

GPB FS1

Filtration through sand

DESCRIPTION

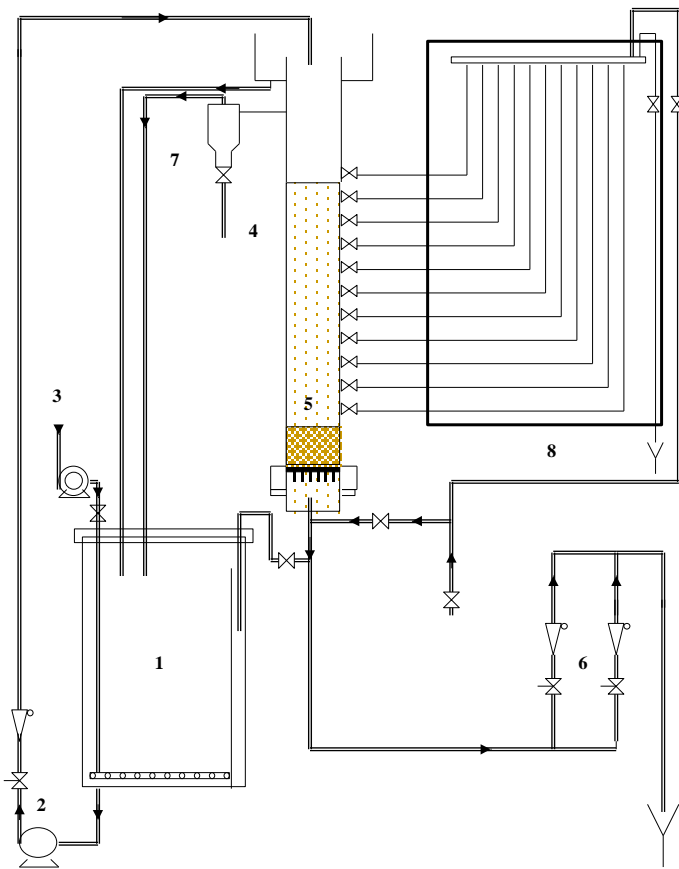
- This process permits the separation of particles in a fluid mixture by passing the mixture through a porous medium.
- This operation is similar to that used for water treatment when water is filtered prior to the addition of flocculants or chemicals. Study of filtration using a thick granulated filtering medium.
Regenerating the medium after use.



SUGGESTED APPLICATIONS

- Study of a porous medium (sand)
- Study of the flow state and pressure losses
- Verification of the law of DARCY and KOZENY-CARMAN
- Computation of the specific area of the filtration medium and its porosity
- Study of clogging-up of filters
- Study of the regeneration of the filter (sand)

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- 1- Polyethylene supply tank 400 L
- 2- Supply pump or centrifugal pump – stainless steel
With flow meter 0-400 L/h
 $P_{\text{maxi}} = 10 \text{ bar} - QV_{\text{maxi}} = 3 \text{ m}^3/\text{h}$
- 3- Air compressor with tank (tank agitation)
- 4- Transparent PVC column $\text{Ø}100 \text{ mm}$
- 5- Filtering medium
- granulometry sand of 1 to 5 mm
- 6- Filtrate flow meters
- 0-400 L/h
- 0-100 L/h
- 7- PVC centrifugal collector
- 8- Multimanometer – glass tubes

UTILITIES

Electricity : 230 V – 60 Hz

Network water

Drainage

DIMENSIONS

Length : 1500 mm

Width : 1000 mm

Height : 2000 mm

Weight : 100 kg