

BÀI GIẢNG

CHẤT LIỆU

VÀ

KỸ THẬT TẠO DÁNG

# PHƯƠNG PHÁP GIA CÔNG NGUỘI

## I. Khái quát chung về nghề nguội

- a. Khái niệm
- b. Trang bị
- c. Dụng cụ

## II. Kỹ thuật vach dẫu

- a. Khái niệm
- b. Dụng cụ
- c. Kỹ thuật

## III. Kỹ thuật cưa, giũa

- a. Khái niệm
- b. Dụng cụ
- c. Kỹ thuật

## IV. Kỹ thuật đục

- a. Khái niệm
- b. Dụng cụ
- c. Kỹ thuật

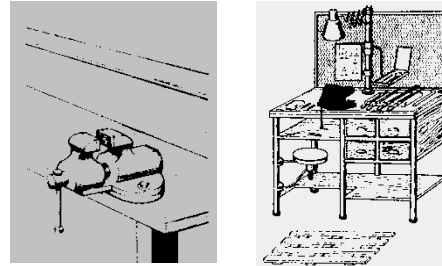
## V. Kỹ thuật khoan và làm ren

- a. Khái niệm
- b. Dụng cụ
- c. Kỹ thuật

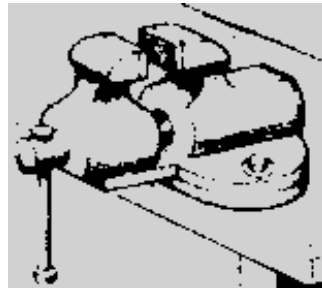
# KHÁI QUÁT VỀ NGHỀ NGUỘI

## a. Khái niệm

- + Định nghĩa
- + Phân loại
  - Nguội dụng cụ
  - Nguội lắp ráp
  - Nguội sửa chữa
  - Nguội mỹ nghệ
- + Đặc điểm



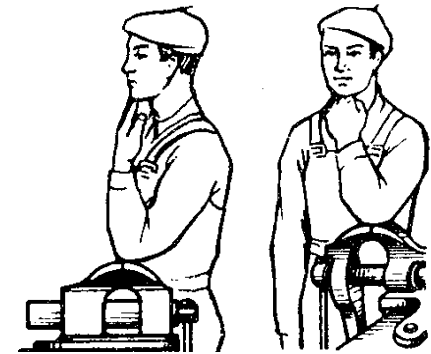
Bàn nguội



É tô bàn



É tô đứng



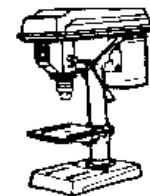
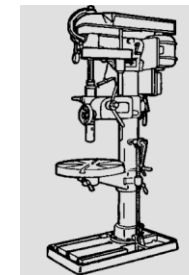
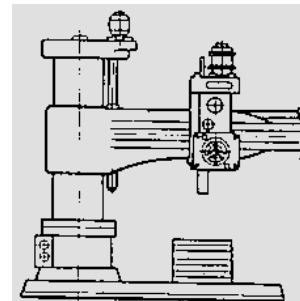
Cách chọn và kiểm tra chiều cao É tô

## b. Trang bị

- + Bàn nguội
- + Ê tô
- + Máy khoan

## c. Dụng cụ

- + Dụng cụ đo
- + Dụng cụ gia công
  - Dụng cụ cắt gọt
  - Dụng cụ tháo lắp

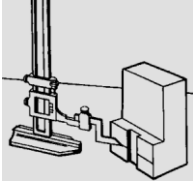
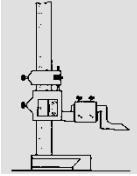
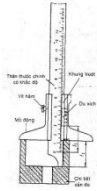
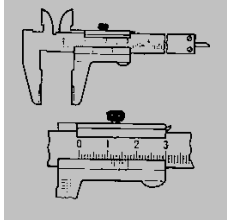


Các kiểu máy khoan

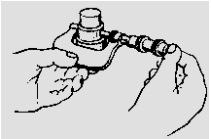
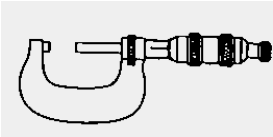
# DỤNG CỤ ĐO



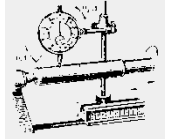
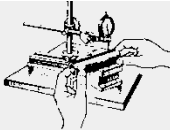
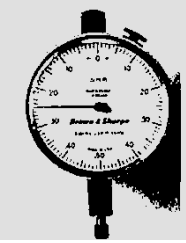
Thước lá, thước cuộn



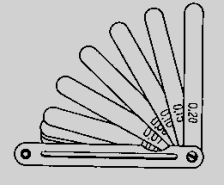
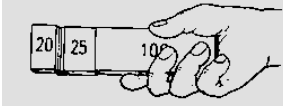
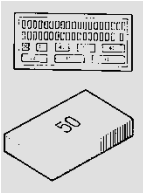
Thước cặp, Thước đo chiều cao



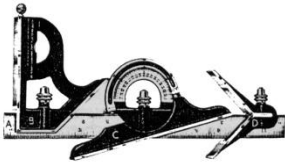
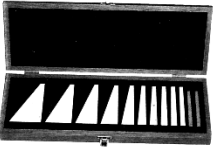
Panme



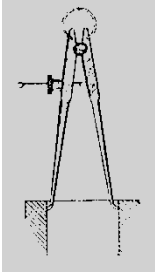
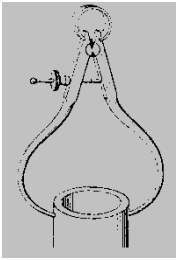
Đồng hồ so và cách dùng



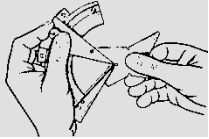
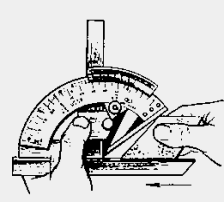
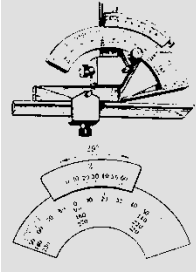
Căn mẫu, căn lá



Góc mẫu, Ê ke



Kompa đo



Thước đo góc và cách dùng

# DỤNG CỤ CẮT



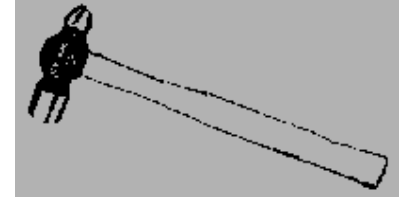
Cưa



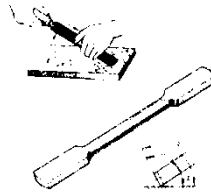
Giũa



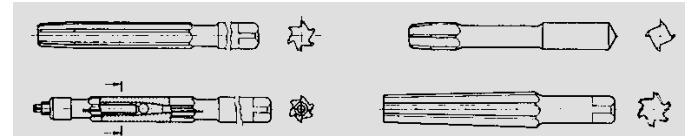
Đục+Búa



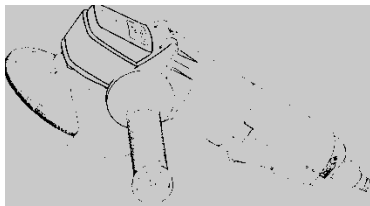
Cạo



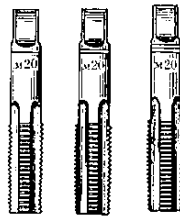
Mũi khoan



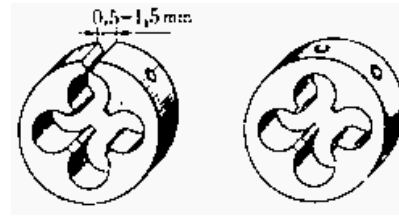
Mũi doa



Máy mài cầm tay



Tarô + Bàn ren

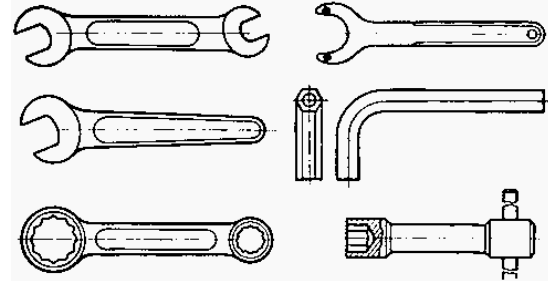


Kéo

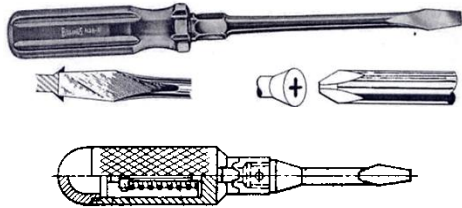
# DỤNG CỤ THẢO LẮP



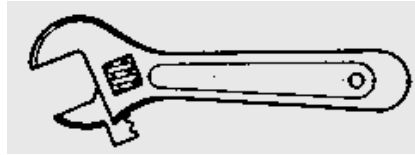
Kềm



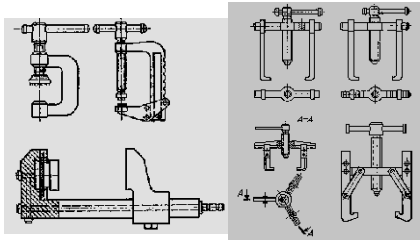
Khoá



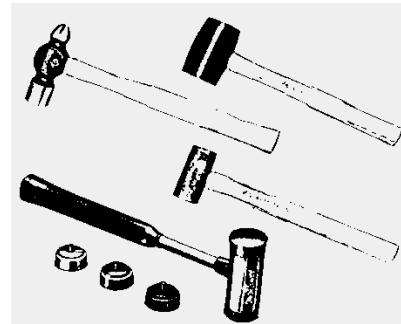
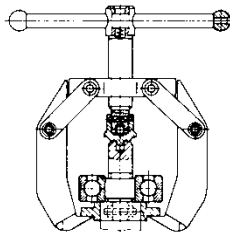
Mở vít



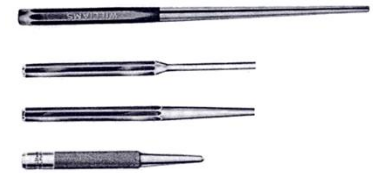
Mỏ lét



Cảo



Búa

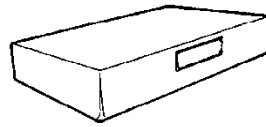


Tì tổng

# KỸ THUẬT VẠCH DẦU

## a. Khái niệm

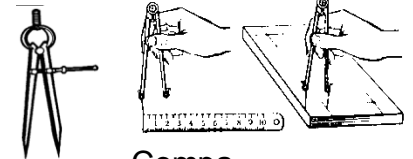
- + Định nghĩa
- + Các phương pháp vạch dầu
  - Phương pháp vạch dầu trực tiếp
  - Phương pháp vạch dầu chép hình



Bàn máp



Khối Ke



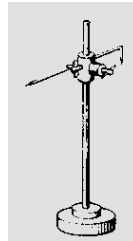
Compa

## b. Dụng cụ

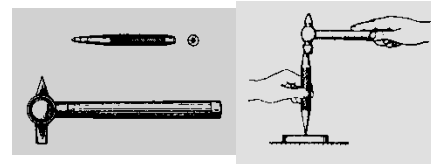
- + Dụng cụ đo
- + Dụng cụ vạch dầu



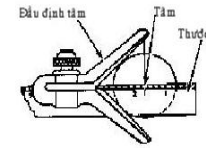
Mũi vạch



Cỡ vạch



Mũi đột + Búa

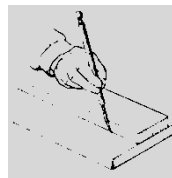
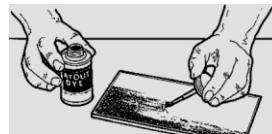


Ke định tâm-côn định tâm

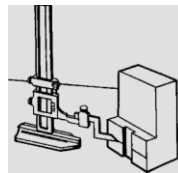


## c. Kỹ thuật

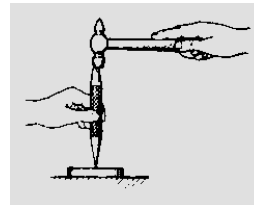
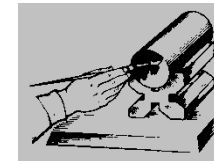
- + Quy trình vạch dầu
- + Kỹ thuật



Vạch dầu



1. Bôi bột màu



Đốt dầu

# KỸ THUẬT CƯA - GIỮA

## 1. Kỹ thuật cưa

**a. Khái niệm:** Cưa là phương pháp gia công cắt gọt bằng tay với dụng cụ là cưa, dùng để cắt phôi hoặc cắt bỏ lượng dư lớn.

**b. Dụng cụ:** Khung cưa với lưỡi cưa.

**Cách lắp lưỡi cưa:**

**c. Kỹ thuật**

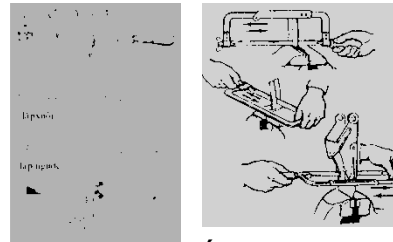
**+ Tư thế**

- Tư thế tay:

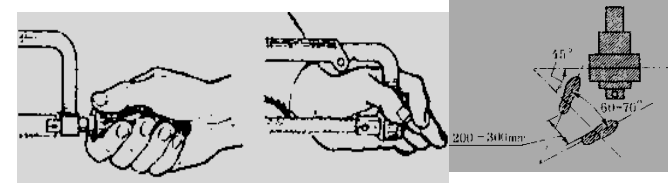
- Tư thế chân.

**+ Thao tác**

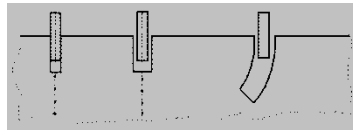
**+ Kỹ thuật**



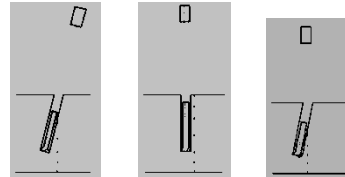
Cách lắp lưỡi cưa



Tư thế khi cưa



Kỹ thuật cưa



Sai hỏng khi cưa

## 2. Kỹ thuật giữa:

**a. Khái niệm:** Phương pháp gia công cắt gọt bằng tay với lượng dư nhỏ.

**b. Dụng cụ:** Giữa

**c. Kỹ thuật**

**+ Tư thế**

- Tư thế tay.

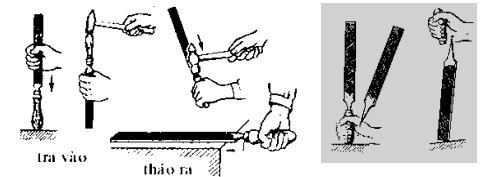
- Tư thế chân.

**+ Thao tác**

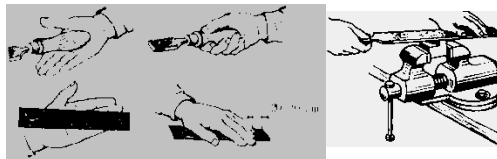
**+ Kỹ thuật**



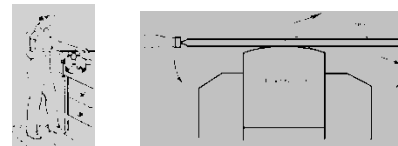
Các loại giữa



Cách tra cán giữa



Tư thế khi giữa



Cân bằng giữa



Phương pháp giữa

# KỸ THUẬT ĐỤC

## a. Khái niệm

## b. Dụng cụ

- + Búa
- + Đục

## c. Kỹ thuật

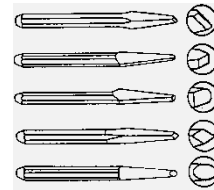
### + Tư thế

- Tư thế tay
- Tư thế chân

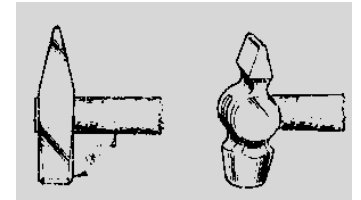
### + Thao tác

### + Kỹ thuật

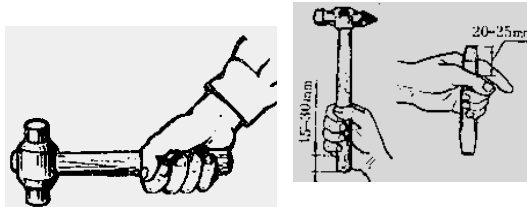
- Cách mài lưỡi đục
- Độ nghiêng lưỡi đục



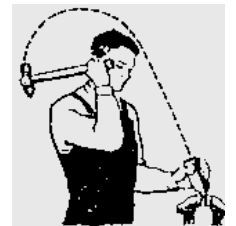
Đục



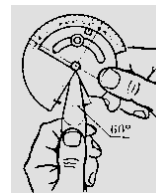
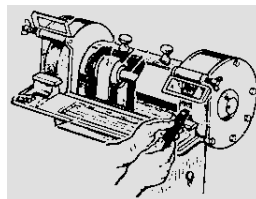
Búa



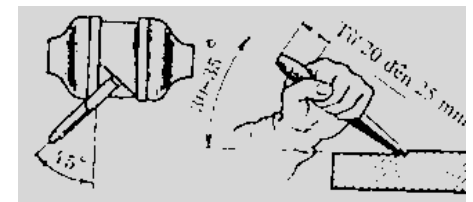
Tư thế khi đục



Cách đập búa khi đục



Mài lưỡi đục

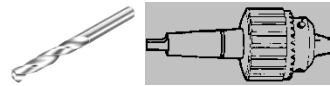
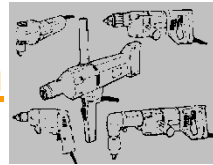


Độ nghiêng lưỡi đục

# KỸ THUẬT KHOAN – LÀM REN

## 1. Kỹ thuật Khoan

### a. Khái niệm

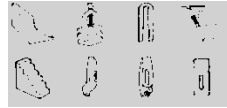


Đầu kẹp khoan

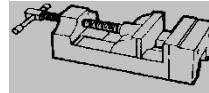


Áo côn

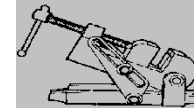
### b. Dụng cụ



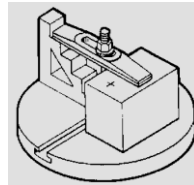
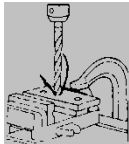
Vấu kẹp



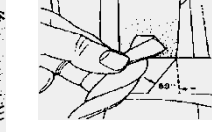
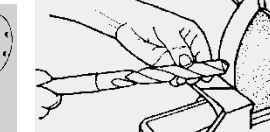
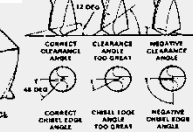
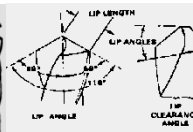
Ê tô



### c. Kỹ thuật



Gá kẹp khi khoan



Mài mũi khoan

## 2. Kỹ thuật làm ren bằng tay

### a. Khái niệm

### b. Dụng cụ

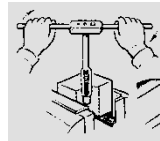
+ Ta rô

+ Bàn ren

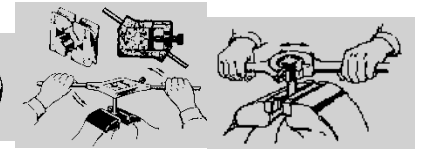
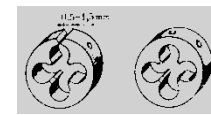
### c. Kỹ thuật

+ Làm ren ngoài

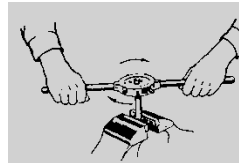
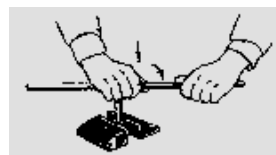
+ Làm ren trong



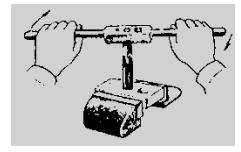
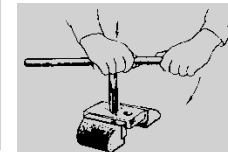
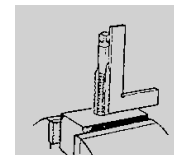
Ta rô và tay quay



Bàn ren và tay quay



Kỹ thuật làm ren ngoài



Kỹ thuật làm ren trong