

Item No. 8: Process chamber with several ports and complete with all accessories (ONE SET)

High Vacuum (HV) scattering chamber as per specifications below:

Chamber: 14 inch dia. SS304 spherical chamber whose top port should have a blank-off (approximately 8 inch OD but to be finalized before fabrication) to mate a Goniometer and the bottom port has to mate with “Detector Positioner” (see Item No. 11) flange assembly.

Load lock chamber: Standard SS304 made load lock chamber compatible to the above chamber and port for pumping. The load lock chamber should have Conflat flanges: DN63CFF main pumping port and two DN40CFF ports. Viton sealed quick access door. However, the isolation/gate valve (DN100CFF) between the load lock chamber and the main chamber will be provided by the user. The load lock port should be clearly defined with respect to the beam entrance port (through schematic diagram or in words).

Sample transfer system: Magnetically coupled rotary-linear feedthrough having the capacity of 360° continuous rotation (all metal – stainless steel). It has to mate a goniometer (as mentioned above).

Ports: Beam entrance port (0°) should be DN63CF, port at 270° should be DN160CF for 500l/s turbo molecular pump, two NEC100 ports, two DN40CF ports (both of them should be equipped with 2 each vacuum compatible BNC and 1 each vacuum compatible SHV connectors), and two DN40CFF ports (one of them should be equipped with air-inlet valve).

View ports: 45°, 90°, 135°, 225°, and 315° (DN63CFF) (only UV & X-ray resistant glasses should be used).

The chamber should be electro polished in compliance with normal UHV standards, leak checked and certified leak free.

Blank off flanges along with studs and bolts should be quoted as optional items.

Warranty: Five years

Installation: Free of cost

Service facility: Supplier should mention about the possible service set up and how capable they are to provide after sales service

Pre-installation Requirements: To be supplied by the manufacturer well in after the bid is awarded

List of Users: The supplier should provide a list of current users of their similar products in India.