



stage with a special 3D scanner an exact digital copy of the foot is obtained. With the help of the software ShoeLast a block is selected. After that a footwear top model on a block is designed in the application of ShoeSole. The developed digital 3D footwear model is saved and sent to a 3D printer.

3D printer is a special device for rapid prototyping. Printing the developed digital model is built layer by layer. 3D printers work with the use of PLA or ABS plastic, SOLAY-fibers and their modifications providing necessary properties.

Sports footwear is the main segment where 3D technologies are widely used. Such brands as NIKE, Adidas, New Balance were the first to use innovative technologies in the footwear production.

By means of 3D technologies it is possible to design new models of footwear quickly and effectively, to eliminate defects in time, to completely exclude manual labour, to increase the speed and quality of goods production. High price is the only drawback of 3D technologies.

3D printer capabilities allow designers to realize the wildest ideas. At the same time footwear remains comfortable and perfectly fits shape of the foot.

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THE DISADVANTAGES OF THE WORK IN KNITWEAR PRODUCTION

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В роботі акцентується увага на рисах, необхідних трикотажникам. Досліджуються недоліки роботи в галузі трикотажного виробництва. Розглядаються професійні хвороби.

Knitwear industry is an important and perspective sector of the national economy. Nowadays it is rapidly changing. Factors that significantly influence the dynamics in the industry include availability of wider product ranges, fashionable designs, competitive pricing, and changes in consumer preferences and purchasing power. That's why it needs highly-skilled specialists, ready for independent work. If you decided to work in knitwear production you have to know some features of your future profession.

First of all you have to work with huge and complicated equipment, it can be hard. You need to have all skills of working with different kinds of machines, tools and yarns, which you will use during your work. I think if you have some skills of working with simple tools like needles and crochets it could help you. Skills of using a crochet can help you to correct little mistakes which can destroy all your work.

Also you must be a careful, attentive and patient person. You need to be careful, when you work with machines and tools. For example, if you don't keep all your hair on the top of your head, you can knit it into material. So be careful and observe safety rules if you don't want to hurt yourself and other people. And if you take care of your manicure you should be careful, when you use such simple tools as needles.

Besides the number of advantages, the work in knitwear production has some disadvantages.

You actually need all your attention and patience while you are working. You have to stay besides the machine all the time and change hooks and yarns from time to time if it is necessary. Staying on one place can be boring, so you have to love much what you do.

In addition don't forget to have some rest. For example, if you knit using needles you keep your palms and hand in one position for a long time and they are always in tension. That's why your hands start to hurt and can lose the ability to move properly.

Except it, like any other job this profession has professional diseases.

First of all it is bad hearing because of noise and vibration from machines around you. Secondly it is bad sight. You have to watch attentively at the little loops and hooks. Also because all equipment is located in cold and closed rooms you don't have enough fresh air and light. In air there is a lot of wool and dust from yarns, so people who suffer from allergy can't work there. All of these influence the respiratory system, that's why almost all knitting workers have chronic problems with this.

All professions have disadvantages, but I think if you know them it will help you on your way to become a professional.