

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	Eriks bv
Address	Cypresbaan 63, Capelle a/d/ IJssel, 2908 LT, Netherlands
Type	Butterfly Valves
Description	Econ Butterfly Valves
Trade Name	ECON Series: 46,57, 58 and 60
Application	Marine, Offshore and Industrial applications, including applications as Fire Main Isolating Valve.
Specified Standard	ISO 5208:2015 – Pressure testing Maritime and Coastguard Agency (MCA) guidelines in surveying fire protection arrangements covering merchant ships, Part 5, Chapter 5.2.4.3, document no. MSIS 12/CH 5/REV 0711 Qualification of Valves by nominal size in accordance with ISO 10497:2010, Section 7.3
Ratings	Series 46 Double flanged type DN50 - 500 Series 57 Wafer type DN50 – 400 Series 58 Lug type DN50 – 400 Series 60 Wafer type DN50 – 500

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Maximum working Pressure	10 bar
Pressure Rating Flange	PN10/16
Temperature	NBR 80°C EPDM 120°C

Other Conditions see Appendix

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: [10/30011\(E1\)](#)

The Design Appraisal Document PRJ11100373731 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Appendix

Subject valves are considered acceptable for use in the following services on Ships Classed or intended for Classification with the Society, provided that in all cases the materials and scantlings of the valves are suitable for the intended conditions, the valves are being used in conjunction with a suitable actuator and that the valves are installed to the satisfaction of the attending Surveyor: -

1. Shipside valves when fitted in machinery spaces: -

1.1 The approval of the above valve types for use as shipside valves is limited to those in machinery spaces and is not applicable to scuppers or similar fittings. Proposals to use the valves as ship-side valve outside machinery spaces will be specially considered.

For shipside services, the valves should be made of an approved ductile material (elongation min. 12%) in accordance with the Rules for the Manufacture, Testing and Certification of Materials. Cast steel valves and spheroidal graphite- or nodular graphite cast iron valves should be made at an approved works.

In all cases the valve body, disc, seat and seals should be suitable for the proposed service.

- 1.2 The valve should be bolted to the shipside connection in such a way that the section of pipe immediately inboard of the valve can be removed should this be necessary and that a damage to the hull in the nearby area of the valve will not result in flooding of the space in which subject valve is fitted, and it should be prevented that the disc could project outside the shell plating when the valve is in open position.
2. Fire Main Isolating Valve. For valves with an NBR-lining only.
3. Salt and Fresh Cooling Water Systems.
4. Water Ballast and Fresh Water Transfer Systems.
5. Bilge drainage suctions in holds in bulk carriers (only when fitted in a pipe tunnel in association with a non-return valve).
6. For Cargo Ships only, as pump suction valve from the main bilge line subject to the valve being located in the immediate vicinity of the pump. The valve is to be fitted in conjunction with a metal seated non-return valve, which is to be on the bilge main side of the butterfly valve.
7. Cargo lines on oil tankers and as “in-line” valves on chemical tankers and liquefied gas tankers.
8. As suction valves on double bottom oil fuel tanks outside the machinery space (only when located in a closed pipe tunnel or duct keel).
9. Domestic Fresh and Saltwater Service.
10. Sanitary systems.
11. Inert gas systems.

Grey Cast Iron should not be used for the following: -

1. Valves in flammable oil systems with pressure and/or temperatures exceeding 7 bar or 60 °C.
2. Valves fitted to tanks containing flammable oil under static pressure.
3. Valves fitted on ship's side or bottom and on sea chest.
4. Valves fitted on collision bulkhead.
5. Valves in piping systems subject to pressure shock, excessive strains, or vibrations.
6. Valves for starting air systems.

This Type Approval does not include the consideration and acceptance of any operating gear for the control of these types of valves. However, for the applications as listed above (paragraph 1 thru 11) mechanical stops to prevent swing-through should be incorporated into the valve body or the associated actuator.