



## *RYDLYME* CLEANING OF VACUUM PUMPS

When water scale, lime, mud, and rust accumulates on the waterside of compressors or vacuum pumps of this type, this not only drastically reduces volume and overall efficiency, but also increases electrical load.

In order to remove the water formed deposits from the casing, rotor, hub, cones, and other wetted surfaces, the following *RYDLYME* instructions should be followed.

1. Write down current or “before” amperage readings, cfm at vacuum capacity and the vacuum in inches of mercury.
2. Take unit out of service.
3. Remove bottom drain plug and allow all water to drain from pump casing. Replace bottom plug.
4. Break seal water piping and attach *RYDLYME* pump discharge hose.
5. Remove top plug, attach return hose and place other end of return hose in *RYDLYME* receiver bucket.
6. Insert “blank” in flanges of discharge piping and tighten flange bolts.
7. Add the prescribed quantity of *RYDLYME* to the receiver and start pump.
8. In some instances additional water may be required to maintain circulation. Add only enough water to maintain circulation.
9. Tighten pump seal packing to minimize any leakage.



10. After 15 minutes of *RYDLYME* circulation, turn pump rotor 90° by pulling on the drive belts or jacking the starter switch.
11. Every 15 minutes thereafter, turn pump rotor through 90° to assure a thorough cleaning of all interior parts of your pump, including the hub, cones, and rotor.
12. Continue the circulation of *RYDLYME* for a total of two hours.
13. After two hours of circulation time, with intermittent turning of the rotor, the pump should be clean and the rotor should turn freely.
14. Shut off circulating pump and drain the expended solution by removing the bottom drain plug.
15. Disconnect all the *RYDLYME* hoses and the circulating pump.
16. Reconnect the seal water piping.
17. Remove “blanks” in flanges and tighten flange bolts.
18. Open the seal water valve and flush pump with water.
19. With the seal water running, start vacuum pump and operate for 10 minutes to thoroughly flush pump. During this time, adjust the seal water rate to manufacturers recommendations.
20. Return compressor or pump to service.
21. After unit has stabilized, write down current or “after” amperage readings, cfm at vacuum capacity, and vacuum in inches of mercury.
22. Compare “before” reading with the “after” readings. The difference between the amperage readings multiplied by the cost per Kw/hr at your facility, will render a dollar amount your facility is now saving every hour! *RYDLYME* cleaning should be performed on a preventative or predictive maintenance schedule.



---

## WHEN A SEIZED ROTOR IS ENCOUNTERED

- A. Complete steps 1 through 7.
- B. It is best to introduce *RYDLYME* wherever possible. Start by removing both plugs from the top of the liquid ring vacuum pump (if scale blocks the passage, take a screwdriver and poke it through).
- C. Add 100% of the prescribed quantity of *RYDLYME* into the top ports as well as pumping some into the seal water passages.
- D. Allow the *RYDLYME* to sit for 30 to 45 minutes. There may be some foaming and/or gassing. This will enable the product to start freeing up the pump. (Do not put the plugs back in until you start the circulation process).
- E. After 10-15 minutes of soaking, try to turn rotor 180° with a wrench. Start circulation pump as soon as circulation is achieved. Rotate rotor every 15 minutes.
- F. *RYDLYME* will dissolve the water scale that causes the seizing and allow the remaining steps to be accomplished.
- G. Should the rotor remain seized after circulating *RYDLYME* for 10-15 minutes, disconnect the hose from the plug (discharge hose from pump) and attach this hose to the opening at the top of the casing. Circulate *RYDLYME* into this opening for 10 minutes while periodically testing to see if rotor has freed.
- H. When rotor is free, proceed according to the instructions.

### Periodic

**RYDLYME cleaning will keep your liquid ring vacuum pump operating at peak efficiency!**