

Customer Support - Operation Tips

Don't throttle the pump suction to reduce its delivery

This practice causes the pump to cavitate . Throttling the discharge is just as easy and is not harmful.

Don't run a pump dry

Liquid is necessary to lubricate and cool the internal clearances . A pump running dry will generally overheat and seize . This means - NEVER START A PUMP WITH THE SUCTION VALVE CLOSED.

Don't run a pump at excessively low flows

First, unless reduced capacity operation is normal for the service the pump design may be one which results in a high radial reaction and shaft failure . Second , the hydraulic design may be such that actual impeller failure will result . Third, part of the power consumed by the pump goes into heating the liquid and if insufficient flow is available , the pump will overheat and seize . As a rule of thumb, the minimum flow to protect against overheating is about 30 gallons per minute for every 100 horsepower at shut-off .

Make hourly observations

Watch for irregularities in performance . Investigate changes in the sound of a running pump immediately . Observe bearing temperatures and stuffing box operation hourly . Check pressure gauges and the flow indicator hourly to see whether pressure and flow correspond to normal operating conditions .

Don't stop leakage from stuffing box completely

Some leakage is necessary to provide lubrication and cooling of the packing .

Don't use excessive lubricant with anti-friction bearing

If using grease , the bearing , should be about one third packed with grease . If oil lubricated , the level should not exceed that marked on the oil gauge

If stuffing boxes need repacking , use new packing

Do not add one or two rings to the old packing . This may displace the seal-cage , if used , and plug the sealing liquid opening .

Semi-annual inspection

Check for free movement of stuffing box glands, clean and oil the gland bolts and nuts, and inspect the packing . Check the pump and driver alignment and correct it , if necessary . Drain and refill oil lubrication bearings . Check grease- lubricated bearings for suitable consistency and correct amount of grease .

Annual Inspection

Thoroughly inspect a pump annually . Remove bearings to clean and examine them for flaws . Remove the packing and examine the sleeves for wear . Disconnect the coupling and check alignment . Check and flush the drain , sealing water and cooling water pumping . Recalibrate all instructions and run full tests of pump performance