



Mechanical Engineering

Multistage-Flash (MSF) Unit Startup and Shutdown

Course Introduction

This intensive course offers a practical understanding of the Multistage Flash (MSF) desalination process, focusing on the critical startup and shutdown procedures. Participants will gain insights into operating and maintaining MSF units, optimizing performance, and troubleshooting common challenges in desalination plants.

Target Audience

This course is suitable for engineers, operators, maintenance personnel, and water utility employees involved in MSF unit operations and management. It also benefits corrosion engineers and chemists.

Learning Objectives

- Understand the fundamental principles of MSF technology.
- Execute the startup and shutdown procedures for MSF units effectively.
- Troubleshoot common operational challenges in MSF systems.
- Optimize plant performance through effective management practices.

Course Outline

• 01 DAY ONE

Introduction to MSF Technology and Startup Procedures

Introduction to MSF Desalination

- Overview of desalination technologies and MSF's role in the industry.
 - Principles of the MSF process: Heating, flashing, and condensation.
 - Importance of performance ratio and brine recirculation.
- 02 DAY TWO

MSF Unit Design and Operation

- Key components of MSF plants: Brine heater, flash stages, and condensers.
 - Overview of steam supply management from associated power plants.
- 03 DAY THREE

Startup Procedures for MSF Units

- Safety protocols and pre-startup inspections.
- Step-by-step startup process for MSF units.
- Practical exercise: Simulating the startup process.

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
April 7, 2025	April 9, 2025	3 days	3250.00 \$	KSA - Riyadh
Sept. 8, 2025	Sept. 10, 2025	3 days	3250.00 \$	UAE - Dubai
Dec. 1, 2025	Dec. 3, 2025	3 days	3950.00 \$	Austria - Vienna