



A member of NSG Group

Tailor-made Safety Glass Products for Shipbuilding

With many years' experience, Pilkington Marine supplies, mainly on a turn-key basis, a full range of safety glass products for shipbuilders in Finland and abroad. We offer our customers tailor-made glass structures and elements with steel and aluminium frames, and our design team always works in close cooperation with the customer for finding the best solutions:

- sliding glass roofs, glass domes and skylights
- fire-resistant glass walls, panoramic windows
- sliding glass doors for cabin balconies
- windshields, wheelhouse windows





Regularly audited by Det Norske Veritas and TÜV SÜD Management Service, we operate within the framework of the international ISO9001 Standard. On environmental issues, Pilkington Marine is certified to ISO14001 International Environmental Standard by TÜV, and we pay special attention to the environment from the design stage to the finished product.



Pilkington Automotive Finland Oy Pilkington Marine

> PO Box 80 FIN-23801 Laitila Finland

tel. +358 3 349 9111 fax +358 3 349 9395

email matti.hopia@pilkington.fi Internet www.pilkington.com



THE DOOR WITH THREE MOVEMENTS

Our sliding glass door is specially designed for ship cabin balconies. The door has a unique construction, which allows movement in not only two, but three directions.

- left to right movement as in all sliding doors
- up-down movement: when opened,
 the door lifts up from its gaskets and
 when closed, the door drops down
 between its gaskets, enhancing the door's
 watertightness
- inward movement: when closed,
 the door pushes further into the frame for
 an extremely tight fit.

All these carefully designed movements make the door completely watertight and airtight.

A HIGHLY FLEXIBLE INSTALLATION METHOD

Our balcony door was designed in close cooperation with the Technology Center of Finland, and with one of our major customers, Aker Yards.

We developed a totally new method of installing the door to the bulkhead. This new 'floating' installation method allows



Sliding glass doors for cabin balconies

maximum flexibility within the varying tolerances, thus helping to adjust the door to the diverse bulkhead openings. Furthermore, with this flexibility our door adapts itself to even the strongest bulkhead movements when the ship is at sea.

REFERENCES

Our sliding glass doors are sailing the high seas onboard the following luxury cruisers:

- M/S Europa, Kvaerner Masa-Yards
 Helsinki New Shipyard, delivery 1999
- M/S Voyager of the Seas, Kvaerner Masa-Yards Turku New Shipyard, delivery 1999
- M/S Explorer of the Seas and M/S Adventurer of the Seas, Kvaerner Masa-Yards Turku New Shipyard, deliveries 2000 and 2002.
- World of Residen Sea, Fosen Mek.
 Verksteder AS, Rissa, Norway,
 delivery 2002
- AIDAvita and AIDAaura, Aker MTW Werft GmbH, Wismar, Germany, delivery 2002 and 2003
- M/V Black Watch conversion,
 Blohm & Voss GmbH, Hamburg, Germany,
 delivery 2005
- Tallink Galaxy, Aker Finnyards
 Rauma Shipyard, Finland, delivery 2006