



# Design Appraisal Document

**Lloyd's Register Group Limited**  
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Date  
**16 March 2020**

Please quote the document number on all future communications

## **WORLD VALVE CO., LTD.** **MARINE VALVES** **GENERAL DESIGN APPRAISAL – EXTENSION**

*Valid until 15 March 2025*

1. The documents listed in paragraph 1 of the appendix have been examined for compliance with Part 5, Chapters 12, 13 & 14 of the Rules and Regulations for the Classification of Ships (January 2020), and are assigned an appraisal status as indicated, subject to satisfactory resolution of the following matters:-
  - 1.1. The materials used for valves are to be suitable for the medium and the service for which the piping is intended. AQS
  - 1.2. Gray cast iron is not to be used for the shipside valves, valve fitted on collision bulkhead, valves in flammable oil systems where the design pressure exceeds 7 bar (0.7 MPa) or the design temperature is greater than 60 °C, valves fitted to tanks containing flammable oil under static pressure and valve chests for starting air systems. AQS
  - 1.3. Materials of valves in Class I & Class II piping systems are to be manufactured and tested in accordance with the requirements of the Rules for Materials. AQS
  - 1.4. Where the maximum conditions are less than shown in Table 12.1.2 of Part 5, Chapter 12, Section 1.7.2 of the Rules, the manufacturer's material test certificates of valves in Class I & Class II piping systems are acceptable in lieu of LR's materials certificate. AQS
  - 1.5. The valves in Class I & Class II piping systems are to be tested by hydraulic pressure 1.5 times the design pressure to the attending Surveyor's satisfaction. AQS
  - 1.6. The manufacturer's material test and hydraulic test certificates of the valves in Class III piping system are acceptable in lieu of LR's test certificates. AQS

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- 1.7. The hydraulic tests for the ship side valves below load water line, boiler mountings, feed check valves, valves connected to the main feed system and pressure vessel mountings are to be carried out to the attending Surveyor's satisfaction. AQS
2. The following general comment is offered:-
- 2.1. This General Design Appraisal Document supersedes and cancels previous Document No. YDS/M/I-154175A (Issue No.0) dated 16 March 2015.
- 2.2. This General Design Appraisal is valid for a period of 5 years from the date of issue. After that time, an application for renewal would be considered.



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## Appendix

1. The documents listed below have been dealt with previous Document No. YDS/M/I-95049A (Issue No.0).

Document No.	Rev.	Title	Status	Date
WVBCFG/ WVBCFNG	--	Cast Bronze Globe Valve for Marine Use - 5K, 16K (5K-15A to 65A, 16K-15A to 40A)	AQ	15/03/2010
WVBCFL/ WVBCFNL	--	Cast Bronze Angle Valve for Marine Use - 5K, 16K (5K-15A to 65A, 16K-15A to 40A)	AQ	15/03/2010
WVBCFLN	--	Cast Bronze Lift Check Valve for Marine Use - 5K (5K-15A to 40A)	AQ	15/03/2010

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Document No.	Rev.	Title	Status	Date
WVBCFSN	--	Cast Bronze Swing Check Valve for Marine Use - 5K (5K-25A to 40A)	AQ	15/03/2010
WVBCFSJ	--	Cast Bronze Rising Stem Type Gate Valve for Marine Use - 5K, 10K (5K-15A to 40A, 10K-15A to 40A)	AQ	15/03/2010
WVBCFGU/ WVBCFNUG	--	Cast Bronze UB-Type Globe Valve for Marine Use - 5K, 16K (5K-15A to 40A, 16K-15A to 40A)	AQ	15/03/2010
WVBCFLU/ WVBCFNUL	--	Cast Bronze UB-Type Angle Valve for Marine Use - 5K, 16K (5K-15A to 40A, 16K-15A to 40A)	AQ	15/03/2010
WVBCFLNUG/W VBCFLNUL	--	Cast Bronze UB-Type Lift Check Valve for Marine Use - 5K, 16 K (5K-15A to 40A, 16K-15A to 40A)	AQ	15/03/2010
WVBCFGT/ WVBCFLT	--	Cast Bronze Globe Valve for Marine Use - 20K (20K-6A & 10A)	AQ	15/03/2010
WVBCFHG/ WVBCFHL	--	Cast Bronze Hose Valve for Marine Use - 5K, 10K (5K-15A to 40A, 10K-15A to 65A)	AQ	15/03/2010
WVFCDFG/ WVFCDFNG	--	Ductile Iron Globe Valve for Marine Use - 5K, 10K, 16K (5K-50A to 300A, 10K-50A to 300A, 16K-50A to 200A)	AQ	15/03/2010
WVFCDFL/ WVFCDFNL	--	Ductile Iron Angle Valve for Marine Use - 5K, 10K, 16K (5K-50A to 300A, 10K-50A to 300A, 16K-50A to 200A)	AQ	15/03/2010
WVFCFG/ WVFCFNG	--	Cast Iron Globe Valve for Marine Use - 5K, 10K, 16K (5K-50A to 400A, 10K-50A to 300A, 16K-50A to 200A)	AQ	15/03/2010
WVFCFL/ WVFCFNL	--	Cast Iron Angle Valve for Marine Use - 5K, 10K, 16K (5K-50A to 550A, 10K-50A to 400A, 16K-50A to 200A)	AQ	15/03/2010
WVFCFLNG/ WVFCFLNL	--	Cast Iron Lift Check Valve for Marine Use - 5K (5K-50A to 200A)	AQ	15/03/2010
WVFCFSN	--	Cast Iron Swing Check Valve for Marine Use - 5K, 10K (5K-50A to 250A, 10K-50A to 200A)	AQ	15/03/2010
WVFCFS	--	Cast Iron Gate Valve for Marine Use - 5K, 10K, 16K (5K-50A to 600A, 10K-50A to 600A, 16K-50A to 400A)	AQ	15/03/2010
WVFCFHG	--	Cast Iron Hose Globe Valve for Marine Use - 5K, 10K (5K-50A, 10K-50A & 65A)	AQ	15/03/2010

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WVFCFHL	--	Cast Iron Hose Angle Valve for Marine Use - 5K, 10K (5K-50A, 10K-50A & 65A)	AQ	15/03/2010
WVSCFG/ WVSCFNG	--	Cast Steel Globe Valve for Marine Use - 5K, 10K, 20K (5K-50A to 400A, 10K-50A to 300A, 20K-32A to 250A)	AQ	15/03/2010
WVSCFL/ WVSCFNL	--	Cast Steel Angle Valve for Marine Use - 5K, 10K, 20K (5K-50A to 400A, 10K-50A to 300A, 20K-32A to 250A)	AQ	15/03/2010
WVSCFS	--	Cast Steel Gate Valve for Marine Use – 10K (10K-50A to 400A)	AQ	15/03/2010
WVSCFGA/ WVSCGLA	--	Cast Steel Air Valve for Marine Use - 30K (30K-32A to 200A)	AQ	15/03/2010
WVSFFGU	--	Forged Steel Globe Valve for Marine Use - 20K (20K-6A to 25A)	AQ	15/03/2010
WVSFFLU	--	Forged Steel Angle Valve for Marine Use - 20K (20K-6A to 25A)	AQ	15/03/2010
WVSFFGU	--	Forged Steel Globe Valve for Marine Use - 40K (40K-6A to 25A)	AQ	15/03/2010
WVSFFLU	--	Forged Steel Angle Valve for Marine Use - 40K (40K-6A to 25A)	AQ	15/03/2010
WVSFFGA	--	Forged Steel Air Globe Valve for Marine Use (30K-6A to 25A)	AQ	15/03/2010
WVSFFLA	--	Forged Steel Air Angle Valve for Marine Use (30K-6A to 25A)	AQ	15/03/2010
(1 sheet)	--	SF V/V (Flange Part)	AQ	15/03/2010

Appraisal Status Key

- AQ Approved subject to the matters raised that require resolution - and provided the arrangements are to the attending surveyor's satisfaction.
- AQS Details to be submitted by the client to the local surveyor's office responsible for surveying the building and the arrangements verified in accordance with the Rule/Regulations requirements by the attending surveyor.

The date is the date on which the document is stamped.

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