

INSTRUCTIONS

MicroTrough Portable (WT MICGO)



Operating Notes:

Flow Rate and Pressure Required for Optimum Portable MicroTrough Use

MicroTroughs operate under any flow rate or pressure (up to 120 PSI). For practical use the best operating pressure is around 45 PSI (310 kPa, 3 Bar, 30m). At pressures higher than 75 PSI water tends to jet out making it harder for the animals to drink comfortably and the Micro Plate will damage faster.

If used in conjunction with the Kiwitech hydrant, it is important to note that the hydrant works best between 1 and 4 Bar (14 to 60psi) though if you are strong and quick it is possible to work the system at pressures up to 6 Bar (90psi)

The Kiwitech Valve prefers a water source that is granular free. If you have small, hard particles in your water supply the Valve may get damaged. Soft matter like mud and algae the Valve can handle.

25mm O.D. Portable Trough Leads

New Zealand spec Low Density Pipe with a pressure rating of no less than 130 PSI (900 kPa, 9 bar) should always be used for portable trough leads as it has a thick wall to avoid "kinking" when being dragged around and it is easier to work with when plugging into and out of Kiwitech Tee Hydrants. Currently in Australia, New Zealand spec LDPE is not available. The two brands we recommend are:

- RX Plastics NZ: 25.15mm O.D., 130 PSI (900kPa, 9bar), wall thickness 3.3mm
- PPI NZ: 25.0 to 25.2mm O.D., 18.4 to 18.6mm I.D., 130 PSI (900kpa, 9bar), wall thickness 3.2 to 3.4mm

Kiwitech can supply trough leads on request.

Stock Serviceability

We cannot guarantee microtrough use with sheep. Some sheep (particularly timid breeds e.g. Merinos) won't push the microtrough plate down to activate flow. This would be particularly apparent at high pressures.

One MicroTrough can service the drinking needs of at least 50 adult cattle.

Instructions:

In order to successfully de-couple Kiwitech portable troughs from Kiwitech Hydrant Tees that have been incorporated into permanent water lines, a water pressure gradient must be created in the permanent line. With the Kiwitech Round 100L portable troughs this pressure gradient is created by emptying the trough, creating flow, before attempting to de-couple the portable trough lead using the bayonet-release method.

To create a water pressure drop (activate flow) with portable MicroTroughs there are a number of methodologies

- 1) Stand on the plate or put something heavy on the plate while unplugging the pipe.
- 2) Use a Kiwitech High Pressure Release Sleeve on the end of the pipe.
- 3) Instead of having a blank cone on one end of the tee under the microtrough, fit a standard open end and a valve codes WF ADAPT & WV VAL25. You can then push a spare bit of pipe into this end to activate flow when you want to unplug the pipe.



Length of Stake

If the length of the stake is too long, cut to size using a grinder. Please note that grinding any points or razors on the end of the pin will make the stake of the MicroTrough even more of a potential hazard. When transporting the MicroTrough please take care to keep the stake out of harms way (especially if placing it on the front or back of a quad where a sudden stop could cause fatal injury).

MicroTrough Maintenance:

General Wear and Tear

MicroTrough Valves and Plates are made from plastic. Over time both will start to show signs of wear. The speed of deterioration depends a lot on the water pressure and ambient temperature. High temperatures (>30 degrees) and high pressures will wear the valve and plate down a lot faster than the standard 5-8 years. The tip of the valve will start to wear down a little and the plate thickness will thin down where the Valve is making constant contact (in this situation the Micro Plate will look more flat (horizontal) inside the MicroTrough). If the Plate and/or Valve are worn, the push distance on the Valve's plunger will be limited, so, the Valve will not open fully when pushed.

In order to cater for general wear Micro Plates have several moulded "hole stations" each with a different plate thickness. When both the Valve and Plate are new, the second station is the recommended setting. On this hole station the Plate has approximately 2cm (or 2 plate thicknesses) of free-play at the top of the Plate's swing (i.e. the edge of Micro Plate - opposite the Valve - can be lifted up about 2cm and drops down again with no interference).

If the free-play goes beyond 3cm then the MicroTrough is still working ok, but, it would work better on a thicker station. Turn the steel pin 180 degrees and pull it out about 1.5cm, push the Plate down directly over the Valve and, while still pushing down, pull the Plate out. Re-fit the Micro Plate using the adjacent station (where the Plate is slightly thicker) and test for free-play again.

New Micro Plates and Valves or Valve parts can be purchased individually.

