

## (Technical Specification)

**Compressed Air Piping – High Pressure – 40 Bar & 10 Bar**

Sealed tenders are invited from eligible bidders for laying of compressed air pipe lines on the floors of NCCRD building. A schematic diagram of the routes of the pipelines is attached.

The material used and work should be of the specification given below:-

- 1) Pipes : Carbon steel seamless, Schedule – 40. Material as per ASTM A-106 Grade B. (sizes: 8"NB, 6"NB, 4"NB)
- 2) Pipe Make : Jindal / Tata
- 3) Pipe Fittings : Seamless carbon steel forged fittings as per class 300 and material as per ASTM A234 WPB.
- 4) Valves : Flanged Gate Valves, class 300 .
- 5) Valve Make : L&T / Leader.
- 6) Support : The pipeline should be supported at every 5 metres.
- 7) Painting : The entire length of the pipeline should be given 1 coat of Zinc Chromate Primer & 2 coats of Enamel as per standard blue colour for compressor air supply lines, and the supports should be painted Black as per IS 5 standard.
- 8) Anti corrosive -wrapping : The pipes that are laid underground should be wrapped with Anti corrosive wrappings.
- 9) Depth of Laying : The underground pipes should be laid at a depth of 0.75m Below the ground level.
- 10) Pressure Testing : The pipelines should be pressure tested at 1.3 times of the Working pressure.
- 11) Test Certificate : Test certificates for the pipes and fittings should be furnished by the bidder.
- 12) Civil Work : Civil and excavation work will be in the scope of the bidder. Concrete pipe of 450 mm diameter is already laid underground at the place where the pipe crosses the road
- 13) Radiography : 15% of the joints selected at random by the end user should be Radiographically tested for defects.
- 14) PRV ( pilot operated self-regulating) :
  - i) Size : NB 4". Flanged ends
  - ii) Inlet pressure range : 40 bar to 50 bar.
  - iii) Pressure control required : down stream.
  - iv) Pressure control range  
In the downstream : 5 bar to 12 bar.
  - v) Flow rate : Not less than 1kg/sec.
- 15) It is mandatory that the bidder should attend the pre-bid meeting and visit the site and apprise themselves of the scope of work before submitting the tender. Technical bid will be disqualified if the bidder does not attend the pre-bid meeting and site visit

- 16) Pressure gauge: Every floor excepting the 1<sup>st</sup> floor will have a dial type (Ø12") pressure gauge.
- 17) Guarantee : 3 year guarantee on material and workmanship should be given by the bidder
- 18) Previous experience : The bidder should furnish at least three reference of past installations with whom enquiries can be made
- 19) The bidder should enclose a statement of technical compliance along with the technical bid

For any technical clarifications please contact Mr.P. John George 044-22575026 or email: [nccrdengr@pallava.iitm.ac.in](mailto:nccrdengr@pallava.iitm.ac.in)