

**AAR Manual of Standards and Recommended Practices
Specifications for Tank Cars**

M-1002

CHAPTER 1

APPLICATION FOR APPROVAL OF VALVES AND FITTINGS																							
Applicant <u>METAL GOODS MANUFACTURING INC</u>				AAR No. <u>E099012</u>																			
Description of Device <u>THERMOMETER WELL FITTING</u>																							
Applicant No. _____		Device Ident. No. <u>110Y/SS</u>		CS Date <u>5-18-09</u>																			
1. Manufacturer <u>METAL GOODS MANUFACTURING</u>																							
Address <u>PO BOX 2096</u>				City <u>BARTLESVILLE</u> State <u>OK</u> Zip <u>74005</u>																			
2. Test facility <u>METAL GOODS MANUFACTURING</u>				Address <u>309 W HENSLEY BLVD.</u>																			
3. Test date <u>5-14-09</u>				4. Observer <u>JOHN RANDOLPH</u>																			
TEST PROCEDURE:																							
5. Weight or mass of device <u>2.2</u> lb. (_____ kg)																							
6. Description of prototype testing: <u>1ST TEST 300 PSIG FOR 10 MIN, 2ND TEST 500 PSIG FOR 10 MIN</u> <u>3RD TEST 750 PSIG FOR 10 MIN, 4TH TEST 1000 PSIG FOR 10 MIN</u>																							
7. Description of production testing: <u>DIMENSIONAL INSPECTION WILL BE DONE ON EACH COMPONENT PART BEFORE ASSEMBLY</u>																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 12.5%;">8. Cycles <u>4</u></td> <td style="width: 12.5%;">Min. Temp. <u>AMB</u> °F _____ °C</td> <td style="width: 12.5%;">@ Pressure <u>300-1000</u> psi _____ kPa</td> <td style="width: 12.5%;">Cycles _____</td> <td style="width: 12.5%;">Max. Temp. _____ °F _____ °C</td> <td style="width: 12.5%;">@ Pressure _____ psi _____ kPa</td> <td style="width: 12.5%;">Test Medium _____</td> <td style="width: 12.5%;">Remarks <u>NO LEAKS</u></td> </tr> <tr> <td>Cycles _____</td> <td>Min. Temp. _____ °F _____ °C</td> <td>@ Pressure _____ psi _____ kPa</td> <td>Cycles _____</td> <td>Max. Temp. _____ °F _____ °C</td> <td>@ Pressure _____ psi _____ kPa</td> <td>Test Medium _____</td> <td>Remarks _____</td> </tr> </table>								8. Cycles <u>4</u>	Min. Temp. <u>AMB</u> °F _____ °C	@ Pressure <u>300-1000</u> psi _____ kPa	Cycles _____	Max. Temp. _____ °F _____ °C	@ Pressure _____ psi _____ kPa	Test Medium _____	Remarks <u>NO LEAKS</u>	Cycles _____	Min. Temp. _____ °F _____ °C	@ Pressure _____ psi _____ kPa	Cycles _____	Max. Temp. _____ °F _____ °C	@ Pressure _____ psi _____ kPa	Test Medium _____	Remarks _____
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10. Initial commodity (or commodity type) <u>ETHYLENE OXIDE</u> 11. Flow rate (if applicable) <u>N/A</u> gpm (_____ L/min)																							
Applicable drawings		Material	Drawing Number latest revision	Precedent																			
				Drawing Number	Application/Certificate																		
12. Device application		<u>304/SS</u>	<u>REV 0</u>	<u>110Y</u>																			
13. Device assembly																							
14. Device details																							
15. Quality control statement: <u>MGM IS A CLASS F FACILITY AND HAS A QUALITY PLAN IN PLACE TO ASSURE COMPLIANCE WITH ALL DRAWINGS AND SPECIFICATIONS.</u>																							
REVISIONS:																							
CERTIFICATION: The above data is correct and conforms with AAR Specifications for Tank Cars, Appendix A. The devices tested conform with drawings listed above.																							
By <u>Harley Gray Jr.</u>				Title <u>Vice President</u>																			
APPROVAL AAR Tank Car Committee				<div style="display: flex; justify-content: space-between;"> OCT 07 2009 <i>Kenneth B. Orsey</i> </div>																			
				(Signature) on behalf of Tank Car Committee																			
Form AAR 4-5 Revised 12/1/2000				Subject to AAR Service Trial No. _____																			

Fig. 1.4 Form AAR 4-5 Application for Approval of Valves and Fittings
(Click [here](#) to access a printable form)