



Certificate No:
TAP00002SY

TYPE APPROVAL CERTIFICATE

This is to certify:

That the **Ball Valve**

with type designation(s)
Series F15, Series F30

Issued to

Bray Controls (UK) Ltd
Inchinnan, United Kingdom

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:
Series F15	See certificate	Class 150	1/2" to 12"
Series F30	See certificate	Class 300	1/2" to 12"

Issued at **Høvik** on **2023-12-21**

This Certificate is valid until **2028-12-20**.

for **DNV**

DNV local unit: **UK & Ireland CMC & VMC**

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.



Form code: TA 251

Revision: 2022-12

www.dnv.com

Page 1 of 3

Product description

Floating, 2-Piece, flanged, full bore port ball valve.

Design code: ASME B16.34

Valve Inspection and Testing: API STD 598.

End connections: ASME B16.5 and EN 1092-1

Materials of construction

Component	Material spec. (Stainless steel / Carbon Steel)
Body	ASTM A351 CF8M / ASTM A216 WCB
Bonnet	ASTM A351 CF8M / ASTM A216 WCB
Ball	ASTM A351 CF8M
Stem	ASTM A479 Type 316
Bolting	ASTM A193 B8 / ASTM A193 B7
Seat	TFM, Tek-Fil or PEEK
Seals, Stem packing	Spiral Wound (316/Graphite), RPTFE or Graphite

Manufacturing sites:

Bray Controls (UK) Ltd, 16-18 Fountain Crescent Inchinnan Business Park Inchinnan PA4 9RE United Kingdom

Bray Controls (USA), 13333 Westland East Blvd. Houston, TX 77041, USA

Bray Controls (China) Co., Ltd. Zhejiang, P. R. China

Application/Limitation

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

Parameter	Values
Type / Pressure class	Series F15 / Class 150 Series F30 / Class 300
Service	General machinery systems
Temperature range	-29°C to +234 °C depending on seat material
Pressure-Temperature	Acc to ASME B16.34
Size	NPS 1/2" to 12"
Type	Floating, Full bore

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

Austenitic stainless-steel grades (such as 304, 316, 304L and 316L) are not permitted for use in sea water systems.

Type Approval documentation

Doc ref.	Rev. / Dated	Description
SC-0027	1 / 07.13.2022	F15 Flanged Ball valve 1/2" – 2"
SC-0028	1 / 07.13.2022	F15 Flanged Ball valve 2-1/2" – 12"
SC-0029	1 / 07.13.2022	F30 Flanged Ball valve 1/2" – 2"
SC-0030	1 / 07.13.2022	F30 Flanged Ball valve 2-1/2" – 12"
TS-00578	3 / 11.30.2023	Series F15/ F30 - Ball valve calculation
WI-FT-130	7 / 08.17.2021	Pressure test instructions
MS-595	1 / 04.09.2016	Datasheet RPTFE
MS-578	1 / 16.04.2016	Datasheet PTFE
MS-54J	1 / 04.09.2016	Datasheet TFM 1600
MS-54I	1 / 04.09.2016	Datasheet TEK-FIL
MS-53HH	1 / 04.09.2016	Datasheet PEEK
MS-50D	1 / 04.09.2016	Datasheet FLEXIBLE GRAPHITE
EN_F-2400_F15_30	- / 18.10.2022	Product brochure Series F15 and F30
Drawing number sizes 1/2" (0050) thru 12" (1200)	Revision number per drawing	Description
15-(0050 thru 1200)-82592	4/ 4/ 4/ 3/ 4/ 4/ 3/ 3/ 4/ 3/ 3/ 3	Body casting F15
15-(0050 thru 1200)-92592	10/ 10/ 8/ 8/ 9/ 12 11/ 12/ 6/ 1/ 9/ 9	Body machined F15
15-(0050 thru 1200)-84092	1/ 1/ 1/ 1/ 1/ 1/	Cap casting F15

	1/ 1/ 1/ 2/ 1/ 1	
15-(0050 thru 1200)-94092	5/ 7/ 5/ 4/ 4/ 6/ 6/ 5/ 6/ 1/ 5/ 6	Cap machined F15
15-(0050 thru 1200)-82593	4/ 4/ 4/ 3/ 4/ 4/ 3/ 3/ 4/ 3/ 3/ 4	Body casting F30
15-(0050 thru 1200)-92593	10/ 10/ 11/ 7/ 9/ 9 8/ 8/ 13/ 1/ 9/ 10	Body machined F30
15-(0050 thru 1200)-84093	1/ 1/ 1/ 1/ 1/ 1 1/ 1/ 1/ 1/ 1/ 1	Cap casting F30
15-(0050 thru 1200)-94093	5/ 7/ 5/ 4/ 5/ 5 7/ 8/ 7/ 1/ 6/ 6	Cap machined F30

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

Minimum marking requirements shall be as outlined in the valve 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.