FURROW PUMP

Newsletter Volume 6

HELPFUL HINTS FOR TROUBLESHOOTING LMI PUMPS

(Or Things I Never Knew I Wanted to Know About a Metering Pump)

1. Read the instruction book! This sometimes painful advice isn't usually followed by us either, but unless you already know what you're doing around a chemical pump, the installation information given in the first pages is valuable.

2. Ninety percent of the time, half your problem is in the plumbing! If the pump isn't working properly, turn the upper (or speed) knob from the off (or external) position you normally have it in to work with the flowmeter to the 100 % position. Listen for the clicking sound of the solenoid -- if you hear that OK, count the blinks of the control panel light. If you get a count of 95-105 per minute, then better than 9 times out of 10 your problem is in the pump's liquid end. If you don't hear the click, or the blink rate is off, replace the pump with a back-up and send it back for examination and/or repair.

3. The most common problem seen with a metering pump is a loss of prime, which is also usually related to the plumbing. Check that the tubing is cut off squarely, and is short enough that the foot valve hangs straight (with the screen up off the bottom of the drum). Hold the tubing down firmly on the fittings while you tighten the coupling nuts. If there is any problem holding the prime, put a two foot chunk of ½" schedule 40 PVC pipe over the suction tubing (jam the foot valve coupling nut into the bottom of the pipe) – this forces the curved tubing to hang straight and keeps the ball on the seal ring, thus maintaining prime.

4. If you've isolated a problem to the pump's liquid end, and you're sure it's not a priming problem, look next for leaks from the slot behind the head (ruptured diaphragm), and then for chemical plugs in the injection check valve or the checks in the pump head.

5. Once you've checked all of the above, including the installation itself (customers have been known to change things around just to help), and have 10 or 15 minutes in to the pump – consider replacing it with a loaner and sending it back for a check-up. Your time is too valuable to get hung up for too long working on the equipment.

6. Even though these hints are aimed at preventative or problem-solving maintenance, the good news is that most of your installations will come off without a hitch. If you get the original start-up down smoothly, you'll save yourself a lot of call-backs. Finally, if a problem repeats itself, or if you can't find the right answers here, please don't hesitate to call us – we'd be glad to help.