

# STANDPIPE PIEZOMETER

## PRINCIPLE

Simple and economic measurement of groundwater pressures in soil and rock can be carried out using Casagrande type piezometers. Typical applications include:-

- ◆ Monitoring of dams, reservoirs & embankments
- ◆ Slope stability
- ◆ Groundwater levels for dewatering & drainage
- ◆ Groundwater sampling
- ◆ Permeability testing
- ◆ Contaminated soil monitoring

**Geosense** piezometers are made up of low air entry porous plastic or ceramic elements which are connected to standpipe tubing and lowered into a predrilled borehole. Alternative types may be driven or pushed into soft soil.

Where Casagrande type piezometers are being installed then the porous element is surrounded by filter sand and a Bentonite seal placed above this response zone.

Water level measurements are normally taken using a water level meter (dipmeter) or in the case of artesian pressure a Bourdon pressure gauge is attached to the top.

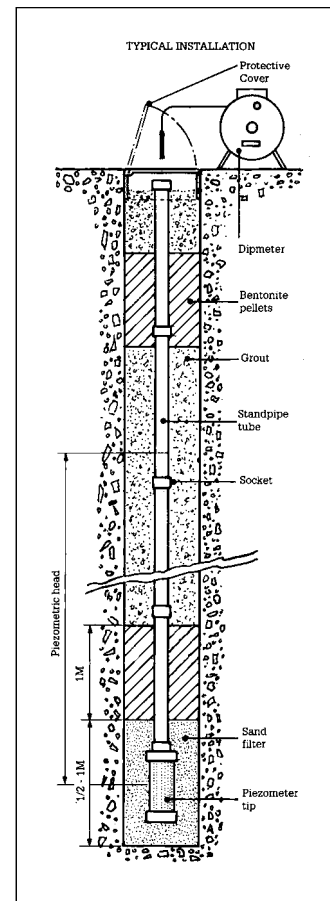
## SPECIFICATION

### Porous plastic element

Material: HDPE  
 Mean pore size: 60 microns  
 Permeability:  $3 \times 10^{-4}$  m/s  
 Porosity: 35%

### Ceramic element

Material: Alumo Silicate  
 Mean pore size: 60 microns  
 Permeability:  $3 \times 10^{-4}$  m/s  
 Porosity: 45%



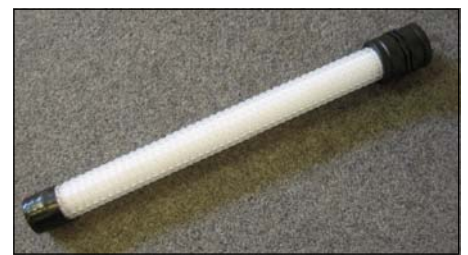
PIEZOMETER TIPS		
Description	Diameter mm	Length mm
Plastic porous	27	320
Plastic porous	27	1000
Drive-in galvanised	27	400
Drive-in galvanised	26	1000
Ceramic	50	200
Ceramic	50	310



Ceramic piezometer tip



Drive-in piezometer tip



Plastic piezometer tip

# STANDPIPE PIEZOMETER TUBING & ACCESSORIES

## TUBING

Standard piezometer tubing is supplied threaded 3/4" BSP or plain for gluing and is coupled together using separate BSP sockets.



Alternative options include flush threading and sizes up to 2" which are used mainly for open standpipe piezometers.



Tubing is available in high strength ABS, PVC or galvanised steel for drive-in piezometers in 3,2 and 1 metre lengths.

Other accessories include:-

- ◆ Bourdon gauges,
- ◆ Adaptors
- ◆ Caps
- ◆ Dipmeters
- ◆ Bentonite pellets
- ◆ Protective covers



We reserve the right to amend or change these specifications without notice

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Geosense is a division of Marton Geotechnical Services Ltd VV1.2 March