

* Impact Test

* Impact test is used to evaluate toughness of different materials.

* Toughness: Energy required to cause Fracture

Depends on

- ① Strength
- ② Ductility

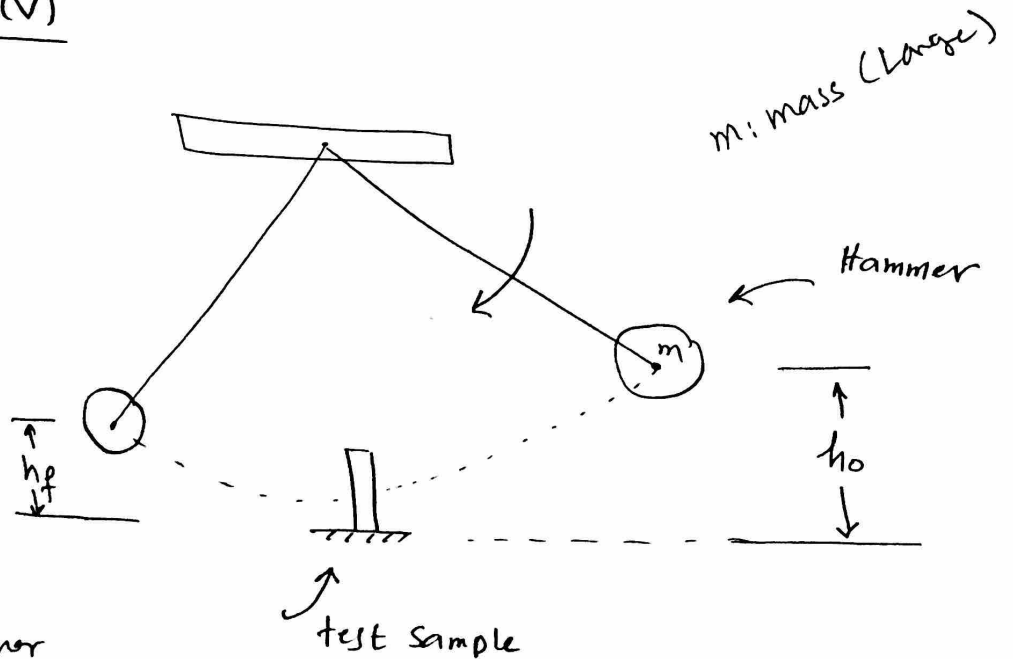
* What is impact or shock load?
 → Very high load value
 → Short period of time

* Potential energy (V)

$$V_o = mgh_o$$

$$V_f = mgh_f$$

$$\Delta V = mg(h_o - h_f)$$



$\Delta V \uparrow$ means higher toughness

To facilitate Fracture we add notch

Two types of Notches

- ① V notch
- ② U notch

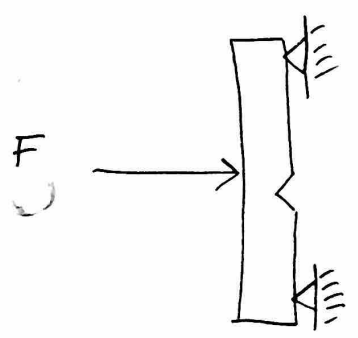


There are two-common types of Impact tests

- ① Izod test
- ② Charpy test

① Charpy test

- ① Simple supports
- ② Load is opposite to the notch direction



② Izod test

- ① Cantilever support
- ② Load is Facing the notch.

