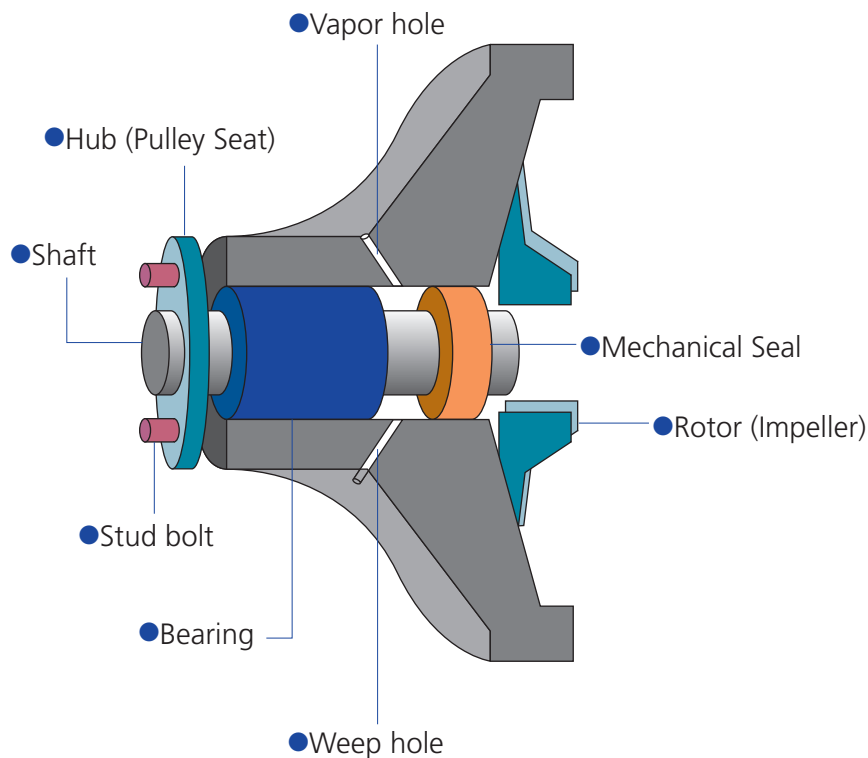


2 Structure and Components



The structure of the water pump is comprised of the following components: pulley hub, body, shaft, bearing, mechanical seal and rotor (impeller). The shaft is mounted onto a bearing which is pressed into the water pump body. On one end of the shaft, a pulley hub is attached, while the other end is a rotor (impeller). The pulley hub transfers energy from the fan or timing belt into a rotation, spinning the shaft, therefore spinning the rotor. The rotor then circulates the coolant. A mechanical seal is installed to prevent leakage of coolant into the bearing and also supports the shaft for smooth rotation.



The body of the water pump is equipped with a vapor hole and a weep hole. The vapor hole relieves excess gas pressure seeping through the mechanical seal. The weep hole bleeds off excess coolant seeping through the mechanical seal. Both holes function as a safety to protect the shaft and the bearing from contamination.