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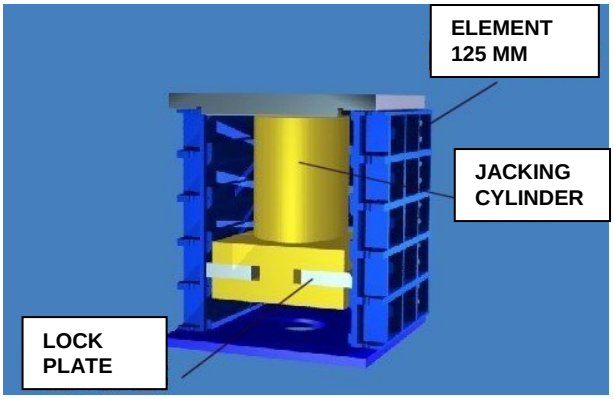
CLIMBING SYSTEM

CS 250

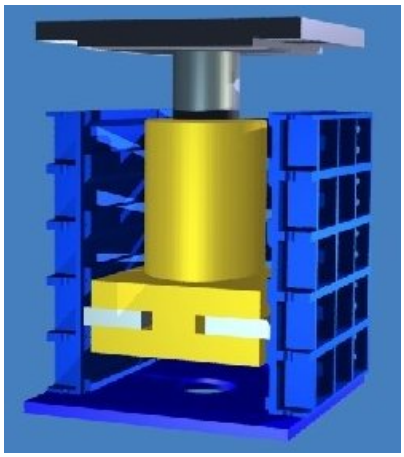
The Climbing System (CS) 250Te is made up of:

- Steel base plate with dimensions 600 x 600 mm
- Jacking cylinder with top plate and equipped with a lock plate assembly that allows positive fixing into each element. The lock plates are spring loaded & are locked into position by a separate integral hydraulic jack within the lock plate assembly.
- Elements each have a height of 125 mm.

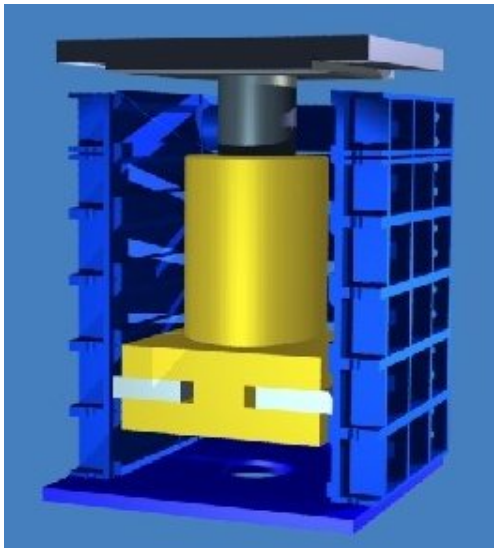
- Phase A: The jacking cylinder is closed, the load is transferred via the top plate directly to the connection elements and consequently to the bottom plate. The jacking cylinder and the lock-plate don't take any load at this instance. The lock plate assembly jack is now energised thus locking the plates into the adjacent element.



- Phase B: The jacking cylinder is energised; thus extending its ram, pushing up the top plate & transferring the load through the lock plate assembly to its connection element, the elements below & consequently the bottom plate. The maximum jack stroke is 150mm. In this phase the item being jacked up is lifted.



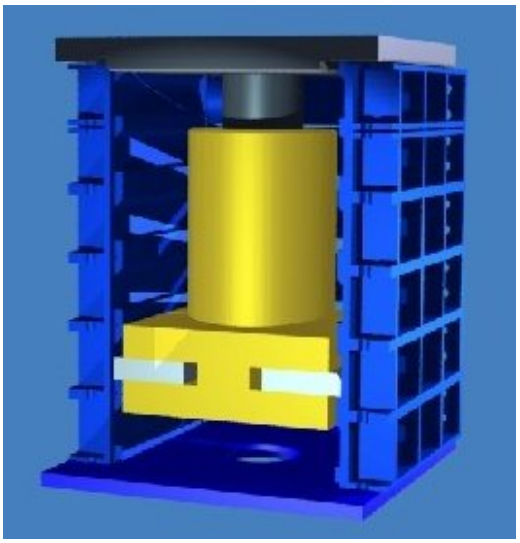
- Phase C: A new connection element is placed, manually, on top of the uppermost connection element. The new element is immediately secured to the element below with 4 bolts.

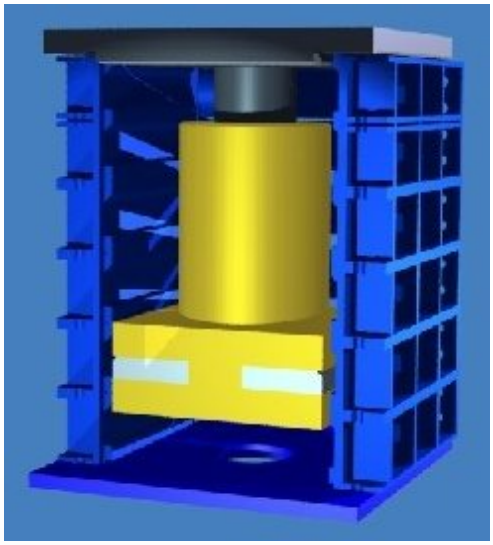


- Phase D: The jacking cylinder is re-energised; thus retracting its ram, lowering the top plate onto the new connection element. The item being jacked up sits directly on top of the top plate & as such is lowered as the top plate is lowered, only 25mm. The load is again transferred via the top plate directly to the connection elements and consequently to the bottom plate. There is now no load on the lock plates.

  The lock plate assembly jack is now re-energised; thus allowing the lock plates to retract out of the adjacent element.

  The jacking cylinder ram continues to retract thus lifting the lock plate assembly up inside the elements finishing 1 connection element higher than its initial position. The jacking operation is continued by starting again at phase A.





Working security:

Each jacking cylinder is connected, via hydraulic hoses, to a constant displacement jacking pump which can be either diesel or electrically driven. The pump discharges the same volume of oil to each jacking cylinder, irrespective of load, which ensures that each jacking cylinder extends at the same speed, regardless of pressure. Therefore, the item being jacked up will be lifted (or lowered if jacking down) simultaneously by all the jacking cylinders as the stroke of each cylinder is equal at any time.

It is also possible to extend/retract the different jacking cylinders independent and separately by operating manual, integral, control valves within the jacking pump.

The jacking pump ports are also fitted with pressure relief valves that can be measured & regulated if necessary.

This climbing system has to be secured as from a certain height with bracings, so engineering will be necessary.

General technical data:

Net weight bottom element	750 kg
Lifting capacity	250 Te
Minimum height	650 mm
Dimensions bottom plate	600 mm x 600 mm
Maximum lifting height	150 mm
Height connection element	125 mm
Net weight connection element	60 kg
Group	Diesel/ electrical

More information available on request.