DNV·GL

Certificate No:
MEDB00006W4

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Materials other than steel for pipes conveying oil or fuel oil: flexible pipe assemblies and compensators

with type designation(s)
KP600, KP700 acc. to ISO 18752-CCT

Issued to
HANSA-FLEX AG
Bremen, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
item No. MED/3.15c. SOLAS 74 as amended, Regulation II-2/4 & X/3 and 2000 HSC Code 7 & 10 and IMO MSC/Circ.1120

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-08-16**.
Issued at **Hamburg** on **2020-08-17**

DNV GL local station:
Hamburg CMC

Approval Engineer:
Hagen Markus

Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
Head of Notified Body

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.

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Job Id: **344.1-010798-1**
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Product description

Hose types

Compact hose types acc. to ISO 18752 (CCT).

Properties	KP 600	KP 700
Size range	DN10 to DN31	DN19 to DN25
Inner layer	Oil-resistant synthetic rubber	
Reinforcement	Four maximum strength steel wire spiral layers	
Outer layer	Synthetic rubber with high ozone, abrasion and weather resistance	
Colour	Black	
Temperature range	- 40°C to + 121°C	

Hose end fittings

Approved combination of hose and hose end fittings according to overview "Vom DNV GL Notified Body 0098 zugelassene MED Schlauch -und Armaturenkombinationen".

Maximum Allowable Working Pressure (MWP)

Dimensions	KP 600		KP 700	
DN / Size / Inches	Identification	MWP (bar)	Identification	MWP (bar)
10 / 6 / 3/8"	KP 610	445	n.a.	n.a.
12 / 8 / ½"	KP 613	420		
16 /10 / 5/8"	KP 616	420		
19 / 12 / ¾"	KP 620	380	KP 720	420
25 / 16 / 1"	KP 625	350	KP 725	420
31 / 20 / 11/4"	KP 632	350	n.a.	n.a.

Application/Limitation

Piping systems conveying oil or fuel.

Type Examination documentation

Tests carried out

Fire resistance tests according to ISO 15540/15541:2016.

Marking of product

For traceability to this certificate each hose assembly is to be marked on the hose and or on the hose end fitting at least with:

Scope	Example
Manufacturer's name or trademark / Production date	HF-GVZ / 2020/08
M.A.W.P. / T.P.	420 bar / 840 bar
US Coast Guard Number	Acc. to MED Module D certificate
Mark of Conformity according to Article 10 of the Council Directive (MED)	 0098 /20

End of certificate