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Edson Vacuum Test Gauge 276-150

The Edson vacuum gauge is a tool designed to help diagnose problems in a typical pump out system. A pump out system is composed of three major components the pump, controls and plumbing. Most plumbing and pump issues can be found with some simple tests described below.

Instructions:

I.Test pump.

The first components to check is the pump. This procedure will determine if the pump is your problem area.

1. Disconnect the plumbing from the suction side AND the discharge end of the pump.
2. Turn the pump on.
3. Press the tapered nozzle (with vacuum gauge inserted to adapter) into the suction side. Be sure to get a good seal.
4. The vacuum gauge should rotate counterclockwise and reach a maximum vacuum within a few seconds. Take note of this number. This number is referred to " inches of mercury".

--The 286 / Platinum series peristaltic pump maximum 25-28" hg (Mercury).
--The single diaphragm 120 series pump ,without liquid in it, should reach 10-12" hg wet, up to 14"
--The double diaphragm 25000 series pump, without liquid in pump bodies, 12-14" wet up to 20"

A. If the results are within the vacuum noted above, reconnect the plumbing.
B. If the vacuum is significantly different, the pump needs to be serviced. Contact Edson or your local dealer for further instructions.

II. Test Plumbing

If only one hydrant is installed with a suction hose.

1. Remove the test gauge plug from test gauge assembly and insert to pump out hose end. Typically this is a 1-1/2" female cam lock. If no female cam lock is present, insert the entire test gauge assembly into hose opening an be sure to hold firm to not allow any air leaks. Start the pump.
2. Let the pump run for until you are sure the gauge has reached is maximum vacuum. This can take several minute depending on the length of pipe installed in the system. Take note of that number.
3. If the " hg is more than 10-15% different from your original reading, you have a plumbing issue.
4. Detach the suction hose from the hydrant and run test again. If the results are as tested at the pump, you should check for air leaks in the hose or replace the hose. Taped hose or joints are never a solution. This will create small air leaks and increase run time for the pump and possibly wear out critical components prematurely.
5. If the test at the hydrant is still significantly different from the original test at the pump, a plumber should be contacted to evaluate for air leaks or clogs.

If multiple pump out hoses are in the system, test the furthest hydrant first. Multi hydrant system can be difficult to diagnose. Installation of isolation valve at every finger pier can be helpful. Each section can be closed off from the main line starting with the furthest location. These valves can eliminate each finger pier one at a time making the trouble location more apparent.Complete above test at each branch run until you get close to the original test results at the pump.

Feel free to call Edson International at 508-995-9711 for more information or recommendations.