

API 610 Centrifugal Pump Inspection Checklist

Equipment: _____

Inspection Date: _____

Standard: API 610

Inspector: _____

SECTION 1: EXTERNAL INSPECTION

Structural & Alignment

- Pump foundation is secure, no cracks or movement
- Coupling alignment within tolerance (dial indicator +/-0.001 in)
- Flexible coupling shows no cracks or decay
- Pump casing shows no external corrosion or pitting
- Fasteners (bolts, studs) are tight and not corroded

Shaft & Bearings

- Shaft runout acceptable (visual inspection, no visible wobble)
- Bearing housing temperature normal (hand-test: warm but not hot)
- No oil leakage from bearing seals
- Bearing lubrication level correct (if oil-lubricated)

Seals & Packings

- Mechanical seal shows no weeping or spray (allowable: less than 20 drops/min)
- Packing gland shows controlled drip (allowable: 10-60 drops/min)
- No salt deposits or mineral buildup at seal faces
- Seal support piping (if external) shows no leaks

SECTION 2: OPERATIONAL PERFORMANCE

Flow & Pressure

- Discharge pressure within design range: _____ PSI
- Inlet gauge reads positive (NPSH available): _____ PSI
- Flow rate within tolerance: _____ GPM
- No cavitation noise (listen for popcorn/gravel sound)