

MIXING

① HAND MIXING

② MACHINE MIXING

Types of Mixers

- ① Batch mixers → Batch mixer produce concrete, batch by batch with time interval. These type of mixers mix and discharge each load of material separately. In normal concrete work batch mixers are used.

They are of 2 types → ① Pan type or ② Drum type.
Drum type Batch mixers are of 2 types:-

- ① Tilting type mixers
- ② Non-tilting type mixers →

- ② Continuous mixers → They produce concrete continuously without stoppage till the plant is working. In this type of mixers the materials are fed continuously by screw feeders and concrete is discharged continuously.

③ Pan Mixers → It contains a circular pan rotating about vertical axis. A set of star paddles are provided in the pan about a vertical axis not coincident with the axis of the pan. The relative movement between the pan and the concrete is the same and the concrete is thoroughly mixed.

The core blades in the pan called scraper blades which prevents the sticking of cement to the pan.

This is suitable for stiff and cohesive mixes.

④ Mobile or Truck Mounted Mixers

This type of mixers consists of a mixing drum mounted on the truck and are powered with truck engine or from a separate diesel engine.

Type of Mixers	Nominal mixed batch capacity (litres)				
Tilting (T)	85T	100T	140T	200T	
Non-Tilting (NT)	200NT	280NT	340NT	400NT	300NT
continuous	1600				

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CURING → The process of keeping the finished concrete surface moist to enable it to gain strength is called curing.

The physical property of concrete depends upon hydration of cement and the resultant micro structure of the hydrated cement.

OBJECTIVES OF CURING

- ① prevents loss of moisture from concrete.
- ② reduces shrinkage in concrete.
- ③ It improves wear resisting property of concrete.
- ④ increases weather resisting property of concrete.
- ⑤ increases strength, durability and impermeability.

Methods of curing

- Ponding ② Membrane curing ③ Steam curing.
 Chemical curing ④ Sprinkling of water ⑤ Covering with moist gunny bags ⑥ shading the concrete surface.