



Definition and application of knurling

Definition

Knurling is a press-machining process for printing patterns on a workpiece surface, with one or two rollers installed on the knurling tool. These rollers are available in straight, crossed, diamond and angular threads, etc. and in various pitches.

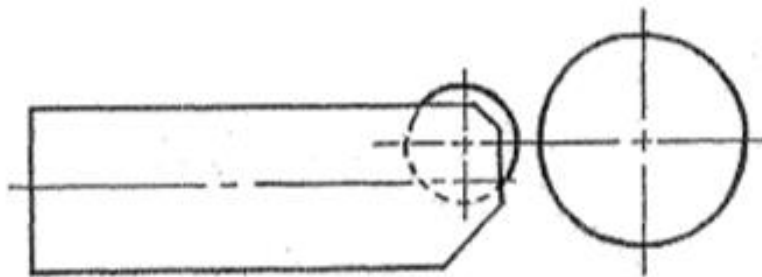


The main objectives of knurling are:

- To achieve a high level of adhesion. For example, knurled screws and nuts.
- Increase part diameter for easier assembly.
- Improve the aesthetic appearance of the part's surface.

Preparations for knurling operation

When knurling, the machine rotates at a low speed, about half that required for ordinary machining. The automatic longitudinal feed of the knurling tool is between 0.05 and 0.3mm/rotation. Install the roller on the tool, then clamp it in the tool holders. It will be perpendicular to the workpiece, and its height will coincide with the diameter of the knurling zone.



Start the machine and press the roller onto the workpiece to 0.02mm, then stop the machine to check the roller footprint. Readjust the roller height if necessary. Once the desired thread has been obtained, continue to feed the tool until the required depth is reached.

Finally, feed the tool longitudinally until it reaches the required length.

Press the roller onto the rotating workpiece so that the outer shape of the roller is stamped onto the workpiece surface.
Use one or two rollers.

