CUTTING PROCESS IN GARMENT MANUFACTURING

An eBook by Online Clothing Study

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Thank you for downloading this eBook.

I have compiled few of the cutting articles published in my blog Online Clothing Study and prepared this small eBook. This eBook will help you understand all about the cutting room processes.

Go ahead and find the information that you are looking for. Hope you will find valuable information inside this book.

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1 CUTTING PROCESSES IN THE GARMENT INDUSTRY

Cutting processes followed by the garment factories will be discussed in this post. Fabrics are cut into garment patterns using one of the cutting aids for making garments from fabrics. I have shared a pdf document compiling some of the cutting process related articles published in this blog earlier.

In the ready-made garment manufacturing, garment manufacturer mostly does cut-to-pack processes. The cutting process come next to the fabric sourcing and prior to the stitching garments.

In the earlier post, cutting room overview explained details about various process performed in the cutting section in the garment factory. In the global apparel sourcing supply chain, garment manufacturers are called as export houses and garment suppliers. Here we will see the process flow of the cutting department. Cutting process sequence is shown by arrows.

Receiving cut plan and maker plan based on workorder →Preparing cut ratio → receiving fabrics from fabric store (ware house) → receiving pattern or markers from the CAD department → verify fabric approval status for quality and shade band → prepare marker length on the cutting table (for manual marker) and marking for fabric splicing → Spreading of fabrics → prepare record of lay details → Marker making/ laying CAD marker → Cutting the fabric lay → moving cut blocks to sorting and bundling area → Ply numbering (placing stickers to each plies of each garment components) → Bundling → Preparing bundling record → Attaching bundle ticket with each bundle → Keeping ready for issuing to stitching floor.

You need to know that the cutting processes may vary depending on the product, business type and fabric and equipment.

Nowadays most of the above cutting process are automated. Like maker making, fabric spreading, and cutting. For increasing the cutting room productivity and reducing the manpower, garment companies are going for automation in the cutting room. Through CAD system and auto marker making, factories can save fabrics.

Depending on the fabric design and garment styling requirement, one of the many processed are followed for cutting. Like, if you are making garments (top or bottom) using striped fabric and you need to match stripes on the garment side seam and sleeve joining – you can't cut the fabric spreading flat in long marker. During layering process, you need to match the stripes. Most cases, garment factories, for matching stripe make single marker for this types of design. Pin table or laser beams are used for matching stripes at the time of fabric layering.

Further the fabric layering is done following one of the any methods for maintaining fabric face side, nap direction, knitted wales direction, printed pattern direction.

For the cutting the fabric layers, factory uses one of many equipment depending on the layer height, accuracy needed, component size, availability of the cutting equipment and machine.

Other than the bulk cutting process, they also need to cut fabric using the maker for fabric consumption estimation. Optional process cutting department need to do

- Fusing garment parts
- Checking of panels when printing and embroidery is done on panel stage. They need to match printed panel with other garment components before sending bundle to the stitching department.
- Fabric re-cutting for replacement of garment components

- Rib cutting and piping cutting
- Measuring and cutting tapes (if needed in the garment)
- Counting trims, matching sizes of labels and issue to sewing department with the cutting bundles (This process is followed by some companies. But most cases, trims and accessary issued by the trim store and measuring and cutting tapes and done in stitching floor)

Related: Cutting room machine and equipment

2 Cutting Room Overview (Apparel Industry)

Garment production starts with the cutting process. In this process, the fabric is being cut into components (shapes or patterns of different garment parts, i.e. front, back, sleeve, collar shapes etc.).

In mass production, multiple layers of fabrics are laid on a table and many garments are being cut at a time. The laid fabric stack is called as lay. The cutting process includes a number of sub-processes and the flow of the processes is as follows. Each process is briefly explained in this article.

2.1 Pattern making / marker making:

According to the design and fit, patterns of different garment parts are made on the pattern paper and cut into pattern pieces. For manual marker, these pattern pieces are used for marker making. On the other hand, in the CAD system patterns are made in the computer. Later using a plotter marker are made on the sheet. In the second case the cutting department receive ready marker.

2.2 Cut ratio receiving:

Prior to cutting, cutting department get a job sheet from planning department or merchandiser or production manager that includes total quantity of garment pieces to be cut, sizes ratio of the garments and color wise size break up. According to the size and color ratio, cutting team prepares one marker or multiple markers. Marker length and number of lay to be cut are planned in this stage.

2.3 Fabric receiving:

fabric requirement for an order is calculated according to the average consumption of the fabric from the marker. In case of multiple color order, color wise requirement is made. Fabric department issue fabric to cutting against the fabric requirement (generally requisition slip is used).

2.4 Fabric relaxation:

This process is optional. Specially used for knits fabric. During rolling of fabric, it gets stretched. Therefore, it is essential to bring the fabric on stable form otherwise garment would shrink after making. To relax the fabric, roll or *thān* is opened and spread and kept for about 24 hours.

2.5 Spreading (fabric layering):

In this stage fabric sheet is layered one above another maintaining pre-defined maker length and correct ply tension. Fabric is layered up to a certain height to avoid cutting quality problem.

Spreading is done by manual layering or automatic layering machine can be used. During layering of the fabric, fabric edge is aligned at one side.

2.6 Marker making:

After layering of a lay, pre-made paper patterns (or ready markers made by plotter) are placed on the top layer of the lay. In manual marker making, marking is done around each pattern shape using marking chalk. This process is called as marker making. In a marker all garment components are placed.

2.7 Cutting:

Lay is cut following the marked lines on the top of the lay. Cutting is done using straight knife or other cutting means. In cutting process, garment components are separated. Based on pattern shape different cutting method/machine are selected.

2.8 Numbering:

Separated garment components are numbered to ensure that in stitching, all components from the same layer are stitched together. It is important to avoid shade variation in a garment. Between the cutting and sewing processes cut components may be passed through other processes like printing and embroidery. There is maximum chance of mixing of the components. If there is layer number in each component, then at the time of stitching only correct components will be stitched together.

2.9 Sorting:

According to the production system (make through, progressive bundle or one-piece flow system) cut components are sorted. In sorting all component of a garment placed together. Size-wise sorting and in case multiple colors are cut in a single lay, color wise sorting will be required.

2.10 Bundling:

As per the production line requirement, a certain number of pieces with all component are tied together. This process is known as bundling. Each bundle is marked with bundle number, style name, size number and quantity of pieces in that bundle. At this stage, cutting are ready to send to a production line for stitching.

3 Functions of Cutting Department in Garment Industry

The cutting department is responsible for cutting fabrics and feeding the sewing department with cuttings. The cutting department's capacity is planned based on the daily feeding requirement of the sewing lines. The cutting department is set up with a cutting department head, cutters, spreaders, quality checkers and helpers for sorting, ply numbering and bundling. The activities of the cutting department are explained in this post.

3.1 Take fabric from the fabric store:

The cutting department gets a cut order from the production manager. According to the cutting plan, the cutting in-charge generates a fabric requirement sheet or requisition slip to the fabric store to issue fabrics.

Cutting department

3.2 Relaxation of fabrics:

Knitted fabrics require relaxation before cutting. After receiving the fabric from the fabric store, the cutting department opens the fabric from the fabric roll and lays it on the table for relaxation for some hours before cutting. Factories also relax fabric in the fabric store overnight after opening the fabric rolls.

3.3 Cut order planning:

The cutting master plans the number of markers they need to prepare, the size combination to be set for each marker and the number of plies to be laid in each marker.

3.4 Fabric Spreading/layering:

In mass production, multiple layers of fabric are cut at the same time. So spreaders lay the fabric on a cutting table as per total marker length. The layer height is kept up to a certain inch.

3.5 Planning markers:

The cutting master plans marker ways, marker lengths and the numbers of plies to be laid in each lay.

3.6 Making markers:

This is a process of making an outline of garment patterns on the lay for cutting garment components. After layering, the marker paper is laid on the top of the layer. Those factories that don't have CAD markers make markers manually using paper patterns.

3.7 Cutting fabrics:

After making the marker, garment patterns are cut and taken out from the layer. Various technologies are used for cutting fabric layers, such as straight knife cutting, band knife machine cutting and a computer-controlled automatic cutting machine.

3.8 Sorting, bundling and numbering of garment plies (parts):

After cutting the fabric, layers are sorted size-wise and color-wise. Each ply is numbered using stickers. Bundles are kept on inventory tables, before these are sent to undergo the next process.

3.9 Inspecting cut components:

To maintain the cutting quality, standard cutting components are checked randomly by quality checkers. If defective components are found, they replace those defective parts. Details of cut part inspection are explained in Chapter 10.

3.10 Sorting printed and embroidery panels:

As per order requirements, printing and embroidery is done on cut panels. Size-wise sorting is done after receiving printed and embroidered panels. The checking of printed and embroidered panels is also done by the cutting department

3.11 Re-cutting panels:

Re-cutting is done for garment components that require to be replaced in bundles. Re-cutting requests are received from the sewing department for defective garment parts. Re-cutting is also done for block panels cut for the printing and embroidery processes. After receiving garment panels from the printer or embroiderer, these panels are reshaped.

3.12 Fusing garment components:

Fusing in garment components is done to stiffen parts of a garment. If needed, fusing is done at the cutting section (e.g. fusing of the collar and cuff components of formal shirts).

4 Different Types of Fabric Cutting Machines Used in Garment Production

Cutting is one of the processes in garment manufacturing. In bulk garment manufacturing, multiple fabric layers are cut at a time by means of cutting machines. Different types of cutting machines and equipment are available for cutting fabrics and machines are used as per requirement and production volume. Semi-automatic and automatic improves cutting room productivity and improves cutting accuracy.

Cutting machine and equipment can be categorized as following

1. Manual cutting
2. Semi-automatic cutting machine
3. Fully automatic cutting machine

4.1 Manual cutting

Hand scissors are used for cutting fabric plies manually. Hand scissors are not machines but very useful cutting equipment. Factories may have semi-automatic and fully automatic machines for fabric cutting but can't avoid use of hand scissors in cutting section. Scissors are common tool in cutting process and hand scissors has many use in cutting room.

4.2 Semi-automatic cutting machines

Straight Knife cutting machine: The straight knife is a common means of cutting lays in conventional cutting rooms because it is versatile, portable, cheaper than a band knife, more accurate on curves than a round knife and relatively reliable and easy to maintain. Even if a band knife is used for the main cutting operation, a straight knife would be used to separate the lay into sections for easier handling.

Straight knife cutting machine (Image source: Youtube/Rexel poland)

Band Knife cutting machine:

Band knives are used when a higher standard of cutting accuracy is required than can be obtained with a straight knife. Pieces to be cut are first cut on a block, and then cut exactly on a band knife.

Band knife cutting machine (image source: Indiamart.com)

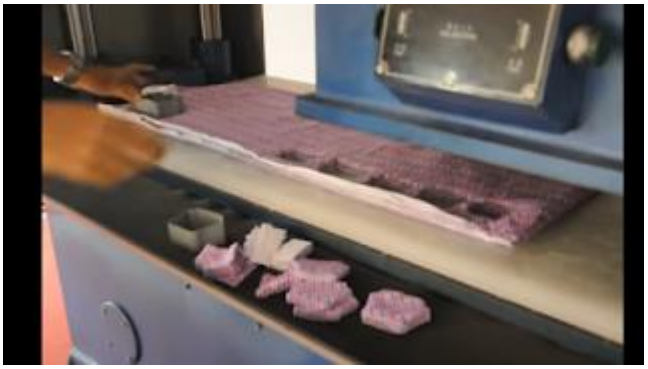
Round knife cutting machine:

A round knife is used only for straight lines or lower no of lays of relatively few plies.

Round knife cutting machine (image source: Indiamart.com)

Die cutting machine:

This machine is useful where small motifs with particular shape and pattern and accuracy in cutting are needed.



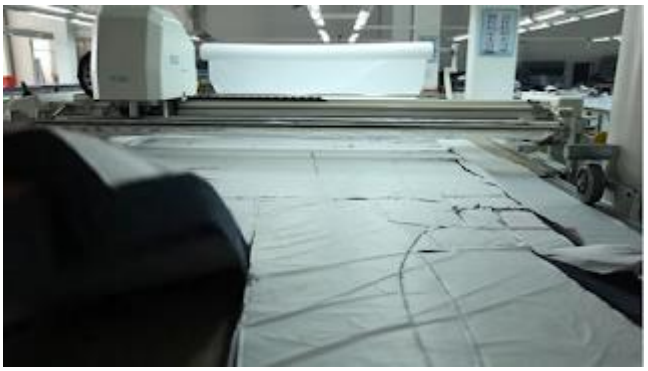
Die cutting machine

4.3 AUTOMATIC CUTTING MACHINES

There are different types of automatic fabric cutting machines. Here majorly used cutting machines in the garment industry are shown.

Computerized cutting machine:

Computerized cutting machines are used where high volume of garments is manufactured. This machine cuts fabric layers as per command given in computer system. Automatic cutting machine is also known as CNC machine. In the automatic cutting room, fabrics are spread on the table by auto spreader and the lay is positioned in the cutting table prior to automatic cutting. Many videos are available on the Youtube for automatic cutting machines.



Computerized cutting machine

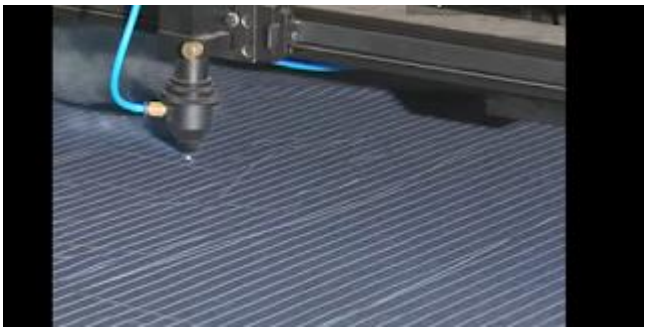
Rib cutting machine:

Narrow fabric tape of rib is cut from knits fabric. Ribs are used in t-shirts neck finishing or piping operations and many other knits apparel manufacturing

Rib cutting machine

Laser cutting machine:

Instead on blade fabric layer is cut by laser rays. Laser cutting machine is also computer-controlled machine.



Laser cutting machine

Also see: Cutting Room Machines and Equipment.

Image source: Cutting machine images shown in this post are taken from Youtube and various other websites.

5 Cutting Machineries and Equipment for Garment Manufacturing

Nowadays, in the majority of cutting rooms, the cutting process makes use of hand shears, a mechanized knife blade in one of the several possible types, or a die press which stamps out the garment shape. Some of the methods currently in use are described below.

5.1 Hand Shears

Hand shears are normally used when cutting only single or double plies. The lower blade of the shears passes under the plies, and some distortion of the fabric might occur

which can be avoided with practice. Both left-handed and right-handed shears are available for left or right-handed people. The major disadvantage of the method lies in the time it consumes and the consequent high labour cost per garment, but it is appropriate for made to measure garments.

5.2 Straight Knife

A straight knife is used where the quantities for cutting do not justify the purchase of a computer-controlled cutter. The elements of a straight knife consist of a base plate, usually on rollers for ease of movement, an upright or a standard carrying a straight, vertical blade with varying edge characteristics and an electric motor above it, a handle for the cutter to direct the blade, and a sharpening device. The base plate on its roller slides under the glazed paper which is spread below the bottom ply of fabric in a lay. Normally, available blades heights vary from 10 cm to 33 cm and strokes vary from 2.5 cm to 4.5 cm. The greater the blade movement, the faster the blade cuts the fabric and the more rapidly and easily the operator can push the machine.

The straight knife is a common means of cutting lays in conventional cutting rooms because it is versatile, portable, cheaper than a band knife, more accurate on curves than a round knife and relatively reliable and easy to maintain. Even if a band knife is used for the main cutting operation, a straight knife would be used to separate the lay into sections for easier handling.

5.3 Round Knife

The elements of a round knife are a base plate, above which is mounted an electric motor, a handle for the cutter to direct the blade, and a circular blade rotating so that the leading edge, cuts downwards into the fabric. Blade diameters vary from 6 cm to 20 cm. Round knives are not suitable for cutting curved lines in high lays because the blade does not strike all the plies simultaneously at the same point as a vertical point does. Therefore, a round-knife is used only for straight lines or lower no of lays of relatively few plies.

5.4 Band Knife

A band knife comprises a series of three or more pulleys, powered by an electric motor, with a continuously rotating steel blade mounted on them. One edge of the blade is sharpened. The band knife passes through a slot in the cutting table in a fixed position and the section of the lay to be cut is moved past it.

Band knives are used when a higher standard of cutting accuracy is required than can be obtained with a straight knife. Pieces to be cut are first cut on a block, and then cut exactly on a band knife.

Band knife cutting machine // Image Courtesy: www.oscalito.it

5.5 Notchers

Many garments require that notches be cut into the edges of them to enable alignment during sewing with other garment parts. Specialized notching equipment provides greater accuracy because a guidelines up the notcher with the cut edge to give consistent depth of notch at a consistent right angle to the edge.

5.6 Drills and thread markers

Where reference marks are needed away from the edge of a garment part, such as for the position of the pockets, darts and similar features, a hole is often drilled through all the plies of fabric in the lay. The drill mounting includes a motor, a base plate with a hole to allow the drill to pass through, and a spirit level to ensure that the base is horizontal and hence the drill vertical. On many fabrics, the drill is used cold and the hole remains visible until the sewing operator comes to use it.

On looser weave fabrics, where the hole may close up, a hot drill is used which will slightly scorch or fuse the edges of the hole. A hypodermic drill may be used which leaves a small deposit of paint on each ply of fabric. If it is important that no mark

remains on the fabric, a long thread may be passed through the lay which is then cut with scissors between each ply, leaving a few centimeters visible on each garment panel. All drill holes must eventually be concealed by the construction of the garment.

5.7 Computer controlled cutting knives

This method provides the most accurate possible cutting, at high speed, and to keep the larger systems fully occupied they are frequently used in a central cutting facility that supplies several separate sewing factories. A typical computer cutting system has a table with a cutting surface consisting of nylon bristles which support the fabric lays but are flexible enough to permit penetration and movement of the knife blade which is supported only at the top. The bristles also allow the passage of air through the table to create a vacuum, reducing the height of the lay and holding it in place. The carriage supporting the cutting head has two synchronised servomotors, which drive it on tracks on the edges of the table.

The cutting head contains a knife, automatic sharpener and a further servo motor which rotates the knife to position it at a tangent to the line of cut on curves. A sheet of airtight polyethylene covers the top of the lay, which assists the creation of a vacuum and allows significant compression of the lay. Control cabinet houses the computer and the electrical components required to drive the cutter, its carriage and the vacuum motor.

The spreader spreads the lay on a conventional cutting table equipped with air flotation. Paper is spread below the bottom ply so that the lay can be moved onto the cutting table without distortion and so that the bottom plies are supported during the cutting operation. This paper is perforated to enable the vacuum on the cutting table to operate to compress the lay. The cutting table does not need to be as long as the lay and its bristle surface can consist of a conveyor which assists in the transfer of the lay, in sections, from the spreading table and of the cut work onto the bundling tables.

5.8 Die Cutting

Die cutting involves pressing of a rigid blade through the laid fabric. The die is a knife in the shape of the pattern periphery, including notches. Free standing dies generally fall into two categories. They can be of strip steel, manufactured by bending the strip to the shape required and welding the joint. These cannot be sharpened and must be replaced when worn. Alternatively, they can be a heavier gauge, forged dies which can be re-sharpened but which are five times the price of strip steel. They provide a high standard of accuracy of cutting but, because of the cost of the dies, they are only appropriate to

situations where large quantities of the same pattern will be cut. Die cutting also offers much faster cutting than knife cutting for the same depth of cut. It is proportionally more economic for small parts which have a greater periphery in relation to their area.

[Note: The above content taken from unknown source]

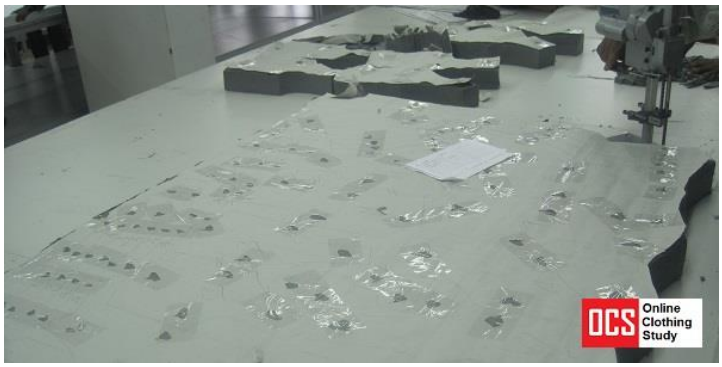
6 7 Check Points for Cutting Department for Starting Bulk Cutting

Do you have the checklist for bulk cutting?

If you don't have, you can follow this check list.

The garment manufacturing process from sourcing of fabric to fabric testing, fabric quality inspection and audit to cutting of fabric are performed by different teams. All changes and update requirement must be communicated to the right person on time. If there is gap in communication between two departments, there might be chance of making mistakes and consequences might be resulted in a big loss of revenue.

To avoid delay in production, and quality issues you must look at following 7 check lists prior to starting bulk cutting. You can say these are requirement for starting of cutting process.



6.1 Bulk Fabric Approval

Approval of fabric quality in terms of fabric weight (GSM), its shade, shade band, lot variations (if any) and there are many other fabric quality parameters. All parameters must be matched with the buyer's requirement. You don't need to know everything about fabric parameters - you just need the written approval of the fabric you are going to cut

for the specific order. Also ensure that you have taken correct fabric from the fabric store.

6.2 Approval of bulk pattern

Fitting and correction of the pattern. In export order garment patterns are modified and corrected at various stages and sometimes multiple correction and modification is done on patterns prior to bulk cutting. Though you take care of receiving the right pattern for bulk cutting, there might be chances of getting wrong patterns from pattern making department (when there is many versions of pattern for a same style). So you must check whether the pattern is signed one for the bulk cutting. In case there is lot-wise shrinkage variation in fabrics, you must have multiple patterns marked with shrinkage allowance.

6.3 Fabric relaxation

If required fabric relaxation must be done prior to layering of fabrics. Fabric comes in rolls from the mills. In the fabric roll, normally fabric got stretched and if the fabric is cut without relaxing it, shrinkage may happen on garment components after cutting. The best way is to relax fabric before laying fabric on the cutting table to avoid fitting and measurement issue. If possible, you can relax fabric after layering on the cutting table. What method to follow and how many hours fabric need to be relaxed? Take expert's advice for these.

6.4 Fabric shrinkage report and shrinkage approval

Don’t ignore fabric shrinkage report and approval on the shrinkage report. Having approval on fabrics confirms the fabric shrinkage too. But in many cases lot wise different shrinkages are found. You need to check the shrinkage report of different lots and plan your cutting rolls accordingly (assumed that fabric store will segregate fabric based on shrinkage percentage). Read how to calculate fabric shrinkage.

6.5 Cut planning

You might have detailed size and color wise quantity breakup for an order. Do you know what is best way of lay fabrics and cut all quantity by layering least number of lays? Plan it in advance looking at size ratio and color combination in the order sheet.

Related: Why you need cut planning and roll planning?

6.6 Marker plan

Marker plan plays a big role in fabric consumption and fabric utilization. You can reduce wastage by following a better marker without compromising average consumption of fabric. Always follow approved marker in bulk cutting. In case your factory has CAD system, you can take marker approval on mini marker.

6.7 Fabric consumption

Fabric cost incurred about 65% of the total garment cost. FOB of the garment is prepared based on fabric consumption. In case actual fabric consumption in bulk cutting comes higher than the estimated consumption (that one is used in costing), you might not save enough money from that order. Therefore, it is better to cross-check the actual fabric consumption in final marker. If there is not much difference you can proceed for bulk cutting otherwise wait and take approval from the concern authority.

Add all these check points into cutting room standard operating procedure. Following these you can improve cutting room performance and cutting quality.

7 Automatic Fabric Rib and Piping Cutting Machine

Ribs are one kind of knits fabric. Fabric ribs are normally attached to necks, sleeve hems, and bottom hem for binding. Maintaining an equal width of the rib is very important to produce the quality garment. This machine is also called as a piping cutting machine.

A good look of the garment depends on the finish of the neckline. When factories cut ribs manually (using straight knife cutting) they can’t make a roll of ribs and ribs are not continuous in length. It reduces the productivity of the machinist who operates rib attaching machine.

There are various ways to attach ribs. But the most productive way of attaching rib is to make a roll of ribs and use a binder to attach rib at neck and sleeve hems.

Piping cutting machine. image courtesy: kattspecial.com

To make a roll of rib there is automatic rib cutting machine as well as mechanical machines.

An automatic rib cutting machine helps to get the roll of ribs. An operator needs to feed the cloth roll into the machine and specify the rib width. machine operator needs to guide the fabric. This machine cut fabric a specified width and winded up into a roll automatically.

This machine not only cuts knitted ribs, but it can be also used to cut woven fabric piping tape or fabric stripe. Fabric tapes are commonly used in binding garment and clothes edges.

8 How to Deal with Cutting Mistakes in Garment Manufacturing?

This post is written to answer the question asked by an OCS reader.

There is lot of human intervention in cutting room activities. As a result, so many mistakes are happening in cutting activities. How to deal with such mistakes in cutting department? The common problems that we face due to mistakes of workers in cutting are

- Delay in cutting process
- Excess manpower requirement
- Excess power consumption
- Wastage of fabrics and other materials
- Increased cutting backlogs

In a single sentence, mistakes in cutting department increases production cost per piece and the recovering process is always frustrating.

8.1 Cutting Mistakes

Here cutting means cutting of garment components from fabric sheet. To find the solution of cutting issues, you need to understand the pattern of mistakes. So we will first look into common mistakes and then would find possible solutions. To know the pattern of mistakes, ask yourself the following questions

1. is mistake happening due to carelessness of the workers? Or
2. is it due to short coming of process design? Or
3. is it happening due to an unforeseen cause? Or
4. is your cutting team incapable of doing certain things due to lack of training and knowledge?

I have tried to make a brief list of the patterns of mistakes.

8.2 Common cutting mistakes are

1. Wrong patterns: Pattern modification is not done based on fabric shrinkage report or FIT comments is not incorporated in production patterns. This kind of mistake majorly happens where there is no standard procedure of pattern marking and pattern handover to cutting department. This kind of mistakes can also happen due to carelessness cutting workers or having little knowledge about patterns and its effects in production.

2. Cutting a wrong size ratio: it might be a result of carelessness of the workers.

3. Fabric received without prior quality check and approval based on test report: Further this is a result of not following standard procedure of fabric issue to cutting department. Not making shade band for fabrics with shade variation.

4. Missing notch mark: Notch mark is not given at desired position of the pattern or there is notch mark in the pattern, but cutter miss to cut notches in fabric lay. This may be a result of carelessness of employees.

5. Numbering mistakes: Workers are not trained for the work or they are carelessness.

6. Following wrong cutting plan: Cutting plan sometimes doesn't match with the requirement of sewing department when cutting department doesn't work according to daily cutting plan. Or change of production plan might not be communicated to cutting in-charge.

The above points are some common mistakes of cutting department, but mistakes are not limited to these only. You might face other kind of mistakes. You can send us mail about the mistakes occur in your cutting department or write the same in the following comment box.

8.3 How to deal with cutting problems?

The smart answer of this question is

- Study the frequency of mistake occurrences.
- Pick top 3 major mistakes first.
- Find root causes of the mistakes.
- Work on removing the root cause from the process.
- Reduced mistakes in the subsequent orders

I know this smart answer would not work for you. You need step by step guides. Right? Continue reading for the possible solutions.

8.4 Possible Solutions:

Following are the possible solution of above mistakes

Dealing with pattern related mistakes

Keep a check point for checking garment patterns before issuing pattern to cutting department. You can develop couple of samples prior to bulk cutting based on production pattern. I mean, cut fabric with patterns → sew garments → finish garments and check the quality.

If you found variation in finished garments, then correct it prior to bulk cutting.

If you religiously make pre-production (PP) samples and check the samples according to buyer specifications, you would not get surprise things like - measurement issues and fit problems in bulk production.

Sometimes, problem doesn't lie with patterns but cutting department use wrong pattern/old pattern. Set a standard procedure that pattern master needs to seal each final pattern and approve the same. Style number (article number) and component name should be written on pattern. Cutting depart should not be allowed to use any other pattern than approved one for a style and season. Other precaution should be taken related to patterns are

- Numbering of pattern pieces should be done (like pattern piece number 02 of 16 or number 03 of 16).
- Clearly mention on patterns whether fabric to be cut in folded form or in open width.
- How many components to be cut for single pieces from a single pattern piece. Like for shirt cuff patterns, four component needs to be cut where cutting department get one pattern piece for cuff.

Dealing with complete cutting process

Pilot production run is the solution. You might do Pilot Run prior to bulk cutting. If you do this process then all problems exist in cutting process, whether it is fabric issue or pattern issue would come out in the pilot run pieces. You might loss some fabric in this process but not the whole fabric.

Cutting defects or mistakes

All cutting defects can be taken care of by setting quality check point for layers and cut components. Also check shorting and bundling activities. Like size mixing and ply mixing possibilities.

Following Cut Plan

Companies follow different procedures for cut planning. In most companies, cutting department gets weekly cutting schedules and if there are changes on existing plan, cutting department gets updated plan. Still there may be some communication gap between cutting department and production department. This kind of issues can be controlled by having daily morning meeting between core production departments in a factory.

8.5 Conclusion

Solution can be simplified by following standard procedure of cutting activities. If you have not yet developed standard operating procedure (SOP) for cutting room activities, develop it and ensure that everyone in cutting department follow the standard working procedures. To make it further error proof, set standard procedure for fabric department and sampling and pattern making department also.

It would be great learning for me if you also share your methods about how do you deal with mistakes occurred in cutting room?

Do you find this guide helpful? Share it with your fellow colleagues and spread good ideas.

9 READ MORE ARTICLES ON CUTIING PROCESS

9 Tips to Save Fabric in The Cutting Room

Cutting Table Length and width

Benefits of centralized cutting department in the garment industry

Automatic fabric spreading machine

13 automatic spreading machine suppliers

Preparing production report for cutting department

7 Automatic fabric cutting machines

How many days in advance cut plan is given to cutting department?

Layer number process and equipment

Marker making and marker efficiency

Read more articles in the OCS blog related to fabric cutting.

*** End of the eBook ***