

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

## Purpose

Sheet Metal Work shall lay the foundation for forming metal sheets, pipes and profiles, and joining large components and constructions together. Sheet metal work is done in the shipping industry, offshore and for land-based industries that comply with national and international standards and norms.

Learning in the subject shall help the apprentice develop an understanding of production processes, materials, quality and economy. Through learning in the subject, the apprentice shall develop the ability to be precise when working, understand technical drawings and work according to specifications and procedures. Learning in the subject shall help the apprentice develop the ability to cooperate with other professional groups and trades.

Learning in the subject shall help the apprentice gain broad and varied training in using materials and working with methods to join sheet metal. Learning in the subject shall provide training in planning, execution, assessment and documentation of executed work. Working according to rules for Environment, Health and Safety will be a central theme of learning.

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

The professional title is Sheet Metal Worker.

## Structure

Sheet Metal Work consists of two 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	Documentation, Quality and EHS	Sheet metal work and production

## Main subject areas

The main subject area covers the use of standards, specifications, procedures and the company's control systems. This also includes the use of working drawings and technical documentation. Quality assurance, traceability and EHS are central themes in the main subject area.

The main subject area covers the use and maintenance of manual and CNC-guided machines, technical equipment and measuring instruments. Joining methods are also included in the main subject area. Furthermore, knowledge and selection of materials is included in 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 Sheet Metal Work, basic skills are understood as follows:

*Being able to express oneself orally in Sheet Metal Work* involves discussing and elaborating on professional solutions with colleagues.

*Being able to express oneself in writing in Sheet Metal Work* involves filling in forms and reports.

*Being able to read in Sheet Metal Work* involves working according to working drawings, documentation, instructions, reports and technical standards.

*Numeracy in Sheet Metal Work* involves calculating sizes, material use, welding and deformations. This also involves calculating weights and geometric calculations.

*Digital literacy in Sheet Metal Work* involves using digital measuring instruments and equipment. This also involves adjusting settings and monitoring CNC-guided machines.

## Competence aims

### Documentation, Quality and EHS

*The aims of the training are to enable the apprentice to*

- use product data sheets
- plan and perform work tasks in line with drawings, procedures and standards
- use reports and official forms in line with collaborative tasks
- record deviations and recommend corrective measures
- explain the main principles of the company's quality assurance system
- use methods of traceability for sheets, profiles, structural pipes and equipment
- perform stropping and hooking work in line with current rules and regulations
- use safety equipment, protective gear and working clothes that are suited to the job at hand
- discuss and elaborate on professional solutions with colleagues
- evaluate the economic consequences of methods and the selection of materials
- give an account of the company's organization and one's own tasks and functions in the company
- perform source separation and waste handling in line with the company's instructions for this
- give an account of and perform work in line with current requirements for EHS

### Sheet metal work and production

*The aims of the training are to enable the apprentice to*

- select materials in line with drawings and specifications
- prepare joining, welding and splicing materials
- calculate the use of materials, welding shrinkage, deformations and equilibriums
- work on steel sheets, profiles and structural pipes in line with working drawings and specifications
- give an account of joining methods based on the job
- perform welding and tack welds in line with welding procedures and specifications
- add bends and shoring, and discuss and elaborate on deformations and welding shrinkage
- use hand tools and equipment in line with the job at hand
- use manual and CNC-guided machines
- use measuring tools and evaluate the results of measurements
- assemble components and constructions according to working drawings and specifications
- dismantle, repair and correct components and constructions
- perform heat treatment and cooling treatment, and explain what happens to materials
- give an account of the methods used to protect against corrosion and treat the surfaces of different materials
- plan and execute preventive maintenance on machines and equipment

## Assessment

### Vg3 Sheet Metal Work

Provisions for final assessment:

Main subject areas	Provision
Documentation, quality and EHS  Sheet metal work and production	All apprentices shall sit take a trade examination, which is normally carried out over a period of five working days.

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