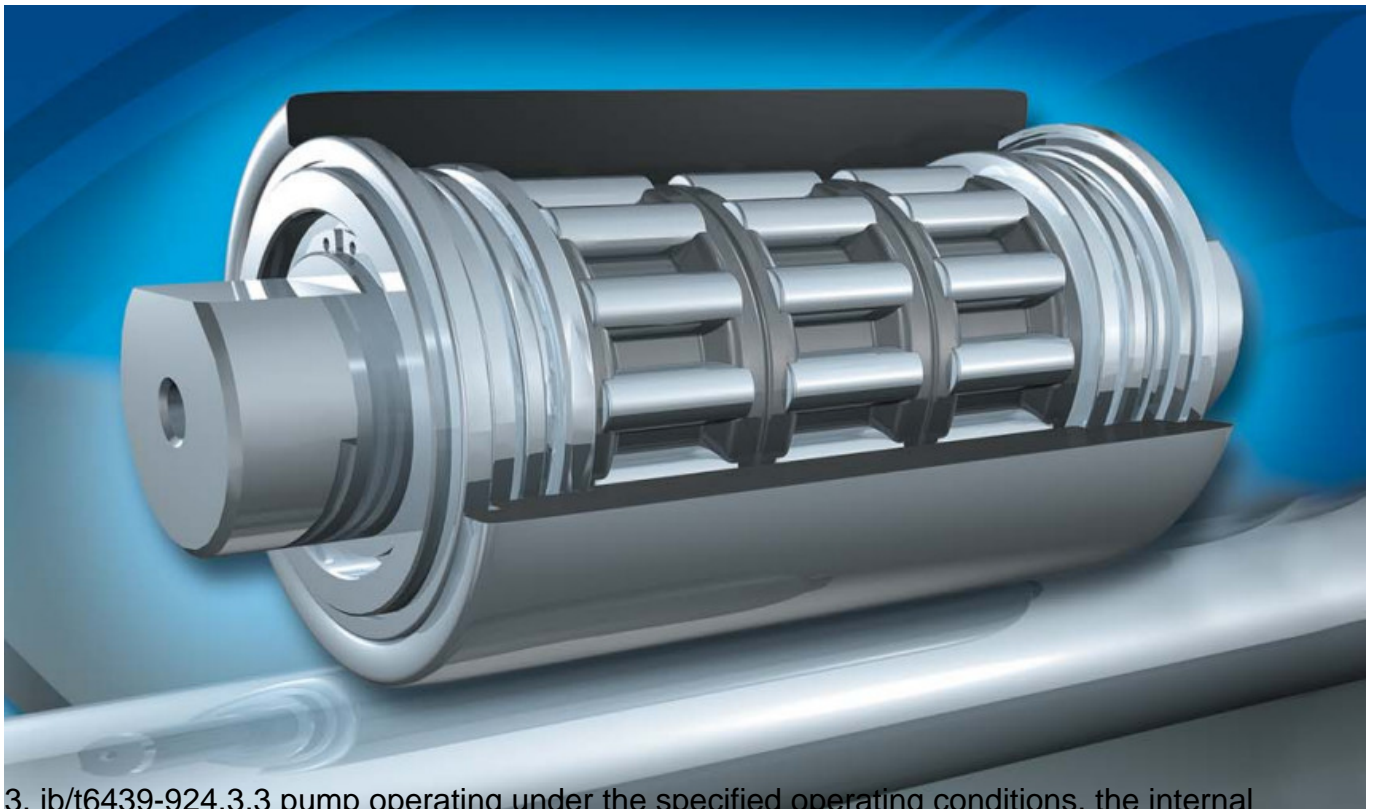


# Bearing temperature standards for motors and pumps

## First, bearing temperature standard-pump bearing temperature standard

1, gb3215-824.4.1 pump working period, the maximum bearing temperature does not exceed 80 ?.

2, jb/t5294-913.2.9.2 bearing temperature rise must not exceed the ambient temperature of 40, the maximum temperature must not exceed 80 ?.



3, jb/t6439-924.3.3 pump operating under the specified operating conditions, the internal surface temperature of the inner bearing should not be higher than the transmission medium temperature of 20 ?, the maximum temperature is not higher than 80 ?. The temperature rise of the outer surface of the outer bearing should not be 40 ? at a high ambient temperature. The maximum temperature is not higher than 80 ?.

4, the use of jb/t7255-945.15.3 bearing temperature. Bearing temperature rise must not exceed the ambient temperature of 35 ?, the maximum temperature must not exceed 75 ?.

5, jb/t7743-957.16.4 bearing temperature rise must not exceed the ambient temperature of 40 ?, the maximum temperature must not exceed 80 ?.

6, jb/t8644-19974.14 bearing temperature rise must not exceed the ambient temperature of 35 ?, the maximum temperature must not exceed 80 ?.

## **Second, the motor bearing temperature regulation, the cause of abnormal occurrence**

## **and treatment**

The procedures stipulate that the maximum temperature of the rolling bearing does not exceed 95 ° and that the maximum temperature of the sliding bearings does not exceed 80 °. And the temperature rise does not exceed 55 ° (temperature rise for the bearing temperature minus the ambient temperature at the time of testing):

**(1) Reason: shaft bending, Central line is not allowed. To deal with; re-find the center.**

**(2) Cause: The base screw is loose. Treatment: Tighten the base screws.**

**(3) Reason: [Lubricating oil is not clean.](#) Treatment: [Replace the lubricant.](#)**

**(4) Reason: Lubricating oil use time is too long, not replaced. Treatment: Wash the bearings and replace the lubricating oil.**

**(5) Cause: the ball or roller in the bearing is damaged.**

Treatment: Replacement of new bearings. According to the national standard, F grade insulation B grade assessment, motor temperature rise control in 80K (Resistance method), 90K (component method). Given the ambient temperature of 40 °, the maximum operating temperature of the motor cannot exceed 120/130 °. Bearing temperature is allowed up to 95 degrees. Using infrared detection gun to measure the temperature of the bearing outdoor surface, experience, 4 pole motor maximum point temperature can not exceed 70 °. For motor body, do not monitor. After the manufacture of the motor, in general, his temperature rise is basically fixed, will not change with the motor operation or continue to grow. And bearings are wearing parts that need to be tested.