



Certificate No:
TAF00001T8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Fire Damper

with type designation(s)
Bulkhead Fire Dampers CDFH, CSFH and CQFHD

Issued to
Jiangsu Josun Air Conditioner Co., Ltd.
TAIXING, JIANGSU, China

is found to comply with
DNV offshore standards
DNV rules for classification – Ships
DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021

Application :

The fire damper is approved for installation in steel bulkheads. Other applications are subject to case-by-case approval.

This certificate is recognized by Transport Canada.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2023-07-03**

This Certificate is valid until **2028-07-02**.

DNV local unit: **Jiangyin NB & CMC**

for **DNV**

Approval Engineer: **Izabela Misztal**

Jowita Permoda
Head of Section

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

“CDFH, CSFH and CQFHD”

are single or multi-bladed, rectangular and circular fire dampers with a manual, electric or pneumatic actuation intended to use on bulkheads.

The fire damper blades are formed by two layers of 1.2 mm thick steel plates filled with ceramic wool between them.

Insulation of casing and blades core:

‘TG-2 type ceramic wool’ produced by Changzhou Thermal Insulation Material Factory Co. Ltd. of 170 kg/m³ density.

The fire dampers are fixed to the casing by means of the following steel bolts:

M8 Ø: CDFH 600 x 320, CSFH DN160, CDFHD DN600, CDFHD 700 x 700, CQFH 1200 x 320, CDFH 600 x 320, CSFH DN160, CDFHD DN600, CDFHD 700 x 700, CQFH 1200 x 320

M12 Ø: CQFHD 1200 x 1200

M16 Ø: CQFHD DN1000, CQFHD DN1000

M20 Ø: CQFHD DN1600, CQFHD 1600 x 1600

M10 x 50 mm: CQFHD 1600 x 1600, CQFHD 1600 x 1600

M8 x 40 mm: CSFH DN320, CSFH DN320

M8 x 45 mm: CSFH 200 x 320, CSFH 200 x 320

For further details, see Type Examination documentation below.

Application/Limitation

The fire dampers are approved for installation in steel bulkheads. Other applications are subject to case-by-case approval.

Fire Damper type	Max. damper size (W x H) [mm]	Steel blade shape	Coaming thickness [mm]	Damper body wall thickness [mm]	Coaming length on unexposed side [mm]	Material	Max. number of blades	Blade max. size W x H x T [mm]	Application
CSFH	200 x 320	rectangular	5	4	650	Q235-B	1	195 x 314 x 27	A60
CSFH	200 x 320	rectangular	5	4	650	SS	1	195 x 314 x 27	A60
CDFH	600 x 320	rectangular	4	4	650	Q235-B	1	575 x 314 x 27	A60
CDFH	600 x 320	rectangular	4	4	650	SS	1	575 x 314 x 27	A60
CQFH	1200 x 320	rectangular	6	6	650	Q235-B	1	1195 x 314 x 27	A60
CQFH	1200 x 320	rectangular	6	6	650	SS	1	1195 x 314 x 27	A60
CDFHD	700 x 700	rectangular	4	4	650	Q235-B	3	695 x 229 x 27	A60
CDFHD	700 x 700	rectangular	4	4	650	SS	3	695 x 229 x 27	A60
CQFHD	1600 x 1600	rectangular	10	10	650	SS	14	750 x 226 x 32	A60
CQFHD	1600 x 1600	rectangular	10	10	650	Q235-B	14	750 x 226 x 32	A60
CSFH-DN	Ø160	round	5	4	650	Q235-B	1	Ø154 x 27	A60
CSFH-DN	Ø160	round	5	4	650	SS	1	Ø154 x 27	A60
CSFH-DN	Ø320	round	5	4	650	SS	1	Ø314 x 27	A60
CSFH-DN	Ø320	round	5	4	650	Q235-B	1	Ø314 x 27	A60
CDFHD-DN	Ø600	round	5	4	650	SS	3	Ø544 x 27	A60
CDFHD-DN	Ø600	round	5	4	650	Q235-B	3	Ø544 x 27	A60
CQFHD-DN	Ø1000	round	6	6	650	Q235-B	5	Ø939 x 27	A60
CQFHD-DN	Ø1000	round	6	6	650	SS	5	Ø939 x 27	A60
CQFHD	1200X1200	rectangular	5	6	650	Q235-B	5	1195 x 236 x 32	A60

CQFHD	1200X1200	rectangular	5	6	650	SS	5	1195 x 236 x 32	A60
CQFHD-DN	Ø1600	round	10	10	650	Q235-B	7	1551 x 226 x 32	A60
CQFHD-DN	Ø1600	round	10	10	650	SS	7	1551 x 226 x 32	A60

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.

The fire dampers may be operated by actuators of the following types (*):

- Pneumatic actuators:
 - o Type: "RS-63", "RS-105" and "RS-125",
- Electric actuators:
 - o Type: "BF230",
- Manual actuators:
 - o Type: "DL-I-2".

(*) Actuators of same make but with different size as mentioned above may also be used, provided that they have sufficient torque, similar installation arrangement and equivalent fire technical and functional properties.

The insulation used is to be regarded as minimum insulations for all fire rating and is not to be removed if the fire damper is to be used in division with lower fire ratings.

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

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

Type Approval documentation

Certification in accordance with Class Program DNV-CP-0338, September 2021.

Test reports Nos.

- FT22194 dated 31 October 2022
- FT22195 dated 01 November 2022
- FT22196 dated 31 October 2022
- FT22197 dated 03 November 2022
- FT22198 dated 31 October 2022
- FT22199 dated 01 November 2022
- FT22200 dated 31 October 2022
- FT22201 dated 03 November 2022
- FT23073 dated 10 March 2023

all from FEFTC Far East Fire Testing Centre, Shanghai, China.

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

Marking of product

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

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Procedures for Approval of Life-Saving Appliances, Fire Safety Systems, Equipment and Products (TP14612)", DNV confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Program DNV-CP-0338, Section 4.