



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMT00000TR

This is to certify:

That the Manufacturer

HANSA-FLEX DO BRASIL LTDA
Blumenau, SC, Brazil

is approved for the

Assembling of type approved hoses and couplings

The approval is granted on condition that

DNV class programme DNV-CP-0183 – Type approval – Flexible non-metallic hoses

are complied with in all respect

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules.

Issued at **Høvik** on **2024-01-19**

This Certificate is valid until **2027-01-18**.

DNV local unit: **Station Rio de Janeiro, NB/CMC/Approval**

for **DNV**

Approval Engineer: **Maheshraja Venkatesan**

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Bosman van der Merwe
Head of Section

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.

This Certificate is subject to terms and conditions overleaf. Any significant change in production facilities and methods may render this Certificate invalid.



Approval basis

HANSA-FLEX DO BRASIL LTDA is approved as a hose assembling company to deliver type approved hose assemblies (hose & coupling types as described in this certificate) to DNV vessels.

Products covered

The holder of this certificate is authorized to assemble hoses and end fittings as specified in below type approval certificate(s) and its subsequent identical revisions (if there is no change in the design of the products):

Type Approval Holder	Certificate No.*	Type	Sizes
HANSA-FLEX AG, Bremen, Germany	TAP0000235	KP 600	DN10 to DN31
	TAP00000FK	HD 700	DN 19 to DN 38
		487TC/487ST	DN 06 to DN 51
	TAP00000N3	HD100 (1SN)	DN06 to DN51
		HD200 (2SN)	DN 06 to DN 51
		HD200T (2SN)	DN 06 to DN 51
		KP 100 (1SC)	DN06 to DN25
		KP 200 (2SC)	DN06 to DN25
	TAP00000FS	KP 200S (2SC)	DN06 to DN31
		HD 200 CO ₂ hose assemblies	DN06 to DN12

* To check the validity of the type approval certificate, please see <https://approvalfinder.dnv.com>.

Limitation

The approval is valid by considering all conditions in relevant type approval certificate(s) and authorization letter, during the validity of current certificate and relevant type approval certificate(s).

Product testing

Each hose assembly is to be hydraulic pressure tested to 1.5 times the maximum working pressure before delivery and to be delivered from the certificate holder with pressure test report with reference to the type approval certificate and this certificate.

Approval documentation

Certificate Retention Survey

The AoM certificate is valid for three (3) years and besides the renewal audit, the Society will keep the right to request intermediate audit as deemed necessary.