

# Realog Wants Cargo To See The Light

Light weight instead of heavy equipment. What sounds easy is indeed quite a challenge when it comes to implementation in today's air freight handling processes. But changes seem to be around the corner – triggered by a number of surveys displaying astonishing results. According to data collected at a number of cargo warehouses around the globe, only a surprisingly meager three percent of all cargo pallets built by handling agents or airlines weigh more than 3.3 tons. This means that 97 percent—the vast majority—of unit load devices are lighter. Nevertheless, criticizes expert Oliver Schaaf, the entire storage system, stackers, and hoists, together with heavy machinery like elevator transfer vehicles (ETV), which maneuver through the halls moving shipments, are way oversized for most of the throughput. “They all are designed for payloads of up to 6.8 tons,” says the managing director of cargo consultant Realog GmbH. This outdated ‘heavy instead of light’ philosophy leads to excessive costs, wasted energy and unnecessary greenhouse gas emissions, he says, citing surveys.



In fact, air cargo terminal technology has basically not changed much during the last twenty years. Both designs and mechanical layouts are based on IATA's propagated maximum ULD loads of 6.8 tons. This convention has been carved in stone for long. As indispensable as it is for carrier load assessments, it is, however, of no or only very limited use for most of the storage processes on the ground.

What's urgently needed is a new generation of “green” cargo warehouses, including major changes in handling processes, says Schaaf. Consequently, his Realog developed a new generation of cargo handling and storage equipment systems configured for payloads of up to 3.5 tons. The central idea of the concept, which is based on a pending patent at the German Patent and Trade Mark Office, DPMA uses the lightest possible but most durable components for building stackers, racks or roller beds, including lightweight designs for walls, floors and warehouse roofs. Once a ULD is built, automated transfer vehicles securely store it at a special section within the facility.

“This enhances security since machines do the work with nobody being allowed to enter this specific module of the warehouse,” says Schaaf.

After designing both Emirates' Mega Terminal and the Flower Center at Dubai airport, the 47-year-old pundit is well acquainted with the needs



and problems of today's handling tasks.

Taking into account the 3 percent versus 97 percent classification of ULDs, Schaaf advocates for splitting the load devices along this line and processing them in different handling facilities: the small number of heavy shipments in a tiny section of a warehouse, the lighter weight, vast majority in a bigger, adjacent space. The storage system, racks or hoists of the latter, he says, can consist of light metal or synthetic materials instead of steel. "The design and daily operational functioning of this light construction solution is already demonstrated, says Schaaf, as illustrated by the automotive industry as a forerunner. "What's good for them can also be very beneficial for the aviation sector." If his classification concept is realized by handling agents, the overall savings of up to 30 percent can be realized.

Schaaf himself might substantiate this calculation in the near future at Frankfurt airport's cargo city north. There, Lufthansa Cargo projects a brand new and huge distribution center for air freight, substituting the aging facility built more than twenty years ago. Last August the carrier and Schaaf's Realog signed a framework agreement for strategic consultancy pertaining to the proposed air freight terminal.

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