

TYPE APPROVAL CERTIFICATE

This is to certify:

That the **Globe Valve**

with type designation(s)

GV116, GV340, BGV116, BGV216, BGV225, BGV340, BGV416, BGV440

Issued to

ICP Valves, S.A.U

Sant Boi de Llobregat, Barcelona, Spain

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.

Type:	Temperature range:	Max. working press.:	Sizes:
GV116	See certificate	16 bar	DN15 to DN200
GV340	See certificate	40 bar	DN15 to DN200
BGV116	See certificate	16 bar	DN15 to DN200
BGV216	See certificate	16 bar	DN65 to DN200
BGV225	See certificate	25 bar	DN15 to DN200
BGV340	See certificate	40 bar	DN15 to DN200
BGV416	See certificate	16 bar	DN65 to DN100
BGV440	See certificate	40 bar	DN15 to DN50

Issued at **Høvik** on **2023-09-07**

This Certificate is valid until **2028-09-06**.

for **DNV**

DNV local unit: **Barcelona FIS**

Approval Engineer: **Rob Oerlemans**

Zeinab Sharifi
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

Two piece bolted globe valves with flanged end connections and non-rising spindle.

Design code: EN 12516-2 (Steel valves) and EN 12516-4 (Iron valves)

Valve Inspection and Testing: EN 12266-1

End connections: EN 1092-1(Steel valves) EN 1092-2 (Iron valves)

Face to Face: EN 558 Series 1.

Range globe valves:

Fig.	Nominal size	Pressure rating	Body material	Pressure -Temperature range
GV116	DN15 - 200	PN 16	Cast Iron - EN 1561	-10 to 300 °C / 16 to 9,6 Bar
GV340	DN15 - 200	PN 40	Carbon steel - EN 10213	-29 to 400 °C / 40 to 24 Bar

Range bellow sealed Globe valve:

Fig.	Nominal size	Pressure rating	Body material	Temperature range
BGV116	DN15 - 200	PN 16	Cast Iron - EN 1561	-10 to 300 °C / 16 to 9,6 Bar
BGV216	DN65 - 200	PN 16	Nodular Cast iron – EN 1563	-10 to 350 °C / 16 to 11,2 Bar
BGV225	DN15 - 200	PN 25	Nodular Cast iron– EN 1563	-10 to 350 °C / 25 to 17.5 Bar
BGV340	DN15 - 200	PN 40	Carbon Steel - EN 10213	-29 to 400 °C/ 40 to 24 Bar
BGV416	DN65 - 100	PN 16	Stainless Steel - EN 10213	-50 to 400 °C / 16 to 9,4 Bar
BGV440	DN15 - 50	PN 40	Stainless Steel - EN 10213	-50 to 400 °C / 40 to 23,5 Bar

Materials of construction globe valves:

Fig.	Nominal size	Body	Bonnet	Gland	Bolt	Disc	Spindle
GV116	DN15 - 50	EN-GJL-250 / 5.1301	GP240GH / 1.0619	S235JR+ZP	8.8	X20Cr13	1.4373
	DN65 - 200		EN-GJL-250 / 5.1301				
GV340	DN15 - 200	GP240GH / 1.0619					

Packing and gaskets: Graphite (all types)

Materials of construction bellow sealed Globe valve:

Fig.	Nominal size	Body	Bonnet	Gland	Bolt	Disc	Spindle / Below
Bellow sealed Globe valve:							
BGV116	DN15 - 50	EN-GJL-250 / 5.1301	GP240GH / 1.0619	1.1191+ZP	8.8	X20Cr13	1.4301
	DN65 - 200		EN-GJL-250 / 5.1301				
BGV216	DN65 - 200	EN-GJS-400-18 / 5.3105					
BGV225	DN15 - 50	EN-GJS-400-18 /5.3105	GP240GH / 1.0619				
	DN65 - 200		EN-GJS-400-18 /5.3105				
BGV340	DN15 - 200	GP240GH / 1.0619					
BGV416	DN65 - 100	GX5CrNiMo 19-11-2 / 1.4408		1.4401	A4-70	1.4401	
BGV440	DN15 - 50						
Packing and gaskets:		Graphite (all types)					

Packing and gaskets: Graphite (all types)

Application/Limitation

Pressure-temperature ratings shall be in accordance with EN 12516 for the selected metallic material of the valve.

Valves covered by this certificate may be used in general machinery service.

The approval does not include any operating gear for remote control of the valves.

Materials and material protection chosen for the specific system shall be suitable for the intended medium and environmental conditions. Valves of austenitic stainless steel shall not be used in direct contact with seawater.

Nodular cast iron (Grey Cast Iron) of the ferritic/pearlitic type (EN-GJS-400-18) shall not be used subject to pressure shock, excessive strains, and vibration.

Nodular cast iron shall not be used for class I and II piping with the following exceptions:

- valves in hydraulic piping systems where failure would not render the system inoperative or introduce a fire risk.

Nodular cast iron may be used for class III piping, with the following exceptions:

- pipes and valves fitted on ship sides and bottom and on sea chests.
- valves fitted on collision bulkhead.
- valves under static head fitted on the external wall of fuel tanks, lub. oil tanks and tanks for other flammable oils.
- valves for fluids with temperatures more than 120°C.

Nodular cast iron of the ferritic type (EN-GJL-250), with specified minimum elongation of 12%, may be used in class II and III piping and in pipes and valves located on the ship's side and bottom and valves on the collision bulkhead.

The valves covered by this certificate are not to be considered fire safe and therefore shall not be installed wherever fire safe application is required, e.g. as shut off or quick closing valves.

Type Approval documentation

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).

Marking of product

For traceability to this type approval the valves are to be marked as a minimum according to EN 19.

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.