

Mezzanine Floors

Cold-formed mezzanine structures and decking for warehouse fit-out

A mezzanine is a building inside a building: columns, beams and a deck, with stairs, edge protection and access. The structure is usually cold-formed steel, which keeps the dead load — and the cost — down compared with a hot-rolled frame.

Elements

Element	Typical form	Notes
Columns	Cold-formed or hot-rolled posts	Spacing set by the bay and the imposed load
Beams	Cold-formed or hot-rolled floor beams	Designed with the deck for the floor loading
Deck	Steel deck with concrete, or timber/steel panel	Deck is often the cheapest way to get a stiff floor
Edge protection	Guardrail and kick plate all round	Required wherever the edge is exposed
Access	Stairs or ladder, with the right pitch and guarding	Part of the design, not an afterthought

Design inputs

Imposed load	The floor load the building code imposes for the use — this is the first number to fix
Fire	Whether the mezzanine needs a fire rating, and how the structure achieves it, is a building-control decision
Clear height	Headroom under and over the mezzanine usually sets the column height before the load does
Fixings	Anchorage to the existing slab and the existing structure

Standards referenced

EN 1993-1-1 and EN 1993-1-3 (steel and cold-formed steel design) · EN 1991-1-1 (imposed loads on floors) or the local building code · EN 1994-1-1 where a composite deck is used · EN 1090-2 for execution where it applies

Need a quote? Send the mezzanine footprint, the required floor load, clear heights and access requirement.

zt-rfm.com · ztrollformmachine.com · +86 131 6656 7923 · steven@zt-rfm.com