Certificate no.:
TAP000033G

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Flexible hoses of metallic material with permanently fitted couplings

with type designation(s)
10XGJR-15/ -40/ -50

issued to
Jiangsu Xingao Bellows Co., Ltd.
Taizhou, Jiangsu Province, China

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV rules for classification – Ships Pt.5 Ch.7 Liquefied gas tankers
DNV class programme DNV-CP-0184 – Type approval – Flexible hoses with permanently fitted couplings

Application:

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Temperature range:	**-196°C to +80°C**
Max. working press.:	**10 bar / 1 MPa**
Sizes:	**DN 15 / DN 40 / DN 50**

Issued at **Hamburg** on **2026-04-09**
This Certificate is valid until **2031-04-08**.
DNV local unit: **Nantong**

for **DNV**

Approval Engineer: **Christian Kaemmer**

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 USD 300 000.

Product description

Series 10XGJR-15 / -40 / -50:
Metallic hose assembly, corrugated stainless steel single wall, single braided hose with welded end flange and lap joint flange (loose flange).

Part	Material	Standard
Corrugation / Flexible hose; 0.25 – 0.3 mm thickness	S31603 / 316L	ASTM A240
Wire braid; 0.3 – 0.4 mm thickness		
Connecting pipe		ASTM A312
Lap Joint Flange, Welding neckflange		ANSI B16.5

Application/Limitation

The flexible hoses are type-approved in pipe-class III in piping systems to be used with LNG, compressed air, gaseous & liquid nitrogen for LNG-vessel pipe purging.

Dimensions and maximum working pressure:

DN	15	40	50
10XGJR-15 / 10XGJR-40 /10XGJR-50	10 bar	10 bar	10 bar

In elevated temperature, maximum working pressure is to be reduced according to the reduction factors:

Temperature	**20°C**	**50°C**	**100°C**
	1.00	0.88	0.74

Flexible hoses are only to be used where it is necessary due to vibrations or flexible mounting of the machinery. The hoses shall not replace/be used where permanent piping is possible / required. They must only be fitted on places where they are always accessible. It must be possible to shut off from the system all flexible hoses used in compressed air systems.

Production testing

Each hose assembly shall be hydrostatically tested at a hydrostatic pressure of 1.5 times the maximum working pressure and shall be delivered with the pressure test report with reference to the type approval certificate.

Type Approval documentation
Tests carried out

Marking of product

For traceability to this Type Approval, the products are to be marked with:

- hose manufacturer's name or trademark
- date of manufacture (month/year)
- designation type reference
- nominal diameter
- pressure rating
- temperature rating

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment to verify that the conditions for the Type Approval are complied with. Refer to the Class Programme DNV - CP-0338, Section 4. In addition, burst pressure testing on selected sizes to be carried out in the course of renewal of the certificate. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com