# **Research on Garment Board Production Technology**

# Gu Xiaoxue

Liaoning Communication University, Shenyang, 110136, China xiaoxue0314@163.com

Keywords: clothing process plate making; overview; design points; design and production process

**Abstract:** In terms of garment technology, plate making is a key link, which is directly related to the work efficiency of garment factories. Further, we develop new manufacturing molds, which have been widely used in the current garment market environment, and comprehensively improve the overall production efficiency of the garment industry. Therefore, the design and production of garment craft cardboard belongs to the key link, which should be highly valued by relevant personnel. Based on this, the full text briefly describes the garment process plate making, clear the design points, the targeted and rationality analysis of the garment process design and production process, to provide important reference for the relevant personnel, to ensure the overall economic benefits of garment enterprises, promote the good development and progress of China's garment industry.

# **1. Introduction**

At present, in the social development environment of the new period, garment manufacturing enterprises occupy an important position in the national economic development, so it is necessary to carry out good design and production of garment craft plate making. However, from the current development situation, affected by the high cost, so the scope of use gradually become smaller, only in a small number of enterprises. At the present stage, with the improvement of the overall economic level of the country, but also in the introduction of advanced science and technology and equipment, through its optimization and innovation, for the development of China's garment manufacturing industry to lay a solid foundation, and show a significant application effect, promote the sustainable development of China's garment industry[1].

# 2. Overview of garment craft plate making

Under the background of the continuous improvement of China's overall economic level, the garment manufacturing industry is also developing rapidly, so the level of garment craft plate making is also relatively improved. The so-called garment process plate making, mainly in the garment processing link, based on the garment raw materials are relatively soft, with the help of the garment sample processing mold frame, in order to play a role in auxiliary manufacturing. This plate-making technology mainly includes construction machinery, clothing process engineering and CAD digital principle. However, from the point of sewing garment process sample process, mainly automation equipment mixing process, at the same time under the standard requirements, according to the corresponding size and size, slot and design, strictly implement the sewing standards and requirements, prompted the template parts of organic combination, until the formation of a complete process. During this period, the plate making is applied in the ironing and sewing of clothing, to further optimize and improve the garment processing and production process, and make it more unified and standardized[2].

In the continuous development environment of the garment industry, the garment processing and manufacturing enterprises are also actively introducing modern and advanced technology and equipment, such as intelligent cutting technology and CAD technology. Through the deep integration and innovation between these frontier science and technology, the production process of the garment manufacturing industry is gradually updated and standardized. at the same time, With

Copyright © (2023) Francis Academic Press, UK

<sup>15</sup> 

the mutual cooperation of the garment plate-making designers and the production personnel, With the help of the process samples, Accumulate rich work experience, And to be fully integrated with the specific situation of the clothing, At the same time, convey the results to all the staff in the production workshop, Reduce the work error rate, Avoid any accidents during the specific work period, Threaten to people's production safety, Fundamentally ensure the benefits of garment process plate-making design and production, Improve the science and rationality of the project, On the basis of the standardization and quality of the garment craft plate-making design and production process, Further control the labor costs of the garment production workshop, Led the factories to stand out in the apparel industry, It highlights the significance of garment craft plate making in the development of this field.

At the present stage, under the continuous innovation and research and development environment of social science and technology, the application level of garment process plate making technology is also improved. At the same time, the corresponding supporting mechanical equipment is also more complex, and there are many types. Under the continuous update and improvement, it provides important support and guarantee for the design and production of garment process plate making. In the background of the gradual popularization of this technology, it means the continuous progress and innovation of social science and technology, like the traditional manual cutting cutter and laser engraving machine, and at the same time, the diversity of the use function of plate cutting machine is increased. In the development process of this machine, it further promotes the modernization development of the garment equipment industry, and improves the accuracy and standardization of the plate-making design and production technology. In this garment process plate making design and production, effectively solve a variety of work problems, like some tedious work order and process problems, and gradually applied to other fields, such as shoes, hats, bags and other industries, have made certain development and progress[3]. In addition, after the integration of advanced CAD technology, some produced clothes have new styles and samples, so as to promote the good development of China's sewing plate making technology.

## 3. Design key points of garment craft plate making

# 3.1 In terms of design principle

Under normal circumstances, the garment process plate making is a variety of structures, so during the plate making design, designers must be reasonable design according to the basic structure of the clothing and the components in the clothing, so as to clarify the size of the garment process sample and the specific slot location. Based on this, after the continuous optimization and improvement of garment plate making structure and process, promote the design effect of clothing process model, so that it has scientific and standard characteristics. At the same time, in the garment process of plate making methods and process design, optimize the plate making components and combination component structure, improve the standardization and standard of specific operations, promote the plate making structure has the characteristics of convenience, can successfully complete the work of sewing and clamping. In addition, the designers should also combine the specific situation to further optimize the plate making process, to provide sufficient support and guarantee for the subsequent production of clothing process plate making.

### **3.2 In terms of component composition**

According to the garment process plate making components, combined with the different use functions, they are divided into foundation components and other components. For basic components, belongs to a very important framework content during the production of garment process. For example, for the main clamp, through the combined application of PVC and acrylic plate, play a good holding role, providing important support for the subsequent sewing work. In these main components, its use effect is directly related to the processing quality of plate making. At the same time, some structural parts connected to the main clamp parts are generally made with the cooperation of special tape and rubber board. In addition, for other components, such as

anti-skid parts and positioning parts, etc., where the clamp material and the main clamp material to maintain a high degree of consistency, mainly play the role of sewing a small amount of clothing pieces. However, in the production process, the main clip part is relatively complex and cumbersome. At the same time, the use function of the positioning part is mainly to clarify the position of the clothing in the plate making, usually made by the baffle glue and pins. Based on this, the use of these other components is mainly for the processing of complex process plate making and operation to provide a certain help[4].

### 4. Design process of garment craft plate making

At present, in the design stage of garment process plate making, the role of craft plate making is mainly reflected in the garment production link, thus showing the characteristics of simplicity and systematization. In the specific design stage, designers must be targeted to this link design and optimization, detailed analysis of the specific causes of problems, use scientific and effective corrective measures to solve, at the same time using the trial production, the trial production of the sample and the original sewing sample a detailed comparison and analysis. If the efficiency of the finger board after the trial production is greater than the original sample, the production personnel should use CAD technology and sample cutting machine equipment, and expand the publicity and promotion of the technology and equipment. In addition, designers should also focus on the analysis and research of the factors affecting the failure, to adjust and optimize the design scheme. According to the relevant authoritative investigation, for the same environment of the process part, if the plate making design results deviate, the work efficiency of the production workshop is relatively low. Through the study of garment process plate making, it is conducive to the production of clothing, further innovation and improvement of the design scheme of plate making, so as to maximize the overall production efficiency and quality of the workshop, reduce the construction difficulty of the work, and improve the smooth and order of garment process plate making.

### 5. The production process of garment craft plate making

#### 5.1 Plate-making design

In the development process of the garment industry, the design belongs to the beginning of the production work, so in the preparation stage of plate making, focus on the analysis of the clothing structure and CAD data software and other influencing factors. At the same time, according to the specific situation, determine the quantity and style of production, and in the standard proportion of the clothing plate making design, so as to improve the accuracy of the slot position, to ensure the overall production quality of clothing. In addition, for the structure and function of plate making, it is also very important. Therefore, it is necessary to ensure that the processed clothing and design requirements are consistent, and at the same time, the design data and information should be well preserved to prevent data loss and other bad problems.

### 5.2 Plate cutting

From the analysis of the current garment plate making process in China, the working effect of plate making and cutting is closely related to the production quality and efficiency of the plate making process. Based on this, in the plate making design stage, plate making cutting is the key content, at present, many clothing manufacturers in China will use the disposable clothing process plate making cutting way, in order to ensure the integrity and precision of the cut part. However, for the traditional manual cutting method, this cutting process is more accurate and simple. Under the background of continuous innovation and research and development of modern science and technology, the type of cutting equipment is also very complicated, such as laser and knife, which play an important role in the process of garment plate making. For laser cutting equipment, it effectively improves the production efficiency of garment process plate making, ensures the smoothness and uniformity of the incision surface position, and further improves the production effect of garment process plate making:

#### 5.3 Plate assembly

After cutting the plate making, the cut plate making is assembled, so as to become a more complete and comprehensive garment process plate making. At the same time, in the concrete assembly link, related production personnel must strictly implement the assembly process and standards, meet the design requirements, with the help of various tools and equipment, the plate bonding, while using the bonding way, to improve the smoothness of the garment plate making, fully meet the demand of diversified garment plate making, highlighting the importance of assembly in plate making link and value[5].

## 5.4 Plate making sewing

After the end of the plate assembly, the need to use a special clothing process plate sewing equipment, to be combined to use, and the plate for testing, so it also belongs to the trial sewing link. During this period, the main function of this stage is to ensure that the process plate making after the assembly can be smoothly applied to the actual garment manufacturing process. For most of the garment manufacturing factories in China, it will often use the replacement of sewing machine parts, to optimize and improve the ordinary garment process plate making. At the same time, for some high-grade and special clothing, automatic sewing technology will be used to improve and reassemble the plate making, so as to improve the effect of garment process plate making sewing.

#### 5.5 Practice process

In the process of garment craft plate-making, Will involve the trial seam process, The relevant concerned use the sewing equipment and technology inside the garment manufacturer, Using your own rich experience, The first time to identify the process of printing during the production of the various problems, At the same time, combined with the problem of further adjustment and optimization, In order to improve the problem of non-standard and non-standard in the garment process plate making process, To ensure the maximum advantages and benefits of this process, In order to successfully complete the task of clothing production, At the same time, the garment process is relatively convenient and convenient to operate, And the clothing effect of the sewing is also more outstanding, With accurate and precise features, Fully meet the requirements of the design drawings, Further ensure the overall production quality of the garment industry.

For example, in the design and production of inclined bag, this plate making is generally used in the sewing process of clothing pocket. With the help of this kind of plate making, the specific sewing position is defined, so as to improve the effect and quality of sewing. At the same time, after the improvement of the sewing process, reduce the difficulty of the use of the process, contribute to the improvement of the overall work efficiency, and after the improvement and optimization of the pocket sewing process is relatively simple and efficient.

### 6. Conclusion

In short, against the background of the continuous growth of the national people's overall living standards, people also put forward higher requirements for the quality and quality of life. Therefore, for the garment manufacturing industry, we must pay attention to the improvement of the garment process design and production level, reduce labor costs at the same time, improve the production speed of the work, and promote the sustainable development of China's garment industry.

#### Acknowledgements

2021 Scientific Research Fund project of Liaoning Provincial Department of Education "Research on the cultivation of applied talents in clothing specialty under the concept of OBE" (LJKR077)

# References

[1] Bai Qiaoyan. "Design and production of garment process and templates". Textile Report, vol.42, no.03, pp.81-83, 2023.

[2] Luo Zhengwen. "Application of oblique cutting method in garment process design". Footwear process and design, vol.2, no.14, pp.19-21, 2022.

[3] Liu Ping. "The influence of garment structure on garment craft". Textile Report, vol.41, no.07, pp.86-88, 2022.

[4] Gao Qinjian. "The role of garment structure in garment craft". Textile Report, vol.40, no.06, pp.89-90, 2021.

[5] Ruan Xilian. "Analysis of the coordination relationship between modeling and fabric in garment process design". Textile Report, vol.40, no.05, pp60-61, 2021.