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No.: 11000001834/MM-7/Corrigendum/622 Date: 12-02-2021

Corrigendum Change in Technical

Sub.: Corrigendum for Change in Technical

PAN-AAALI0033R

Ref.: No.: 1100001834/MM-7/IITR/2020-21/Shock Tunnel/MIED/296 Dated:- 25-Jan-2021

In above mentioned tender no., some changes have been made in the Technical Specifications (Annexure-V) as per Annexure-A.

The Changed/Revised Specifications in respect of the items (Annexure-A) may be downloaded from the CPP Portal & Institute website.

All other things will remain same.

*Deputy Registrar/Assistant Registrar Material Management, IIT ROORKEE

Final Specifications

- 1. A multipurpose shock tube for studying Aerodynamics, Structural dynamics, Chemical kinetics and combustion under various pressure and Mach number regime.
- 2. Material of construction: SS 304
- 3. Internal diameter: 80-120 mm
- 4. External diameter: 100-150 mm
- 5. Overall length: 9-12 m. Modular design: Pipe lengths: will be varied to generate different pulse decay times.
- 6. Pipe connections: Flange type.
- 7. Maximum working pressure: 100 bar with driven section pressure ranging from 100 pa to 500 kPa
- 8. Diaphragm type: Aluminum with suitable grooving: 100 numbers of various thickness 2mm, 3mm etc. as well as Mylar diaphragms
- 9. Expander piece from 80 mm ID to larger size (300 mm) to study impact on object of size > 200 mm and test section with BK7 glass window for DIC.
- 10. Components and provision to do ignition delay experiment: ball valve of matching size etc.
- 11. Extension piece and test section for spectroscopic measurements with internal lining of Delrin for rarefied chemical kinetics and spectroscopy. Appropriate window for signal must be provided.
- 12. Vacuum pump for driven section. 100 150 lpm to achieve pressure in the driven section ≤ 100 pa.
- 13. CD nozzle and test section for doing supersonic aerodynamic studies on various objects. The test section must be 80 150 mm with Mach number 2-3. BF7 window for imaging.
- 14. Helium and N2 gas cylinder for operation.
- 15. Mounting stands as necessary.
- 16. Pressure monitors: 2 nos. (one each on driver and driven sides to set initial pressures)
- 17. Dynamic pressure sensors: 2 nos. minimum Make: PCB Piezotronics.
- 18. Ports for thermocouples
- 19. Two channel oscilloscope. Price with both should be quoted
- 20. Pipe and hose connections as necessary.
- 21. Installation and Training