

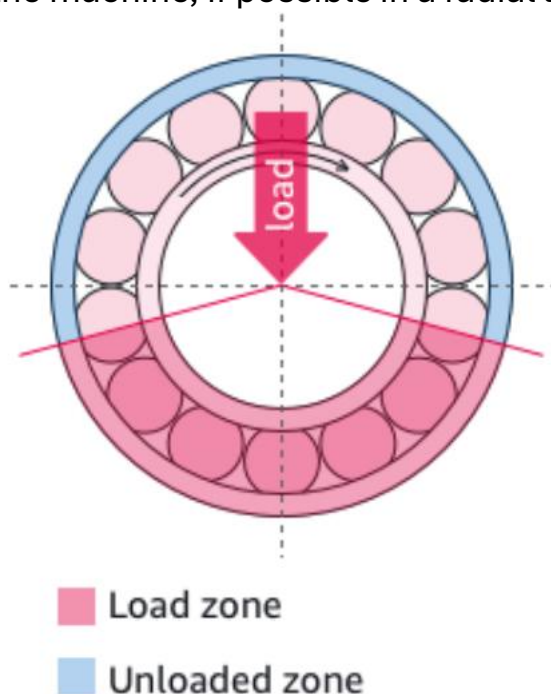
Mounting position on machine

To detect abnormalities in machine components, mount sensors in all locations where temperature and vibrations can be measured effectively.

To achieve the greatest accuracy:

- Mount the sensor directly onto the housing of the target component.
- Minimize the length of the vibration transmission path, the distance between the source of vibration and sensor.
- Avoid mounting the sensor in a location that can oscillate due to natural frequencies, such as sheetmetal covers.

Ideally the sensors should be mounted in the vicinity of the bearing arrangements of the machine, if possible in a radial layout (in the load zone).

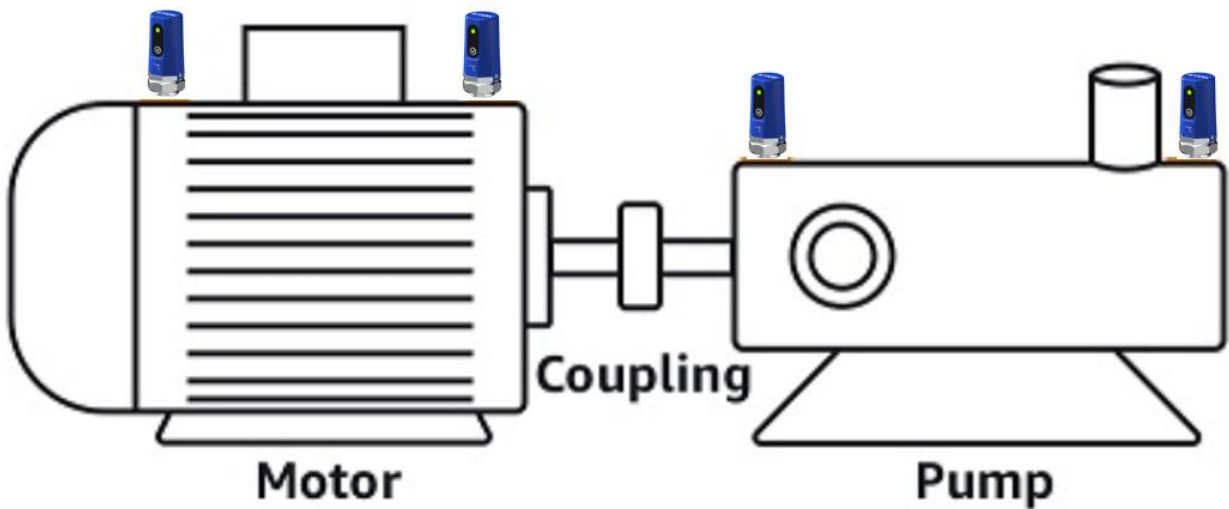


Different types of loads on the bearings result in different load zones. Placing the sensor as close as possible to the center of the load zone is most likely to provide the best data.

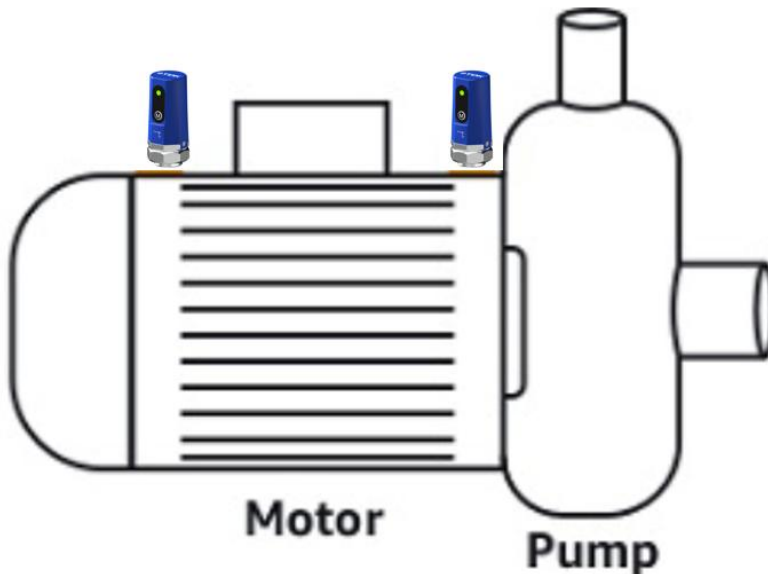
The precise mounting location is not too critical; a sensor can still be located effectively at some distance from the ideal position. If the bearing area of a motor is not accessible, the sensor can alternatively be fixed to a suitable flat area on the motor housing or even at the base of the motor. The sensor should not be shielded on several sides by metal parts.

For complex equipment with multiple moving parts (such as gearboxes), position the sensor to minimize the length of the transmission path from the primary vibration source. Note that vibration is reduced when it is transmitted between adjacent parts of equipment, so the shortest distance between the sensor and the source of vibration is not always the best option.

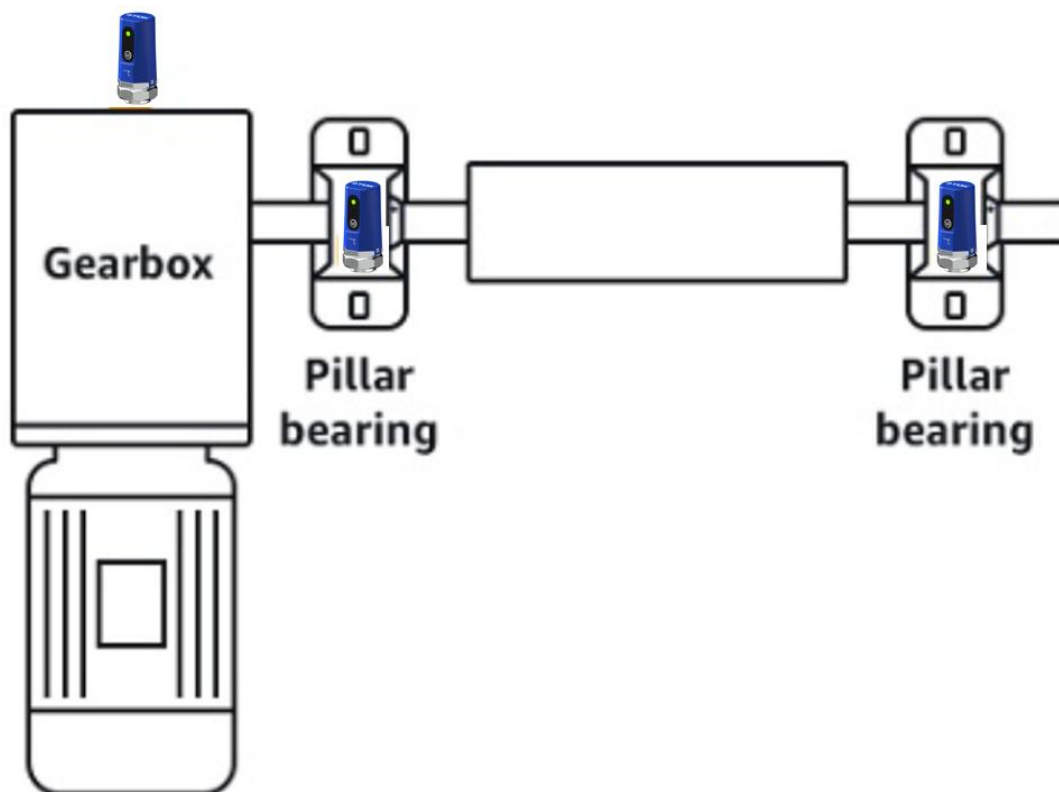
The following example of mounting position on an electric motor pump:



The following example shows where you might mount sensors if your primary concern is the motor rather than the pump.



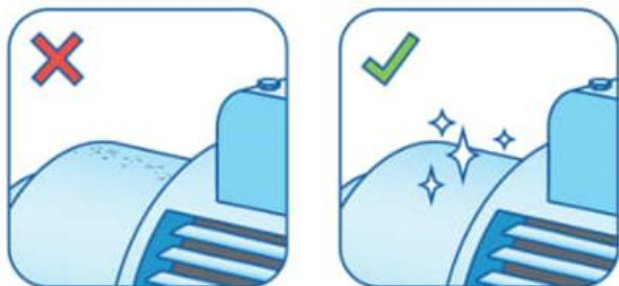
Gearboxes and bearings are also examples of common locations where you might want to place sensors.



In the case of machines that are significantly larger than 0.5 m, it is recommended to use at least two sensors to be able to readily identify potential damage. The same applies if two machine components are separated by a coupling, as in this case the vibrations cannot be transmitted adequately via the coupling.

Installation on the machine

Remove all oil and grease from the position on the asset where you want to mount the sensor.



Use a high-quality epoxy (we recommend the 5 Minute Epoxy available at most construction hardware stores)



CAUTION: Review and Obey all manufacturer's instructions and safety precautions when using glue/epoxy.

If the surface that you're mounting the sensor to is flat and relatively smooth, apply a thin layer of adhesive such as Loctite 330 to the bottom of the sensor, maximizing the area that will be in contact with the machine.



CAUTION: Review and Obey all manufacturer's instructions and safety precautions when using glue.

After applying the adhesive, position the sensor and press it against the surface, press firmly for 60seconds until the adhesive has cured.



Maintenance

1. Screw down the node from the bottom nut

2. Removing the Glued Base :

Use a hammer to gently strike the side of the base. Start with light strokes and gradually increase the force until the base loosens. Take precautions not to throw the base towards surrounding people, equipment or processes during removal, especially on assets with aluminum or stainless-steel housings. If the asset is being replaced by a spare one, and this may happen regularly, request extra bases. This will speed up the maintenance process, keeping the same bases glued to all monitored assets.

Battery Replacement

- Remove the 2 screws from the sensor's cover
- With the cover open, remove the existing battery from the holder and disconnect it from the board
- Connect the new battery to the board and secure it to the holder.
- Close the cover and bolt down the screws.

