

Another Sky Climber Reference!

International Thermonuclear Experimental Reactor



ITER (International Thermonuclear Experimental Reactor) is a research and engineering megaproject to build a nuclear fusion reactor. Located in Provence, southern France, ITER will be the world's largest magnetic confinement plasma physics experiment.

Sky Climber was selected to provide the access solution for the vertical walls in the central cylindrical structure that will house the vacuum vessel of the plasma container.

The most effective solution was determined to be a monorail system mounted on the underside of the domed roof. The monorail will be used during the construction phase to install all the various parts around the plasma container.

The monorail had to be installed whilst the dome was under construction as the whole dome structure was being taken up in one lift by mega-cranes.

The monorail was fitted with four removable special sections of length 1m that would allow the dome to be installed and adjusted correctly before the monorail was put into use. Failsafe end-stops were installed at each special section to prevent any risk in case the removable section was not reinstalled properly.

As the location of the mounting brackets of the monorail was predetermined by the structure of the dome, the cradle is designed with a 1.6m forward cantilever. This allows the operators to reach the sides of the cylinder, even though the monorail is mounted 1.6m away from the side of the cylinder.

Vertical run	40 m
Monorail	90 m (circular)
Trolley	Motorised
Self-weight cradle	700kg
Size of cradle	3000mm long, 1600mm front cantilever
Cradle rated load	240kg
Hoisting	Self-powered cradle
Norms	European Norm EN 1808