



NTPC-MAITI BARKAGAON PRIVATE INDUSTRIAL TRAINING INSTITUTE

BARKAGAON, HAZARIBAGH

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Run & Managed by

*"Jharkhand Government Mini Tool Room & Training Centre, Ranchi
Tatisilwai Industrial Area, Plot No: 38, Phase-I, Ranchi-835103"*

General Machining operation

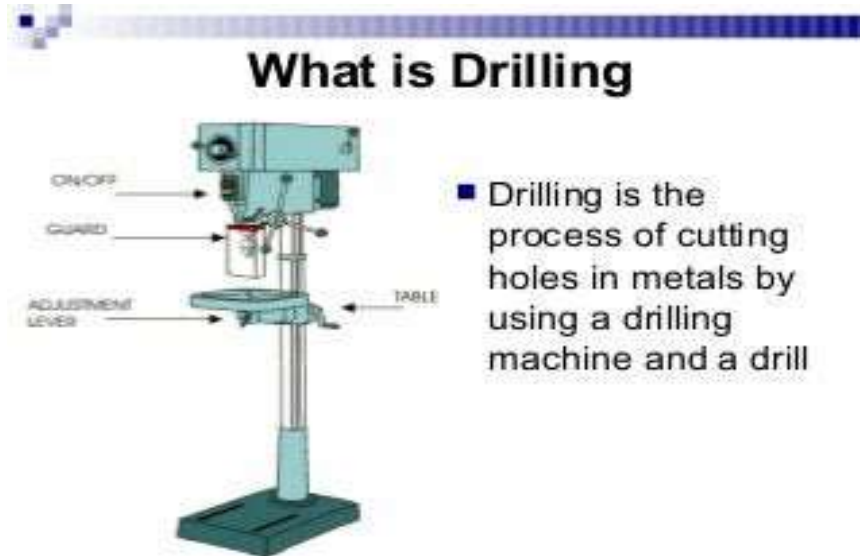
1. **Turning** - Turning is a **form of machining**, a material removal process, which is used to create rotational parts by cutting away unwanted material. ... The cutting tool feeds into the rotating workpiece and cuts away material in the form of small chips to create the desired shape.



Syllabus-

- Lathe operation
- True job on four jaw chuck using knife tool
- Face both the ends for holding between centre
- Using roughing tool parallel turn
- Measure the diameter using outside caliper and steel rule

2. **Drilling-** Drilling is a cutting process that uses a drill bit to cut a hole of circular cross-section in solid materials. The drill bit is usually a rotary cutting tool, often multi-point. The bit is pressed against the work-piece and rotated at rates from hundreds to thousands of revolutions per minute. This forces the cutting edge against the work-piece, cutting off chips (swarf) from the hole as it is drilled.



Syllabus-

- Mark off and Drill through holes
- Drill and tap on MS flat
- Drill for Riveting
- Drill through hole and blind holes
- Different types of Drilling

3. **Grinding-** Grinding is an abrasive machining process that uses a grinding wheel or grinder as the cutting tool. Grinding is a subset of cutting, as grinding is a true metal-cutting process. Grinding is very common in mineral processing plants and the cement industry.



Syllabus-

- Grinding flat and square (Rough finish)
- Grinding in different metal