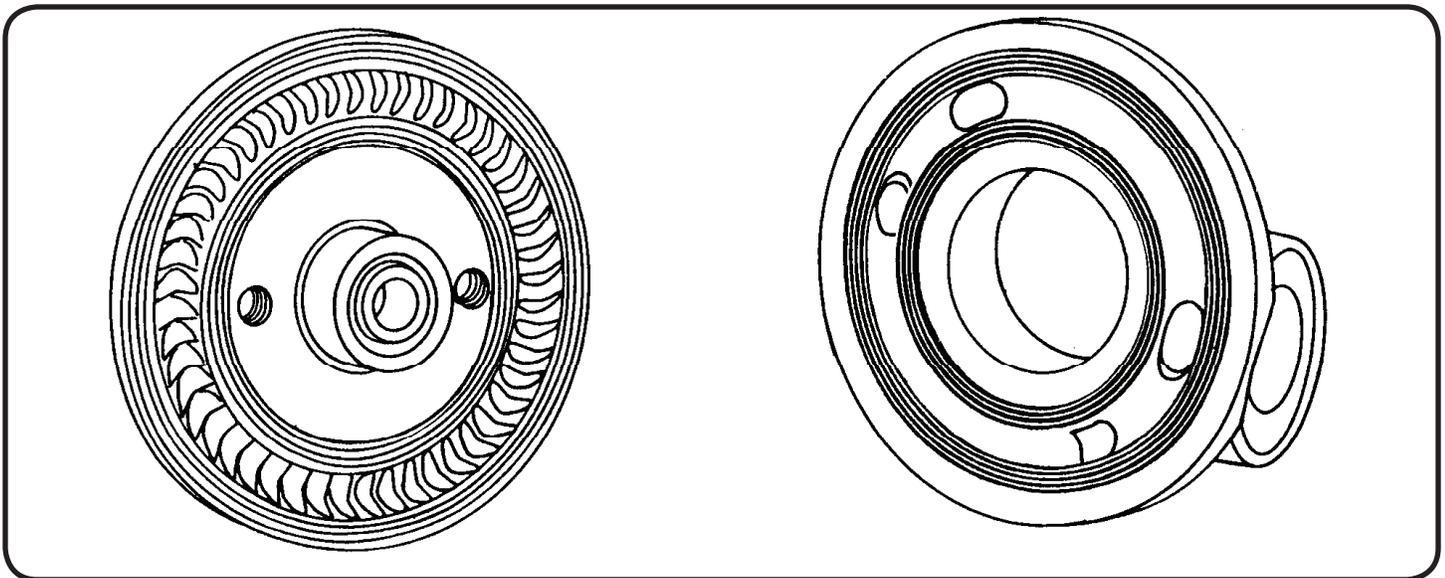


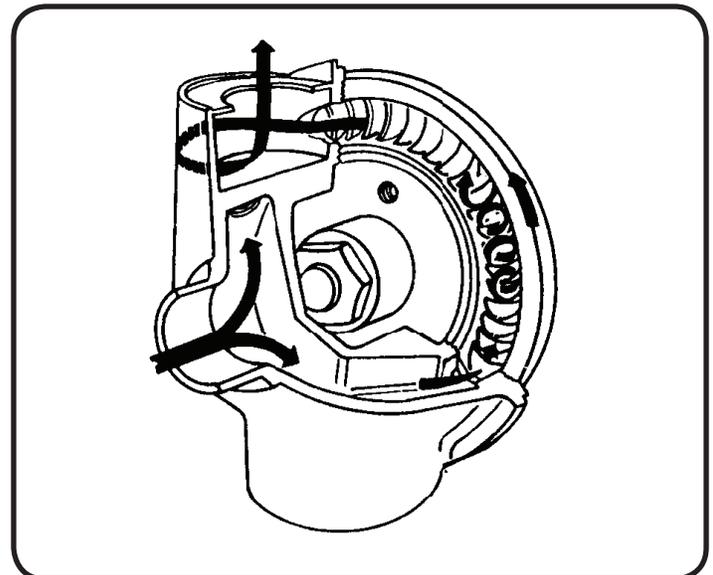
Close Coupled Regenerative Turbine

Burks Turbine Pumps

BURKS Turbine Pumps are unique in design, and different from all other regenerative turbine pumps. An integral part of their unique design is the Life-Lok® feature that provides a way to externally adjust the clearance between the impeller and raceway. BURKS is the only regenerative turbine pump that has this feature. This adjustment is used for precise setting of pump performance during production testing. Life-Lok® also makes the BURKS Turbine Pump field-adjustable. Because of the low flow/high head characteristics of the regenerative turbine, the pump pressure may be adjusted when necessary to match critical system requirements without appreciably changing the flow rate. Life-Lok® also allows pump performance to be restored to “like new” after years of service, greatly extending pump life.



Clearance between the impeller and raceway is pre-set at the factory on production test. The pump starts under virtually no load, the impeller takes up its load gradually as the motor comes up to speed. Water enters the pump through a suction port in the raceway and is directed to the rotating impeller by means of channels in the raceway. The water is picked up by the blades of the rotating impeller and is literally pushed in a spiraling motion through the raceway channel. Each impeller blade imparts additional energy to the water as it is propelled to the raceway cut-off. The energized fluid is then discharged through the raceway by means of a cut-off or water block which is built into the raceway. The discharge is directed into a built-in vortex pocket in the raceway which separates air from the fluid being pumped.



Impeller Adjustment Instructions

Turbine Pumps

burks[®]
www.cranepumps.com

Close Coupled Regenerative Turbine

CAUTION !

IMPROPER ADJUSTMENT OF A NEW BURKS TURBINE PUMP WILL INVALIDATE THE WARRANTY.

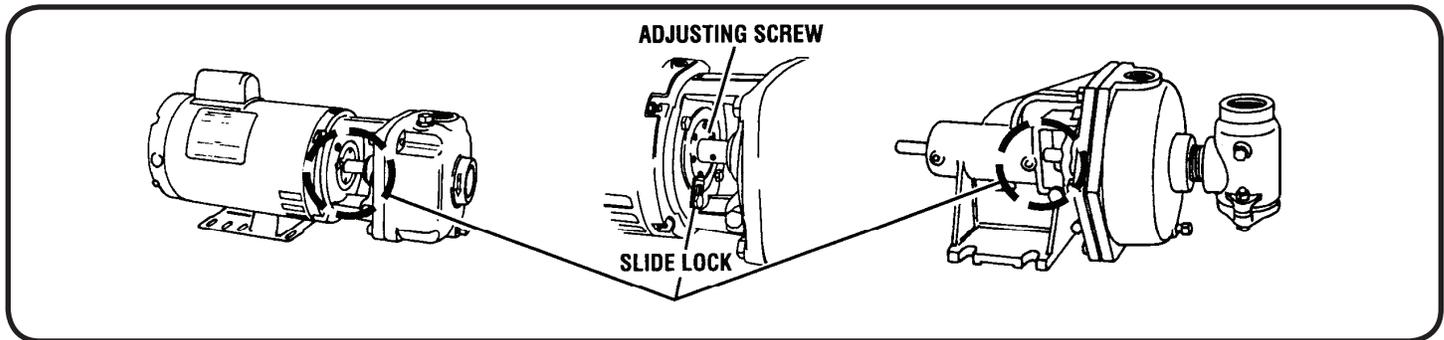
We are placing a wax over the adjusting screws on all turbine models (excluding the CR models). The wax on the CR model is placed in the socket head of the allen screw. This change has been placed to ensure that the adjustments are to factory settings when we ship them out. If these pumps are returned for a warranty claim, Crane Pumps & Systems will be able to tell if the adjustment has been tampered with. If the unit has been tampered with, the pump may not be covered under Crane Pumps & Systems warranty policy.

LIFE-LOK[®] External Impeller Adjustment is a patented feature found exclusively on BURKS Turbine Pumps. It allows for precise setting of pump performance during production testing.

Every BURKS Turbine Pump is factory tested for optimum performance, and the impeller position is locked in. Any further adjustment of a new pump is not required or recommended.

LIFE-LOK[®] may be used for field readjustment to match systems pressure requirements if necessary.

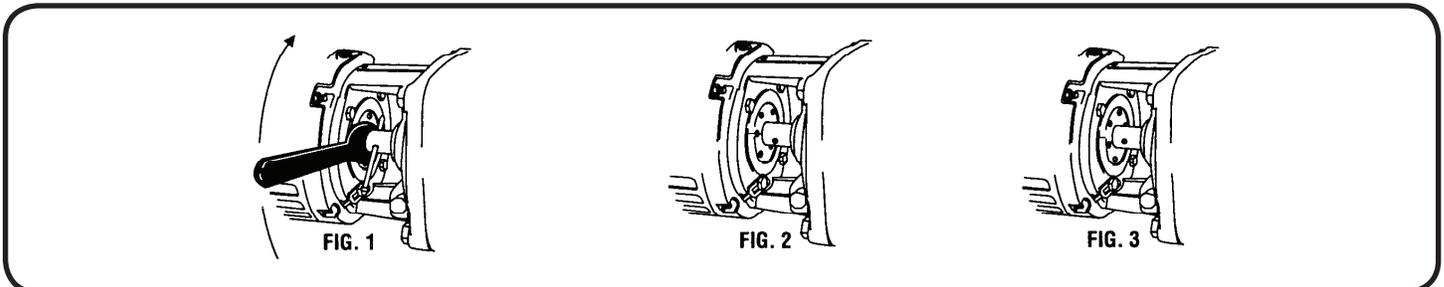
LIFE-LOK[®] also provides a means of restoring pump performance without disturbing piping, disassembling pump, or costly parts replacement.



TO ADJUST IMPELLER:

1. Disconnect electrical power. Adjustment should never be attempted while pump is running. Serious damage could occur.
2. Loosen slide lock and remove tab from hole in adjusting screw.
3. Turn the Adjusting Screw with a Spanner Wrench. (Do Not Use A Screwdriver, Punch or Other Tool.) At the same time, rotate the shaft back and forth with a common nail or other object placed through the hole provided for that purpose on close-coupled pumps. The shaft on base mounted pumps may be rotated by turning at the coupling end. (An Adjustable Spanner Wrench - Part No. 7492 - is available from BURKS.)
4. Rotate Adjusting Screw in a clockwise direction (Fig. 1). A drag will be felt as the impeller comes into contact with the raceway. At this point, make a mark on the pump frame and adjusting screw, across one of the spanner wrench holes (Fig. 2).
5. Rotate Adjusting Screw in the opposite direction (counter-clockwise) to back the impeller off and provide clearance between it and the raceway. The proper clearance may be obtained by moving the adjusting screw approximately one half the distance between two of the spanner wrench holes as indicated by the reference marks made in Step 4 (Fig. 3).
6. Lock the Adjusting Screw in place. Insert the tab of the Slide Lock in the nearest spanner wrench hole and tighten the lock screw.
7. Re-connect electrical power and start pump.

If pump seems to labor unduly when coming up to pressure, a slight additional adjustment to increase the clearance between the impeller and raceway will be necessary. Do not allow pump to operate with insufficient clearance between those two parts. If adjustment does not restore desired performance, replacement of the impeller and raceway may be necessary. These are matching parts and must be replaced as a set. Repair kits are available for BURKS Turbine Pumps.



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CRANE[®]

A Crane Co. Company

PUMPS & SYSTEMS

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