



TYPE APPROVAL CERTIFICATE
No. **MAC072921XG/001**

This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	BUTTERFLY VALVES
<i>Type</i>	ECV-EVS - EVCS - EVBS - EVML - EVMS - EVFS - EVFL - EVTLS - EVUS
<i>Applicant</i>	WOUTER WITZEL EUROVALVE B.V. P.O. BOX 54 7580 AB LOSSER NETHERLANDS
<i>Manufacturer</i>	WOUTER WITZEL EUROVALVE B.V.
<i>Place of manufacture</i>	INDUSTRIETERREIN DE POL 12 7581 CZ LOSSER NETHERLANDS
<i>Reference standards</i>	Part C, Chapter 1, Section 10 of RINA Rules

Issued in **Hamburg** on **March 22, 2021**. This Certificate is valid until **March 21, 2026**



RINA Services S.p.A.
Giuseppe Russo

This certificate consists of this page and 1 enclosure

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Reference documents

- HMMC-18843 - Wouter Witzel Product data sheet 02.01.001 (12/01/2017) for ECV butterfly valves.
- HMMC-18843 - Wouter Witzel Product data sheet 01.01.001 (07/08/2018) for EVS butterfly valves.
- HMMC-18843 - Wouter Witzel Product data sheet 01.04.001 (15/07/2018) for EVBS butterfly valves.
- HMMC-18843 - Wouter Witzel Product data sheet 01.09.001 (15/07/2018) for EVML butterfly valves.
- HMMC-18843 - Wouter Witzel Product data sheet 01.08.001 (30/11/2018) for EVMS butterfly valves.
- HMMC-18843 - Wouter Witzel Product data sheet 01.10.001 (20/09/2019) for EVFS butterfly valves.
- HMMC-18843 - Wouter Witzel Product data sheet 01.11.001 (15/07/2018) for EVFL butterfly valves.
- HMMC-18843 - Wouter Witzel Product data sheet 01.06.001 (07/08/2018) for EVTLS butterfly valves.
- HMMC-18843 - Wouter Witzel Product data sheet 01.07.001 (15/07/2018) for EVUS butterfly valves.
- HMMC-18843 - Wouter Witzel Product data sheet 01.03.001 (15/07/2018) for EVCS butterfly valves.

Materials/Components

As per a.m. product data sheets.

Technical characteristics

Type designation	Type	Size DN [mm]	Working Temperature [°C]	Maximum working pressure [bar]
ECV	Wafer	50 - 600	-40 up to +200	16
EVS	Wafer	50 - 1400	-20 up to +200	16
EVCS	Wafer with centering lugs	50 - 300	-20 up to +200	16
EVBS	Wafer with centering lugs	50 - 300	-20 up to +200	16
EVML	Wafer with mono flange	80 - 800	-20 up to +200	16
EVMS	Wafer with mono flange	80 - 1000	-20 up to +200	16
EVFS	Double flanged	40 - 2000	-20 up to +200	16
EVFL	Double flanged	50 - 1500	-20 up to +300	16
EVTLS	Tapped lug	50 - 1200	-20 up to +200	16
EVUS	U-section wafer short	700 - 2200	-20 up to +200	16



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ECV - EVS - EVCS - EVBS - EVML - EVMS - EVFS - EVFL - EVTLS - EVUS

Fields of application

- Ship's side or bottom and sea chest;
- Salt and fresh cooling water systems;
- Ballast water and fresh water transfer systems;
- Bilge suctions in association with a non return valve;
- Cargo oil lines (oil tanker);
- Fuel oil transfer systems;
- Fire main isolating valve.

Grey cast iron valves are not permitted to be installed on:

- piping system of first class;
- piping system of second class when the design pressure exceeds 13 bar;
- fuel oil lines with design pressure above 7 bar or design temperature above 60°C;
- ship's side or bottom sea chest and fittings;
- the collision bulkhead;
- bilge lines in tanks;
- the external wall of fuel oil and lubricating oil tanks, when under static head;
- piping subject to hydraulic hammering, excessive strains and vibrations.

Types EVS and EVCS valves are not permitted to be installed on:

- ship's side or bottom and sea chest;
- the collision bulkhead;
- the external wall of fuel oil and lubricating oil tanks, when under static head.

The lining material is to be suitable for the medium conveyed in the piping.

Remarks

*The present Type Approval Certificate annuls and replaces the previous one No. **MAC053216XG/002.***

Hamburg 22/03/2021

