



LIFEGUARD™
LINE-OF-SIGHT PROTECTION



LINE-OF-SIGHT SLEEVING SYSTEM



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PROTECTS EQUIPMENT OPERATORS AGAINST CATASTROPHIC HYDRAULIC HOSE FAILURE

A burst or pinhole leak in a hydraulic system can cause serious problems - especially for anything or anyone located within a one metre line-of-sight.

It can cause:

- Personal injury.
- Fluid burns and injection.
- Fires and explosions.
- Electrical shock.
- Mechanical failure.

Gates has engineered the first sleeving system specifically designed to protect operators, equipment and the environment from the hazards of catastrophic hydraulic hose failure - a level of protection previously unavailable.

The LifeGuard™ line-of-sight sleeving system (patent pending) is an effective, economical alternative to costly metal shielding or re-routing of hose lines. And, it does not affect system performance.

- Provides containment of up to 6,000 psi bursts.
- Protects against 3,000 psi pinhole leaks at 100°C for up to five minutes.
- Handles hydraulic fluids and biodiesel fuel.
- Allows fluid to safely escape down the length of the assembly.
- Creates noticeable spill for hose failure detection.
- Correlates to ISO 3457 and meets MSHA's flame-resistance requirements.
- No other sleeve provides this level of protection.
- Patent pending system includes Gates hose, couplings, sleeve and channel clamps.

HOW THE SYSTEM WORKS

The LifeGuard™ sleeve is slipped onto the hose and clamped at each end. If a hose burst or pinhole leak occurs, escaping pressures and fluids are contained by the exceptionally strong sleeve material. Fluids then exit the system via openings created by the specially designed channel clamps at each end. A noticeable pool of leaking fluid serves as a visual sign that a failure has occurred, so corrective action can be taken immediately to replace the hose assembly.

LIFEGUARD™ SLEEVING CONSTRUCTION

The key to the unmatched protection provided by the LifeGuard™ sleeve is a double-layer of super-strong nylon material. Separate from one another, the two layers are able to slide and move independently to control hydraulic failures.

The inner layer is a specially designed, engineered and manufactured material. It is made of tightly woven filament nylon. This is the strength-bearing material of the LifeGuard™ sleeve which controls the sudden pressure release of hydraulic bursts and pinhole leaks.



The outer layer of LifeGuard™ sleeving is a textured nylon material that further helps to contain escaped fluids and direct them to the ends of the hose for release. It also resists abrasion and other external hazards.



THE CHANNEL CLAMP

Designed specifically for the LifeGuard™ sleeve, this unique clamp securely fastens the sleeve at each end of the hose. In the event of hose failure, the escaping fluids are allowed to safely seep out the ends of the hose via two channels on opposite sides of the clamp. Fluids pool under the clamp locations to provide a visual sign that a failure has occurred.

For more information on the LifeGuard™ line-of-sight sleeving system and the unmatched level of safety and protection it offers, contact your authorised Gates distributor or your local Gates representative.

LIFEGUARD™ RIGOROUS TESTING

The innovative LifeGuard™ sleeving has been rigorously tested both in the lab and in the field to verify its performance and capabilities at typical fluid pressure and temperature levels. While there are no current industry regulations published for this type of product, Gates testing program may be part of an effort to establish future standards for end-user applications.



During 3,000 psi pinhole leak tests, LifeGuard™ sleeving controlled and redirected fluid, while the unsleeved hose allowed high-pressure spraying of fluids in the immediate vicinity of the leak.



The LifeGuard™ sleeve contained and effectively redirected fluid during 6,000 psi burst tests, while the hose without sleeving exploded, releasing a large amount of fluid in the immediate area.

IN LINE WITH INDUSTRY STANDARDS

LifeGuard™ sleeving correlates to a variety of industry standards, including ISO 3457 and MSHA's flame-resistance requirements.

ISO 3457 – Meets the intent of ISO 3457 that requires operator protection within a one metre line-of-sight of any hose conveying fluid above 725 psi at 49°C.

SLEEVING SPECIFICATIONS

DESCRIPTION	FLAT OUTSIDE WIDTH (MM)	FLAT INSIDE WIDTH (MM)	SLEEVE I.D. (MM)	BULK PRODUCT NO.
LG14	36.5	28.2	18	7277-1850
LG16	44.45	36	23	7277-1851
LG20	51	42	27	7277-1852

HOSE COMPATIBILITY

The LifeGuard™ sleeve is fully rated for the following Gates hose.

- Up to 3000 psi for pinhole leak protection.
- Up to 6000 psi for burst protection.

- 4G1
- 4M3K
- 4M3K-MTF
- 4M3K-XTF
- 4M500
- 4M500-MTF
- 4M500-XTF
- 6G1
- 6M3K
- 6M3K-MTF
- 6M3K-XTF
- 6M500
- 6M500-MTF
- 6M500-XTF
- 8G1
- 8G2
- 8M2T
- 8M2T-MTF
- 8M2T-XTF
- 8M3K
- 8M3K-MTF
- 8M3K-XTF
- 8M500
- 8M500-MTF
- 8M500-XTF



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HOW TO ORDER

Order all Gates hydraulic hose products and assemblies through your Local Authorised Gates Distributor. For further assistance in ordering the proper hose for your application, refer to the Gates Hydraulic Catalogue identification number 35093, (view online at www.gatesaustralia.com.au click on catalogues). Your Gates Distributor or Gates Field Sales Representative can provide further help in selection. For in-depth technical support, contact Gates Product Application or email gatestech@gates.com

For more information on Gates hydraulic hose products or to locate an Authorised Gates Distributor near you, contact Gates Customer Service or visit www.gatesaustralia.com.au

Gates Customer Service: 03 9797 9688

WARNING

All hydraulic hose assemblies have a limited life on a given application. Assuming the correct hose has been selected, this service life can be adversely affected by factors including external abuse, excessive pressures, high temperatures, misapplication and internal abrasion. Should a hose assembly fail during use, serious injury or destruction of property could result from propelled couplings, whipping hose, high pressure or high velocity discharge, chemical contact, high temperature materials, explosion or fire. Contact Gates Product Application for assistance and hose recommendations on specific applications and any acid-chemical application above +52°C (+125°F).

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



Gates Australia

1-15 Hydrive Close, South Dandenong, VIC, 3175

PH: 03 9797 9666 FAX: 03 9797 9600 www.gatesaustralia.com.au

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