

Dette er en oversettelse av den fastsatte læreplanteksten. Læreplanen er fastsatt på Bokmål

Laid down as a regulation by the Norwegian Directorate for Education and Training on 14 December 2007 as delegated in a letter of 26 September 2005 from the Ministry of Education and Research pursuant to the Act of 17 July 1998 no. 61 relating to primary and secondary education (Education Act) Section 3-4 first paragraph.

Valid from 01.08.2008

Valid to 31.07.2023



Utgått

Purpose

Industrial Installation shall lay the foundation for practicing an occupation within assembly, testing and controlling components and installations at land-based industries, offshore and shipyards. Sub-production is done internally at the companies and for external suppliers. The subject shall help the apprentice develop competence in producing and finishing mechanical products with a high standard for quality and functionality. Furthermore, the subject shall contribute by keeping a high standard where Environment, Health and Safety is concerned.

Learning in the subject shall help the apprentice develop skills in the assembly and construction of machines and electro-mechanical equipment and doing repairs and maintenance on equipment that was installed by the apprentice. Furthermore, learning shall contribute to the development of understanding processes and promote comprehensive understanding and versatility within mechanical trades. Learning in the subject shall also promote a comprehensive understanding of the interaction between construction, structures and controlling mechanical products and help the apprentice develop the ability to work precisely and develop as a professional.

Learning in the subject shall promote an understanding for planning, execution, assessment and documentation of work. Furthermore, learning shall emphasise safety for work is done in dangerous environments. Learning in the subject shall also help the apprentice learn to work independently, cooperate with others and communicate with other professional groups and trades. The company's management and control systems and information and decision-making systems are a part of the learning.

Training completed and passed in the subject will lead to a Trade Certificate.

The professional title is Industrial Fitter.

Structure

Industrial Installation consists of three the main subject areas. The main subject areas complement each other and should be viewed in relation to one another.

Overview of the main subject areas:

Year level	Main subject areas		
Vg3 / In-service training at a training establishment	Assembly and testing	Tools and measuring equipment	Product control and documentation

Main subject areas

The main subject area covers planning and organizing work tasks. It also includes assembly and testing of products based on drawings, specifications, assembly instruction, official regulations and standards. The main subject area also covers the assembly of electro-mechanic components. Pneumatic and hydraulic control systems for machines and process plants and securing parts and components is included in the main subject area.

The main subject area covers the use of hand tools, analogue and digital tools and equipment for assembly and testing. Adjustments, settings and calibrations on installed measuring equipment are included.

The main subject area covers controlling and documenting work pursuant to specification requirements and the quality assurance system. Handling deviations and reporting are a part of the main subject area.

Basic skills

Basic skills are integrated into the competence aims for this course in areas where they contribute to the development of and are a part of the basic subject competence. In Industrial Installation, basic skills are understood as follows:

Being able to express oneself orally in Industrial Installation involves communicating about professional solutions with colleagues, collaborators and customers in Norwegian and English.

Being able to express oneself in writing in Industrial Installation involves filling in reports and deviation forms in Norwegian and English.

Being able to read in Industrial Installation involves interpreting and understanding specifications, working drawings, reports and technical standards in Norwegian and English.

Numeracy in Industrial Installation involves evaluating results from measurement and calculating the use of materials and time.

Digital literacy in Industrial Installation involves using production control systems and digital measuring equipment.

Competence aims

Assembly and testing

The aims of the training are to enable the apprentice to

- plan and perform work according to current rules for Environment, Health and Safety and procedures
- install mechanical components according to drawings, assembly instructions, specifications and standards
- install electrical, pneumatic and hydraulic components according to drawings, specifications, standards and current rules and regulations
- test and put products and production equipment into operation according to current rules, regulations and specifications
- select and use oils, lubricants and fastening materials according to specifications and product data sheets
- evaluate finished work tasks pursuant to requirements for the product and quality, and elaborate on the use of alternative solutions related to the selection of materials and methods
- do repairs and maintenance on equipment one has installed

Tools and measuring equipment

The aims of the training are to enable the apprentice to

- select and use hand tools and equipment according to the actual work task
- select and adjust analogue and digital measuring equipment according to the job at hand
- preset, adjust and calibrate installed measuring equipment based on specifications
- perform measurements, control checks and record information that confirms work was done according to drawings and specifications
- evaluate the results from measurement, correct any errors and document the result

Product control and documentation

The aims of the training are to enable the apprentice to

- do control checks and document the fact that the product is acceptable in accordance with standards and the customer's specification requirements
- do control checks and document that finished work was done according to current rules for Environment, Health and Safety, procedures and the quality assurance system
- record and report deviations in the Environment, Health and Safety System and recommend corrective measures
- give an account of the process from raw materials to finished product and the customer's requirements for the final product
- fill in standardised documentation in English
- use information and decision-making systems and give an account of the company's organization

Assessment

Vg3 Industrial Installation

Provisions for final assessment:

Main subject areas	Provision
Assembly and testing Tools and measuring equipment Product control and documentation	All apprentices shall take a trade examination, which is normally carried out over a period of ten working days.

The provisions for assessment are stipulated in the regulations of the Norwegian Education Act.