

QuarterTurn

RESOURCES INC.



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QTR WO: Q29946-17
F-580-026, R7

CERTIFICATE OF CONFORMANCE

Customer: ARS Global PO#: 10

Description: 8" 600# RFFE Vitas Swing Check Valve

Quantity: 4 S/N(s): J160021004-009, 016, 019, 020

THE EQUIPMENT LISTED ABOVE CONFORMS TO THE FOLLOWING:

API-6D (X) NACE MR-0175; (X) Fire-Safe per (X)
Part 1 & 2 API 6FA

We certify that the material listed above has been manufactured and tested in accordance with API 6D, Valvitalia standards, and customer purchase order requirements. Material listed has successfully passed all mandatory test and meets supplemental requirements as noted above.

Michael Carson
Quality Assurance Manager

Date: 3/16/22

Yancheng Huakai Valve Manufacture Co., Ltd.

No. 104, Guanbei West Road, Haihe Town, Sheyang County Jiangsu Province, 224365, PRC
Tel: 86-0515-82842042 Fax: 86-0515-82843042&86-0515-69683315

MATERIAL CERTIFICATE

Customer/客户: VALVITALIA 意阀阀门(苏州)有限公司				Material Standard/材料标准: ASTM A216-2014										Certificate NO./证书编号:				
Material/材料: WCC				Certificate Standard/证书标准:EN10204 Type3.1 (NACEMR0175/ISO 15156)										HK 2016-03-18-01				
P.O. NO/订单号	P.O.line/序号	Component Code and Description/ 料号和品名	Heat NO./炉号	Items of test		Test tensile Specimens/拉力试样			Tensile Test/拉力实验				Impact Test /冲击试验				Hardness/硬度	
				Specification		Test Temp./实验温度℃	Length/试样长度 (mm)	Dia/试样直径(mm)	Tensile strength/抗拉强度 (Mpa)	Yield strengt h/屈服强度 (Mpa)	Elong./延伸率 %	Red./断面收缩率%	Dimension of Specimens /试样尺寸: 10*10*50mm					
				P.O. Qty/订单数量	Delivery Qty/交货数量								Test Temp/实验温度:℃ 室温					
													Single/单个(J)		Average/平均(J)			HB 237Max
P160000188	1	CHECK VALVE, BODY, 2"-600LB	LK040	10	10	15℃	50	12.5	592	368	31	59				160		
P160000188	2	CHECK VALVE, BODY, 3"-600LB	LK041	5	5	15℃	50	12.5	583	367	35	57				162		
P160000188	3	CHECK VALVE, BODY, 4"-600LB	LK041	5	5	15℃	50	12.5	583	367	35	57				162		
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0135	20	3	15℃	50	12.5	582	365	36	54				165		
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0136		5	15℃	50	12.5	568	362	35	52				158		
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0137		5	15℃	50	12.5	569	362	32	51				162		
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0138		2	15℃	50	12.5	565	365	34	50				159		
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0140		5	15℃	50	12.5	564	364	38	48				164		
P160000188	5	CHECK VALVE, BODY, 10"-600LB	LK0138	5	2	15℃	50	12.5	552	368	32	52				165		
P160000188	5	CHECK VALVE, BODY, 10"-600LB	LK0139		3	15℃	50	12.5	542	362	36	50				162		
P160000188	6	CHECK VALVE, BODY, 12"-600LB	LK0134	5	4	15℃	50	12.5	538	368	38	49				164		
P160000188	6	CHECK VALVE, BODY, 12"-600LB	LK0135		1	15℃	50	12.5	582	365	36	54				165		
P.O. NO/订单号	P.O.line/序号	Component Code and Description/ 料号和品名	Heat NO./炉号	Chemical Properties(%) /化学成分										Heat Treatment/热处理				Remarks/备注
				C(%)	Mn(%)	Si(%)	S(%)	P(%)	Cr(%)	Ni(%)	Mo(%)	Cu(%)	V(%)	Ce(%)	Report Number /报告编号	Heat treat process/热处理工艺		
				0.23max	1.20max	0.60max	0.035max	0.035max	0.50max	0.50max	0.20max	0.30max	0.03max	0.42max		正火 Normalized		
P160000188	1	CHECK VALVE, BODY, 2"-600LB	LK040	0.210	1.040	0.490	0.013	0.025	0.070	0.030	0.010	0.030	0.004	0.404	HK160318	Temp/温度℃	Maintain time/保温时间	Cooling Media /冷却方式
P160000188	2	CHECK VALVE, BODY, 3"-600LB	LK041	0.200	1.020	0.450	0.014	0.024	0.080	0.040	0.020	0.035	0.005	0.396			920	
P160000188	3	CHECK VALVE, BODY, 4"-600LB	LK041	0.200	1.020	0.450	0.014	0.024	0.080	0.040	0.020	0.035	0.005	0.396				
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0135	0.195	1.050	0.420	0.015	0.025	0.100	0.050	0.021	0.034	0.006	0.401				
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0136	0.200	1.020	0.410	0.014	0.028	0.120	0.054	0.022	0.032	0.007	0.406				
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0137	0.198	1.030	0.390	0.015	0.024	0.090	0.052	0.023	0.034	0.009	0.400				
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0138	0.198	1.020	0.420	0.014	0.023	0.080	0.051	0.021	0.031	0.010	0.396				
P160000188	4	CHECK VALVE, BODY, 8"-600LB	LK0140	0.197	1.040	0.410	0.014	0.021	0.080	0.051	0.022	0.032	0.009	0.398				
P160000188	5	CHECK VALVE, BODY, 10"-600LB	LK0138	0.198	1.020	0.420	0.014	0.023	0.080	0.051	0.021	0.031	0.010	0.396				
P160000188	5	CHECK VALVE, BODY, 10"-600LB	LK0139	0.200	1.040	0.410	0.015	0.021	0.070	0.052	0.022	0.032	0.010	0.399				
P160000188	6	CHECK VALVE, BODY, 12"-600LB	LK0134	0.198	1.050	0.420	0.016	0.022	0.070	0.051	0.021	0.033	0.012	0.399	HKV VALVE Q.C. DEPARTMENT 14.6.16			
P160000188	6	CHECK VALVE, BODY, 12"-600LB	LK0135	0.195	1.050	0.420	0.015	0.025	0.100	0.050	0.021	0.034	0.006	0.401				

We hereby certify the material herein has been manufactured, tested and inspected in accordance with customer requirements and relate material standard, with satisfactory results

我们在此证明这批材料经过制造, 测试, 检验完全符合客户和材料的要求

Date: 2016-03-18

Inspected: 张正洪/ZhangZhenghong

Check: _____

QUALITY CONTROL
DEPARTMENT

2016.5.12

Yancheng Huakai Valve Manufacture Co., Ltd.

No. 104, Guanbei West Road, Haihe Town, Sheyang County Jiangsu Province, 224365, PRC

Tel: 86-0515-82842042 Fax: 86-0515-82843042&86-0515-69683315

MATERIAL CERTIFICATE

Customer/客户: VALVITALIA 意阀阀门(苏州)有限公司						Material Standard/材料标准: ASTM A105N-2014								Certificate NO./证书编号:					
Material/材料: A105N						Certificate Standard/证书标准:EN10204 Type3.1 (NACEMR0175/ISO 15156)											HK2016-0402-02		
P.O. NO/订单号	P.O.line/订单的序号	Component Code and Description/料号和品名	Heat NO./炉号	Items of test		Test tensile Specimens/拉力试样			Tensile Test/拉力实验				Impact Test /冲击试验			Hardness/硬度			
				Specification		Test Temp./实验温度 OC	Length/试样长度 (mm)	Dia/试样直径 (mm)	Tensile strength/抗拉强度 (Mpa)	Yield strength/屈服强度 (Mpa)	Elon./延伸率%	Red./断面收缩率%	Dimension of Specimens /试样尺寸: 10*10*50mm						
				P.O. Qty/订单数量	Delivery Qty/交货数量								Test Temp/实验温度:-46OC						
									485min	250min	22min	30min	Single/单个(J)		Average/平均(J)	MAX:187HB			
P160000188	4	CHECK VALVE, COVER, 8"-600LB	HK01-001	20	20	25℃	50	12.5	518	300	38	46				182			
P160000188	4	CHECK VALVE, SEAT, 8"-600LB	A160301	20	20	25℃	50	12.5	525	300	35	44				170			
P160000188	4	CHECK VALVE, DISC, 8"-600LB	HK01-001	20	20	25℃	50	12.5	518	300	38	46				182			
P160000188	5	CHECK VALVE, COVER, 10"-600LB	HK01-001	5	5	25℃	50	12.5	518	300	38	46				182			
P160000188	5	CHECK VALVE, SEAT, 10"-600LB	A160301	5	5	25℃	50	12.5	525	300	35	44				170			
P160000188	5	CHECK VALVE, DISC, 10"-600LB	HK01-001	5	5	25℃	50	12.5	518	300	38	46				182			
P160000188	6	CHECK VALVE, COVER, 12"-600LB	HK01-001	5	5	25℃	50	12.5	518	300	38	46				182			
P160000188	6	CHECK VALVE, SEAT, 12"-600LB	A160301	5	5	25℃	50	12.5	525	300	35	44				170			
P160000188	6	CHECK VALVE, DISC, 12"-600LB	HK01-001	5	5	25℃	50	12.5	518	300	38	46				182			
P.O. NO/订单号	P.O.line/订单的序号	Component Code and Description/料号和品名	Heat NO./炉号	Chemical Properties(%) /化学成分										Heat Treatment/热处理			Remarks/备注		
				C(%)	Mn(%)	P(%)	S(%)	Si(%)	Ni(%)	Cr(%)	Mo(%)	Cu(%)	V(%)	Ce(%)	Report Number/报告编号	Heat treat process/热处理工艺			
				0.35max	0.60~1.05	0.035max	0.04max	0.1~0.35	0.40max	0.30max	0.12max	0.40max	0.05max	0.42max		正火 Normalized			
P160000188	4	CHECK VALVE, COVER, 8"-600LB	HK01-001	0.198	0.980	0.012	0.010	0.180	0.020	0.042	0.010	0.060	0.008	0.379	HK160402	Temp/温度OC	Maint ain time/保温时间	Cooling Media /冷却方式	
P160000188	4	CHECK VALVE, SEAT, 8"-600LB	A160301	0.190	0.900	0.012	0.011	0.210	0.020	0.040	0.009	0.060	0.009	0.357					
P160000188	4	CHECK VALVE, DISC, 8"-600LB	HK01-001	0.198	0.980	0.012	0.010	0.180	0.020	0.042	0.010	0.060	0.008	0.379					
P160000188	5	CHECK VALVE, COVER, 10"-600LB	HK01-001	0.198	0.980	0.012	0.010	0.180	0.020	0.042	0.010	0.060	0.008	0.379					
P160000188	5	CHECK VALVE, SEAT, 10"-600LB	A160301	0.190	0.900	0.012	0.011	0.210	0.020	0.040	0.009	0.060	0.009	0.357					
P160000188	5	CHECK VALVE, DISC, 10"-600LB	HK01-001	0.198	0.980	0.012	0.010	0.180	0.020	0.042	0.010	0.060	0.008	0.379					
P160000188	6	CHECK VALVE, COVER, 12"-600LB	HK01-001	0.198	0.980	0.012	0.010	0.180	0.020	0.042	0.010	0.060	0.008	0.379					
P160000188	6	CHECK VALVE, SEAT, 12"-600LB	A160301	0.190	0.900	0.012	0.011	0.210	0.020	0.040	0.009	0.060	0.009	0.357					
P160000188	6	CHECK VALVE, DISC, 12"-600LB	HK01-001	0.198	0.980	0.012	0.010	0.180	0.020	0.042	0.010	0.060	0.008	0.379					

HKV VALVE

Q. C.

DEPARTMENT

We hereby certify the material herein has been manufactured, tested and inspected in accordance with customer requirements and relate material standard ,with satisfactory results

我们在此证明这批材料经过制造, 测试, 检验完全符合客户和材料的要求

Date: 2016-4-2

Inspected: 张正洪/ZhangZhenghong

Check: _____

