

Test Certificate

Certificate No.: 1411-211-430 A11-1

Page 1 of 1

We hereby certify that the item in the following was witnessed by our Inspector.

Client: KACE VALVE(Hangzhou) CO.,LTD

Address: No 16, Kang Hui Road Gongshu District, Hangzhou, P.R.China

Place of test: Wenzhou City, Zhejiang Province, ChinaDate of test: November 28, 2014Description: Ball Valve

Valve type	4F1R150 BALL VALVE
Drawing No.	100219

Scope of Inspection and Testing:

- 1) Witness the fire test in accordance with API 607 sixth Edition, Sept. 2010 and ISO 10497 third Edition, Feb. 2010

Result(s) of Inspection and Testing:

Fire test was carried out in accordance with API 607 sixth Edition, Sept. 2010 and ISO 10497 third Edition, Feb.2010 at the presence of DNV.GL inspector and all requirements of specification were met.

Qualification of other valve size and pressure ratings:

Conform to

Valves with the same type, size: 4" to 8".

Pressure Ratings: Class 150LB; Class 300LB& PN10; PN16; PN 25; PN40.

Associated Documents:

1. ANNEX to Test Certificate;
2. Quality inspection center of P & V products of Zhejiang province

Stamping

Place and date
Shanghai, China, 2014-11-28



Andy Chen
2014

Inspector to Germanischer Lloyd

ANNEX TO VALVE FIRE TEST CERTIFICATE

Certificate No. : 1411-211-430 A11-2

Page 1 of 2

Client/Manufacturer: KACE VALVE(Hangzhou) CO.,LTD
No 16, Kang Hui Road Gongshu District, Hangzhou, P.R.China

Fire test Specification: API 607 sixth Edition, Sept. 2010 and ISO 10497 third Edition, Feb. 2010

Date of Test: 2014-11-28

Particulars of Valve: 4" ANSI CLASS 150

Size & Class:	4" ANSI 150
Type:	BALL VALVE
Fig No:	4F1R150
Drawing No.	100219

Valve Materials:

Body:	ASTM A216 WCB
Stem & Trunnion:	ASTM 564 17-4PH
Ball	ASTM A182 F316
Seats:	TFM 1600 (RPTFE)
Seals	Gasket: SS+Graphite; Packing: Graphite;

Result:

The valve fire test complies with the standard requirement.

Andy Chen

Inspector to Germanischer Lloyd

Place /Date: 2014-11-28

Stamping



ANNEX TO VALVE FIRE TEST CERTIFICATE

Certificate No. : 1411-211-430 A11-3

Page 2 of 2

Valve Inspection & Testing

The fire-tested valve has passed all the requirements of production pressure test to API 607 sixth Edition, Sept. 2010 and ISO 10497 third Edition, Feb. 2010

Associated Documentation:

1. Test Pressure during burn and Cool down: 1.5 Mpa
2. Temperature recorded 2 minutes after beginning and the remaining time throughout duration of test, with individual records for each thermocouple:

Colorimeter No.	Location placed	Temperature record	Remark
Thermocouple 1#	Bottom of body	2 minutes after beginning: 816°C Balance duration time: 808°C-860°C	Satisfactory
Thermocouple 2#	Flank of body	2 minutes after beginning: 820°C Balance duration time: 810°C-863°C	Satisfactory
Calorimeter cube 1#	Stem	Above 650°C 23 minutes	Satisfactory
Calorimeter cube 2#	Bottom of body	Above 650°C 23 minutes	Satisfactory

3. Through-seat Leakage during Burn (6.2): 10 ml/min
4. External Leakage during Burn and cool down: 9 ml/min
5. Time required for valve to cool to 100 deg C: 8 min
6. Through-seat Leakage (low pressure test)at 0.2Mpa: 5 ml/min
7. External Leakage during low pressure test less than : 20ml/min
8. Valve was operated to fully open position (6.5) Yes
9. External leakage in open position (6.6) 8 ml/min
10. Valve is bi-directional and passed in both directions: Yes

Results: The tested valve Complies with international standards as mentioned in this certificate.

Stamping

Andy Chen

Inspector to Germanischer Lloyd

Place /Date: 2014-11-28



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