

BIG BUSINESS

AIRPORTS CAN INCREASE THEIR OVERSIZE BAGGAGE CAPACITY WITH A SPACE-SAVING VERTICAL CONVEYOR SYSTEM

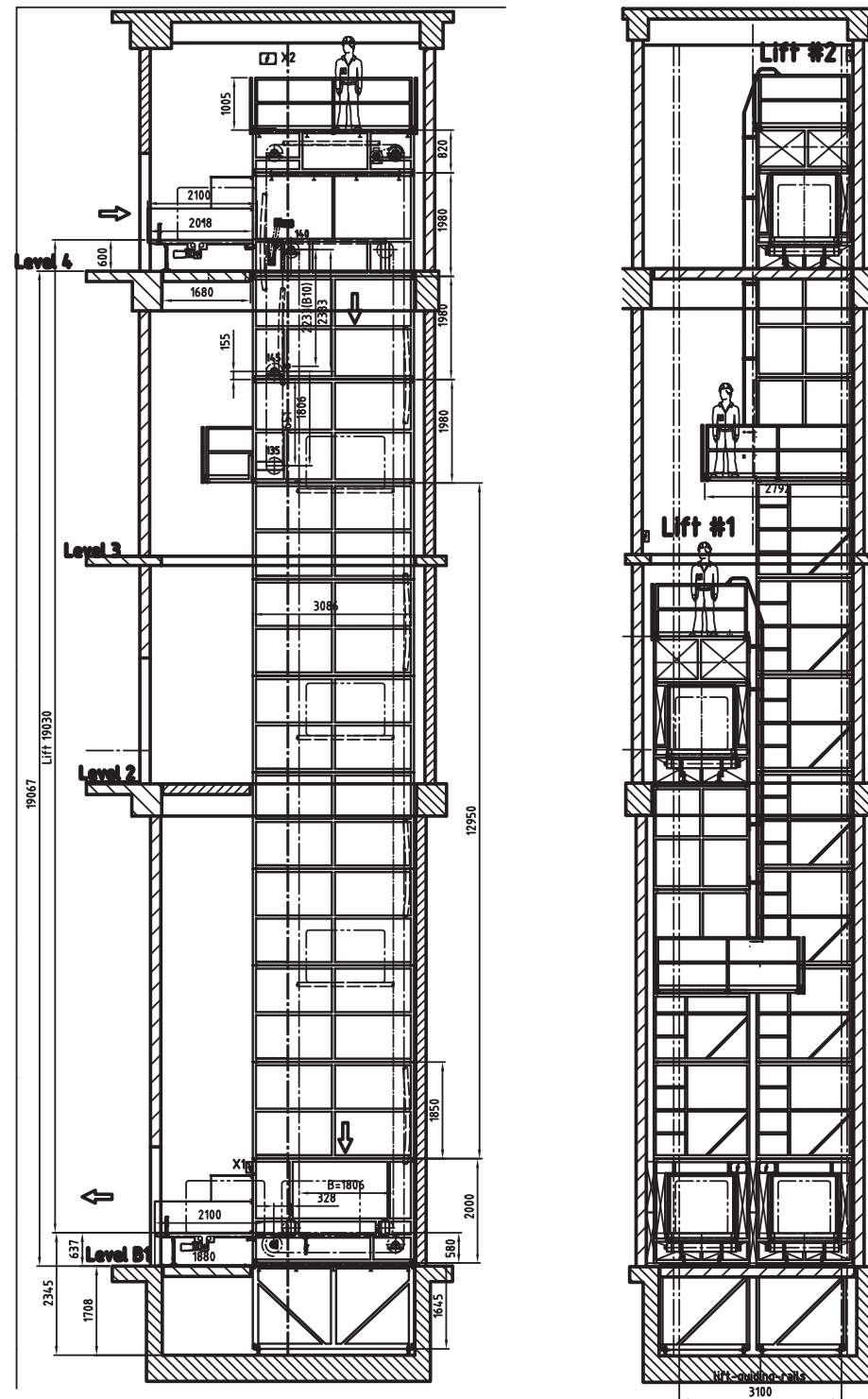
■ Many major airports around the globe are facing the same issue when it comes to passenger and baggage handling: insufficient capacity for quickly increasing demands.

One large Asian airport recently had to increase its capacity for oversize baggage, mainly because of the bottleneck in getting bags from check-in down to the basement. A visit to inter airport Europe in Munich in October 2015 revealed a possible solution for the out-of-gauge (OOG) issue – a continuous vertical conveyor (CVC) made by the German company Nerak.

On the CVC, aluminum platforms attached to four greaseless, maintenance- and stretch-free rubber block chains can handle both standard and oversize baggage, loose or in trays, and transport it from one level of the airport to another. The platforms move in one direction and return to the entry level to take the next bag. All this is done in a small footprint – typically only 75ft² with a vertical drop of up to 130ft. The system operates continuously, enabling high capacity no matter the travel height. The travel path is completely enclosed inside cladding, so tags, straps and other attachments cannot get caught in the drive system. This makes the automated vertical transport a failsafe operation. The synchronized infeed and discharge belt conveyors ensure reliable transfer to and from the platforms.

The additional benefit this airport gained from the CVC was that two of these systems could be installed within the same existing industrial elevator shaft. The CVC was installed in a C-shape and the capacity for baggage measuring up to 59 x 39 x 39in is now 800 bags per hour, with a vertical drop of 62ft. Additionally, by placing the x-ray control right before the entry to the CVC, the risk of unchecked baggage passing from landside to the baggage transportation area was minimized.

A leading local airport integrator and operator planned the system, purchased the CVC from Germany, removed the existing industrial elevators, installed the CVC with the support of a Nerak supervisor and added the x-ray and control system for the whole area. The airport is happy about the reliably increased capacity, the low noise operation (in the public area) and the low maintenance requirements. System downtime is reduced by putting two CVCs side-by-side into the existing elevator shaft, so even during maintenance on one CVC, the OOG system remains operational.



ABOVE: All of Nerak's systems are built in-house to the customer's exact requirements, so they can be installed in any airport environment to facilitate fast, flexible and efficient baggage processing

“ The CVC is a smart solution that could be a major benefit for many airports with capacity limits in out-of-gauge or standard baggage handling ”

ABOVE RIGHT: All the platforms and internal surfaces of the Nerak unit load elevators are designed to eliminate entrapment of awkwardly shaped baggage
RIGHT: The continuous vertical conveyor can handle 800 bags per hour



The CVC is a smart solution that could be a major benefit for many airports with capacity limits in OOG or standard baggage handling, especially when space is an issue.

Nerak is a German family-owned company specializing in the vertical transport of bulk materials and packed goods. Airport applications is one business area for the company; others include parcels and postal, cargo, and catering. Major airport customers are large, medium and local system integrators looking to complete their systems with space-saving vertical transport components such as the CVC and reciprocating lifts (R-Lifts), for both standard and OOG baggage. Airports as end users are installing vertical conveyors and lifts as standalone solutions directly into their terminals. For these small projects, Nerak also supplies infeed and discharge belt conveyors, as well as the controls for these units.

Nerak CVC and R-Lifts are operating in many airports around the world, including Frankfurt, Heathrow, Dubai, Dallas, Calgary, São Paulo, Bangkok, Kuala Lumpur, and Sydney. ■