



SullDrain Installation Guide

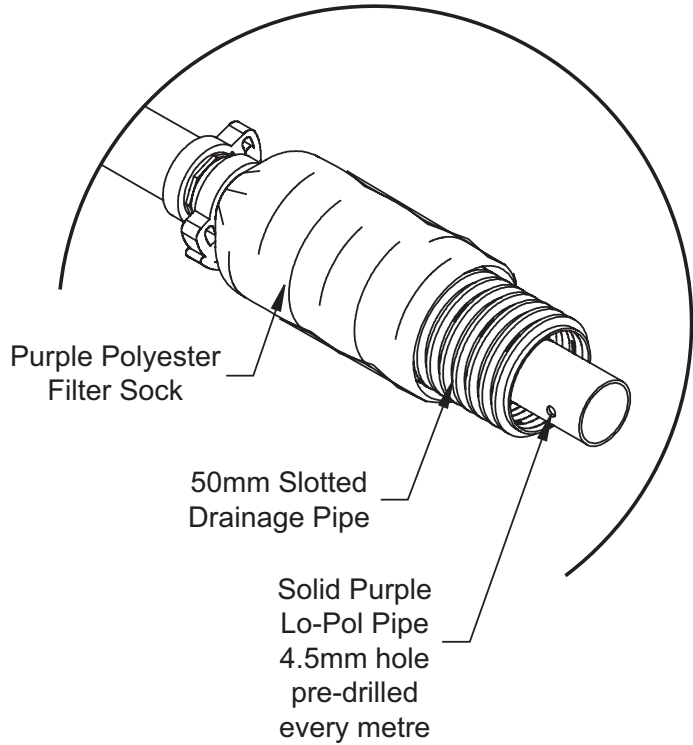
Distribution Uniformity

PPI developed SullDrain in response to a demand from plumbers and on-site water treatment installers for simple, low-cost effluent distribution product.

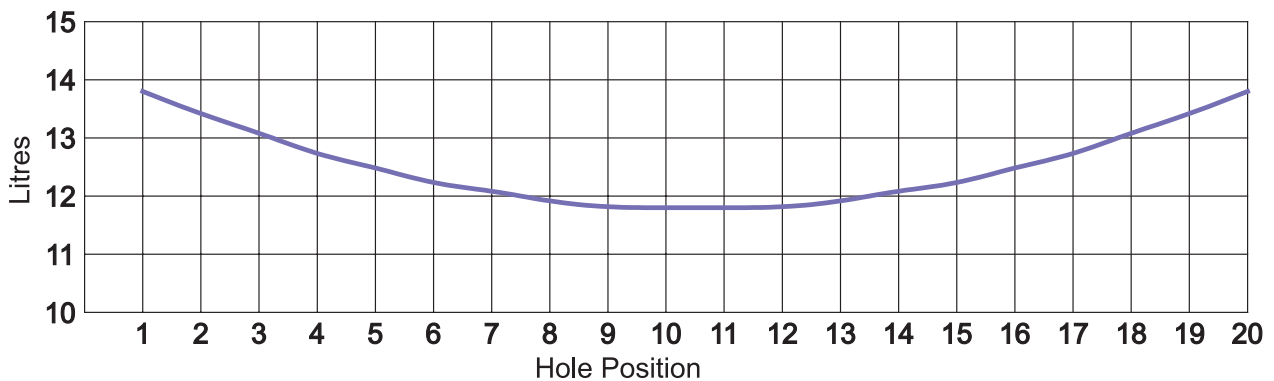
Through the use of small outlet holes spaced along its pressurised small-diameter pipe, SullDrain offers improved effluent distribution when compared against traditional trench construction methods.

AS/NZS 1547:2000 specifies an effluent distribution uniformity of $\pm 10\%$ for shallow, subsurface drip irrigation systems. Laboratory testing of distribution patterns over 20 metres, at flow rates between 45 and 160 litres per minute confirms SullDrain meets this requirement.

For run lengths shorter than the maximum recommended 20 metres, effluent distribution is more uniform than that indicated on the curve.

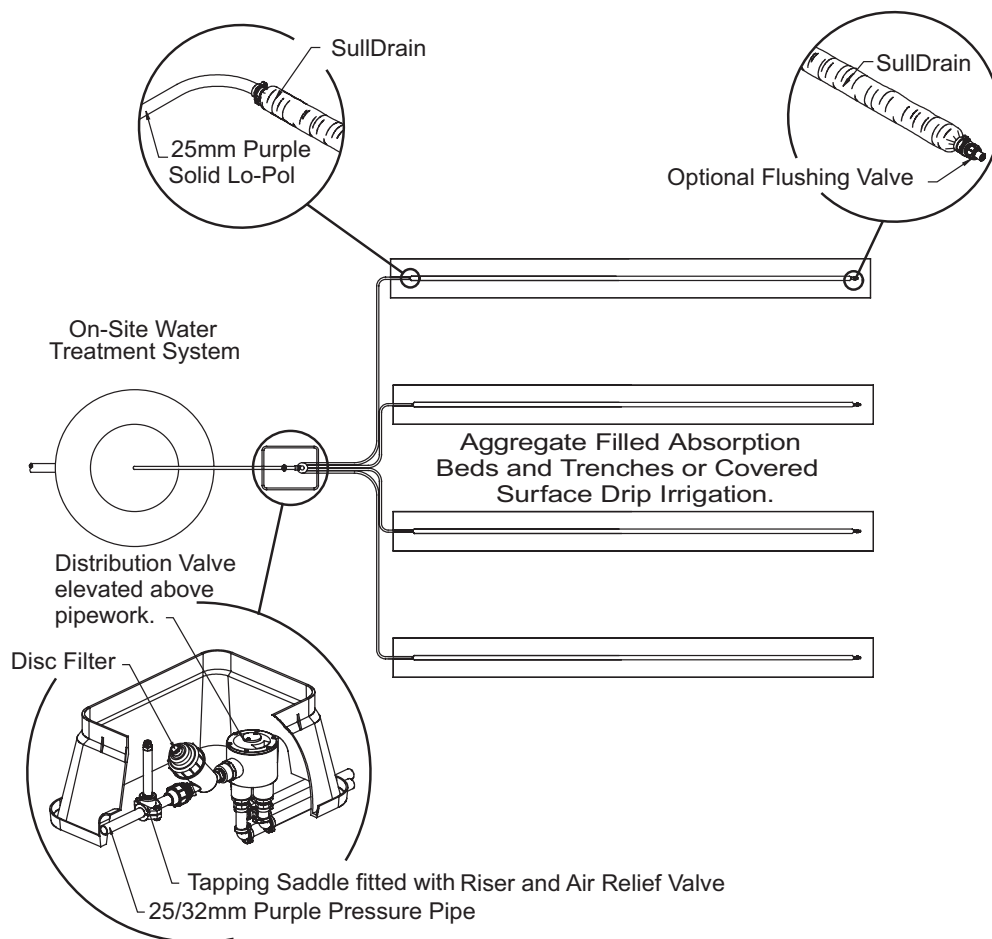


SullDrain Effluent Distribution Curve



250 litres at flow rate of 100 L/min
Mean = 12.5litres, Standard Deviation = 1.0litre.

Typical SullDrain Installation



SullDrain Installation Notes

1. Trenches, beds and drip irrigation systems, must be designed to account for soil characteristics, topography, climate, effluent quality and design flow. Refer to AS/NZS 1547:2000 for specific design guidelines.
2. To ensure even flow distribution, the length of any single SullDrain line should not exceed 20 metres.
3. The distribution valve should be elevated above dispersal network to ensure proper valve port indexing between pump out cycles. If the valve cannot be elevated above distribution network, then check valves must be installed close to the valve in each elevated line.
4. SullDrain should be installed level, parallel to the contour of the distribution area.
5. An air relief valve should be installed between system pump and waste water distribution valve to assist air purging on pump start and to prevent possible vacuum flattening of pipes. An air relief valve also reduces the likelihood of soil being drawn into SullDrain as a result of negative pipe pressure.
6. To minimise the likelihood of clogging in water treatment systems that yield effluent containing algae, slime or bio-solids, an inline 120 mesh / 130 μ m disc filter should be installed upstream of the distribution valve. System maintenance should ensure the filter is regularly cleaned.
7. SullDrain is not suitable for use in gravity dosed systems.
8. Sullage pump sizing must ensure that a minimum pressure of 60kPa is available at the distribution valve to operate indexing cam.

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