Course goal
The goal of the course is to familiarize the participants with ABB diesel electric Azipod® propulsion basic features including remote control system, power plant and distribution to Azipod® units.

Learning objectives
Upon completion of this course the participant will be able to
- understand and effectively utilize the technical capabilities of the propulsion system
- communicate in a clear and concise manner the technical and operational features of the system
- understand the operational envelope and limitations of the system

Contents
- Diesel electric Azipod® propulsion system main components and their functions
- Power generation, distribution and consumers
- Azipod® propulsion system terminology
- Frequency converter propulsion with power plant overview
- Azipod® units technical overview
  - Azipod® unit user recommendations
  - Steering gear mechanics and actuation technology
- Alarm conditions
  - Emergency actions in the Azipod® unit space
  - Bridge operator safety signals and alarms
- Remote control units and operation
- Bridge backup/emergency operation
- Azipod® propulsion occupational safety basics

Methods
Lectures and demonstrations
Visits to machine factory and Azipod® assembly factory

Student profile
Deck personnel at support, operational and management level

Prerequisites
None

Duration
4 days

Venue
Helsinki

Additional information
Minimum 6, maximum 8 participants
Modified on-site training is available on request
# Course outline

Azipod® is the registered trademark of ABB Oy.

| Day 1 | - Course overview  
|       | - ABB marine systems overview  
|       | - Electrical machines  
|       | - Visit to machine and drive factories  |
| Day 2 | - Azipod® propulsion system evolution  
|       | - Main mechanical components  
|       | - Azipod® propulsion systems  
|       | - Visit to Azipod® assembly factory  |
| Day 3 | - Steering gear system  
|       | - Remote control system  
|       | - Propeller hydrodynamics  |
| Day 4 | - Occupational safety  
|       | - Assessment  |