



- NOTES:-**
- ALL WELDS TO BE VACUUM SEALING WELDS UNLESS OTHERWISE STATED.
  - ALL VACUUM SEALING SURFACES TO BE FREE FROM RADIAL SCRATCHES AND VISIBLE DEFECTS SUCH AS PITTING, CRACKS AND INDENTATIONS.
  - VACUUM VESSEL IS TO BE MANUFACTURED TO DARESBURY LABORATORY SPECIFICATION ASTEC-VAC-QCD-spc-002
  - VACUUM VESSEL IS TO BE CLEANED IN ACCORDANCE WITH DARESBURY LABORATORY SPECIFICATION ASTEC-VAC-QCD-spc-003
  - VACUUM VESSEL IS TO BE TESTED TO A LEAK RATE <math> < 5e10^{-12}</math> mbar.l/s AND AN OUTGASSING RATE <math> < 5e10^{-14}</math> mbar.l/s/cm<sup>2</sup> IN ACCORDANCE WITH DARESBURY LABORATORY SPECIFICATION ASTEC-VAC-QCD-spc-004

| ISSUE | DATE      | NAME     | DESCRIPTION    |
|-------|-----------|----------|----------------|
| C     | 23-Apr-19 | D SEDDON | NOTE 5 CHANGED |
| B     | 13-Apr-17 | D SEDDON | NOTE 5 ALTERED |
| A     | 18-Jan-16 | D SEDDON | FIRST ISSUE    |

MODIFICATIONS

THE UNIVERSITY OF LIVERPOOL  
DEPARTMENT OF PHYSICS

PROJECT: ISOL-WP2

| UNLESS OTHERWISE SPECIFIED:-          |      | METRIC SCREW THREADS TO BS3643 CLASS 8H/8g |           | DRAWING PRACTICE AND TOLERANCE INTERPRETATION TO BS308 |           | WELDING SYMBOLS TO BS 499 |           | TITLE                                    |                |
|---------------------------------------|------|--|-----------|--|-----------|---------------------------|-----------|--|----------------|
| ALL DIMENSIONS IN MILLIMETRES         |      | TOLERANCES UNLESS OTHERWISE SPECIFIED      |           | MATERIAL   | ST. STEEL | DRAWN                     | D SEDDON  | INTERACTION CHAMBER BASE WELDED ASSEMBLY |                |
| SURFACE TEXTURE VALUES IN MICROMETRES |      | MACHINED DIMS ± 0.25                       |           | SPEC   | 316L      | DATE                      | 18-Jan-16 | DRAWING NUMBER                           | ARRGT. DRAWING |
| SURFACE TEXTURE TO BE                 | Ra 8 | ANGULAR ± 0.151                            | TREATMENT | NONE   | CHECKED   | .                         | .         | <b>NP70-01-2510</b>                      | NP70-01-2480   |
| MACHINE ALL OVER OR WHERE MARKED ✓    |      |  | FINISH    | NATURAL  | APPROVED  | .                         | .         | SHEET 1                                  | OF 1 SHEETS    |
| REMOVE BURRS AND BREAK SHARP EDGES    |      | DO NOT SCALE                               |           |  |           |                           |           | SCALE:-                                  | 1.000/A0       |