



## Casagrande Piezometer Model 1655-GS-CP01

### FEATURES

- **Low cost, uses standard PVC pipe**
- **Simple to read, long term reliability**
- **Uniform 70 micron filter element**
- **Filter protected by PVC body**
- **Excellent corrosion and chemical resistant**

### APPLICATIONS

Typical applications include:

- **Monitoring pore water pressures in dams, embankments and other earth structures, and in slope stability studies**
- **Monitoring groundwater levels including pump testing**
- **Monitoring dewatering schemes for excavations, tunnelling etc.**
- **Groundwater and leachate sampling for environmental studies**



### General

The Geosystems Casagrande piezometer tip is used in standpipes or observation wells to monitor piezometer water levels or groundwater levels. The tip comprises a perforated PVC body with an inner plastic filter element (70 micron pore size).

The tips are normally connected to PVC pipes and installed in boreholes. Standpipe piezometers or observation wells with Casagrande tips are most advantageous in high permeability soils where time-lag and high volume displacement are not critical.

### Description

The Casagrande tip is connected to lengths of 25NB PVC pipe and installed in the

borehole with a zone of sand surrounding the tip (the piezometer response zone). A bentonite seal is placed above the sand to isolate the piezometer response zone. The borehole above the bentonite seal is usually backfilled to the surface (with cement-bentonite grout) to prevent the penetration of water down the hole. The top of the PVC pipe at the surface is fitted with a vented cap, and physically protected if necessary.

The water level in the PVC standpipe is located using a water level indicator (dipmeter), or a Water Whistle. These measurements are used to calculate piezometric pressures or groundwater levels. Standpipe piezometers subject to artesian groundwater can be fitted with a Bourdon type pressure gauge to measure the

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pore pressure. The piezometers can also be used to test the permeability of gauge to measure the pore pressure.

The piezometer can also be used to test the permeability of the soil around the tip. If required, the Geosystems Casagrande tip may be adapted to larger diameter PVC or steel standpipes, or to copper tubes for pressure gauge connection. In applications where a greater filter area is required, large diameter filter elements can be supplied on request (Model CP04). Drive-in piezometer tips are also available for use in soft, saturated soils.

### Ancillary Equipment

- Water Level Indicator (50,100,200 m range)
- Water Whistle (19 & 25 mm diameter sizes)
- Adaptors to other pipe sizes
- Bourdon pressure gauges
- Bentonite pellets and powder  
Permeability:  $3 \times 10^{-4}$  m/s (low air entry)

### Specifications

Dimensions	40.6mm O.D. x 345mm
Filter area	245 sq cm
Weight	0.150 kg
Filter material	Spun Nylon
Pore Diameter	70 micron

Due to on-going design improvements and reviews, we reserve the right to amend product and specifications without prior notice



#### FOR FURTHER INFORMATION

environmental systems & services | 8 River Street, Richmond VIC 3121 Australia  
T + 61 3 8420 8999 | F + 61 3 8420 8900 | [geotechnical@esands.com](mailto:geotechnical@esands.com) | [www.geosystems.com.au](http://www.geosystems.com.au)