

WARNING

INTEGRATED FLUID POWER SOLUTIONS



Hydraulic fluid under pressure is potentially dangerous!

Serious injury, death and destruction of property can result from the rupture or other failure of a hose assembly that is:

- › damaged or worn out;
- › assembled or installed incorrectly.



Protect yourself and others.

- › Ensure you are properly trained in the use of Gates hose, couplings and assembly equipment.
- › Use correct crimp information. Ensure your assembly equipment is properly maintained and calibrated.
- › Use only (unused) Gates hose and coupling products and Gates assembly equipment. Never mix products from different manufacturers.
- › Use safety glasses and safety protection.



Hose selection and installation.

- › Basic notes and advice are included in this publication.
- › Consult Gates Safe Hydraulics Manual (E2/50092) for detailed selection and installation advice.



Regularly inspect hose assemblies for defects or signs of wear or ageing.

Product life will be influenced by:

- › severity of application;
- › frequency of equipment use.



Avoid injury.

- › Always position a shield between yourself and any pressurised hydraulic lines when working close to hydraulic systems - or shut off the pressure.
- › Never touch or work on pressurised hydraulics or hose assemblies.
- › Do not use hands to check for leaks.
- › Stay out of hazardous areas, including machine operating areas, when testing hose assemblies.
- › Remember that some hydraulic fluids are highly flammable.

If an injury occurs, particularly one where hydraulic fluid may have punctured the skin, seek medical assistance immediately.



Nominal dimensions.

All dimensions are nominal, do not use for inspection. We reserve the right to amend dimensions without notice. Please consult your Gates price list for product stock classification.



Caution!

Gates recommends only those hose and coupling combinations specified in the Gates hydraulic products catalogues. Gates disclaims all liability for any hose assemblies which have not been produced in conformance with Gates assembly recommendations and correct crimp data charts, or are incorrectly installed. Extensive testing has been done to verify the recommendations shown. Evaluation of a hose and coupling combination requires extensive impulse testing and cannot be determined by a simple burst or pressure hold test.

Any claim for defects must follow the RR (Return Report) procedure (information from your sales coordinator), to enable Gates to assess, report and act upon any alleged defect.



Hose Shelf Life

Hose and hose assemblies in storage can deteriorate to the point where they fail immediately or prematurely after being taken out of storage. The storage conditions, along with the rubber materials, can change the shelf life limit. Some hose materials such as EPDM have a tendency to last longer in storage due to the inherent resistance characteristics of the material. But there are many more variables affecting hose storage, making hose shelf life a value that is hard to quantify.

Standards SAE J517, SAE J1273, BS 5244, ISO 2230 and ISO 8331 provide guidelines for hose storage and age control. Refer to these specifications, and note that some storage precautions can support in the optimum shelf life.

Stored hose and hose assemblies must not be subjected to damage that could reduce their expected service life and must be placed in a cool, dark and dry area with the ends capped. Stored hose and hose assemblies must not be exposed to temperature extremes, ozone, oils, corrosive liquids or fumes, solvents, high humidity, rodents, insects, ultraviolet light, electromagnetic fields or radioactive materials.

The storage period should be kept to a minimum, rotation of stock is therefore essential. Hose and hose assemblies must be stored in a manner that facilitates age control and first-in and first-out usage based on manufacturing date of the hose and hose assemblies. Before fitting, all hose assemblies should be subjected to visual examination for evidence of deterioration. The shelf life of rubber Hydraulic hose or Hydraulic hose assemblies that have passed visual inspection follow below recommendation scheme from the date of manufacture. The shelf life of thermoplastic Hydraulic hose or hose assemblies is considered to be unlimited. For non-hydraulic hose applications such as engine hoses and industrial hoses Gates shelf life recommendation is set at maximum 8 years from the date of manufacture.

Test recommendations for hoses	
Age	Recommendations
Up to 3 years	Use without further testing
3 to 5 years	Use after representative samples subjected to a proof pressure test
5 to 8 years	Use after representative samples subjected to proof, impulse and burst pressure tests, and cold bend and electrical tests
Over 8 years	Scrap

NOTES

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A series of horizontal dotted lines for taking notes.