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CLIMBING SYSTEM

PJ 250



The Perpetuum jack 250Te is made up of:

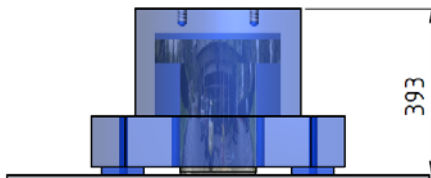
- Jacking cylinder with bottom plate
- Elements each have a height of 100 mm.
- Steel base plate 50mm

nothing too heavy, nothing too high

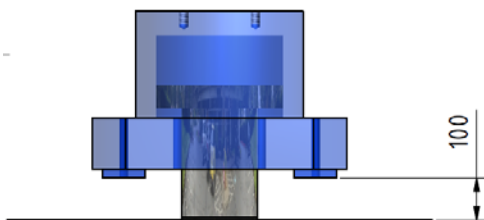




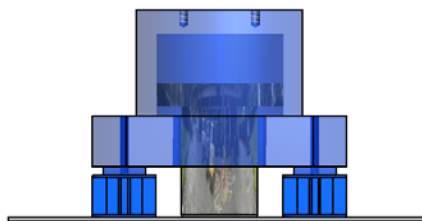
- Phase 1: The minimal height of the jack is 393mm. The jack is placed on a load spreading plate with a thickness of 50mm. The cylinder is retracted, the load is transferred via the top of the cylinder to the 4 connection plates on the bottom of the PJ jack. The jacking cylinder don't take any load at this instance. The total length is now: 443mm (50mm plate + 393mm jack)



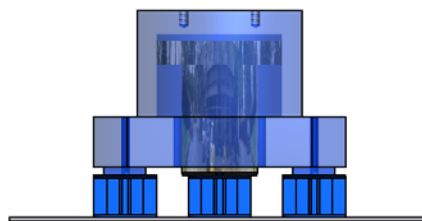
- Phase 2: The jacking cylinder is energised; thus extending its ram, pushing up the jack & transferring the load through the cylinder. The maximum jack stroke is 150mm. In this phase the item being jacked up is lifted 100mm.



- Phase 3: Two new elements are placed manually. The new elements can be secured to the element below or the bottom plate with 12 bolts in extreme conditions. The position of the newly placed elements to the jack and the bottom plate is fixated by a pin and a hole on each element

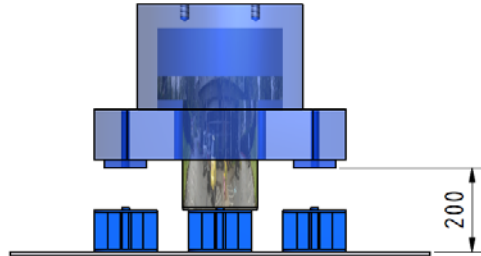


- Phase 4: The jacking cylinder is re-energised; thus retracting its cylinder. The load is transferred on the 2 newly placed elements. The cylinder retracts completely. Now a 3th element can be placed in the middle under the cylinder. The total length is now: 543mm (50mm plate + 100mm element + 393mm jack)

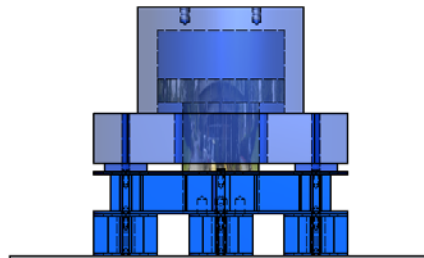




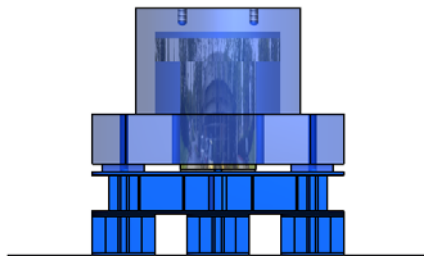
- **Phase 5:** The jacking cylinder is energised; thus extending its cylinder and pushing up the jack & transferring the load through the cylinder. In this phase the item being jacked up a little more than 100 mm.



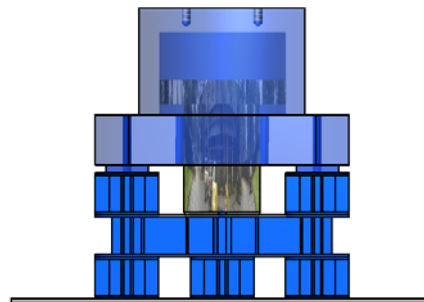
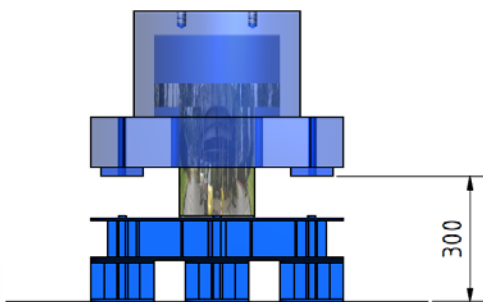
- **Phase 6:** Two new elements are placed perpendicular on the previous layer manually. The new elements on the second can be secured to the element below with 12 bolts in extreme conditions. The position of the newly placed elements to the jack and the previous layer is fixated by a pin and a hole on each element. The total length is now: 643mm (50mm plate + 200mm element + 393mm jack)



- **Phase 7:** The jacking cylinder is re-energised; thus retracting its cylinder. The load is transferred on the 2 newly placed elements. The cylinder retracts completely. Now a 3th element can be placed in the middle under the cylinder.



- **Phase 8-9-...:** The jacking cylinder is energised; thus extending its ram, pushing up the jack & transferring the load through the cylinder. In this phase the item being jacked up a little more than 100mm. These phases are repeated while jacking further up. For jacking down the phases are to be followed in the reverse order.





Working security:

Each jacking cylinder is connected, via a safety valve, counterbalance valve (hose rupture protection) and 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.

General technical data:

Net weight perpetuum jack	500 kg
Lifting capacity	220 Te->300Bar 250 Te->350Bar Extreme 330 Te->500Bar
Minimum height	393+50(bottom plate) mm Total = 443mm
Dimensions bottom plate	1000 mm x 1000 mm
Horizontal load	Max. 22Tonnes
Temperature range	-20 ->+60°C
Maximum lifting height	150 mm
Height connection element	100 mm
Net weight connection element	16.114 kg
Maximum work pressure	350 bar
Group	Diesel/ electrical
Cylinder	Ø300/ Ø180x150

Depending on height and load, lateral securing and / or anchorage may not be required.

More information available on request.

