



Pump & Heat Exchanger Maintenance

This three-day course begins with a review of the cooling system components and operation. Various types of centrifugal and positive displacement pumps and their design characteristics are described. Fans, gearbox, couplings, and maintenance of these components complete the course.

I. Cooling System

- A. System Overview
- B. Component Description

II. Pumps

- A. Centrifugal Pumps
- B. Design Aspects
- C. Pump Laws
- D. Positive Displacement Pumps
- E. Pump Performance Comparisons
- F. Pump Characteristic Curves

III. Motors

- A. Electrical
- B. Hydraulic

IV. Fans

- A. Classification
- B. Operation
- C. Terminology
- D. Characteristic Curve
- E. Performance Testing

V. Gearbox/Coupling

- A. Gearbox Operation
- B. Coupling Alignment

VI. Maintenance

- A. Pumps
- B. Motors
- C. Fans
- D. Heat Exchanger