Certificate No: LR23372182TA
Issue Date: 23/01/2023
Expiry Date: 22/01/2028

# Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

| | |
|---|---|
| **Manufacturer** | **EBRO ARMATUREN** |
| **Address** | Gebr. Broeer GmbH, Karlstrasse 8, Hagen, 58013, Germany |
| **Type** | Butterfly Valves |
| **Description** | Double eccentric wafer, resp. wafer lug or flange type butterfly valves for installation between DIN/ANSI flanges |
| **Trade Name** | HP 111 / 111 L (Wafer Type), HP 112 / 112 L (Flange Type),HP 114 / 114 L (Wafer Lug Type) |
| **Application** | For installation on ships and offshore installations classed or intended for Classification with Lloyd's Register allowable systems.<br>1. Salt and fresh water systems including ship side valves.<br>2. Branch and direct bilge suction valves on cargo and passenger ships including yachts with above 500 gross tonnage provided they are fitted in conjunction with a metal non-return valve.<br>3. As pump suction valves from the main bilge line. A non-return valve may be recommended in line.<br>4. Cargo Lines on oil tankers and as "in-line" valves on chemical tankers and liquefied gas carriers (depending on pressure, temperature, medium and material).<br>5. As "in-line" valves in flammable liquid lines and outlet valves on deep tanks.<br>6. Isolating valves in fire water mains. |

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7. Air piping (except as stop valves for air receivers) having a working pressure not greater than 7 bar.
8. Inert gas systems

**Specified Standard**

Lloyd's Register Rules andRegulations for the Classification of Ships, 2023
DIN EN ISO 5211;
DIN EN 1092;
BS 6755, Fire Safe;
Equivalent to EN ISO10497 modified fire test under dry conditions

**Ratings**

| Nom. Diam. (mm) | Nom. Press. (bar) |
|---|---|
| DN 50 – 150 | PN 16, 25, 40 |
| DN 150 – 250 | PN 16, 25 |
| DN 300 – 600 | PN 16, 25 |

Temp. Range: -40°C to 450°C
(depending on pressure, medium and material)

Seal ring:

| | |
|---|---|
| Soft sealing (R-PTFE) | 230°C |
| Metallic sealing (Inconel) | 450°C |

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

**Previous Version:** 97/20038(E6)

The Design Appraisal Document HMD 10026-03, Issue No. 6 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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