



COMPONENTS OF A DOMESTIC/LANDSCAPE & TURF IRRIGATION SYSTEM

Backflow Prevention Assembly

When installing an irrigation system you will have to access your main water supply. At this access point it is a requirement of the NT Plumbing Code that you install an isolation valve and a certified dual check valve back-flow prevention device. (Not all dual check valves are certified.)

This back flow prevention device is designed to prevent the back flow of water from your irrigation system to your home and the main water supply in general.

This device is designed to prevent soil-based bacteria's including Meliodosis (Nightcliff Gardeners Disease) plus Hepatitis A, Tetanus etc. From accessing the main water supply.

Irrigation Sub Main

The irrigation sub-main is located between the dual check valve and the solenoid valves or manual control valves.

This pipe is permanently subject to mains pressure and as such, is required to be a Class 12 pipe rated to 1200 KPA. There are two types of Class 12 pipe uPVC or PN 12.5 Poly Pipe (blue stripe).

The most commonly used was uPVC and should not be exposed to the sun. This is hard white pipe that requires primer and solvent cement when joined.

Blue stripe PN12.5 Poly Pipe and compression fittings are becoming more common.

Solenoid Valves

Solenoid valves are an automatically controlled valve that is switched on and off by an automatic controller. They are usually located in valve boxes beneath ground although they can be located above ground.

Automatic Controller

Automatic controllers are programmable devices that are powered by either AC or DC current.

The most commonly used controllers are 24 volt AC powered. They Plug into a 240-volt AC power supply, which is then transformed down via a transformer to 24 volts.

Such controllers may have external transformers or built in transformers plus a battery back-up that is designed to retain the program if the power is switched off or fails for some reason . DC or Battery operated controllers are available.

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Lateral Pipe Work

The lateral pipe work is the pipe between the control valves and the sprinklers etc. It is common for this pipe to be 19mm or 25mm LD (Low Density) poly pipe. However in recent times Green Line PN8 poly pipe is used as it is less susceptible to tree roots and has a longer life span (20+years).

Low Density (LD) Poly Pipe

There are three different grades or types of LD Poly Pipe.

LD Poly Pipe made from re-cycled plastics (old milk bottles). This pipe looks like any other LD Poly Pipe but is prone to splitting over time because it becomes brittle. Generally, this product will not have a brand name attached to it or imprinted in it. Austec Irrigation does not sell LD Poly Pipe made from re-cycled plastics.

Garden Pol is a thinner walled LD Poly Pipe made from genuine raw materials. It is generally suitable for smaller domestic garden systems. It is not prone to splitting but is not pressure rated.

Lo Pol is made from genuine raw materials and is rated to 300KPa (43.5 psi). Lo Pol is not prone to splitting over time but it must be understood that it is not suitable for use as a Main Line or Irrigation sub-main.

Austec Irrigation recommends the use of Lo Pol Poly Pipe by Neta or Vinidex, or Green Line pipe PN8 for use in irrigation systems after the solenoid valves or ball valves in a manual system.

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