PetroSkills

Gas and Steam Turbines

MODULE

About the Skill Module

This skill module describes the basic types of gas and steam turbine engines used as prime movers / drivers in oil and gas applications and explains their key components, sizing, standards and specifications, and control systems.

Target Audience

Facilities Engineers, Process Engineers, Senior Operations Personnel, Field Supervisors, Engineers who select, design, install, evaluate or operate gas processing plants and related facilities

You Will Learn

Participants will learn how to:

- Describe how a gas turbine works
- Identify the types of gas turbines, major components, and common applications
- Describe the main factors that affect gas turbine performance
- List the options for heat recovery from gas turbines
- Explain the differences in the design and application of heat recovery from gas turbines
- Describe inlet air filtration systems and air-cooling options
- List common fuel gas specifications for natural gas
- List common pollutants in exhaust emissions and describe their mitigation methods
- Describe gas turbine control systems
- List common steam turbine applications as prime movers in oil and gas facilities
- Describe the types of steam turbines used, key mechanical components, and auxiliary systems
- List applicable company standards and industry codes for steam turbine driven equipment
- Describe types of rotors used and differences in their performance
- Describe the relationship between power output, steam inlet, and exhaust conditions and how this impacts facility design and operation
- Describe common steam turbine control strategies
- List typical steam turbine damage mechanisms and maintenance and repair techniques
- Outline the key steps in supplier selection and materials sourcing
- Describe procedures for over-speed testing

Product Details

Categories: Midstream

Disciplines: Mechanical Engineering

Levels: Basic

Product Type: Individual Skill Module

Format: On-Demand

Duration: 5 hours (approx.)

$395.00