Tool Box Talk

Tube & Clamp Scaffold

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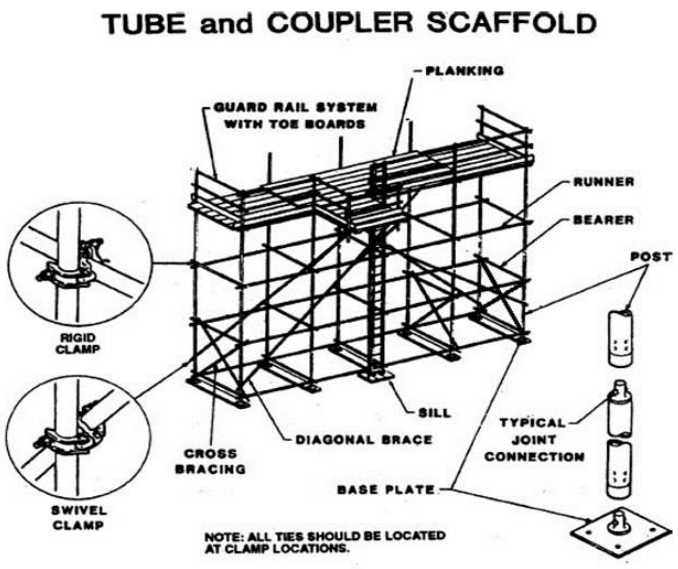
A tube and clamp scaffold has a platform(s) supported by tubing, and is erected with coupling devices, connecting uprights, braces, bearers and runners.

The two main clamps are called joiners and swivels. Due to their strength, weight and abilities, this scaffold is often used where simpler scaffolds cannot fit, or where the scaffold is hung from the ceiling or built in such a way that conventional scaffolding won't work.

This system can be assembled in multiple directions and tight-fitting areas, making it the preferred option for work areas with irregular dimensions and/or contours. This type of scaffolding is lightweight and can be maneuvered by hand easily.

While inspecting this scaffold, workers should:

- Look at each clamp to ensure it is friction-fitted in place.
- Question clamp placement. Both wedges are not fitted around a tube in all cases, for example, when holding a toe board.
- If unsure, always call a professional and get clarification.
- Ensure scaffold tags are placed:
  - Red tag indicates unsafe, do not use
  - Yellow tag indicates there are some hazards and to read the tag before use
  - Green tag indicates ready to use



Other Things To Look For

- All vertical/horizontal members are square, plumb and level.
- Ladders should not be taller than 6 m or 20 ft without a ladder cage or a break in the ladder.
- Toe boards are 12.5 cm or 5 inches in height.
- Handrails should be set at 91cm to 107cm or 36 to 42 inches, with the mid rail set in between.
- All clamps are firmly in place and connected.
- When erecting a freestanding scaffold, it can only be 3 times the smallest base dimension.
- Deck height should be 5 ft below the area of work
- Ensure that workers do not climb diagonal braces to reach the scaffold platform.
- Do not use scaffold components from different manufacturers unless you can do so while maintaining the scaffold's structural integrity.

Legislation

12-9(1) If a metal scaffold is used, an employer or contractor shall ensure that the metal scaffold is:

(a) erected, used, maintained and dismantled in accordance with the manufacturer's or professional engineer's specifications and recommendations; and

(b) inspected, by a competent person, before use and daily when in use for any damage, deterioration or weakening of the scaffold or the scaffold's components.

12-9(3) If a metal scaffold is a tube and clamp scaffold, an employer or contractor shall ensure that:

(a) joints in adjacent uprights are staggered and do not occur in the same tier;

(b) joints in uprights are located not more than one-third of a tier away from the connection of a ledger;

(c) ledgers are erected horizontally along the length of the scaffold and coupled to each upright at regular intervals of one tier;

(d) all ledgers are joined to form a continuous length;

(e) individual tube lengths of a ledger are the lesser of:

(i) two or more bays in length; or

(ii) the horizontal length of the scaffold;

(f) tubes of different metals or gauges are not joined together; and

(g) if base plates are required, they are securely installed in the uprights and securely attached to the sills.