

ISO 15848-1:2015
Methane Fugitive Emission Test Report

Performed for

Guide Valve Limited

www.gvs-vci.com



10 inch ANSI Class 900
Soft-Seated Trunnion Mounted Ball Valve
Product Code: GVS 10" GB1 ANSI 900

Project Number: 219322
Test Start Date: July 22, 2019



Performed by

YARMOUTH RESEARCH AND TECHNOLOGY, LLC

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Fugitive Emission Test Data Sheet

Customer: Guide Valve Limited

Date: 7/22/2019

Project #: 219322

Product Description: 10 inch Class 900 soft seated trunnion mounted ball valve

Product Code: GVS 10" GB1 ANSI 900

Packing Description: PTFE-Igiloy lip seals + FKM O-ring + Graphite

Sample Supplied by: Customer

Stem Diameter: 75 mm

Packing Nut Torque: NA

Test Conditions

Test Standard: ISO/FDIS 15848-1:2015

Test Stand: Yarmouth Stand 1

Tightness Class: AM

Allowable: 50 PPMv

Test Media: Methane

Endurance Class: CO3 2500 Mechanical Cycles

Temperature Class: 200C 4 Thermal Cycles

Pressure Class: ANSI 900 Rating: 2220 psig @ambient 1900 psig @high temp

Testing Method: Suck Through Method

Mounting Position: Stem and Bore Horizontal

Max. Allowable Bonnet Gasket Leakage: 50 PPMv by sniffing method

Leakage Device: Baseline

Cycling Rate: 1 cycle per 30 seconds

Test Data Summary - Stem Seal

Cycle Number	Nom.Temp (C)	Static Stem Seal Leakage (PPMv)		Packing Retorque See Notes
		Avg.	Max.	
0	20	1	1	
50	20	0	0	
50	200	3	5	
100	200	1	1	
100	20	0	1	
150	20	0	1	
150	200	1	2	
200	200	0	1	
205	20	1	1	
1,000	20	0	1	
1,000	200	1	2	
1,500	200	0	0	
1,500	20	3	3	
2,000	20	0	0	
2,000	200	0	0	
2,500	200	1	1	
2,500	20	0	0	
Maximum Leakage:		3	5	
Maximum Allowable:		50	50	

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Test Data Summary - Bonnet Seal

Cycle Number	Nom.Temp (C)	Leakage - PPMv	
		Avg.	Max.
0	20	1	1
205	20	1	2
1,500	20	0	0
2,500	20	2	4
Maximum Leakage:		2	4
Maximum Allowable:		50	50

Test Data Summary - Body Seal A

Cycle Number	Nom.Temp (C)	Leakage - PPMv	
		Avg.	Max.
0	20	0	1
205	20	1	2
1,500	20	0	1
2,500	20	2	2
Maximum Leakage:		2	2
Maximum Allowable:		50	50

Test Data Summary - Body Seal B

Cycle Number	Nom.Temp (C)	Leakage - PPMv	
		Avg.	Max.
0	20	1	2
205	20	1	2
1,500	20	1	1
2,500	20	1	2
Maximum Leakage:		1	2
Maximum Allowable:		50	50

Test Data Summary - Operating Actuator Pressure

Cycle Number	Nom. Temp (C)	Operating Actuator Pressure (psig)
0	20	15
2,500	20	15

Performance Class:

ISO FE AM - CO3 - SSA 0 - t200C - ANSI 900 - ISO 15848-1

Results

The valve met the requirements of the performance class stated above.

Certified By



Matthew J. Wasielewski, PE
President and Manager
Yarmouth Research and Technology, LLC

