

THE SOAKING - LIMING FACTORY WORKSHOP ON LEATHER MANUFACTURING

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Leather production is one of the promising industries in Ukraine. For the development of leather industry, it is important to increase the raw material base, improve the quality of raw materials that largely depend on the development of animal husbandry, commodity science, organizing of procurement process and storage of raw materials. In order to maximize the use of all resources of leather production, waste-free technologies are developed.

The production of leather is based on physical - chemical, chemical and mechanical treatments, which allow obtaining high-quality finished products. Finished leather is characterized by different quality properties, which depend on the breed, sex and age of the raw material. Animal skins are used for manufacturing of leather for various purposes (for the top and bottom of shoes, clothing and haberdashery).

The leather semi-finished product represents the processed, sometimes dyed and cut skins of wild and domestic animals from which leather products haven't been made yet. Using of semi-finished products for the production of leather for different purposes is very diverse. The use of different types of raw materials in production determines a significant difference in the commodity and technological properties of the finished products.

The raw materials being processed contain preservatives and pollute the environment. During the preparatory processes and operations, the skins are brought into a suitable condition for further processing and those components that are not used in leather production are removed.

The design objective of soaking – liming factory workshop is processing of hides, fur or raw materials for the main further tanning process. First of all, the soaking – liming factory workshop covers the implementation of a number of liquid and mechanical treatments that are applied to semi-finished products to obtain required properties in the finished leather products.

The main features for the development of soaking – liming factory workshop for leather production depend on:

1. Kind and condition of raw materials – to salt by steeping in brine, spreading salt, dry salting;
2. Depending on the kind of skin that is processed and the purpose of its using, there are many methods to make it;
3. Norms of technological design of the leather industry;
4. Use of secondary resources of the enterprise for the production (flesh) of fodder additives.

5. One of the most important is the choice and calculation of the required technological equipment. After all, the rapid development of leather production, the expansion of the product range leads to continuous improvement of equipment.

During the processing of hides in the soaking – liming factory department it is essential to carry out the basic processes and operations, such as:

1. Soaking. The purpose of soaking is to bring the skin to a state close to steamed condition, both in terms of swelling and microstructure, as well as the removal of preservatives, soluble proteins, blood, dirt and other contaminants. In the process of soaking treatment it is essential to control: the state of the raw material (bacteria), the main parameters, the degree of watering and the degree of skin elasticity, the pH of the absorbing liquid and the content of sodium chloride.

2. Fleshing is the removal of fat that remains on the skin.

3. Doubling, the operation of leather production, which means the division of semi-finished leather in thickness into several (usually 2-3) layers. This action is performed in order to obtain a certain uniform leather thickness.

4. The soaked hides and skins are then limed by immersing in milk of lime to loosen the epidermis and hair roots and to remove other unwanted soluble proteins and fats. In another method, a depilatory paste of lime, sulphide and salt is applied to the flesh side of the skins in order to save hair and wool. The limed hides are unhaired to remove the loosened hairs and defleshed. Epidermal debris and fine hair roots are mechanically removed by the scudding operation.

These processes and operations allow you to get high-quality skin, especially for further processing into finished products.

[1] <https://www.systopt.com.ua>

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