

## TRADITIONAL TYPES OF WELDING

### 11.1. Vocabulary

*Ex. 1. Match the words with their Russian equivalents.*

1. create	a. направлять
2. non-consumable	b. перегрев
3. spool	c. вольфрам
4. variety	d. руководство
5. point	e. обычно
6. precision	f. дуга
7. direct	g. катушка
8. generally	h. точность
9. arc 	i. неплавящийся
10. tungsten	j. портативный
11. overheat	k. многообразие
12. flame 	l. пламя
13. portable	m. точка
14. manual	n. создавать

*Ex. 2. Complete the sentences with the given words.*

**tungsten, directed, spool, precision, welding equipment, portable, manual, arc**

The welder created a perfect \_\_\_\_\_(1) to join the metal pieces together.

Welders generally use \_\_\_\_\_(2) as the non-consumable electrode material.

The \_\_\_\_\_(3) of the welding job depended on the welder's skill.

He \_\_\_\_\_(4) the flame towards the metal to start the welding process.

The \_\_\_\_\_(5) welding machine overheated after continuous usage.

The \_\_\_\_\_(6) provided detailed instructions on how to operate the \_\_\_\_\_(7).

There is a variety of \_\_\_\_\_(8) sizes available for different welding projects.

## **11.2. Grammar**

*Ex. 1. Put the words in the correct order.*

1. Gas / welding / burning / from / a / a / flame / produces / gas.
2. It / welding / the / creates / heat.
3. Or / pieces / together. / It / two / joints / used / of / solder / to / metal / make / is / to
4. Tig. / Inert / welding / gas / known / is / as / tungsten / a
5. Process. / A / it / is / welding / semiautomatic

## **11.3. Reading**

*Ex. 1. Read the text.*

### **Traditional Types of Welding**

Welding is an important process in many industries, allowing metals to be joined together securely. There are several traditional types of welding, each with its own unique features and applications.

One common type is arc welding. This method uses an electric arc to create intense heat, which melts the metal. A filler material is often added to form a strong joint. Arc welding is popular because it can be used with most metals and provides a reliable bond.

Oxy-acetylene welding, another traditional method, uses a torch fueled by oxygen and acetylene gases. The flame produced by this combination reaches very high temperatures, making it suitable for cutting and welding metal. This technique is often used in industries like automotive repair and metal sculpture.

A third type, spot welding, is widely used in manufacturing, especially in the automotive industry. This method applies pressure and electrical current to the metal surfaces at a specific point, or spot, to create a strong weld. Spot welding is efficient and works well with sheet metal.

Finally, TIG welding, or tungsten inert gas welding, is known for its precision and control. It uses a tungsten electrode to produce the weld, while an inert gas, like argon, shields the weld area from contamination. This makes TIG welding ideal for thin materials and metals like aluminum.

Each of these traditional welding methods offers its own advantages, depending on the materials and applications involved. Understanding these techniques is essential for any aspiring welder.

*Ex. 2. Answer the questions.*

1. What is arc welding and how does it work?
2. How does oxy-acetylene welding differ from arc welding?
3. In what industries is oxy-acetylene welding commonly used?
4. How does spot welding create a strong weld?
5. What makes TIG welding ideal for thin materials and metals like aluminum?
6. Why is understanding traditional welding methods essential for aspiring welders?
7. What are the unique features and applications of each traditional welding method mentioned in the text?

#### **11.4. Communication**

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

1. Welding/common/metals
2. Arc/electricity/heat
3. Gas/flame/metal
4. TIG/non-consumable/tungsten
5. MIG/wire/electrode

6. Spot/automobile/manufacturing
7. Stick/shielded/metal
8. Flux-cored/wire-feed/welding
9. Resistance/electric/current
10. Oxy-fuel/oxygen/fuel