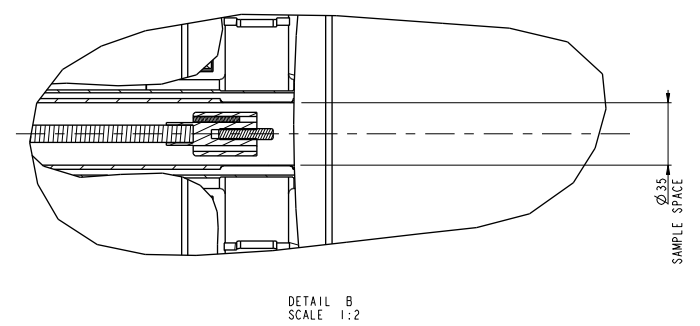


LEGEND		SIZE
ITEM	DESCRIPTION	
A	HELIUM MAIN RESERVOIR EXHAUST	NW25
B	MAGNET CURRENT LEADS	
C	LIFTING EYE BOLTS - 3 OFF	M16
D	EXHAUST MANIFOLD	
E	PTR ST2 TEMP SENSOR 10 PIN FISCHER	FISCHER (BROWN)
F	HELIUM LEVEL PROBE ACCESS	Ø 4.8mm
G	HELIUM RESERVOIR PRESSURE RELIEF VALVE	2 OFF NW50
H	SIPHON ENTRY	Ø 9.5mm
I	VTI NEEDLE VALVE	AUTO
J	EARTHING POINT	M6
K	10 WAY VTI VALVE HEATER	FISCHER (ORANGE)
L	SPARE FISCHER WIRING PORT	BLANK
M	10 WAY MAG TEMPERATURE SENSORS & SWITCH HEATER	FISCHER (RED)
N	OVC PUMPOUT PORT	NW25
O	OVC SAFETY VALVE	
P	4 WAY PRESSURE CONTROL HEATER	FISCHER (YELLOW)
Q	PRESSURE SENSOR	
R	VTI	
S	VTI	
A <sup>2</sup>	10 WAY VTI HEATER/SENSOR	FISCHER (GREEN)
B <sup>2</sup>	VTI HEAT EXCHANGER PUMPING PORT	NW40
C <sup>2</sup>	VTI SAMPLING AND SAFETY VALVE	NW16
D <sup>2</sup>	VTI EXCHANGE GAS/SAFETY PORT	NW16
A <sup>3</sup>	SAMPLE ROD CONNECTOR HEATER & SENSOR (1031Z)	FISCHER (BLUE)

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

FISCHER CONNECTOR "M" (ORANGE) VTI NEEDLE VALVE HEATER & SENSOR		FISCHER CONNECTOR "E" (BROWN) PTR TEMP SENSORS		FISCHER CONNECTOR 10 PIN "O" (RED) MAGNET TEMPERATURE SENSORS AND SWITCH	
PIN WIRE	FUNCTION	PIN WIRE	FUNCTION	PIN WIRE	FUNCTION
1	36 swg CU 68ohm N/V HEATER	1		1	36 swg CONST
2	36 swg CU 68ohm N/V HEATER	2		2	36 swg CONST
3	36 swg CONST AB 270ohm V+	3	36 swg CONST CERNOX SENSOR V-	3	36 swg CONST A/B COMMON
4	36 swg CONST AB 270ohm V-	4	36 swg CONST CERNOX SENSOR V+	4	36 swg CONST A/B MAGNET TOP
5	36 swg CONST AB 270ohm I+	5	36 swg CONST CERNOX SENSOR I+	5	36 swg CONST A/B MAGNET BOTTOM
6	36 swg CONST AB 270ohm I-	6	36 swg CONST CERNOX SENSOR I-	6	36 swg CONST
7		7	42 swg CONST PLATINUM SENSOR V+	7	36 swg CONST
8		8	42 swg CONST PLATINUM SENSOR V-	8	28 swg CONST SWITCH HEATER SPARE
9		9	42 swg CONST PLATINUM SENSOR I+	9	28 swg CONST SWITCH HEATER MAIN
10		10	42 swg CONST PLATINUM SENSOR I-	10	28 swg CONST SWITCH HEATER COMMON

VTI SPECS	
TEMP RANGE	1.6 - 300K
TYPE	STATIC
SAMPLE SPACE DIA	Ø 34mm



LIQUID HELIUM LEVEL PROBE LENGTHS	HEIGHT REQUIREMENTS	DRAWING APPROVAL
OVERALL	770	PROJECT NUMBER: 60983
ACTIVE	200	PROJECT NAME: BOENI
A10949_012	VTI INSERT: 2.8M	CUSTOMER SIGNATURE
	TRANSFER TUBE: 2.5M	DATE
	SAMPLE PROBE: 2.9M	EXPECTED WEIGHT OF SYSTEM: 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	

MAGNET SPECIFICATION	
1ST FIELD	12.0T AT 4.2K SYMETRIC
2ND FIELD	11.0T AT 4.2K ASYMETRIC
COLD BORE	60.0mm
HOMOGENEITY	0.45% OVER 10mm dsv
PERSISTANCE	<100 PPM PER HOUR
CURRENT	150 AMPS NOMINAL SYMETRIC 156 AMPS NOMINAL ASYMETRIC

VOLUMES	
USABLE HELIUM	58L
HELIUM CAN VOLUME	65L

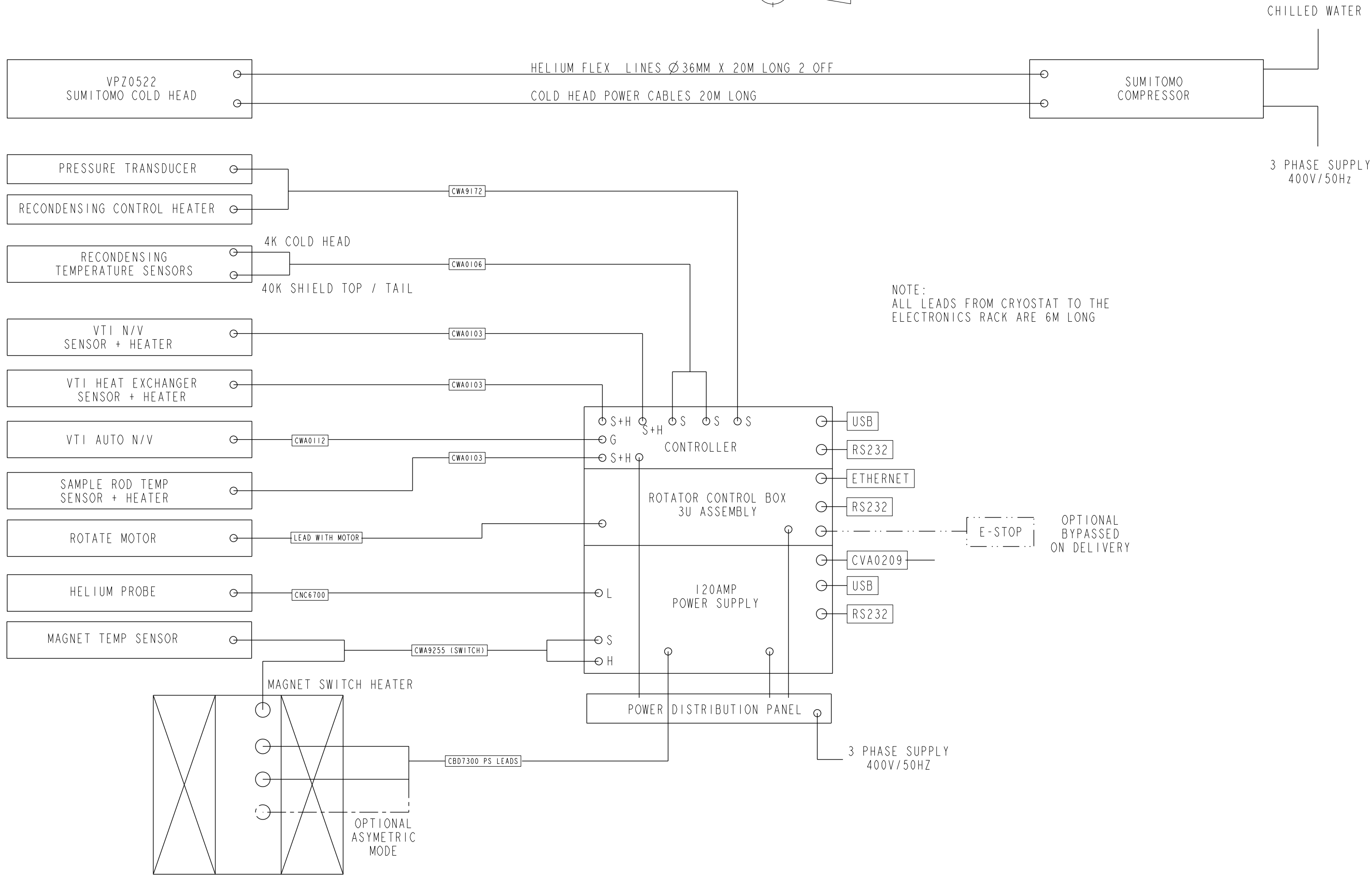
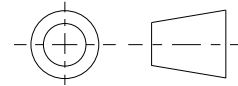
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REMOVE ALL BURRS AND SHARP EDGES  
TOLERANCES UNLESS STATED FOR:  
MACHINING  
ASSEMBLY  
X ± 0.5mm  
X.X ± 0.3mm  
X.XX ± 0.1mm  
ANGLE ± 0.5°

SURFACE FINISH  
UNLESS STATED  
mm  
UNLESS STATED  
DESCRIPTION  
CUSTOMER GA-60983 BOENI  
SCALE 1:4  
DATE 2-Feb-17  
DRAWN P.Sharp  
RELEASE LEVEL Line-Up  
ONLY MANUFACTURE DRAWINGS WHEN RELEASE LEVEL IS SET TO "PRODUCTION"

DRAWING NUMBER	REV
A82306	-
SHEET 1 OF 3	

THIRD ANGLE PROJECTION



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REMOVE ALL BURRS  
AND SHARP EDGES

TOLERANCES UNLESS STATED FOR:

MACHINING		ASSEMBLY	
X	± 0.5mm	LINEAR	± 1mm
X.X	± 0.3mm	ANGULAR	± 1°
X.XX	± 0.1mm		
ANGLE	± 0° 15'		

SURFACE FINISH

-
UNLESS STATED
mm
UNLESS STATED

DESCRIPTION

**CUSTOMER GA-60983 BOENI**

SCALE  
1:4

DATE  
2-Feb-17

DRAWN  
P.Sharp

RELEASE LEVEL  
**Line-Up**

ONLY MANUFACTURE  
DRAWINGS WHEN  
RELEASE LEVEL IS  
SET TO "PRODUCTION"

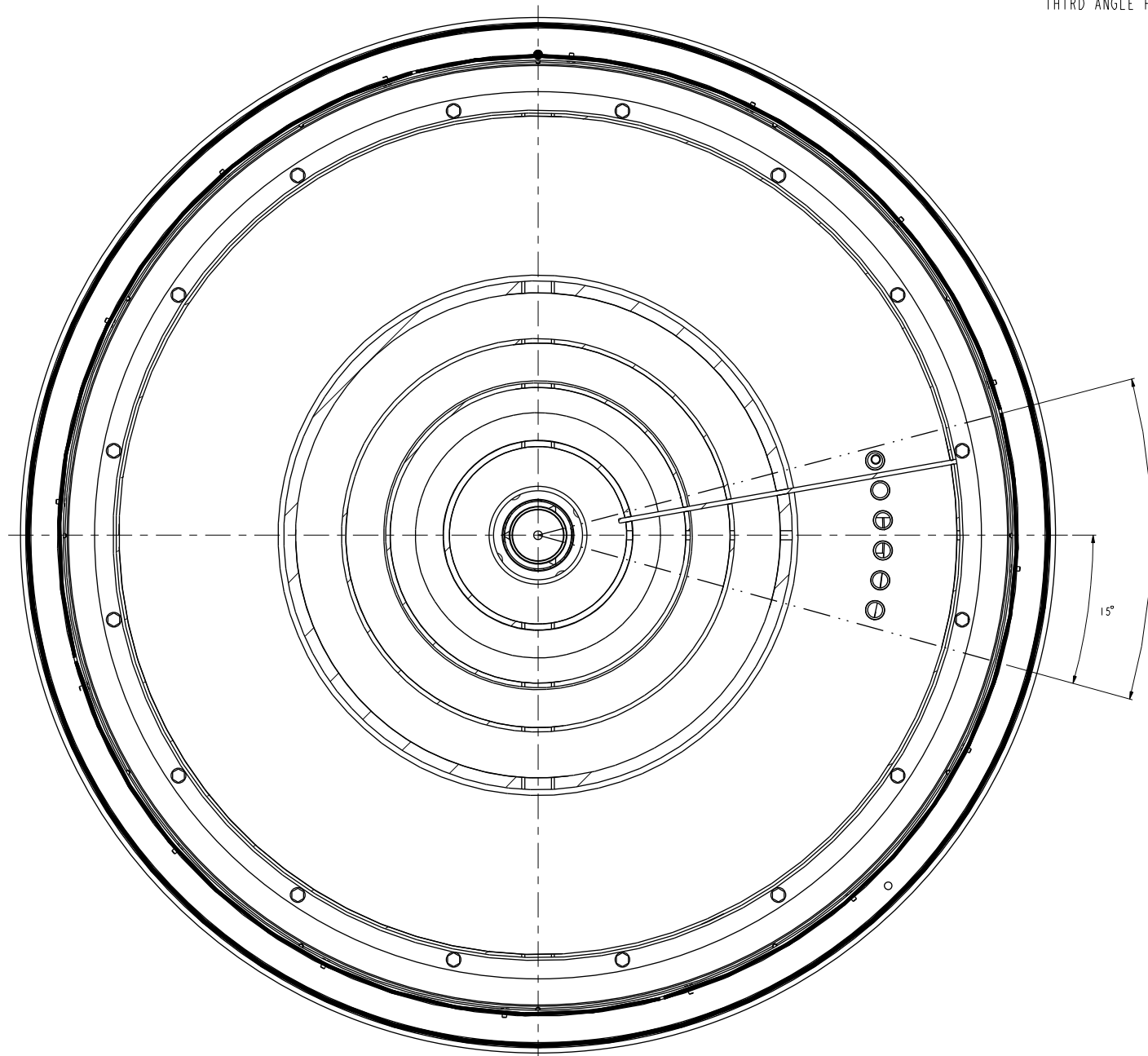
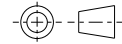


DRAWING NUMBER  
**A82306**

REV  
-

SHEET 2 OF 3

THIRD ANGLE PROJECTION



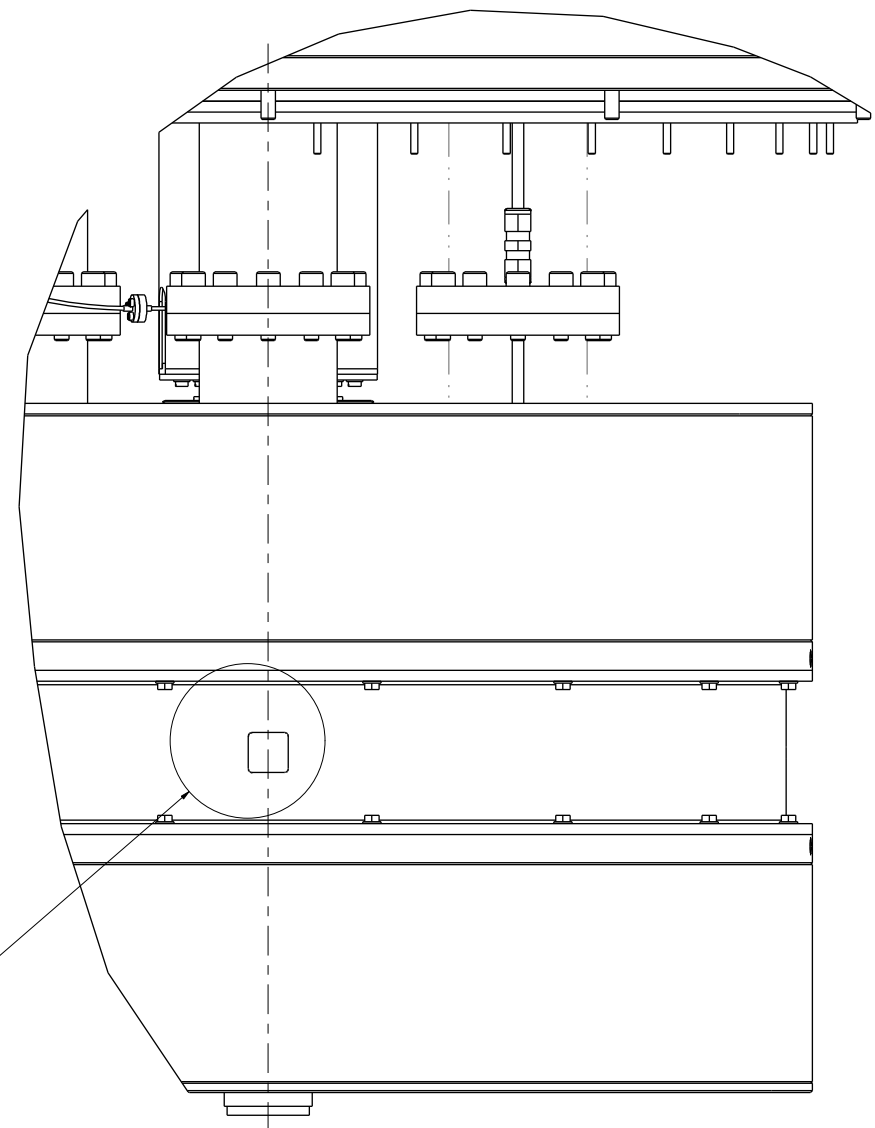
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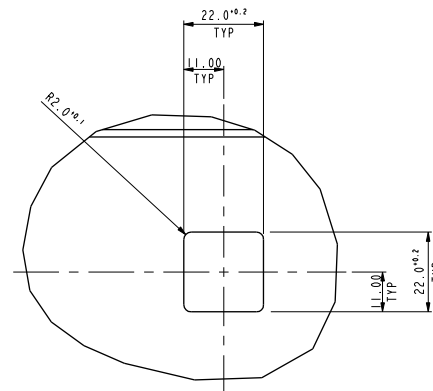
30°  
DARK ANGLE

15°

SEE DETAIL A



VIEW ON ARROW A



DETAIL A  
SCALE 1:1  
BEAM LINE DETAIL

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AND SHARP EDGES

TOLERANCES UNLESS STATED FOR:	
MACHINING	ASSEMBLY
X ± 0.5mm	LINEAR ± 1mm
X.X ± 0.3mm	ANGULAR ± 1°
X.XX ± 0.1mm	
ANGLE ± 0' 15"	

SURFACE FINISH  
UNLESS STATED  
mm  
UNLESS STATED

DESCRIPTION  
CUSTOMER GA-60983 BOENI

SCALE 1:4  
DATE 2-Feb-17  
DRAWN P.Sharp

RELEASE LEVEL  
Line-Up

ONLY MANUFACTURE  
DRAWINGS WHEN  
RELEASE LEVEL IS  
SET TO "PRODUCTION"

OXFORD INSTRUMENTS	DRAWING NUMBER A82306	REV -
SHEET 3 OF 3		