



## SILT SAMPLER (Punjab type)

(As per IS : 3913-1966 )

Silt, sand and other insoluble materials transported by the streams as suspended load, bed load and wash load, present problems of vital importance with regard to successful operation of many projects concerning flood control, soil conservation, irrigation, navigation, water power development etc.

Different types of samplers like suspended sediment load samplers, bed load samplers, bed material samplers exists. Sediment samplers are used for collection and estimation of the quantity of suspended materials which remain in suspension for considerable periods of time and move with almost the same velocity as the stream.

Silt Sampler (Punjab type) consists of the following main parts :

- a) Frame to hold the sampling bottle (made from metallic)
- b) Spring cylinder and pipe
- c) Lever arrangement
- d) Sampling bottle of 1 Ltr. (made from metallic)

The frame provides arrangement for housing one litre bottle in vertical direction. It is attached to a spring cylinder ( or lower pipe) and to upper pipe, through which a flexible metallic wire or rod is passed. At the lower end of the a strong rubber cork to suit the size of the mouth of bottle is fixed and at the upper end of the rod a lever arrangement for raising or lowering the rubber cork is fixed. The spring fitted inside the cylinder helps in keeping the rubber cork tightly pressed against the mouth of the bottle to keep it effective closed.

The lever is pressed for raising the cork and to open the mouth of the bottle for the requisite time determined earlier for the conditions under examination to fill the bottle with water sediment mixture. On release of the lever the cork again fits in the mouth of the bottle under the action of the spring.