



# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

**CERTIFICATE NO. F-19078**  
This Certificate consists of 3 pages

*This is to certify that the*  
**Fire Damper**

*with type designation(s)*  
**NFR1-LW**

*Manufactured by*  
**Neco Offshore A/S**  
**OSLO, Norway**

*is found to comply with*  
Det Norske Veritas' Offshore Standards  
Det Norske Veritas' Rules for Classification of Ships  
Det Norske Veritas' Interpretation of SOLAS 1974 Convention as Amended

*Application*  
Approved for use in ducts penetrating class A bulkheads and decks.  
Min. size 100 x 100 mm. Max. size 1200 x 1200 mm.

This certificate is recognized by Transport Canada

*Place and date*  
Høvik, 2009-08-14

for DET NORSKE VERITAS AS

Petter Langnes  
Head of Section



Local Office  
DNV Oslo

*This Certificate is valid until*  
2013-06-30

Rolf Emilsen  
Surveyor

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.  
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.





Cert. No.: F-19078  
File No.: 472.22

## Product description

### "NFR1-LW"

rectangular fire damper with automatic (70°C) and manual/pneumatic/electric release.  
Damper blade made from 2,5 mm stainless steel and damper casing made from min. 2 mm stainless steel (\*see application/limitation below).

## Application/Limitation

The damper shall be capable of being closed from both sides of the bulkhead or deck

The arrangement of the fire dampers and necessary additional insulation of damper frame and ducting in the vicinity of the partition is subject to approval in each case.

\*Steel thickness of damper casing to be equal to or greater than thickness of duct/sleeve required by the rules if the damper casing is part of the duct/sleeve.

Each product is to be supplied with its manual for installation and use.

## Type Approval documentation

Certification in accordance with Standard for Certification Note No. 1.2, Type Approval, April 2009.

Survey retention report dated 10 December 2008 from DNV Oslo.

Test reports No. 22N008.03 dated 30 March 2000 and No. 22N008.06 dated 27 September 2000 from SINTEF, Trondheim, Norway.

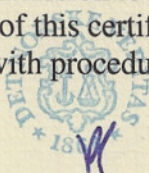
Tested according to IMO FTPC Part 3 (IMO Res. A.754(18)).

## Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire-technical rating.

## Certificate retention survey

Det Norske Veritas' surveyor is to be given permission to perform Certification Retention Surveys at any time during the validity period of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Standard for Certification No. 1.2 item 4.







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**Transport Canada Approval**

Based on the procedures laid down in the Transport Canada Publication entitled "*Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)*", Det Norske Veritas confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

END OF CERTIFICATE

