

**To Our Valued Midland Customers:** Midland would like to remind you of the AAR's specifications involving vacuum relief valves for **re-qualifications** and new tank construction. Please see the specs and our Midland product references below:

### AAR Manual of Standards and Recommended Practices

#### Specifications for Tank Cars

#### M-1002 Appendix A: Vacuum Relief Valve

3.10.3 Effective July 1, 2013, for new tank car construction or at the time of the next qualification of existing tank cars, vacuum relief valves must meet the following conditions:

- Must be designed to seal bubble-tight down to the start-to-open pressure and up to 165 psif (1138 kPag).
- The minimum start-to-open pressure must be designed for negative 0.75 psig (5.17 kPag).
- **Must be designed so that they cannot be manually actuated from the outside.**

3.10.4 Effective July 1, 2013, manually actuated vacuum relief valves must not be replaced in kind.

MIDLAND VACUUM RELIEF VALVE – Cross Reference									
<b>1 1/2" NPT</b>									
Net Flow Area .71 sq inches									
Standard Set-to-Discharge: .75 psi (options available)									
Effective July 1, 2013 these valves CAN NOT be used	NO STEP OPTIONS								
	GOOD - Stainless Steel			BETTER - Stainless Steel			BEST - Stainless Steel		
<b>Model</b>	<b>Model</b>	<b>psi</b>		<b>Model</b>	<b>psi</b>	<b>Includes</b>	<b>Model</b>	<b>psi</b>	<b>Includes</b>
A-215	A-217-NS	0.75		A-211-FR10	0.75	Screen Filter	A-211-FR1	0.75	Screen + Baffle
A-217	A-217-NS-1.5	1.5		A-211-FR20	0.75	Mesh Filter	A-211-FR2	0.75	Mesh + Baffle
				A-211-FR10-2	2.0	Screen Filter	A-211-FR1-2	2.0	Screen + Baffle
				A-211-FR20-2	2.0	Mesh Filter	A-211-FR2-2	2.0	Mesh + Baffle
<b>2 1/2" NPT</b>									
Net Flow Area 1.12 sq inches									
Standard Set-to-Discharge: .75 psi (options available)									
Effective July 1, 2013 these valves CAN NOT be used	NO STEP OPTIONS								
	GOOD - Stainless Steel			BETTER - Stainless Steel			BEST - Stainless Steel		
<b>Model</b>	<b>Model</b>	<b>psi</b>		<b>Model</b>	<b>psi *</b>	<b>Includes</b>	<b>Model</b>	<b>psi *</b>	<b>Includes</b>
A-207	A-209-NS	0.75		A-210-FR10	0.75	Screen Filter	A-210-FR1	0.75	Screen + Baffle
A-208	A-209-NS-2	2.0		A-210-FR20	0.75	Mesh Filter	A-210-FR2	0.75	Mesh + Baffle
A-209	A-209-NS-3	3.0		A-210-FR10-2	2.0	Screen Filter	A-210-FR1-2	2.0	Screen + Baffle
	A-209-NS-4	4.0		A-210-FR20-2	2.0	Mesh Filter	A-210-FR2-2	2.0	Mesh + Baffle
	A-209-NS-4	5.0				* alternate settings avail			* alternate settings avail
<b>FLANGED (4) 5/8" dia holes on 3 7/8" dia B.C.</b>									
Net Flow Area .71 sq inches									
Standard Set-to-Discharge: .75 psi (options available)									
Effective July 1, 2013 these valves CAN NOT be used	NO STEP OPTIONS								
	GOOD * = carbon ** = stainless steel			BETTER - Stainless Steel			BEST - Stainless Steel		
<b>Model</b>	<b>Model</b>	<b>psi</b>	<b>Includes</b>	<b>Model</b>	<b>psi v</b>	<b>Includes</b>	<b>Model</b>	<b>psi *</b>	<b>Includes</b>
A-220	A-220-NS *	0.75		A-212-FR10	0.75	Screen Filter	A-212-FR1	0.75	Screen + Baffle
A-222	A-222-NS **	0.75		A-212-FR20	0.75	Mesh Filter	A-212-FR2	0.75	Mesh + Baffle
	A-220-3-NS *	3.0		A-212-FR10-2	2.0	Screen Filter	A-212-FR1-2	2.0	Screen + Baffle
	A-220-W-NS-FR20-3 *	3.0	Screen Filter	A-212-FR20-2	2.0	Mesh Filter	A-212-FR2-2	2.0	Mesh + Baffle
	A-222-3-NS **	3.0		A-212-FR10-3	3.0	Screen Filter	A-212-FR1-3	3.0	Screen + Baffle
	A-222-W-NS-FR20-3 **	3.0	Screen Filter	A-212-FR20-3	3.0	Mesh Filter	A-212-FR2-3	3.0	Mesh + Baffle
	A-220-4-NS *	4.0		A-212-FR10-4	4.0	Screen Filter	A-212-FR1-4	4.0	Screen + Baffle
	A-220-W-NS-FR20-4 *	4.0	Screen Filter	A-212-FR20-4	4.0	Mesh Filter	A-212-FR2-4	4.0	Mesh + Baffle
	A-222-4-NS **	4.0		A-212-FR10-5	5.0	Screen Filter	A-212-FR1-5	5.0	Screen + Baffle
	A-222-W-NS-FR20-4 **	4.0	Screen Filter	A-212-FR20-5	5.0	Mesh Filter	A-212-FR2-4	5.0	Mesh + Baffle
	A-220-5-NS *	5.0				v alternate settings avail			v alternate settings avail
	A-220-W-NS-FR20-5 *	5.0	Screen Filter						
	A-222-5-NS **	5.0							
	A-222-W-NS-FR20-5 **	5.0	Screen Filter						