

Base-mounted HVAC pump annual maintenance checklist

The annual base-mounted pump service is the deep pass: the measurements, cleanings and tests a quarterly round doesn't reach. This checklist keeps the full service on record with the photos that make it defensible later. Work is commonly verified against manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The mechanical service crew on the annual, with the pump locked out for the alignment and bearing work. When: Once a year during a system shoulder period, when the pump can be locked out long enough to break the coupling and check alignment cold and hot.

Alignment and coupling

- ☐ **Coupling alignment checked and corrected**
Coupling broken and shaft alignment measured, angular and parallel offset brought within the manufacturer's tolerance, soft foot checked and shimmed. 2 photos required
- ☐ **Coupling element and shaft condition inspected**
Coupling insert or spider inspected for wear and cracking, shaft and keyway sound, no fretting at the hubs. 1 photo required

Bearings and seal

- ☐ **Bearings lubricated or replaced per the schedule**
Bearings greased to the correct type and quantity or replaced at interval, no over-packing, end play and runout within limits. 1 photo required
- ☐ **Seal condition assessed and seal water verified**
Mechanical seal inspected or planned for replacement based on run hours and leakage, seal flush or gland water flowing where fitted. 1 photo required

Base, vibration and VFD

- ☐ **Base, grout and anchor bolts inspected**
Grout under the base sound and uncracked, anchor bolts tight, vibration isolators or inertia base in good condition and not bottomed out. 2 photos required
- ☐ **Vibration checked and VFD interface verified**
Overall vibration checked with the pump at operating speed, no excessive level pointing at imbalance or misalignment, VFD in auto with speed following the control signal and no leftover hand or bypass override. 1 photo required