

# Advanced Alignment Training

(3 Days)

1. Shaft Alignment Definition
2. Why do we perform shaft alignment?
  - 2.1. Improve efficiency
  - 2.2. Reduce wear
  - 2.3. Increase uptime-Reliability
3. Shaft alignment methods
  - 3.1. Straight edge
  - 3.2. Dial indicator
  - 3.3. Laser alignment
4. Preparation for alignment
  - 4.1. Necessary tools.
  - 4.2. Safety aspects.
  - 4.3. Determine tolerances
  - 4.4. Determine Targets/Thermal Growth
5. Understanding alignment.
  - 5.1. Alignment terminology
  - 5.2. Visualizing the geometry
  - 5.3. Introduction of Alignment Checklist
  - 5.4. Soft Foot Correction
  - 5.5. Final Alignment
  - 5.6. Correct Tightening Procedure
  - 5.7. Saving the Alignment Job
6. Issues that make alignment challenging.
  - 6.1. Repeatability
  - 6.2. Pipe Strain
  - 6.3. Base issues
  - 6.4. Ambient vibration
  - 6.5. Sunlight
  - 6.6. Soft Foot Nightmares
7. Additional Features
  - 7.1. Thermal Growth and Targets
  - 7.2. Measurement Modes
  - 7.3. Static Feet-Optimal Move
  - 7.4. Types of Couplings
  - 7.5. Vertical Alignment
  - 7.6. Machine Train-Optimal Move
    - 7.6.1. Cooling Towers & Other Long Spacers
    - 7.6.2. Simultaneous Multi-Coupling
8. Reporting
  9. Special Applications-Upon Request by Customer

