Certificate No:
TAP00002FZ

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Filter

with type designation(s)
HWKU 17 L ...

Issued to
Hengst SE
Münster, Nordrhein-Westfalen, Germany

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV rules for classification – Ships

Application :

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

Max. working temp.:	**80°C up to 130°C acc. to manufactures instructions**
Working media:	**Fuel**
Design pressure:	**max. 4 bar**

Issued at **Hamburg** on **2022-01-18**

This Certificate is valid until **2027-01-11**.

for **DNV**

DNV local station: **Essen**

Approval Engineer: **Ana Cristina Do Carmo Insfran**

Olaf Drews
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

The filter HWKU 17 L is type approved according to DNV Rules - Pt.4 Ch.6 as a piping component.

Material:
Socket: GD - Al Si 12 (Cu) EN AC-44300 (DIN EN 1706)
Gasket: acrylonitrile butadiene rubber (NBR)

Working pressure: max. 4 [bar].

Working temperature: 80 °C up to 130 °C max. acc. to manufacturer's instructions.

Application/Limitation

The selection of the filters for the corresponding application and the right installation and maintenance is to be in acc. with the instructions of the manufacturer.

The use of the filters outside the range of application is subject to special consideration by DNV in each induvidual case. The installation, operating and maintenance instructions of the manufacturer are to be strictly adhered to.

The inlet and outlet of the filter are to be fitted with connections where the sealing is not made on the threads.

The approval is related to the strength of the parts subject to pressure, and not the filtering function.

When the filters are fitted in the supply lines to the main and auxiliary machinery, they are to be arranged in such a way that they can be cleaned without interrupting the supply of fuel oil.

Each filter delivered to DNV Class is to be pressure tested to 1.5 x maximum working pressure in the presence of a DNV surveyor as described in DNV Rules Pt.4, Ch.6.

Type Approval documentation

Marking of product

For traceability to this type approval each filter shall be marked:
- Manufacturer name or trade mark
- Type designation
- Design pressure

Periodical assessment

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 Type Approval are complied with. Refer to DNV-CP-0338, Sec.4.

- The certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com

END OF CERTIFICATE