

Case Study

Piper & Associates Pipe Slotting - Open Area



The Problem

Piper Associates had a project to test the ground water level and flow rate in land that was earmarked for a residential development in Narre Warren Victoria. The specifications called for a pumping criteria to be met.

Requirements

- Material to be of a non leaching material.
- Connect to standard pipe fittings
- Meet AS1477 pipe standards.
- Meet a fluid delivery rate specified.
- Meet a minimum open area.
- Slot size in the pipe to be of a size to suit gravel pack used
- Gravel Pack 8/16 sand
- Threaded Casing for easy Installation and removal
- Pipe strength to suit installation depth

Solutions

The solution was to use 150 cl12 UPVC threaded casing and screen pipe Australian AS1477 manufactureed pipe was used. Slot pattern machined was 1.2mm slots 4 rows 10mm spacing with 65 mm long slots. All components use standard pipe fittings that are of the shelf. The above specifications allowed 1- 5 L/S for the pump test required. To thread Casing and screen with a square form right hand thread.



SWJ Screen



Threaded Bore Casing

Piper & Associates

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DEPS Answer

Thread 150 cl12 casing and screen with our standard 4TPI square thread.

To us Pipemakers 150cl12 UPVC Pipe manufactured to AS1477.

The Slotted pipe was machined on one of our Automated slotters to the required pattern specified.

Standard pipe fittings supplied to join to Pipers test equipment.

150 cl12 pipe was used for the casing to allow a 6" pump to go into the bore, a 6" pump was necessary to meet the 5 L/s flow rate bore test.

Alternatives

Find Other Suppliers In Australia.

Use standard casing and screen that would not meet the specification.

Import from America or

Use pipe such as DWV that would not meet As1477 standard specified.

Have a loer test rate so that 100 dia. pipe could be used, this would lower costs, but would not meet specifacations and only a flow rate of 2 L/S would be achieved.



Slotted Screen

The End Result

After the succesful installation of the casing and screens, the bore was tested and found that the system could pump the required quasnties needed.

The test at Narre Warren had been a 100% success.

The screens did not alllow any sand to enter through the open slot.

The components where disassembled and ready for the next test.

The site was turned into a housing development.

Contact DEPS or talk to us on your piping solution

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- * Slotting
- * Threading
- * Threading
- * Turnng
- * Welding
- * Slitting
- * Design
- * Washed
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- * Cuttings
- * Fabricating
- * Pipe Testing
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