

Weighs less. Saves more. Breaking the 10kg barrier.

quantum



New Thermal Lightweight Trolley developed by LSG Sky Chefs & Norduyn

## Achieving cost-efficiency and eco-friendliness in challenging times

This new line of thermal lightweight trolleys enables airlines to reduce both costs and their carbon footprint. Quantum has been jointly developed as part of a unique partnership. By applying the technology and production capabilities of Norduyn, while drawing on LSG Sky Chefs' practical experience in airline catering, crew handling and the management of over 60,000 trolleys for major airlines worldwide, Quantum's design has been finely tuned to meet the daily needs of airlines and their crews.

## Weight Reduction and Environmental Efficiency

The new materials used in these thermal lightweight trolleys have achieved weight savings of 40 percent compared to traditional aluminum-frame trolleys and are the lightest certified trolleys available in the market. A lighter trolley means reduced fuel-burn and a smaller environmental footprint. A Boeing 747, for example, fully-loaded with lightweight trolleys could save up to 850 kg, or about € 80,000 a year in fuel costs.



Through these weight savings Quantum is expected to deliver a return on investment within just three years. Considering the design life of at least ten years, this is a sound investment.

The trolley is made of lightweight composites over a foam core that was selected to provide a high level of insulation requiring far less dry ice.

## Durability and Maintenance

Quantum is constructed from a single body shell offering a durable and impact resistant structure. Extrusions are made of fire resistant plastics making the overall product much sturdier than their traditional aluminum-frame counterparts.

Furthermore, designed with significantly fewer parts than a standard trolley, a reduction in inventory and maintenance costs has also been achieved.

Maintenance stations can be set up worldwide to assist airlines in keeping their fleet of trolleys working like new while also reducing the costs of repairs.

## Fleet Management

All Quantum trolleys are fitted with RFID chips to facilitate improved fleet management. RFID tagging delivers better results over bar-coding, allowing for better tracking of fleet resources from the beginning stages of production and content analysis all the way through to repairs.

## Made to Measure

The design and production concept of Quantum is set up to meet individual airline needs. The trolleys can therefore be adjusted according to airline specifications, for example the features, colors and branding.

## Ready to Fly

Quantum has received the TSO C 175 airworthiness certification from the Civil Aviation Authority of Canada. Limited production has begun with the ATLAS half-size and full-size trolleys, and further models will be added to the series in 2011.

**Contact us for a simulation of the weight savings your airline could achieve.**

*Jointly developed by*



### Quantum Properties

- Lightweight composite material
- High thermal insulation efficiency
- Customization according to airline needs
- Flexible and sturdy composite construction offers excellent shock absorbent properties
- Easy closing door, less noise, slamming lock mechanism
- Two locking devices for custom lock and seal
- Proven and resistant decor
- New brake mechanism with an optional brake pedal set at the rear on half-size trolleys
- Sturdy retractable worktable
- New ergonomic dry ice release mechanism
- Recess to safely place drawer on top
- Easily cleanable label area for catering content labels
- Innovative Tente Aviana lightweight castors



**LSG Sky Chefs – We Listen. We Care. We Solve.**

Corporate Marketing  
Dornhofstrasse 38  
63263 Neu-Isenburg  
Germany

Phone +49 6102 240-707  
Fax +49 6102 240-709  
info@lsgskycheffs.com  
www.lsgskycheffs.com

