

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:**That the Manufacturer****VIGOT Industrietechnik GmbH
Bremen, Germany**is approved for the
Assembling of type approved hoses and couplingsThe approval is granted on condition that
**DNV GL rules for classification – Ships
DNV GL class programme DNVGL-CP-0183 – Type approval – Flexible hoses**

are complied with in all respect

Hose	Non-metallic hydraulic hose assemblies
Type	Reference is made to the applicable Type Approval Certificate List see page 2
Size	DN3 up to DN76
Standard	Reference is made to the applicable Type Approval Certificate List see page 2

Manufacturer approved by this certificate is accepted to deliver according to DNV GL, DNV and GL rules.

This Certificate is valid until **2020-05-22**.Issued at **Hamburg** on **2017-05-23**DNV GL local station: **Bremerhaven**Approval Engineer: **Christian Kaemmer**for **DNV GL**

Digitally Signed By: Drews, Olaf

Location: DNVGL Hamburg

Signing Date: 2017-05-29

**Olaf Drews
Head of Section**

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

Job Id: **263.11-006858-1**
Certificate No: **AMT000003Y**

Approval basis

The hose assemblies (hoses and end fittings) are type approved according to the data mentioned in Type Approval Certificate List:

DO-7503-RO -

Liste gültiger Type Approvals_DNVGL.xlsx

Size Range

DN3 up to DN76

Limitation

Refer to the applicable Type Approval Certificates as listed above.

The selection of the hose assemblies for the corresponding application and the right installation are to be in accordance with the specifications of the manufacturer.

Documents

- Arbeitsanweisung (AA) Auftrags- und Fertigungsprozess DNV/GL – Einzelabnahmen / AA-001-07
- Liste benannter Personen DNV / GL DO-7203-R1 / LOP-1986111
- Checklist initial approval of manufacturers 20.101a dated on 2016-11-28

Production place

VIGOT Industrietechnik GmbH
Ingolstädter Straße 7
D-28219 Bremen

Marking

For identification and traceability purposes, each hose assembly is at least permanently marked on the hose end fitting with:

Manufacturers name or trade mark	
M.A.W.P.	(if deviating from the hose marking)
Manufacturing date (Year, Month)	e.g. 17/05
ID No.	For traceability to DNVGL Product certificate or Works certificate

Production testing

Each manufactured hose assembly is to be subjected to a hydraulic pressure test in accordance to the purchaser specifications, at least in accordance with the respective DNVGL Rules and Guidelines.

DNV GL	1.5 x Maximum Allowable Working Pressure (M.A.W.P)
DNV	1.5 x M.A.W.P
GL	2.0 x M.A.W.P

Remark

For determination of the M.A.W.P. of the hose assembly both, the maximum operating pressure of the hose end fitting pipe connection part and of the hose type, as specified in the VIGOT catalogue, is be considered.

Example

The M.A.W.P. specified for the hose type is 210bar, for the hose end fitting pipe connection part it is 160bar. Accordingly the M.A.W.P. for the hose assembly is 160bar.

Product certification



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In case of orders according to GL Rules, the hydrostatic pressure test is to be confirmed by issuing of a of a DNV GL-product certificate for the entire batch.
For orders according to DNV or DNVGL Rules a Works Certificate is sufficient.

Certificate Retention Survey

The approval is valid for three years. To maintain the approved status, the manufacturer must be reinspected every three years. Application for renewal should be made not later than three months before the expiry date of the certificate.

Any alteration to the approved condition during the period of validity, e.g. method of manufacture, maximum dimensions or conditions of supply, is to be reported to the Society.
A re-inspection and/or re-testing may be required when deemed necessary by the Society.

END OF CERTIFICATE