# KISSS Sub-Surface Textile Irrigation

- Water savings of up to 60%
- Minimises soil salinity effects
- Reduces drainage, run-off and evaporation
- Uniform application of water
- Surface remains dry during irrigation
- Reduces pumping costs
- Energy savings
- Fully automated
- Reduces weeds
- Increases fertiliser efficiency
- Deters root intrusion without chemicals
- Safest use of recycled water
- Protected from vandalism and pest damage
- Reduces maintenance costs

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Irrigation & Water Technologies is an Australian company that develops, manufactures and markets the world's current best-practice irrigation systems for commercial, agricultural and domestic applications. The IWT KISSS sub-surface textile irrigation technology is winning plaudits world-wide as it is deployed to save water, irrigate more effectively, and to deliver a range of benefits that go way beyond conventional irrigation systems.

KISSS sub-surface textile irrigation is the only irrigation system designed specifically for use underground. Developed through years of research with leading Australian Universities and the CSIRO KISSS is proven to use less water, assist to develop stronger plant roots, reduce water logging and minimise soil salinity levels. And because it's all underground, the system is protected from vandalism, attracts lower maintenance costs and allows for use of the surface during iriigation.

### Patented KISSS Technology

KISSS is the world's most advanced sub-surface textile irrigation system and represents a milestone in green technology. Developed through years of research with leading Australian Universities and the CSIRO, KISSS applies water to the roots at a rate that more closely matches the capilllary absorption rate of the soil than any other system.

The unique, patented design significantly reduces the amount of water needed, making KISSS irrigation perfect for drought conditions, or for organisations that want to save money while conserving water.

#### KISSS

- Encourages stronger plant roots.
- Enhances plant uniformity.
- Reduces water logging and drainage losses.
- Minimises soil salinity levels.
- Reduces annual maintenance costs.

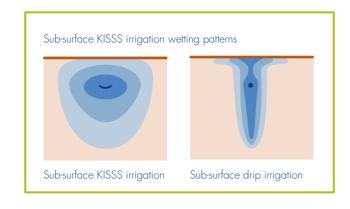
## Difference Between KISSS and Conventional Sub-Surface Irrigation

Conventional sub-surface drip irrigation (SDI) systems rely on uniformly-spaced, individual drip emitters to discharge water at controlled rates to the soil and must be run until the driest region of soil is wet. Such an approach tends to lead to overwatering.

In contrast, sub-surface textile irrigation (STI) distributes water uniformly along its length, eliminating any tendancy to overwater and providing a more controlled, efficient irrigation solution.

#### KISSS

- Reduces evaporation, run-off and drainage water losses.
- Reduces weeds.
- Less water required to achieve a wider, more uniform wetting pattern.
- Reduces risk potential for saturation leading to soil aeration problems and soil structure collapse.
- Improves application uniformity.
- Targets water more accurately.

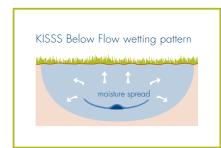


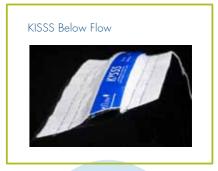
### **How Does KISSS Work?**

KISSS provides much greater control over root zone conditions. It is the only system where soil moisture levels directly influence the delivery of water. KISSS ensures water goes where it is most needed by moving water upwards and outwards to the root zone at the soil's own natural absorption rate. Before saturation occurs, KISSS intelligently directs water to drier areas, creating a uniform wetting pattern. For the first time, water application rates can be matched to the capillary absorption properties of the soil.

## KISSS Benefits

- Water savings of up to 60% versus conventional irrigation systems.
- Delivers water directly to the root zone.
- Minimises evaporation.
- Reduces water losses caused by drainage and tunnelling
- Increases fertiliser efficiency.
- Safest use of recycled water.
- Reduces weeds.
- Protected from vandalism, due to sub surface installation.
- Reduces maintenance
- Deters root intrusion without chemicals.
- Surface remains dry and can be used during irrigation.
- Reduces maintenance costs.





# Recycled Water Irrigation and Dispersal

Delivery under the surface is the safest way to use recycled or contaminated water. KISSS is the only system designed specifically for use below the surface.

Kisss is used with recycled water extensively around Australia in many installations including commercial, agricultural, residential and sports turf.

#### Benefits:

- Reduced health risk water is discharged below ground and doesn't reach the surface.
- The surface can be used while dispersal/irrigation is underway.
- The distribution of recycled water is not influenced by wind and surface runoff.
- Water is distributed more uniformly than with sprinklers.