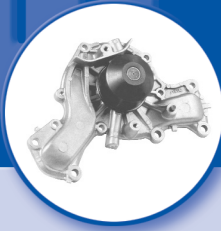


CARDONE ProTech

Supporting Today's Professional Technician



How to Determine Water Pump Rotation

Application: All vane type water pumps.

Problem: How to determine pump rotation by impeller design.

Solution: Impellers must turn in a direction so that the fluid is pushed (not scooped) through the pump (see sample drawing below). Exceptions are pumps with straight vane impellers (vaness perpendicular to the shaft) and shrouded impellers. Straight vane impellers function in either direction. Shrouded impellers turn so they scoop the fluid.



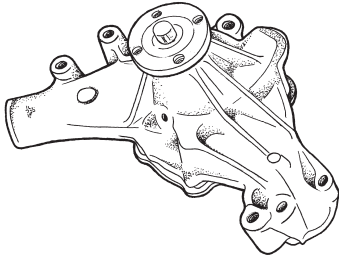
Vane Rotation

Note: The examples show the impeller side of the pump, the rotation on the hub side is opposite.

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Water Pumps

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- Smog Air Pumps
- Vacuum Pumps
- Water Pumps

Bearings - Because CARDONE insists on high quality and reliability in every part, our use of bearings is dependent upon the type of application.

Ball/Ball bearings are used mainly on passenger cars and light duty truck applications. Ball/Roller bearings are used mainly on high torque applications, because they are more durable. This is because the roller takes up more surface area on the shaft.

CARDONE recognizes that high torque applications require Ball/Roller bearings. Therefore, when required, CARDONE will replace Ball/Roller bearings with Ball/Roller and **not substitute** a Ball/Ball bearing like some competitors. In various instances, a water pump with an OEM supplied Ball/Ball bearing is **upgraded** to a Ball/Roller bearing in order to better meet the application requirements.



Ball/Roller

Ball/Ball

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