

Certificate

**Certificate of Conformity with Fugitive Emission
Testing Acc. to
EN ISO 15848-1:2006**

Certificate no.: 01 202 CHN/Q-15 0574

Name and address of the
applicant / license holder : Boteli Valve Group Co., Ltd.
Boteli Industrial Park, Sanqiao Industrial Zone, Oubei
Town, Yongjia County, Zhejiang Province, P.R. China.

We hereby certify that the results of Valve Stem Assembly Sealing System tests carried out under our witness on the industrial valve(s) below meeting the requirements in the standard mentioned above. This certificate does not imply assessment of the product production. It reflects only our witness findings to tested valve described herein at the time and the place of test, and does not refer to any other matters. This certificate only includes the external leakage test to the stem assembly, excluding any valve body part or sealing leak rate measurement.

Detail valve technical data and manufacturer information refer to Appendix and Test Report Measurement, construction and position tolerance acc. to drawing, Surface roughness acc. to drawing. To keep the certificate valid, please follow the instruction manual.

Model/ Type identification J41Y-CL900 NPS4 Globe valve, NPS4, CL900, Body: A216
Description of tested valve: WCB, Stem: A182 F6a, Stem packing: Braided-Graphite.

Test Report No.: 委 FM201412089

Performance Class: ISO 5208, CO1 (-20°C to 200°C)-CL900-ISO15848-1

Nominal Pressure/Pressure
Qualified : CL900 / The valve Class or PN designation is equal or lower
Stem Size/Stem Size
Qualified: Ø36mm / from Ø 18mm to Ø 72mm (50% lower and 200% higher of
those tested valve)

Name, Address of
Manufacturer : Boteli Valve Group Co., Ltd.
Boteli Industrial Park, Sanqiao Industrial Zone, Oubei Town,
Yongjia County, Zhejiang Province, P.R. China.
Certificate valid until: December, 2024.

TÜV Rheinland (China) Ltd.
Industrial Services



Beijing, China,
2015/1/21

Zhang Yi

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Precisely Right.

Appendix to Certificate 01 202 CHN/Q-15 0574 Construction & Test Data

Name and address of the applicant / license holder : **Boteli Valve Group Co., Ltd.**
Boteli Industrial Park, Sanqiao Industrial Zone, Oubei Town, Yongjia County, Zhejiang Province, P.R. China.

Name, Address of Manufacturer : **Boteli Valve Group Co., Ltd.**
Boteli Industrial Park, Sanqiao Industrial Zone, Oubei Town, Yongjia County, Zhejiang Province, P.R. China.

Test Report No.: **委 FM201412089**

Product Identification :	J41Y-CL900 NPS4
Nominal Diameter :	NPS4
Nominal Pressure/Pressure Qualified :	CL900, The valve Class or PN designation is equal or lower
Type of Valve:	Globe Valve
Stem Size/Stem Size Qualified:	Ø36mm / from Ø 18mm to Ø 72mm(50% lower and 200% higher of those tested valve)
Gland Packing/Stem material:	Braided-Graphite/ A182 F6a
Body Sealing:	F304
Assembly Drawing:	4"J41Y-900Lb-00, Rev.0.00
Test Gas:	Helium
Tightness Class:	B; Leakage Rate $\leq 10^{-4} \text{ mg} \cdot \text{s}^{-1} \cdot \text{m}^{-1}$
Endurance Class:	CO1; 500 mechanical cycles
Temperature Class:	200°C
Temperature qualified:	-29°C to 200°C

The Valve Sealing System is in compliance with the above mentioned requirements. The test and the classification is based on a type approval and does not include the factory inspection.

TÜV Rheinland (China) Ltd.
Industrial Services

Beijing, China,
2015/1/21

Zhang Yi



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☐ Inspected ☒ Reviewed ☒ Witnessed

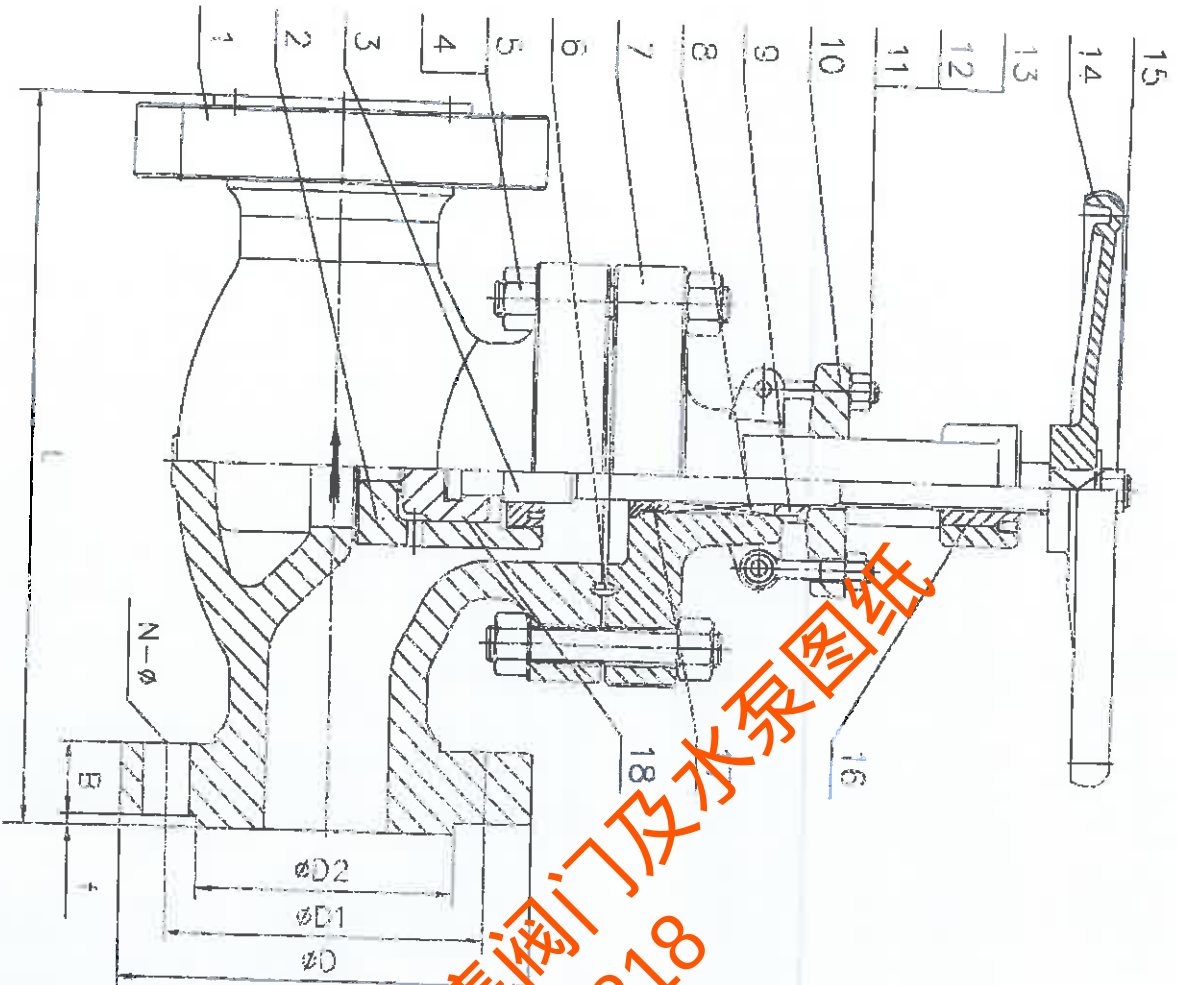
SIZE	FLANGE DIMENSION					
	L	D	D1	D2	B	n-D
4"	457	290	285	157.2	44.5	8-32
						7

PROPERTY SPECIFICATION

1. DESIGN & MANUFACTURE ACCORDING TO BS 1873
2. FACE TO FACE DIMENSION IN ACCORDANCE WITH ASME B16.10
3. FLANGE EXDS DIMENSION CORRELY WITH ASME B16.5
4. VALVE INSPECTORY & TEST ACCORDING TO API 598
5. TEMPERATURE & PRESSURE CAPAY WITH ASME B16.34

PERFORMANCE			
PRESSURE ALLOW		ASME 900	
SHELL	12.5	PSI	
INTERNAL SCOT	10.5		
EXTERNAL SCOT	10.5		
110 SCOT	10.5		
DESIGN TYPE	20 127	° C	
WATER, GAS, OILS AND ETC			

9	Packring Gland	A276 410	18	Small Disc	A105-S11
8	Truckring	Double-Bruckring	17	Back Seat	A276 410
7	Bonnet	A216 RT6	16	Stem Nut	Cu Alloy
6	Stem Pin	A182 F304	15	Nut	A184 2H
5	Stem	A194 2H	14	Handwheel	Q1-CD-18
4	Disc	A194 B7	13	Pin	1085
3	Stem	A194 F46	12	Hex Nut	A194 2H
2	Disc	A105-S11	11	Roll	A193 B7
1	Body	A216 RT6	10	Gland Flange	A216 RT11
VALVE PART		MATERIAL	VALVE PART		MATERIAL



DATE	18-05	SCALE	1:1	PROJECT	104	DESIGN	102	REV.	1
DESIGNED BY	W. J. J.	CHECKED BY	W. J. J.	APPROVED BY	W. J. J.	DATE	18-05	BY	W. J. J.
BOTELI VALVE GROUP									
4" ANSI 900, RF									
GLOBE VALVE									
1" 1417-9001A-00									
0.10									



Technical requirements:

1. Material conforms to ASTM A182 F6a.
2. Hardness after QT is H920@ 275.
3. Unstressed linear tolerance conforms to GB/T1804-m.
4. Unstressed Geometric tolerance conforms to GB/T1184-k.
5. Dimensions of across thread conform to GB/T 5796.3.
6. Deviation of across thread conforms to GB/T5796.4.
7. Aspire angles acute.

[illegible]



2012003339Z



(2012)国认监认字(509)号



检测
CNAS L4638

检测报告

Test Report

报告编号:
Report No. 委FM201212089



☐ Inspected ☒ reviewed ☒ witnessed

样品名称: 截止阀
Sample Name Globe Valve

委托单位: 伯特利阀门集团有限公司
Applicant / Client Boteli Valve Group Co., Ltd.

生产单位: 伯特利阀门集团有限公司
Manufacturer Boteli Valve Group Co., Ltd.

检验类别: 委托检验
Kind of Inspection Entrustment Inspection

浙江省泵阀产品质量检验中心
Quality Inspection Center of Pump and Valve Products of Zhejiang Province
国家阀门质量监督检验中心
National Quality Supervision and Inspection Center of Valve Products

浙江省泵阀产品质量检验中心
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National Quality Supervision and Inspection Center of Valve Products

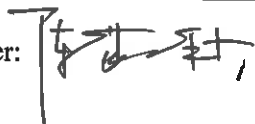
检 测 报 告

Test Report

报告编号 Report No.: 委FM201412089

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样品名称 Sample Name	截止阀 Globe Valve	型号规格 Model	J41Y-CL900 NPS4
委托单位 Applicant / Client	伯特利阀门集团有限公司 Boteli Valve Group Co.,Ltd.	地 址 Address	浙江省永嘉县瓯北镇三桥工业区伯特利工业园 Boteli industrial park. San qiao Industrial Zone. Oubei town, Yongjia, Zhejiang
生产单位 Manufacturer	伯特利阀门集团有限公司 Boteli Valve Group Co.,Ltd.	地 址 Address	浙江省永嘉县瓯北镇三桥工业区伯特利工业园 Boteli industrial park. San qiao Industrial Zone. Oubei town, Yongjia, Zhejiang
检验类别 Kind of Inspection	委托检验 Entrustment Inspection	商标 Trademark	/
生产日期 Production Date	2014.12	样品状况 Sample Conditions	合格品 Qualified
阀体材料 Body Material	WCB	炉号/锻打批号 Heat No. or Forging Lot No.	G41065
样品数量 Quantity of Samples	1台 1 pcs	样品编号 Sample No.	委FM201412089-1
抽样基数 Number of Sampling	/	抽样地点 Sampling Location	/
抽样单位 Sampling Unit	/	抽样日期 Sampling Date	/
送样单位 Delivery Unit	伯特利阀门集团有限公司 Boteli Valve Group Co.,Ltd.	到样日期 Reception Date	2014.12.15
检验地点 Inspection Location	检测中心 Inspection Center	检验日期 Inspection Date	2014.12.24~2014.12.29
检验依据 Inspection Standards	ISO 15848-1:2006 《Industrial valves — Measurement, test and qualification procedures for fugitive emissions — Part 1: Classification system and qualification procedures for type testing of valves》		
检验项目 Test Items	逸散性（微泄漏）试验。 Fugitive emission test.		
检验结论 Inspection Conclusions	该样品所检项目的检测结果见第 2~5 页。 The test result is shown in sheet 2~5.		
备 注 Remarks	/		

批准: 
Approver:

审核:  编制: 
Reviewer: Producer:

(质量检验专用章)
Quality Inspection Special Seal

签发日期 Signature Date: 2014 年 (Year) 12 月 (Month) 31 日 (Day)

检验专用章

浙江省泵阀产品质量检验中心 Quality Inspection Center of Pump and Valve Products of Zhejiang Province 国家阀门质量监督检验中心 National Quality Supervision and Inspection Center of Valve Products 检测报告 Test Report	报告编号: 委FM201412089 Report No. 共 4 页 第 2 页 (sheet 2 of 4)
样品主要参数 Data of Test Sample	
a) 公称压力PN (或压力级Class): <u>CL900</u> b) 公称尺寸DN (或公称管径NPS): <u>NPS4</u> c) 阀杆 (轴) 密封说明Stem or Shaft seal descriptions: 1) 密封结构Sealing system:<u>填料、填料压套与填料压板</u> Packing, Gland follower and Gland flange 2) 阀杆直径Diameter of Stem or shaft (mm): <u>Φ36</u> 3) 阀杆密封材料Stem or Shaft Seal Material: <u>编织石墨</u> Braided Graphite d) 阀体密封说明Body Seal Descriptions: 1) 密封结构Sealing system: <u>法兰与八角密封环</u> Flange with Octagonal ring 2) 阀体密封材料Body Seal Material: <u>F304</u> e) 样品出厂编号Sample No.: <u>Y14091821</u>	

专业出售阀门及水泵图纸
QQ1263719818

浙江省泵阀产品质量检验中心
Quality Inspection Center of Pump and Valve Products of Zhejiang Province
国家阀门质量监督检验中心

National Quality Supervision and Inspection Center of Valve Products

检测报告

Test Report

报告编号: Report No.:

委FM201412089

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检测结果
Test Result

检验项目 Test Items	技术要求 Specifications				检测数据 Testing Data							
	机械循环 Mechanical Cycles (次Cycle)	试验压力 Test Pressure (bar)	试验温度 Test Temperature (℃)	阀杆密封 泄漏率 Stem or Shaft Seal Leakage (atm·cm ³ /s)	阀体密封 泄漏率 Body Seal Leakage (ppm)	机械循环 Mechanical Cycles (次Cycle)	试验压力 Test Pressure (bar)	试验温度 Test Temperature (℃)			阀杆密封 泄漏率 Stem or Shaft Seal Leakage (atm·cm ³ /s)	阀体密封泄 漏率 Body Seal Leakage (ppm)
								T1	T2	T3		
逸散性 (微泄漏) 试验介质: 氦气 Fugitive Emission Test (Test Fluid: Helium)	500	ASME B16.34-2013 中Class 900的 工作压力 Working pressure by Class 900 (ASME B16.34-2013)	室温~200℃	≤6.34×10 ⁻⁵	50	0	154	室温 Room temperature			8.2×10 ⁻⁷	6.2
						125					3.0×10 ⁻⁶	
						126~250	132	197.8	204.2	197.3	3.2×10 ⁻⁶	/
						250		198.4	203.0	198.6	4.0×10 ⁻⁶	/
						251~375	154	室温 Room temperature			4.4×10 ⁻⁶	/
						375					5.8×10 ⁻⁶	/
						376~500	132	198.2	201.4	197.4	5.6×10 ⁻⁶	/
						500		197.4	202.0	197.9	6.2×10 ⁻⁶	/
						500	154	室温 Room temperature			7.6×10 ⁻⁶	7.5

备注 Remarks: T₁为流道（关闭件）温度，T₂为阀体温度；T₃为填料函温度。Flow path (temperature T₁), Valve body (temperature T₂), Stuffing box (temperature T₃)

浙江省泵阀产品质量检验中心 Quality Inspection Center of Pump and Valve Products of Zhejiang Province 国家阀门质量监督检验中心 National Quality Supervision and Inspection Center of Valve Products 检 测 报 告 Test Report		报告编号: Report No. 委FM201412089	
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逸散性(微泄漏)试验设备描述 Descriptions of Fugitive Emission Equipment			
设备名称Test Equipment: SFJ-261氦质谱检漏仪 Helium Mass Spectrometer 漏率指示范围Range of Leakage Detection: $(1\times10^{-2}\sim1\times10^{-13})\text{ Pa}\cdot\text{m}^3/\text{s}$ 或 $(10^{-1}\sim10^6)\text{ ppm}$			
逸散性(微泄漏)试验设备自校和标漏过程描述 Fugitive Emission Test Equipment Automatic Calibration and Standardization of Leakage Process Description			
项目 Items	技术要求 Specifications	检查结果 Check Results	结论 Conclusions
仪器自校 Equipment Automatic Calibration	仪器开机预热,待本底漏率指示值为样品实际漏率指示值的1/10左右时,连接工件进行检漏。 Firstly, switch on the Equipment to preheat it. When bottom leakage of the equipment is about one-tenth of the actual leakage rate of tested sample, then connect the sample and start leakage testing.	正常Normal	符合要求 Qualified
标漏 Standardization of Leakage	标漏工具 Tool for standardization of leakage	仪器标漏值 Equipment Calibration Leakage Rate: 49.8 ppm	符合要求 Qualified
	工具名称:真空检测标准混合气体 Tool Name: Standard gas mixture for vacuum inspection 工具编号、标准漏率/浓度: Tool No., Standard Leakage /Concentration: AF051(4) 50 ppm)		
	工具名称:渗透型真空校准漏孔 Tool Name: Permeability Helium Type Vacuum Standard Leak Hole 型号规格 Model and Specification: VCL-2 工具编号 Appliance No.: MM1A-8-100 标准漏率/浓度 Standard Leakage /Concentration: $1.7\times10^{-8}\text{ Pa}\cdot\text{m}^3/\text{s}$	仪器标漏值 Equipment Calibration Leakage Rate: $1.6\times10^{-8}\text{ Pa}\cdot\text{m}^3/\text{s}$	
逸散性(微泄漏)试验描述 Descriptions of Fugitive Emission Test			
1) 检测方法Testing Method: 阀杆密封泄漏率Stem or Shaft Seal Leakage 真空法 Vacuum Method, 阀体密封泄漏率Body Seal Leakage 吸气法 Sniffing Method			
2) 测试条件Test Conditions:			
a) 环境条件Environment Conditions: 温度(Temperature) $8\sim20^{\circ}\text{C}$, 相对湿度(Relative Humidity) $66\sim72\%\text{RH}$;			
b) 试验介质Test Fluid: 氦气Helium, 纯度Purity $\geq99.99\%$;			
c) 阀杆密封调整次数Stem Seal Adjustments: 0次(Cycle);			
d) 逸散性(微泄漏)性能等级Fugitive Emission Performance Class: Class BH;			
e) 试验持续类型Endurance Class: CO1;			
f) 机械循环频次Frequency of Mechanic Cycles: 1~2Cycles/min;			
g) 检漏时机When to start measuring leakage rate:被试件承受氦气试验压力并稳压(时间)10min 后测量的稳定值 The constant measured value obtained with an unchanged fluctuation range after at least 10min exposure of the test system to helium under the testing pressure.			
h) 漏率单位换算因子Leakage rate unit conversion factors:			
	Pa.m ³ /s	atm.cc/s or atm.cm ³ /s	mbar.l/s
Pa.m ³ /s	1	9.78	10