

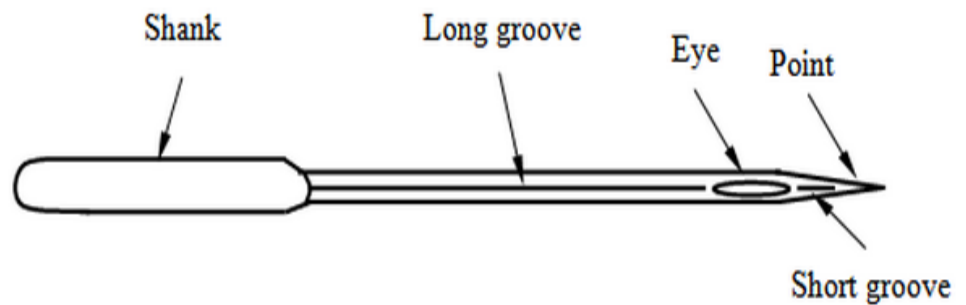
3.1.5.1 Parts and Functions of the Needle

Figure 3.5 Parts of the needle

Buttstack: It is the part that passes into the needle bar slot. It is wider and stronger because it is attached to the needle bar. It is a round structure on one side and industrial machines in domestic ones. The flat structure of the groove facilitates the insertion of the needle into the machine.

Conic: It is the section that shrinks from the butt of the needle according to the shaft.

Needle shaft: It is the part between the butt and the



needle eye. It provides the formation of the space on which the yarn can pass. Thickness and form indicate the size of the stitch hole in the fabric. The long channel on the shaft allows the needle to sink into the piece to be sewed and the thread to be protected during sewing. The long channel also determines the direction the thread is attached to the needle. The short channel and neck make it easier to pin down the needle and the approach to the hook when the loop is caught.

Needle eye: Thread is passed through the needle eye. Generally the size of the eye is as much as the shaft thickness. Since the thread passage will follow the needle, the needle eye is always longitudinal. The inserts are designed to facilitate sewing depending on the material and manufacturing technique. There are different types of ends such as tapered and rounded to prevent material damage on woven and knitted surfaces.