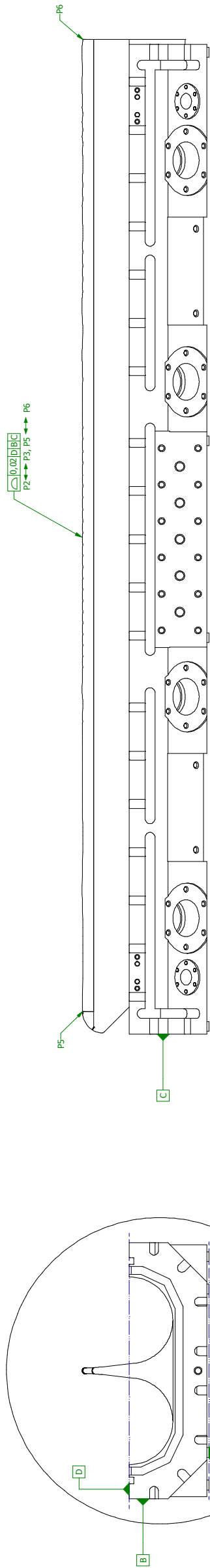


MAJOR VANE INTERNAL PROFILE



0.8MHz = 0.1mm

DO NOT POLISH SURFACE

p1↔p2↔p3↔p4

SURFACE FINISH 0,8

Title:			
Drawn by:	Projection:		
Designed by:	Model file:	RFQ_v13_MajorView_1_WithModulations.iam	
Checked by:	Drawing file:	RFQ_Drawings_v13_3.dwg	
Date:	Version number:		
Manufactured by:	Project:		
Material:	Sheet number:	4 / 13	
Remove all burrs	Number off:		
Scale:	Drawing number:		
Notes:			
Unless otherwise stated: Dimensional tolerance:		X ± 0.5 mm XX ± 0.2 mm XXX ± 0.1 mm	
Angular tolerance:		± 0.5°	
Hole centres:		± 0.05 mm	
Surface finish:		1.6 microns	
Dimensions in mm		□	
Contact:	p.savage@imperial.ac.uk (Work) 0207 594 7817 (Mobile) 078894 268058		

MAJOR VANE
OUTER FACE HOLES

12X **LIFTING HOLES**
M10 x 1.5 - 6H X 26.0 DEEP
TAP DRILL 30.0 MAX DEEP
✓Ø12 X 90°
- SEE DETAIL VIEW B

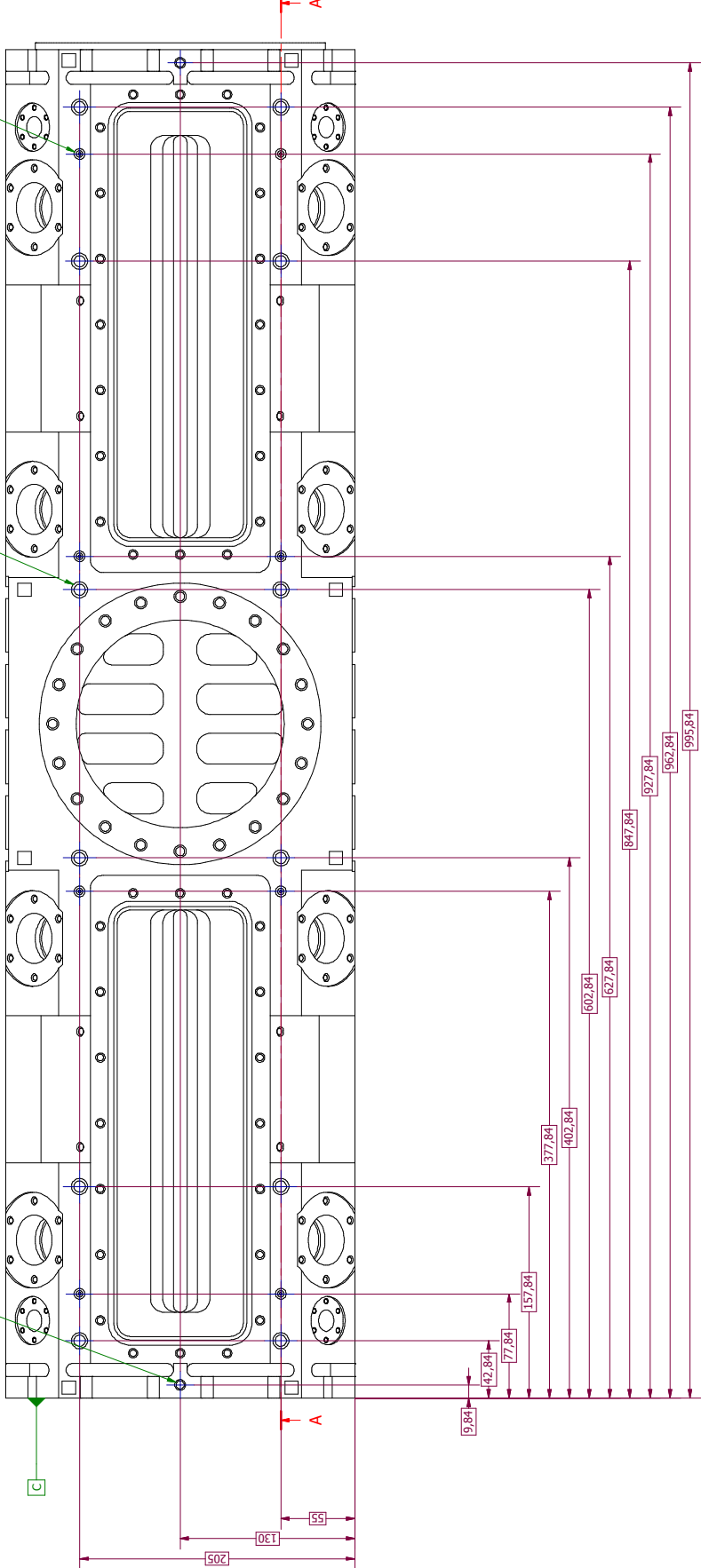
8X **THERMOCOUPLE HOLES**
M6 x 1 - 6H X 12.0 DEEP
TAP DRILL 30.0 MAX DEEP
Ø2.0 - 2.1 X 35.0 DEEP
✓Ø8 X 90°
- SEE DETAIL VIEW C

2X **DOWEL HOLES**
Ø6.00 - 6.01 X 20.0 MAX DEEP
✓Ø8 X 90°

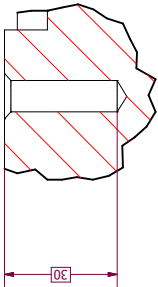
Φ [0.0,2]A[B]C

Φ [0.0,2]A[B]C

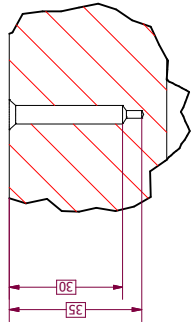
Φ [0.0,0.1]A[B]C



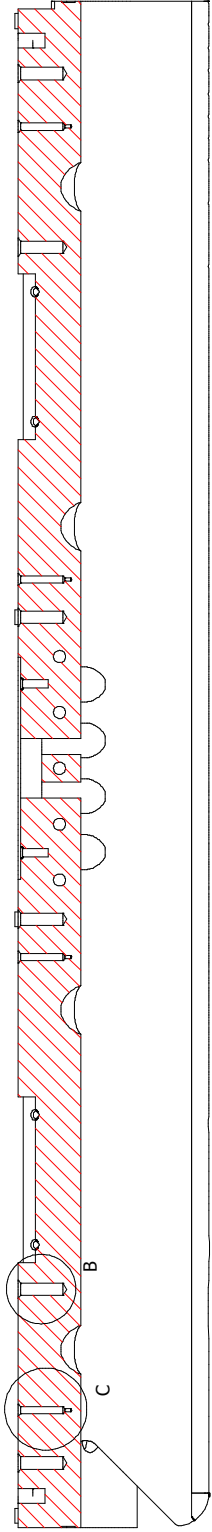
LIFTING HOLE
DETAIL VIEW
B



THERMOCOUPLE HOLE
DETAIL VIEW
C



A-A



NOTES:

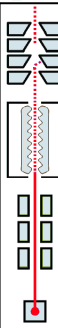
- 1) REFER TO 3D CAD MODEL "filename" FOR ALL UNSPECIFIED DIMENSIONS.
- 2) TREAT ALL 3D DATA AS THEORETICALLY EXACT TO NOMINAL.
- 3) GENERAL TOLERANCE FOR ALL SURFACES WITHOUT INDIVIDUAL TOLERANCE INDICATIONS $\square \begin{smallmatrix} 0.1 \\ A \\ B \\ C \end{smallmatrix}$
- 4) © APPLIES TO ALL FEATURES OF SIZE UNLESS OTHERWISE STATED

Title:		Projection:	
Drawn by:		Model file:	
Designed by:		Drawing file:	
Checked by:		Version number:	
Date:		Project:	
Manufactured by:		Sheet number:	
Material:		Number off:	
Remove all burrs		Drawing number:	
Scale:			
Notes:			
Contact:			

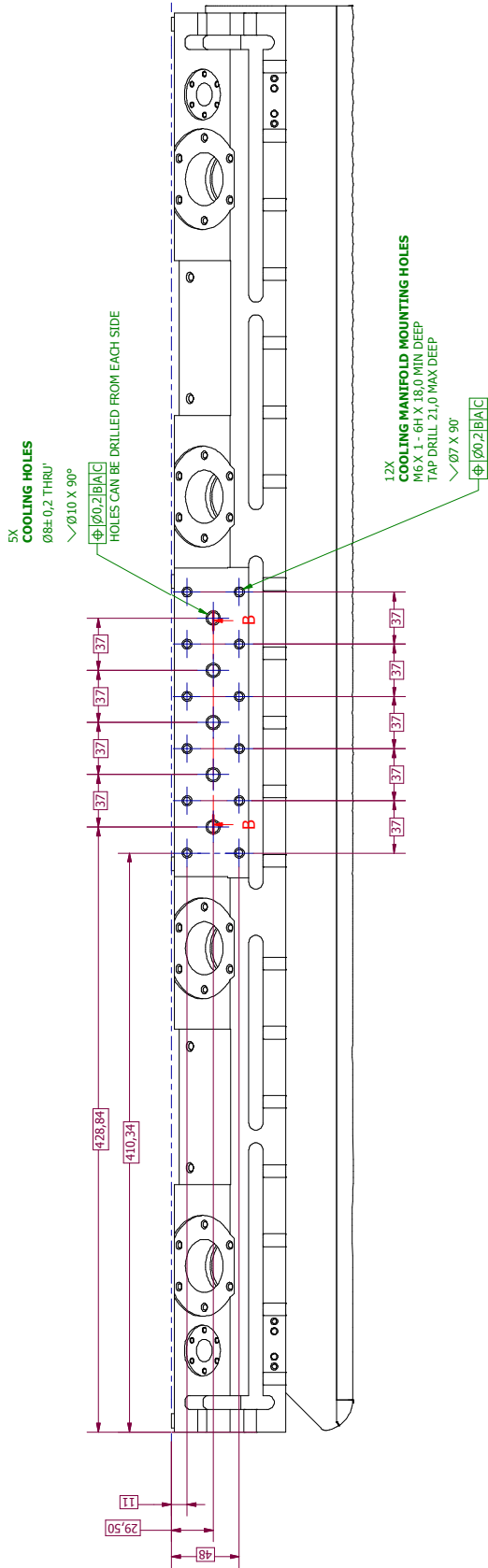
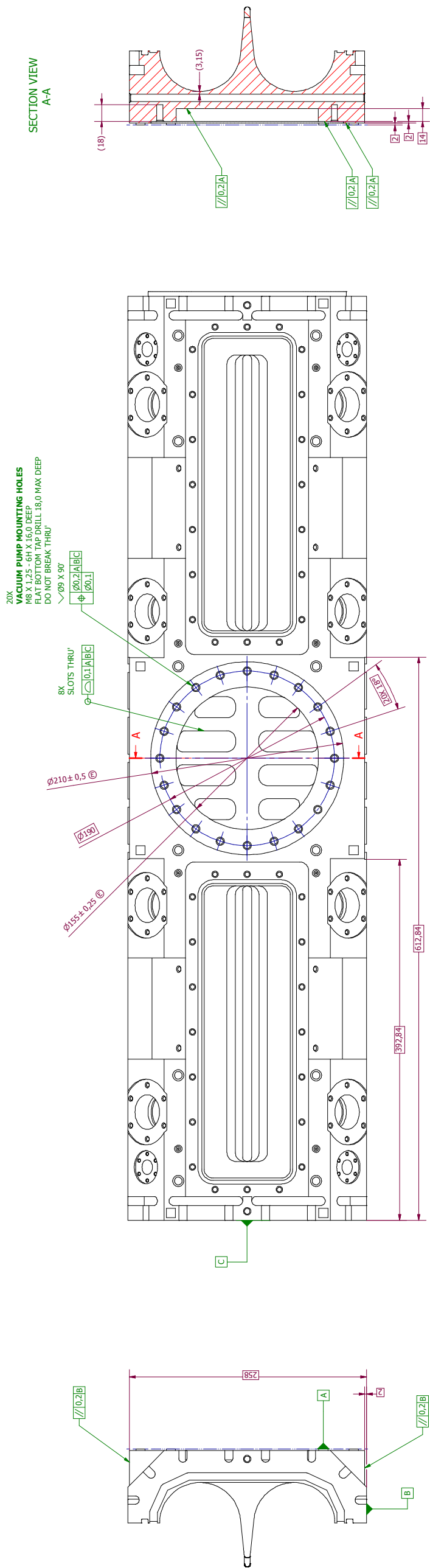
Unless otherwise stated:

Dimensional tolerance: X ± 0.5 mm
XX ± 0.2 mm
XXX ± 0.1 mm

Angular tolerance: ± 0.5°
Hole centres: ± 0.05 mm
Surface finish: 1.6 microns
Dimensions in mm $\square$

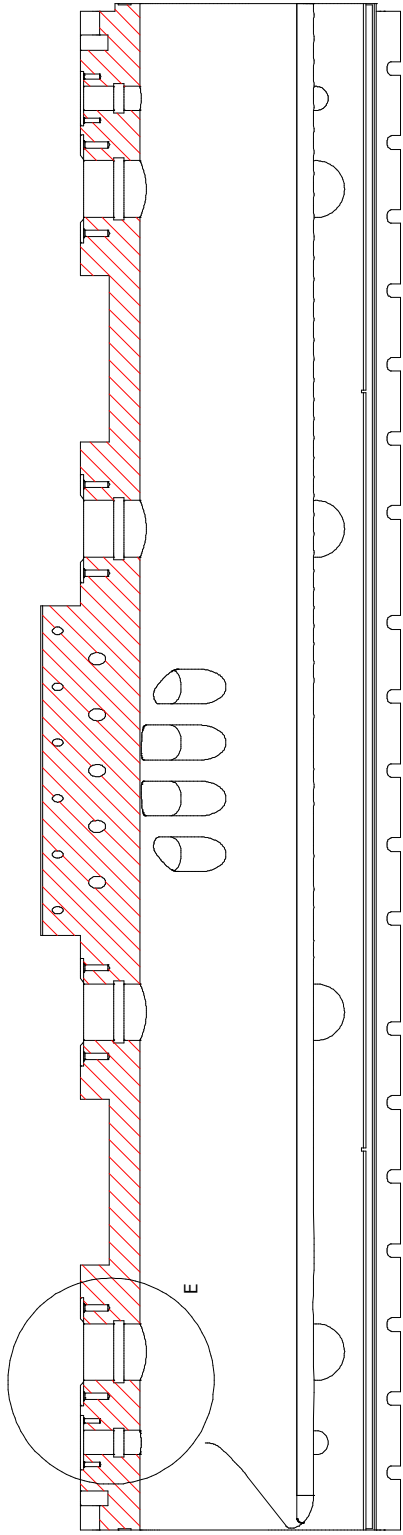
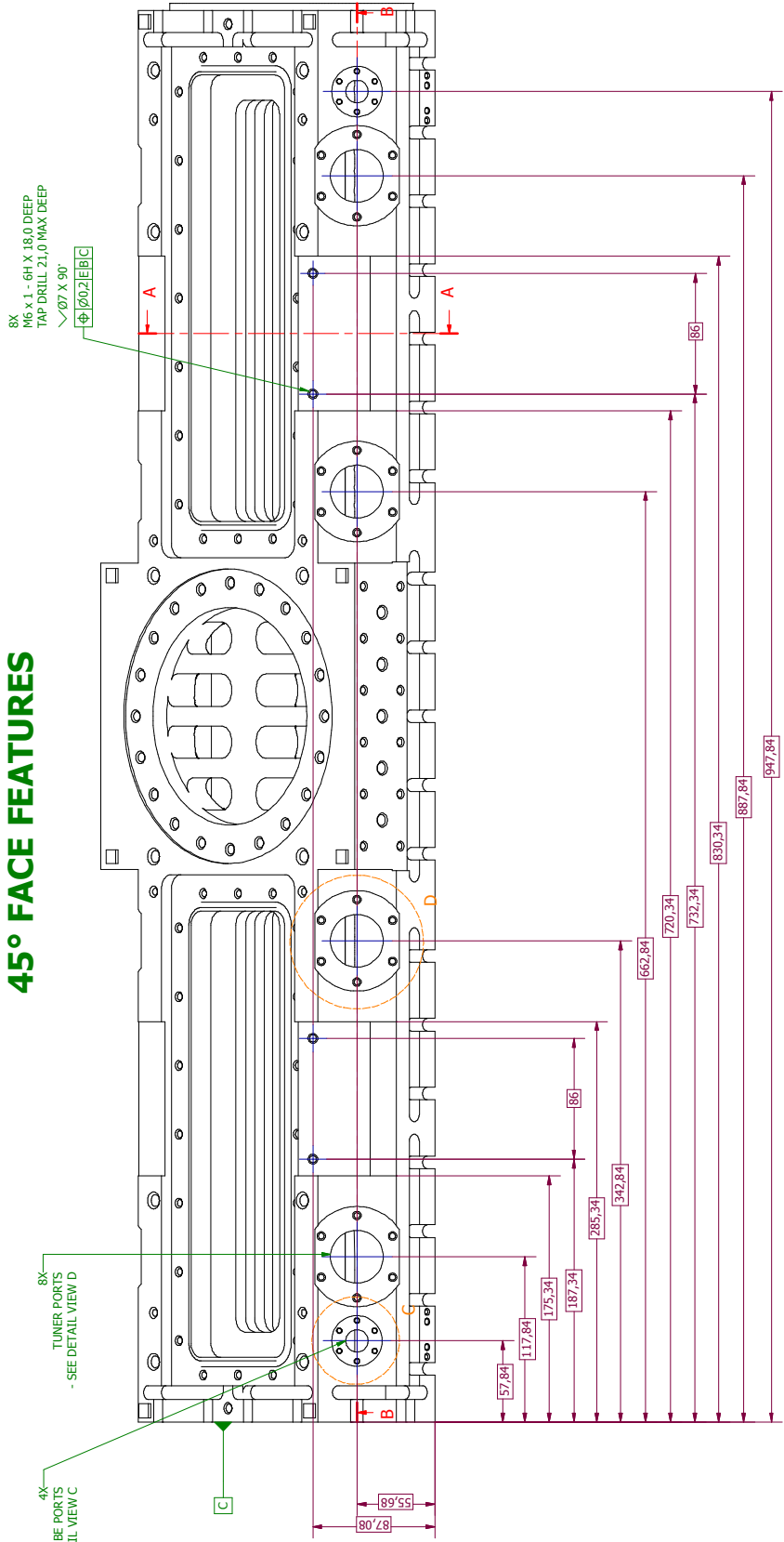


MAJOR VANE VACUUM PORT

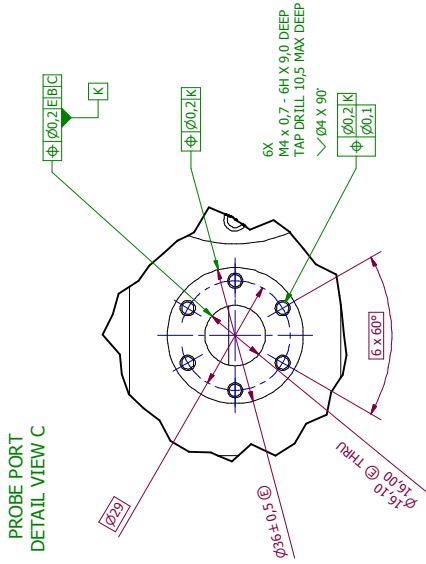
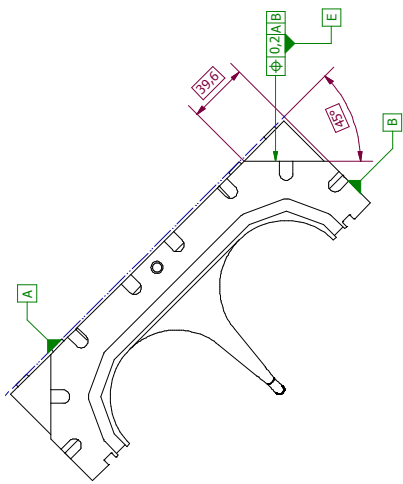
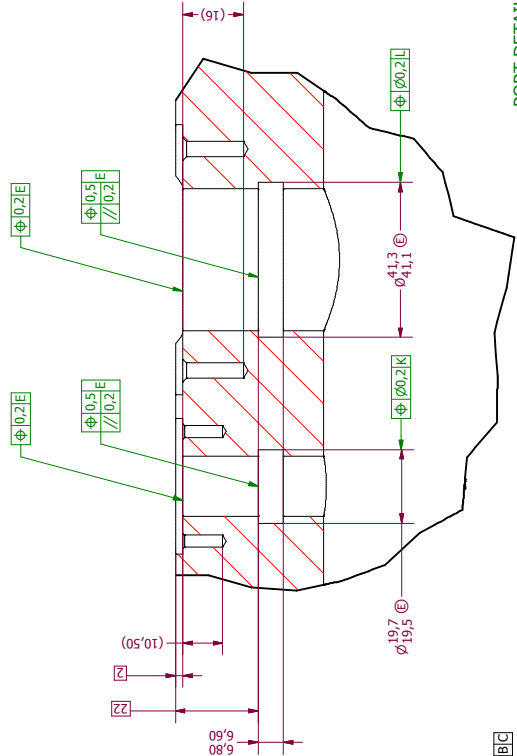


Title:			
Drawn by:	Projection:		
Designed by:	Model file:	RFQ_v13_MajorView_1_WithModulations.iam	
Checked by:	Drawing file:	RFQ_Drawings_v13_3.dwg	
Date:	Version number:		
Manufactured by:	Project:		
Material:	Sheet number:	6 / 13	
Remove all burrs	Number off:		
Scale:	Drawing number:		
Notes:			
Unless otherwise stated: Dimensional tolerance:		X	± 0.5 mm
		XX	± 0.2 mm
		XXX	± 0.1 mm
Angular tolerance:			± 0.5°
Hole centres:			± 0.05 mm
Surface finish:			1.6 microns
Dimensions in mm			☐
Contact:	p.savage@imperial.ac.uk (Work) 0207 594 7817 (Mobile) 07884 268058		

MAJOR VANE 45° FACE FEATURES



**RE-VISIT THESE FINGER STRIP
GROOVE DIMENSIONS - USE
OF TEDS?**



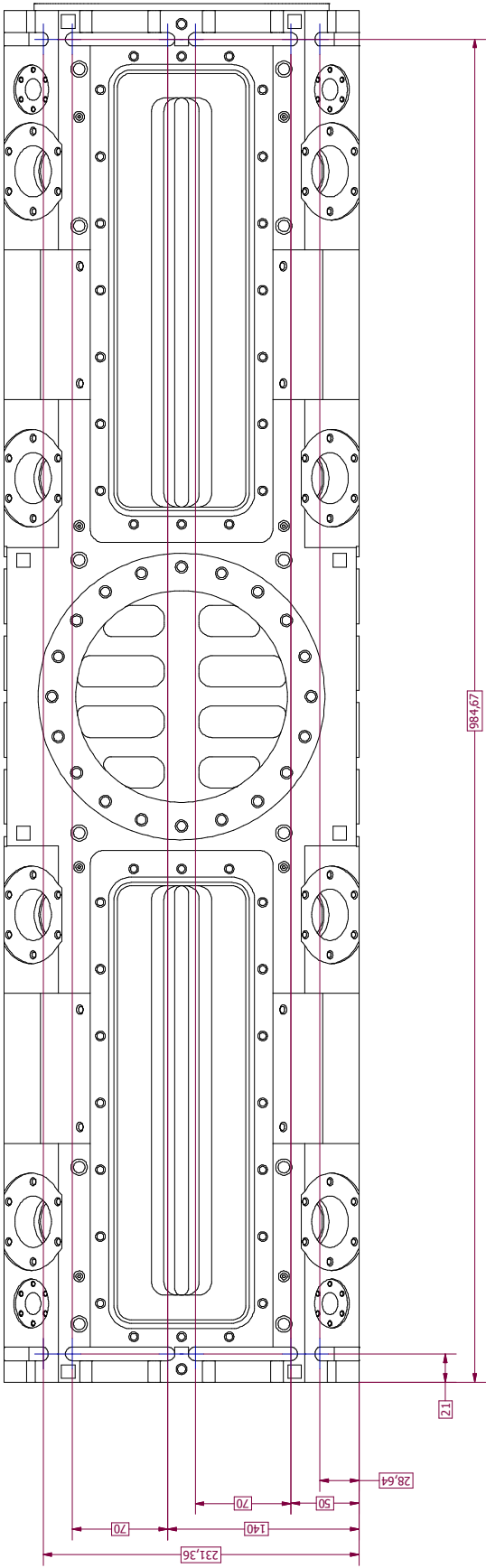
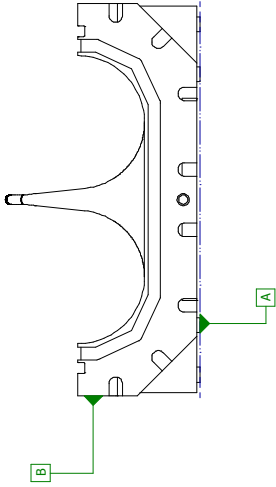
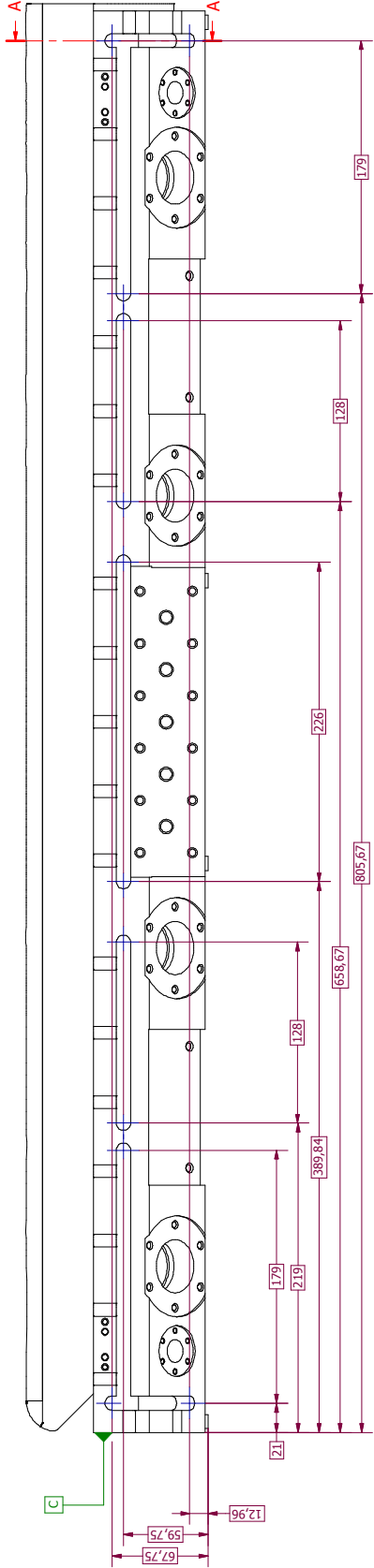
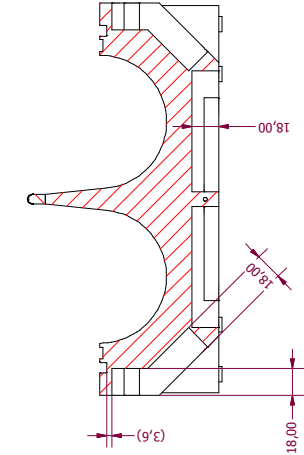
NOTES:

- 1) REFER TO 3D CAD MODEL "filename" FOR ALL UNSPECIFIED DIMENSIONS.
- 2) TREAT ALL 3D DATA AS THEORETICALLY EXACT TO NOMINAL.
- 3) GENERAL TOLERANCE FOR ALL SURFACES WITHOUT INDIVIDUAL TOLERANCE SPECIFICATIONS.
- 4) © APPLIES TO ALL FEATURES OF SIZE UNLESS OTHERWISE STATED

Title:		
Drawn by:	Projection:	
Designed by:	Metal file:	Rfq_v13_MajorVane_1_WithModulesIam
Checked by:	Drawing file:	Rfq_Drawings_v13_3d.wg
Date:	Version number:	
Manufactured by:	Project:	
Material:	Sheet number:	7 / 13
Remove all burrs	Number off:	
Scale:	Drawing number:	
Notes:		
Contact:	p.savage@mpenhal.ac.uk	(Work) 0207 594 7817 (Mobile) 07864 268058

MAJOR VANE
CLAMPING SLOTS

SECTION VIEW A-A



WORK IN
PROGRESS

NOTES:

- 1) REFER TO 3D CAD MODEL "filename" FOR ALL UNSPECIFIED DIMENSIONS.
- 2) TREAT ALL 3D DATA AS THEORETICALLY EXACT TO NOMINAL.
- 3) GENERAL TOLERANCE FOR ALL SURFACES WITHOUT INDIVIDUAL TOLERANCE INDICATIONS $\square 0.1A|B|C$
- 4) C APPLIES TO ALL FEATURES OF SIZE UNLESS OTHERWISE STATED

Title:

Drawn by:

Designed by:

Checked by:

Date:

Manufactured by:

Material:

Remove all burrs

Scale:

Notes:

Contact:

p.savage@imperial.ac.uk

(Work) 0207 594 7817

(Mobile) 07884 268058

Unless otherwise stated:

Dimensional tolerance:

X ± 0.5 mm

XX ± 0.2 mm

XXX ± 0.1 mm

Angular tolerance:

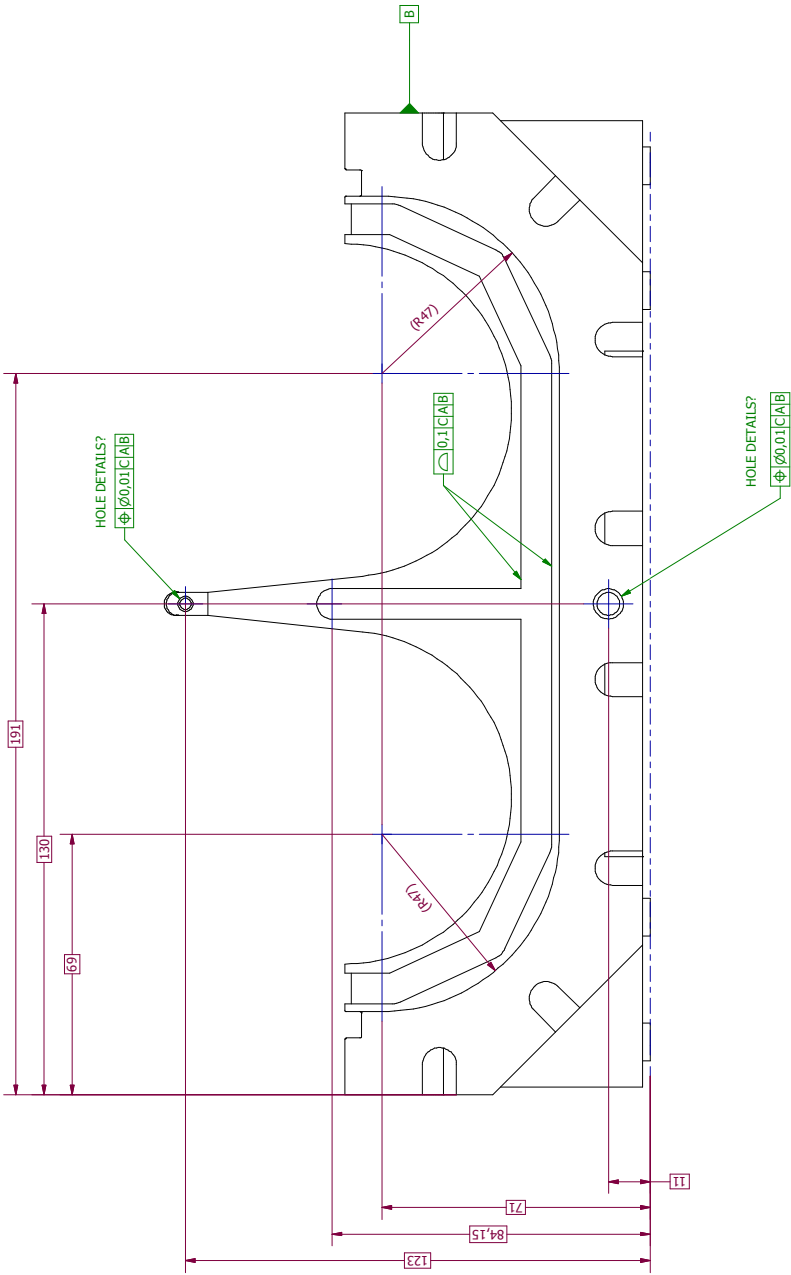
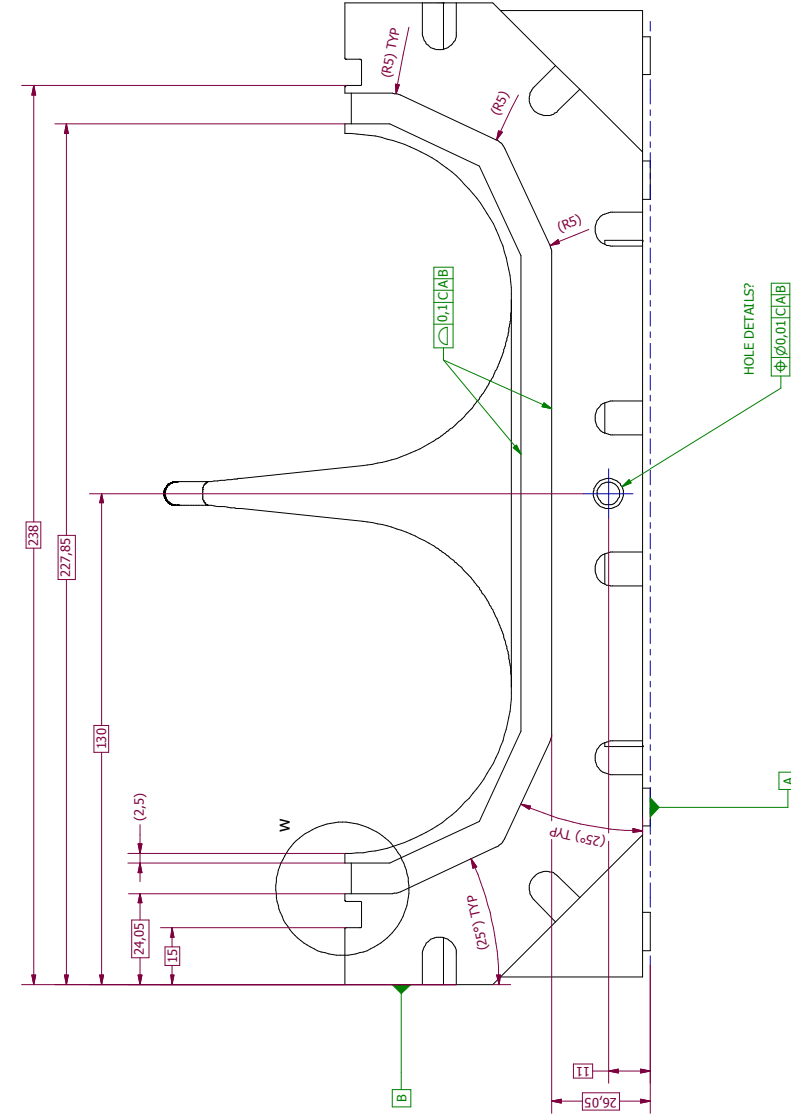
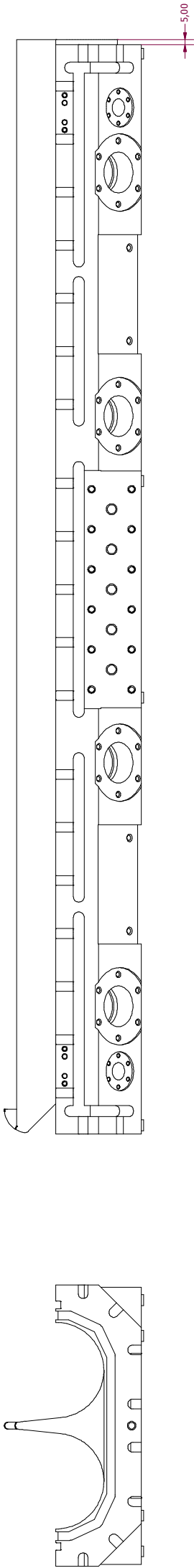
Hole centres:

Surface finish:

Dimensions in mm

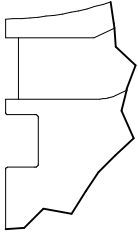
$\square$

MAJOR VANE
SLOTS & DOWEL HOLES



WORK IN
PROGRESS

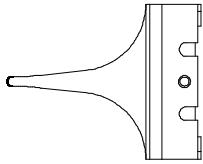
W (2 : 1)



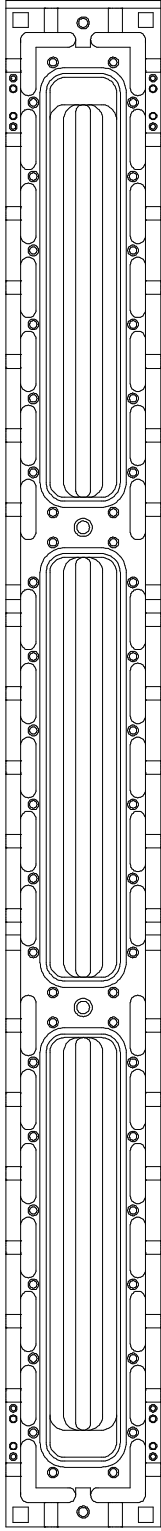
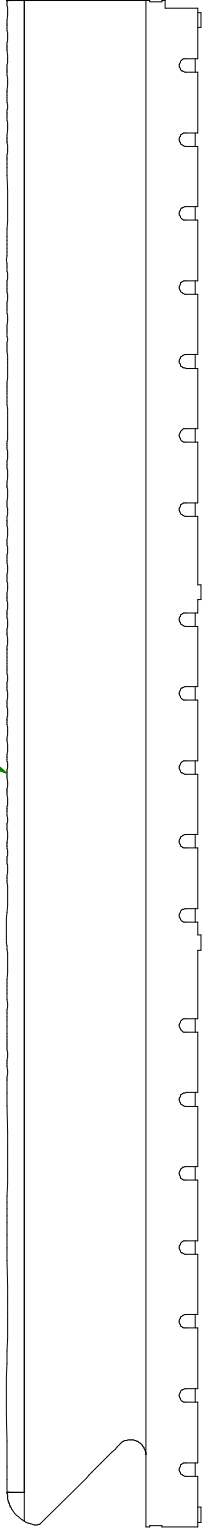
NOTES:

- 1) REFER TO 3D CAD MODEL "filename" FOR ALL UNSPECIFIED DIMENSIONS.
- 2) TREAT ALL 3D DATA AS THEORETICALLY EXACT TO NOMINAL.
- 3) GENERAL TOLERANCE FOR ALL SURFACES WITHOUT INDIVIDUAL TOLERANCE INDICATIONS $\square 0.1 \text{ A B C}$
- 4) C APPLIES TO ALL FEATURES OF SIZE UNLESS OTHERWISE STATED

Title:		Projection:	Unless otherwise stated:	
Drawn by:		Model file:	Dimensional tolerance:	X $\pm 0.5 \text{ mm}$
Designed by:		Drawing file:		XX $\pm 0.2 \text{ mm}$
Checked by:		Version number:		XXX $\pm 0.1 \text{ mm}$
Date:		Project:	Angular tolerance:	$\pm 0.5^\circ$
Manufactured by:		Sheet number:	Hole centres:	$\pm 0.05 \text{ mm}$
Material:		Number off:	Surface finish:	1.6 microns
Remove all burrs		Drawing number:	Dimensions in mm	$\square$
Scale:				
Notes:				
Contact:	p.savage@imperial.ac.uk	(Work) 0207 594 7817	(Mobile) 07884 268058	



$\Delta 0.02$ B B C
P1 ↔ P2, P3 ↔ P4



WORK IN
PROGRESS

NOTES:

- 1) REFER TO 3D CAD MODEL "filename" FOR ALL UNSPECIFIED DIMENSIONS.
- 2) TREAT ALL 3D DATA AS THEORETICALLY EXACT TO NOMINAL.
- 3) GENERAL TOLERANCE FOR ALL SURFACES WITHOUT INDIVIDUAL TOLERANCE INDICATIONS $\Delta 0.1$ A B C
- 4) © APPLIES TO ALL FEATURES OF SIZE UNLESS OTHERWISE STATED

Title:

Drawn by:

Designed by:

Checked by:

Date:

Manufactured by:

Material:

Remove all burrs

Scale:

Notes:

Contact:

Projection:

Model file:

Drawing file:

Version number:

Project:

Sheet number:

Number off:

Drawing number:

Unless otherwise stated:

Dimensional tolerance:

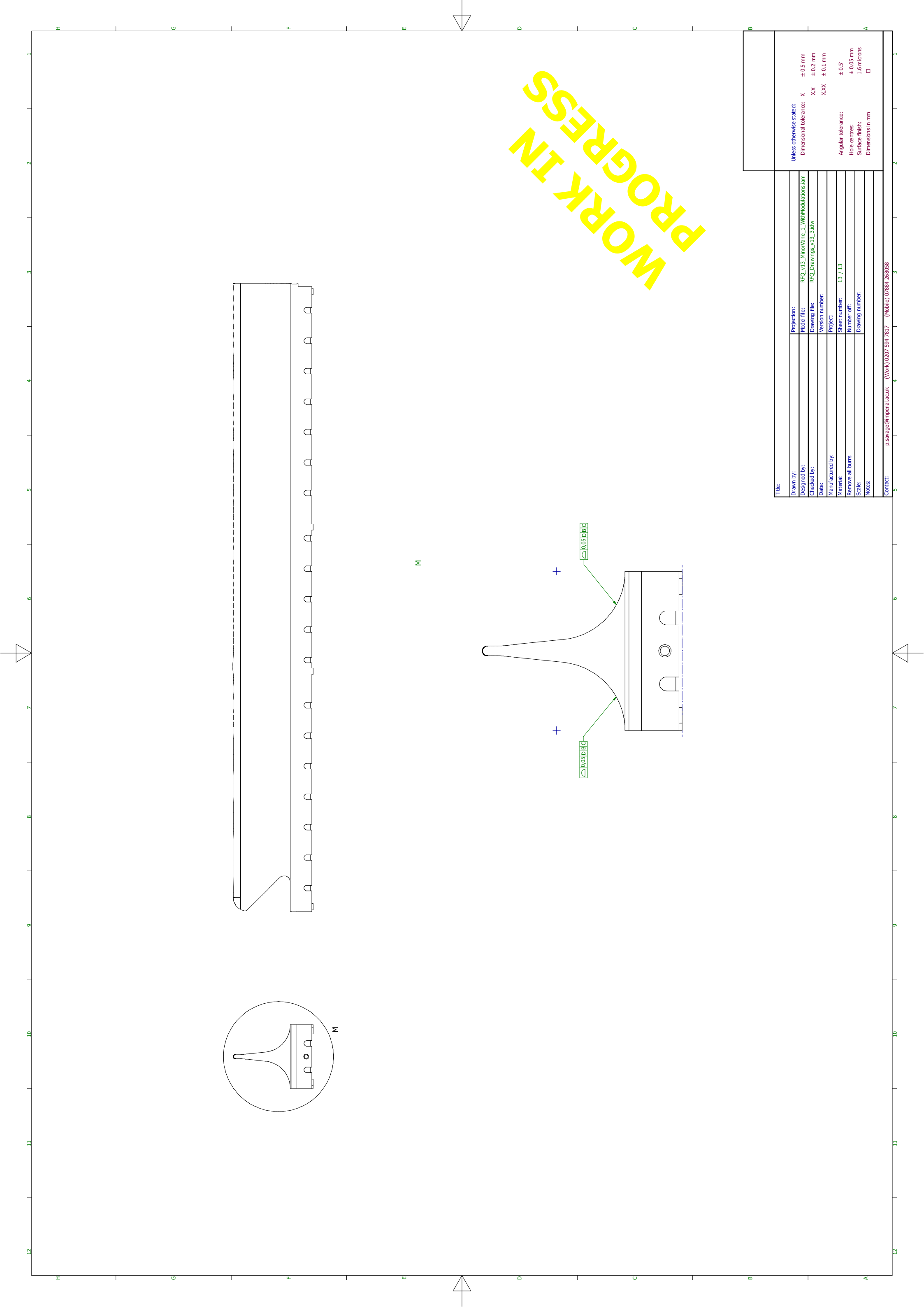
Angular tolerance:

Hole centres:

Surface finish:

Dimensions in mm





WORK IN PROGRESS

Title:		Projection:	
Drawn by:		Model file:	
Designed by:		Drawing file:	
Checked by:		Version number:	
Date:		Project:	
Manufactured by:		Sheet number:	
Material:		Number off:	
Scale:		Drawing number:	
Notes:			
Contact:			

Unless otherwise stated:
Dimensional tolerance: X ± 0.5 mm
XX ± 0.2 mm
XXX ± 0.1 mm
Angular tolerance: ± 0.5°
Hole centres: ± 0.05 mm
Surface finish: 1.6 microns
Dimensions in mm □

p.savage@imperial.ac.uk (Work) 0207 594 7817 (Mobile) 07884 268058