

A HELICAL ELEVATING SYSTEM AND METHOD OF INSTALLATION OF MECHANICAL, ELECTRICAL AND PLUMBING (MEP) MODULES USING THE SAME

ABSTRACT OF THE DISCLOSURE

A helical elevating system and the method of installation of mechanical, electrical and plumbing (MEP) modules using the elevating system is disclosed. The elevating system comprises (a) a base frame (60) being the bottom of the system (100) which rests stably on the ground;

(b) at least one spiral cylinder (61) configured to perform ascending or descending of the helical elevating system (100) driven by an electro mechanically driven device mounted therein;

(c) a horizontal lifting plate (50) perpendicularly coupled to the spiral cylinder (61) at one end thereof, the horizontal lifting plate (50) being ascended and/or descended together with the ascending and descending motion of the spiral cylinder (61);

(d) a plurality of retractable scissor legs (70) coupled to the underneath of the horizontal lifting plate (50) to ascend and descend together with the spiral cylinder (61);

(e) a plurality of height setting sensors to limit the ascending operation of the horizontal lifting plate (50); and

(f) an integrated software control designed to operate and control of the vertically transporting of the MEP from one elevation to another elevation and allow synchronous lifting and lowering of the horizontal lifting plate (50) of multiple lifting system synchronised in series or parallel; and

(g) a display based controlling/operating device being used to set parameters of the ascending operation, which also include auto height setting where the helical elevating system comes to a stop after reaching a setting height;

wherein the rotating motion of the spiral cylinder (61) in one direction elevates the horizontal lifting plate (50) to a specific height together with the MEP module mounted onto the horizontal lifting plate (50) for installation onto an elevated ceiling or the like structure.

(FIG. 1)