

CASE STUDY

Reliable access for process tower refurbishment at Hydro Polymers, Sweden

During a major refurbishment of a process tower at Hydro Polymers in Stenungsund, Sweden, reliable vertical access was required to support extensive maintenance activities at height. The project took place within a sensitive petrochemical processing environment where safety, efficiency and minimal disruption to operations were key priorities.

To provide workers with reliable access throughout the 40 m-high structure, a comprehensive scaffold system was erected, incorporating five loading and working levels positioned at different heights. An Alimak Scando 450 9/30 construction hoist was selected to transport personnel and materials quickly and efficiently between ground level and the elevated work areas.

THE CHALLENGE

The process tower's design prevented the hoist mast from being tied directly to the structure. As a result, a fully freestanding installation had to be developed, while still providing the stability required for reliable operation at height.

Adding to the complexity, the scaffold and hoist needed to remain structurally independent. A 40 cm clearance gap was incorporated between the tower and the hoist installation to allow both structures to move independently under high wind conditions without compromising safety or performance.

The project was carried out in the heart of an operational process industry facility, requiring rigorous planning and strict adherence to safety standards.

THE SOLUTION

A freestanding hoist installation was engineered using a tower crane mast as the supporting structure. The hoist mast was secured using a substantial counterweight arrangement consisting of approximately 40 tonnes of ballast at the base, creating a robust and stable access solution.

The Alimak Scando 450 9/30 construction hoist provided reliable vertical transportation for personnel, tools and materials throughout the refurbishment period, supporting efficient workflow across all working levels.



THE RESULT

The completed solution combined a large-scale scaffold structure with convenient vertical access, helping maintenance teams carry out refurbishment activities efficiently and securely. Despite the project's unique engineering challenges and demanding industrial environment, the installation delivered dependable access, improved productivity and a high level of safety for everyone working on the tower.

HOIST DETAILS

Location:	Stenungsund, Sweden
Application:	Petrochemical plant refurbishment, temporary hoist
Hoist type:	Alimak Scando 450 9/30
No. of hoist cars:	1
Hoist capacity:	900 kg
Hoist car size:	1.4 x 3.0 x 2.13 m (W x L x H)
Lifting height:	40 m