



Certificate no.:
TAP00002NZ

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Butterfly Valves

with type designation(s)
NS20DMT

issued to
Nakakita Seisakusho Co., Ltd.
Daito, Japan

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV rules for classification – Ships Pt.6 Ch.7 Sec.7 Emission reduction system for NOx or SOx – ER
DNV class programme DNV-CP-0186 – Type approval – Valves

Application:

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

Temperature range: -10°C to +500°C (see page 2)

Max. working press.: 3.5 bar(g)

Sizes: See page 2

Issued at **Høvik** on **2024-05-24**

This Certificate is valid until **2029-05-23**.

for **DNV**

DNV local unit: **Japan CMC**

Approval Engineer: **Maheshraja Venkatesan**

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.



Form code: TA 251

Revision: 2023-09

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Product description

Dampers of wafer butterfly valve design according to JIS B8265, with additional mounted pneumatic actuator for installation within SCR and exhaust gas systems. The damper assemblies with mechanical scraping rings are tested for self-cleaning function according to manufacturer's test procedure .

Damper assembly NS 20DMT comprises of following sizes: 100A, 200A, 250A, 300A, 350A, 400A, 450A and 500A.

For mounting purpose into an exhaust gas duct, all exhaust gas dampers are designed with flange connections according to JIS 5K/ 10K (JIS B2220) or PN10 (EN 1092-1).

Material of construction:

Part	Standard TIER III		Acid Resistant TIER III	
	Material grade	Delivery standard	Material grade	Delivery standard
Body and disc	SCS 13A/SCS 14A	JIS G 5121	SCS 13A/SCS 14A	JIS G 5121
Seat ring	SUS 316	JIS G 4303/ G 4304	SUS 316	JIS G 4303/ G 4304
Gasket	Graphite		Graphite	
Retainer	SUS 304	JIS G 4303	SUS 316	JIS G 4303
Stem	SUS 304N2	JIS G 4303	SUS 316	JIS G 4303
Cover	SUS 304/ SUS 316	JIS G 4303/ G 4304	SUS 316	JIS G 4303/ G 4304

Application/Limitation

Design pressure: 3.5 bar(g) and in addition, limited by EN 1092-1 PN10 ratings for elevated temperatures.

Valves covered by this certificate are approved for use in SCR and exhaust gas systems onboard ships.

Materials and material protection chosen for the specific system shall be suitable for the intended medium and environmental conditions. Valves of austenitic stainless steel shall not be used in direct contact with seawater.

Exhaust dampers shall be fitted with a permanently connected soot cleaning arrangement for contact surfaces, or equivalent arrangements maintaining the valve operability.

The approval does not include actuator and/or other equipment for remote control of the valves.

Type Approval documentation

Production Testing and Certification

Each damper shall be subjected to functional, body shell strength, seat leakage, visual & dimensional as per the manufacturer's inspection procedure .

Certification for the actual intended application shall follow the latest applicable edition of the Rules (as mentioned on the front page of this certificate).

Tests carried out

Pressure test, leak tightness test, functional test, self-cleaning test

Marking of product

For traceability to this type approval the valves are to be marked as a minimum with:

- manufacturer's name or trademark
- valve type designation
- size
- maximum design pressure and temperature

Periodical assessment

This certificate is only valid if required periodical assessments are carried out with satisfactory results.

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.

To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>.