



Government of India
Department of Atomic Energy
Bhabha Atomic Research Centre
Beam Technology Development Group
Pulsed Power & Electro-Magnetics Division
Visakhapatnam



Dr. Archana Sharma
Head, PP&EMD, BARC,

Ref. No.: BARC(V)/ PP&EMD/2021-22/R&D- 44/WO/SKM/67

Dated: 02.03.2022

Subject: - Fabrication, assembly and supply of vacuum flange and chamber as per annexure-1

Dear Sir/Madam,

Scaled Quotations are invited for and on behalf of President of India for the "Fabrication, assembly and supply of vacuum flange and chamber." The detail specifications are attached in annexure-1.

The Sealed envelope for the quotation with the reference number of this enquiry shall be super scribed with "**Fabrication, assembly and supply of vacuum flange and chamber as per annexure-1**" and should reach on or before 14/03/2022 to

Dr. Archana Sharma (Contact Person: Sukanta Kumar Mishra Ph: 0891-2832027)
Head, PP&EMD, BARC,
PEB-1, BARCF, Gandivanipalem Village,
Dossuru Panchayat,
Atchutapuram Mandal,
Visakhapatnam – 531011

Archana
03-3-2022

Dr. Archana Sharma
Head, PP&EMD,
BARC, Visakhapatnam.

डॉ. (श्रीमती) अर्चना शर्मा / ARCHANA SHARMA

निदेशक / Director

किरणपुंज प्रौद्योगिकी विकास वर्ग

Beam Technology Development Group

भारत सरकार / Government of India,

भा.प.अ. केंद्र / B. A. R.C.

ट्रॉम्बे, मुंबई / Trombay, Mumbai - 400 085.

Enclosure: General terms and conditions and Annexure-1

CC: Assistant Accounts Officer, BARC, Visakhapatnam.

Annexure-1

Specification for Water chiller system, Quantity required: 1 No.

1. Chiller

- a) Cooling capacity: 1.5 TR
- b) Media temperature 15 to 20°C to be maintained
- c) Ambient Temperature: 40 to 50°C
- d) Temperature stability: $\pm 2^{\circ}\text{C}$
- e) Re-circulating Media: soft water
- f) Chilled water flow: 20 LPM
- g) Chilled water pressure: 2 Bar

2. Refrigeration

- a) Compressor: Hermitically sealed compressor
- b) Condenser: Reputed make with forced air cooled fan
- c) Evaporator: Reputed make compact Brazed Plate Heat Exchanger type
- d) Refrigerant: R407C

3. Pump

- a) Type: Reputed make, Monoblock type,
- b) Construction: complete SS
- c) Process flow rate & pressure: 20 LPM @ 2 bar

4. Electrical

- a) Reputed make MCB & contactor for compressor pump, fan should be provided.
- b) Main Switch On/Off, Microprocessor based Controller, Anti-Freeze Switch should be provided.

5. In built reservoir

- a) Volume: 70 liters (cubical type)
- b) Material of Construction: complete SS 304
- c) It will have connections for two water inlet, two outlet, make up, drain and over flow.
- d) Insulation reputed make nitride rubber

6. Hydraulic piping

- a) Material: SS
- b) Pressure gauge; reputed make
- c) Inlet out let connection: 1/2" BSP

7. Structure

- a) Material: CRCA (Cold Rolled Close Annealed)
- b) Powder coated

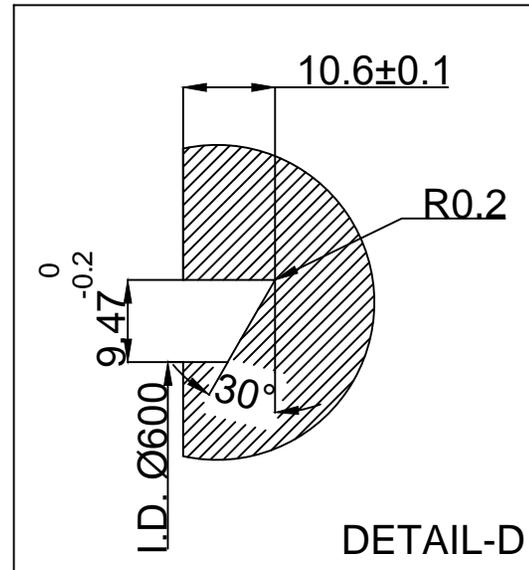
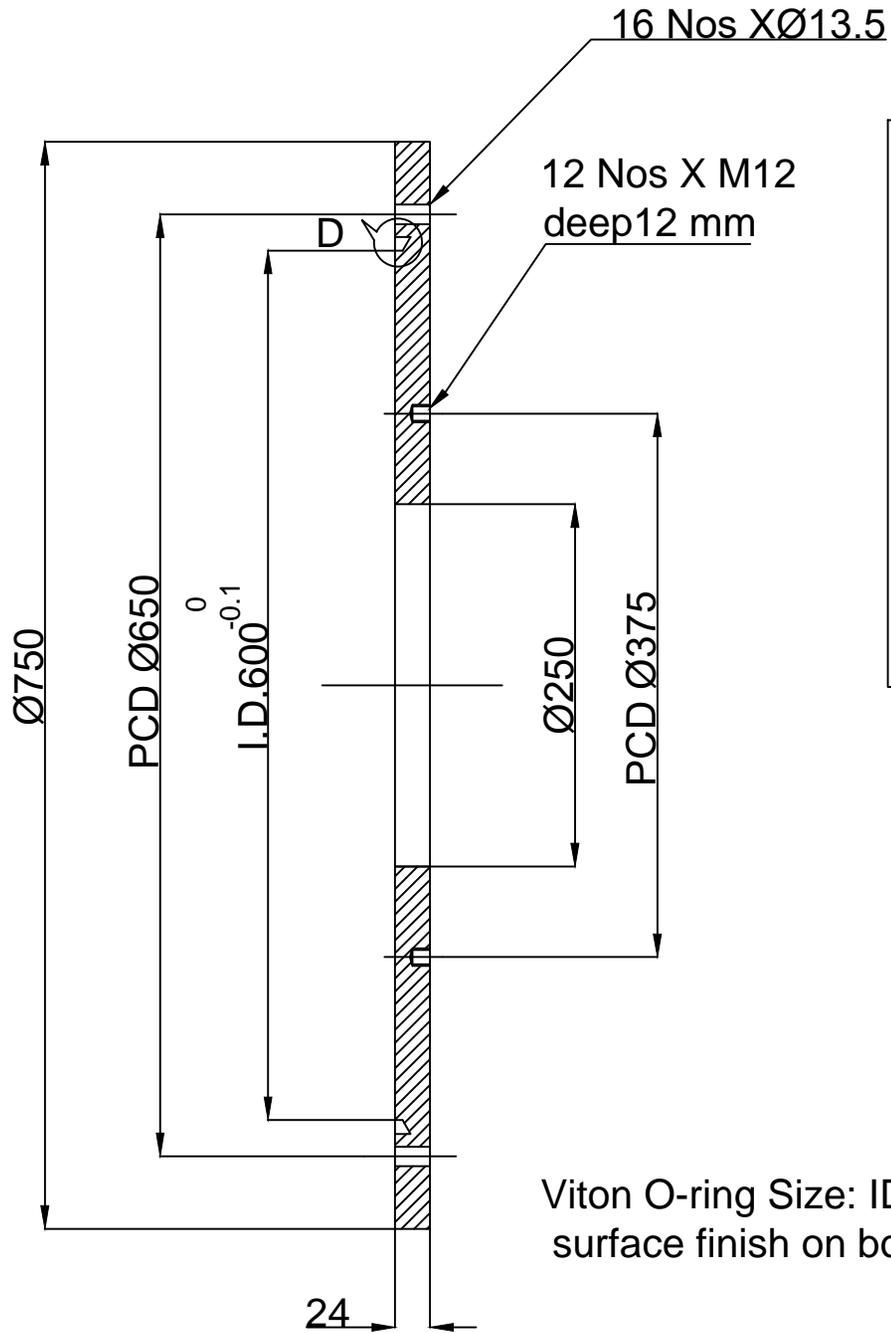
8. Power

- a) Power supply: 1 Ph, 230 V, 50Hz, AC
- b) Power: 3.7 kW
- c) Electric Penal Board: Should have MCB's, Switches & light indicator.

d) Temperature Controller: Settable microprocessor based controller with digital display of set and actual temperature (resolution: 1°C). Controller must have over temperature & under temperature alarm & protection.

9. Safety Features: High pressure trip, low refrigerant trip, water level low trip, over load relay trip, high/low temperature trip, anti-freeze trip should be provided.

Note to the supplier: Supplier has to give the floor dimension for the complete system during quotation and should have single 1-phase power line connection. Complete chiller unit with wheels and locking arrangements is preferable.



Material: SS 304
 Qty: one no

Viton O-ring Size: ID 600mm ,csd 9.5mm, Qty 5 No.s
 surface finish on both sides is 1.6 micron.

Notes: Finish of the o-ring groove is N6

ADOPTER FLANGE

