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Paper Name - Drafting and Garment Construction

Topic - Basic tools of Drafting and Stitching

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Basic tools of Drafting and Stitching

- To make the garment with high standard finishing, get the best tools you can find. The designer must have a proper knowledge of the tools and equipment required for sewing. It can be categorized in five segments.
- Measuring equipments.
- Drafting materials
- Equipments for cutting
- Equipments required for sewing
- Finishing equipments

1. Measuring Equipment

- Measuring tape - This is the most essential equipment in clothing. A sixty inch (1+1\2meter) long measuring tape with even meters and 1/3 inch division is desirable. One side has marking in inches and the other side has in centimetres. There are metal tips on the edges of the plastic tape to prevent the edges from fraying.
- Ruler - A 12” ruler is a very convenient item for measuring small distance. But 36” or 45” long ruler is more useful for this purpose. It could be a wooden, plastic or metallic ruler. Small plastic transparent ruler is used for drawing straight or biased lines flexible enough to measure curves.

2. Drafting Material

- Foot Rule – In a foot rule, there are 12” markings and these inches are further divided into 16 parts. Two parts are considered as one point and one inch consists of total eight parts.
- Triangular Scale – It could be of plastic, metal or wooden material in a triangular shape. It is used in drafting where the actual size of the garment is shown in a smaller scale in the same reduced proportion. One side of the scale shows $1/6^{\text{th}}$ proportion and the other side has $1/4^{\text{th}}$ in proportion.
- Set Square – It is also popularly known as tailors square. This is an L shaped scale marked both in inches and centimetres. Large set squares are available to be used for marking on the clothes where as smaller one is used for marking small drafting on the paper. If the centre part is round shaped, it can be used for curved lines also.

- French curve- These are wooden or plastic curves available in many curve shapes. The purpose of French curve is to give shapes to armhole and necklines and other curves for pattern adjustments or curve shapes anywhere in the body.
- Hem - Marker- There are two types of Hem Marker – Pin marker and Chalk marker. The chalk marker is convenient for those who do their own hem marking. A pin marker is used by an additional person than the one whose hem is being marked. Pin marking is more accurate in this sense.

- Drafting Paper – Thick brown paper is used for drafting. It is a large shaped paper of size bigger than a newspaper.
- Body Form – A body form or dress form is a composite figure which is accepted as a standard size. It is available in various sizes for ladies, children and men. It is used for drafting, draping and for reference measurement and checking the fitting of sample garments. The samples are made out of the ordinary fabric first and then tried on these dummies and then sent for mass production.
- Tailor's Chalk – It is a small square biscuit type shaped chalk available in different colours and is used for fabric markings during the drafting process. Chalk pencils are also in the market which can be sharpened to give a thin and more accurate lines.
- Pencil and Eraser – These are used during drafting on the paper. It generally is an H or HB pencil preferably.

- Drafting Tables – There are two types of drafting tables. One for drafting only and the other for pattern cutting and sewing. For drafting practice, Milton wooden cloth is stretched and pinned on a table. It should be dark in colour. If the Milton cloth table is used for cutting purposes, then a plank should be put on the table to safeguard the cloth beneath. This table is slightly higher than the normal table allowing the garments of any measure to be drafted and cut easily.
- Tracing Wheel – Tracing wheel helps transfer the pattern on the paper or fabric. A carbon paper is used between the pattern and the paper. It has marking features with tracing abilities which transfer pattern to the fabric without chalk markings.

- Tracing Paper and Carbon Paper – These are used to transfer the pattern from paper to the fabric. Do the marking on the reverse side always. And always use colour which is nearest to the colour of your fabric.
- Compass and Circle Template – It is used for drawing circle or arches.
- Straight pins-It is used for draping the fabric on the body form or dummy as well as for trial of dress fitting. Pin cushion can be used to prevent the scattering of pins.
- Pushpins-It is used for fixing the paper on the table, transferring style lines, pivoting holding muslin to paper patterns.

3. Equipment for Cutting

- Scissors – Scissors are designed for use in light sewing- cutting, clipping and trimming delicate fabrics. They are lightly constructed in different sizes and are generally available in 4”, 6” and 7” in length.
- Shears – Shears are more heavily constructed than scissors. The handles are so constructed that the thumb fits singly, in one and two-three fingers in the other part of the handle. They are made in the sizes of 6-12” in length. The bent handle shears are especially convenient for garment cutting.
- Embroidery scissors- These are used for fine needle work and of short, delicate construction. They are between 3-4” long.

- Pinking Shears- Pinking shears are designed with blades which have zigzag and notched edges. They are quite heavy in construction. They are used for finishing of seams or scalloped edges. Never used to cut out a garment because they don't give an accurate out line.
- Button Hole Scissors- Button Hole scissors are light weight and so designed that they can be adjusted for the cutting of various lengths of button holes. There is a screw which is used for controlling the length of cutting for the button hole.

4. Equipments required for Sewing

- Tracing wheel-it helps transfer the pattern on the paper or fabric. A carbon paper is used between the pattern and the fabric.
- Thimble-A thimble is an aid when doing hard sewing. It is used for directing the needle when hand sewing done. It may be plastic or metal and select one that fits the tip of middle finger snugly and use it to push the needle through the fabric.
- Needle threader-It can be used for both hand and machine needles. There is a push wire through needle eye in which thread inserted and then pull threaded wire.
- Stitch/seam ripper-It is handy for removing unwanted stitches.

- Hand needles – Generally, these needles are in the size of numbers 1 to 10, ranging from thick to thin varieties are available in the shops.
- In selecting the needles, one should keep in mind
 - 1)type of fabric 2)thread thickness 3) type of stitches.
- Use fine needles for delicate fabric and fine work.
- Machine needles-Range in size from 9(finest)to 18(largest). Sizes between 11 and 14 are the most common. Select the needle according to thickness of dress material.
- Thread – Sewing threads come in different sizes ranging from 20 to 100. The larger the number the finer the thread. Threads made of cotton and polyester are most commonly used.

Stitching Machine

- Modern sewing machine can do almost anything relating to garment manufacturing. The type of machine to buy depends on your need, space and budget. They usually belong to the professional and personal categories.
- There are different branded companies like Usha, Singer, Juki etc. which sell sewing machines. It is important to buy those machines which have repair and spare part backup service available nearby.

Finishing Equipments

- Iron – One can have better finished clothing if pressing is done during the process of garment construction. It gives professional look of sewing. A moist cotton cloth may be placed between the iron and your fabric to add extra moisture and prevent iron shine. Heavy steam irons are of a great convenience.
- Ironing boards-It should be stable on the floor with adjustable height. It should be carefully and stiffly padded with heat resistant material so that there are no chances of damage and wrinkles.

Thank you.