

NDT – Penetrant Testing

Delivery Method: eLearning || Duration: 1,5 hours || Course Fee: 280 €

Category: Material, Welding & NDT

Available languages: English

Certificate

On completion of the training program, the student will be awarded:

- A Certificate of **NDT – Penetrant Testing**, issued by Bureau Veritas Solutions Marine & Offshore.

The Certificate of **NDT – Penetrant Testing** is obtained after completion of the course and passing the online test.

Presentation

This training course provides an overview of the Penetrant Testing (PT) method for non-destructive examination of materials and welding, its objectives and principles.

Whom the course is for

The course **NDT – Penetrant Testing** is aimed at anyone interested in getting familiar with this NDT technique. This may include Ship Managers, Technical Superintendents, Ship Masters, Officers and Seafarers; Offshore Units Operators and technical staff; Shipyards Technical Staff; Surveyors; P&I and/or Insurance Inspectors; etc.

Objectives

On completion of the training, students will be able to:

- Understand the basic physical principles of liquid penetrant testing.
- Know the testing procedure and the inspection process referred to testing materials and equipment.
- Differentiate applications and the acceptance criteria applied.
- Get familiar with the purposes of reference materials and/or blocks to ensure the quality of test performance and testing results.

Program

- Basic principle, capillary effect
- Physical properties of the penetrant
- Testing procedure
 - Pre-cleaning
 - Penetrant application
 - Excess penetrant removal
 - Developer application
 - Inspection and recording
 - Post-cleaning
- Testing materials and equipment
 - Penetrants
 - Removal methods
 - Developers
 - Equipment
- Applications and acceptance criteria
 - Indications
 - Test report
- Reliability, quality of test performance
 - Surface preparation and condition
 - Types of penetrant materials and equipment used
 - Penetrations and development time
 - Viewing conditions
 - The temperature of the test surface
 - The material tested and flaws expected
 - NDT personnel competence
 - Safety issues