

Tata Steel: Safety innovation for working at heights

Tata Steel has implemented the innovative scan climber system to enhance safety for workers performing tasks at height. This system provides a safe and versatile work platform, minimising the risk of falls and material drops.

The scan climber system is an automated elevating work platform with rack and pinion technology for safe work at height. It boasts a working height of 72 meters, a platform length of 19 meters, and a capacity of 2.2 tons. The scan climber platform adjusts at any height, manually or powered. It self-erects, requiring no external resources. Anchoring of the mast every 10 meters ensures stability of structure. Dual drives with a safety brake (automatic activation) guarantee controlled descent even if drives fail. The mast itself serves as an emergency ladder for rescue.

Context

'Working at height' is a critical daily activity in steel plants, especially for painting structures. Despite safety protocols, Tata Steel and other steel industries have experienced numerous high-consequence incidents related to falls from height. These incidents are often attributed to inadequate work platforms, lack of fall protection, falling materials, insufficient emergency preparedness, and six-directional hazards.



Benefits

By addressing the limitations of traditional scaffolding and mechanical lifting equipment, the scan climber system ensures safe access to even challenging areas like gas holders, significantly enhancing worker safety. The scan climber replaces scaffolding, eliminating the associated risks of making and dismantling. It's an engineered solution with built-in rescue provisions and automatic ascent/descent, significantly reducing fall hazards. This initiative demonstrates a safer approach to working at height, applicable to all steel industries, especially for painting critical structures like gas holders, chimneys, and flare stacks.