ALQAQNOOS

For Ships & Boats Maintenance Services

القفنوس

لخدمات صيانه السفن والقوارب

Shaft & Coupling Laser Alignment Services

Precision Alignment • Reduced Vibration • Maximum Equipment Reliability

ALQAQNOOS Engineering provides professional Laser Shaft & Coupling Alignment Services for marine, offshore, power generation, oil & gas, and industrial rotating machinery. Using high-precision laser alignment technology, we ensure that connected rotating machines operate with their shaft centerlines perfectly collinear under real operating conditions.

While the laser instruments and diagnostic technology are supported by approved technology partners, **ALQAQNOOS** performs all on-site inspection, alignment correction, reporting, and final certification.

1. What is Laser Shaft Alignment?

Laser shaft alignment is the precision process of positioning two or more rotating machines—such as a motor and pump, gearbox and propeller shaft, turbine and generator—so that their axes of rotation are aligned on the same centerline during operation.

Misalignment is one of the primary causes of machinery failure, excessive vibration, bearing damage, coupling breakdown, seal leakage, overheating, and unnecessary power loss.

2. What We Detect During Alignment Surveys

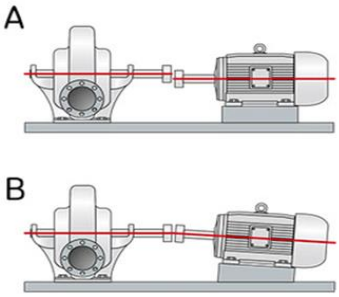
Our laser alignment inspection identifies:

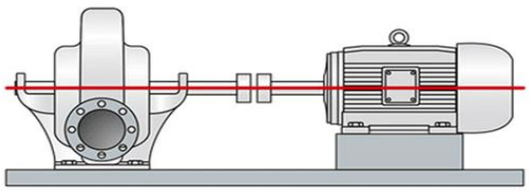
- Shaft and foundation bolt vibration
- Excessive heat build-up at couplings and bearings
- Premature bearing wear
- Seal damage and lubricant leakage
- Metal fatigue in shafts, couplings, and base frames
- Increased power consumption (up to 20% on misaligned equipment)

3. Types of Misalignments We Measure

With laser alignment tools,
we accurately measure and correct:

A. Parallel (Offset) Misalignment
B. Angular Misalignment
C. Combination Misalignment





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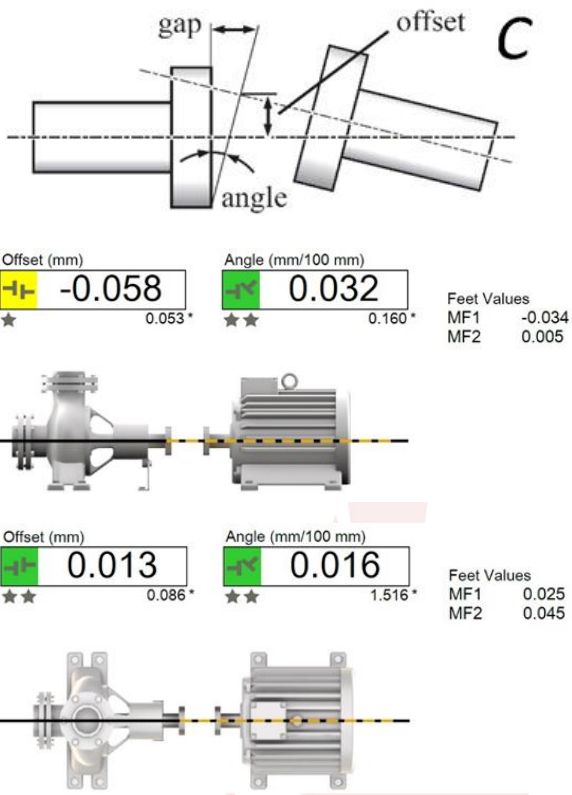

4. What Laser Alignment Helps You Achieve

- Extended bearing life
- Reduced stress on couplings (lower overheating and breakage risk)
- Reduced seal wear & oil leakage
- Lower friction & reduced energy consumption
- Reduced noise & vibration levels
- Higher machine availability & productivity
- Lower spare parts consumption
- Reduced unplanned downtime and maintenance cost

5. Our Laser Alignment Methodology

- 9-12-3 alignment measurement method
- Automatic data capture when laser heads reach measurement position
- Live alignment view during correction
- Vertical & horizontal plane correction guidance
- Machine foot correction values in real time
- Automatic tolerance evaluation to standards

6. Alignment Reporting & Documentation

- Automatic digital alignment report
- Before & after alignment condition
- Final alignment tolerance compliance
- Correction values & shim details
- Machine identification and customer references
- Custom PDF reports for audits & technical files

7. Workshop & On-Site Alignment Capability

- On-board alignment for vessels
- Offshore platform alignment
- Power plant and industrial alignment
- Emergency laser alignment attendance
- Planned shutdown and dry dock alignment projects

8. Your Partner for Precision Machinery Alignment

- ✅ Laser Alignment Field Service Provider
- ✅ Mechanical Reliability Partner
- ✅ Marine & Industrial Rotating Equipment Specialist