The test can be made in the work environment, so that the employer can determine the employee's competence, as well as find out what exactly the employee wants to learn in order to increase his competence as a welder - what practical skills and theoretical knowledge are necessary to get the job done as well as possible.

One or more answers can be marked in the test, as a result of which the employer can determine the employee's knowledge and qualification level, can develop an individual training plan for the employee, etc.

Welder (MAG)

Self-assessment questions

No.	Self-assessment question	Demonstrable competence
1.	**How do you rate your professional competence as a welder?** 1. Very good. 2. Good. 3. Weak. 4. Very weak.	The ability to objectively assess one's professional competence as a welder.
2.	**What practical competences do you think you would need to acquire in order to increase your qualification as a welder?** 1. Processing of workpiece surfaces and edges. 2. Types and methods of basic material cleaning (chemical, mechanical, thermal cleaning). 3. Selection of welding modes. 4. Adjustment of welding equipment. 5. Vertical-position and horizontal weld, fillet 6. Methods of testing the quality of welds. 7. Methods of welding defects prevention. 8. Selection, labelling, application of personal protective equipment (skin, head, feet, sight, hearing and respiratory tract).	Ability to qualitatively weld various types of welds. The ability to check the quality of the work performed and the welded weld. The ability to assess the risks and factors of the welder's work environment, which have an impact on health, and to effectively apply personal protective equipment.
3.	**What theoretical knowledge should you acquire in order to increase your competence as a welder?** 1. Reading technical drawings and welding symbols used in them. 2. Chemical, mechanical and technological characterizes of metals. 3. Types of metal alloys, their weldability. 4. Marking of metal materials. 5. Marking of welding consumables, quality requirements, use in various welding	The ability to select and use in the welding process appropriate and high-quality basic materials, auxiliary materials and auxiliary materials for the work task.

	processes. 6. Welding consumables, marking, quality requirements, use in various welding processes.	
4.	**What means of collective protection should the company improve in order to make the work environment safe for health?** 1. Demarcation of the workplace. 2. Ventilation. 3. Placement of safety signs. 4. Lighting. 5. Other (open question)	Ability to assess and apply collective protection measures.
5.	**What type of welding you would like/need to learn in addition to performing the job?** 1. MAG welding. 2. MIG welding. 3. TIG welding. 4. MMA welding. 5. OAW welding.	The ability to evaluate one's own learning competence and qualification improvement.
6.	**Do you want to learn to raise the level of professional qualification in welding?** 1. Yes. 2. No. 3. I do not know.	
7.	**What kind of qualification improvement do you want?** 1. Courses. 2. Attend seminars on innovations in the field of welding. 3. Visit thematic exhibitions. 4. Take training from qualified colleagues. 5. Attend dealer training sessions on adjusting, setting up and using new welding equipment for welding.	
8.	**Is the delivery of materials from the warehouse timely and sufficient for the performance of work tasks?** 1. Yes. 2. No. 3. Sometimes late. 4. Always late.	The ability to evaluate the cooperation of structural units for the timely execution of the work task.
9.	**Do you always have a clear understanding of given task?** 1. Yes, always. 2. Almost always. 3. No.	Cooperation between supervisor and employee.

10.	**What improvements should be made in the workplace so that the work task is completed as efficiently as possible?** 1. The range of collective protection measures should be improved. 2. The supply of materials should be improved. 3. Communication between the employee and the direct manager should be improved. 4. A rest room for employees should be created. 5. Other (open question)	
11.	**Have you obtained the professional welder qualification?*** 1. Yes 2. No	
12.	**What is your work experience working as a welder?*** 1. 1-5 years 2. 5-10 years 3. 10-15 years 4. 15 years and older	
13.	**Have you attended courses/exhibitions/seminars on the latest trends in the industry in the last year?*** 1. Yes 2. No	

* can be evaluated by the personnel department or the employer - basic criteria for determining the salary, according to the employee's education and work experience

Questions for testing knowledge

No.	Question	Demonstrable competence
1.	**Which of the following welding techniques is called semi-automatic?** 1) mechanized wire feed 2) mechanized wire feed and movement of the apparatus in the direction of the weld 3) welding is performed by a welding robot	Ability to understand welding methods.
2.	Gas metal welding is performed in a ….. atmosphere around a bare wire electrode that melts in the arc. 1) weak 2) controlled 3) gas	

	4) strong	
3.	**What power source volt-ampere characteristic is suitable for MAG welding?** 1) rapidly falling 2) gently falling 3) growing	Ability to apply welding technology appropriate to the task. Ability to prepare the welding machine for the appropriate work task. Ability to get acquainted with the basic materials and auxiliary materials used in the work.
4.	The size of the tip and the cutting pressure are related to the …….. of the steel being cut. 1) thickness 2) length 3) height	
5.	**Which operation is redundant in the creation of welded structures with the MAG technique?** 1) cleaning 2) ensuring an even distance between the torch and the metal 3) do not move the torch in the direction of weld formation	The ability to qualitatively prepare the surfaces to be welded for welding.
6.	**What is a 2 stroke cycle in MAG welding?** 1) the switch must be pressed 2 times 2) the switch must be kept pressed during operation 3) welding takes place in two levels	The ability to accurately select the welding mode.
7.	**Wire feed rollers with a semi-circular groove are used when using...** 1) stainless steel wire for MAG welding 2) continuous wire 3) aluminium wire	Ability to prepare MAG welding equipment and equipment for welding for the appropriate task
8.	**When do you not need to use shielding gas when using powder wire?** 1) when welding indoors 2) when the filling contains fluorides 3) when welding corner welds	Ability to accurately select and set welding modes, using appropriate additives and consumables, and following technical standards.
9.	**What shielding gas or gas mixture is in liquid form under pressure in the cylinder?** 1) Ar + He 2) Ar + CO_2 3) CO_2	Ability to carefully select welding equipment and accessories and consumables according to the task.

10.	**Which of the following shielding gases reacts with liquid metal during welding?** 1) Ar 2) He 3) CO_2	
11.	**Which of the statements is not true?** 1) shielding gas consumption 1/min.≈ 20 wire diameters mm 2) shielding gas consumption 1/min.≈ 10 wire diameters mm 3) when welding aluminium, the consumption of shielding gas is higher	Ability to visually evaluate welds according to uniform evaluation criteria.
12.	**Which shielding gas or mixture of shielding gases will contribute to spatter?** 1) CO_2 2) Ar + He 3) Ar + O_2	
13.	**The torch angle in MAG welding is...** 1) 80 ^{O} 2) 15 ^{O} 3) 5 ^{O}.	Ability to accurately weld welds.
14.	**In arc welding, the speed at which the electrode is moved controls the size and…… of the weld head**. 1) length 2) contour 3) shape	
15.	**What are the consequences of increasing the wire feed speed in MAG welding?** 1) welding voltage increases 2) the welding current decreases 3) the length of the welding arc will be shortened	Ability to select MAG welding modes.
16.	**The distance between the torch contact tip and the product is...** 1) arc length 2) electrode displacement 3) electrode diameter	Ability to prepare MAG welding torch and its components for welding.

17.	**For cab-type MAG welding machines, the hose length is usually...** 1) 2 m 2) 1.5 m 3) 3 m	
18.	**What is the critical element in cutting iron or steel?** 1) Oxygen 2) acetylene 3) nitrogen	The ability to get acquainted with the basic materials, supplementary materials and auxiliary materials used in the work.
19.	**Iron is...** 1) very soft metal 2) medium hard metal 3) high hardness metal	
20.	**Which of the terms is incorrect?** 1) simple alloy 2) black alloy 3) hard alloy	
21.	**Which of the elements shown is not a metal?** 1) Na 2) Si 3) Sn	
22.	**Thick metals may require a ….. weld.** 1) Multipass 2) Short 3) Stacked	The ability to get acquainted with the basic materials, supplementary materials and auxiliary materials used in the work.
23.	**Which of the named properties is a mechanical property of a metal?** 1) melting point 2) electrical conductivity 3) flexibility	
24.	**Which of the following properties is a physical property of a metal?** 1) corrosion resistance 2) thermal expansion 3) castability	
25.	**Do not use to extinguish electrical appliances...** 1) foam fire extinguisher 2) carbonic acid fire extinguisher 3) dry sand	The ability to follow the rules of electrical safety in the welder's work.

26.	When hand-held cutting tools are used, workers wear a covering to protect their … . 1) Feet 2) Feet 3) Hands	The ability to use self - protection tools.