DNV·GL

Certificate No:
**TAP00000R7**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Vent Head for Tank**

with type designation(s)
**JTF/JTF1**

Issued to
## Taixing Traffic Machinery Facilities Factory
**Taixing 100, China**

is found to comply with
**DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems**
**DNV GL class programme DNVGL-CP-0187 – Type approval – Air vent heads**

## Application :

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**
**Sizes: DN50, 65, 80, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500**

This Certificate is valid until **2022-01-29**.

Issued at **Høvik** on **2017-01-30**
DNV GL local station: **Jiangyin FiS&CMC** for **DNV GL**

Approval Engineer: **Mehdi Rowshan**

**Marianne Spæren Marveng**
**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.


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Job Id: **262.1-022293-1**
Certificate No: **TAP00000R7**

## Product description

Air vent heads with stainless steel float.
Openings protected by screen mesh welded to screen frame, The protection screen is 14 mesh for watertank and 30 mesh for oil tank.
Body and side cover with material Q235 are to be hot galvanized, the galvanizing coating to be over 70 µm. For areas susceptible to erosion an aluminum containing epoxy coating shall be applied over the zinc.

Materials:

| *Part* | *Model:JTF* | *Model:JTF1* |
|---|---|---|
| Body | Q235 | S32205 |
| Float | S32205 | S32205 |
| Bolt | S32205 | S32205 |
| Side Cover | Q235 | S32205 |
| Seat | neoprene | neoprene |
| Protection Screen | S32205 | S32205 |

## Application/Limitation

The certificate covers design assessment of air vent heads. Installation and other additional requirements related to installation are out of scope of this certificate.

The air vent heads are not considered as devices to prevent the passage of flame into cargo tanks. They shall not be installed on oil tanks (flash point<60°C).

Product certificate is not required for air vent heads installed in ship class vessels.

Results of Discharge test and flow test on air vent heads with wire mesh:

| Size | Model:JTF | | | Model:JTF1 | | |
|---|---|---|---|---|---|---|
| | 80% of blocking velocity (m/s) | Flow resistance coefficient (ζ)@ pressure drop (ΔP) | | 80% of blocking velocity (m/s) | Flow resistance coefficient (ζ)@ pressure drop (ΔP) | |
| | | ΔP(Pa) | ζ | | ΔP(Pa) | ζ |
| DN50 | 3,40 | 31818 | 4.202 | 4,19 | 32773 | 4.175 |
| DN65 | 5,09 | 23228 | 6.040 | 6,57 | 22627 | 5.357 |
| DN80 | 5,99 | 23038 | 7.470 | 7,21 | 21409 | 6.862 |
| DN100 | 6,29 | 22364 | 6.241 | 7,50 | 22474 | 6.178 |
| DN125 | 6,50 | 21769 | 7.391 | 7,90 | 20324 | 6.993 |
| DN150 | 7,68 | 23052 | 6.337 | 8,70 | 22406 | 6.122 |
| DN200 | 4,18 | 25601 | 6.580 | 5,02 | 23722 | 6.049 |
| DN250 | 6,79 | 24142 | 6.990 | 7,25 | 23906 | 6.881 |
| DN300 | 6,01 | 15831 | 7.989 | 6,70 | 15031 | 7.552 |
| DN350 | 4,85 | 7637 | 6.789 | 5,22 | 7455 | 6.600 |
| DN400 | 4,02 | 4455 | 6.586 | 4,88 | 4257 | 6.271 |
| DN450 | 3,31 | 3545 | 9.475 | 4,08 | 3152 | 8.414 |
| DN500 | 3,13 | 2154 | 8.104 | 3,65 | 2210 | 8.293 |

## Type Approval documentation

## Tests carried out

Flow characteristics test (pressure drop), float impact test, tightness tests, discharge/reverse flow test

## Marking of product

For traceability to this type approval the products are to be marked:

- Manufacturer's name or trade mark
- Type designation
- Size

## Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform periodical assessment every second year and before the expiry date of this certificate. The scope of the periodical assessment survey, is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.