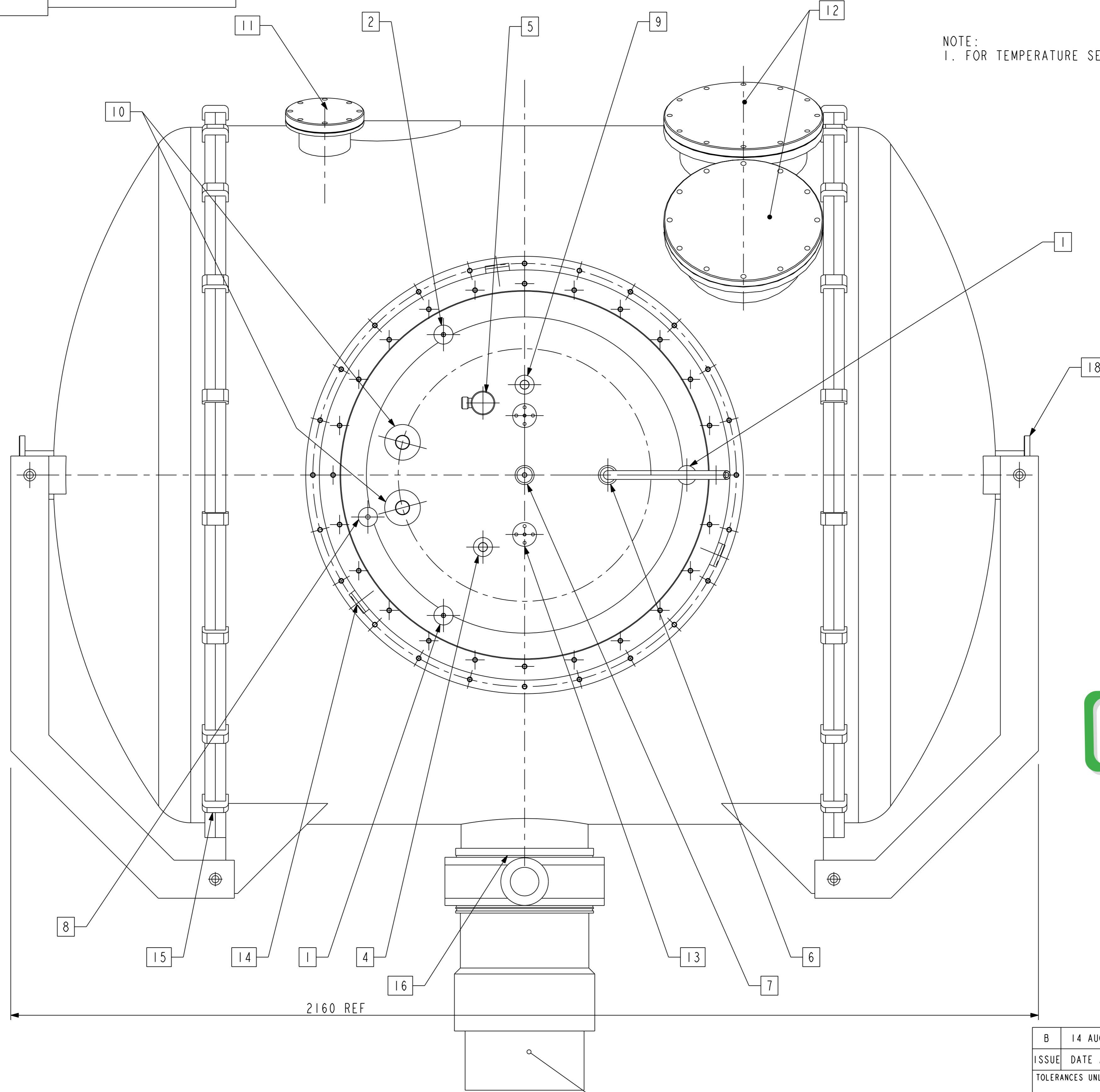


**LIST OF SERVICES**

PORT N°	DESCRIPTION
1	N2 VENT LINE AND NON RETURN VALVE NW25
2	N2 LEVEL PROBE NW25
3	N2 FILL NW25
4	4K He VENT LINE NW25/ BURST DISK
5	DEMOUNTABLE He LEVEL PROBE/TEMP SENSOR WIRING
6	He SYPHON ENTRY Ø12.7
7	LAMBDA POINT NEEDLE VALVE
8	9K SHIELD He VENT LINE
9	LAMBDA PUMPING PORT NW?? T.B.D. BY CONTRACTOR
10	CRYOSTAT WIRING CONNECTIONS
11	COLD CALIBRATION SOURCE WIRING PORT, ISO 100
12	2 x INSTRUMENT WIRING PORT ISO 250
13	2 x UPPER VERTICAL TRANSIT FIXING
14	3 x UPPER RADIAL TRANSIT FIXING
15	ISO VACUUM CLAMP QTY T.B.D.
16	PUMPING PORT ISO 250
17	8 x LOWER VESSEL TRANSIT FIXINGS
18	2 X AUXILIARY VACUUM PORTS ISO 100

NOTE:  
1. FOR TEMPERATURE SENSOR LOCATIONS SEE RAL DRAWING KG0710-001

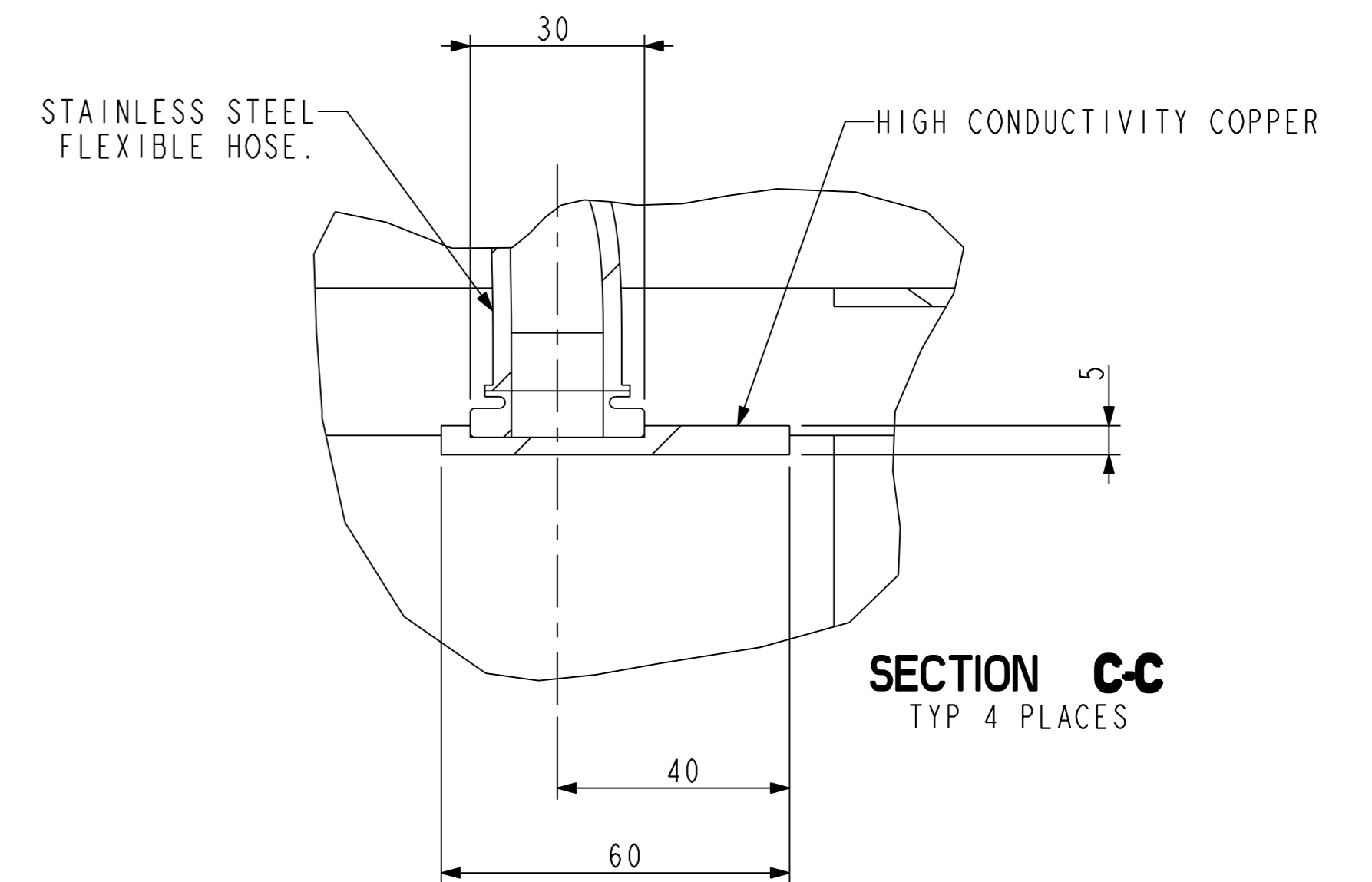
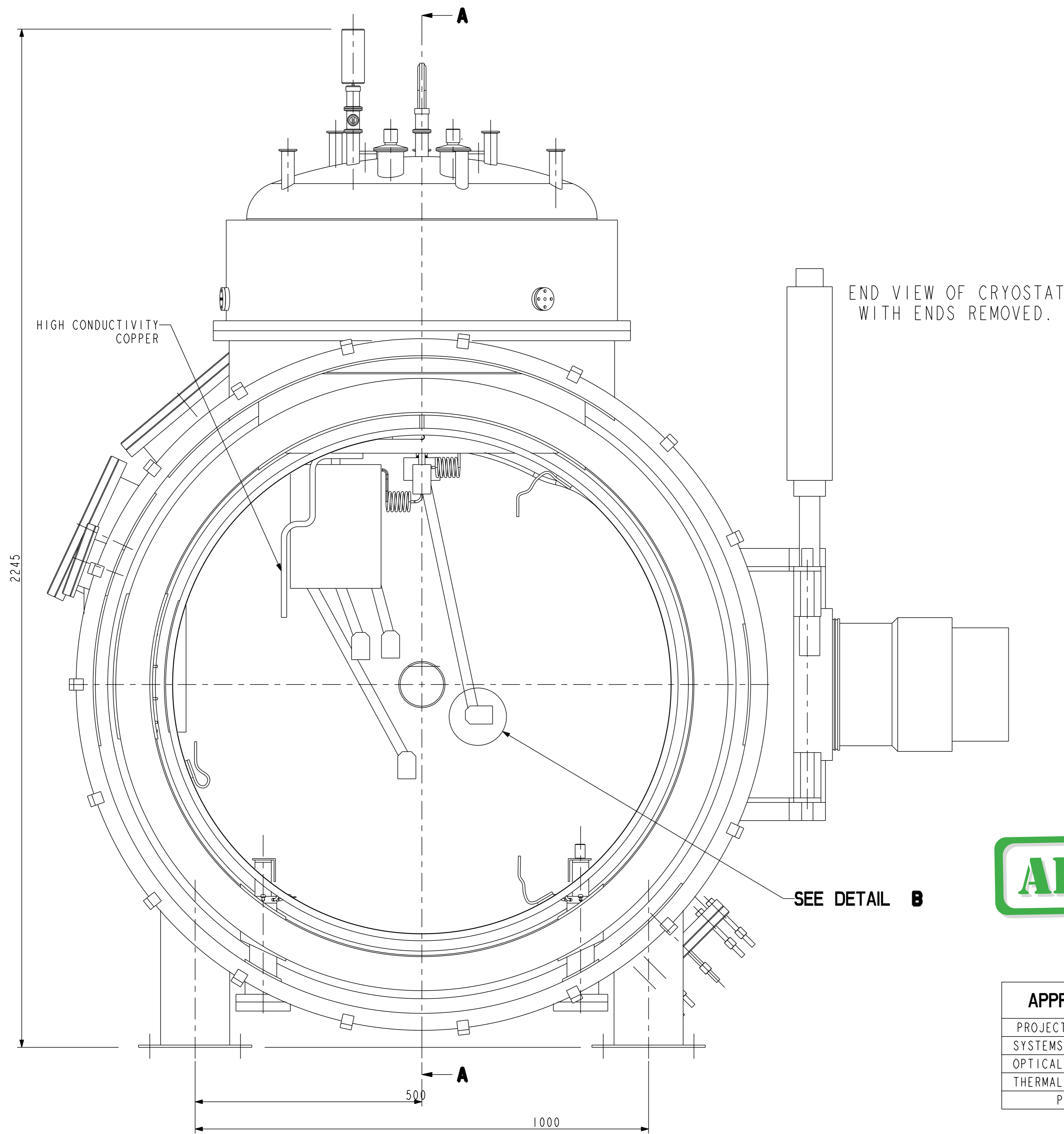


TURBO & GATE VALVE SHOWN FOR REFERENCE ONLY

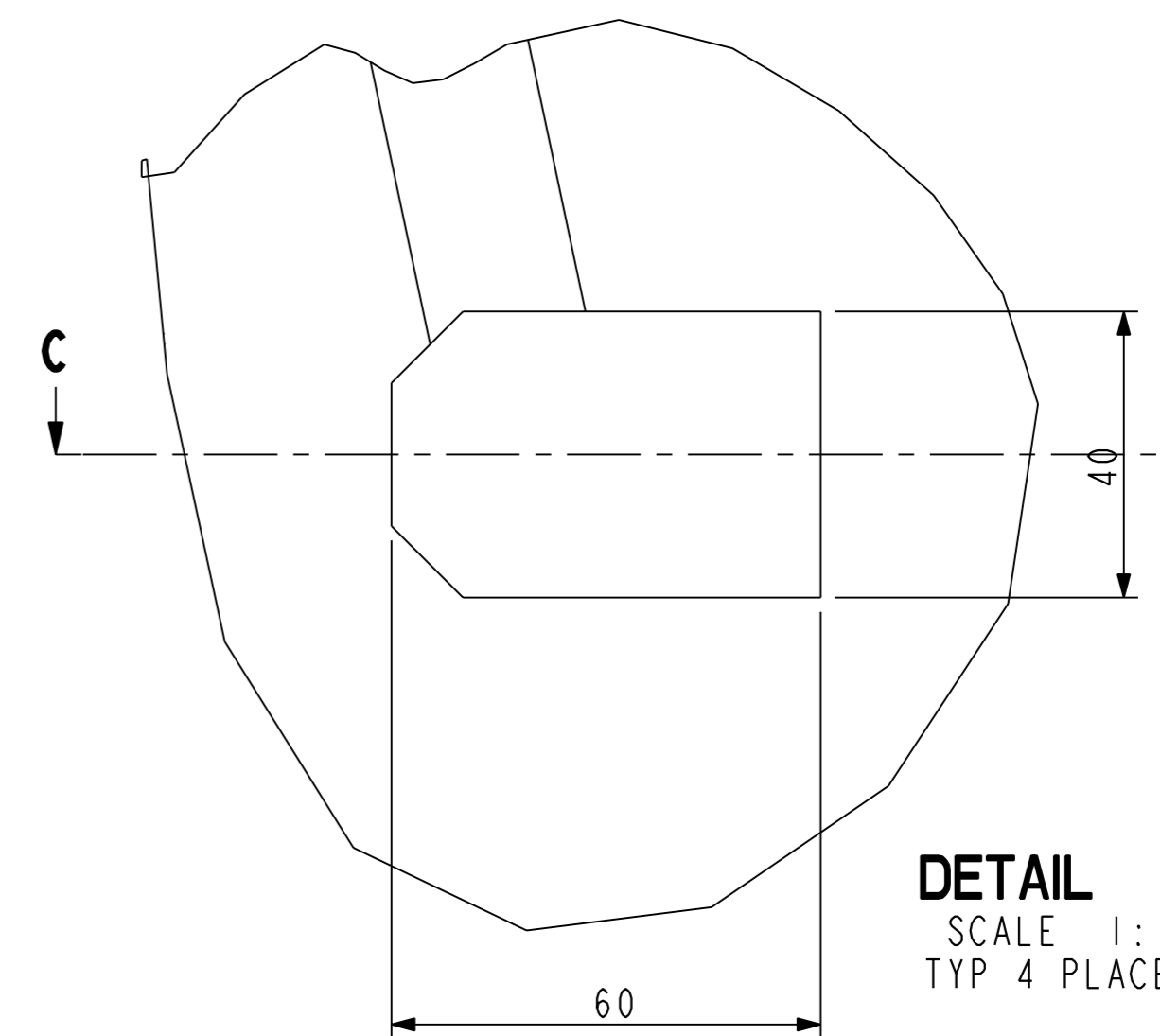
**APPROVED**

APPROVAL	INITIAL
PROJECT MANAGER	
SYSTEMS ENGINEER	
OPTICAL ENGINEER	
THERMAL ENGINEER	
P.A.	

B	14 AUG 01		M. HARMAN			STM	
ISSUE	DATE APPD	MOD. No.	DRN. BY	CHKD BY.	APPD BY.	STATUS	
TOLERANCES UNLESS STATED			FINISH		ORIGINAL SCALE		
X = ±0.5mm X.XX = ±0.1mm			CLEAN REMOVE ALL BURRS		1:5 DO NOT SCALE		
MATERIAL & SPEC. SEE DETAILS SEE DETAILS			SURFACE TEXTURE µm SEE DETAILS ✓ UNLESS STATED				
USED ON SPIRE				© CLRC 2001			
CENTRAL LABORATORY OF THE RESEARCH COUNCILS							
TITLE <b>SPIRE COLD CALIBRATION CRYOSTAT</b>							
HERSCHEL			SBB2110				
A	<b>KG0710-002</b>					SHEET	1 OF 4



SECTION C-C  
TYP 4 PLACES



DETAIL B  
SCALE 1:1  
TYP 4 PLACES

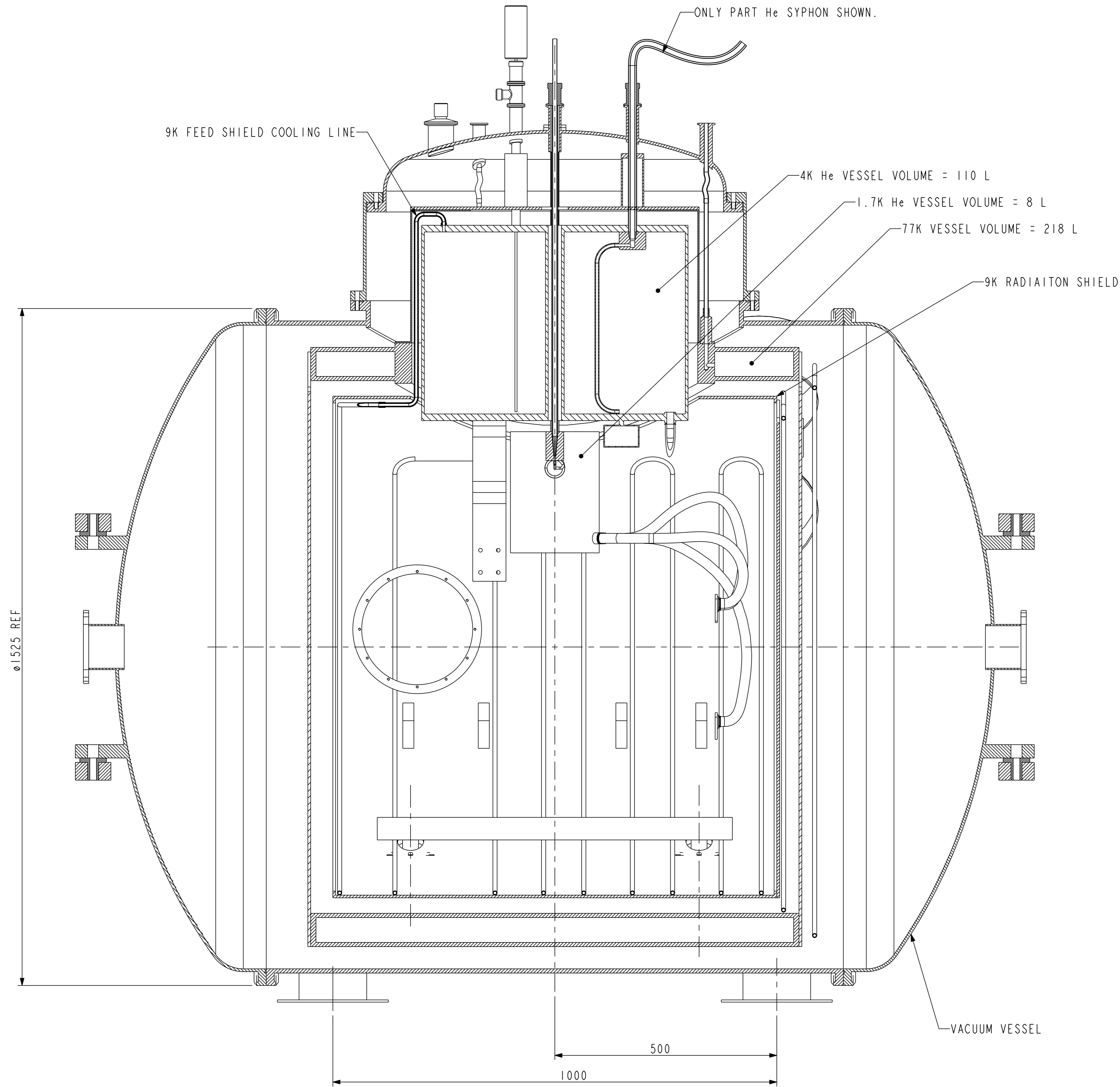
**APPROVED**

SEE DETAIL B

APPROVAL	INITIAL
PROJECT MANAGER	
SYSTEMS ENGINEER	
OPTICAL ENGINEER	
THERMAL ENGINEER	
P. A.	

B	14 AUG 01		M. HARMAN			STM	
ISSUE	DATE APPD	MOD. No.	DRN. BY	CHKD BY.	APPD BY.	STATUS	
TOLERANCES UNLESS STATED			FINISH		ORIGINAL SCALE		
X = ±0.5mm X.XX = ±0.1mm			CLEAN REMOVE ALL BURRS		1:5 DO NOT SCALE		
MATERIAL & SPEC.			SURFACE TEXTURE μm				
SEE DETAILS SEE DETAILS			SEE DETAILS UNLESS STATED				
USED ON SPIRE				© CLRC 2001			
CENTRAL LABORATORY OF THE RESEARCH COUNCILS							
TITLE <b>SPIRE COLD CALIBRATION CRYOSTAT</b>							
HERSCHEL			SBB2110				
A1	KG0710-002					SHEET	2 OF 4





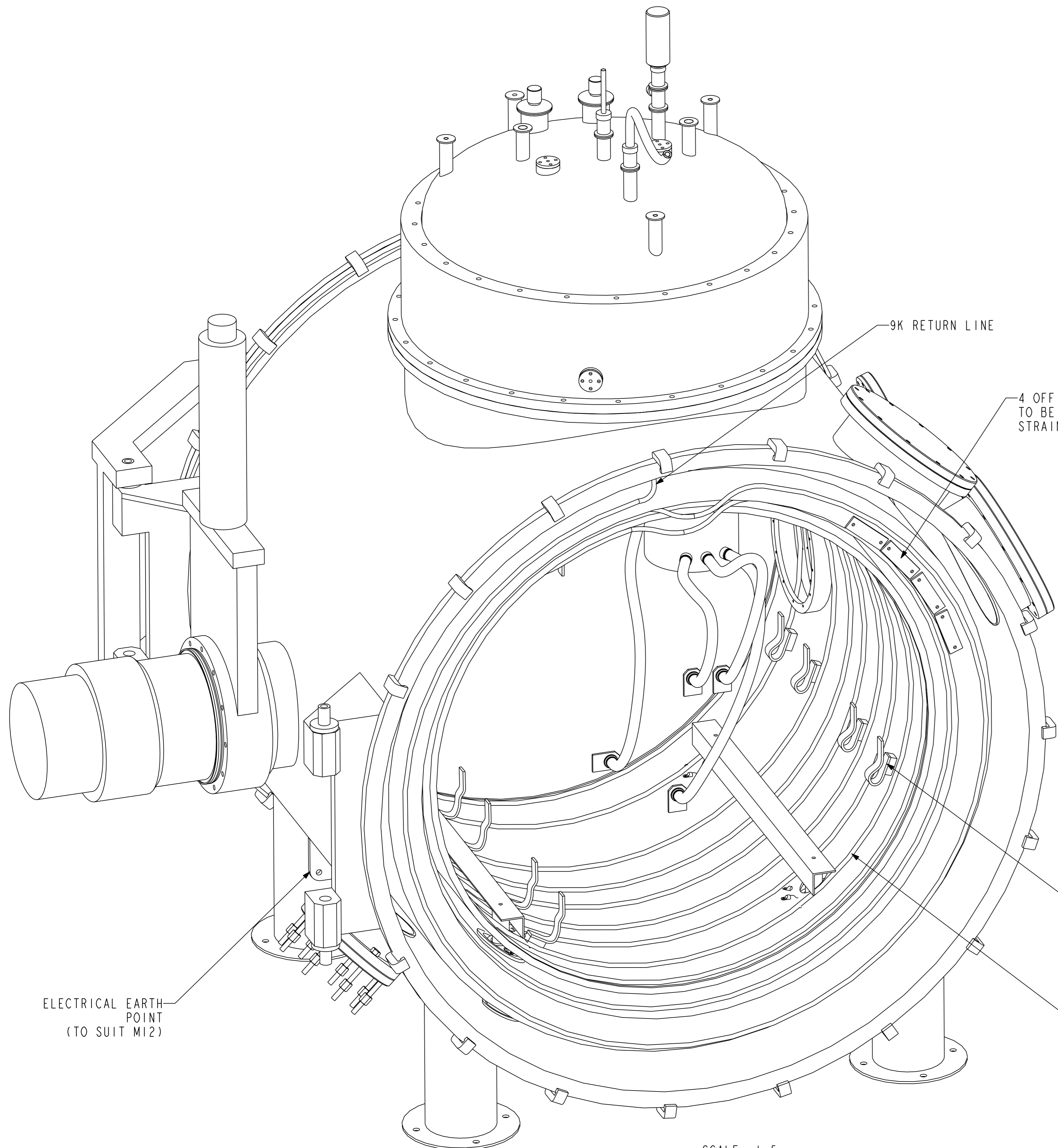
**APPROVED**

APPROVAL	INITIAL
PROJECT MANAGER	
SYSTEMS ENGINEER	
OPTICAL ENGINEER	
THERMAL ENGINEER	
P.A.	

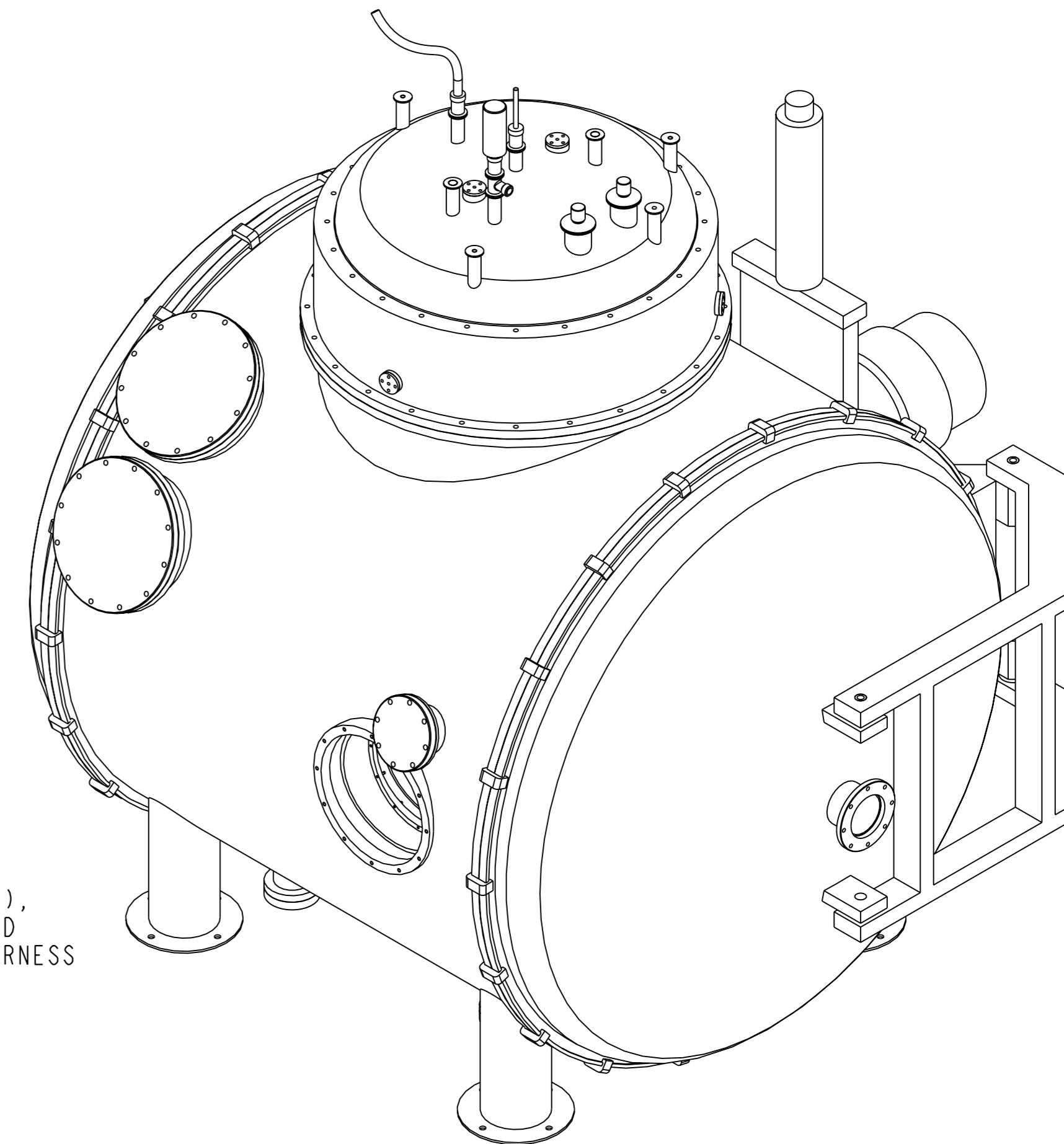
B	14 AUG 01		M. HARMAN			STM	
ISSUE	DATE APPD	MOD. No.	DRN. BY	CHKD BY.	APPD BY.	STATUS	
TOLERANCES UNLESS STATED			FINISH		ORIGINAL SCALE		
X = ±0.5mm X.XX = ±0.1mm			CLEAN REMOVE ALL BURRS		1:5 DO NOT SCALE		
MATERIAL & SPEC. SEE DETAILS SEE DETAIL			SURFACE TEXTURE µm SEE DETAIL ✓ UNLESS STATED				
USED ON SPIRE				© CLRC 2001			
CENTRAL LABORATORY OF THE RESEARCH COUNCILS							
TITLE <b>SPIRE COLD CALIBRATION CRYOSTAT</b>							
HERSCHEL						SBB2110	
A1	KG0710-002					SHEET	3 OF 4

**SECTION A-A**  
FROM SHEET 1





SCALE 1:5  
ISOMETRIC VIEW WITH  
ENDS REMOVED



SCALE 1:10

**APPROVED**

APPROVAL	INITIAL
PROJECT MANAGER	
SYSTEMS ENGINEER	
OPTICAL ENGINEER	
THERMAL ENGINEER	
P. A.	

B	14 AUG 01		M. HARMAN			STM	
ISSUE	DATE APPD	MOD. No.	DRN. BY	CHKD BY.	APPD BY.	STATUS	
TOLERANCES UNLESS STATED			FINISH		ORIGINAL SCALE		
X = ±0.5mm X.XX = ±0.1mm			CLEAN REMOVE ALL BURRS		1:5 DO NOT SCALE		
MATERIAL & SPEC.			SURFACE TEXTURE μm				
SEE DETAILS SEE DETAILS			SEE DETAILS UNLESS STATED				
USED ON SPIRE				© CLRC 2001			
CENTRAL LABORATORY OF THE RESEARCH COUNCILS							
TITLE <b>SPIRE COLD CALIBRATION CRYOSTAT</b>							
HERSCHEL						SBB2110	
A1	KG0710-002					SHEET	4 OF 4

KG0710-002