

Overview

Your Series 2 Model 50 Se-Tech Inline Liquid Dispenser operates using water flow up to 13000 Litres per hour, and water pressures from 10 to 210 PSI.

It may be connected to a town supply, a gravity-based system (with at least 6m of head from the base of the tank) or used with a water pump.



Installation Pointers

The unit should be installed out of direct sunlight (preventing premature aging and warping of components) and on a firm, flat, vertical surface.

The installation surface should be both rigid and large enough to hold the entire Bracket Mounting Assembly.

Due to the weight and movement of the unit in operation, we recommend installation onto Wall Studs or a rigidly-fixed beam(s): we recommend **against** mounting solely on interior or exterior cladding.

1/ Put one screw into the Bracket top centre mounting hole, then mount the Dispenser to the bracket: insert the Quick-Release Seals, mount the clamps then screw the dispenser to the bracket (4 screws, 2 top and 2 bottom).

2/ Place a spirit level across the top cap (service plug) of the Dispenser parallel to the wall and level the assembly.

3/ Repeat the process with the level on the top cap, pointed out from the wall: pack out the base of the Bracket (on both lower corners) as necessary, in order to ensure the dispenser is vertical in this orientation also.

Once done, screw through the bottom mounting bracket holes to the wall.

3/ Recheck that the Dispenser is level in both orientations.

4/ Couple the water inlet to the bottom of the pipework (2" BSP threads), and the water outlet from the top of the pipework.

Note: to minimise the possibility of leaks over time, ensure your inlet and outlet piping is rigidly mounted and externally supported.

8/ Push the dispensate (dosing) hose into the base of the unit (see picture overleaf) and place the other end (with the zinc passivator / inlet filter) into your dispensate drum.

9/ If dosing chemicals, fertilisers and/or minerals not specifically approved for Human Consumption, we strongly recommend labelling all downstream pipes and troughs with

"Not Potable - not for Human Consumption"

NOTE:

If your Dispenser is connected to the same water supply as that of a domestic supply (house) or dairy shed, it is a legal requirement that a Backflow Preventer be installed upstream of the dispenser.

We recommend you consult with your local Se-Tech Reseller or Water/Pipeline supply merchant.

Operating Instructions

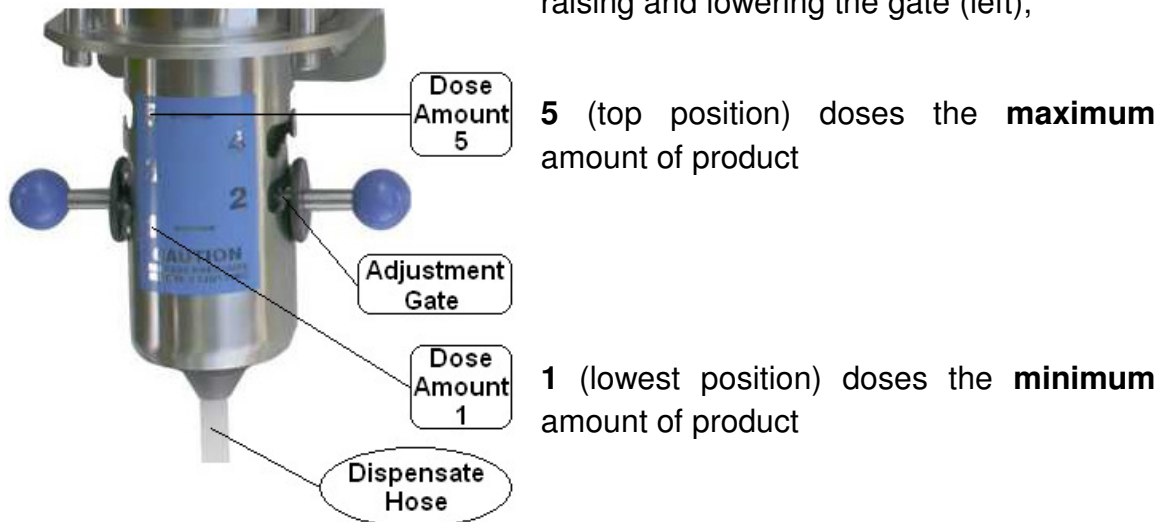
Please Note:

We recommend that your dispenser is serviced annually.

There are no user-serviceable parts in the dispenser: the unit must be returned to Singh's Engineering Services for servicing.

Concentrate adjustment

The amount of concentrate dispensed into the water supply can be adjusted by raising and lowering the gate (left),



As a very rough indication,

#1 doses approximately 0.4% of fluid throughput

#5 doses approximately 2% of fluid throughput



Please note that line pressure must be released (i.e. water diverted around the dispenser via the manifold, then pressure released via the small tap, left)

before adjustment is carried out

Failure to do so could result in injury to the operator or damage to the unit, due to high internal pressures.

Calibration / Setup

Fill the drum you will be sucking the concentrate from with water to the top.

Set the adjustment gate to #3 and make sure the suction hose is submerged in the drum.

Start the dispenser (e.g. start your pump, open the shutoff valve and close the bypass valve on the manifold: both valve handles should now be horizontal) and check the dispenser is sucking - you should see the 'bubbles' of air being drawn along the suction tube until it is full.

Leave the system in action ('dispensing' water only) for 24 hours.

After 24 hours have passed, come back and using a clean, measured container (eg a 1 litre jug, 2 litre bottle etc), refill the drum to the top, measuring the amount of water put in.

This amount is the amount of mix that will be consumed each day, and so, is the amount of fluid you need to mix all the desired minerals and additives into per day.

NOTES:

- Depending on the viscosity (or how "runny") the mixture you are dispensing is, some adjustment may be required to achieve the required uptake (e.g. very viscous or sticky materials may require the adjuster at one or 2 levels higher to have the same amount drawn as in the initial calibration).
- If dispensing for animals, be aware the amount of water consumed will vary by season: they will drink a lot during hot days in mid-summer, less in wet mid-winter. This will also probably affect the amount you wish to dose (e.g. in mid summer, decrease the amount dosed so the animal ends up with the same amount of minerals: conversely, increase the amount dosed in winter).

Other Notes

We do not recommend mixing in the dispensate drum, but instead recommend mixing the chemicals to be dosed in another container, adding water then leaving for approximately 2 hours.

After the large, heavy lumps of material have settled, **pour the mix into the dispensing drum**, leaving the sediment behind.

This procedure allows the large, heavy lumps of material to settle out before reaching the dispensate drum (should they make it into the drum and through the dispenser, they would only settle into the bottom of the trough and lines anyway).

This process extends seal life on the dispenser: the less like 'grinding paste' the material being dosed, the longer the seal life.

Please see the diagram overleaf for a recommended, simple “pre-mix” drum and tap setup.

Keep your dispensing container covered: this lessens the chance of foreign items contaminating the mix.

(Please contact Singh's Engineering Services if you would like to source Drum Lids, Tap setups or any further advice).

Note that a mix of chemicals for dosing (e.g. Copper and Magnesium), when drawn into and through the dispenser, may in some water types cause a chemical reaction which will result in corrosion of internal dispenser and other water fitting components.

Before mixing any chemicals, we recommend consulting the chemical supplier or manufacturer.

Your Se-Tech Dispenser has a **zinc passivator** mounted on the dispensate line by the inlet filter (see picture over).

Made of more than 99% pure zinc, this acts in the same way as a block of zinc bolted to a boat keel or an outboard motor, and will decay in preference to the materials in your dispenser and pipe fittings.

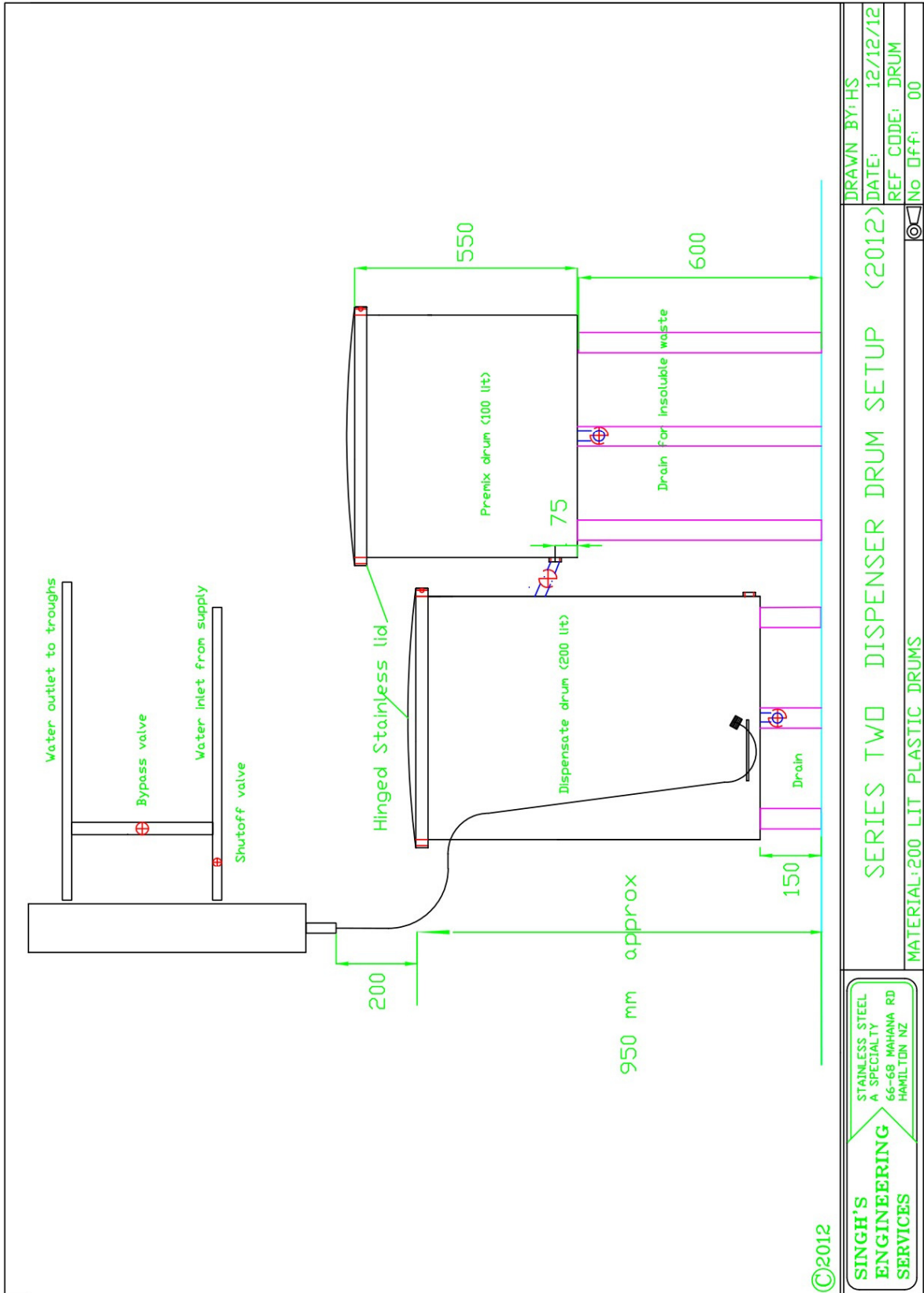
We recommend checking the passivator weekly: if you observe pitting or decaying, order a replacement from either your authorised Se-Tech Reseller or Singh's Engineering Services.

NOTE

“Ordinary” cast or galvanised zinc products often contain cadmium and other products which may adversely affect animal health.

We recommend using only the Se-Tech zinc passivator available from Singh's Engineering or your authorised Se-Tech Reseller.

Recommended Mixing Drum Setup



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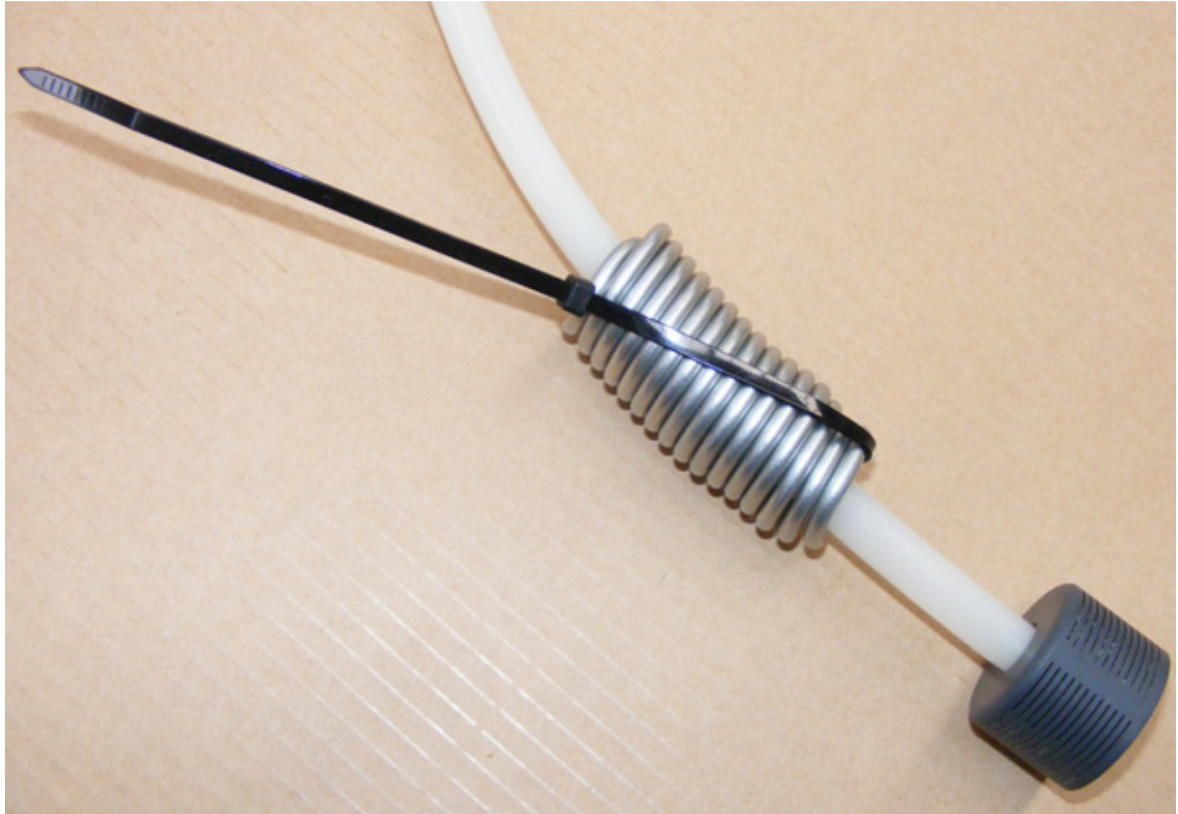
**SINGH'S
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SERIES TWO DISPENSER DRUM SETUP (2012)

DRAWN BY: YHS
 DATE: 12/12/12
 REF CODE: DRUM
 No Df.f: 00

MATERIAL: 200 LIT PLASTIC DRUMS

Use and Fitting of Zinc Passivator



Consequences of not using a passivator:

Before



After

