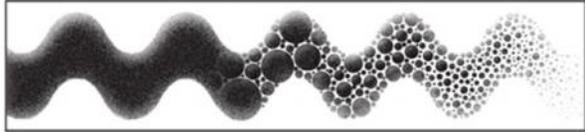


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INDUSTRIES

Care and Maintenance Manual



AccuStaltic[™] Peristaltic Pumps

Document Version 3



Care and Maintenance Manual for AccuStaltic Peristaltic Pumps (v3)

Your AccuStaltic™ pump is designed to excel in harsh environments with minimal maintenance. By following a few simple instructions, it will be easy to maintain the accuracy and maximize the service life of your pump.

Periodic Inspection and Maintenance

Regular visual inspection of the rotor and tubing is important. It takes only a couple minutes to loosen the clamp knobs and open the cover to perform this inspection. The inspection schedule may vary depending on environment but a weekly inspection schedule is recommended for frequent or continuous use. The occlusion rings, the inside surface of the cover, and the rotor should be wiped clean of dirt and debris. **Avoid pressure-washing**, as this will drive water into the seals and cause premature failure. Tubing should be inspected for signs of wear and damage; some chafing is normal. Re-lubricate tubing during inspections and replace tubes that have become excessively worn, chafed, or cracked.

Peristaltic tubing works best when lubricated and every pump is initially lubricated before it leaves our factory. For most commercially available tube types, silicone-based spray lubricants or greases are recommended. Apply liberally to the entire surface of the tubing, inside of the cover, and rollers. If you cannot use silicone due to process limitations, test petroleum or food-grade lubricants for compatibility before use, as they may chemically react with the tubes, causing excessive swelling that decreases the life of the tube and accuracy of the pump.

Operating the pump without lubricated tubes will not damage the pump, but will reduce tubing life and increase the amount of heat generated by the pump.

Breaking in New Hoses

General:

The pump may be used with any manufacturer's peristaltic pump tubing, so long as the hose wall thickness matches the wall thickness of the tubing the pump originally came with. If you want to use another wall thickness, the rotor will have to be replaced, which is a simple task. Contact Ledebuhr Industries to obtain the correct rotor for the job.

New tubing may draw fluid more aggressively than broken-in tubing, giving the pump a higher flow rate. For maximum precision, accuracy, and tubing life, break-in the new tubes if possible. For installing new tubing, see the instruction sheet for your manifold.

Break-in procedure:

If you haven't already done so, lubricate the outside surface of the newly installed tubes with a compatible lubricant. After tubing is installed, start with low pump RPM if possible. Install the cover and partially clamp it down, but do not clamp it completely tight. It will clatter a little in this mode. As the pump runs, slowly clamp the cover down and increase the pump speed over the course of a couple of minutes. Running the tubes for about 10 minutes before intended use allows them to take the shape, which will change little over the rest of the tube's useful life.

After this run, stop the pump, remove cover, and inspect for any signs indicating excess chafing or tubing twists. The tubing should have a slightly flattened appearance and should lay perpendicular to the pump rotor. Readjust tubing that has walked to the left or right until it does lay perpendicular.

If you cannot due this due to process limitations, your tubes will still be fine. However, at minimum you should inspect the tubing after the first hour of runtime and adjust as described above.

Storage:

For long periods of non-use, it is recommended to loosen the clamps on the pump cover. This relaxes the clamping pressures and helps maintain the performance and extend the life of your tubing. Remember to re-tighten the clamps before your next use!

Replacing the Rotor

The rotor on an AccuStaltic pump is not field-serviceable and must be replaced as a complete unit. Remove the hoses, the 4 bolts from either end, slide off the endplate, and take out the rotor. Oil the bearing and seals before putting the new rotor in.

Rebuilding the Endplates

If there is a need to rebuild the endplates, order the Bearing and Seal Kit from Ledebuhr Industries (part # CP5125-0004). Remove the endplates by removing the 4 bolts in each one. **Leave the occlusion rings attached by the 3 socket screws.** They are glued in place and sealed, and there is no reason to remove them. You do not have to remove the clamp arms unless the threads have been damaged and they need replacing.

Pry out the seals with a screw driver or pry bar, remove one of the retaining rings, and press or tap the bearing out of the cavity. Clean the cavity if necessary, press in the bearing, replace the retaining ring, and press in the new seals. If you do not have an arbor press, the seals can be pressed in by placing the seal over the cavity, placing the other endplate over the seal, and tapping on the endplate with a mallet. This will press the seal into the cavity, flatly and completely. Oil the bearings and seals before replacing the rotor.