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METHODS OF MOIST-HEAT TREATMENT OF CLOTHES AND ANALYSIS OF THE EQUIPMENT USED IN THEM

Tursunova Khilola Shukhratjon kizi
FERGANA STATE TECHNICAL UNIVERSITY
Senior teacher, Department of Light Industrial Engineering

Abstract. In this article It provides information about methods of heat-wetting and processing clothes, the equipment used for this, and the importance of heat treatment in clothing production.

Keywords: Iron, press, steamer, steam air mannequins

Ironing is the act of lightly pressing the heated surface of an iron over the surface of a damp cloth. It is done using an iron.

Pressing is the process of squeezing a fabric between two heated surfaces that do not slide. It is performed using presses.

Steaming is the process of treating a fabric not by the action of heated surfaces, but by the action of steam pressure. A steam-air dummy is used for this.

Wet-heating equipment: irons, presses, and steam-air mannequins.

Irons can be heated with steam or electric-steam. Electric irons can have spiral or tubular electric heaters. They come in different weights depending on what they are intended for. For example, for ironing light clothes, 4 kg for suits and garments made of yarn 6 kg li, mass for coats 8 kg An iron is used. The surface of the iron can heat up to 140-220'C. When ironing with a cloth on the iron, the surface of the iron can be heated up to 20°C higher than usual. If the fabric is heated without ironing and without wetting, the physical and mechanical properties of the upper layers of the fabric may be damaged, that is, it may burn. The woven flowers on the iron-on fabric should not be clearly visible, and the elasticity of its fibers should be less than that of the fibers of the fabric being used. This prevents the fabric structure from being damaged and reduces the risk of fading.

There are three different ways to cool the fabric in the final stage of wet-heating: a) cooling under natural conditions on a sub-pad;

b) cooling by means of moisture absorption;

c) cooling with wind on the lower pillow. The properties of the fabric change during the soaking and heating process. If this process is done correctly, the

properties of the fabric improve. If the soaking and heating process of fabrics mixed with lavsan is done correctly, the resulting corrugations or pleated pleats will not be damaged even when washed. On the contrary, if the soaking and heating process is done incorrectly, the garment may be damaged as a result of the heat causing the fabric to shrink or discolor.

Steaming removes the tension in the fabric fibers that has been created as a result of previous processing, restores their original state, and makes the fabric non-shiny. Before using the fabric in garment factories, it is steamed, that is, de-shined (decated). The fabric is steamed in a steamer with a special steamer brush or a wet iron cloth wrapped around an iron is placed on the shiny areas of the fabric. When working with steam irons or steam presses, shiny areas are not formed.

The finished garment can also be ironed and steamed in a steam-air dryer. In this process, the garment is placed on a mannequin and steam and hot air are alternately applied to it. As a result, the creases and uneven areas of the fabric are straightened, giving the garment an ironed appearance. The steam-air mannequin consists of a steel frame. The working element of the steam-air mannequin is a nylon shell that takes the shape of the body when blown. The steam passing through the shell is applied for 5-10 seconds, then the shell is filled with hot air at a temperature of 105°C and the clothes are dried.

When steam and hot air are applied to the item from the outside in a hard-shell mannequin, the shape created is stabilized by changing the deflection of the fabric's yarns.

The wet-heat processing operations in sewing include the following:

1.Ironing with a slanted side - the sleeve and shoulder seams of women's dresses made of thin fabrics are ironed with a slanted side on ironing tables.

2.Split ironing - using special iron presses, the shoulder, side, sleeve, and back center seams of outerwear are ironed.

3.Ironing to thin out - using presses to thin out clothing collars, sleeve ends, hems, and hems.

4.Folding and ironing — Folding presses are used to fold and iron the edges of lining pockets, flaps, and flaps.

5.Pressing with a presser — the upper garment is pressed with a presser to create a bulge in the chest area of the front of the garment and to eliminate wrinkles at the ends of the hems. The lower pad of these presses has a concave shape, and the

upper pad has a convex shape.

6. Stretch ironing - using ironing tables, stretch ironing is carried out along the raised and folded areas of the undercollar and along the front edge of the upper sleeve.

7. Overcasting - Shirts and blouses made from light fabrics are overcast with an iron-on overprint (to mark the location of pleats and pockets).

3. Steaming — Steaming is done using steam presses and steam-air dryers to remove shine and wrinkles from clothing.

Wet-heat processing plays a significant role in the technological process of sewing clothes. It has a great impact on the quality of sewing products. With the help of such processing, a certain shape is given to the garment.

Irons are used in sewing for wet and heated processing. Electric irons can have spiral or tubular electric heaters. At the same time, irons can be heated with steam or electric steam. They come in different weights depending on what they are intended for. For example, a 4 kg iron is used for ironing new clothes, a 6 kg iron for suits and items made from yarn, and an 8 kg iron for coats. The surface of the iron can heat up to 140-220 C.

In addition to irons, ironing boards are used, which have heated ironing surfaces and absorb steam. For example, SU-1, SU, SU-OK ironing boards are used. These tables will have UPM electric steam, UP-, UP-3 steam irons with a capacity of 2.5-5 kg. The S5-294 ironing board, developed by the Hungarian company "Panonia", has an S5-392 electric steam iron and an S5-395 steam iron, each weighing 3-5 kg.

In addition, many different types of ironing presses are used in wet-heating operations. Depending on the pressing force, ironing presses are divided into light (up to 10kN), medium (up to 15-20kN), and heavy (more than 30kN).

From a technological perspective, presses are divided into ironing, folding, and steaming types. Presses are pneumatically and electromechanically driven. The following presses are used, the upper pads of which are heated by electricity and the lower pads by steam: PLS, PSS, PTS, PPU-1 S5-311, S5-313, S5-317 km, S5-351 R2 from the Hungarian company "Panonia".

The finished garment can also be ironed and steamed in a steam air mannequin. In this, the garment is placed on a mannequin and exposed to steam and hot air alternately. As a result, bent and uneven areas of the fabric are straightened, giving the garment an ironed look. The steam air mannequin consists of a steel frame. The

working element of the steam-air mannequin is a nylon shell that takes the shape of the body when inflated. The steam passed through the shell is exposed for 5-10 seconds, then heated to 105^0 The shell is filled with hot air at a temperature of C and the clothes are dried.

The worker only puts on and takes off the clothes on the mannequin. For steam ironing trousers, there is an XF-7 mannequin from the German company "Textima" and a mannequin from the Japanese company "Inoue". A Hogess mannequin from the company "Textima" is used to fit men's coats.

Clothing details and finished garments in general are treated with moisture and heat to give them a certain shape or improve their appearance. 20-25% of the time spent on garment sewing is spent on wet-heat processing. When weaving into a shape, it is important to consider whether the fibers in the yarn are artificial or synthetic, derived from plants or animals.

Wet heat treatment is performed in 3 different ways:

1. Ironing.

2.Pressing.

3. Steaming.

Ironing is the act of lightly pressing the heated surface of an iron over a damp cloth. It is done using an iron.

Pressing is the process of squeezing a fabric between two heated surfaces that do not move. It is performed using presses.

Steaming is the process of treating a fabric not by the action of heated surfaces, but by the action of steam pressure. A steam air dummy is used for this.

Temperature is of great importance when working with moist heat. Because the heat resistance of fabrics depends on the heat resistance of the fibers. If heated above normal temperatures, the fabric will change its durability, strength, and color.

Figure 1. Iron samples

Water sprayed onto a gauze or ironed cloth turns into steam when it touches the heated top pad of the press or the heated surface of the iron. As a result, the fibers of the upper and lower layers of the fabric are heated and pass from a glassy state to a highly elastic state, and the details are given the necessary deformation.

To maintain the shape achieved during wet-heat processing, the fabric must be cooled to return the fibers to a glassy state. To do this, it is necessary to completely dry out the remaining moisture in the fabric.

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