



TYPES OF WELDING JOINTS, BEADS AND POSITIONS

19.1. Vocabulary

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

1. welding puddle		a. продвигать
2. string bead		b. тянуть
3. tack weld		c. наплавка
4. weave bead		d. точечный сварной шов
5. penetration		e. сварочная ванна
6. surfacing weld		f. уширенный валик
7. slight		g. плоскость
8. spot weld		h. ниточный шов
9. slot/plug weld		i. прорезной сварной шов
10. make a run		j. сделать прогон
11. plane		k. короткий сварной шов
12. lap joint		l. соединение внахлестку
13. pull		m. легкий
14. push		n. проникновение

Ex. 2. Match the words with their definitions.

1. angle	a. the point where two sides or edges meet to form an angle.
2. edge joint	b. a weld that fills the inside corner between two pieces of metal that are perpendicular to each other.
3. flash weld	c. moving horizontally across something from one edge to the other.
4. cover bead	d. a type of weld where two pieces of metal are joined along the groove or channel between them.
5. corner	e. a type of weld where two pieces of metal are joined along their edges.
6. across	f. a type of weld where two pieces of metal are joined end-to-end

	without overlapping.
7. groove weld	g. a type of weld that uses heat generated by electrical resistance to join two pieces of metal together.
8. butt weld	h. a multi-pass welding technique that involves layering multiple beads of weld material.
9. from side to side	i. the space formed by two lines meeting at a point, measured in degrees.
10. fillet weld	j. moving from one side to another, covering the entire width or length.

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

lap joint, push, slight, across, make a run, from side to side, string bead

I need to _____ (1) the metal pieces together in welding class.

Remember to _____ (2) the welding torch slowly along the seam.

The welder will _____ (3) down the length of the metal plate.

The _____ (4) needs to be strong for the welding project.

Slide the welding rod _____ (5) the surface to create the connection.

There's a _____ (6) gap between the two metal pieces to be welded.

Move the welding tool _____ (7) for an even weld.

19.2. Grammar

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

1. joints. / of / types / five / are / main / there

2. they / the / to / do. / the / common / or / are / easiest / most

3. corner. / connect / forming / a / the / together / joint / is / two / pieces / used / corner / to

4. it / a / right / angle. / creates

5. placed / edge. / and / on / two / joint / weld / are / of / a / the / pieces / together / same / metal / where / welded / edge / is / the

19.3. Reading

Ex. 1. Read the text.

Welding is a process of joining materials, usually metals, by melting them together. There are several types of welding joints, beads, and positions used in welding. Understanding these can help you perform better welds.

One common joint is the butt joint, where two pieces of metal are placed edge to edge. The corner joint is another, involving two pieces meeting in an L-shape. The lap joint overlaps two pieces, while the T-joint forms a T shape by having one piece welded to the middle of another.

Welding beads are the lines or layers of metal deposited during welding. A stringer bead is a single, straight line of weld, while a weave bead moves back and forth, creating a wider weld path. These beads are crucial for the strength and appearance of the weld.

Welding positions are important, too. The flat position is the easiest, where welding is done on the top surface. The horizontal position involves welding on the side, while the vertical position requires welding up or down a vertical surface. Overhead welding is one of the most challenging, as it requires welding from underneath the workpiece.

Understanding these basic concepts can make you a more skilled welder. Practice different joints, beads, and positions to improve your technique and achieve stronger, cleaner welds.

Ex. 2. Answer the questions.

1. What is welding and how does it work?

2. Can you explain the difference between a butt joint, corner joint, lap joint, and T-joint?

3. What are welding beads and why are they important in welding?
4. Describe the difference between a stringer bead and a weave bead.
5. Why are welding positions important in the welding process?
6. Which welding position is considered the easiest and why?
7. How can understanding basic welding concepts help improve your welding skills?

19.4. Communication

Ex. 1. Make sentences using the following words:

1. Welding/joints/classified
2. Fillet/weld/joins
3. T-joints/commonly/welding
4. Butt/joints/structural
5. Lap/joints/join
6. Groove/weld/thicker
7. Welding/beads/formed
8. Stringer/beads/commonly
9. Weave/beads/wider
10. Overhead/positions/require