

Government of India
Bhabha Atomic Research Centre
Beam Technology Development Group
Mumbai - 400085

REF: BTDG/UCUF/WORKS/AKT/MF/2017/ 215/159493

12/09/2017

To,

Sub: Fabrication, Testing and supply of gas manifold, high pressure hoses and tube fittings
DUE DATE: October 16, 2017

Dear Sir,

1. Quotations are invited for the fabrication, testing and supply job as per the enclosed job details.
2. Taxes and duties shall be quoted separately. Form AF shall be provided where necessary.
3. The quotations must be submitted on the printed letter head of the company and should contain **GST** number; else the quotation shall be rejected.
4. The quotations must reach **Head, L&PTD by due date** and must be sent in a sealed envelope superscribed with the above reference number and due date given above, by government post only.
5. The address on the envelope should read
(Attn. A K Tiwari)
To,
Head, L&PTD
BARC, Mumbai - 400 085
6. BARC reserves the right to accept or reject any or all quotations without assigning any reason.
7. For any further clarification Shri A. K. Tiwari, L&PTD (Extn: 022-25596570) may be contacted.

Yours faithfully,

Aditya Tiwari
For - Head, L&PTD

Encl: One (Job details)

C.C.: AAO, (WORKS) CC, BARC

Scope of work:

Following components are to be fabricated

Sr.	Item	Quantity
1.	Wall mountable gas manifold with 8 inlet hoses and 1 output port (Fig. 1)	2 nos
2.	5/8" BSP RH nut with 1/4" NPT tail for Ar cylinder (material-SS304) (Fig. 2)	16 nos
3.	Additional hoses for manifold	4 nos

Gas manifold Specifications:

Sr.	Specification	Value
1.	input ports	8 no's of rotatable 1/4" NPT (F) with 1.5 m flexible hose.
2.	Valves for input	Each input should have individual valve
3.	output ports	1 no of 1/2" BSP (M) port with valve
4.	Type of output ports	1/4" NPT female
5.	Material of construction for stem, valves and end fittings	SS 304
6.	Maximum continuous working pressure	2000 psi
7.	Maximum continuous working Temperature	60 C
8.	Hose	SS braided flexible hose of end to end length 1.5m, end fittings-rotatable 1/4" NPT (F) , minimum bending radius-200 mm
9.	Application	Air, Ar, N ₂ , He
10.	Anodization of stem, valve and end fittings	yes
11.	Wall mounting support	Yes, all required buckets and accessories to be fabricated and supply.

Complete system is to be tested at 3000 psi. Rotatable 1/4" NPT ends of hoses should be compatible with 1/4" NPT tail of Ar gas cylinder fittings. Supplier should arrange for required blinds and connectors for testing.

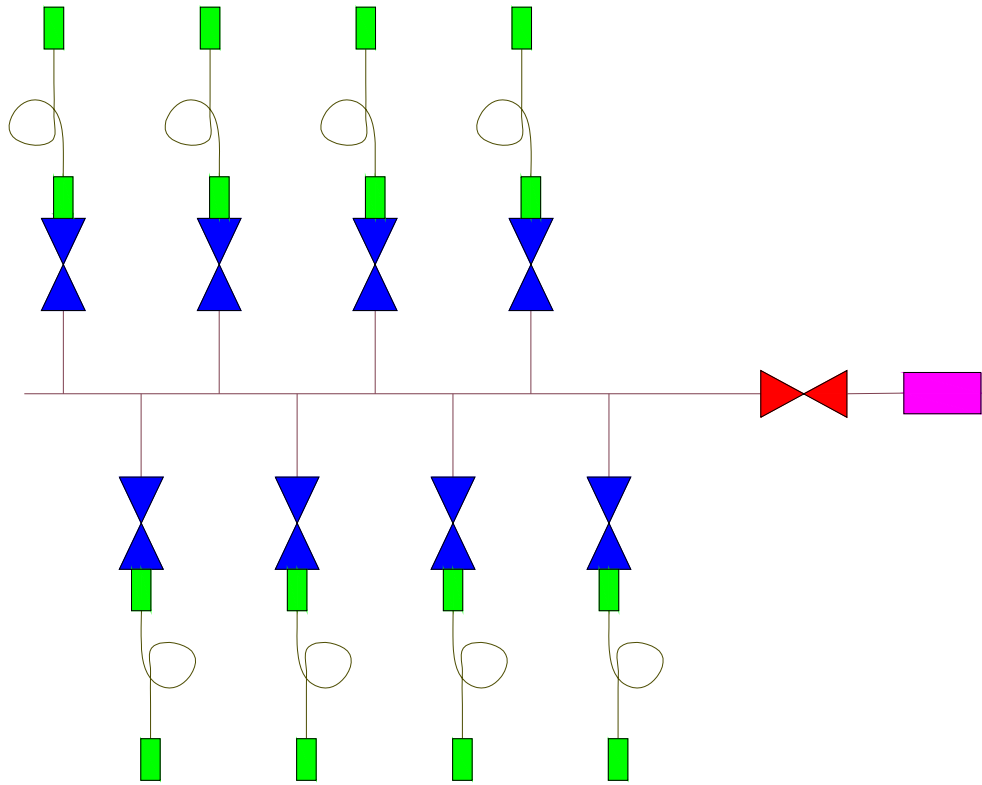


Fig 1: Schematic of gas manifold having 8 input and 1 output





	Valve on inlet
	Valve on outlet
	1/2" BSP (M)
	1.5m flexible hose, both end having rotatable 1/4" NPT (F), one end attached to inlet valve



Fig.2: 5/8" BSP RH with 1/4" NPT tail

1) Cleaning, inspection, packing and transport

Supplier should thoroughly test the material after fabrication. The system shall be cleaned before dispatch. The fabricated items shall be safely transported to BARC, TROMBAY, and MUMBAI-85 with prior intimation to the Purchaser. Supplier shall be responsible for any damage to the material during their transport to site and shall have to rectify the damage at his own cost. Purchaser reserves right to inspect fabrication process or fabricated items at any stage before dispatch.

2) Documents required to be furnished along with the supply (in duplicate)

- 2.1 Mill certificates of raw material.
- 2.2 Chemical, mechanical and metallurgical test certificates with proper correlation with the raw material.
- 2.3 Test certificate for all brought out items.
- 2.4 Packing list.

3) Delivery schedule, Guarantee, Sub-Contracts And General instructions:

- 3.1 Delivery Schedule: The work is to be completed within 40 days of placement of the order.
- 3.2 Guarantee: This guarantee shall cover free repairs or replacement of parts, which have failed during normal operation within the guarantee period due to defective material of construction, workmanship etc. The guarantee/warranty shall cover the items supplied for a period of 12 months from the date of installation at site.

3.3 Sub-Contracts: The Supplier shall not sub-contract any part of the work without a written consent from the Purchaser. The Supplier shall be responsible to the Purchaser for all the work of sub supplier if allowed by Purchaser.

4) Quality surveillance, inspection and inspection report

4.1 All work covered by the specification shall be subject to quality surveillance by the purchaser or his authorized representative for which purpose the fabricator shall allow access at all reasonable time to: the premises in which the work is being carried out the drawing and/or tooling involved, and Gauges, instruments, etc. required for inspecting the work. Inspection and tests shall be carried out by the fabricator as per the requirements detailed in the specifications.

4.2 The purchaser reserves the right to inspect any material or equipment furnished or used by Supplier under the contract and to reject any, which is found defective in workmanship, design, or otherwise unsuitable for the purpose intended.

4.3 Components found unsatisfactory as to workmanship or material shall be removed by fabricator and replaced by components, which are satisfactory. In the events of purchaser's inspection revealing poor quality of goods, Purchaser shall be at liberty to specify additional procedures if required to ascertain supplier's compliance with the component specifications.

4.3.1 Even though Purchaser or his representative carries out inspection, such inspection shall not however relieve Supplier from his responsibilities for furnishing the components conforming to the requirement of the contract. The Supplier shall maintain proper inspection records and make it available to Purchaser's representative whenever required. The fabricator shall submit three copies of inspection report to the purchaser for approval.

5) Free issue material: There is no free issue of material. All material required for the job is to be supplied by the bidder.

6) Workmanship: The data acquisition system shall be good reliability and at par with prevailing industrial standard.

7) Packing and shipment: All components shall be packed properly to avoid damage during shipment.

8) Confidentiality clause: No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as "Proprietary" in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.

Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARCs name for any publicity purpose through any public media like Press, Radio, TV or Internet without the prior written approval of BARC

9) Payment terms: No advance payment will be made. Full payment will be made by NEFT/ECS on satisfactory completion of the works. Party should submit the bill along with advance stamped receipt. Income Tax @2% will be deducted at source from the bill.