

Lift of 180 Tonne Heat Exchanger, Gresik Air Separation Unit, Indonesia.

Engineering Designers: BOC Process Plant

Client: P T Gresik Gases



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After lifting the Heat Exchanger to vertical in under one hour, with tailing provided by an American 11320, the unit was rotated through 90 degrees by a special 300 tonne fixed anchor swivel and spreader beam arrangement. The final operation was to lower the unit on to its footings and level it with the use of Reference 35 Flat Jacks.

The turnaround from completion of the Cold Box lift, including dismantling of the system, re-configuration and lift of the Heat Exchanger, was completed in an eight day period and ahead of schedule.

After completing the erection of the Cold Box unit (on the right of the main picture), Fagioli PSC reconfigured its equipment to perform the lift of this 180 tonne, 25 meter long Heat Exchanger Box. Both pieces will form part of an Air Separation Unit to supply oxygen to the Copper Smelting Plant being built at Gresik, near Surabaya.

The lift arrangement consisted of one 36 metre high triangular format Towerlift mast, and a 36 metre high Towerlift panel attached to the completed Cold Box for stability. The crosshead beam was then formed by splicing together the two cantilever beams previously used in the Cold Box erection. The lift arrangement was completed by one L300 jack mounted above the centre of gravity of the Heat Exchanger, with control provided by an L2/70D power pack.



Above and above left: the Heat Exchanger is lifted to vertical in under one hour, and after release from the tailing crane was rotated through 90 degrees.

Right: detail of the reconfigured Towerlift system from a 36 metre un-guyed cantilever arrangement for the 450 tonnes Cold Box lift (inset above left).

