

Ans ⇒ Mechanism of metal transfer -

When electric arc is produced between the workpiece and consumable electrode, electrode start melting in the form of spherical shape, hangs towards the job and finally a drop down on the workpiece therefore metal transfer from electrode to workpiece is define "metal transfer process".

\* metal is transferred in arc welding in three ways -

①

By dip transfer

②

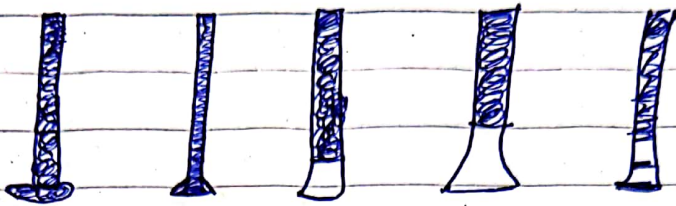
By free drop (large drop) transfer and -

③

By spray (small drop) transfer.

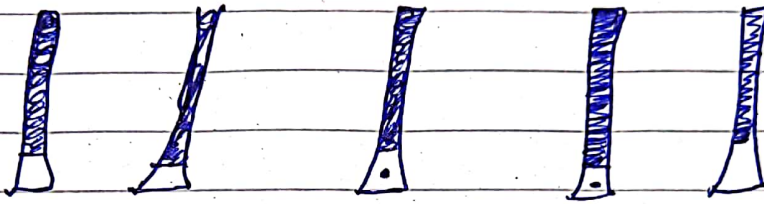
In dip transfer a globul of molten metal is formed at the end of the electrode during Arcing in the first stage.

①



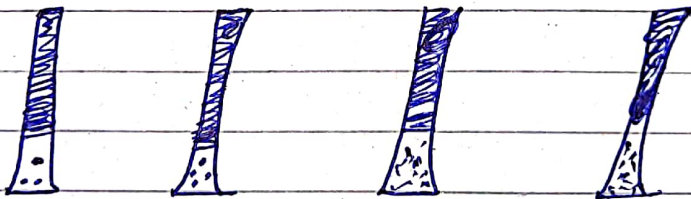
Dip transfer

②



free drop transfer

③



Spray transfer