



## WELDING TECHNOLOGIES

### 10.1. Vocabulary

*Ex. 1. Translate the following words into English.*

1. завершать
2. обработка
3. готовый продукт

*Ex. 2. Match the words with their Russian equivalents.*

1. dimension	a. приготавливать
2. proper	b. правильный
3. set up	c. край
4. adjust	d. измерение
5. manufacturer's specification	e. принимать меры предосторожности
6. edge 	f. баллон
7. prepare	g. приспособливать
8. piece 	h. спецификация производителя
9. take precautions	i. кусок
10. filler	j. устанавливать
11. cylinder	k. присадочная проволока

*Ex. 3. Complete the sentences with the given words.*

**cylinder, Take precautions, filler, piece, set up, dimensions, manufacturer's specifications, adjust, Prepare, proper, edges**

Be sure to measure the \_\_\_\_\_ (1) of the metal accurately before welding it together.

It's crucial to use the \_\_\_\_\_ (2) safety equipment when working on any welding project.

The first step in welding is to \_\_\_\_\_ (3) your workspace with all the necessary tools.

You may need to \_\_\_\_\_(4) the settings on the welding machine for different types of metal.

Always follow the \_\_\_\_\_(5) when using welding equipment.

Make sure the \_\_\_\_\_(6) of the metal pieces are clean before starting the welding process.

\_\_\_\_\_(7) the materials by cutting them to the correct size for the welding job.

Before welding, ensure that each \_\_\_\_\_(8) fits together perfectly like a puzzle.

\_\_\_\_\_(9) to protect yourself from sparks and fumes while welding.

Use a \_\_\_\_\_(10) material to strengthen the bond between two pieces of metal during welding.

Make sure the welding torch is connected to the gas \_\_\_\_\_(11) securely before starting.

## 10.2. Word Formation

*Ex. 1. Change the form of the words to complete the sentences.*

1. The two companies reached an \_\_\_\_\_ (agree) to collaborate on the project.
2. Effective \_\_\_\_\_ (manage) is crucial for the success of any organization.
3. The \_\_\_\_\_ (advertise) was so compelling that it boosted sales significantly.
4. She finds great \_\_\_\_\_ (enjoy) in reading books.
5. The \_\_\_\_\_ (develop) of new technology has revolutionized the industry.
6. The gym's new \_\_\_\_\_ (equip) has attracted many new members.

7. He made a \_\_\_\_\_ (pay) for the service rendered.

### **10.3. Reading**

*Ex. 1. Read the text.*

#### **Welding Technologies**

Welding is a crucial technology in many industries, including construction, automotive, and manufacturing. It involves joining two or more pieces of metal together by heating them to their melting point. One of the most common methods is arc welding, which uses an electric arc to produce the heat needed. Gas welding is another method and uses a flame fueled by gas to achieve the same result.

Each welding method has its advantages and drawbacks. For example, arc welding is known for its strength and efficiency but can require expensive equipment. Gas welding, on the other hand, is more versatile but may be less suitable for projects requiring high precision.

New technologies have also emerged, such as laser welding. This method uses a concentrated beam of light to melt the materials. Although expensive, it offers exceptional precision and is used in high-tech industries like aerospace and electronics.

Safety in welding is paramount. Welders must wear protective gear, such as helmets with face shields, gloves, and flame-resistant clothing to prevent injuries. Proper ventilation is also essential to avoid inhaling harmful fumes.

Understanding different welding technologies and their applications helps professionals choose the best method for their projects. As technologies evolve, the field of welding continues to offer new possibilities and challenges.

*Ex. 2. Answer the questions.*

1. What is welding and why is it important in various industries?
2. How does arc welding differ from gas welding in terms of the heat source used?
3. What are some advantages of arc welding compared to gas welding?

4. Can you explain how laser welding works and its benefits?
5. Why is safety crucial in welding, and what protective gear is necessary for welders?
6. How can understanding different welding technologies help professionals in their projects?
7. How has the field of welding evolved with the introduction of new technologies like laser welding?

#### **10.4. Communication**

**Ex. 1.** Make sentences using the following words:

1. protective/gear/injuries
2. machines/high/melting
3. rods/essential/joining
4. helmets/protect/sparks
5. gloves/safety/sharp
6. masks/shield/operations
7. goggles/protect/harmful
8. torches/create/welding
9. fumes/harmful/inhaled
10. techniques/vary/joined