



Casagrande standpipe piezometers are a simple and economic method for measuring groundwater pressures in soil and rock. They are made up of low air entry porous plastic or ceramic elements which are connected to standpipe tubing and lowered into a pre-drilled borehole. Alternative types may be driven or pushed into soft soil.

When Casagrande piezometers are installed 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 (dip meter) or in the case of artesian pressure a Bourdon pressure gauge is attached to the top.

Applications

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

Features

- Simple to install & use
- Variable material & filters
- Can be used for artesian pressure
- Economic

Porous Plastic Element		Ceramic Element	
Material	HDPE	Material	Alumo Silicate
Mean Pore Size	60 microns	Mean Pore Size	60 microns
Permeability	3×10^{-4} m/s	Permeability	3×10^{-4} m/s
Porosity	35%	Porosity	45%

Piezometer Tips		
Description	Diameter mm	Length mm
Plastic Porous	27	320
	27	1000
Drive-In Galvanised	27	400
	27	1000
Ceramic	50	200
	50	310

Standpipes						
Description	Thread Type	Aperture mm	Outside Diameter mm	Inside Diameter mm	Wall Thickness mm	Length m
19mm PVC Piezo Pipe	¾" BSPM/F	N/A	26.6	20.8	5.8	1, 3
19mm PVC Piezo Screen	¾" BSPM/F	0.5 slot	26.6	20.8	5.8	1, 3
19mm Galvanised Piezo Pipe	¾" BSPM/M	N/A	27	19	4	1
19mm Galvanised Piezo Screen	¾" BSPM/M	8mm perforation	27	19	4	1
25mm Galvanised Piezo Pipe	1" BSPM/M	N/A	33	25	4	1
25mm Galvanised Piezo Screen	1" BSPM/M	8mm perforation	33	25	4	1

Tubing and Accessories

Standpipe piezometer tubing is supplied standard with blown ends BSPM one end and BSPF the other end.

Alternative options include flush threading and sizes from 1" to 2" which are used mainly for open standpipe piezometers.

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

Accessories

- Bourdon gauges
- Adaptors
- Caps
- Dip meters
- Bentonite pellets
- Protective covers