Learning Objectives

The learning objectives of this unit are:

- Describe garment finishing.
- Review equipment used and methods of pressing.
- Review...

4.1 Need For Ironing / Pressing

Ironing or pressing is necessary to smooth away unwanted creases and crush marks. These are normally caused by bad operator handling. It is necessary to make creases where the designs of the garment requires them. For example, creases in trousers and skirts. It is needed to mold the garment to the contour of the body. This is done for the enhancement of it shape. It requires two kinds of deformation, that is, Shrinking and stretching. After molding it is not possible to return the garment to its original shape. For example, moulding takes place are around the ends of darts, collars, shoulders, armholes and sleeveheads and sometimes trouser legs.

Ironing and pressing is needed to prepare garments for further sewing. It is also called as under pressing. It is pressing operations on partly finished garments. It is also needed to refinish the fabric after manufacturing the garment and to give a final, neat appearance to the finished product.

4.2 Definitions

Ironing is the process of cleaning or removing unwanted creases by use of steam and heat.
Pressing is the process of use of pressure.

A Molding operation or process is an activity or activities in which heat moisture and or pressure is used to change the density, form, shape and for surface structure of an apparel product or piece of fabric.

4.3 Categories of Garment Finishing
1. Garments which require no pressing
This category includes bras and other foundation garments, stretch swimwear and dance wear, and briefs and other items of underwear.

2. Garments requiring minimal pressing or finishing
This category includes garments which require no more than a light steaming since pressing in the sense of applying pressure is not necessary. Eg: Night gowns, slips, knitted synthetics, tee shirts and leisure wear.

3. Garment requiring the use of an iron in under pressing and final pressing
For the opening of seams and the creasing of edges and for pressing garments with gathers and fullness and in situation where style change is frequent, pressing with an iron is common because it is simple and flexible.

4. Garment requiring extensive under pressing and final pressing
This category includes garments which require the pressing open of seams and the setting of edges during manufacture, eg:- areas of large interlining, men’s jacket, trousers and waistcoat.

5. Garment requiring pleating or permanent press
Example: pleats in skirts or trousers.

4.4 Elements of Pressing
The main elements used for pressing are:
Heat, steam (that is moisture), pressure and vacuum.

Heat:
Heat is needed in most pressing processes to soften fibers, stabilize and set the desired shape. The temperatures must be selected to suit the fibers, yarns, and fabrics used in a particular style. Sources of heat include heated surfaces and steam.

Steam (Moisture):
This is the fastest means of transferring heat into the fabrics. Steam is created by heating water in a pressure or boiler. The higher the pressure, the hotter and drier the steam.
Pressure:
Pressure is applied to alter the shape and to increase the permanency of the molding or creasing. Too much pressure may distort fabric surfaces, flatten textures and create permanent garment and/or fabric damage.

Vacuum:
After application of heat and moisture, the vacuum sucks ambient air through the argument, as it lies on the buck or pressing table. This rapidly dries out residual moisture from the garment and ensures, that the set imparted by pressing is retained. Suction also ensures the garment is in place before pressing and it does not shift.

Needle Detectors
Needle detectors are used to find the broken needle pieces which fall on to the clothing while sewing, as this is can be hazardous to the wearer. The clothing brand will be penalized monetarily, if such cases are found out. The first needle detector law was enacted in Japan. Due to this, all apparel importers have made it mandatory for apparel manufacturers to screen their products for broken bits of needle and any other sharp objects.

If any garment is found to contain broken needle parts it has to be either scrapped or re-dusted, re-packed and undergo a check again. The needle detectors work on the principle of electromagnetic detection of ferrous parts which is commonly used in all metal detectors.

There are two types of needle detectors:

1. Portable Hand held needle detector, and
2. Stationary conveyor type needle detector

Portable Hand Held Detectors
The portable hand held needle detector is generally used in the sewing floor, to check for any residual needle part that has fallen on to the garment when a needle break occurs.

The supervisor or mechanic scans the entire garment or part that is sewn, and the operator will be allowed a replacement needle, only after the confirmation of no needle part presence.

Stationary Conveyor Belt Type Needle Detector
The stationary conveyor belt type needle detector is generally used in finishing department. The pressed, folded garment is checked for broken needle parts. The machine has a conveyor belt. The metal detecting mechanism is housed in a small channel, over the conveyor bed in the middle. The finished garment is kept on the conveyor bed and the machine is switched on.

The conveyor carries the garment forward, under the metal detection channel. If there is any broken needle bits or if metal parts are detected, then the machine raises an alarm and the conveyor reverses direction and brings the garment back to the feeding position. If the garment does not have any broken needle bits, it safely passes under the channel, and goes to the other side of the machine, and then falls into the collection bins or is collected by a worker.

**Thread Suckers**

Thread suckers are used to remove unwanted threads, which are in the form of thread bits sticking to the garment, in the fabric or in the seam.

Here, the operator holds the garment at one end, in case of a shirt the collar, and puts the other loose end in to a chamber. A foot operated pedal activates a powerful suction inside the chamber. This suction action carried away all the thread bits, lint and any other dust particles in to the dust collection chamber below. This machine saves labour, as in earlier times people had to manually dust for threads.

**4.5 Packing**

A garment has to be packed by the manufacturer to be sent to the retailer. The packing type is determined by:

1. Product type
2. Retailers infrastructure to unpack and repack in desired manner for display and stocking in retail shop

**Product Type**

This is the most important factor in determining the packing type. If the product is of formal category, like formal shirts the packing type will be a standard type, which cannot be changed.

For example, the packing type of a formal full sleeve shirt will be stand-up pack with supporting elements made of plastic, butter paper and metals or plastic pins to create the formal look.

If the retailer does not have the infrastructure to unpack, give touch up to the garments in a tunnel finisher and repack, then the packing will be required in the exact form of the retail shop requirement.

**Packing Types**
Standup pack

This is the most commonly sued for formal shirts. The body and sleeves will be folded into a rectangular shape. The shape is held firm, because of the backing of a back support, which is of the same shape kept in between.

Other accessories like clips, support structures made of plastic to support the visual elements like collar and collar band

Flat pack

Here, the garment lays flat without any supporting structures. It gives a casual look. T-shirts, causal shirts are often packed in this manner. It is achieved by using a folding type-packing machine

Umbrella pack

As the name suggests the final packed garment looks like a compact umbrella. This look is achieved by rolling the garment lengthwise side to side and then twisting it at top and bottom.

Roll pack

This is mainly used for casual shirts and casual skirts. The first step is to fold the garment into required width and then rolling it side to side, to create a tubular structure. This tubular structure can be either be packed or this can be further rolled into a tight bun like structure and packed.

Hanger pack

This packing type is used when the garment has to be in the hanger from the moment it has been finished in the factory till it is bought by the customer. The garment will be packed with the hanger and will be hanging throughout. This packing is preferred for jackets. This allows for the jackets to be crease free. The jackets can be refinished in a tunnel finisher before being sent to the store.

4.6 Packing Machines

Packing machines can be either semi-automatic or automatic machines with additional capability to bag and seal the folded garment. Semiautomatic machines will have templates to the required dimensions around which the folding can happen. The gripping and folding arms can be pneumatically controlled allowing the operator to concentrate on swing arm/parts to create the fold. Automatic machines are integrated units where the garment will be fed on to a conveyor belt in flat pressed form.
The conveyor belt takes the garment to the folding zone, where pneumatically controlled arms hold the garment in lengthwise and other set of arms operate perpendicularly to create the fold.

Extra set of arms can also be deployed to get more folds. Once the garment is folded, it travels on the conveyor. At the end of the conveyor, a bagging unit is present. The bagging unit holds the plastic bag in inflated condition. The folded garment falls into the inflated bag. From here, the garment moves onto the sealing unit, where the plastic bag ends are caught and heat sealed.

4.7 Conclusion

To summarize, in this unit, you have been given an overview of garment finishing, the equipment and need for pressing garments and the use of post-finishing equipment.