

SHEARING AND ITS TYPES

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ABSTRACT

This article contains information about the science of drawing, about cuts and their types.

Keywords: drawing, cutting, space, local, detail, shape, plane,

One of the main issues of learning drawing at all educational levels is the development of students' spatial imagination, the scope of logical thinking, without which it is impossible to mentally imagine spatial forms and draw even a simple technical drawing. "This ability is such a thinking operation that it is necessary for the holders of various professions and specialties," says the well-known scientist A. F. Chetverukhin. In his article "On the Role of Spatial Imagination", he writes: "... also the lack of sufficiently developed ability to imagine spatial forms is a big obstacle in the way of teaching students who enter educational institutions."

Drawing is a technical science that includes skills and methods for drawing drawings, schemes, maps and graphs of objects (various machines, mechanisms, buildings, constructions, etc.), making images of various objects. Drawing is based on the science of geometry and drawing geometry. The task is to learn to draw images, projects and sketches of various objects using drawing tools, to read drawings, to make axonometry. The content and size of the drawing is determined depending on the field of science and technology for which it is intended. Departments of drawing science: geometric drawing; projection drawing; mechanical engineering drawing; construction drawing and others. In geometric drawing, drawing tools, formalization of drawings, geometric constructions, connections and curves are studied. In projection drawing, points, straight lines, flat shapes, problems related to making images of geometric bodies and their mutual situation, axonometric images and others are seen. Types of drawings, views, cuts, sections, carvings, etc. are studied in mechanical engineering drawing, and conventional signs of building parts, sanitary equipment, and drawings of buildings and structures are studied in construction drawing. People who draw drawings (schemes, maps and graphs) are called draftsmen. Designers, constructors and designers of various fields must know how to draw.

Clipping is a conditional image, which is performed in order to determine the internal structure of the object that is not visible to our eyes. It is known that in drawings, invisible lines of objects are drawn with dashed lines. In this case, the drawing of dashed lines and dashed lines in one way makes the drawing difficult to read and often leads to errors. To eliminate this situation, dashed lines are replaced by visible contour lines, that is, clipping is given.

Clipping refers to the image created by projecting the shape formed on the cutting plane and the remaining part of the object behind the cutting plane. Shearing is mainly described in the views of the object. The difference between the shearing and the section is that the part of the object that is visible behind the cutting plane is not drawn in the section.

Clipping is an image of an object that has been cut by imagination with one or more planes. Clipping shows not only the parts of the detail lying on the cutting plane, but also the things lying behind it. On

the other hand, only the image of the part on the cutting plane is shown. The cut surface is considered to be the main one and is drawn obliquely at an angle of 45° to the axis line. Depending on the size of the line, it can be reduced to 2mm, 5mm, and in small images, the distance between them can be reduced to 1.5mm. In accordance with the standard requirements, different materials are displayed differently in cutting. It is accepted to divide the cut into types with a number of symptoms:

1. Depending on the number of cutting planes, it is divided into simple and complex cuts;
2. Depending on the position of the cutting plane in relation to the horizontal image plane, there are frontal, horizontal, profile and oblique cuts.
3. There are longitudinal and transverse cuts depending on the location of the cutting plane in relation to the main dimensions of the product (gobarite).
4. The haircut will be complete and local depending on the perfect execution

Depending on the number of cutting planes, cuts are divided into the following types: simple - when there is one cutting plane, complex - when there are several cutting planes.

Depending on the position of the cutting planes relative to the plane of horizontal projections, there are the following types of simple cuts:

horizontal - the cutting plane is parallel to the plane of horizontal projections

vertical - the cutting plane is perpendicular to the plane of horizontal projections;

oblique - the cutting plane is oblique to the plane of horizontal projections or the cutting plane is not parallel to any projection plane.

If the vertical cutting plane is parallel to the plane of frontal projections, this cut is called frontal cut, and if the profile is parallel to the plane of projections, it is called profile cut. If several cutting planes in complex cuts are parallel to each other, step cut is mutual if intersecting, it is called fractured shear.

Local cuts are used to show the internal structure of some parts of the product. The boundary of the local shear is indicated by a thin wavy line.

Depending on the situation of the cutting planes relative to the plane of horizontal projections, cuts are divided into vertical, horizontal and oblique cuts.

VERTICAL CUTTING refers to cutting where the cutting plane is perpendicular to the plane of horizontal projections.

HORIZONTAL CUTTING refers to cutting where the cutting plane is parallel to the plane of horizontal projections.

OBLIQUE CUTTING refers to a cut where the cutting plane forms an angle (different from a right angle) with the plane of horizontal projections.

If the cutting plane is parallel to the plane of frontal projections, such a vertical cut is called a frontal cut.

If the cutting plane is parallel to the plane of profile projections, such a vertical cut is called a profile cut.

The type of cutting is selected depending on the shape of the detail, which needs to show the internal structure. If the cutting planes are directed along the length or height of the item, such cutting is called longitudinal cutting. If the cutting planes are located perpendicular to the length or height of the product, such a cut is called a transverse cut. Local cut is a cut that serves to determine the structure of only a limited part of the product.

In short, in order to determine the inner part of the detail, a conventional imaging method called clipping is used. If the interior of the detail is more complex, that is, it consists of several surfaces,

clipping is applied to make the drawing easier to read. Cuts are applied depending on the internal and external appearance of the detail.

LIST OF LITERATURE

1. Psixologicheskoe obespechenie professionalnoy deyatelnosti: uchebnoe posobie /S.A. Borovikova, T.P. Vodolazskaya, M.A. Dmitrieva, L.N. Korneeva; Red. G.S. Nikiforov; Sankt - Peterburgskiy gosudarstvennyy universitet. - SPb: Izd-vo SPbGU, 1991.- 152 s.
2. Zeer E.F. Psixologiya professiy: Ucheb. posobie dlya studentov vuzov / E. F. Zeer. - M.; Akad. Proekt : 2003. - 336 s.
3. Gulyamov, K. M., and M. H. Ikromov. "Development of artistic and creative abilities of future teachers of fine arts through computer graphics." DEVELOPMENT 7.6 (2021).
4. Хонбобоев, Хакимжон Октамович, Мубина Хакимжонова Икромов, and Мухаммад-Анасон Хакимжонович Икромов. "Ta'limda axborot texnologiyalarni qollashning o'ziga xos xususiyatlari." Молодой ученый 3-1 (2016): 21-22.
5. Makhmudovich, Gulyamov Komiljon, and Ikromov Muhammad Anasxon Hakimjon o'g. "DEVELOPMENT OF CHILDREN'S ARTISTIC AND CREATIVE ABILITIES IN THE PROCESS OF TEACHING UZBEK FOLK APPLIED DECORATIVE ARTS." Web of Scientist: International Scientific Research Journal 3.5 (2022): 957-963.
6. Gulkhayokhon, Mamajonova. "METHODS OF CREATIVITY DEVELOPMENT IN GRAPHIC DRAWING LESSONS." Open Access Repository 9.11 (2022): 127-130.
7. Gulkhayokhon, Mamajonova. "DRAWING TEACHING METHODOLOGY AND PEDAGOGY INTEGRATION." Open Access Repository 8.11 (2022): 199-203.
8. Mamajonova, Shakhnoza, and Gulkhayo Mamajonova. "Informatization and Technology of Education System-A Social Need." Middle European Scientific Bulletin 22 (2022): 285-287.
9. Ikromov, Muhammadanasxon Hakimjon Ogli, and Zulhayoxon Muhtorjon Qizi. "MARKAZIY OSIYODA GRAFIKANING RIVOJLANISHIGA HISSA QO'SHGAN BUYUK OLIMLAR." Central Asian Academic Journal of Scientific Research 2.5 (2022): 627-630.
10. Гулямов, К. М. "КОМПЕТЕНЦИЯВИЙ ЁНДАШУВ АСОСИДА БЎЛАЖАК АМАЛИЙ САНЪАТ ЎҚИТУВЧИЛАРИНИ КАСБИЙ ФАОЛИЯТГА ТАЙЁРЛАШ ТИЗИМИНИ ТАКОМИЛЛАШТИРИШ." Сборники конференций НИЦ Социосфера. No. 8. Vedecko vydavatelske centrum Sociosfera-CZ sro, 2020