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**TECHNICAL BROCHURE** 

# CLIMBING JACK - OVERVIEW

#### THE SYSTEM

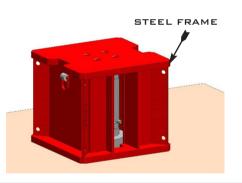
The Climbing Jacks System is based on heavy duty double acting hydraulic jacks. The system allows the lifting or lowering of loads over long distances in stages determined by the stroke of jacks. The system is powered by a power pack unit that is dimensioned to simultaneously feed the number of jacks in the system. By leverages on the console the operator can pressurize any jack singularly. The pressure of the hydraulic oil in each feeding hose is shown on gauges on the console. This gives the possibility to the operator to calibrate the lift acting on the different cylinders. The presure can be easily converted in weight. Each jack is able to push and pull and is assebled in a steel frame and connected to it by screw jacks on the top plate. The jack can freely extend inside the structure. By supporting the structure with cribbin material its outside the jack can lift itself in the close position and be ready for the next step of lifting. The lifting sequence is explained below.

Power Description	Climbing Jack 95 t
Quantity available	12
Cylinder Capacity	95 t
Lifting / Lowering Capacity	1140 t
Max. Working Pressure	700 bar
Design Temperature	-20°C / + 50°C
Climbing Jack Minimum Height	445 mm
Cylinder Stroke	168 mm
Power Pack Unit (PPU)	Electric
Climbing Jack Frame + Cylinder Weight	300 kg
Max Jack up Elevation	3 m



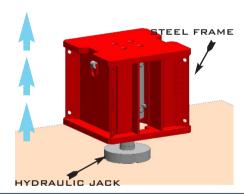
#### PHASE 1

Climbing jacks positioned underneath the module



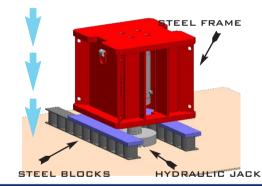
## PHASE 2

Jack piston is extended and takes load



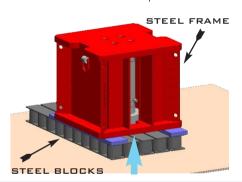
## PHASE 3

Steel block are inserted under steel frame beams



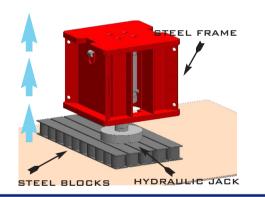
## PHASE 4

Piston is closed. Load transfer to steel frame side beams. Insertion of steel blocks under the piston.



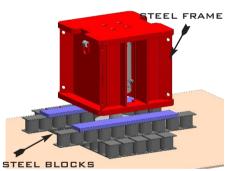
## PHASE 5

Jack piston is extended and takes load.



## PHASE 6

Steel blocks are inserted under steel frame beams



#### **OPERATING THE SYSTEM**

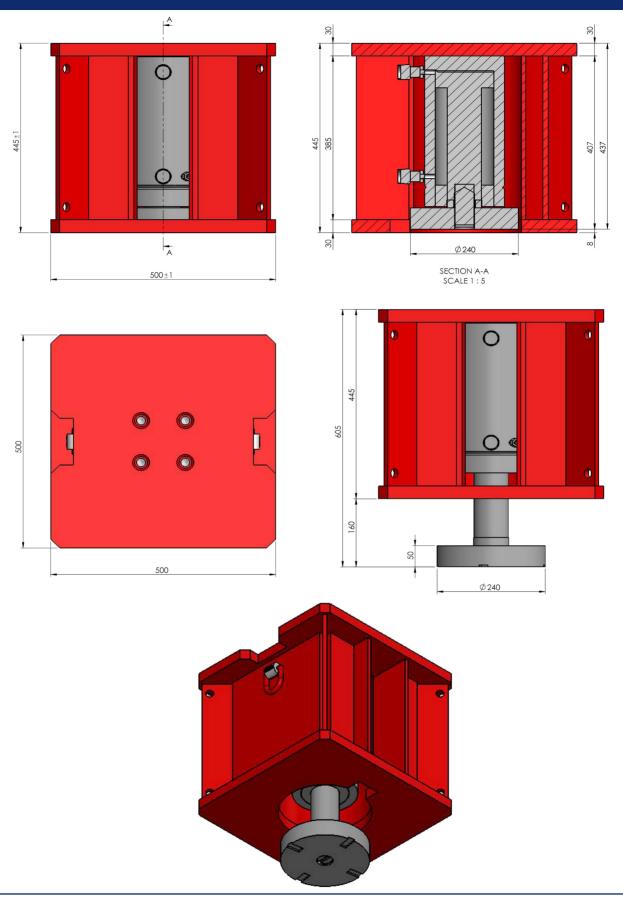
The climbing jacks system is versatile and can be arranged to fit the module structure. The Remote Control System is able to control simultaneously up to 20 Climbing Jacks at the same time. The System measures stroke and load, checking that the expected load on each jack will remain the same during the lifting. Also the software check continuously the stroke, equalizing it suring the lifting and keeping the lifted surface at same elevation, avoiding deformation. During the



operation the operator can check the load and the stroke of each cylinder. The Cylinder Accuracy is ± 3%. Jacking Layer under Climbing Jack Frame (CJF) made by steel blocks is easily handled by operator / riggers (with a maximum weight of 20 kg for each steel).



# CLIMBING JACKS - DIMENSIONS



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