Andhra Pradesh State Skill Development Corporation

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AUTODESK AUTOCAD

AutoCAD(CIVIL)

Beam Layout

DETAILS OF THE STRUCTURAL ELEMENTS, TITLE BLOCK AND PRINT OPTIONS
BEAM LAYOUT

Beam:

Beams are traditionally descriptions of building or civil engineering structural elements, but any structures such as automotive automobile frames, aircraft components, machine frames, and other mechanical or structural systems contain beam structures that are designed to carry lateral loads are analyzed in a similar fashion.

The plan which contains Beam size and Beam position is called a Beam layout plan. The Beam layout plan is very important for a Structure. Because without Beam layout it's impossible to locate the actual location of the structure.

Beam are classified into six types

- Based on Shape
- Based on support Conditions
- Based on type of loads
- Based on reinforcement
- Based on Equilibrium Condition
- Based on Geometry
- Based on Material Used

Based on Shape

- T Beam
- I Beam
- Channel Beam
- Rectangular Beam
- Circular Beam

Based on Support Conditions

- Simply Supported Beam
- Fixed beam
- Cantilever beam
- Continuous beam
- Overhanging beam

Based on the Type of Loads

- Concentrated Load
- Uniformly Distributed
- Uniformly Varying Loads
- Arbitrary Loading.

Based on Reinforcement

- Singly Reinforced Beam
- Doubly Reinforced Beam

Based on Equilibrium Condition

- Statically determinate Beam
- Statically Indeterminate Beam

Based on Geometry

- Straight Beam
- Curved Beam
- Tapered Beam

Based on Materials Used

- Wooden Beam
- Stone Beam
- Fletched Beam
- Steel or Metal Beams
- Rcc Beams

Beam Layout

Basically, the Beam layout plan is drawn by hand or AutoCAD. AutoCAD software is the most popular software for drawing.
Here are the basics of Beam layout in AutoCAD have been shown in the following steps.

1. Beam shape choice.
2. Draw the Beam.
3. Fixed the Beam location.
4. Set the grid line.
5. Numbering the grid line.
6. Set the dimension with respect to the grid line.
7. Numbering the Beam.