



# Welder

## Characteristics

A welder is a qualified worker who performs independent welding of semi-finished articles and parts using various welding technologies.

## Activities

- Preparing the workplace.
- Reading and application of technical documentation.
- Defining working steps, materials and methods (shielding gas, gas, metal arc, etc.)  
Choice of suitable tools and welding machines to clean and prepare surfaces to be welded.
- Straightening, fastening, stitching, possible preliminary treatment of a work piece using all necessary tools or gripping equipment.
- Implementing welding works in the required position, possibly with respect to the welding procedure documentation.
- Final treatment of welds.
- Cleaning and testing implemented works using various appropriate tools.  
Treatment and maintenance of tools, welding machines and equipment and implementing simple repair works.
- Keeping records of technical data concerning the course and results of works.

## Usual Working Conditions

The person is exposed to significant noise pollution. It is necessary to count on significant eye-strain.

## Qualification Requirements

### Professional Preparation and Certificates

**The most suitable preparation** for this position is provided by vocational school studies ended with the certificate of apprenticeship in the fitter, metal work and maintenance profession.

**It is also possible** to have vocational school studies ended with the certificate of apprenticeship in the group of engineering and engineering production professions. However, there are even more educational paths.

To perform the major part of work activities in this type position the worker usually has to have this certificate:

Metal welding (welding licence) – state welding exams according to EN 287-1, CSN EN ISO 9606 and CSN EN 1418.

### Professional Skills

To perform this type position the following practical skills are usually required:

Metal welding, Treatment and incorporating parts of weldments into assembly groups, their connecting by stitching and preparation for welding, Adjusting, treatment and maintenance of welding equipment, Operating equipment for various types of welding, Operating equipment for oxygen cutting of metals, etc...

### Professional Knowledge

To perform this type position the theoretical knowledge in the following fields is usually required:

Work and safety, technical drawing in engineering and metal processing, metal materials and alloys and their properties (e.g. hardness, elasticity, toughness, etc...), machine parts and semi-finished articles and their parameters (dimensions, surface quality, etc.) metal welding technologies, etc...

### General Competence

The advance level requires these general competences:

General competences

### Personal Requirements

This position usually requires very high demands for adaptation to light and dark,

distinguishing unevenness of the surface and resistance to sensory stress.

High demands are also required for the range of visual field, depth perception, concentration of attention, practice-oriented technical memory (constructional and spatial) and exactness and accuracy.

This position also includes requirements such as distinguishing colours and colour shades, distinguishing directions of sound, distinguishing forms of objects, keeping balance, division of attention, short-time memory, practical thinking, adaptability, independence and ability to accept responsibilities.

### **Health Requirements**

This position **cannot be performed** by those who have one or more of these diseases:  
Prognostically serious hearing disorders. Prognostically serious eye disorders.