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# **Testing Certificate**

Project: FlowGrill Spray shutter (600mm x 600mm)

Client: FlowGrill bv Office: Rotterdam

Handelsdwarsstraat 2, 6905 DJ Zevenaar

The Netherlands

Client's Order Number: PK/mcl/1391446 Date: 03 July 2015

Order Status: Complete

Inspection Dates

First: 22 June 2015 Final: 22 June 2015

#### This certificate is issued to FlowGrill bv

This is to certify that the undersigned Surveyor to this Society attended, on request of Messrs Flowgrill, their workshop in Zevenaar, The Netherlands on the above date for the purpose of special examination and witnessing hose tests on a:

## "FlowGrill Spray Shutter" for ventilation openings on exposed decks with (permanently attached) manual controlled weathertight closing device

It is demonstrated that the water seepage through this Spray Shutter (600mm x 600 mm), when subjected to a hose test specified in Section 8.1.1 of the ISO standard 14884, is less than 10ml in 3 minutes, i.e. this is less than the allowable water seepage as defined in Section 8.1.2 of this Standard (max allowable seepage as per ISO Standard: 500ml in 3 minutes).

It's also demonstrated that the seepage of the spray shutter, when installed in combination with (different) FlowGrill louver types, is also less than 10ml in 3 minutes.

In view of the test results it is concluded and recommended that the Spray Shutter meets the requirements for provision of permanently attached means of weathertight closure as referred to in Section 5.6.2 of the Large Commercial Yacht Code LY2/3 and Section 2.9.2 of the PYC Code provided that the applicable coaming heights as required by these Sections are provided.

Applicable conditions and restrictions:

#### 1. Note referring to the applicable Statutory Requirements :

ISO Standard 14884 is applicable for large yachts, with a Loadline length greater than or equal 24 meter, in use for pleasure and commercial operations.

Noting that there is no Standard available for testing of weathertigh closing devices fitted on ventilation openings on ships, and in the absence of such test requirements in the following statutory regulations, as applicable for large yachts registered at a Red Ensign Flag Administration, where having regards to the determination or testing of weathertightness of closing appliances, it is concluded and recommended that Section 8.1 in the ISO standard 14884 represents a suitable set of requirements for large yachts:-

- 1.1 The Large Commercial Yacht Code (LY2/3).
- 1.2 The Passenger Yacht Code (PYC).

It is verified that Annex I of the International Loadline Convention, as referred to in the above LY2/3 and PY Codes, also does not contain requirements on how weathertight closing appliances would need to be tested.

### 2. Note referring to application of LY2/3 and PYC yachts:

Taken into account the above and noting that there are no essential differences in weathertightness requirements for ventilation openings on ships between the Large Yacht Code (LY2/3) and the Passenger Yacht Code (PYC) it is recommended that the Spray Shutter may be used on both type of yachts. Noting however that the PY Code contains stringent requirements for the 'restriction of use of combustible materials it must be ensured that the spray shutter is not fitted inside the outer boundary of a deckhouse or superstructure. For this purpose it should be ensured that the Spray Shutter is fitted at the open deck side of a ventilation duct.

#### 3. Note re applicable coaming heights:

It is recommended that the Spray Shutter meets the requirements for provision of permanently attached means of weathertight closure as referred to in Section 5.6.2 of the Large Commercial Yacht Code and Section 2.9.2 of the PYC Code provided that the applicable coaming heights as required by this Section are complied with.

#### 3. Note referring to positioning od Spay Shutter:

The Spray Shutter may not be fitted in the side shell area of a main hull or (full width) superstructures.

E.J.W. de Boer

Surveyor to Lloyd's Register EMEA

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