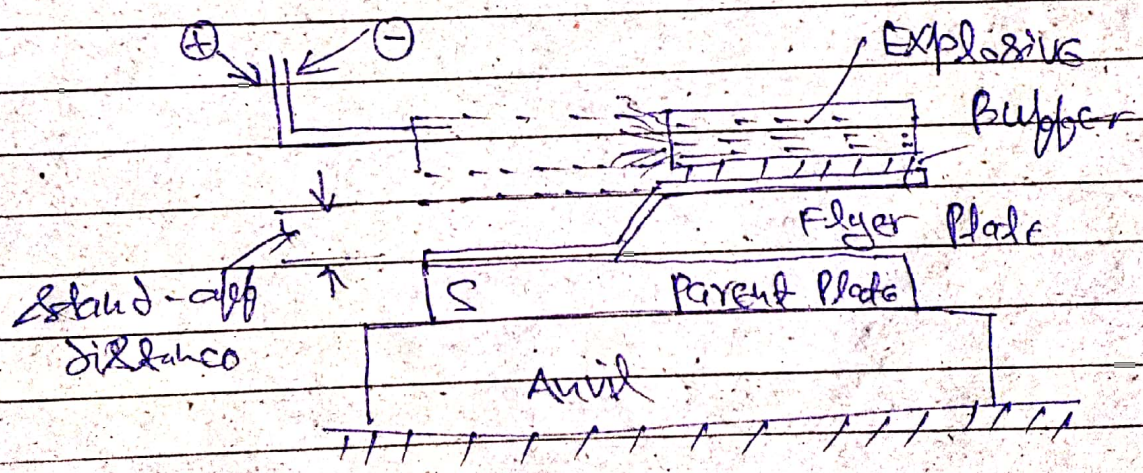


Section - 5

Q-1 → Explosive welding :-

Explosive welding is a solid state welding process wherein coalescence is produced by making one part strike over another at a very high but subsonic velocity.

Basically explosive welding involves a high velocity oblique impact between a plate propelled by an explosive charge and a stationary plate when two plates are to be explosively welded.

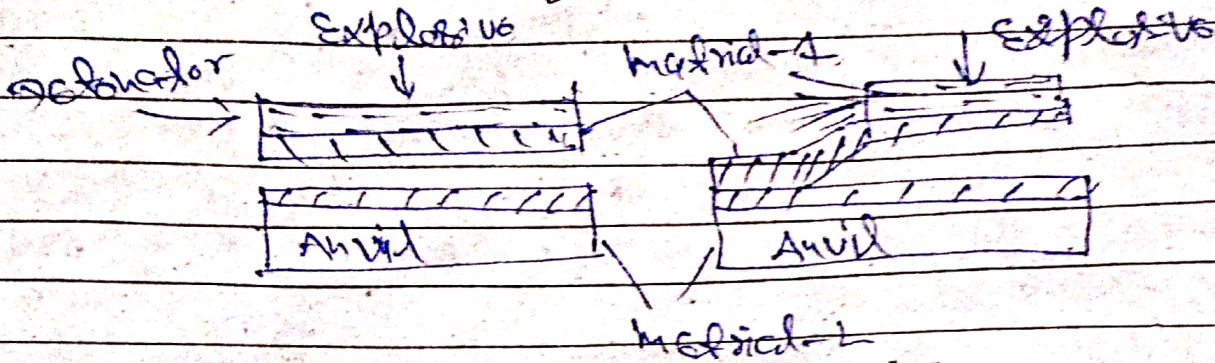


Working :-

The flyer plate is to be joined with the parent plate. There is a buffer above the flyer plate which may be of rubber, cardboard or a similar material to protect the top surface. Flyer plate should be an inclination from 10 to 15°. Thick plate is called as flyer plate.

Names of Explosive Uses:

① ~~Para~~ Parallel Method —



② Inclined Method —

$$V_{ep} = \frac{V_p}{\sin(\alpha + \tan^{-1}(\frac{V_p}{V_s}))}$$