

VOL. 56

A RESOURCE FOR INDUSTRY

May – June 2023

- 1. Venturi meter of size 1300 mm calibrated at Large Water flow Lab
- 2. Calibration of Flow Nozzle of size 20" x 10" at Water Flow Laboratory
- 3. Mass flow meter of size 6" was calibrated at Oil Flow Laboratory
- 4. Testing of valve of size 16" at Water Flow Laboratory
- 5. Air Borne and Structure borne Noise studies of valve
- 6. Calibration of flow meters at Air Flow Laboratory
- 7. Vibration testing of Valve
- 8. Calibration of 1/2" Mass Flow Meter at HPATF
- 9. Calibration of Vane Anemometer at Wind Tunnel
- 10. Calibration of Mass Flow Meter at HPATF
- 11. Testing of Safety Valve at HPATF
- 12. ITEC Training

1. Venturi meter of size 1300 mm calibrated at Large Water flow Lab

Calibration of Venturi meter of size 1300 mm was performed at the Large Water Flow Lab



Calibration of 1300 mm Venturi meter at LWFL

2. Calibration of Flow Nozzle of size 20" x 10" at Water Flow Laboratory

Calibration of Flow Nozzle of size 20" x 10" was performed at Water Flow Laboratory



Calibration of Flow Nozzle of size 20" x 10" at WFL

3. Mass flow meter of size 6" was calibrated at Oil Flow Laboratory

Mass flow meter of size 6" was calibrated at Oil Flow Laboratory



Calibration of Mass flow meter of size 6" at OFL

4. Testing of valve of size 16" at Water Flow Laboratory

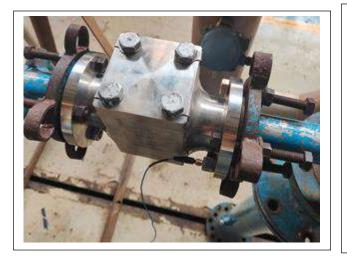
Testing of valve of size 16" was carried out at Water Flow Laboratory



Testing of valve of size 16" at WFL

5. Air Borne and Structure borne Noise studies of valve

Structure borne and airborne noise studies of 4 numbers of control valve are done with water as a flow medium. The test set up is specially made to meet the requirements of MIL 740 - 2. The test loop consist of test object with bellows on both side of it to avoid any structure borne vibration transmitted from the test loop to the test valve. Testing was done with full flow condition and measurement are done with vibration analyzer and sensor. Vibration measurements were done with tri axial accelerometer at the downstream flange of the valve. Airborne noise studies are conducted with sound level meter as per MIL 740.





Valve assembly with vibration sensor

Instrumentation

6. Calibration of flow meters at Air Flow Laboratory

Calibration of various flow meters were performed at Air Flow Laboratory of FCRI.





Calibration of flow meters at Air Flow Laboratory

7. Vibration testing of Valve

Vibration testing of valve assembly has been done using the vibration test facility of Noise & Vibration laboratory of FCRI for one of the customer for defense application. The valve has been subjected to resonance search test, vibration proof test, endurance test at fixed frequency and resonance frequency. It was done in all three directions in the frequency range of 3Hz to 33Hz. During and after vibration test, the valve has been operated for its functional verification.



Vibration testing of Valve

8. Calibration of 1/2" Mass Flow Meter at HPATF

Calibration of 1/2" Mass Flow Meter was carried out at HPATF



Calibration of 1/2" Mass Flow Meter at HPATF

9. Calibration of Vane Anemometer at Wind Tunnel

Calibration of Vane Anemometer was done at Wind Tunnel



Calibration of Vane Anemometer at Wind Tunnel

10. Calibration of Mass Flow Meter at HPATF

Calibration of Mass Flow Meter was carried out at HPATF



Calibration of Mass Flow Meter at HPATF

11. Testing of Safety Valve at HPATF

Testing of Safety Valve was conducted at HPATF



Testing of Safety Valve at HPATF

12. ITEC Training

ITEC training course on "Flow Measurement & Control Techniques/Software in Industrial Process and Water distribution system" has been started from 15/03/2023. & concluded on 12/05/2023. Nineteen persons from 9 countries have attended the ITEC training program.



During inauguration of ITEC Training Program



Participants of ITEC Training Program

FLUID CONTROL RESEARCH INSTITUTE

[Autonomous Body Under Ministry of Heavy Industries, Govt. of India] Kanjikode West, Palakkad, Kerala – 678 623.