



quantum

THE WORLD'S LIGHTEST CERTIFIED TROLLEYS



Improve your balance sheet, reduce your carbon emissions with the next generation of lightweight fuel efficient trolleys!

Quantum results from the unique collaboration between Norduyn, a designer and manufacturer of high-end composite products and LSG Sky Chefs, a world-leading turn-key service integrator for commercial airlines. The resulting Quantum trolleys weigh under 10 kilograms (22 lbs) and are significantly more energy efficient generating measurable cost savings to our airline customers.

- Notable advantages:**
- **Weight Reduction:** Lighter than aluminum-frame trolleys
 - **Environmental Efficiency:** Reduced fuel-burn and recyclable
 - **Certified:** Fully airworthiness certified
 - **High insulating properties:** Requiring far less dry ice
 - **Durable:** Impact resistant structure
 - **Less Maintenance:** Contains up to 45% fewer parts
 - **Improved Fleet Management:** Fitted with RFID chips, delivering better results than bar-coding
 - **Improved ergonomics:** No sharp edges as found on aluminum-frame trolleys



Recyclable, fuel-reducing, longer lasting Quantum composite trolleys are the best option for preserving the environment for future generations.

DISCOVER THE DIFFERENCE

QUANTUM: AWARD WINNING FOR ECO-RESPONSIBILITY

Norduyn's products are designed with sustainability as a key development parameter.

Sustainable innovation and design is about rethinking how to meet market needs while at the same time reducing negative environmental and social impacts.

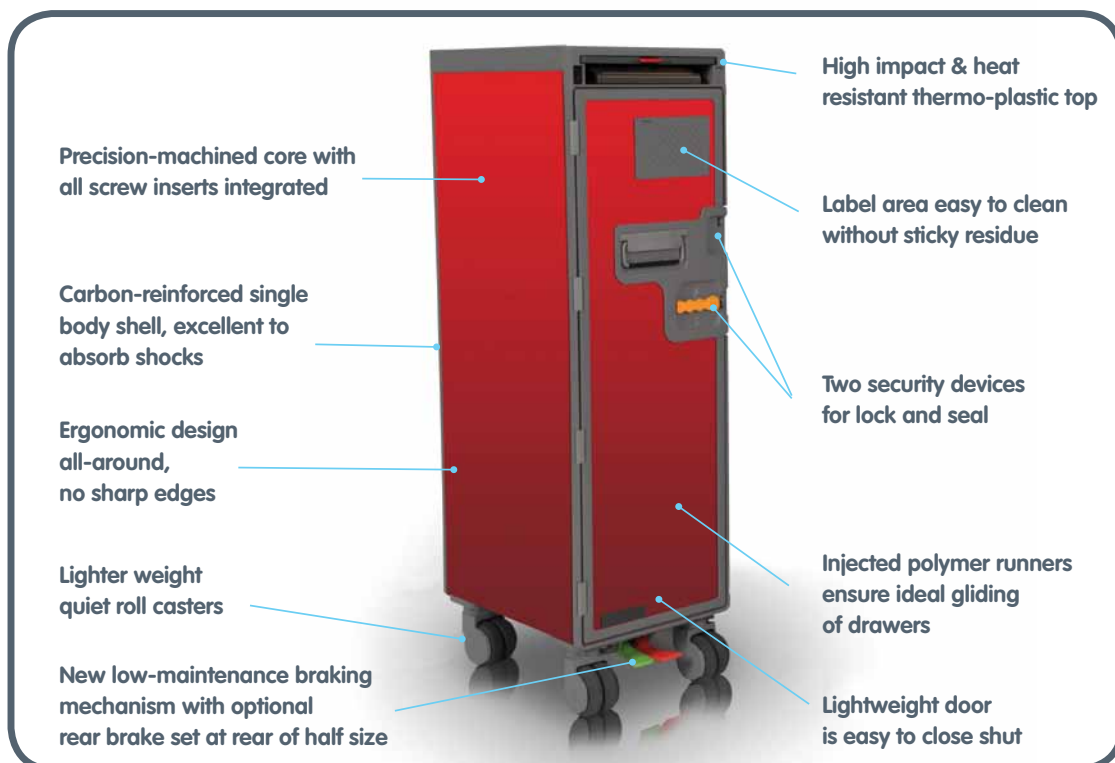
Part of Norduyn's new product development process involves finding ways to ensure the lowest environmental footprint over the product's life-cycle, manufacture the product in a socially responsible way, including the sourcing for raw materials used to make the product.

Quantum trolleys were recognized by the entire industry in 2010 as an eco-responsible innovation. Norduyn was awarded the Crystal Cabin Award in May 2010 in the category "Greener Cabin Health & Safety."



Patent Pending

quantum TECHNICAL FEATURES





ONLINE RESOURCES TO HELP YOU DECIDE

SAVINGS CALCULATOR

The selection of onboard equipment is a decision that is based upon careful analysis of a large number of parameters. In order to help the airline evaluate Quantum trolleys, Norduyn and partner LSG Sky Chefs have developed an online tool enabling operators to calculate savings based on introduction of light weight Quantum trolleys within their fleets.



CO₂ EMISSIONS SAVINGS

With the protection of the environment being at the forefront of corporate and public concern, Norduyn can also help you calculate in detail carbon emissions savings driven by weight, dry-ice and fuel reductions. Our specialists can guide you through this complex evaluation and come up with answers.



PERFORMANCE ENDURANCE TESTING

Norduyn's online technical resource kit also includes a series of videos showing a number of life-cycle tests performed on Quantum trolleys. The test results concluded to a 10-year life for Quantum trolleys as opposed to only 8 years for aluminum-frame trolleys.



MAINTENANCE AND REPAIR

It is a well-known fact that composites are more resistant to impact, more durable and easier to repair. Our online video will show you how easy it is to repair dents as well as unlikely larger-scale damages to panels.



