

Stenter Machine:

Stenter is the most expensive and important fabric drying and finishing machine. Stenter is a machine or apparatus for stretching or stentering fabrics. It is also known as a 'tenter' in the woollen industry. The purpose of the stenter machine is to bringing the length and width to pre-determine dimensions and also for heat setting and it is used for applying finishing chemicals and also shade variation is adjusted. The main function of the stenter is to stretch the fabric widthwise and to recover the uniform width.

tenter machine consists of two endless auto-lubricated driven chains, typically 40 to 60 m in length carrying pins or clips to hold the fabric edges while passing through a number of hot-air chambers (3–5, each of about 3 m). Hot air is directed onto the fabric equally from above and below. A stenter has the provision for overfeeding the fabric to allow required shrinkage during heat setting of fabric while the width is increased to the precisely specified value by the chains. The use of clip stenter has declined because of the difficulty of applying overfeed. The stenter speed ranges from 10 m/min for heavyweight furnishing fabrics to 100 m/min for lightweight dress-goods.

The speed also depends on the processes carried out in stenter namely:

- Drying,
- Heat setting,
- Weft straightening,
- Curing after application of finishes.