

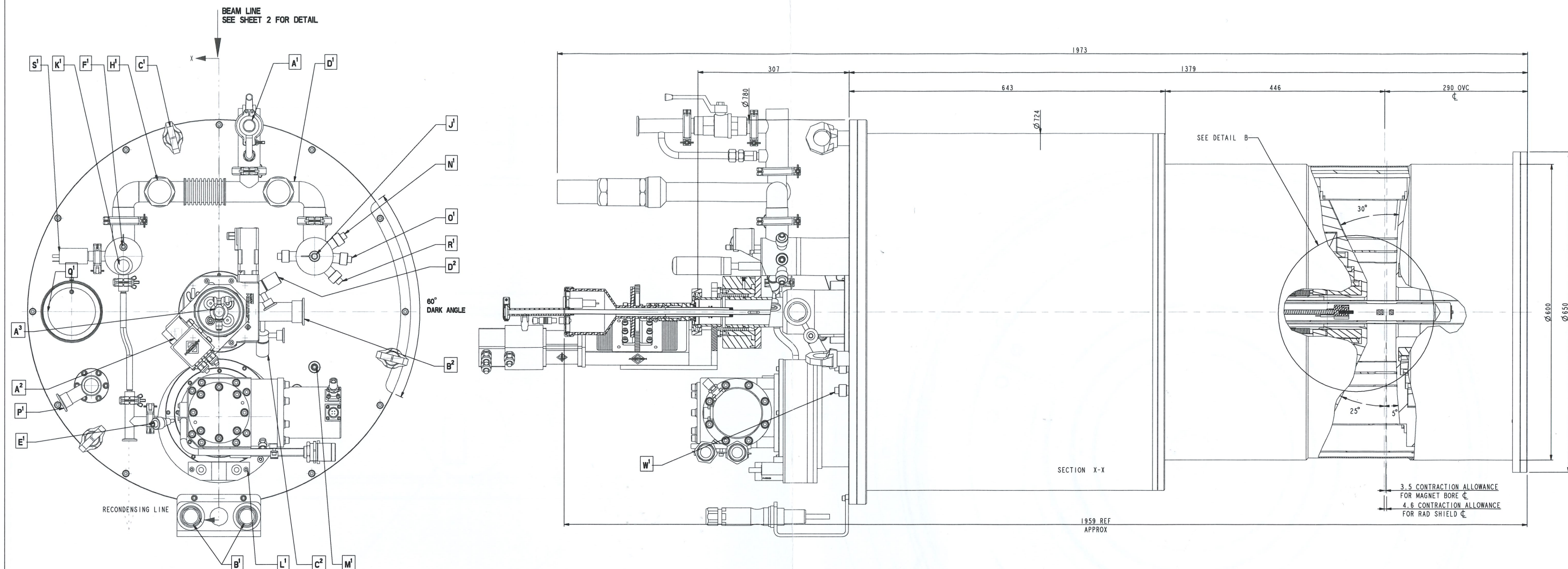
1/4" LINE
A100071

NW25
TEE
VET0002

—LN2 DEWAR
HND 0057

						10	VEM0151	NW10 CENTRING RING + FILTER		2	
20	Z30117	NW40 EDWARDS CARRIER AND CLAMP			3	9	P84804	COLD TRAP BLANK FLG		1	
19	Z30116	NW25 EDWARDS CARRIER AND CLAMP			3	8	P82544_B	FLANGE AL NW25 - 3/4" NPT		1	
18	Z30115	NW16 EDWARDS CARRIER AND CLAMP			11	7	HND0057	NITROGEN DEWAR IC-38RX-CTI		1	
17	VVM0615_B	R/VALVE BR 3/4" NPT MALE 13PSI			1	6	DRP5372	NW10/16 FILTER CENTER RING (L)		2	
16	VPZ0439_B	PUMP XDS 351 DRY VACUUM EDWARD			1	5	DDZ1709	N2 LEVEL PROBE HEAD-MODEL ONLY		1	
15	VKT0019	ADAPTOR NW25/16 ALUM			1	4	A70046	COLD TRAP ASSY MKIII		1	
14	VEV0065	NW16 SPEEDI VALVE C332-05-000			4	3	A70045	LN2 COLD TRAP FITTING ASSY		1	
13	VEV0026_B	VALVE SPEEDI SP40K			1	2	A100084	P/LINE 2.00x3.5xNW40xNW40		1	
12	VET0002	TEE NW25 AL			1	1	A100071	P/LINE 0.25x2.5xNW16xNW16		2	
11	VET0001	TEE NW10 EQ AL			2		Item Part No	Description	Length	Qty.	REMARKS

		
DRAWING NUMBER A81901	REV -	
SHEET 1 OF 1		



LEGEND	
ITEM	MD50 CRYOSTAT
A	HELIUM MAIN RESERVOIR EXHAUST
B	MAGNET CURRENT LEADS
C	LIFTING EYE BOLT ROTATING GN 581-M16-A - 3 OFF
D	EXHAUST MANIFOLD
E	PTR ST2 TEMP SENSOR 10 PIN FISCHER
F	HELIUM LEVEL PROBE ACCESS
G	HELIUM RESERVOIR PRESSURE RELIEF VALVE
H	SIPHON ENTRY
I	VTI NEEDLE VALVE
J	EARTHING POINT
K	10 WAY VTI VALVE HEATER
L	SPARE FISCHER WIRING PORT
M	10 WAY MAG TEMPERATURE SENSORS & SWITCH HEATER
N	OVC PUMPOUT PORT
O	OVC SAFETY VALVE
P	4 WAY PRESSURE CONTROL HEATER
Q	PRESSURE SENSOR
R	4 WAY HALL PROBE SENSOR
S	VTI
T	10 WAY VTI HEATER/SENSOR
U	VTI HEAT EXCHANGER PUMPING PORT
V	VTI SAMPLING AND SAFETY VALVE
W	VTI EXCHANGE GAS/SAFETY PORT
SAMPLE ROD	
A	SAMPLE ROD CONNECTOR HEATER & SENSOR (1031Z)

FISCHER CONNECTOR "A" (BLUE) SAMPLE ROD WIRING	
PIN WIRE	FUNCTION
1	36 swg CU HEATER
2	36 swg CU HEATER
3	36 swg CONST CERNOX SENSOR V-
4	36 swg CONST CERNOX SENSOR V+
5	36 swg CONST CERNOX SENSOR I+
6	36 swg CONST CERNOX SENSOR I-
7	
8	
9	
10	

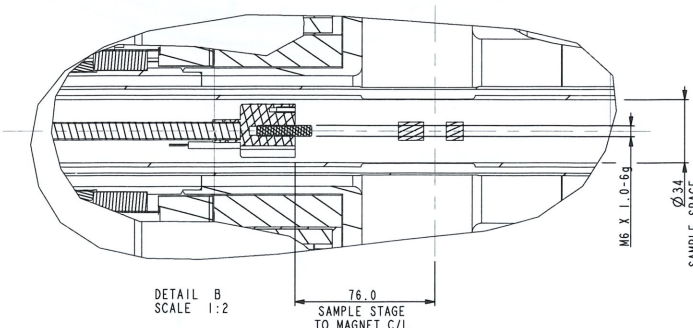
FISCHER CONNECTOR "A" (GREEN) VTI HEATER AND SENSOR WIRING	
PIN WIRE	FUNCTION
1	36 swg CU FIRE ROD HEATER
2	36 swg CU FIRE ROD HEATER
3	40 swg CONST CERNOX SENSOR V-
4	40 swg CONST CERNOX SENSOR V+
5	40 swg CONST CERNOX SENSOR I+
6	40 swg CONST CERNOX SENSOR I-
7	
8	
9	
10	

FISCHER CONNECTOR 4 PIN "M" (BLACK) HALL PROBE SENSOR WIRING	
PIN WIRE	FUNCTION
1	36 swg CU PROBE I+
2	36 swg CU PROBE V+
3	36 swg CU PROBE V-
4	36 swg CU PROBE I-

FISCHER CONNECTOR "M" (ORANGE) VTI NEEDLE VALVE HEATER & SENSOR	
PIN WIRE	FUNCTION
1	
2	
3	
4	
5	
6	
7	36 swg CONST 270ohm N/V RESISTOR
8	36 swg CONST 270ohm N/V RESISTOR
9	36 swg CU 68ohm N/V HEATER
10	36 swg CU 68ohm N/V HEATER

FISCHER CONNECTOR "E" (BROWN) PTR TEMP SENSORS	
PIN WIRE	FUNCTION
1	
2	
3	36 swg CONST CERNOX SENSOR V-
4	36 swg CONST CERNOX SENSOR V+
5	36 swg CONST CERNOX SENSOR I+
6	36 swg CONST CERNOX SENSOR I-
7	42 swg CONST PLATINUM SENSOR V+
8	42 swg CONST PLATINUM SENSOR V-
9	42 swg CONST PLATINUM SENSOR I+
10	42 swg CONST PLATINUM SENSOR I-

FISCHER CONNECTOR 10 PIN "O" (RED) MAGNET TEMPERATURE SENSORS AND SWITCH	
PIN WIRE	FUNCTION
1	36 swg CONST
2	36 swg CONST
3	36 swg CONST A/B COMMON
4	36 swg CONST A/B MAGNET TOP
5	36 swg CONST A/B MAGNET BOTTOM
6	36 swg CONST
7	36 swg CONST
8	28 swg CONST SWITCH HEATER SPARE
9	28 swg CONST SWITCH HEATER MAIN
10	28 swg CONST SWITCH HEATER COMMON



LIQUID HELIUM LEVEL PROBE LENGTHS	
OVERALL	770
ACTIVE	200
A10949-012	

HEIGHT REQUIREMENTS	
MINIMUM HEIGHT REQUIRED TO REMOVE SERVICES FROM CRYOSTAT EXCLUDING WINCH AND CRYOSTAT TROLLEY	
VTI INSERT	3.0M
TRANSFER TUBE	2.25M
SAMPLE PROBE	3.5M

DRAWING APPROVAL	
PROJECT NUMBER	60029
PROJECT NAME	HUTANU
CUSTOMER SIGNATURE	
DATE	
MAXIMUM SYSTEM WEIGHT INCLUDING CRYOGENS TO BE 750KG	

FISCHER CONNECTOR 4 PIN "R" (YELLOW) PRESSURE CONTROL HEATER	
PIN WIRE	FUNCTION
1	36 swg CU PRESSURE CONTROL HEATER
2	36 swg CU PRESSURE CONTROL HEATER
3	
4	

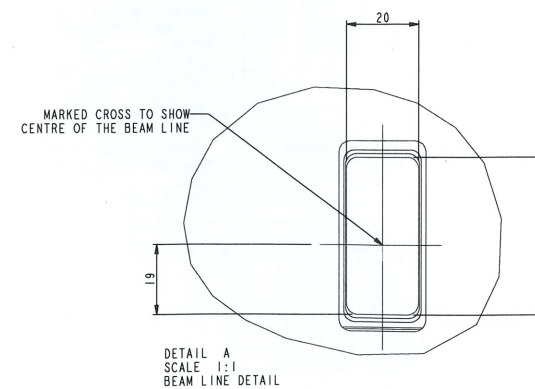
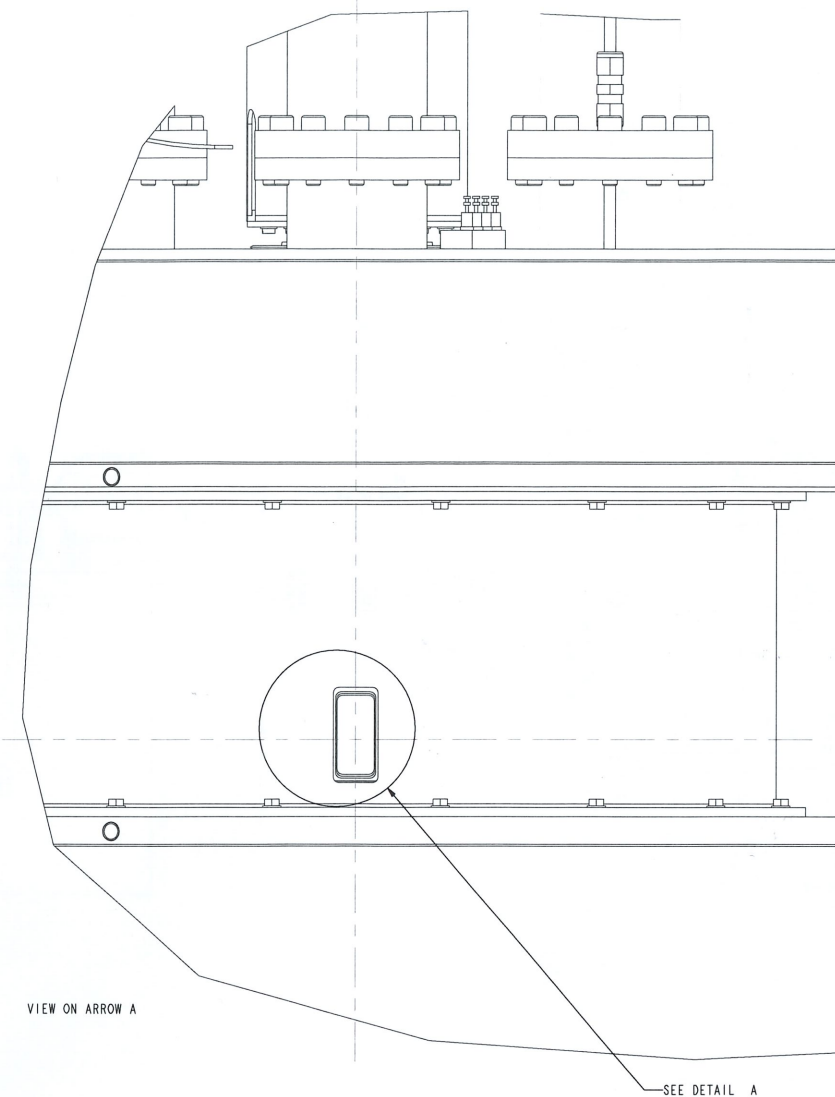
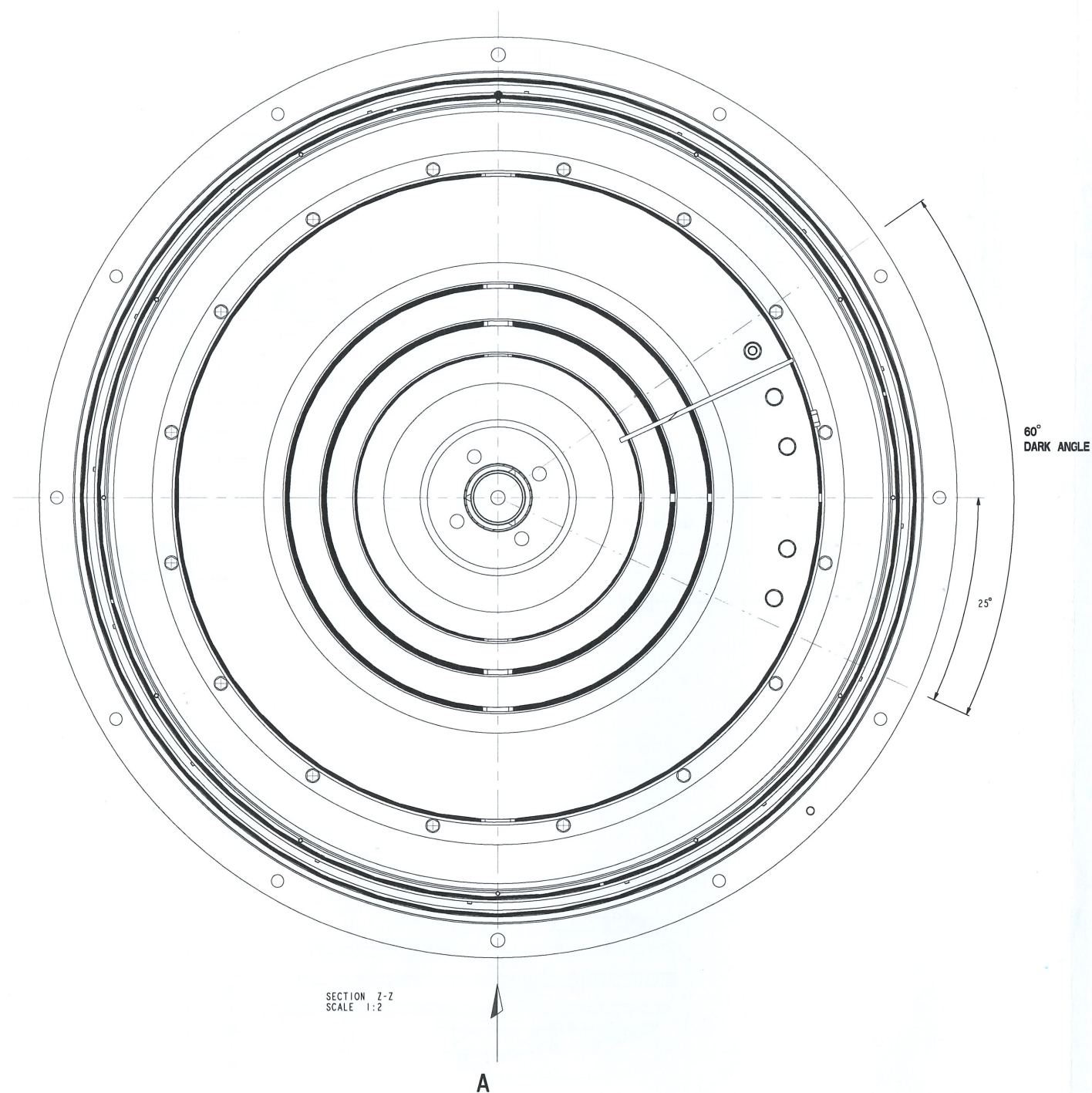
VOLUMES	
OVC	242L
USABLE HELIUM	55L
HELIUM CAN VOLUME	69L

VTI SPECS	
TEMP RANGE	1.6 - 400K
TYPE	STATIC
SAMPLE SPACE DIA	34mm

MAGNET SPECIFICATION	
1ST FIELD	8.0T AT 4.2K
2ND FIELD	N/A
COLD BORE	60.0mm
HOMOGENEITY	0.45% OVER 10mm dsv
PERSISTENCE	20 PPM PER HOUR
CURRENT	182 AMPS

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DO NOT SCALE IF IN DOUBT ASK	TOLERANCES UNLESS STATED FOR:	SURFACE FINISH	DESCRIPTION
REMOVE ALL BURRS AND SHARP EDGES	MACHINING X ± 0.5mm X.X ± 0.3mm X.XX ± 0.1mm ANGLE ± 0°15'	ASSEMBLY LINEAR ± 1mm ANGULAR ± 1°	CUSTOMER GA-60029 HUTANU
	UNLESS STATED	UNLESS STATED	SCALE 1:4
			DATE 2-Feb-17
			DRAWN P. Sharp
			RELEASE LEVEL Production
			ONLY MANUFACTURE DRAWINGS WHEN RELEASE LEVEL IS SET TO "PRODUCTION"
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			REV 01
			SHEET 1 OF 2



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AND SHARP EDGES

TOLERANCES UNLESS STATED FOR:
MACHINING
X ± 0.5mm
X.X ± 0.3mm
X.XX ± 0.1mm
ANGLE ± 0°15'

ASSEMBLY
LINEAR ± 1mm
ANGULAR ± 1°

SURFACE FINISH
UNLESS STATED
mm
UNLESS STATED

DESCRIPTION
CUSTOMER GA-60029 HUTANU

SCALE
1:4

DATE
2-Feb-17

DRAWN
P.Sharp

RELEASE LEVEL
Production

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SHEET 2 OF 2