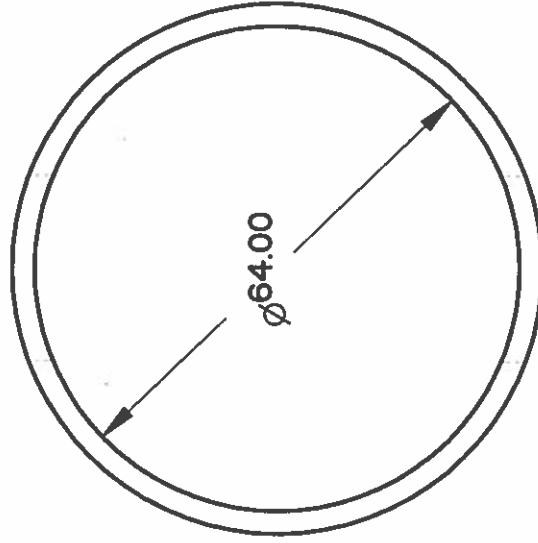
1) 1 PART REQUIRED

Tolerances				Cambridge University Engineering Department		Head no nozzles	
Units	mm			Flanano		Sheet	• Sheets
Linear	0.1					1	1
Angular	0.5					Date	
Material	material type			HEAD		22-May-18	
Drawn	ANL Other			Format		Scale	
Tel	(01223) 332800	Project		A4		1.000	
e-mail	anoxx@eng.cam.ac.uk	project no					
Material		project no					



## NOTES

1) 1 PART REQUIRED



SCALE 0.500

Tolerances	
Units	mm
Linear	0.1
Angular	0.5
Material	material.type
Drawn	AM Other
Tel.	(01223) 332800
e-mail	enr001@eng.cam.ac.uk

Filename	FEED_HEADER
Project	Format
Scale	1:000
Project.np	A4

Sheet	1	• Sheets	1
Date			
22-May-18			

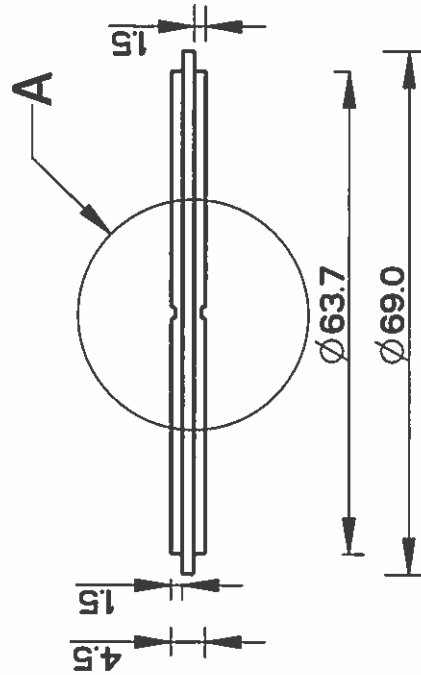
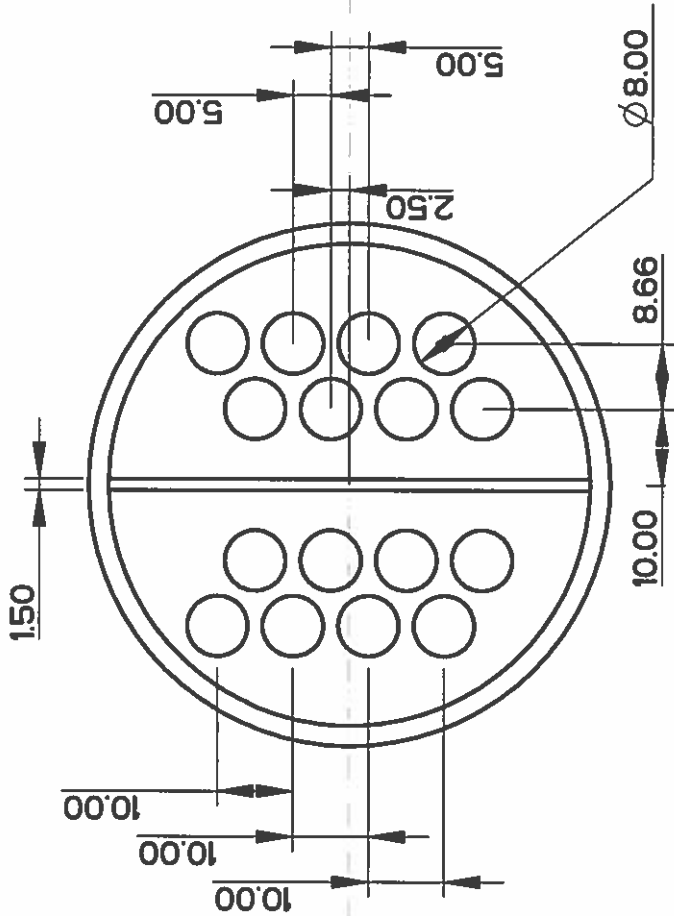


Cambridge University  
Engineering Department

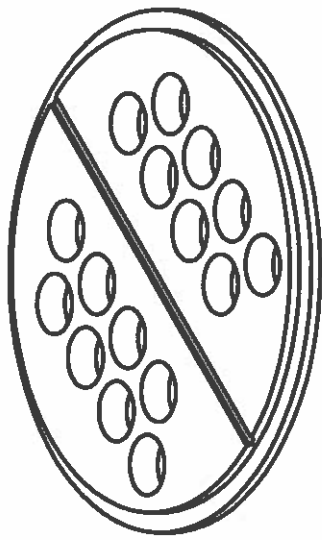
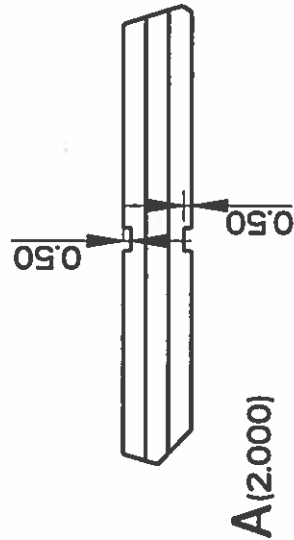
Feedheader (for hot flow nozzles)



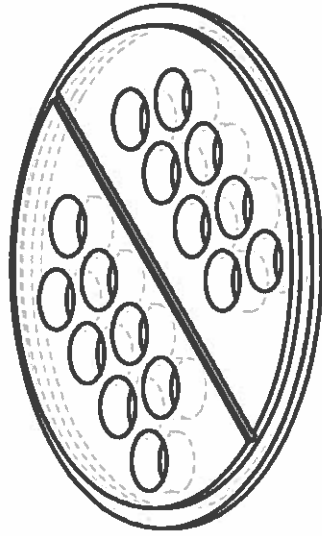
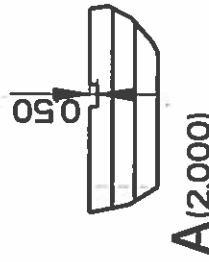
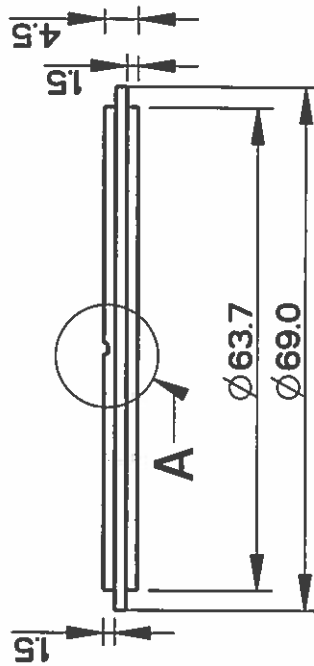
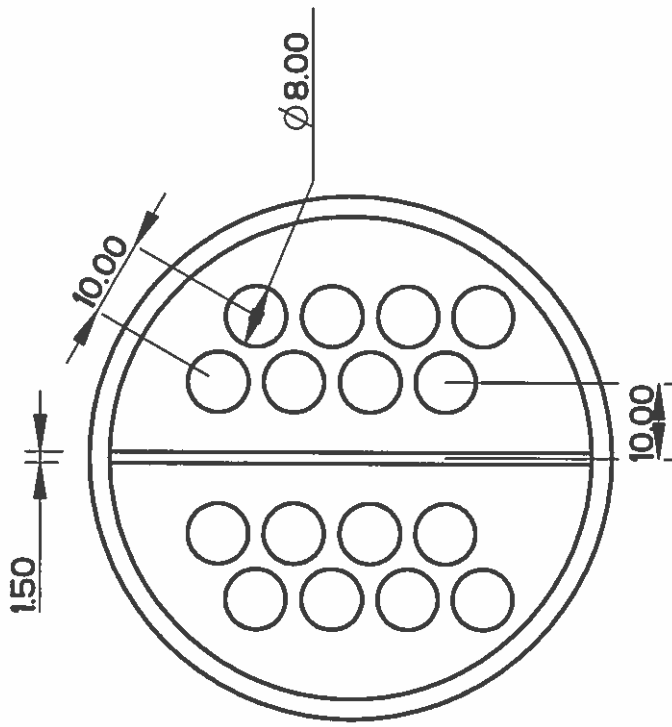
project.np



Note: 1 part required. Use this drawing for layout of holes on other parts with holes (i.e: other tube plate, baffle, baffle 2)



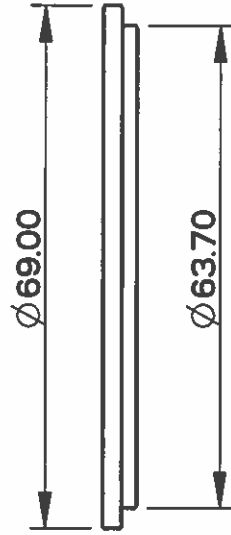
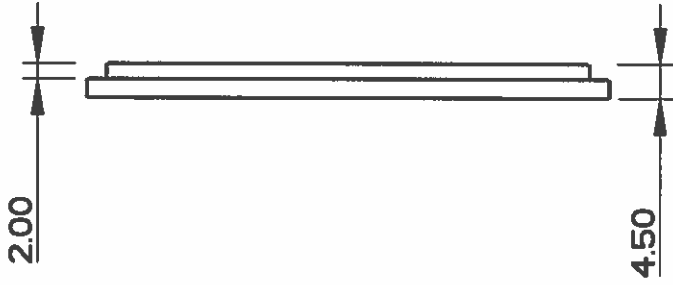
Tolerances		Cambridge University Engineering Department		Tube Plate (2 slots)	
Units	mm	Filename		Sheet	1
Linear	0.1	PLATE.TUBE		Sheet	1
Angular	0.5	Project		Scale	1:1000
Material	material type	Project no		Format	A4
Drawn	AN Other	Project no		Date	22-May-18
Tel	(01223) 332600	Project no		Scale	1:1000
e-mail	enr000@eng.cam.ac.uk	Project no		Date	22-May-18
Revised		Project no		Scale	1:1000



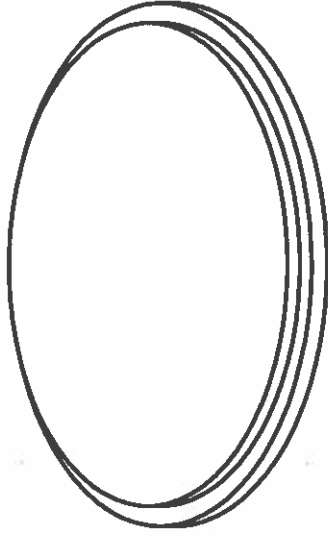
## NOTES

1) 1 PART REQUIRED

Tolerances		Cambridge University Engineering Department	
Units	mm	Sheet	1
Linear	0.1	• Sheets	1
Angular	0.5	Date	22-May-18
Material	material type	Tube Plate (1 slot)	
Drawn	AAI Other	PLATE.TUBE.ONE.SLOT	
Tel	(01223) 332800	Project	1.000
e-mail	enox@eng.cam.ac.uk	Format	A4
Project no	project.no	Scale	



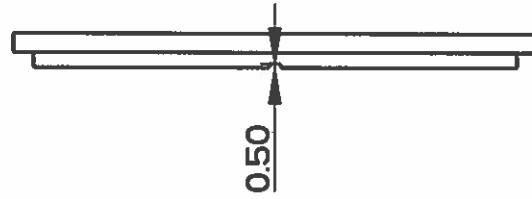
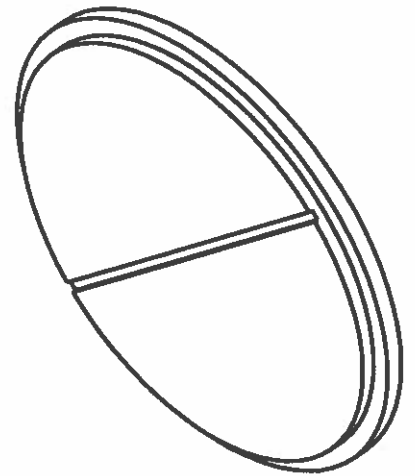
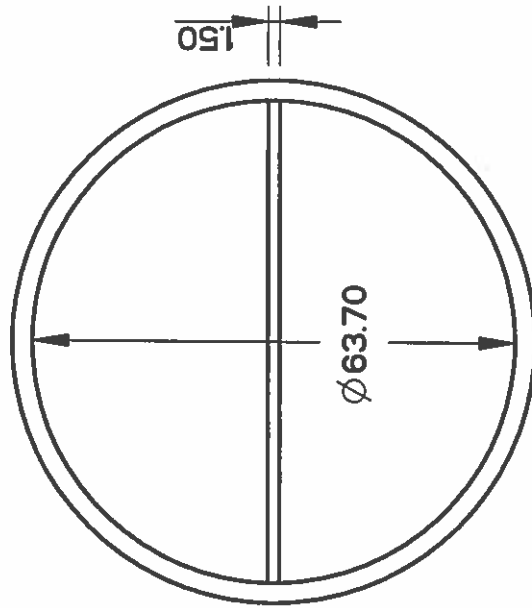
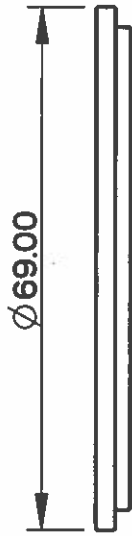
1 Part Required



Tolerances		Cambridge University Engineering Department	
Units	mm	Sheet	1
Linear	0.1	• Sheets	1
Angular	0.5	Date	23-May-18
Material	material.type	Filename	part.name
Drawn	A.N. Other	PLATEENDOSLOT	
Tel.	(0223) 332800	Project	
e-mail	enr001@eng.cam.ac.uk	Format	A4
Project	project.np	Scale	1.000



4.50  
2.00

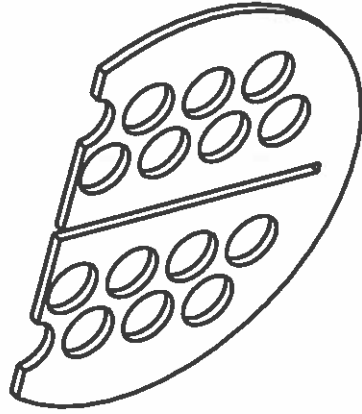
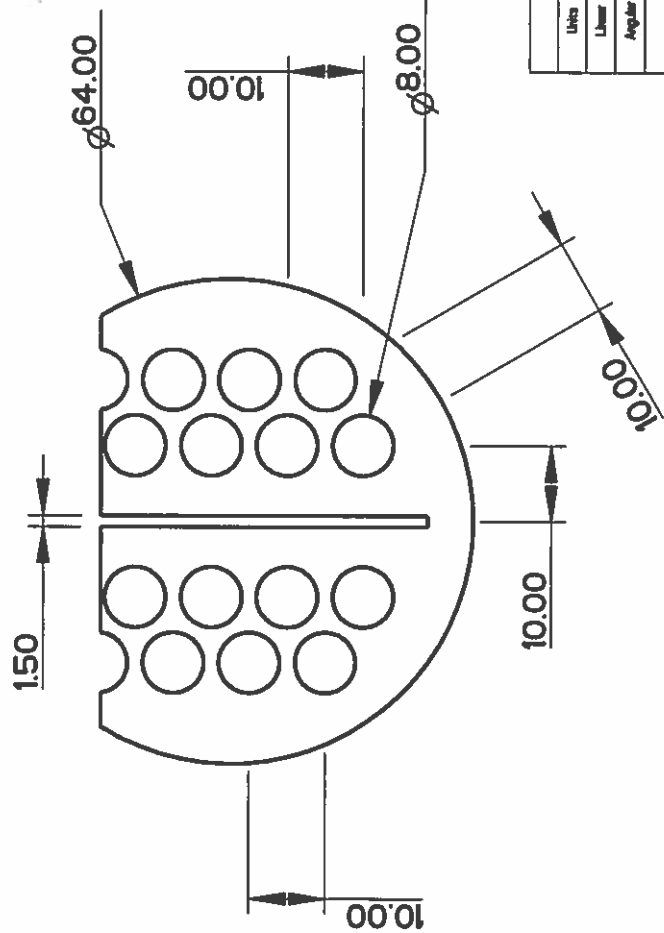
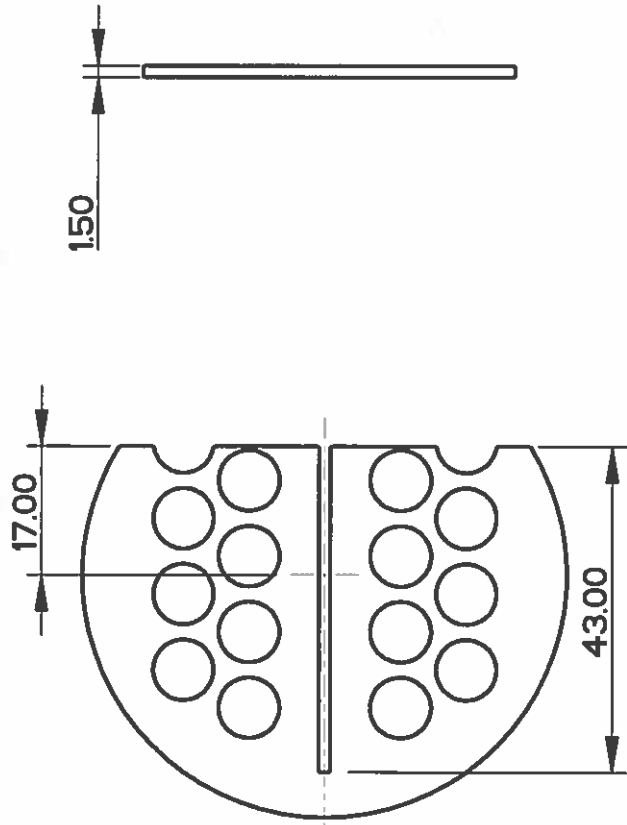


## NOTES

1) 1 PART REQUIRED

Tolerances	
Units	mm
Linear	0.1
Angular	0.5
Material	material type
Drawn	HX group C
Tel.	(0223) 332600
e-mail	anoxx@eng.cam.ac.uk

Cambridge University Engineering Department		End Plate (with slot)	
Filename		PLATE_END	
Project		Sheet 1	
Format		Date	
A4		1,000	
22-May-18		1	

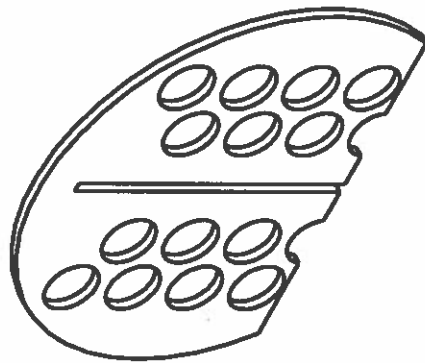


### NOTES

- 1) DRILL  $\phi 8.00$  HOLES IN PLATE BEFORE CUTTING SEGMENT OFF TO AVOID DAMAGE
- 2) 3 PARTS REQUIRED
- 3) SEE TUBEPLATE2SLOTS DRAWING FOR FURTHER CLARIFICATION

Tolerances	
Units	mm
Linear	0.1
Angular	0.5
Material	material type
Drawn	A/N Other
Tel.	(01223) 332800
e-mail	eroXX@eng.cam.ac.uk

Cambridge University Engineering Department		part_name	Sheet 1	• Sheets 1
BAFFLES		Filename	Formet	Scale
Project		Project_np	A4	1.000
Date		23-May-18		

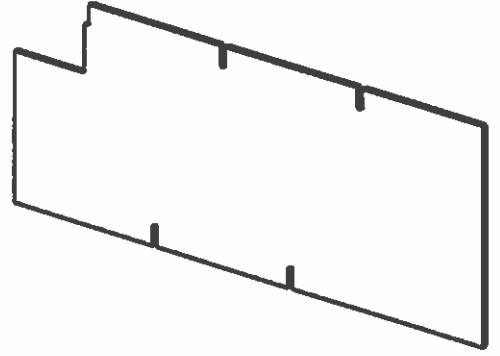
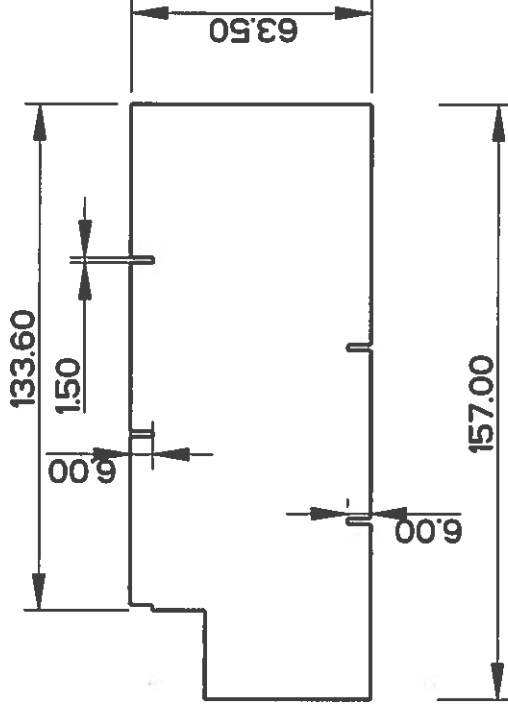
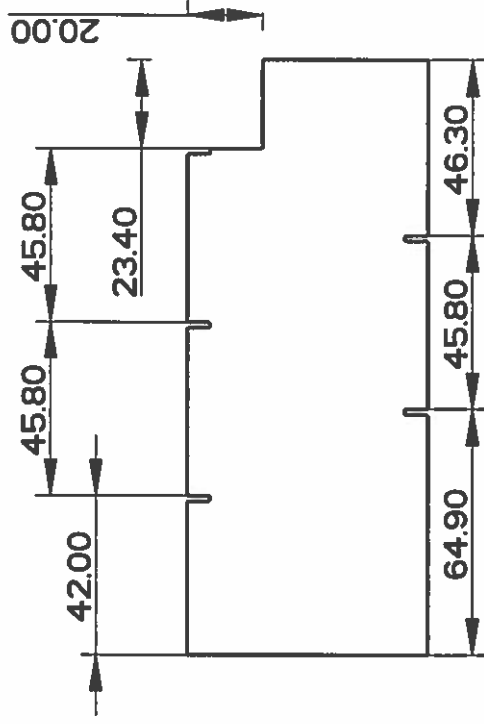


- 1) Add holes in (circular) plate before cutting off segment.
- 2) 2 of these baffles required.
- 3) See TUBEPLATE2SLOT drawing for further dimension clarification.

<b>Tolerances</b>		<b>Cambridge University Engineering Department</b>					
<b>Units</b>	<b>as</b>						
<b>Linear</b>	<b>0.1</b>						
<b>Angular</b>	<b>0.5</b>						
		<b>Baffle 2</b>					
<b>Material</b>		<b>material type</b>		<b>Firmware</b>		<b>BAFFLES.2</b>	
						<b>Sheet 1</b>	
						<b>• Sheets 1</b>	
<b>Drawn</b>	<b>AN Other</b>			<b>Format</b>		<b>Scale</b>	
<b>Tel.</b>	<b>(01223) 332800</b>	<b>Project</b>		<b>A4</b>		<b>1,000</b>	
<b>e-mail</b>	<b>enoXX@eng.cam.ac.uk</b>	<b>project no</b>		<b>Date</b>		<b>22-May-18</b>	

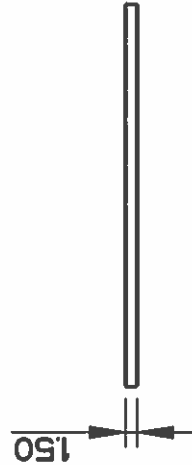
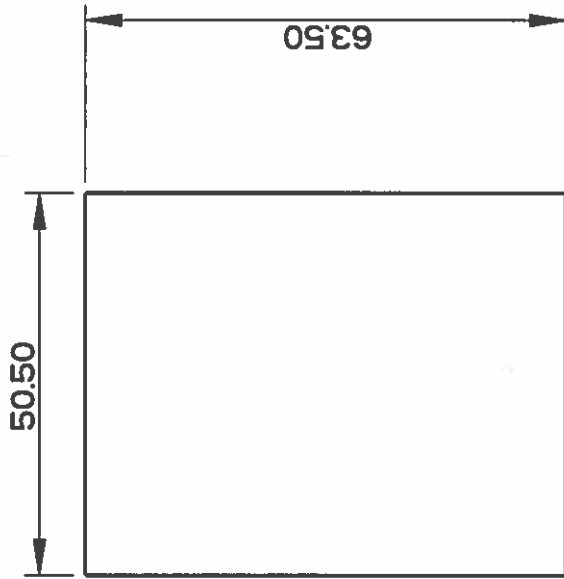
# NOTES

1) 1 PART REQUIRED



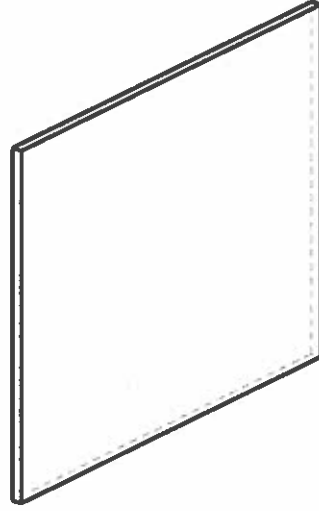
Tolerances	
Units	mm
Linear	0.1
Angular	0.5
Material	material.type
Drawn	AN, Other
Tel.	[0223] 332600
e-mail	eng@cam.ac.uk

Cambridge University Engineering Department	
Central body divider with baffle notches	
Filename	BODY_DIVIDER
Project	project_np
Format	A4
Scale	0.500
Sheet	1
Sheets	1
Date	22-May-18

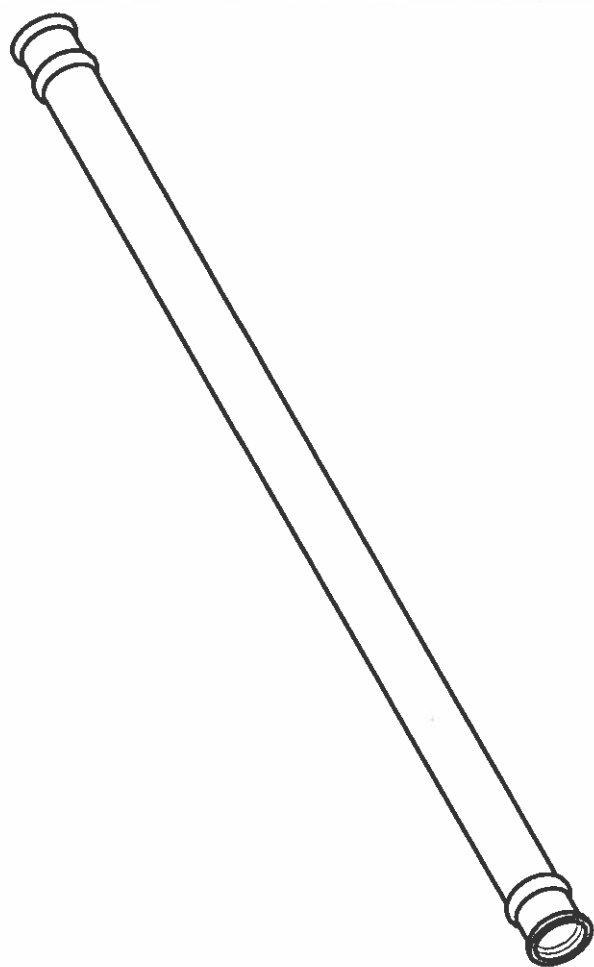


# NOTES

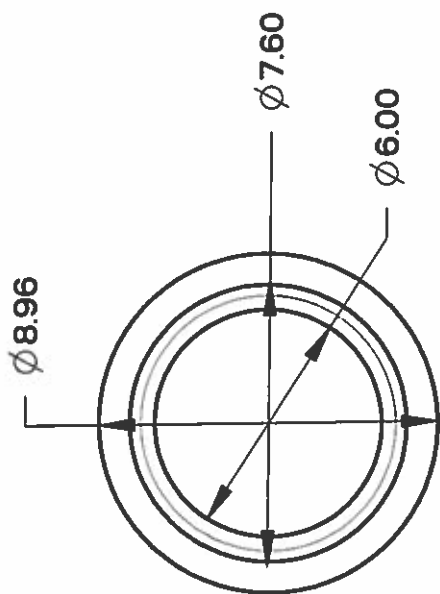
1) 1 PART REQUIRED



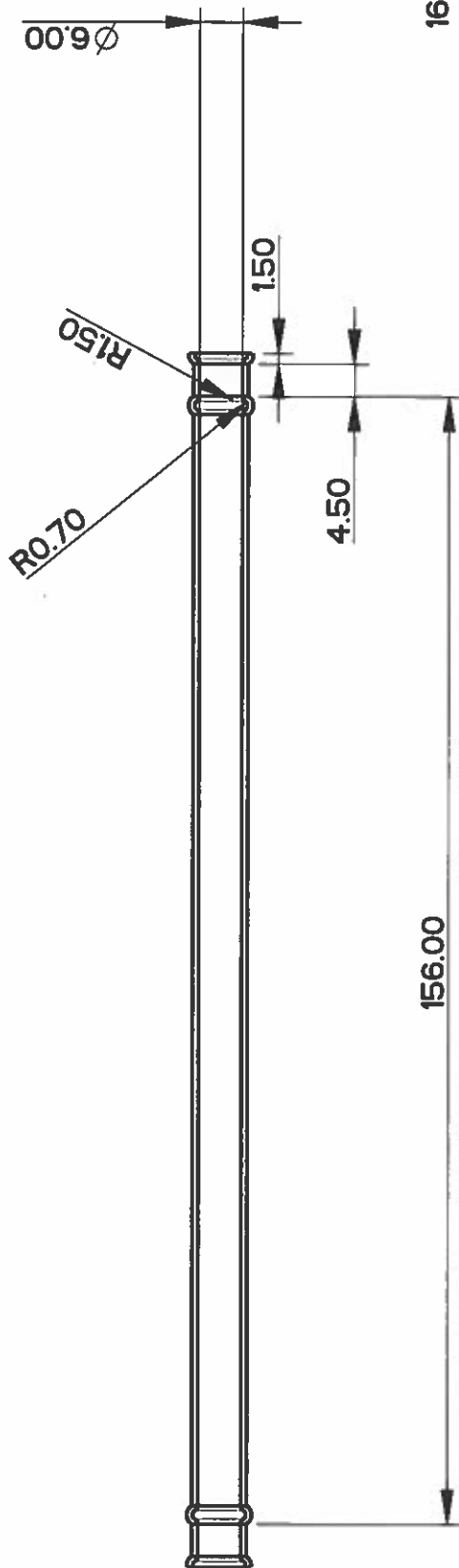
Tolerances		Cambridge University Engineering Department	
Units	mm	Feed Head Divider	
Linear	0.1	FEEDHEAD DIVIDER	
Angular	0.5	FEEDHEAD DIVIDER	
Material	material.type	FEEDHEAD DIVIDER	
Drawn	A.N. Other	FEEDHEAD DIVIDER	
Tol.	(0223) 332800	FEEDHEAD DIVIDER	
e-mail	andxy@eng.cam.ac.uk	FEEDHEAD DIVIDER	
Project	project_np	FEEDHEAD DIVIDER	
Format	A4	FEEDHEAD DIVIDER	
Scale	1.000	FEEDHEAD DIVIDER	
Date	22-May-18	FEEDHEAD DIVIDER	
Sheet	1	FEEDHEAD DIVIDER	
• Sheets	1	FEEDHEAD DIVIDER	



16 Parts Required



SCALE 5.000



Tolerances		
Units	=	
Linear		0.1
Angular		0.5
Material	material.type	
Drawn	A.N. Other	
Tel.	(01223) 332800	
e-mail	eng@cam.ac.uk	



Cambridge University  
Engineering Department

part.name

Filename

COPPERTUBES

Sheet 1

• Sheets 1

Project

project.no

Format

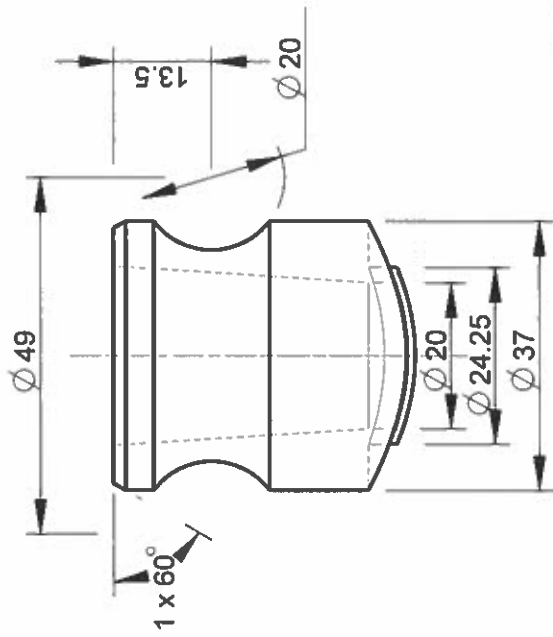
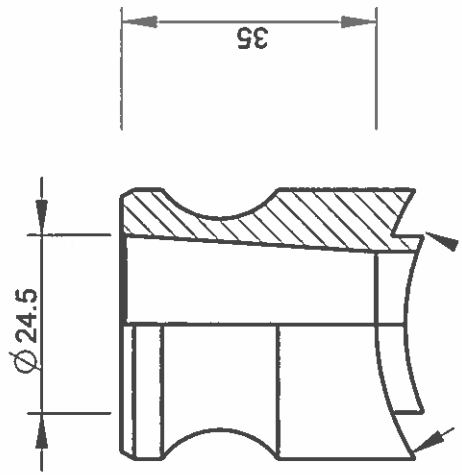
A4

Scale

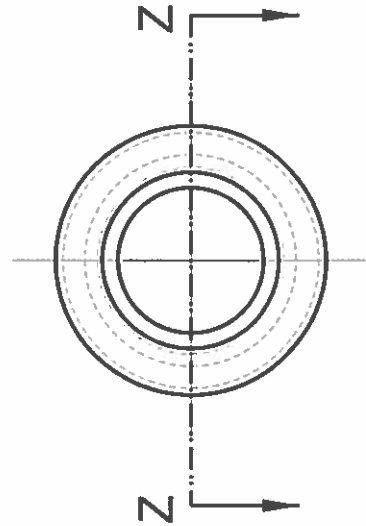
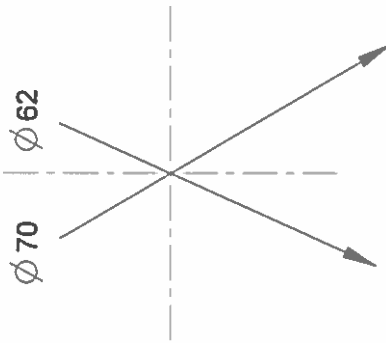
1.000

Date

23-May-18



SECTION Z-Z



Tolerances		Cambridge University Engineering Department		part_name	
Units	mm	Filename		Sheet	# Sheets
Linear	0.1	DRW0001		1	1
Angular	0.5	Project		Format	Date
Material	material_type	project_no		A4	1.000
Drawn	AN Other	Project		23-Apr-18	
Tel.	(01223) 332600	Scale		1.000	
e-mail	anoxx@eng.cam.ac.uk	Format		A4	
Checked		project_no		23-Apr-18	