

WARNING

The Gates Rubber Company recommends Industrial hoses for normal service as described in this catalog. Other applications should be referred to your respective marketing representative.

In any application, there may be inherent risk of bodily injury or property damage and the user is responsible for implementation of adequate safety precautions. It is the responsibility of the person supplying the hose to advise the user of proper instructions for the adequate safe use and/or precautions and to warn the user of consequences of failure to heed such instruction. Should a hose assembly fail during use because of excessive pressure, injurious and/or damaging chemicals, elevated temperature materials, explosives or flammable materials, then serious bodily injury or destruction of property could result from impelled couplings, whipping hose, high pressure or high velocity discharge, chemical contact, high temperature materials, explosion or fire.

In known high risk areas, it is recommended that hose inspections be performed at frequent intervals related to the risk factor. Hose with obvious damage should be scrapped and replaced. These inspections should include tube and cover conditions, leaking or slipped couplings and proof test.

Detailed information concerning storage, care and maintenance may be found in the Hose Handbook published by The Rubber Manufacturers' Association, 1901 Pennsylvania Avenue, N.W., Washington, D.C. 20006 and in SAE Recommended Practices J1273.

IMPORTANT

Gates recommends only those applications of products specified in Gates product literature.

Gates disclaims any liability for use of its products in applications other than those for which they were designed.

Service Life

All rubber products, including Industrial Hose assemblies, have a limited life on a given application. Assuming the correct hose has been selected for the application, this service life can be adversely affected by many variable conditions. The major ones are:

- Exposure to severe external abuse such as kinking, bending, high end pull, crushing or abrasion.
 - Exposure to higher-than-rated working pressures or to high surge pressures.
 - Exposure to higher-than rated temperatures.
 - Misapplication or exposure to corrosive liquids or gases outside the range of suitable applications.
1. **External abuse**—hoses should be placed where they will not be run over by equipment or subjected to high end pull. Hoses should not be bent below recommended minimum bend radius. This could result in kinking the hose or reducing its pressure resistance. Large diameter hoses also may require additional support to reduce external abuse.
 2. **Hose & System Pressures**—In establishing and determining pressures related to hose and the systems to which they are applied, it is necessary to consider separately the characteristics of the hose and the system.
 - The system (or device or application) can have several pressures depending on pressure sources and surges imposed by the operator or mechanical components.
 - A given hose has a fixed characteristic with respect to the pressure it can withstand (and how it is applied) and still give satisfactory life.
 3. **High Temperatures**—The allowable temperature ranges for industrial hoses are shown on Page 7. These are for product temperatures and should not be exceeded. High temperatures can degrade rubber stocks very quickly resulting in short service life.

Where external temperatures are higher than normal ambient, contact your Gates field representative for recommendations.
 4. **Misapplication**—All industrial hoses are designed for a certain specific application or related application. They should not be used for any other applications.
 5. **Hose Information**—Refer to the following pages for details of hose construction and physical characteristics. These are shown in the data pages and include such items as rated working pressure,

vacuum rating, minimum bend radius and static conductivity ratings.

6. **Internal Abrasion**—For applications of a highly abrasive nature where the hose makes one or more bends, hose should be rotated 90° periodically to lengthen service life.

The hose manufacturer established, through design and testing, the recommended rated working pressure for the hose. It is the responsibility of the user to accurately determine the system pressure. Steady state pressure can be measured readily by gauges. Surges are difficult to measure and may require the use of electronic pressure pickup devices. Also, surge values depend on so many variables that a series of tests are usually required to obtain a valid set of readings. However, if there are extreme surges in the normal operation, or if there is the likelihood of abnormal operation of the system, the magnitude must be determined.

Considering the recommended rated working pressure of the HOSE and the various pressures of the SYSTEM, the hose is matched to the system using proper application engineering principles.

WARRANTY

LIMITED WARRANTY FOR THE LIFE OF THE MERCHANDISE

Merchandise is warranted to be free from defects in material or workmanship for the life of the merchandise. The Gates Rubber Company will, at its option, replace or repair any merchandise proved defective in material or workmanship, or both, during the warranty period. This is the exclusive remedy. For warranty service please contact the Service Department, The Gates Rubber Company, 140 W. Mississippi Ave., Denver, CO 80223. THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE EXPRESS WARRANTY PERIOD. LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. Some states do not allow the exclusion or limitation of incidental or consequential damages, and some states do not allow limitations on how long an implied warranty lasts, so the above limitation and exclusion may not apply to you. The warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Due to continual product improvements, Gates reserves the right to alter specs and prices without prior notice.