Failure causes and solutions

Fault	Cause and solution code
Insufficient pump delivery flow	1.2.3.4.5.6.7.8.9.10.11.17.27
Motor overload	12.13.14.15.22.26.27
Pump outlet pressure is too high	15
Bearing temperature is too high	21.22.23.24.25
Pump leaks	28
Pump leaks too much	16.17.18.19.20.21.22
Shaft seal operation is unstable	3.6.11.12.21.22.29.30
The temperature inside the pump is too high	3.6

Causes and solutions:

(1) The pump outlet pressure is too high.

---Open the outlet valve until the operating point is reached.

(2) The system pressure is higher than the discharge pressure.

---Check whether the motor speed reaches the required speed.

(3) The gas in the pump and pipeline is not completely discharged, and there is insufficient water filling in the pump.

---One pump and system fully primed and vented.

(4) The inlet pipeline or impeller is blocked.

---Clear the blockage in the pipeline or pump.

(5) Bubbles form in the pipeline.

---1.Change the pipeline layout.

---2 .If necessary, vent valve.

(6) The effective NPSH is too low (when there is a perfusion head device).

---1.Check the liquid level in the inlet container.

---2.Completely open the inner gate of the inlet pipe

---3.If the friction loss in the inlet pipeline is too large, the inlet pipeline needs to be changed.

---4.Check the inlet pipeline filter.

(7) The suction lift is too high.

---1.Clean the inlet filter and inlet pipeline.

---2.Check the water level in the inlet pool.

---3.Change the suction line.

(8) The passage of air.

---1.Sealing liquid into the stuffing box is blocked. Eliminate the blockage or increase the sealing fluid pressure.

---2.Newly installed sealing or compression packing

(9) Reverse steering

--- Change the direction of the motor.

(10) The speed is too low -

---Increase the speed.

(11) There is too much internal wear in the pump.

---Replace worn parts

(12) The pump system pressure is lower than the data stated when ordering.

---1.Adjust the stop valve on the discharge pipeline to the working point.

---2.in the long run under load conditions, the impeller diameter can be adjusted if necessary.

(13) The specific gravity or viscosity of the transported liquid exceeds the contract specifications.

---1.Please consult with the manufacturer

(14)The packing gland is pressed too tightly or tilted.

---1. Adjust the packing gland as required.

(15) The rotation speed is too high.

---1.Reduce the speed.

(16) Shaft seal wear.

---1.Check the shaft seal and replace it if necessary.

(17) The surface of the shaft sleeve is rough, with grooves or scratches.

---1.Replace the shaft sleeve with a new one.

(18) There is insufficient coolant or the cooling cavity is clogged.

---1.Increase the coolant flow rate.

---2.Clean the cooling cavity.

---3.Inject clean coolant

(19) The packing gland, end cover or gasket is not pressed tightly, and the wrong packing is selected.

---1. Correct the fault.

---2.Choose appropriate fillers.

(20) The pump operates unstable.

---1. Improve the suction working conditions.

---2. Check the calibration of the water pump device and recalibrate it if necessary.

---3.Redo the pump rotation sub-balance.

---4.Increase the suction pressure at the pump suction port.

(21) The pump device is not in a straight line.
---1.Check the coupling calibration and re-align the pump device if necessary.

(22) The pump pipeline is bent.
---Check the connecting pipes and pump assembly bolts.

(23) The axial force is too large.
---Install a new impeller or pump body sealing ring.

(24) Too much or too little lubricating oil.
---Increase or decrease lubricant.

(25) The coupling clearance is not adjusted as required.
---Adjust the coupling clearance to make it consistent with the assembly drawing.

(26) The working voltage is too low.
---Once adjusted to normal voltage.

(27) The motor only runs when two phases are connected.
---1. Replace the burned out fuse.
---2.Check the wire connections.

(28) The connecting bolts are loose.
---1.Tighten the screws.
---2. Install new gaskets.

(29) The pump rotor is unbalanced.
---1.Clean the rotor.
---2.Redo the rotor balance.

(30) Bearing failure.
---A new bearing