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中国认可
国际互认
检测
TESTING
CNAS L11390

检测报告

Test Report

报告编号

Report No. ROCKB201904002

产品名称
Product Name

1-1/2" CL800 闸阀
1-1/2" CL800 Gate Valve

委托单位
Customer

浙江喜鹊新材料技术有限公司
Zhejiang Magpie Material Technology Co., Ltd.

委托单位地址
Customer's Address

浙江省温州市永嘉县瓯北街道谢宅巷9号
No. 9 Xiezhai Lane, Oubei Street, Yongjia County, Wenzhou
City, Zhejiang Province

试验起始日期
Date Started

2019年06月09日
June 09, 2019

试验结束日期
Date Finished

2019年06月12日
June 12, 2019

温州岩石阀门检测服务有限公司
Wenzhou Rock Valve Inspection and Testing Co., Ltd.



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Company promises all commercial information, technical document or trade secret related to testing shall be protected, and all documents, samples and data shall be properly handled.

通讯地址：浙江省温州市永嘉县瓯北街道和一工业区

Address: Heyi Industrial Zone, Oubei, Yongjia, Wenzhou, Zhejiang.

邮政编码 Post code: 325000

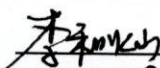
联系电话 Tel.: 0577-6708 7799

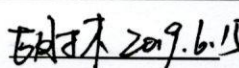
传 真 Fax: 0577-6708 7799

邮 箱 E-mail: rock@rock-lab.cn

概述 Summary:

阀门规格型号 Valve Size/Rating/Type	1-1/2" CL800 闸阀 1-1/2" CL800 Gate Valve	产品序列号 Product SN	/
总装图号 GA Drawing No.	1-1/2"Z61H-800LB-00	设计标准 Design Standards	API 602
阀杆运动型式 Stem Motion	升降 Rising	阀盖类型 Bonnet Type	栓接阀盖 Bolted Bonnet
主体材质 Body Material	ASTM A105N	阀杆材质 Stem Material	ASTM A182 F304
阀体密封类型 Body Seal Type	石墨缠绕垫 Graphite SWG	阀杆密封类型 Stem Seal Type	石墨填料 Graphite Packing
填料型号/制造商名称 Packing Model / Mfr.	M622 / Zhejiang Magpie Material Technology Co., Ltd.		
检测依据 Test Basis	API 624 First Edition:2014	试验介质 Test medium	99.9% 甲烷 99.9%methane
测试地址 Test Facility	中国浙江省永嘉县瓯北镇和一工业区岩石阀门检测实验室 ROCK Valve Testing Lab, Heyi Industrial Zone, Oubei, Yongjia, Zhejiang,PRC		
抽样方 Valve Selected by	委托单位 (库存) Customer (stock)	收样日期 Sample Collect Date	2019-05-25
样品编号 Sample No.	ROCKP201904002	炉号 Heat No.	T58(阀体 Body) D17(阀盖 Bonnet)
样品状态 Sample status	完好 Intact	检测项目 Test Item	密封性能试验 Sealing Performance Test
试验数据 Test Data	测得最大阀杆泄漏量 Maximum Stem Leakage Detected		21.6 ppmv
	测得最大阀体泄漏量 Maximum Body Leakage Detected		8.6 ppmv
	完成机械循环数 Number of Mechanical Cycles Completed		310
	完成温度循环数 Number of Thermal Cycles Completed		3
	升温温度 / 试验压力 Elevated Temperature / Test Pressure		260℃ / 41.4 bar
试验结论 Test Conclusion	阀门通过 API 624-2014 试验要求 Valve has passed test requirements of API 624-2014		
覆盖范围 Extension of Qualification	尺寸范围 Size Range	NPS 1-1/4 to NPS 2-1/2	压力范围 Pressure Class Range
	详细要求见 API 624-2014 第10 节内容。 Refer to Section 10 of API 624-2014 for details.		

编制/日期: 
PRPD/DATE: 2019.6.15

审核/日期: 
CHKD/DATE: 2019.6.15

批准/日期: 
APPD/DATE: 15/6-19

阀门填料信息 Valve Packing Information:

填料描述 Packing Description	M622 Packing Ring Set	填料内径 Packing Nominal ID	ϕ 17 mm
填料外径 Packing Nominal OD	ϕ 27 mm	填料组自由高度 Free Height of Packing Set	30 mm
填料圈数 Ring Qty.	5	API 622试验报告编号 API 622 Testing Report No.	见附件 Refer to attachment
压套起始高度 Gland Height at Start	11.5 mm	压套插入深度 Gland Follower Insertion Depth	5.4 mm
填料函深度 Stuffing Box Depth	36 mm	填料垫高度 Packing Bushing Height	4 mm
推荐填料压盖拧紧扭矩 Recommended Gland Nut Torque		20 N•m	
推荐体盖螺母拧紧扭矩 Recommended Body-Bonnet Nut Torque		200 N•m	

检测设备信息 Leakage Detection Equipment

设备名称 Device Name	火焰离子化气体分析仪 FID Vapor Analyzer	品牌/型号/系列号 Brand / Model / SN	Thermo Fisher Scientific / TVA-2020 / 202017032075
设备ID Device ID	J001	证书有效期 Certificate Validity	2019-6-18
校准方法 Calibration Method	EPA Method 21	校准点 Calibrated Point	0 ppmv & 120 ppmv

试验条件 Test Conditions:

最大允许泄漏量 Maximum Allowable Leakage	100 ppmv	试验压力/升温温度 Test Pressure / Elevated Temperature	41.4 bar / 260°C
总温度循环数 Total Thermal Cycles	3	总机械循环数 Total Mechanical Cycles	310

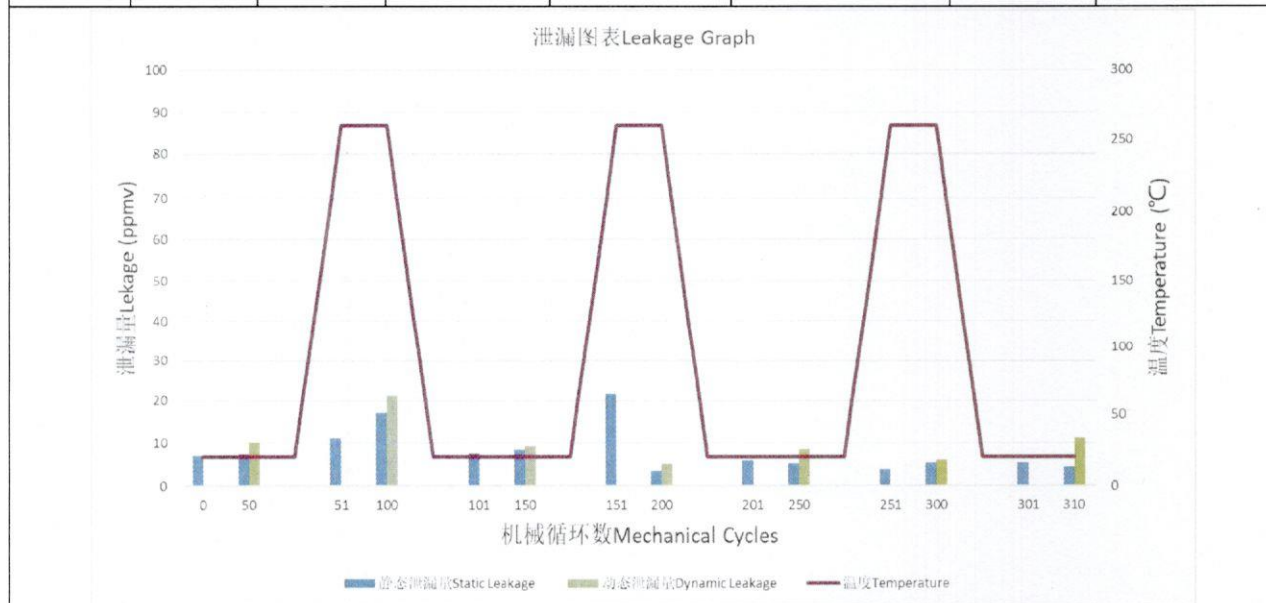
阀门操作 Valve Operating Torque:

第1次循环开启方向运转扭矩 RTO @ 1 st cycle	16.9 N•m
第310次循环关闭方向运转扭矩 RTC @ 310 st cycle	12.8 N•m
备注Note: N/A	

试验数据 (试验流程依据 API 624-2014 第 5 节)

Test Data (Test procedure as per Sec. 5 of API 624-2014) :

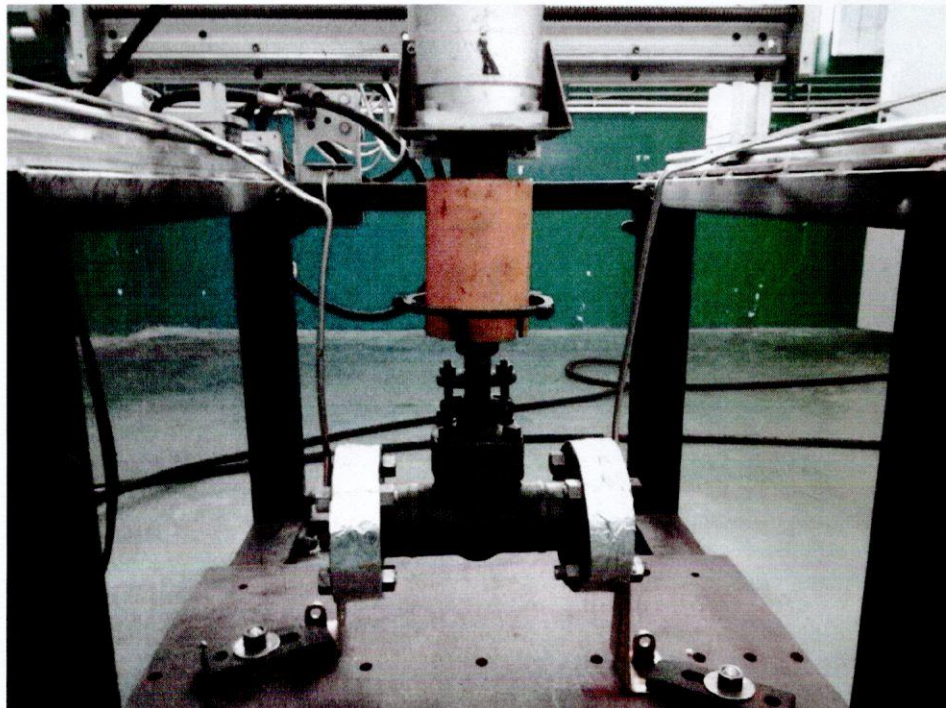
循环数 Cycle Number	温度 Temp TC1-°C	温度 Temp TC2-°C	压力Pressure barg	静态泄漏量 Static Leakage ppmv	动态泄漏量 Dynamic Leakage ppmv	阀体泄漏量 Body Leak ppmv	判定 Evaluation
0	RT	RT	41.4	7	/	8.2	合格 Pass
50	RT	RT	41.6	7.4	10.2	/	合格 Pass
51	259	261	41.4	11.2	/	/	合格 Pass
100	260	261	41.5	17.1	21.2	/	合格 Pass
101	RT	RT	41.6	7.6	/	/	合格 Pass
150	RT	RT	41.5	8.5	9.2	/	合格 Pass
151	260	261	41.4	21.6	/	/	合格 Pass
200	259	261	41.6	3.5	5.2	/	合格 Pass
201	RT	RT	41.5	5.9	/	/	合格 Pass
250	RT	RT	41.4	5.1	8.7	/	合格 Pass
251	259	261	41.5	3.9	/	/	合格 Pass
300	260	261	41.5	5.4	6.1	/	合格 Pass
301	RT	RT	41.5	5.3	/	/	合格 Pass
310	RT	RT	41.6	4.5	11.3	8.6	合格 Pass



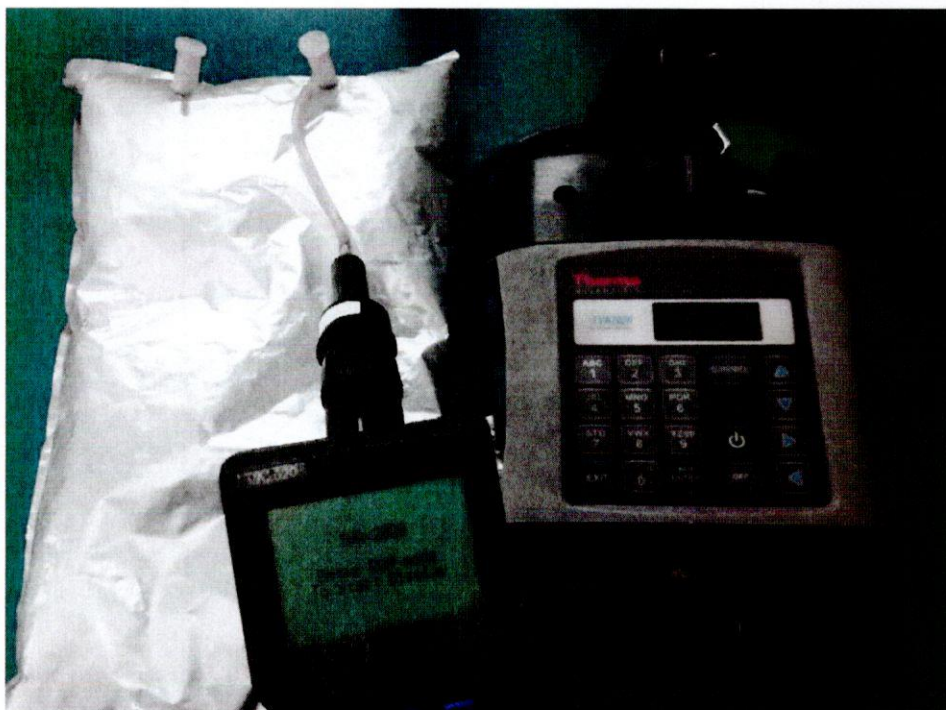
注: RT 温度为 15°C 至 40°C 之间。Note: RT is between 15°C to 40°C.

照片记录Photographic Record

试验过程Testing Process



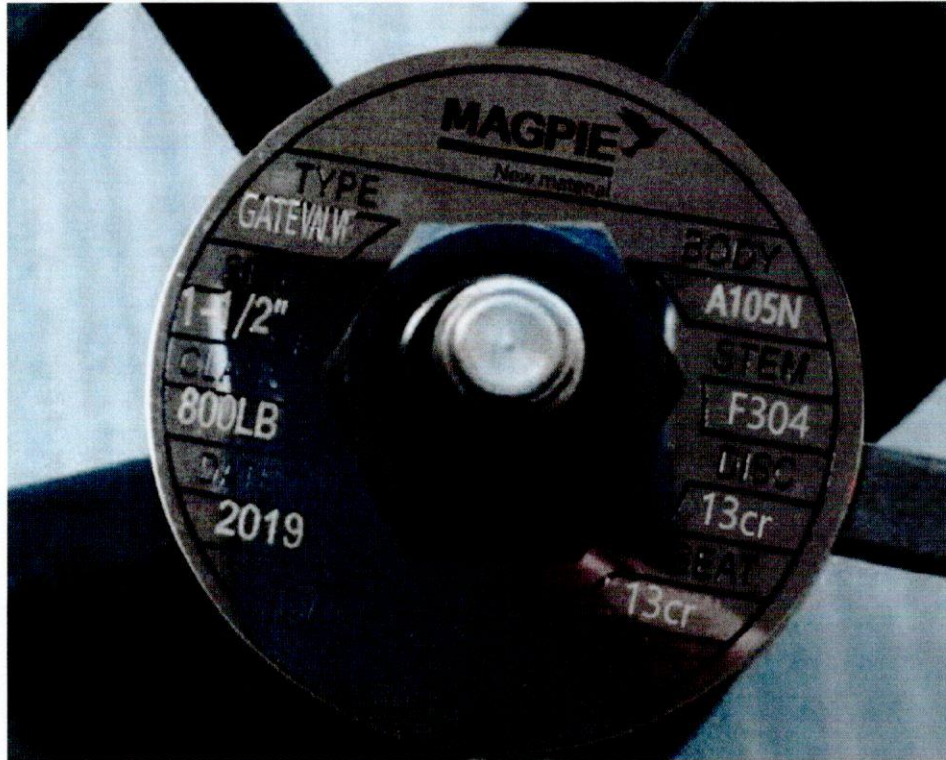
阀门试验装置Valve Test Setup



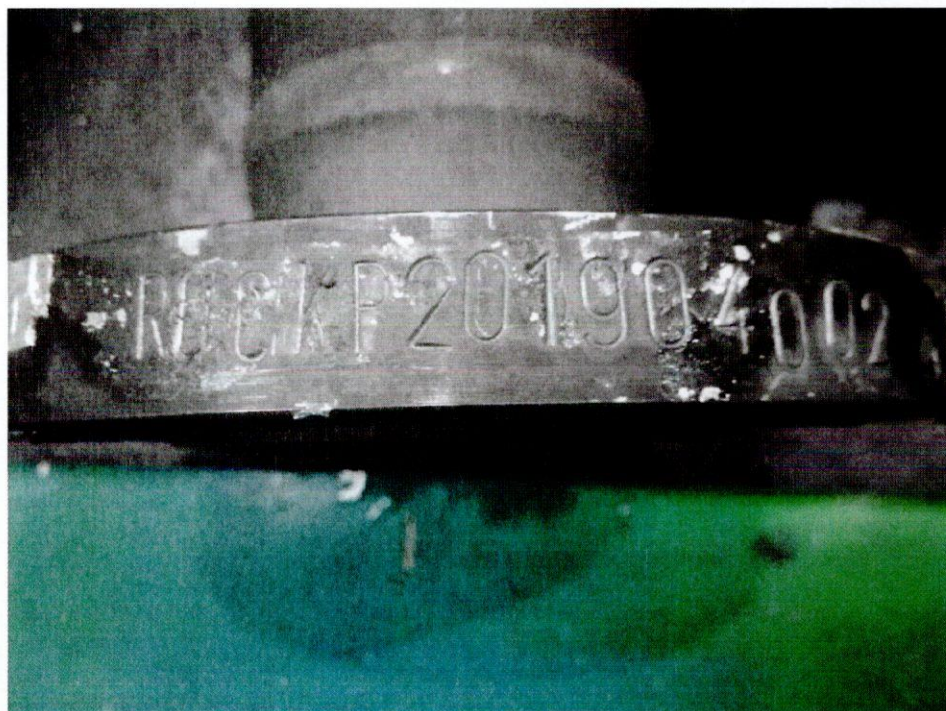
设备校准 Equipment calibration

照片记录 Photographic Record

阀门标识和铭牌 Valve Marking and Tagging



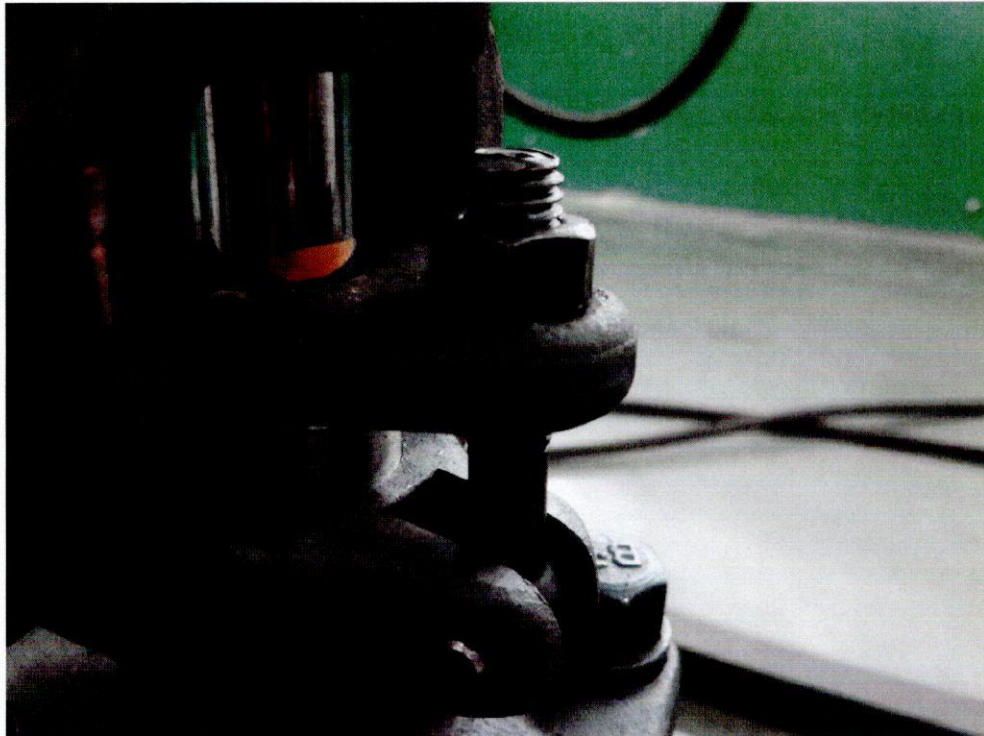
阀门铭牌 Valve Tag



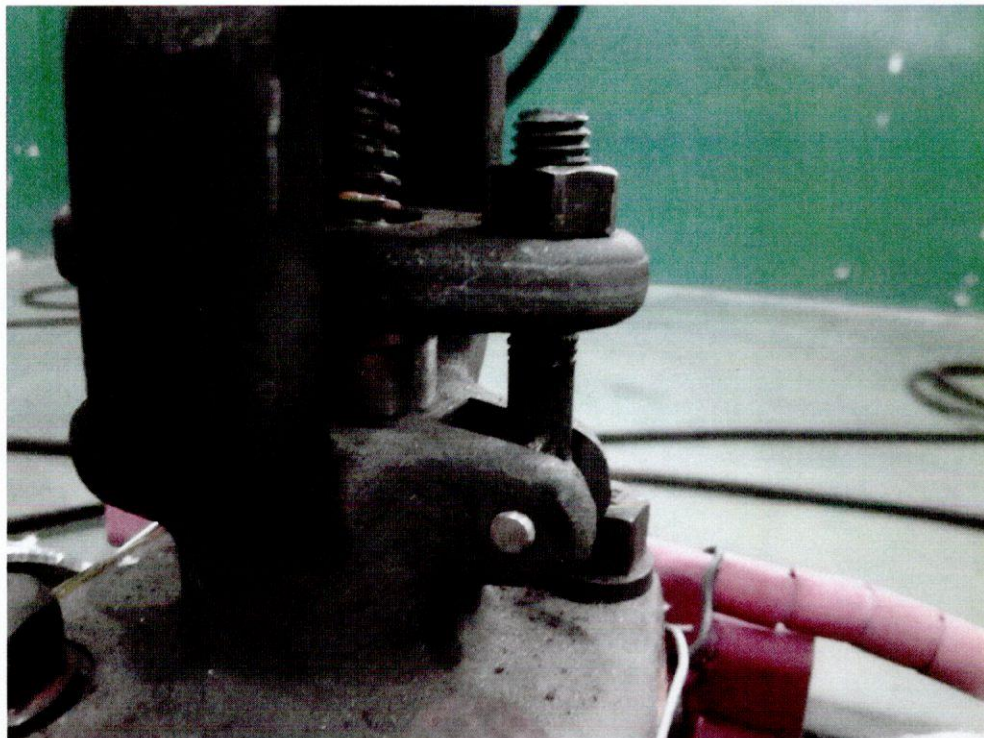
实验室编号 Lab Marking

照片记录 **Photographic Record**

填料函位置试验前后比对 **Pre- and Post-test Valve External Stuffing Box Area**



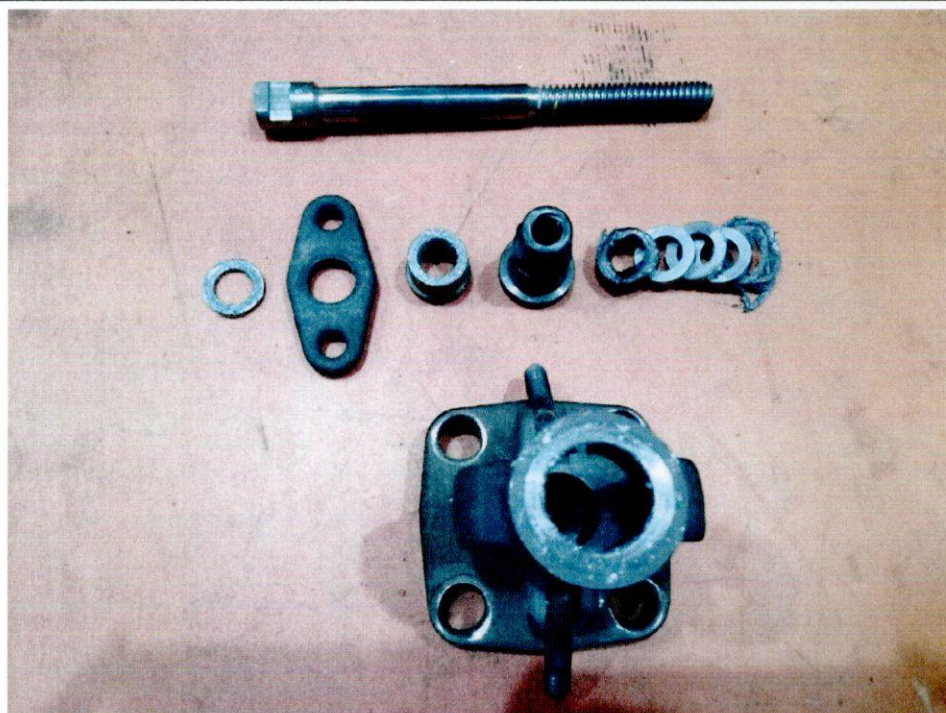
试验前 **Pre-test**



试验后 **Post-test**

照片记录Photographic Record

阀门拆解部件Post-disassembly Valve Components



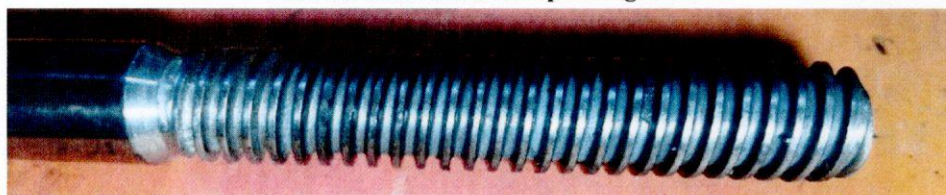
阀门拆解 Valve disassembly



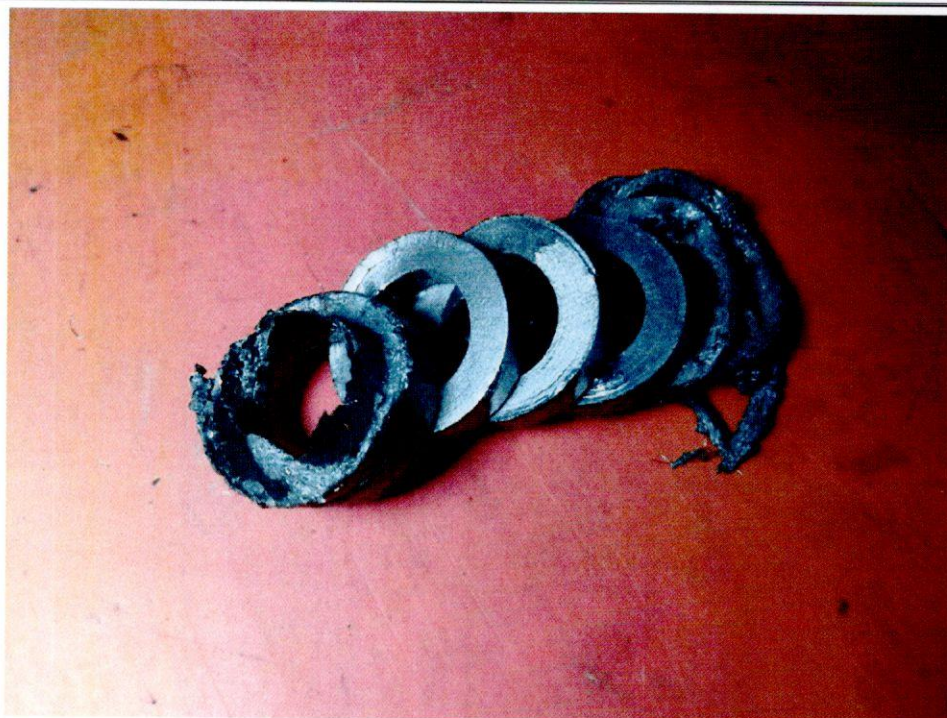
阀杆 Stem



阀杆填料密封位置 Stem packing area



阀杆螺纹 Stem thread



填料圈 Packing rings



填料压套 Packing gland



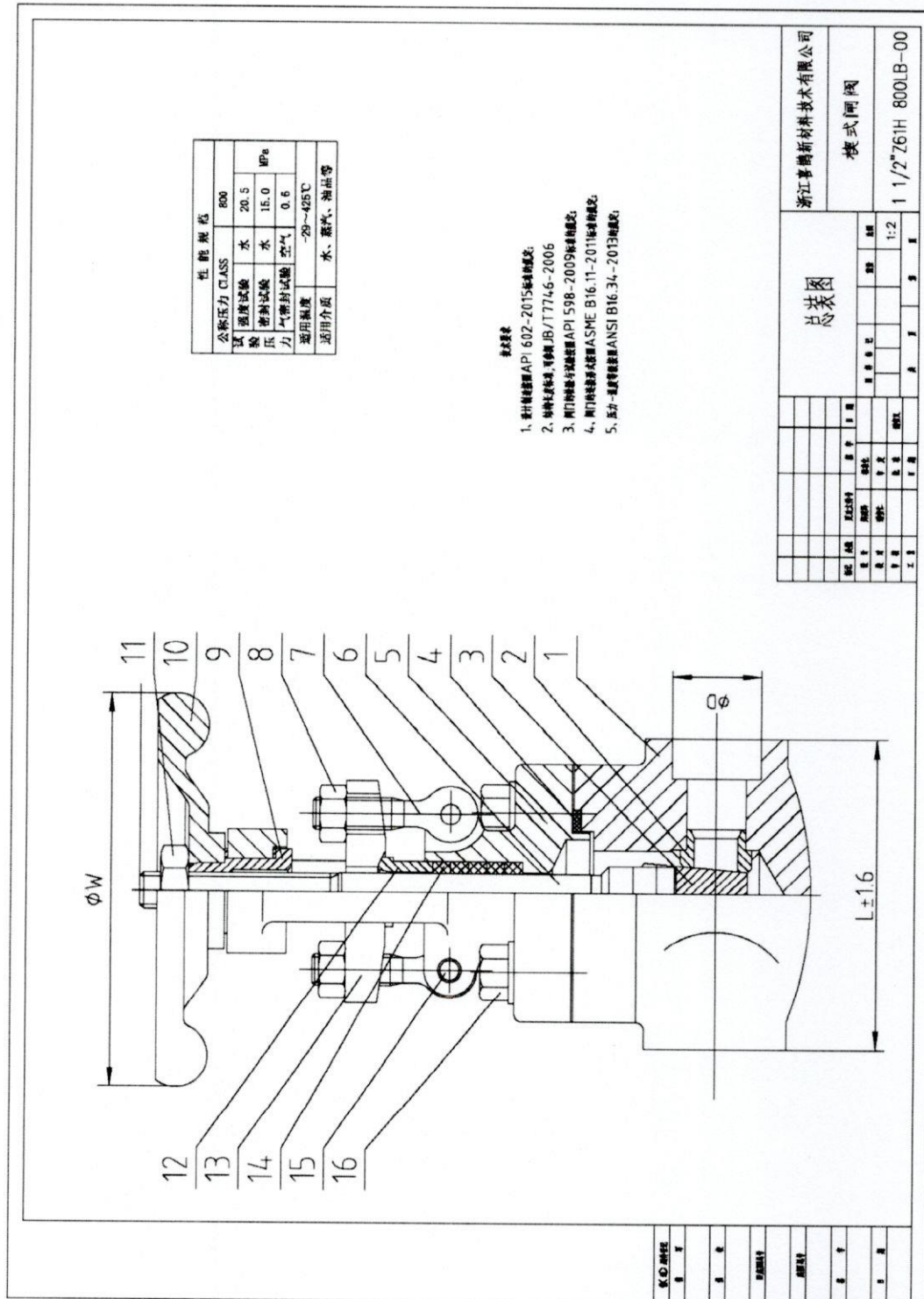
填料函内部Stuffing box interior



阀杆螺母Stem nut

阀门图纸Valve Drawings

总装图General Assembly



附件: API 622证书

Attachment: API 622 Certificate

**CERTIFICATE**

(Certificate of conformity with technical requirements in:
API Standard 622 Second Edition, October 2011

Certificate No.: QT-IS-SH020002/2019-01
Ref. Test Report No.: TTROCKB201807005
Name, Address of manufacturer: **Zhejiang Magpie Material Technology Co., Ltd.**
No.9th, Xiezhai lane, Oubei Street, Yongjia County,
Wenzhou City, Zhejiang Province, P.R.China

We hereby certify that the Fugitive Emission test on below packing have been conducted at the laboratory designated by manufacturer /applicant and witnessed by TUV inspector according to requirements of API Standard 622 Second Edition, October 2011. The testing results of packing meet the requirements of API Standard 622.

1. Description of Test Packing :

Type Designation of tested packing (s):	M622
Description of Packing :	Graphite packing / two braided end rings and three die-formed rings
Size of Packing section :	6.3 mm (1/4 in.)
Packing Material :	Graphite +Braided graphite

2. Qualified Range of packing :

Type :	M622
Description of Packing :	Graphite packing / two braided end rings and three die-formed rings
Qualification Material :	Graphite+ Braided graphite

Remark: the technical data of test packing see back of this certificate appendix 1.

This certificate is issued according to API Standard 622 Second Edition, October 2011, based upon the result of testing report on above mentioned test packing. The additional packing qualification shall be limited on similar packing of same basic design as the test packing and same materials as the test packing in the rising stem seal according to API Standard 622 Second Edition, October 2011.

Shanghai, Feb.26, 2019

Place, Date



TÜV Thuringen Shanghai Co., Ltd.

报告结束

End of report