

Trouble Shooting Guide

for Dosamatic / Hydradose

Following is the List of Problems associated with Dosamatic. Select the problem you face & then refer to the corresponding section for Causes & Remedies.

Broad classification of problems is as follows.

1. No Click Sound Heard.
2. Click Sound Heard but Chemical is not sucked in / dosed.
3. Leakages through Dosamatic.
4. Breakage in / of Dosamatic.

We recommend that you should Refer to O & M Manual Supplied Along with every Dosamatic as well as read Do's & Don'ts for Dosamatic, and follow them. These will Solve Most of your Problems.

1. No Click Sound Heard.

No Click Sounds if No Water Flow.

- a) In a New Dosamatic.
- b) In Old Dosamatic / Dosamatic Already in Use.
- c) Some times Click Sounds Heard sometimes not. (Click Sounds are Irregular)

a) In a New Dosamatic.

ψ Refer the **Arrow Mark** ⇒ on the body of Dosamatic. Dosamatic will operate only if water is flowing in a direction as shown by arrow mark. If Dosamatic is fitted wrongly, fit it correctly

Remove the outlet tubing of Dosamatic, so that Dosamatic outlet is open to Atmosphere. If click sounds are heard & if water is coming out of Dosamatic then Dosamatic is O.K.

ψ Check whether there is **Flow in Main Line or Not?** Many a times Pr. Gauge Shows Pr. but there is No Flow in the line.(Pr. in line does not indicate flow in line)

ψ **Pressure drop across Dosamatic is not Sufficient**. Throttle the Main line Valve till you hear click sounds. Do not afraid of closing the valve. Do not leave the valve half open. If Dosamatic is installed across Orifice then check the orifice size (Min. Pr. Drop should be 0.3 Kg / Cm².g) Also check Orifice is not fitted wrongly.

ψ Check the 3/4" By Pass Valve connected in Outlet of Dosamatic for proper Functioning. Many a times the valve is closed but handle / Wheel of Valve rotates freely giving wrong Impression that valve is open. No Click Sounds if No Water Flow.

If Water does not come out of Dosamatic outlet then,

- ψ Check whether Pressure is within the Operating Range of Dosamatic ?
i.e. Between 0.3 Kg / Cm².g to 5.0 Kg / Cm².g
- ψ Check the 3/4" By Pass Valve for proper functioning. Many a times the valve is closed but handle / Wheel of Valve rotates freely giving wrong impression that valve is open. No Click Sounds if No Water Flow.

b) In Old Dosamatic / Dosamatic Already in Use.

Remove the outlet tubing of Dosamatic, so that Dosamatic outlet is open to Atmosphere. If click sounds are heard & if water is coming out of Dosamatic then Dosamatic is O.K.

- ψ Check the 3/4" By Pass Valve for proper functioning. Many a times the valve is closed but handle / Wheel of Valve rotates freely giving wrong impression that valve is open. No Click Sounds if No Water Flow.
- ψ Check whether there is **Flow in Main Line or Not ?** Many a times Pr. Gauge Shows Pr. but there is No Flow in the line. (Pressure in the line does not indicate flow in the line.)

If Water is coming out from outlet of Dosamatic @ more than 50 ltr./ Hr. But No click Sound Heard.

- ψ Then Check the following,
 - i. Spring - M - 1
 - ii. Large Valve 'O' Ring - R - 5
 - iii. Small Valve 'O' Ring - R - 4 or any other damaged part.
- ψ Also check whether Piston is moving very freely inside the body ? Very free movement of Piston Inside Body of Dosamatic indicates the Wearing of Body or Piston.
- ψ Broken or Worn Parts need replacement. Replace them.

If unable to find out the reason send the unit back to Factory / Service Center.

c) Some times Click Sounds Heard sometimes not. (Click Sounds are Irregular)

Dosamatic gives click sounds only when water flows through it.

- ψ If water flow is not continuous the Dosamatic will give click sound as & when water flow starts.
(This is the Main Advantage of Dosamatic. To dose Automatically & Proportionately)
- ψ If flow fluctuation is such that at particular flow rate the pressure drop is beyond the operating limit (i.e less than 0.3 Kg / Cm².g or more than 1.2 Kg / Cm².g)

Check the Min. to Max. Flow Ratio of the System.

i.e. Max. Flow in M³ / Hr. / Minimum Flow in M³ / Hr. = this should be equal to or less than 2.5.

e.g.If Min.Flow Rate is 100 M³ / Hr. then Dosamatic will operate till flow rate of 250 M³ / Hr.
If Min. Flow is 5 M³ / Hr. then Dosamatic will operate till 12.5 M³ / Hr.

- ψ For systems where Flow Fluctuations are very high. viz. Poultry Applications. Chlorination in Fisheries , Drinking Water etc. , it is advisable to Install the Dosamatic Across the Centrifugal Pump. (Refer the O & M Manual for Installation Details)

2. Click Sound Heard but chemical is not sucked in / dosed

Remove the suction tubing from Dispenser & Check for Vacuum formation by Finger / Hand or Keep a Jar / Glass of Water below the Dispenser. If Water is Sucked in

- ψ Check the Suction Filter & Foot Valve inside Suction Filter for Choking. If found Choked clean them & Refit.
- ψ Check that Foot Valve is not Fitted Wrongly after / before cleaning. Since foot Valve is N.R.V. check the direction of flow by blowing air through it. If Fitted wrongly fit it correctly.
- ψ Check whether suction tubing is punctured? Replace the Tubing if Found Punctured.

If water is not sucked in

- ψ Open the dispenser of Dosamatic & check
 - i. Seal R1 (Square Ring) If found Broken or worn replace it.

If Seal R1 is O.K. check

- i. whether N.R.V. P - 5 in Dispenser P -31 is fitted correctly or not?
- ii. Check the outlet of Dispenser P- 4 for choking . If found choked clean it.
- iii. In Model Ex -02 Old version, sometimes Teflon Sleeve blocks the outlet of Dispenser if Dosamatic was kept running dry. (i.e. Chemical Solution Tank is Empty when Dosamatic is in operation) If found blocked Replace with NEW Dispenser.

3. Leakages through Dosamatic

' O ' Ring & Rubber Gasket are Provided at all the Joints to Prevent Leakages.

Leakage Between

- ψ Body of Dosamatic (P1) & Dispenser Housing (P4) indicates either wear & tear of Leap Seal RM1. or Outlet Tee is Choked up. Replace the worn out Leap Seal & Clean the N.R.V. in outlet Tee.
- ψ Upper Housing (P2) & Lower Housing (P1) . Change the Top Cover 'O' Ring R3. Also check for cracks / damage of body where NBW fits. Also check whether NBW are Tight or not?
- ψ Dispenser Housing (P4) & Dispenser Housing Nut (P 30) . Change Dispenser 'O' Ring R7.
- ψ Dispenser Unit (P31) & Dispenser Cap (P7) . Change L shape N.R.V. Washer R6.
- ψ Flexible Hose & Tubing Connector . Cut the flexible hose tip & refit it.

Never Use Teflon tapes, Sutli or Hold tight, etc. for Stopping the Leakages through Dosamatic. Also Never use Tools to tighten the Dosamatic or Overtight the Dosamatic to Prevent Leakages. This may result in Breakage of Dosamatic.

4. Breakage in / of Dosamatic.

Dosamatic being manufactured in Plastic Precautions should be Taken while installing it in M.S. or G.I. Pipes.

- ψ Make sure that there is no Tension in Pipeline across which the Dosamatic is fitted. It is advisable to use flexible hose.
 - ψ Also check that Operating Pressure is not More than 5 Kg / Cm² .g Many a times Operating Pr. of System is around 2 to 3 Kg / Cm² .g (Less than 5 Kg / Cm² .g) but the shut-off head of pump is more than 5 Kg / Cm² .g. In such systems if Water Flow is Suddenly Stopped water hammering occurs . As a result pressure in the system rises to Twice the Shut-off head of Pump & Dosamatic Breaks.
- Use of Pr. Relief Valve or Use of Flexible Hose Connection in By pass line to connect Dosamatic can Save The Dosamatic from Such Hammering in the System.

PROBLEMS ASSOCIATED WITH CHLORINATION APPLICATION

Normally Sodium Hypochlorite Solution or Bleaching Powder Solution is used for Chlorination.

In case of Bleaching Powder Solution being used for Chlorination,

Use tall tank instead of tank with larger diameter, reason being non soluble portion of Bleaching Powder settles down at the bottom of chemical solution tank.

We also recommend to keep Suction Filter approx. 4" to 6" above from the bottom of tank or above the non soluble portion lying at the bottom of chemical tank.

We also recommend to clean the Suction Filter of Dosamatic Regularly.

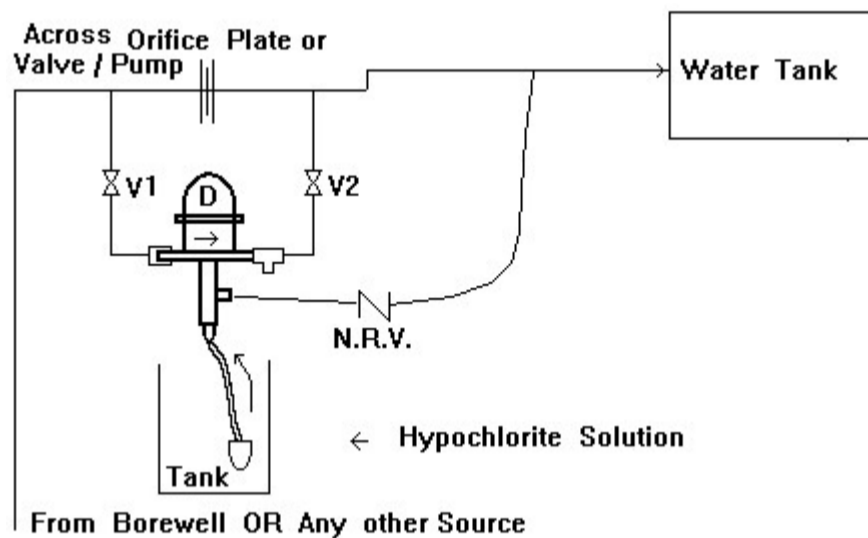
In case of Sodium Hypochlorite Solution being used for Chlorination,

Normally pH of Sodium Hypochlorite Solution is around 11, otherwise chlorine will liberate out of the Solution resulting in very less shelf life for Hypochlorite Solution.

But Calcium & Magnesium Salts in Hard Water tend to Precipitate at Higher pH.

As a result whenever Dosamatic is used for dosing of Hypochlorite Solution Calcium & Magnesium Scales form inside the Dosamatic & Choke the entire system.

As a remedy we recommend following method of Installation & recommendations.



- We also recommend you to
1. use Soft Water for Dilution of Hypochlorite Solution if Possible.
 2. Change the Leap Seals RM - 1 (2 No.) once every 3 to 6 months.
 3. Keep the Stroke length of Dosamatic at 50 % if possible. By doing so you can increase or decrease the ppm level by just rotation of Dispenser P 31.
 4. Flush the Dosamatic with water at regular intervals.