



Intelligent Irrigation

*Knowing how much liquid is
being applied uniformly*

- without guessing!

The days of blasting unknown amounts of water or effluent on to land are well past. The resource is too precious for that, so we have produced a machine with an *oscillating* boom that has four significant features:

- *It measures the liquid on to the pasture so that you don 't guess the applied amounts*
- *It has wide wetted widths so that you shift it less frequently*
- *It has a very uniform application pattern—unlike rotary machines*
- *It shuts off the flow at the end of the run so that you don 't drown pasture with liquid*

The machine is governed: this means that its speed is controlled electronically to produce the application depths that you pre-select. It also compensates for the different pressures found at different hydrants, and the “roll-over ” nozzle applies the liquid uniformly.



Irrigator applying farm dairy effluent at Kurow



Cover removed to show rope capstan and governor

Low pressure: 3 to 3.5 bar ideal

Wetted widths to 55 metres

Automatic application control—governed

Flow rates between 18 to 36 m³/hr

Complete shut-off at the end of the run

Suspension soaks up travel shocks

Feathered edge spray pattern

Polyester braid is soft on hands and long lasting

All parts fully shielded and covered

Modular construction makes it easy to exchange or repair components

No glands or seals in the liquid

Very low maintenance,

Simple to use and shift

Applies liquids between 8mm & 60mm

Optional extra: Performance monitoring to shut down pump .

A measuring instrument for modern farm irrigation...



How to set the amount of liquid to apply: Under the cover of this machine there are two easily accessible switches. Read off (from the chart on the side of the machine) how much liquid you want to apply. Set the switches and the irrigator controller does the rest = automatically. No bucket tests—no rain gauges

Nozzle sizes from Ø18 to Ø24 mm. Drag hoses are normally 200 m (max) Ø63 MDPE hose OR 135 m of Ø75 MDPE hose OR 90 m of Ø90 MDPE hose. The run length is about 1.5 time the drag hose length.

Wetted widths up to 55 metres mean that this machine needs about half as many shifts as its competitors. It will cover about 1.6 ha per run. (300 metres of rope is standard)

For water, pressures of 3.5 bar (50 psi) are ideal but for effluent 3.0 bar is the optimum. (Less spray drift—good pulling power)



Selector switches



Selection chart next to capstan hand wheel



Specification:

Type: Single arm, single nozzle, glandless, oscillating, speed and pressure governed travelling irrigator with pre-selectable application depths and or travel speed.

Wetted width: Between 44 and 55 metres depending on nozzle size, pressure and wind conditions. We like to ensure 3 to 3.5 bar pressure (42 to 50 psi) at the irrigator.

Area Covered: Up to 1.6 ha over a 300 metre run. Braid up to 375 metres can be fitted.

Control system: 12 volt DC electro-hydraulic control, compensated for oil temperature and with supply pressure monitoring. Sealed “ black box” controller.

Integral Performance Monitoring: Some regional councils in NZ prefer that effluent irrigators monitor their performance and shut down the pump in the event of a hose rupture or if the irrigator fails to move at the set speed. Our electronics controller has this option built –in **at extra cost**, but at about 1/3 of the price of comparable performance monitors. This feature will: shut-off the irrigator and the supply pump if the irrigator fails to move at the set speed, or if it reaches the end of its run, or if the supply hose ruptures.

A measuring instrument for modern farm irrigation...

Price: (June 08) NZ\$ 9875.00 plus GST and freight



Important considerations:

Effluent: If you are a dairy farmer, then you should store effluent during the wet season until the soil temperature and soil moisture levels are suitable for irrigation. The absence of a large holding pond in your system simply allows the effluent to escape from your property when the soil moisture is at field capacity. Your regional council will probably have some recommended size for the effluent pond. The pond is essential if you have sustained wet weather, pipeline blockages or equipment failure. Please give serious consideration to installing a properly sized pond. It will help to retain nutrients for your own use and improve New Zealand 's water quality at the same time. Call us for guidance.

To learn more about “**Deferred Irrigation**” visit our web site page. “Articles and downloads”

www.spitfire.net.nz

Big Ponds:

We also make bridge mixers to totally mix big circular ponds from 1500 to 6000 m³. There are no dead zones in big ponds where the mixer blades travel around the entire pond on the moving bridge. All the solids and the liquids get to the irrigator so that there are no subsequent desludging operations.

To learn more about “**Big ponds**” visit our web site page entitled “Effluent ponds” **www.spitfire.net.nz**



Filter screens:

How do you keep those bark chips, ear tags, horn buds and penicillin tubes away from the irrigator nozzles?

Use one of our in-line screens!

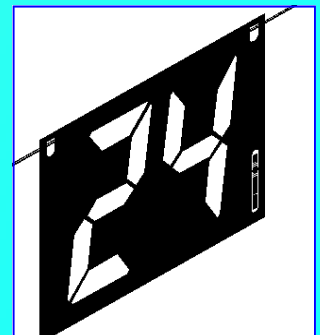
Download a leaflet from the web site.



www.spitfire.net.nz

Lane markers:

Ask your staff to work the irrigator over lanes 24, 25, and 26. They ' ll understand just what you mean. No double dosing, easy record keeping. Download a leaflet from the web site.



Email us: enquiries@spitfire.net.nz

Phone us: 04 586 3411 Fax us: 04 586 0410

Call on us: 66/1 Rakaunui Rd, Taupo, New Zealand

