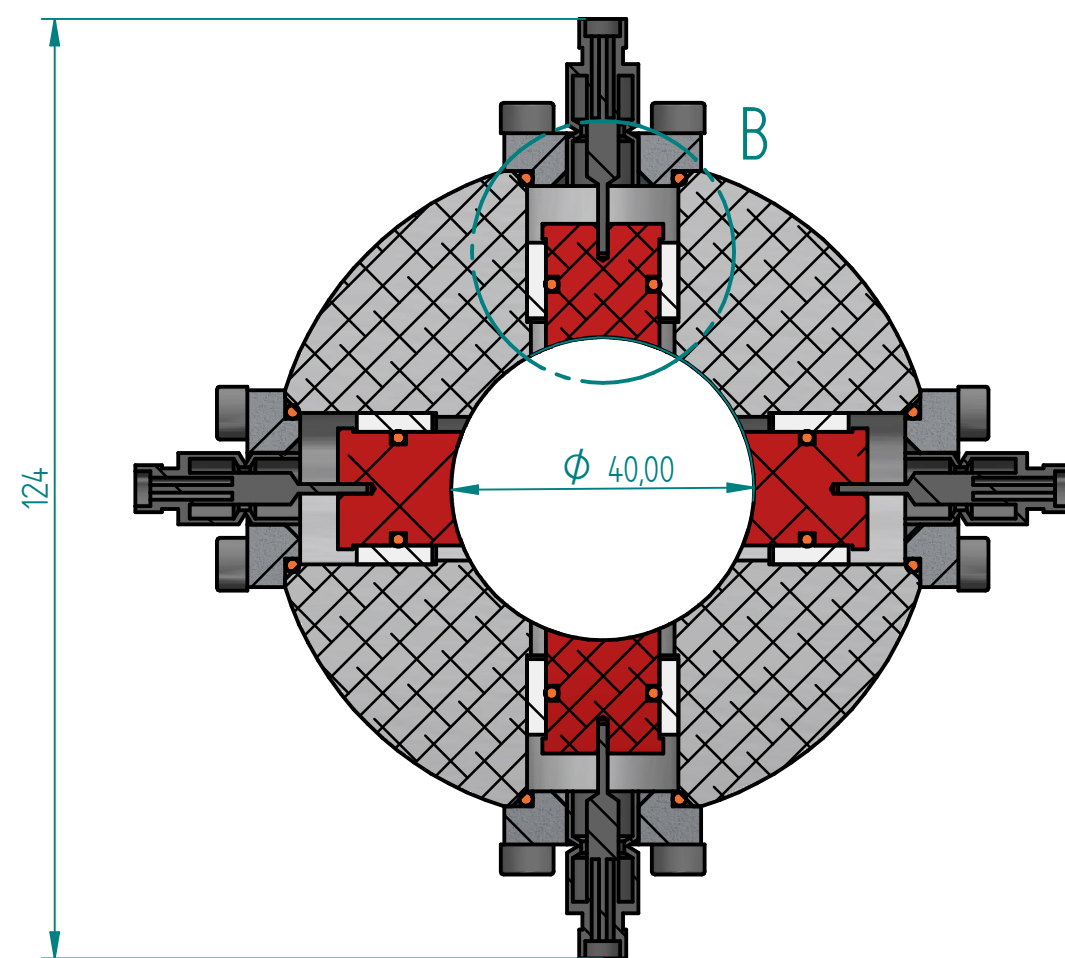
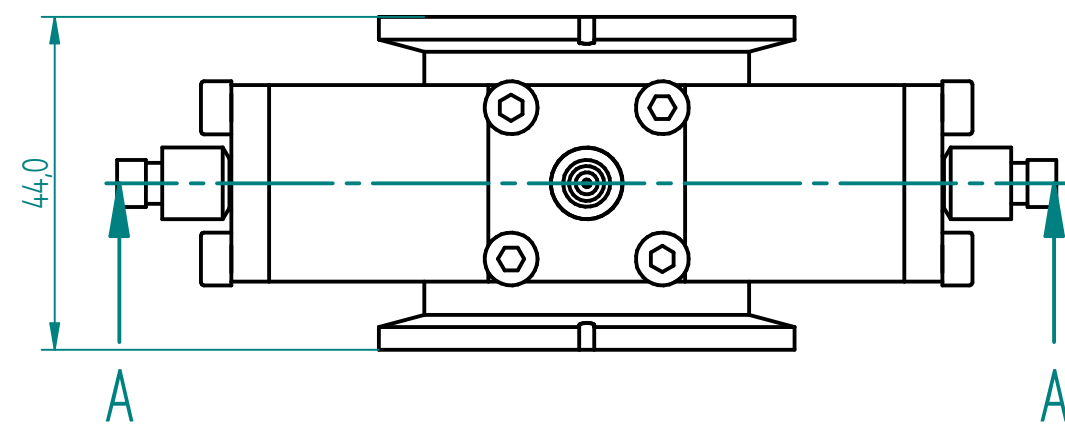
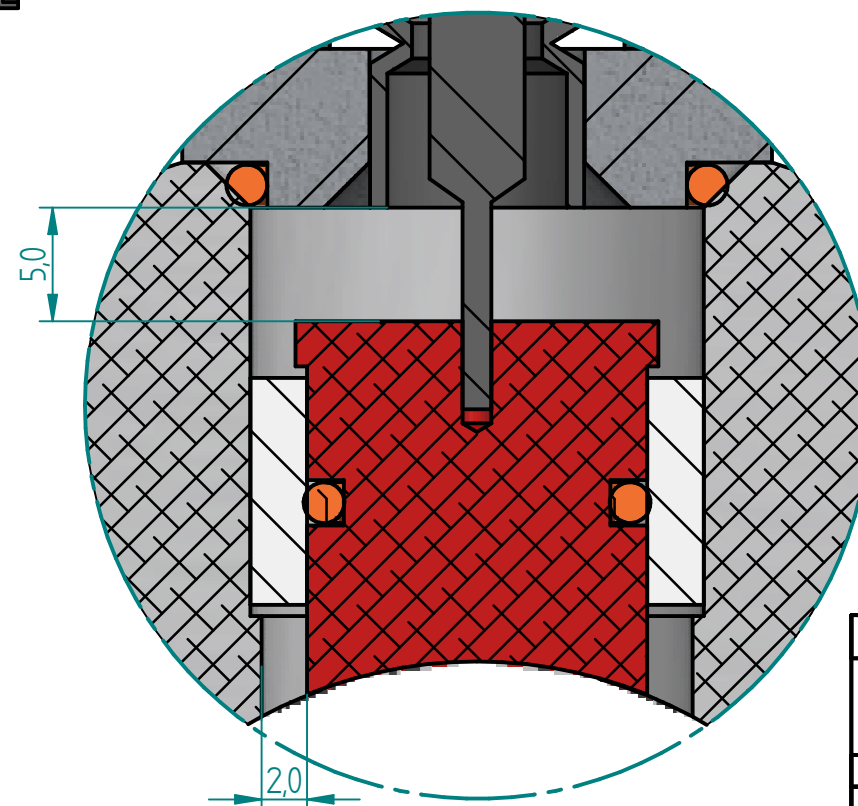


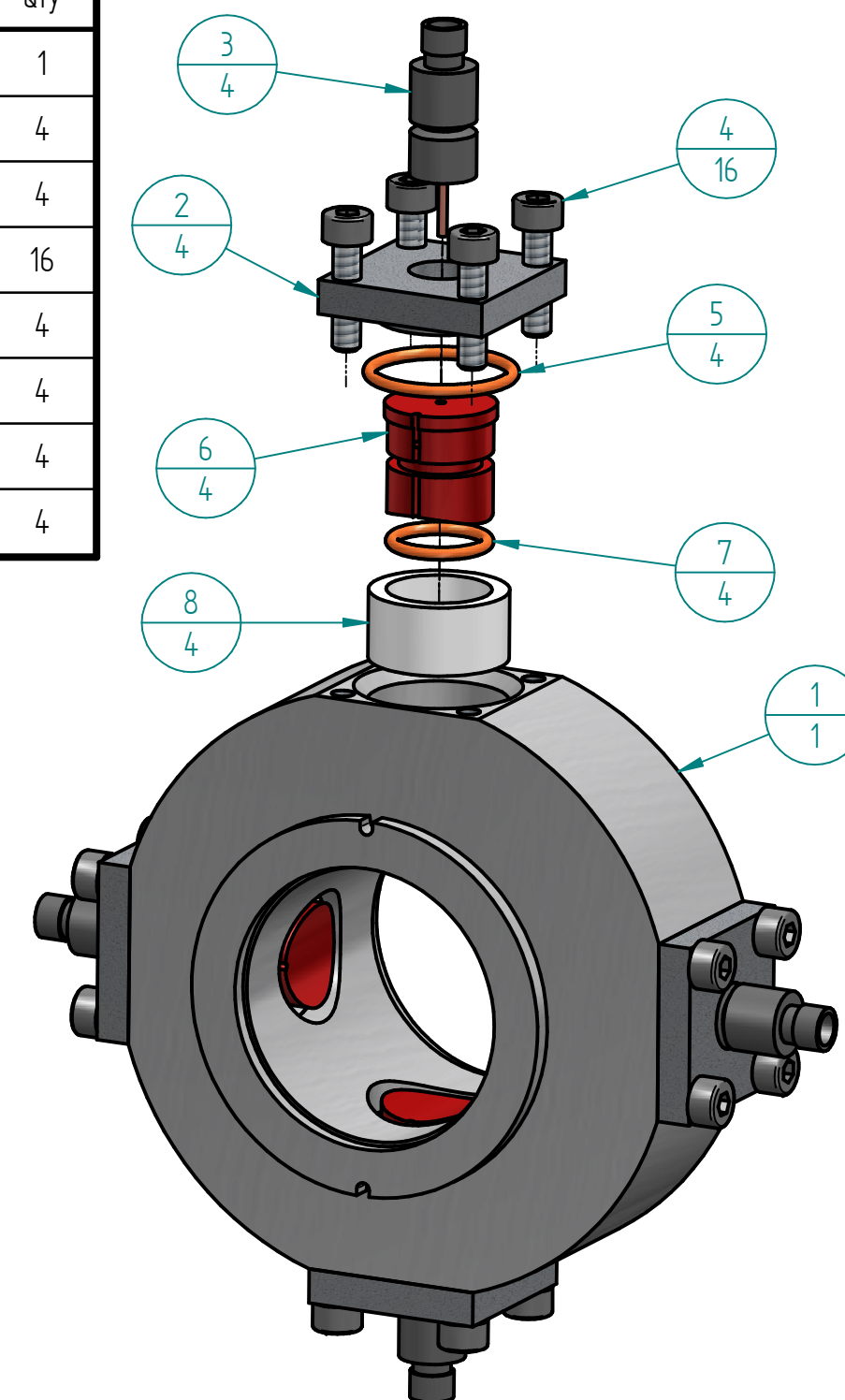


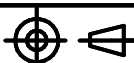
SECTION A-A

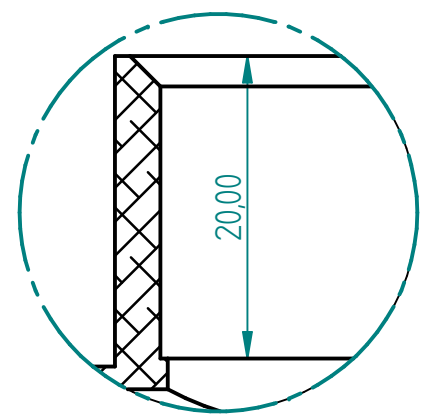


DETAIL B
SCALE 3:1

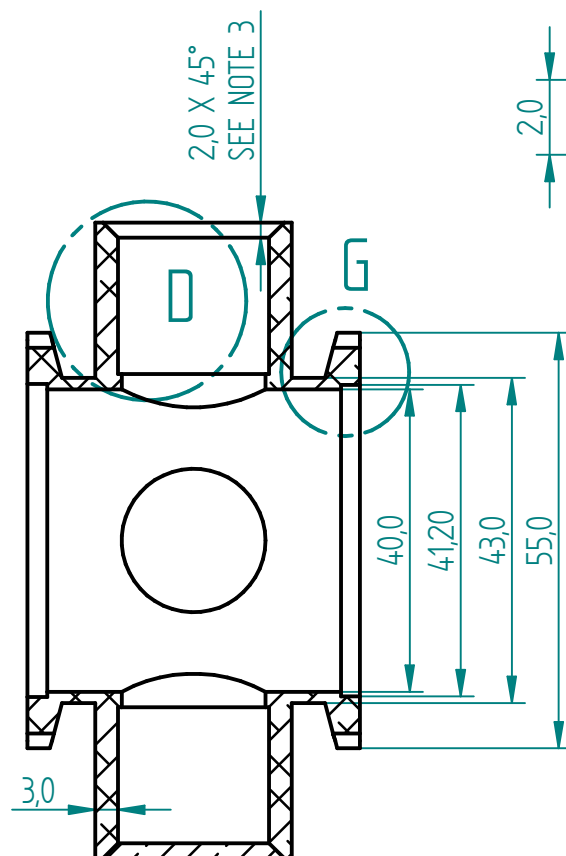
Item No.	Title	Material	Qty
1	BPM Body	Aluminum, 6082	1
2	Feedthrough Flange	Stainless Steel, 316	4
3	Weldable SMA Feedthrough	Stainless Steel, 316	4
4	M4 x 16 Caphead	Stainless Steel, 316	16
5	Feedthrough O-ring	Silicone	4
6	Button Pickup	Aluminum, 6082	4
7	Button O-ring	Silicone	4
8	Alumina Insulator Ring	Alumina Ceramic	4



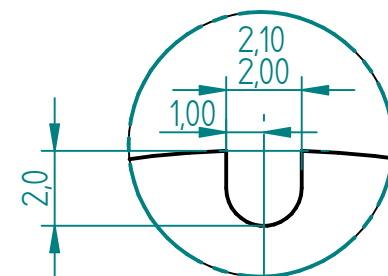
Drawn By Scott Lawrie		DATE 29/11/13		Checked By Pete Savage			
 © STFC 2010		 PROJECTION		TOLERANCES UNLESS STATED IN mm		SURFACE TEXTURE UNLESS STATED	
		X ± 0.5		ANGLE ±0.2°			
		X.X ± 0.3					
		X.XX ± 0.1					
DIMENSIONS IN mm UNLESS STATED			MATERIAL & SPEC.			FINISH	
			SEE ITEM LIST			CLEAN	
ISIS INJECTOR GROUP			USED ON FRONT END TEST STAND MEBT				
RUTHERFORD APPLETON LABORATORY, HARWELL OXFORD, CHILTON, OXON, OX11 0QX							
TITLE						SCALE UNLESS STATED	
Button BPM Assembly						1:1	
						SHEET 1 OF 6	



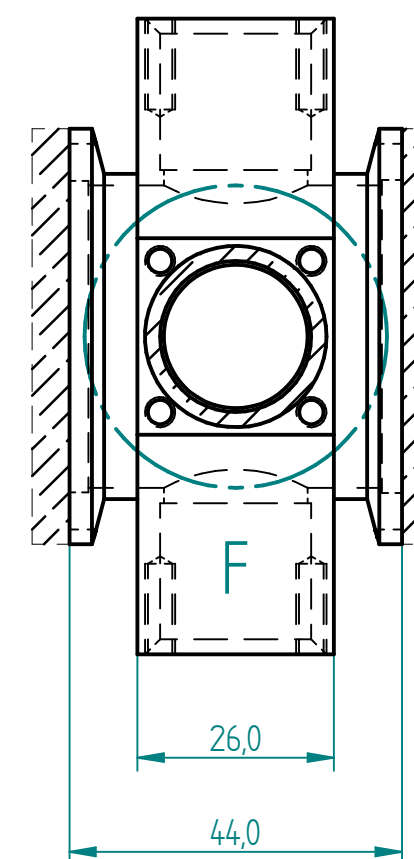
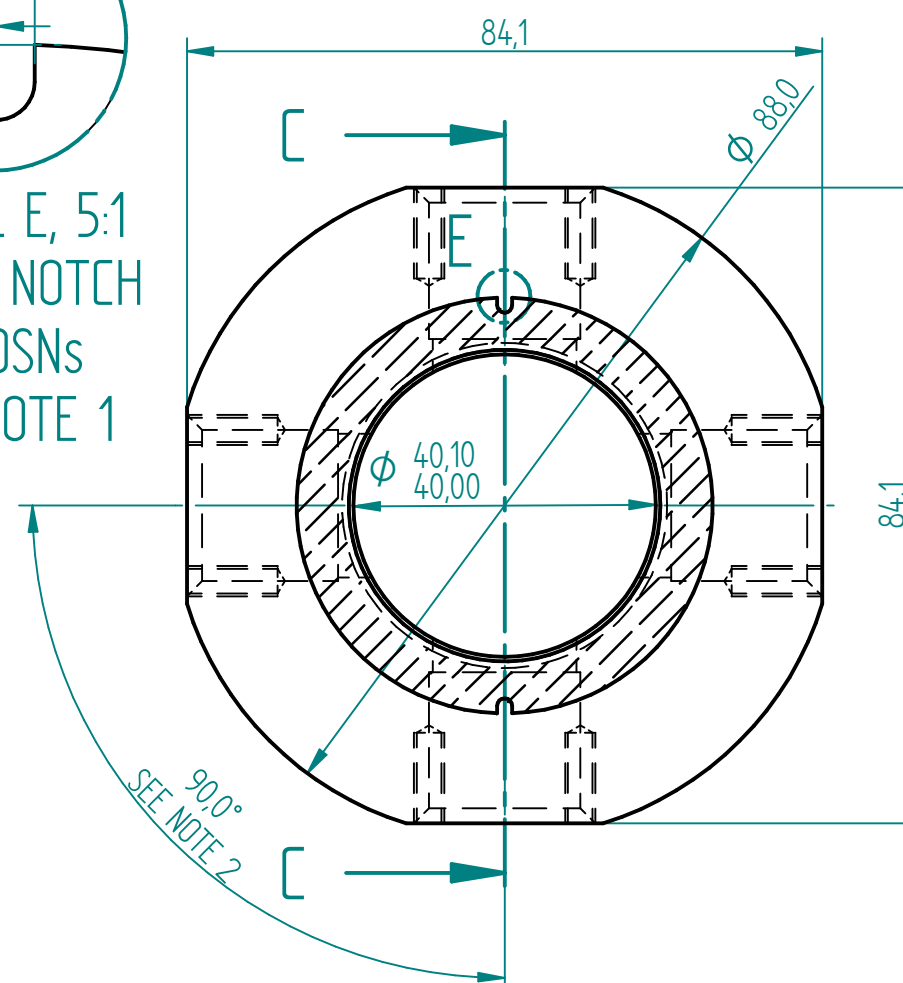
DETAIL D
2:1



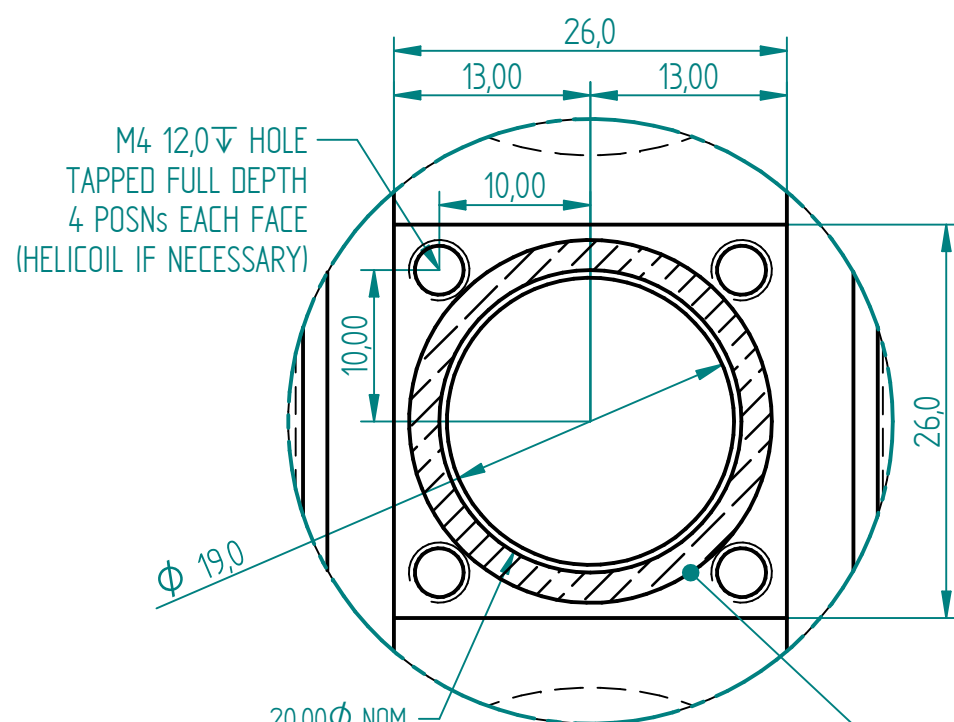
SECTION C-C



DETAIL E, 5:1
DATUM NOTCH
2 POSNs
SEE NOTE 1



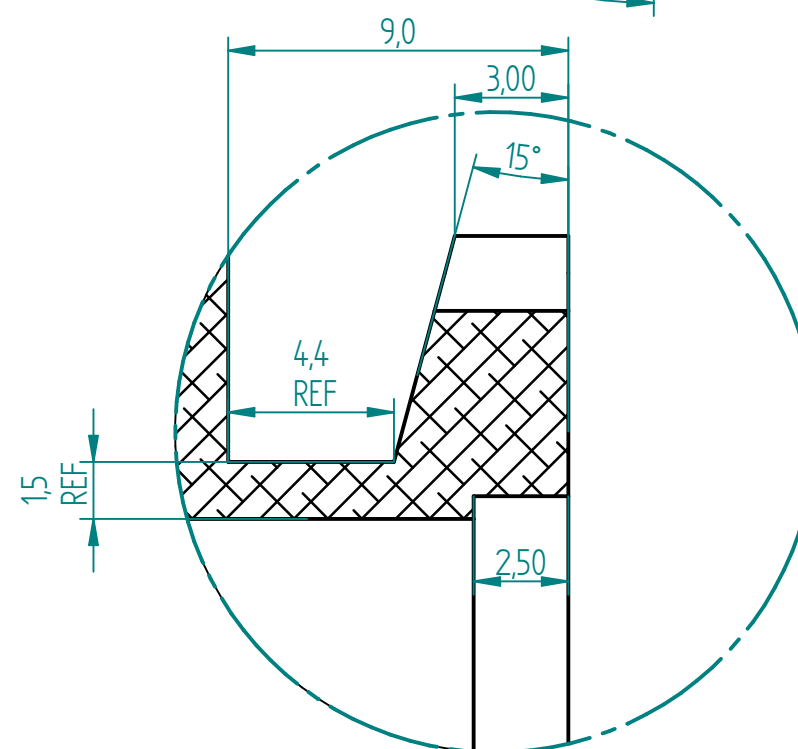
SEE NOTE 3



20.00 ϕ NOM.
ADJUST FOR LOCATIONAL TRANSITION FIT
WITH CERAMIC TUBE OUTER DIAM.

DETAIL F
2:1

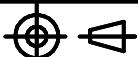
SEE NOTE 3

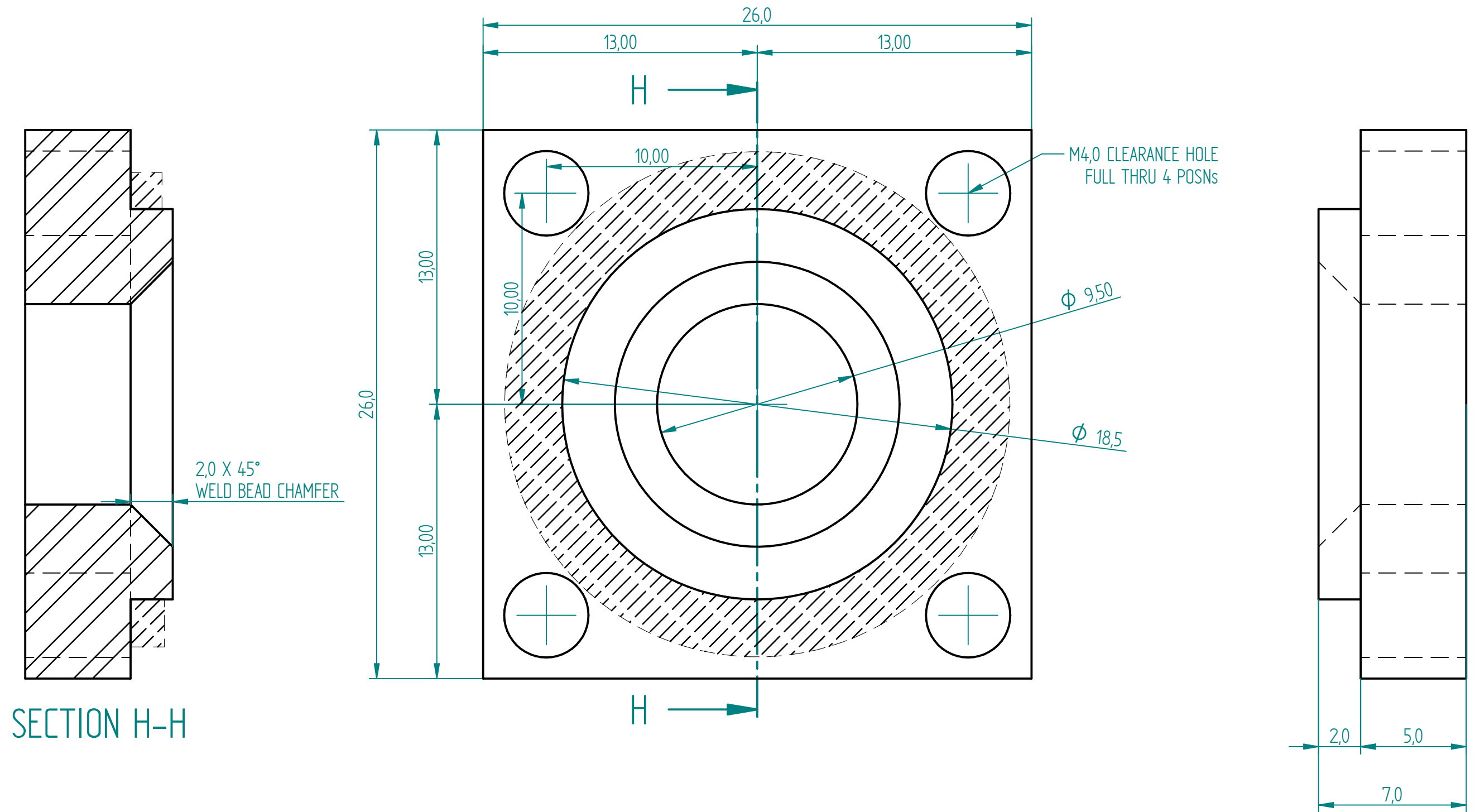


DETAIL G, 5:1
KF40 CLAMP
FLANGE DIMENSIONS

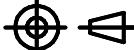
NOTES:

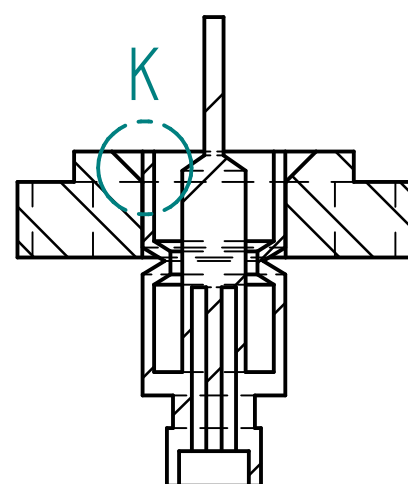
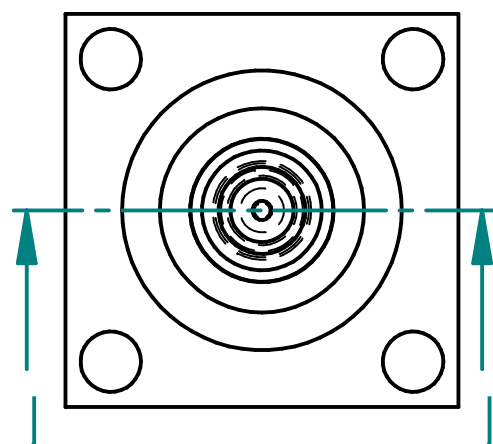
1. Datum notches equispaced 180,0° ensure rotational alignment of complete assembly with rest of beamline.
2. Four faces and holes equispaced by 90,0° as shown. Zero referenced from datum notches.
3. Areas marked indicated vacuum mating faces. Ensure burr and scratch free. Protect post-machining.

Drawn By Scott Lawrie		DATE 29/11/13		Checked By Pete Savage			
 © STFC 2010		 PROJECTION		TOLERANCES UNLESS STATED IN mm		SURFACE TEXTURE UNLESS STATED	
		X ± 0.5		ANGLE ±0.2°			
		X.X ± 0.3					
		X.XX ± 0.1					
DIMENSIONS IN mm UNLESS STATED			MATERIAL & SPEC.		FINISH		REMOVE ALL BURRS
			ALUMINIUM ALLOY 6082		CLEAN		
ISIS INJECTOR GROUP		USED ON BUTTON BPM ASSEMBLY					
RUTHERFORD APPLETON LABORATORY, HARWELL OXFORD, CHILTON, OXON, OX11 0QX							
TITLE						SCALE UNLESS STATED	
BPM Body						1:1	
						SHEET 2 OF 6	

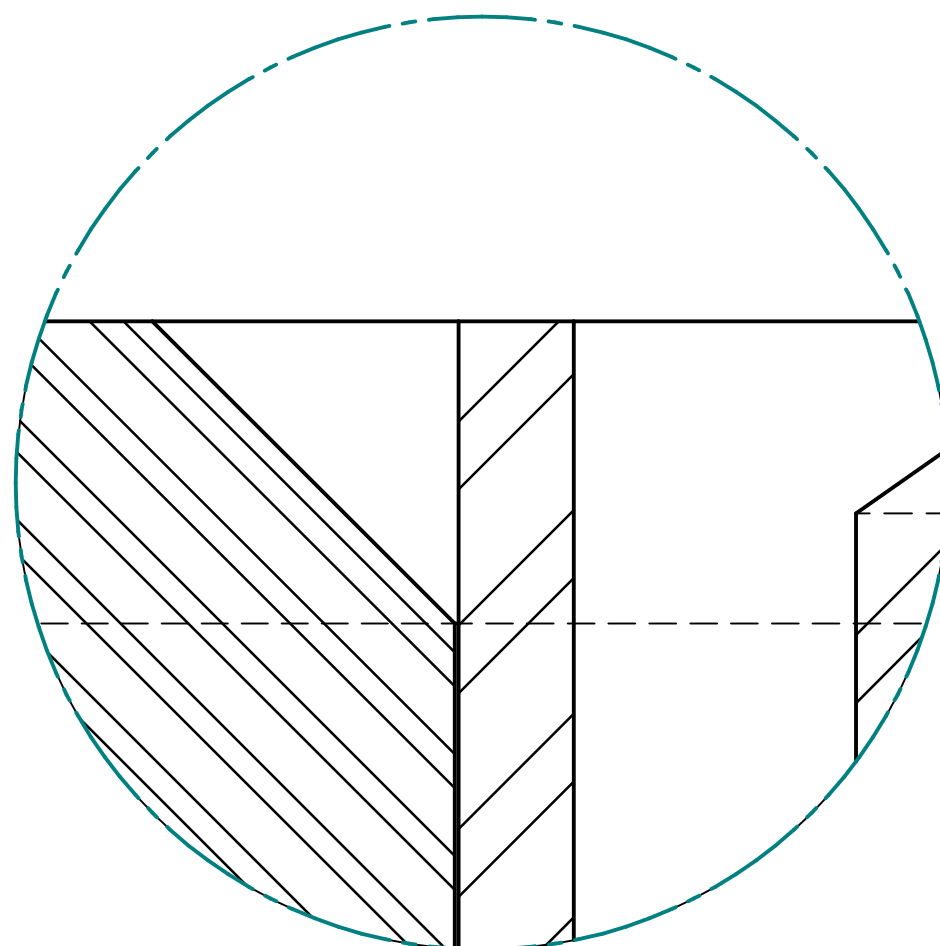


NOTE: AREA MARKED  IS A VACUUM MATING FACE.
ENSURE BURR AND SCRATCH FREE AND PROTECT POST-MACHINING.

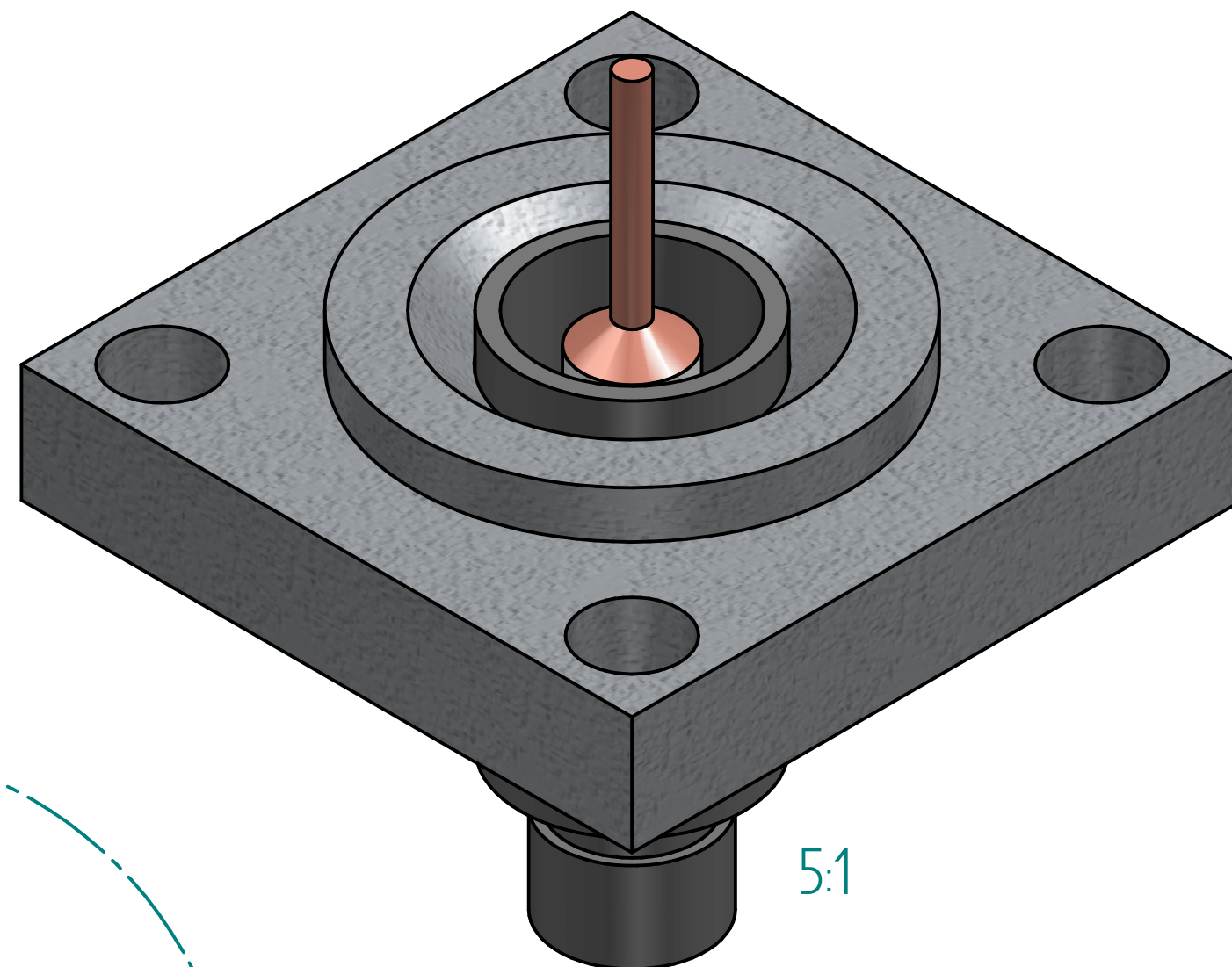
Drawn By Scott Lawrie		DATE 29/11/13		Checked By Pete Savage			
 © STFC 2010		 PROJECTION		TOLERANCES UNLESS STATED IN mm		SURFACE TEXTURE UNLESS STATED	
				X ± 0.5		 1.6 μm	
				X.X ± 0.3			
				X.XX ± 0.1			
DIMENSIONS IN mm UNLESS STATED		MATERIAL & SPEC.			FINISH		
		STAINLESS STEEL 316			CLEAN		
ISIS INJECTOR GROUP		USED ON					REMOVE ALL BURRS
		BUTTON BPM ASSEMBLY					
RUTHERFORD APPLETON LABORATORY, HARWELL OXFORD, CHILTON, OXON, OX11 0QX							
TITLE						SCALE UNLESS STATED	
Feedthrough Flange						5:1	
							SHEET 3 OF 6



SECTION J-J

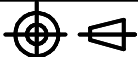


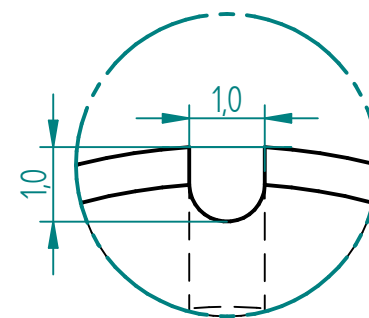
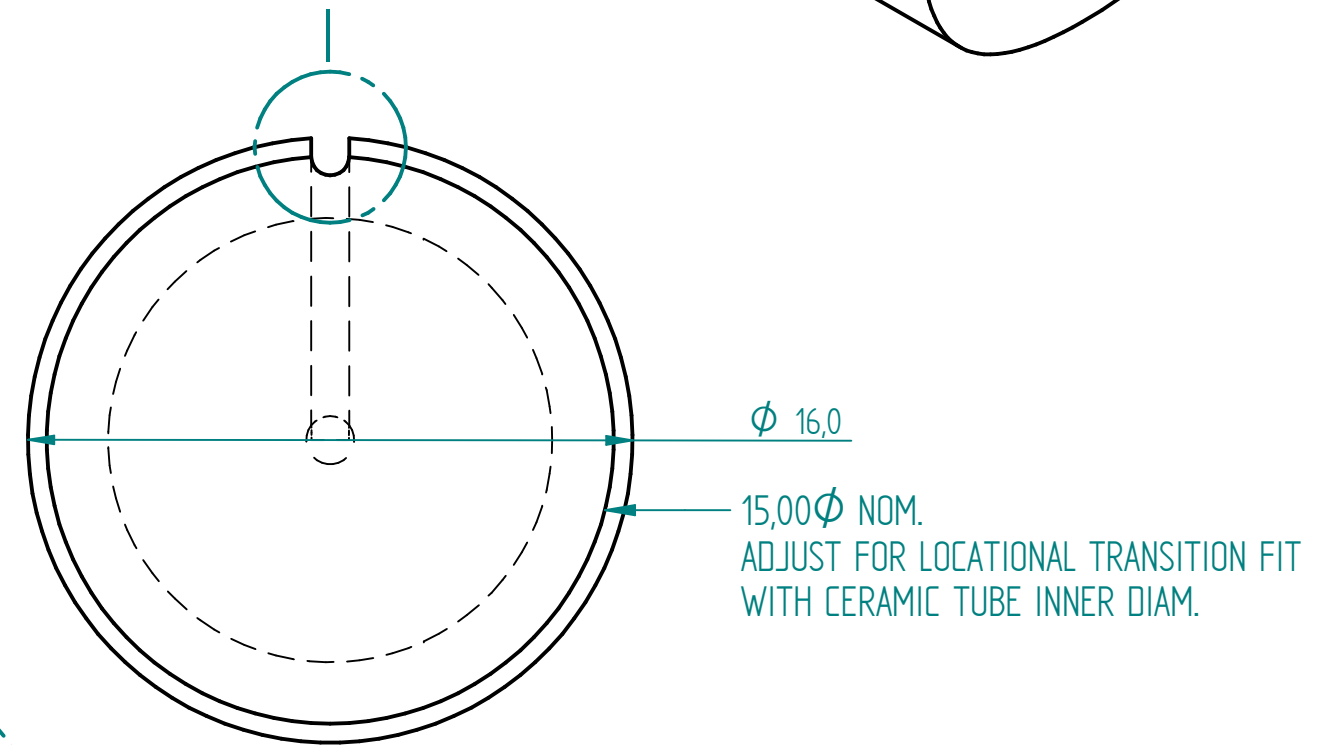
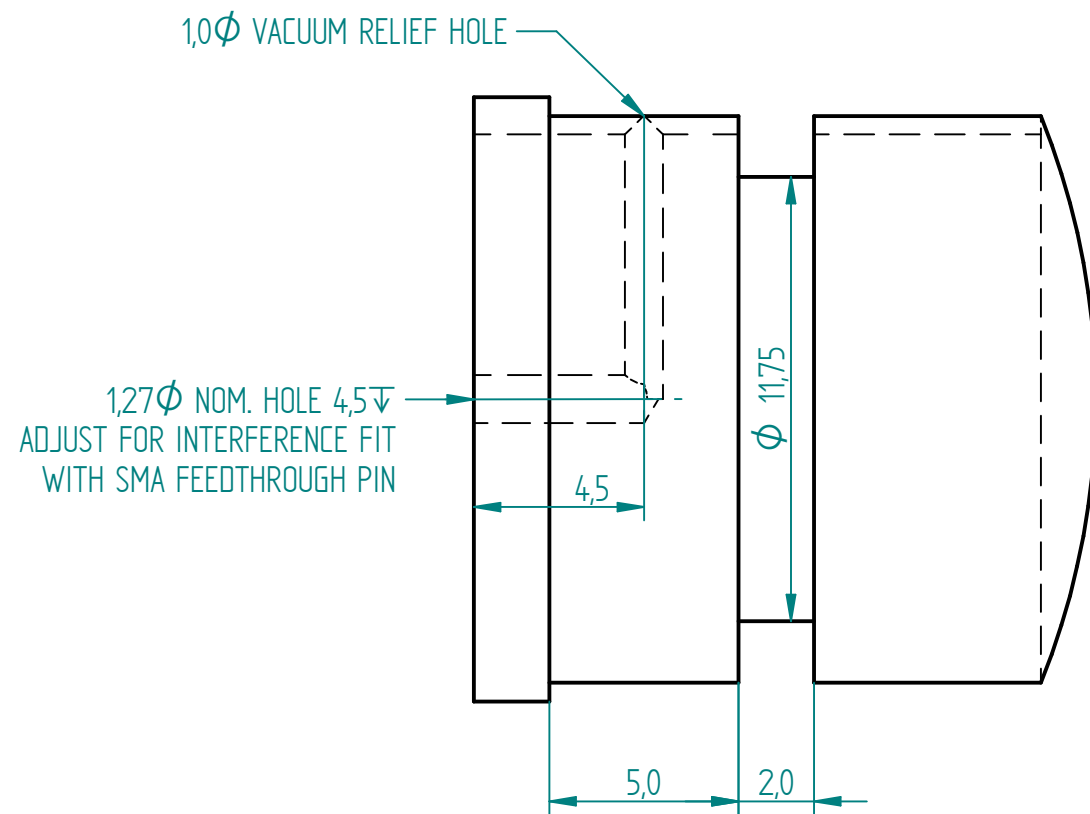
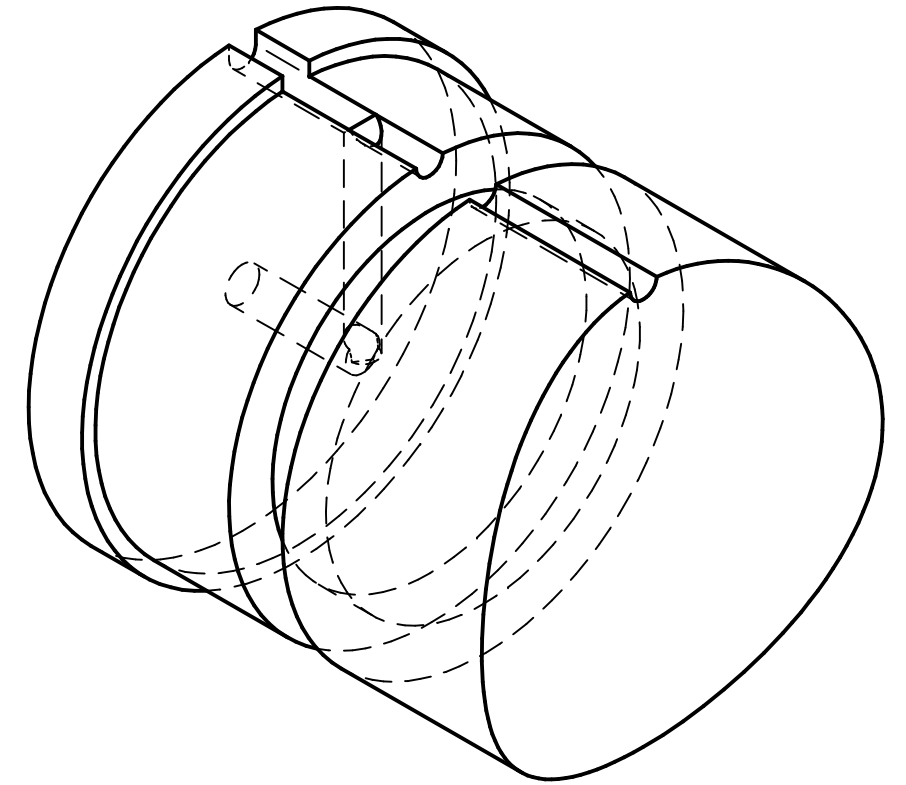
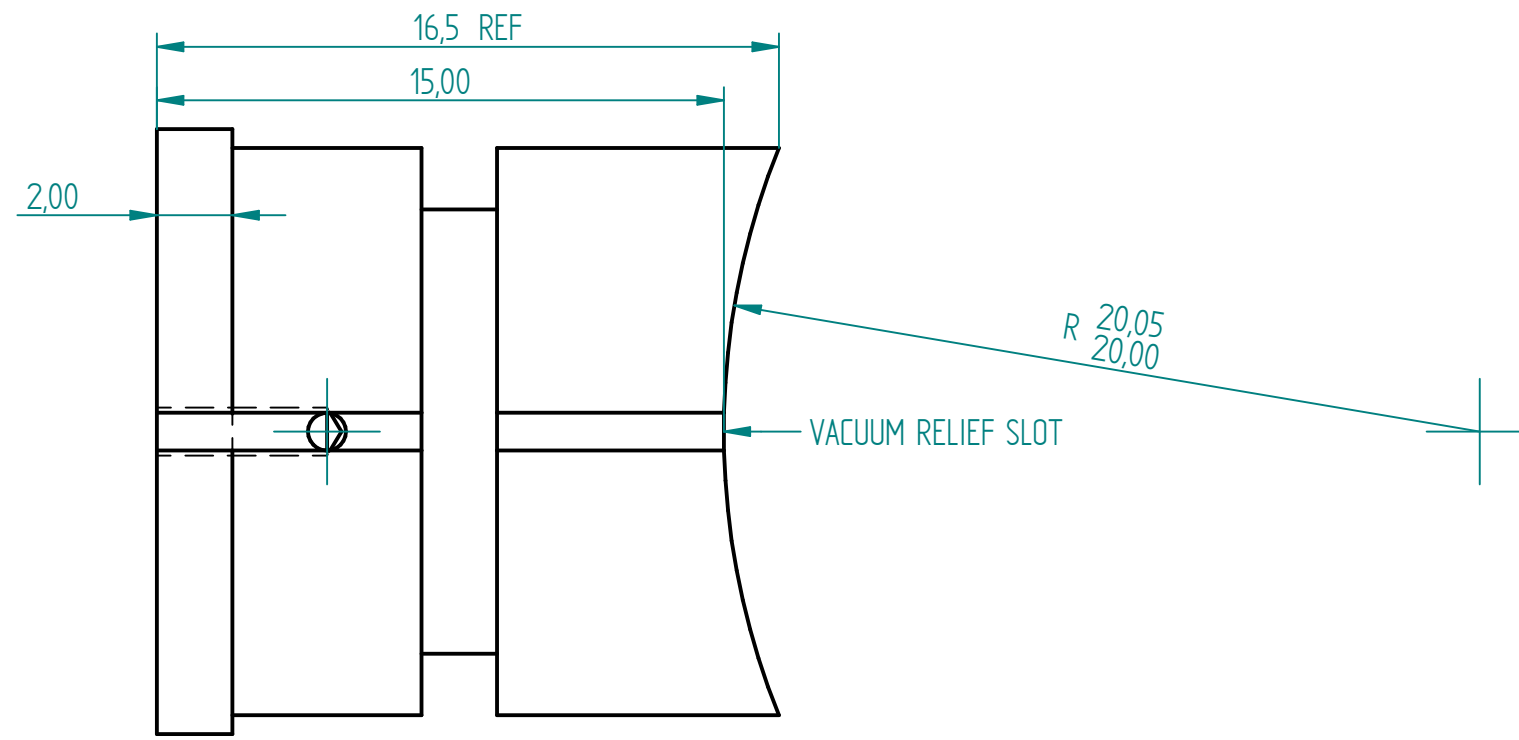
DETAIL K
20:1



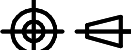
5:1

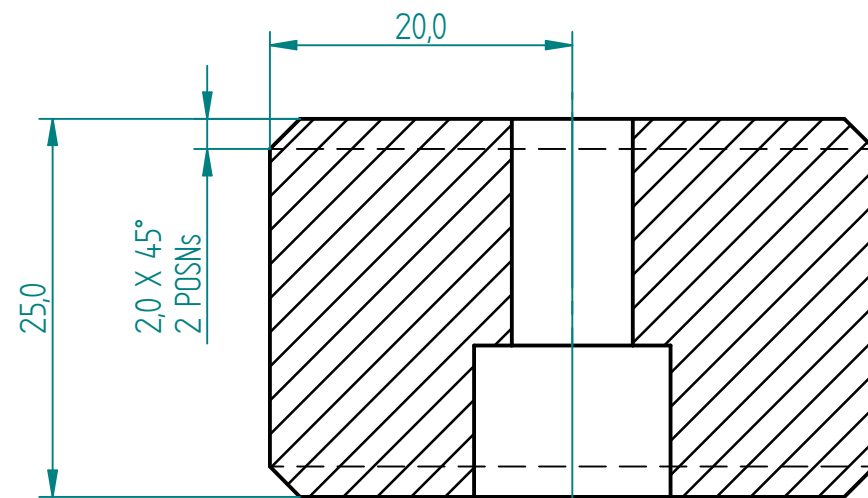
Vacuum leak-proof weld required.
SMA feedthrough to be welded into flange plate.
Feedthrough and flange surfaces to lie flush before weld.
Weld bead to be contained within chamfer.
Post-weld machine skim flush if required.

Drawn By Scott Lawrie		DATE 29/11/13	Checked By Pete Savage	
 © STFC 2010	 PROJECTION	TOLERANCES UNLESS STATED IN mm X ± 0.5 X.X ± 0.3 X.XX ± 0.1		SURFACE TEXTURE UNLESS STATED  1.6 μm
DIMENSIONS IN mm UNLESS STATED		MATERIAL & SPEC. STAINLESS STEEL 316		FINISH CLEAN REMOVE ALL BURRS
ISIS INJECTOR GROUP		USED ON BUTTON BPM ASSEMBLY		
RUTHERFORD APPLETON LABORATORY, HARWELL OXFORD, CHILTON, OXON, OX11 0QX				
TITLE Welded SMA Flange				SCALE UNLESS STATED 2:1
				SHEET 4 OF 6

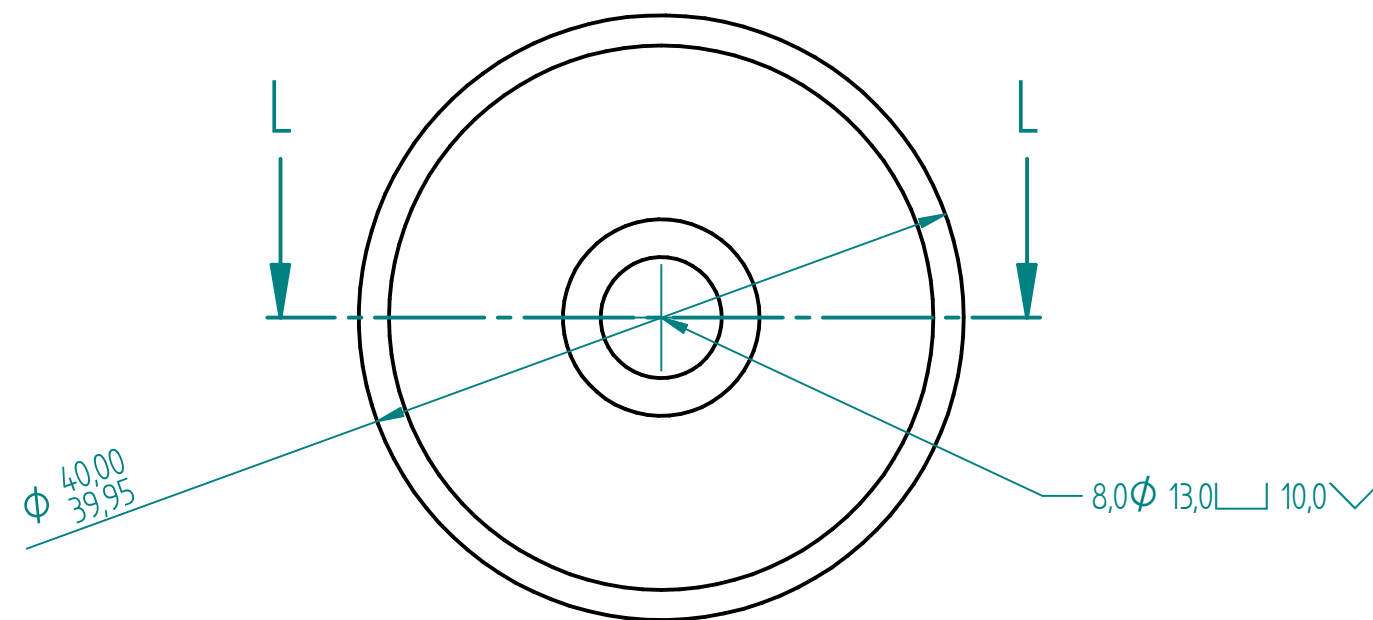
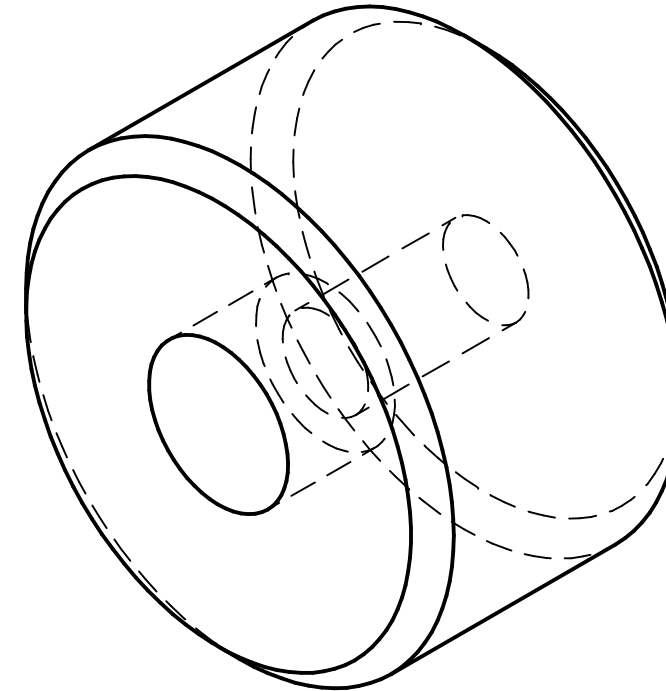


DETAIL I
VACUUM RELIEF SLOT
10:1

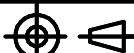
Drawn By		Scott Lawrie		DATE		29/11/13		Checked By		Pete Savage			
 © STFC 2010		 PROJECTION		TOLERANCES UNLESS STATED IN mm				SURFACE TEXTURE UNLESS STATED					
				X ± 0.5		ANGLE ±0.2°		 1.6 / μm					
				X.X ± 0.3									
				X.XX ± 0.1									
DIMENSIONS IN mm UNLESS STATED				MATERIAL & SPEC.				FINISH					
				ALUMINIUM ALLOY 6082				CLEAN					
								REMOVE ALL BURRS					
ISIS INJECTOR GROUP				USED ON									
				BUTTON BPM ASSEMBLY									
RUTHERFORD APPLETON LABORATORY, HARWELL OXFORD, CHILTON, OXON, OX11 0QX													
TITLE										SCALE UNLESS STATED			
Button										1:1			
										SHEET 5 OF 6			



SECTION L-L



Alignment piece to ensure correct rotation and position of four buttons relative to central axis. Insertion and removal using M8 bolt.

Drawn By Scott Lawrie		DATE 29/11/13	Checked By Pete Savage	
 © STFC 2010	 PROJECTION	TOLERANCES UNLESS STATED IN mm		SURFACE TEXTURE UNLESS STATED
		X ± 0.5	ANGLE ±0.2°	
		X.X ± 0.3		
		X.XX ± 0.1		
DIMENSIONS IN mm UNLESS STATED		MATERIAL & SPEC. STAINLESS STEEL 316	FINISH CLEAN	REMOVE ALL BURRS
ISIS INJECTOR GROUP		USED ON BUTTON BPM ASSEMBLY		
RUTHERFORD APPLETON LABORATORY, HARWELL OXFORD, CHILTON, OXON, OX11 0QX				
TITLE Alignment Jig				SCALE UNLESS STATED 1:1
				SHEET 6 OF 6