READY TO INSPECT — FIELD CHECKLIST

Domestic water booster pump annual maintenance checklist

The annual booster pump set 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 IPC / UPC plumbing codes, manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The plumbing service tech on the annual service, with the set staged down so pressures and pre-charge can be measured cold. When: Once a year, the pass where the tank is isolated and gauged and the controller's staging and run-hour balance are actually verified rather than assumed.

Notice, as-found and protection

- [ ] Owner and occupants told before the set is taken down
  Owner told when upper floors lose boosted pressure, occupants of the boosted floors told through the owner, and work timed away from peak draw so no one is caught mid-shower.
  No photo required
- [ ] As-found setpoint and suction and discharge readings logged
  Controller setpoint and live suction and discharge pressures photographed on arrival, before anything is adjusted, so the service has a true starting point.
  1 photo required
- [ ] Transducers compared with a calibrated test gauge
  Suction and discharge transducers checked against a calibrated test gauge at the same tap, rescaled or replaced if the controller is off by more than the manufacturer allows.
  1 photo required
- [ ] Low-suction cutout tripped and reset under test
  Suction valve throttled slowly or the switch tested at its port as the manufacturer describes; pumps stop at the design cutout, alarm, and restart on recovery.
  1 photo required

Tank and pre-charge

- [ ] Tank isolated and pre-charge measured to setpoint
  Tank drained of water pressure and the air pre-charge read and set relative to the pump cut-in per the published instructions, bladder proven intact with no water at the air valve.
  No photo required
- [ ] Small draw carried by the tank after the pre-charge reset
  Tank back in service and a single fixture opened and closed, the set cutting in no sooner than its design pressure and not cycling repeatedly on the draw.
  1 photo required

Pumps and controls

- [ ] Each pump run and current read against nameplate
  Every pump in the set brought up individually, amp draw read against its nameplate, no unusual noise, vibration or hot bearing.
  1 photo required
- [ ] Full lead-lag staging exercised through the range
  Controller driven across its demand range so every pump stages in and out in sequence and the transducers agree with the gauges under load.
  2 photos required
- [ ] Run hours reviewed and alternation confirmed
  Logged run hours reasonably balanced across the pumps, alternation enabled so wear spreads instead of falling on one pump.
  1 photo required

- [ ] Drive parameters and fault log noted where drives fitted
  On a drive-fed set, speed limits, ramp settings and fault history noted in the record against last year; drive service itself is done on the VFD checklist.
  No photo required

- [ ] Set locked out and each pump valved off before opening
  Pump disconnects opened, locked and tagged under the site's procedure and proven dead, suction and discharge valves closed and tagged before any check valve is opened.
  1 photo required

- [ ] Pump check valves inspected with the set isolated
  Each discharge check valve opened or tested as the manufacturer describes, seat and spring clean, no scale or debris holding it cracked open.
  1 photo required

Return to service

- [ ] Isolation valves stroked, reopened and pumps vented
  Each isolation valve stroked through full travel and reopened slowly, pump casings vented of air as the manufacturer describes, and opened joints dry.
  1 photo required

- [ ] Locks cleared and set restarted in automatic
  Locks and tags removed by whoever hung them, each selector back in auto, and the set brought up to setpoint with no alarm standing on the display.
  1 photo required

- [ ] Annual readings filed as next year's baseline
  As-found and as-left setpoints, cutout pressure, pre-charge, amps and run hours recorded against the set so next year's service reads against them.
  No photo required