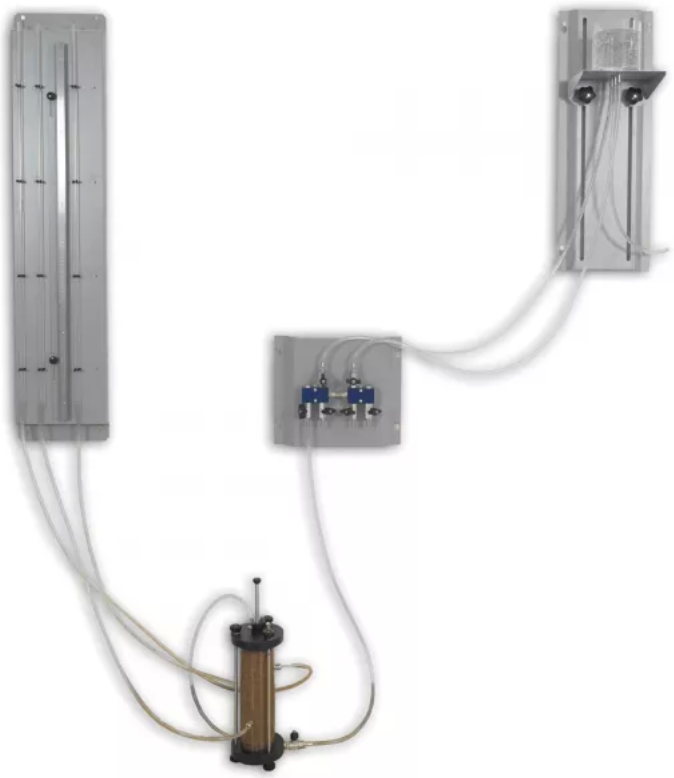
# CONSTANT HEAD PERMEABILITY APPARATUS

**Constant Head apparatus**

This method describes a procedure for the determination of the permeability of water through granular (cohesionless) soils in a steady-state condition. The procedure is to establish representative values of the coefficient of permeability, k, of granular soils that may occur in natural deposits as placed in embankments, or when used as base courses under pavements. The determination of k was developed under the assumptions of the validity of Darcy's Law, which states that the coefficient of permeability is the ratio of the flow rate to the hydraulic gradient. In order to limit consolidation influences during testing, this procedure is limited to disturbed granular soils with permeability in range of 1 to 1x10-5.



**CONSTANT HEAD PERMEABILITY APPARATUS**

## SPECIFICATION

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|---|---|---|
| | Costant Head | |
| Permeability Cell | 38-TO 184/C1* | Costant Head permeability cell,75 mm internaldia.,3 take-off points. |
| | 38-TO 184/(2 | Costant Head permeability cell,114 mm internaldia., 6+6 (blanked) take-off points. |
| Tank | 38-TO 184/T* | Costant leveltank. Complete with inlet,outlet, overflow,connecting tubing for the cell. |
| Manometer Stand | 38-T0183/MS* | Manometer stand with 4 tubes positioning.Tubes,ruler andanchoring system has to be ordered separately. Dimensions: 1152 x 250 x 34 mm |
| Ruler | 38-TO 183/R* | Ruler forTO183/MS |
| ManometerTubes | 38-T0183/6* | Manometer tube 6 mm dia. Connecting valve has to be ordered separately (T0183/6C) |
| | 38-T0183/8 | Manometertube 8 mm dia. Connecting valve has to be ordered sepa.rately (T0183/8C) |

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| 38-TO 183/14 | Manometer tube 14 mm dia. Connecting valve has to be ordered sepa.rately (T0183/14C) | |
| 38-T0183/22 | Manometertube 22 mm dia. Connecting valve has to be ordered sepa.rately (T0183/22C) | |
| Anchoring System | 38-T0183/A | Anchoring system to fix manometer tubes with connecting valves onTO183/MS |

* Inclued in 38-T0184/KIT1

## STANDARDS

- BS 1377:5
- EN 17892-11
- AASHTO T215
- ASTM D2434

## ACCESSORIES

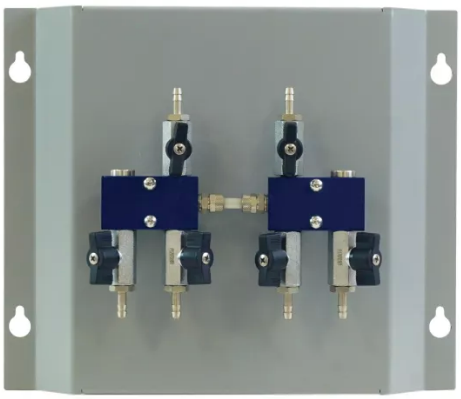
**38-T0183/P**

Control Panel used for saturating sample

## ORDERING CODE

**38-T0184/KIT1**

Constant head apparatus kit. Include: constant head permeability cell, 75mm dia., Manometer stand with 3 manometer tubes 6mm dia.with ruler 1152x250x34 mm, Costant level tank assembled on height adjustable panel.



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