

**High Temperature RIG**

**Introduction:**

A high pressure vessel is being manufactured as a part of the UAY Soot diagnostics program funded by MHRD. The objective is to obtain high fidelity laser diagnostics based measurement of critical soot parameters. The pressure vessel will house a custom built burner. JetA/Kerosene will be used as the fuel and room air preheated to 400°C using an electric diesel heater to ignite the fuel. The max operating pressure of the rig is 10 bar. The max temperature in the settling chamber and diagnostic section will be same as incoming air temperature (400°C). The exhaust section will be water cooled by spraying water inside the chamber to cool the flue gases such that the max exit temperature is below 700°C.

**The Material used and work should be of the following specification given below:**

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|-----------------------------------|---|
| 1. Construction                   | As per the Assembly part drawing IGE-2301 and individual part drawings covering Inlet section, Combustor section, Exhaust section, Top flange, Bottom flange, Adapter plate |
| 2. Material of Construction       | SS316L  |
| 3. Accessories                    | Bolt, Nut, Washer wherever required should be SS304   |
| 4. Operating Pressure Temperature | 10 bar and 700°C  |
| 5. Pressure Testing               | Hydrotest to 1.3 times of working pressure  |
| 6. Weld quality Certificate       | NDT with X-Ray or Radiography, covering atleast 10% of the Welded joints  |

**Terms and Conditions:**

1. Vendor should adhere to all the technical specifications and standards mentioned in the Tender
2. Material TC should be provided for Raw materials by OEM Mill or NABL accredited lab
3. Vendor should follow all safety procedures and precautions as per Industry standards towards supply & Installation of high temperature rig at NCCRD, IIT Madras
4. All the components quoted in the tender bid should be covered under 2 years of warranty from the date of installation & commissioning (both for equipment/material & workmanship)
5. The Essence of this Tender is to complete this project work in time, Hence the supplier has to provide delivery commitment undertaking confirmation. Delivery must be completed within 14 weeks from the date of receipt of the purchase order. If it is not delivered within the mentioned date, the penalty clause of LD will be applicable at the rate of 1% of total amount per week basis for the delay in delivery, subject to a max of 10% of the value of purchase order. If the delay is more than the accepted time frame, the PO would be cancelled and liquidated damages will be enforced.
6. If you have any Queries Please contact Mr SreeRenganathan.T, Project officer, Email: [thanusr4@gmail.com](mailto:thanusr4@gmail.com), 9488662690. Mr Arvind Bharathi, 8667429616.