PLAN VIEW

DETAILED C
BEAM PENETRATION ZONE (BOTH SIDES)

DETAILED B
UPPER SECTION

DETAILED E
RADIATION JACKET (FIXING)

DETAILED F
DATA PLATE BRACKET

SECTION G-G

DETAILED D
LOWER SECTION

SECTION A-A

Notes:
1. Polished surface of inner vessel and outside of inner radiation jacket to mirror finish.
2. expensive to be used near the inner vessel.

Note: Dimensions to be cut into inner radiation jackets and match layer thickness to 20% of the inner vessel.

Note: All outer surfaces of the vessel and pipework to be exposed to vacuum must be cleaned in accordance with EN 12300.

Material used for inner shell and heads must be ordered and subsequently certified to EN 13458. Longitudinal seams of adjacent courses shall be staggered to prevent NDT method to be adopted.

Temporary attachments must be welded to vessels using materials as approved by design. Temporary attachments must be kept to an absolute minimum.

Acceptance must be provided by Q.A. dept. Q.A. to review section 5.5.4 of EN 13458-2 in full prior to acceptance confirmation that the dents and bulges are within the above tolerances.

Dished End Tolerances:
· In no case shall the surface on any plate lie between the centre line of the two adjoining plates and 75% of the thickness of the thinner plate / sheet for circumferential. Any variation of the profile shall not be deemed acceptable.

Manufacturing Tolerances:
· Pressure so that visual examination of all surfaces and joints can be examined. The vessel pressure holding it for thirty minutes. The pressure shall then be reduced to the design pressure. Where the test is undertaken hydraulically, the pressure shall be raised gradually to the test pressure.

The inner vessel shall be subject to a pressure test and exhibit overall leak tightness. All edges must be thoroughly inspected prior to final closure of the vessel, pipeline etc. deemed acceptable.

Welding test yet to be included on drawing.

Various clarifications yet to be addressed, such as vacuum ball valve gauge. Notes to be confirming CERN.

Welding test yet to be included on drawing.

192 - Bottom of Inner to Bottom of Outer
192
22
1.5
315°
MLI 30 Layers*
270 - Inner Vessel I/D
90°
C
23°
14 15 16 23
18
jacket to mirror finish.
and inside of inner radiation jackets to be polished to mirror finish.
Polish outside of inner vessel.

Note:
Production Control Test Plates shall be produced and tested for the inner vessel as follows:
1) The following MUST be radiographed in accordance to EN 1435 or ISO 1106-1
· 10% Tee Junctions - min 1 Tee
· 2% Longitudinal Seams.
1) The following MUST be radiographed in accordance to EN 1435 or ISO 1106-1
· 1 Macro Etch
· 1 Tensile Test To BS EN 4136:2011
The test is to consist of:
One test per vessel for each welding procedure on longitudinal joints
2) Nozzle butt joints to be examined with dye penetrant.
· 10% Tube and 10% Butt Welded Fittings
· 2% Longitudinal Seams.

WCL are to be informed immediately. Radioscopy may also be used and shall be carried out in accordance with EN 1435 or ISO 1106-1 (If NDT Requirements
Destructive testing personnel, procedures, equipment and materials shall be in accordance with the above standard. Furthermore, all non-destructive testing personnel, procedures, equipment and materials shall be in accordance with the above standard.

Crystol - Fabrication Details

Fax. +44 (0)191 512 0745

<other details>

<signature>

<date>

<company name>