

TYPE APPROVAL CERTIFICATE

This is to certify:

That the **Ball Valve**

with type designation(s)
27 Series

Issued to

Habonim Industrial Valves and Actuators Ltd.
Kfar ha-Nasi, Israel

is found to comply with

DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV-OS-D101 – Marine and machinery systems and equipment, Edition July 2021
DNV class programme DNV-CP-0186 – Type approval – Valves

Application :

Product(s) approved by this certificate is/are accepted for installation on vessels classed by DNV.

Temperature range: -55°C to +260°C
Max. working press.: Class 2500/1500 (ASME B16.34)
Sizes: 1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2", 3", and 4"

Issued at **Høvik** on **2023-02-15**

This Certificate is valid until **2028-02-14**.

for **DNV**

DNV local unit: **Haifa**

Approval Engineer: **Andreas Hansen**

Bosman van der Merwe
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Floating ball valve type 27, constructed according to ASME B16.34.

Designation	F27 Series
End connections	Flanges according to ASME B16.5 or EN 1092-1 Butt welded ends according to ASME B16.25
Part	Material
Body and ends	ASTM A479316/316L, ASTM A105
Stem	ASTM A479 XM-19
Ball	ASTM A351 CF8M, ASTM A479 XM-19
Seat	PVDF, CF PEEK, Virgin PEEK, Delrin, PCTFE
Body seals	PTFE, Graphite, TFM

Application/Limitation

Valves covered by this certificate may be used under the following design conditions:

Service	General machinery service	
Max. working pressure	Class 1500	Class 2500
Sizes	2-1/2", 3", and 4"	1/2", 3/4", 1", 1-1/4", 1-1/2", and 2"
Temperature range	-55°C to + 260°C	

For elevated temperatures, press-temperature rating shall follow relevant parts of design standard, depending on the valve material grade.

This approval does not include actuator and/or other equipment for remote control of the valves.

Valves covered by this certificate are not permitted for use in sea water systems. Material in contact with seawater shall be properly protected. Surface preparation and coating shall be approved by the society.

Type Approval documentation

Tests carried out

Shell test, seat test, and fire test.

Production Testing and Certification

Production testing and certification for the actual intended application shall follow the latest applicable edition of the Rules (as mentioned on the front page of this certificate)

Valve bodies shall be delivered with test report in accordance with DNV-RU-SHIP Pt.4 Ch.6 Sec.2 [Table 3]

Marking of product

The valves shall be marked in accordance with the design standard.

Periodical assessment

For retention of the Type Approval, a DNV surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.