Airmotion - scenic touring airship concept

Peter Lobner, updated 18 March 2022

The Airmotion airship concept was developed in 2003 by a team led by Marcus Speck. The conceptual design integrated bold architectural features with the technical basics of airship technology to create a new and innovative airborne mobility solution designed for flights lasting several days. The Airmotion team described the intent of their dramatic airship design concept:

> "Since it seems increasingly secondary where we travel, the HOW is becoming a more and more important part. In this field of airborne transportation Airmotion offers a new, conscious alternative. Through traveling instead of rushing, the route becomes the destination……Our goal with this project was to develop a new and conscious way of travelling, in which the experience of nature from new perspectives would be in the foreground."

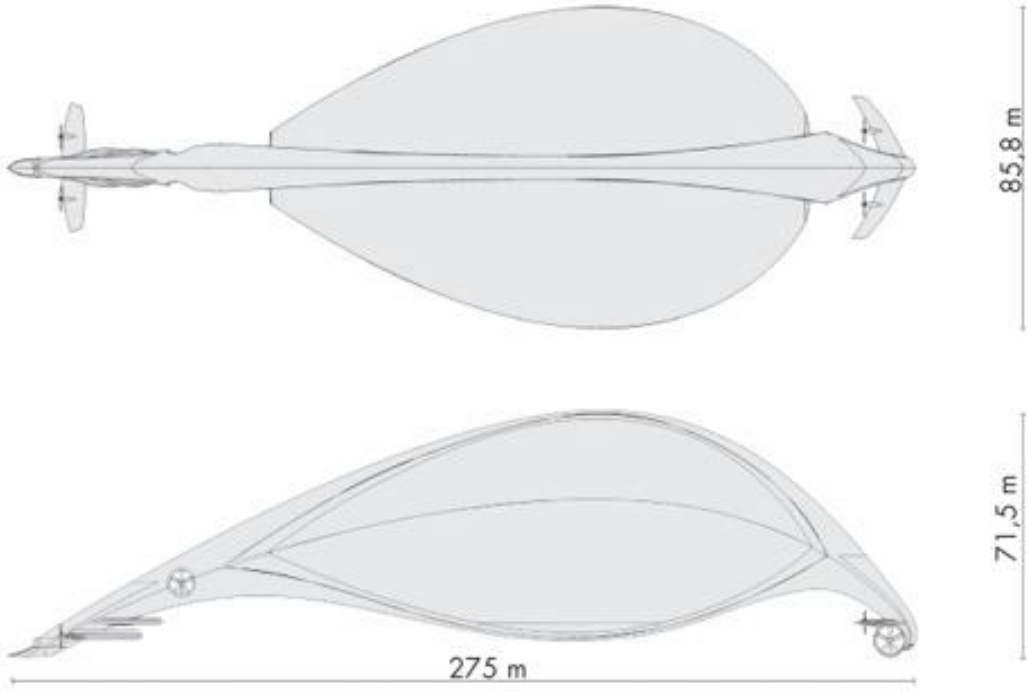
Rendering of an Airmotion airship in flight.
Source: Airmotion

"This airship differentiates itself primarily from traditional airship concepts through a passenger oriented design. The feeling to be a part of the air is in the focus of interest. Transparency und thereby the discovery and experience of new perspectives and angles both from the ship and on the ship itself, plus a spacious interior are the essential criteria of difference in comparison to existing airships. By a surrounding, passable frame, the ship, its dimensions, the impression of the space and the modern technology themselves are worth a discovery trip. This frame as an outstanding appearance shows the alternative and innovative character of the design study; especially compared to the existing, modern airship concepts with their classic airship forms. Even though the characterizing frame form has a static and tight holding function, in combination with the buoyancy hull it represents tension and dynamic. Still the huge, light, transparent and bulging 'air bubble' stays the forms defining element."

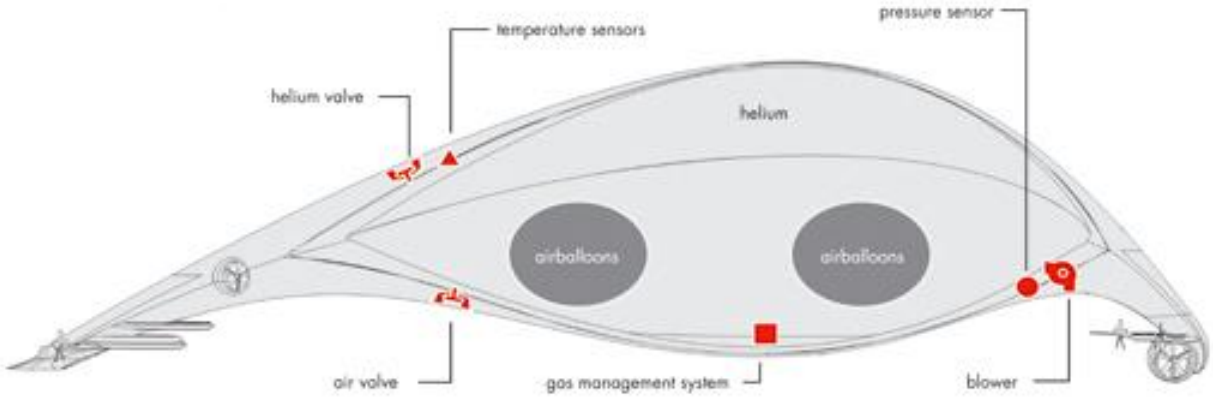
Basic design characteristics of the Airmotion airship

Parameter	**Airmotion**
Construction type	Rigid frame, semi-rigid airship
Length	275 m (902 ft)
Width, max	85.8 m (281 ft)
Height, max	71.5 m (235 ft)
Volume, helium	80,000 m^3 (2.8 million ft^3)
Mass	273 metric tons (301 tons)
Accommodations	20 crew + 45 passengers
Power source	Hybrid solar photovoltaic / fuel cells
Propulsion	Electric motor-driven propulsors
Speed, cruise	40 kph (25 mph)
Speed, max	150 kph (93 mph)
Endurance, max	5 days self-sufficient

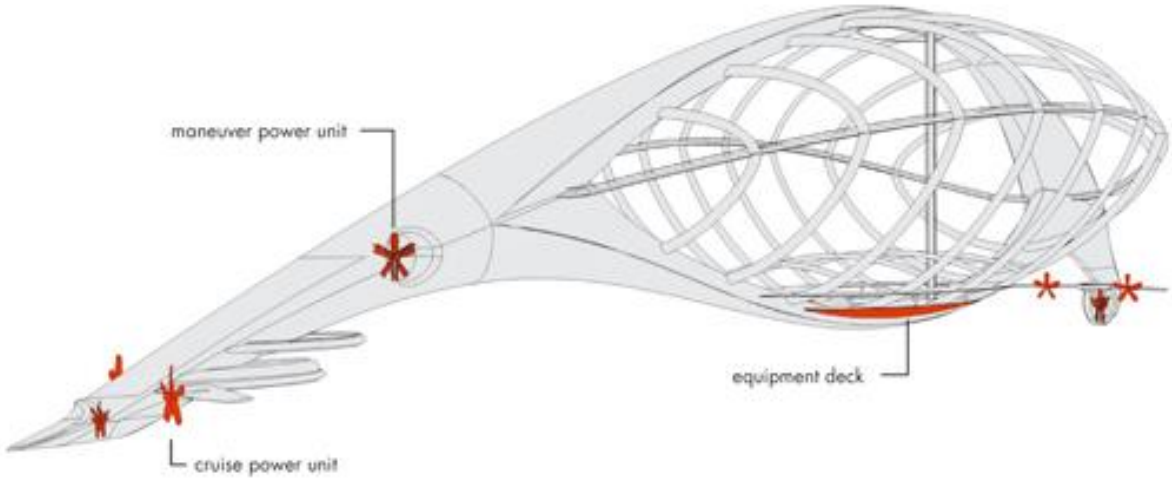
Following are selected illustrations of the Airmotion airship from the Mabadesign website, which includes much more detail here: http://www.mabadesign.net/project_airmotion.html



Overall layout and dimensions of the Airmotion airship.

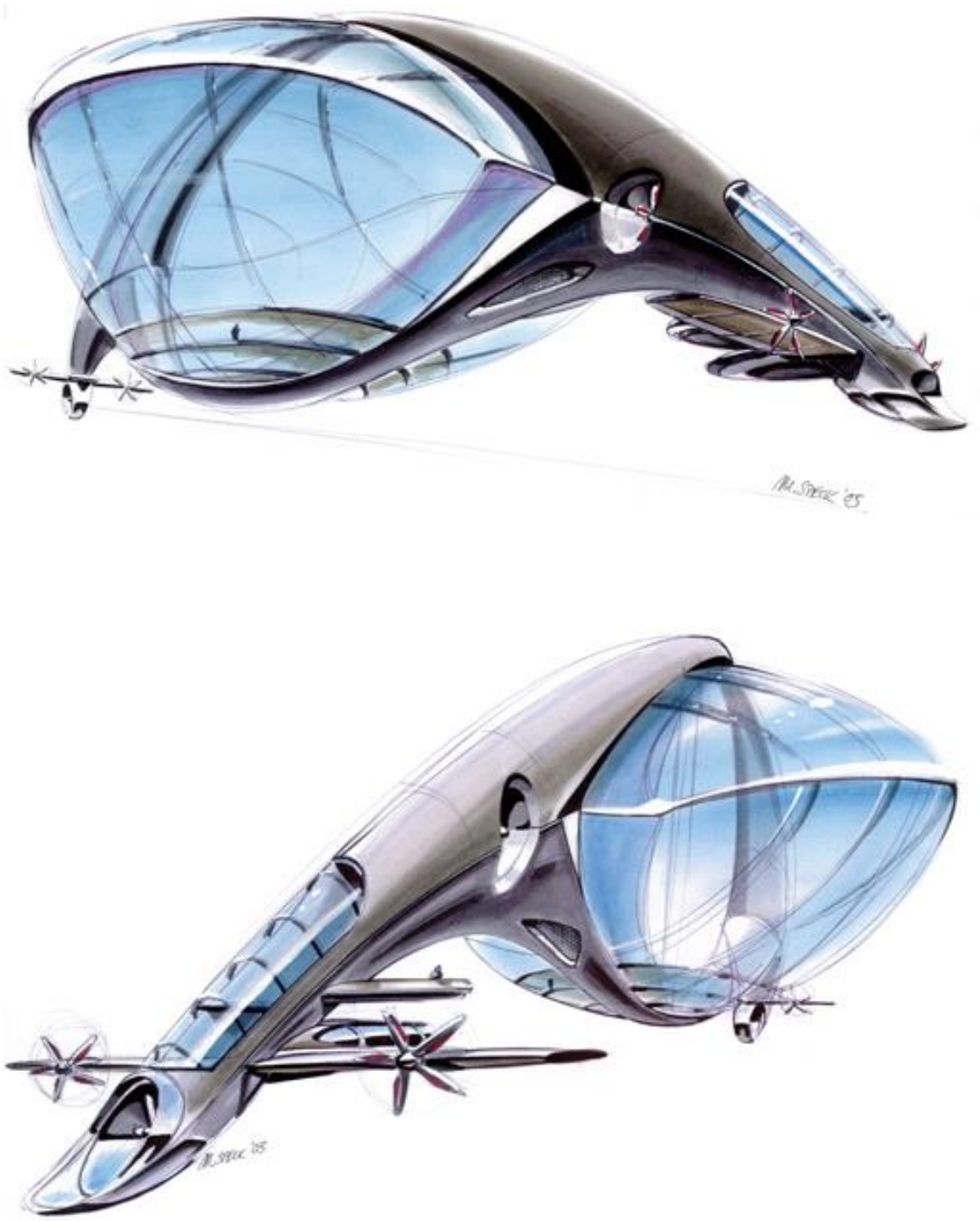


General arrangement of key features of the Airmotion airship.
Source, both graphics: Mabadesign



Structural design and placement of propulsors on the Airmotion airship.

Rendering of an Airmotion airship in flight, in the same orientation as the structural diagram, above.
Source, both graphics: Mabadesign



General arrangement drawings, preliminary version of the Airmotion airship concept. Source, both graphics: Mabadesign

View from an outdoor deck on the passenger level.
Source: Mabadesign

For additional information

- Allison Love, “Bubbled Air Explorers,” Trend Hunters, 21 June 2010: https://www.trendhunter.com/trends/airmotion-airship

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- *Modern Airships - Part 1*: https://lynceans.org/all-posts/modern-airships-part-1/
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