



The specifications regarding tender ref.no. NITJ/PUR/289/19/e-tender no. 18/2020 supply of Experimental Flume 5 mtr. have been further revised as under:

Detailed Revised Specifications of Experimental Flume

General description

1. Length of the experimental flume should be 10 Meters.
2. Minimum Test Section length of the flume should be 7.5 meters
3. The bed of the experimental section should be of at least 10 mm thick non-corrosive stainless steel.
4. Electromagnetic flow meter should be provided for discharge measurement at the delivery pipe.
5. Discharge measurement of seepage water measured by measuring tank at downstream end.
6. The tanks should also be used as walkaway gallery at the side of the experimental section for the better observation and working on the test section.
7. Pressure chamber /seepage chamber under the test section the flume (it should be detachable type) with the length of 7.0 meters. Steel frame structure with 0.41mm dia mesh to support the sand bed should be provided.
8. Rail should be provided on the both sides of the experimental section for the mounting of instrument trolley with measuring scale.
9. Instrument trolley should be movable in both X and Y direction over the rail. The trolley should have one stainless steel point gauges with least count of 0.1 mm.
10. Sediment trap should also be provided at the end of the test section to avoid the sediment from entering the pump.
11. Max. Flow rate of the pump should be 250 m³/h.
12. Flow straightener should be provided at upstream tank to ensure the smooth entry in the flume
13. All the tanks should be of non-corrosive material.
14. Height of the flume bed from the ground minimum 1.5 m
15. All Materials in contact with water should be corrosion resistant.
16. All pipes should be made of corrosion resistant Stainless steel grade 304/engineering plastic material.
17. Sliding Tail gate made of SS 304 (thickness 6 mm sheet) at the outlet at the flume for adjusting the depth of flow in the flume.
18. Installation should be in supplier's scope.
19. Control Panel should be provided on the platform which includes one AC Drives, single Phase protection relays, MCB and other safety features and manometer tubes should be fixed with it.
20. The suitable platform with minimum 5 meter length and 1.2 meter width over storage tanks should be provided. Staircase (rise = 0.25 m and tread = 0.25 m and 1 meter width) should be provided for climbing on platform. Also there should railing over the platform to avoid accidents/falling from it.
21. Inclination should be -0.5 to 2.5 % with screw jack inclination system.

Accessories for the experimental flume

- Uniform and non uniform discharge
- Flow formulae (Critical, Supercritical, and Subcritical flows)
- Flow transition (hydraulic jump)
- Energy dissipation (hydraulic jump, stilling basin)



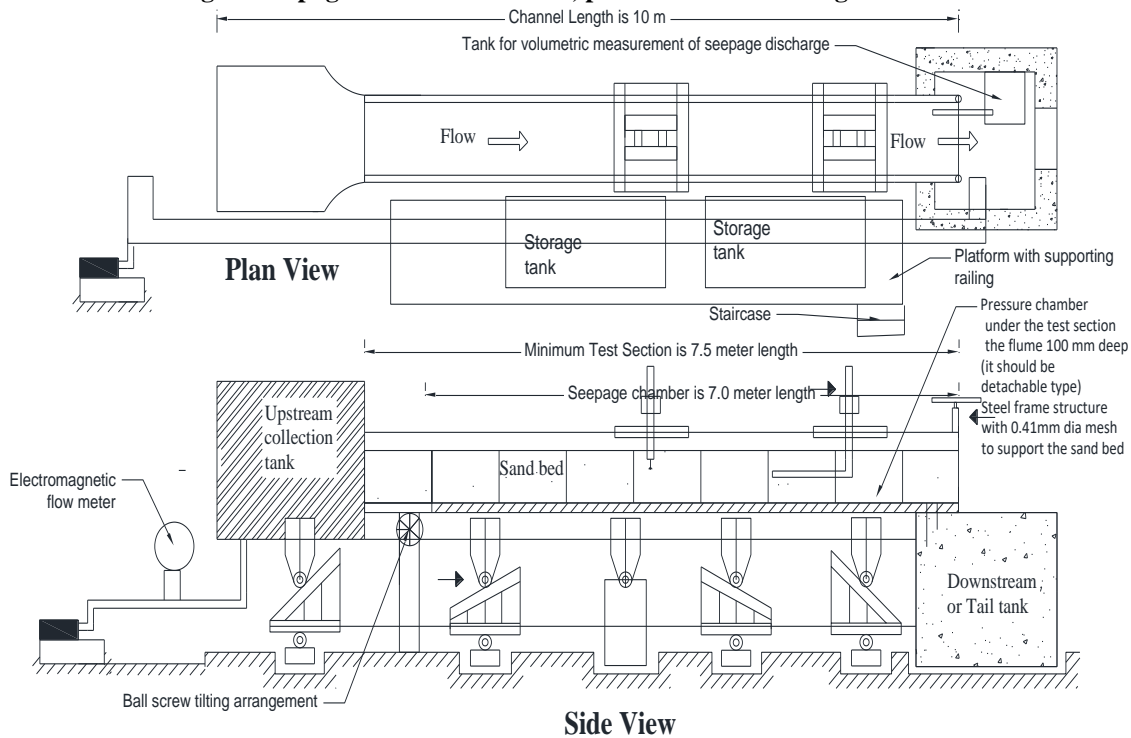
- Flow over control structures: weirs (sharp-crested, broad-crested, ogee-crested)
- Flow over control structures: discharge under gates
- Flow-measuring flumes
- Local losses due to obstacles

Technical details

Experimental section	Minimum Cross section : 0.600 X 750 mm Minimum Length of test Section = 7.5 meters with side walls having transparent 10 mm thick toughened glass on either side of flume. Inclination : -0.5 to 2.5 %
Tanks	Material:- non corrosive Stainless steel Capacity of the tanks should 1.5 times the channel capacity.
Discharge measurement at downstream (Main channel flow)	Electromagnetic flow meter at the delivery pipe
Discharge measurement for seepage chamber (passed through channel bed)	Discharge measurement of seepage water measured by measuring tank with suitable scale.
Pump (s)	Up to 250 m ³ /h
Measuring devices of flow rate	upto 250 m ³ /h

Note:- The warranty of the equipment should be upto 2 years.

For understanding the seepage/Pressure Chamber, please use this drawing as a reference.



Dr Mahesh Patel
Lab coordinator (Hydraulics Lab)



Further the last date for submission of e-bids has also been extended as per following schedule:-

I	Last date of submission of online bids	End Date: 17.08.2020 upto 11:00 AM
II	Physical submission of Tender Fee and EMD	End Date: 18.08.2020 upto 11:00 AM
III	Opening of Technical e-Bid (online)	18.08.2020 at 11:00 AM

Registrar