



**Central States Hose, Inc.**  
the hose and fittings superstore



## **Anhydrous ammonia hose safety guidelines**

Tubing made of brass, copper, or other material subject to attack by ammonia shall not be used.

Cast iron fittings shall not be used but this shall not prohibit the use of fittings made specifically for ammonia service of malleable, nodular, or high strength gray iron meeting American Society for Testing and Materials (ASTM) A47-68, ASTM 395-68, or ASTM A126-66 Class B or C, all of which are incorporated by reference as specified in Sec. 1910.6.

Joint compounds shall be resistant to ammonia.

### Hose specifications.

Hose used in ammonia service shall conform to the joint Agricultural Ammonia Institute - Rubber Manufacturers Association Specifications for Anhydrous Ammonia Hose.

Hose subject to container pressure shall be designed for a minimum working pressure of 350 p.s.i.g. and a minimum burst pressure of 1,750 p.s.i.g. Hose assemblies, when made up, shall be capable of withstanding a test pressure of 500 p.s.i.g.

Hose and hose connections located on the low-pressure side of flow control of pressure-reducing valves shall be designed for a bursting pressure of not less than 5 times the pressure setting of the safety relief devices protecting that portion of the system but not less than 125 p.s.i.g. All connections shall be so designed and constructed that there will be no leakage when connected.

Where hose is to be used for transferring liquid from one container to another, "wet" hose is recommended. Such hose shall be equipped with approved shutoff valves at the discharge end. Provision shall be made to prevent excessive pressure in the hose.

On all hose one-half inch outside diameter and larger, used for the transfer of anhydrous ammonia liquid or vapor, there shall be etched, cast, or impressed at 5-foot intervals the following information.

"Anhydrous Ammonia"   XXX   p.s.i.g.   (maximum working pressure),  
manufacturer's name or trademark, year of manufacture.

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In lieu of this requirement the same information may be contained on a nameplate permanently attached to the hose.

A hydrostatic relief valve shall be installed between each pair of valves in the liquid ammonia piping or hose where liquid may be trapped so as to relieve into the atmosphere at a safe location.

### Transportation of ammonia

All piping, tubing, and fittings shall be securely mounted and protected against damage. Means shall be provided to protect hoses while the vehicle is in motion.

#### "Systems mounted on farm vehicles other than for the application of ammonia"

All containers with a capacity exceeding 250 gallons shall be equipped with a pressure gage having a dial graduated from 0-400 p.s.i.

If a liquid withdrawal line is installed in the bottom of a container, the connections thereto, including hose, shall not be lower than the lowest horizontal edge of the vehicle axle.

Provision shall be made to secure both ends of the hose while in transit.

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This information has been obtained from the OSHA web site: <http://www.osha.gov>

This is provided as an introduction to the safe use of anhydrous ammonia hose, it may be subject to change without notice and may not include all current regulations. Central States Hose urges you to contact a safety consultant or OSHA field office to ensure that your operation meets all safety requirements.



**Use of a damaged hose assembly can result in serious personal injury and property damage.**

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