CHARACTERISTICS AND EQUIPMENT OF A WELDING MACHINE

17.1. Vocabulary

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

1. flow meter	a. счетчик расхода (жидкости, газа)
2. adjustment	b. бесконтактное
3. clamp	c. клапан
4. no touch ignition	d. шнур питания
5. shielding gas	e. делать возможным
6. dual	f. струбцина
7. enable	g. пульт управления
8. run out	h. настройка
9. high performance	i. двойной
10. remote control	j. высокие рабочие характеристики
11. power cord	k. закончиться
12. valve	l. низкое потребление (энергии)
13. low consumption	m. защитный газ

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

adjustment, power, Low, valve, ignition, remote, Dual, clamp, High, Enable, run, Shielding, flow

The _____(1) of the welding machine settings was crucial for a successful weld.

No touch _____(2) technology makes it easier to start up welding equipment.

Make sure the _____(3) cord is securely plugged in before beginning any welds.

Use a _____(4) control to adjust the settings on the welding machine from a distance.

The gas may _____(5) out during the welding process, so be prepared with a backup supply.

_____(6) gas is essential for protecting the weld pool from contamination.

Always check the _____(7) on the gas tank before starting any welding work.

Use a _____(8) to hold the metal pieces together securely during the welding process.

_____(9) welding machines are ideal for simultaneous welding of different materials.

_____(10) the safety feature on the welding equipment before starting any work.

The _____(11) meter helps monitor the amount of gas used during the welding operation.

_____(12) performance welding helmets provide excellent protection for skilled welders.

_____(13) consumption welding machines are more cost-effective for long-term use.

17.2. Reading

Ex. 1. *Read the text.*

A welding machine is an essential tool for joining metals together. It uses electric current to generate the heat needed to melt the base materials, allowing them to fuse. There are several types of welding machines, including MIG, TIG, and arc welders. Each type has specific characteristics and is suited for different tasks.

MIG welders, or Metal Inert Gas welders, use a continuous wire as an electrode. This type is user-friendly and effective for welding softer metals like aluminum. TIG welders, or Tungsten Inert Gas welders, use a tungsten electrode. These machines are great for precision work and are often used on thin materials. Arc welders, also known as stick welders, utilize a consumable electrode coated in flux. They are versatile and ideal for heavy-duty tasks.

Welding machines come with various features. A power source, either AC or DC, provides the current. Welding cables carry the current to the workpiece. The electrode holder, often a clamp, holds the electrode in place, while the ground clamp completes the circuit. Many welding machines also have control panels for adjusting settings like current and voltage. Knowing these characteristics and equipment helps in choosing the right welding machine for the job.

Ex. 2. *Answer the questions.*

1. What is the purpose of a welding machine?

2. How does a MIG welder differ from a TIG welder?

3. What type of metals are MIG welders effective for?

4. Why are TIG welders often used on thin materials?

5. What is another name for arc welders?

6. What are some key components of a welding machine?

7. How can knowing the characteristics and equipment of welding machines help in choosing the right one for a job?

17.3. Communication

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

1. power/setting/machine
2. weld/materials/necessary
3. helmet/protection/required
4. gloves/safety/essential
5. electrodes/different/comes
6. ventilation/proper/important
7. instructions/manufacturer's/follow
8. maintenance/cleaning/regular
9. goggles/eyes/protect
10. place/dry/kept