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国际互认
检测
TESTING
CNAS L11390

检测报告

Test Report

报告编号

Report No. ROCKB202003004

产品名称
Product Name

石墨填料 M641
Graphite Packing M641

委托单位
Customer

温州好用密封件技术有限公司
Wenzhou Houo Sealing 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浦一村谢宅巷9号
No. 9, Xiezhai Alley, Puyi Village, Oubei District,
Yongjia County, Wenzhou City, Zhejiang Province

试验起始日期
Date Started

2020年3月13日
March 13, 2020

试验结束日期
Date Finished

2020年3月18日
March 18, 2020

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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通讯地址：浙江省温州市永嘉县瓯北街道和一工业区

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填料低泄漏试验信息 Fugitive Emissions Test Information

填料厂家 Manufacturer	温州好用密封件技术有限公司 Wenzhou Houo Sealing Technology Co., Ltd.			
填料描述 Description	石墨填料/三个模压石墨圈，两个带金属丝加强石墨盘根圈 Graphite packing/ Three die-formed graphite rings, two metal-wire-reinforced braided graphite rings			
填料材料 Material	石墨 Graphite	填料型号 Model No.	M641	
阀杆运动方式 Stem Motion	四分之一回转 Quarter-turn	新研发产品或现有产品 New or Current Product	新研发产品 New Product	
抽样方 Selected by	厂家 Manufacturer	送样日期 Collected Date	2020.03.05	
样品编号 Sample No.	ROCKP202003004	样品状态 Sample status	完好 Intact	
检测项目 Test Item	密封性能试验 Sealing Performance Test	填料圈数 Number of Rings	5	
填料截面尺寸（mm*mm） Cross Section Dimensions	6.3*6.3	填料压盖螺栓尺寸 Packing Gland Bolt Dia.	5/8"	
填料压套内径（mm） Packing Gland ID	25.5	填料压套外径（mm） Packing Gland OD	38.1	
安装后填料压缩量（%） Packing Compression	25%	推荐填料拧紧扭矩（N•m） Recommended Gland Tightening Torque	螺母 1 Nut 1	59
			螺母 2 Nut 2	59
试验依据 Test Basis	API 622-2018 第四节 Sec.4 of API 622-2018	试验介质 Test Medium	99.9% 甲烷 99.9% Methane	
机械循环总数 No. of Mechanical Cycles	1510	热循环总数 No. of Thermal Cycles	5	
最大试验压力（barg） Maximum Test Pressure	41.4	填料调整前已完成的机械循环数 Mechanical Cycles prior to Re-adjustment	N/A	
检漏仪品牌/型号/序列号 Leakage Detector Brand/ Model/ Serial Number	Thermo Fisher Scientific / TVA-2020 / 202017032075			
实验室名称及地址 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			
填料配置 Packing Configuration:				
- 方形填料圈 Square ring shape - 模压中间圈 Die-formed middle ring - 金属丝加强编织端部圈 Braided end ring with metal wire reinforcement - 抑制腐蚀剂类型 Corrosion inhibitor and type: 锌粉 Zinc Powder				

试验记录 Testing Data

试验时段 Test Segment	静态泄漏测量 Static Leak Measurement (ppmv)	填料箱温度 Stuffing Box Temperature (℃)	流道温度 Flow Line Temperature (℃)	填料扭矩 Gland Nut Torque (Nm)		判定 Evaluation
				螺母 1 Nut 1	螺母 2 Nut 2	
第 1 天 Day 1 常温 Ambient 0-150 次循环 0-150 cycles P= 41.4 barg	3.6	RT	RT	59	59	OK
	6.3	RT	RT	-	-	OK
	6.8	RT	RT	-	-	OK
	6.3	RT	RT	-	-	OK
	-	-	-	-	-	OK
高温 Elevated 151-300 次循环 151-300 cycles P= 41.4 barg	3.1	260	260	-	-	OK
	3.9	260	260	-	-	OK
	3.9	260	260	-	-	OK
	3.8	260	260	-	-	OK
	-	-	-	-	-	OK
第 2 天 Day 2 常温 Ambient 301-450 次循环 301-450 cycles P=41.4 barg	8.3	RT	RT	-	-	OK
	15.9	RT	RT	-	-	OK
	8.2	RT	RT	-	-	OK
	5.7	RT	RT	-	-	OK
	-	-	-	-	-	OK
第 2 天 Day 2 高温 Elevated 451-600 次循环 451-600 cycles P=41.4 barg	3.4	260	260	-	-	OK
	3.1	260	260	-	-	OK
	3.0	260	260	-	-	OK
	3.0	260	260	-	-	OK
	-	-	-	-	-	OK
第 3 天 Day 3 常温 Ambient 601-750 次循环 601-750 cycles P=41.4 barg	7.7	RT	RT	-	-	OK
	7.6	RT	RT	-	-	OK
	8.1	RT	RT	-	-	OK
	8.0	RT	RT	-	-	OK
	-	-	-	-	-	OK
第 3 天 Day 3 高温 Elevated 751-900 次循环 751-900 cycles P=41.4 barg	4.5	260	260	-	-	OK
	4.5	260	260	-	-	OK
	4.6	260	260	-	-	OK
	5.0	260	260	-	-	OK
	-	-	-	-	-	OK
第 4 天 Day 4 常温 Ambient 901-1050 次循环 901-1050 cycles P=41.4 barg	11.4	RT	RT	-	-	OK
	5.5	RT	RT	-	-	OK
	3.5	RT	RT	-	-	OK
	3.1	RT	RT	-	-	OK
	-	-	-	-	-	OK

试验时段 Test Segment	静态泄漏测量 Static Leak Measurement (ppmv)	填料箱温度 Stuffing Box Temperature (°C)	流道温度 Flow Line Temperature (°C)	填料扭矩 Gland Nut Torque (Nm)		判定 Evaluation
第 4 天 Day 4 高温 Elevated 1051-1200 次循环 1051-1200 cycles P=41.4 barg	3.7	260	260	-	-	OK
	3.5	260	260	-	-	OK
	3.3	260	260	-	-	OK
	3.5	260	260	-	-	OK
	-	-	-	-	-	OK
第 5 天 Day 5 常温 Ambient 1201-1350 次循环 1201-1350 cycles P=41.4 barg	3.6	RT	RT	-	-	OK
	3.3	RT	RT	-	-	OK
	2.8	RT	RT	-	-	OK
	7.6	RT	RT	-	-	OK
	-	-	-	-	-	OK
第 5 天 Day 5 高温 Elevated 1351-1500 次循环 1351-1500 cycles P=41.4 barg	2.9	260	260	-	-	OK
	3.0	260	260	-	-	OK
	3.0	260	260	-	-	OK
	2.6	260	260	-	-	OK
	-	-	-	-	-	OK
第 6 天 Day 6 常温 Ambient 1501-1510 次循环 1501-1510 cycles P=41.4 barg	8.1	RT	RT	-	-	OK
	6.6	RT	RT	56.1	51.9	OK
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
备注 Note: RT 温度范围为 15°C 至 40°C。 RT is between 15°C to 40°C						

试验结果 Test Results:

最大允许泄漏量 Maximum Allowable Leakage	100 ppmv	实测最大泄漏量 Maximum Leakage Detected	15.9 ppmv
填料泄漏量是否低于允许值? Was Packing Leakage Below Allowable?			

编制: 胡环
Prepared by: 胡环
日期: 2020.3.20
Date: 2020.3.20

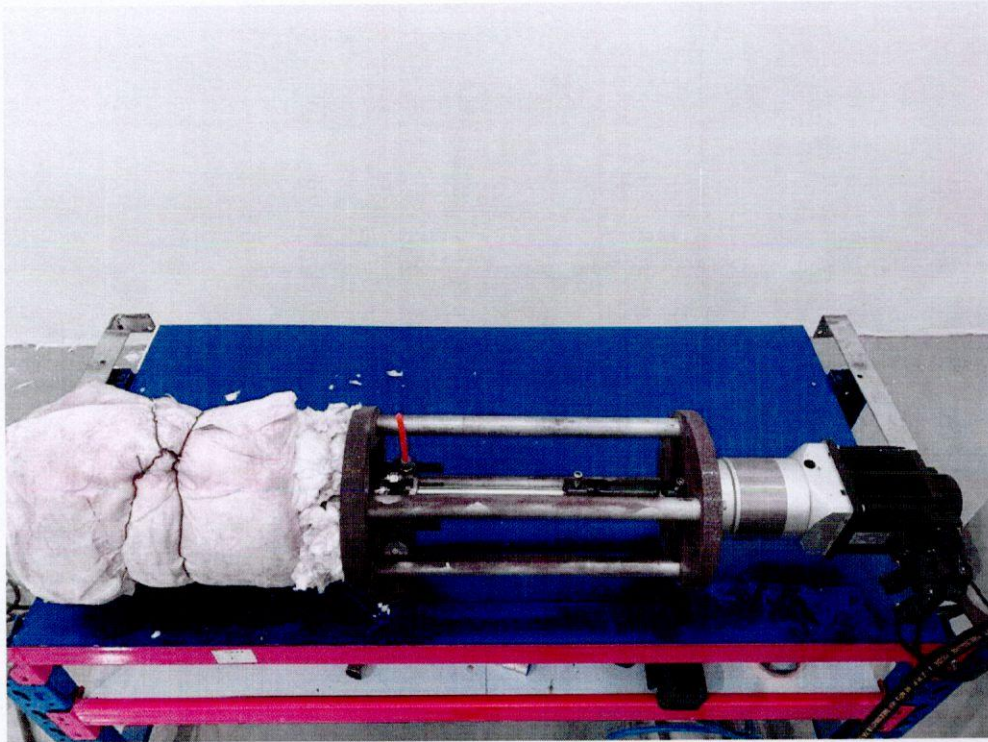
审核: 胡环
Reviewed by: 胡环
日期: 2020.3.20
Date: 2020.3.20

批准: 胡环
Approved by: 胡环
日期: 20/3-20
Date: 20/3-20

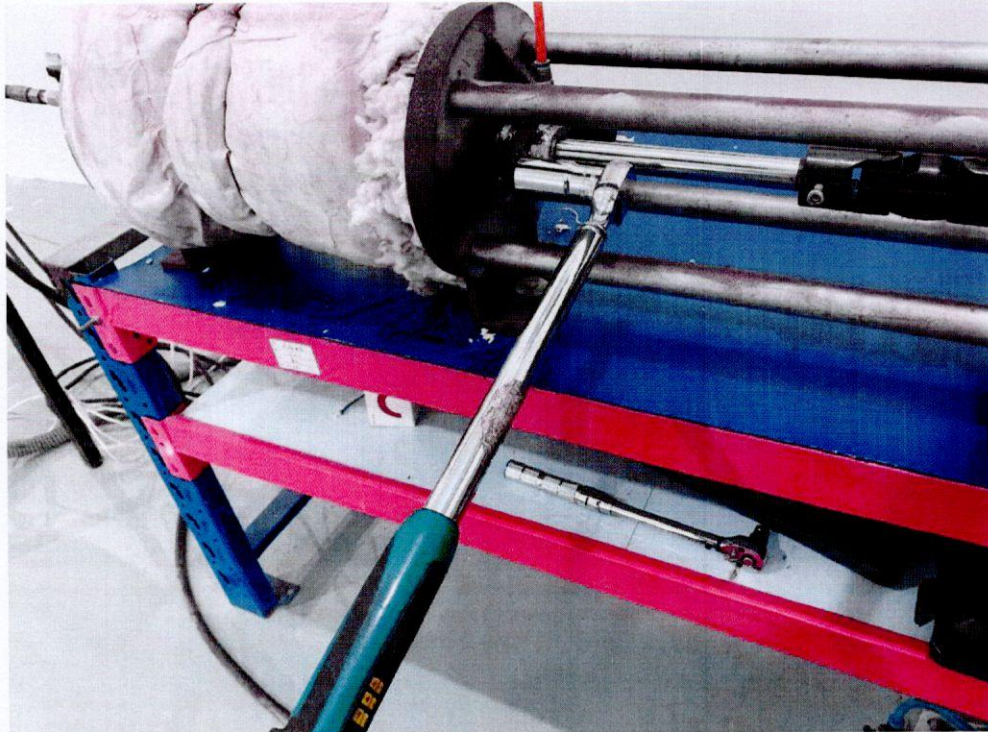




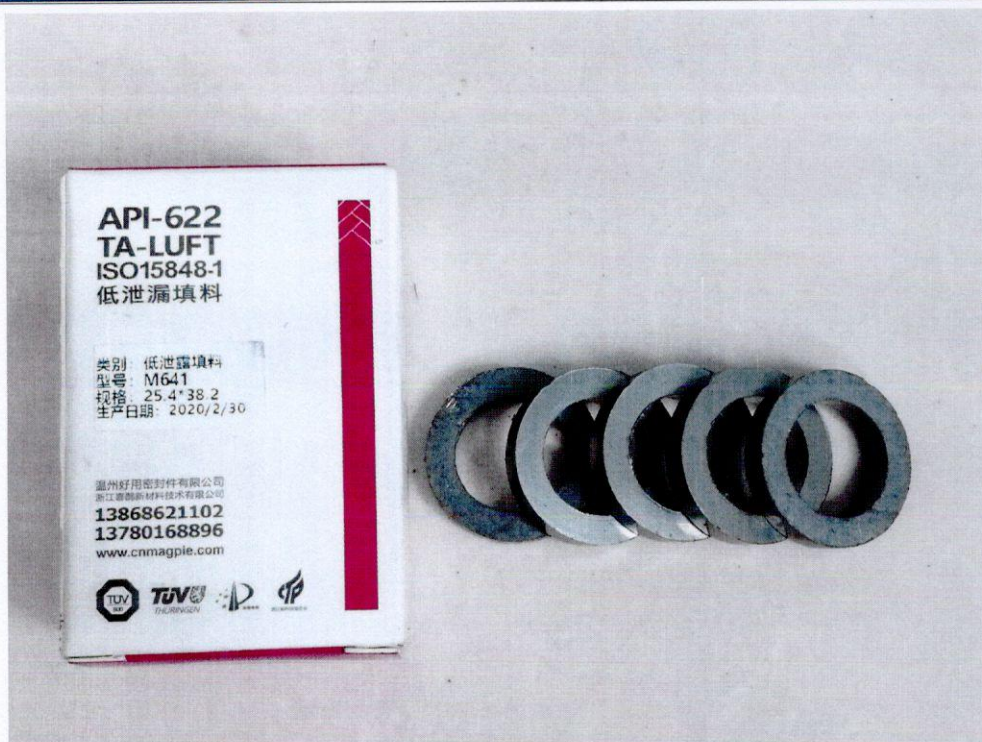
照片记录 Photographic record



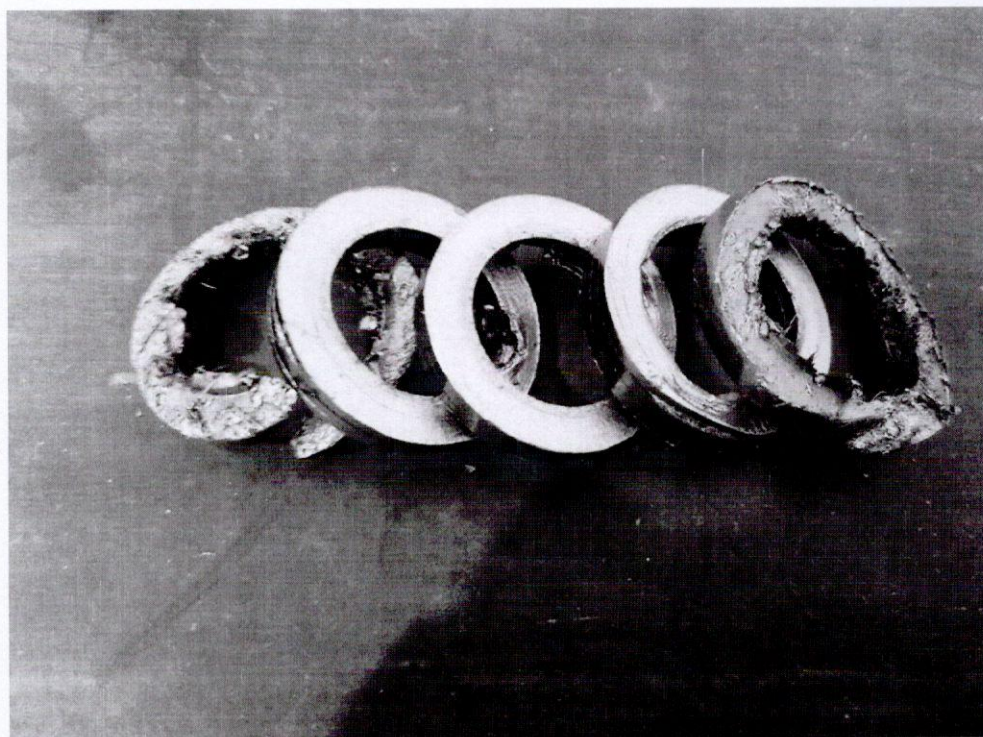
试验装置 Test Rig



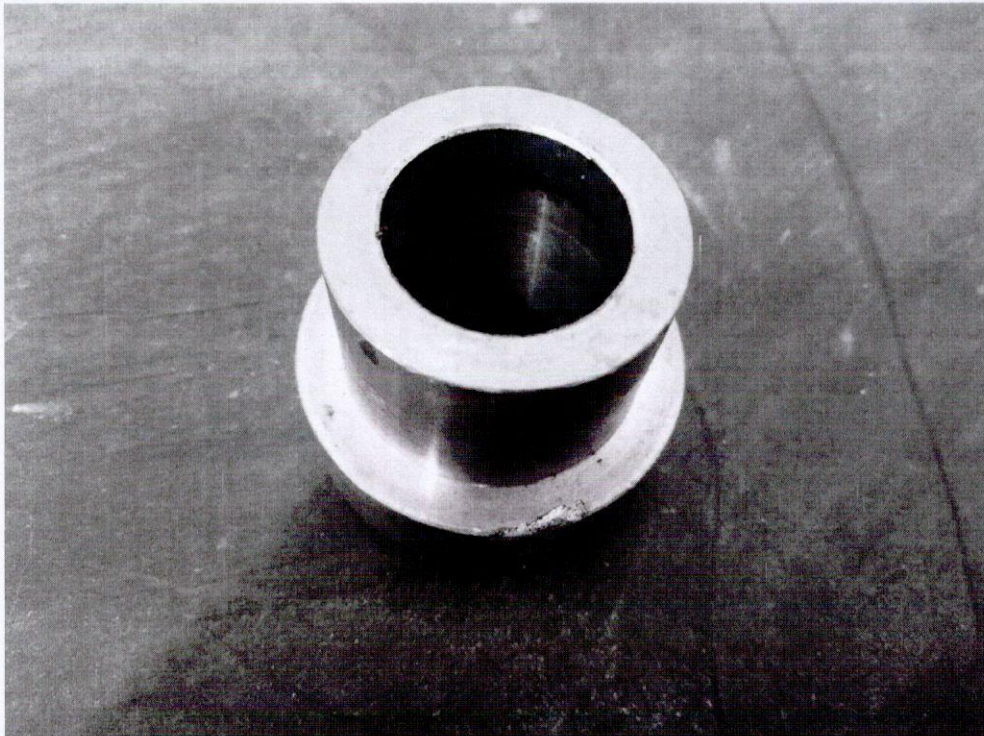
扭矩测量 Torque Measurement



试验前的填料环 Packing rings before test



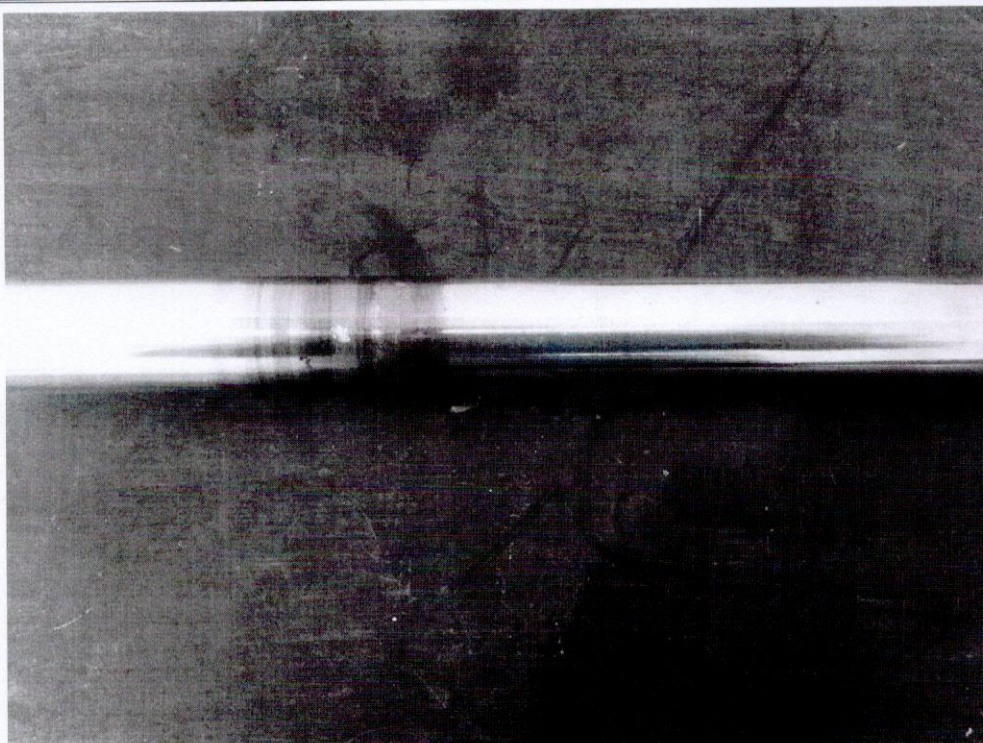
试验后的填料环 Packing rings after test



试验后的填料压套 Gland follower after test



填料压盖 Gland flange

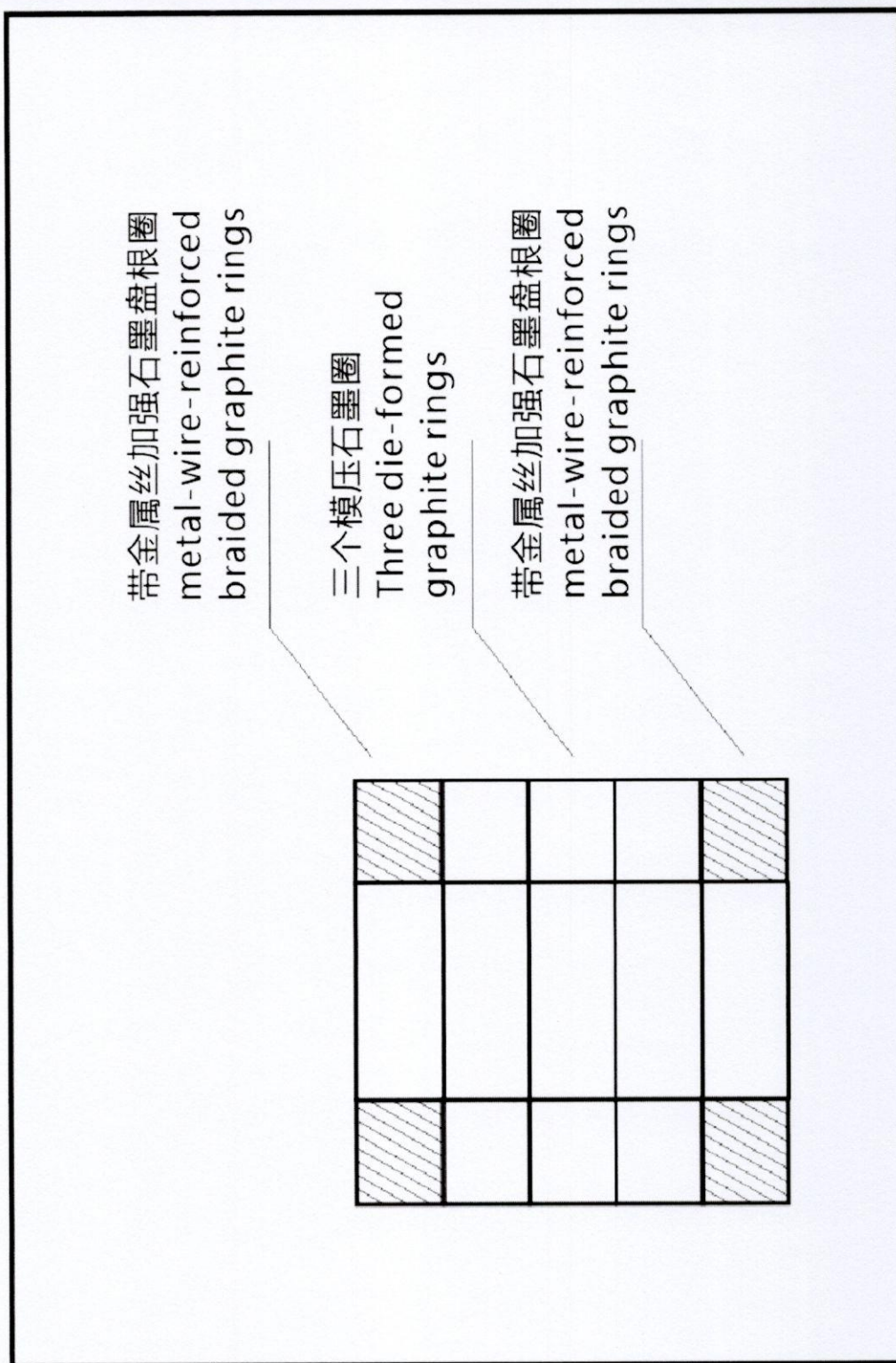


试验后的阀杆 Stem after test



填料函内孔 Stuffing box internal

填料配置图纸 Packing configuration drawing



报告结束

End of report