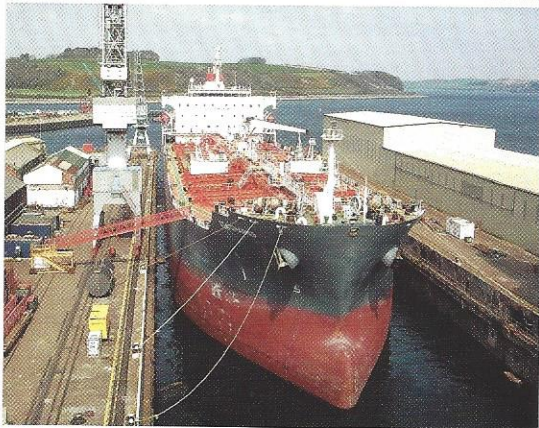


Smart-Hose™

TECHNOLOGIES

We are the *Smart* company securing your weak link to preserve the environment and prevent catastrophic hose failures!



Any Hose, Any Fitting, Any Application



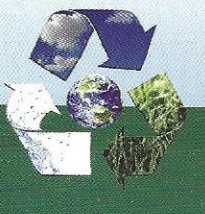
- ┌ Adds an additional layer of security inside your transfer hose.
- ┌ Implementation of our Smart-Hose Safety System may qualify your facility for DOT Relaxed Loading/Unloading Permits.
- ┌ Works equally as well with Hazardous Liquids and Hazardous Gasses.
- ┌ Easy to implement, no special tools or training needed.
- ┌ Most fittings can be reused.
- ┌ Available for both Transport Vehicles and Facility applications.

Hose Assemblies represent the weak link in any hazardous chemical transfer operation. Our *Smart-Hose Technology* will allow your facility to add an additional layer of protection inside the weak link. Smart-Hose is a passive safety device that can lower your risk of a catastrophic accident and may reduce the impact radius of your worst case scenario analysis.

Chemical Transfer
 Petroleum Transfer
 Railroad Car Loading/Unloading
 Tank Trunk Loading/Unloading
 Loading Arm Applications
 Chlorine Transfer
 Ship to Shore Transfer

Pressure Wash Applicatons
 Hydraulic Applications
 Steam Transfer
 Military Applications
 Aircraft Refueling
 Oil Rig Applications

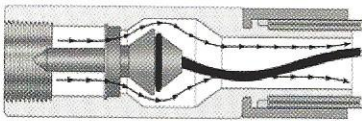
Compressed Gas Transfer
 Industrial Gas Transfer
 Cylinder Filling
 Cryogenic Applications
 Pharmaceutical Applications
 Agricultural Applications



PROM TEC, S.A. DE C.V.

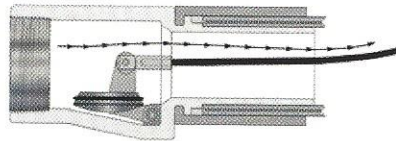
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LPG Propane Transfer Hose Assemblies



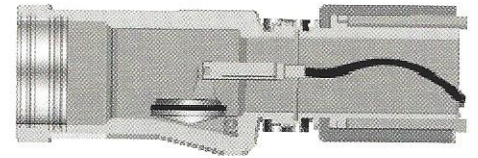
LL1 Design

*Available 1/4" to 1-1/4" ID



LL3 Design

*Available 1 1/2" to 8" ID



LL3-B Design

*Available in 2" ID

Smart-Hose assemblies are designed and engineered with a valve integrated in each end fitting. If the hose assembly experiences a catastrophic hose failure, the Smart-Hose Safety System is designed to instantaneously shut off the flow in both directions. Designed as a passive safety device, the Smart-Hose Safety System needs no human intervention to activate.

The Smart-Hose Safety System is integrated into LPG / Propane transfer hose assemblies and are designed to meet the most rugged applications found in the LPG / Propane Industry. All hose assemblies through 3" ID are designed to meet UL 21 Standards, 4" & 6" are built to BS 4089:1989.

Each hose is tested under water with dry air or nitrogen to working and test pressure

Each hose is serial numbered

Each hose is shipped with a Test Certificate and Operating Booklet

Each hose meets US Passive Shutoff Mandate for MC330/331 Transports

Each hose meets NFPA 58 & 59

316 Stainless Steel fittings are designed for reuse on new hose

Hose Data



- Cover** Black chloroprene ; perforated wrapped finish
- Reinforcement** Multiple textile braids
- Tube** Black Nitrile
- Temperature** -40°F to 180°F
- Maintenance** See Smart-Hose Proper Use, Care, and Maintenance Booklet

| Hose ID Inside Diameter | Working Pressure PSI | Burst Pressure PSI | Smart-Hose Part # |
|----------------------------|-------------------------|-----------------------|----------------------|
| 1/2" | 350 | 1750 | R09004170000 |
| 3/4" | 350 | 1750 | R09006150000 |
| 1" | 350 | 1750 | R09008140000 |
| 1 1/4" | 350 | 1750 | R09010140000 |
| 1 1/2" | 350 | 1750 | R09012320000 |
| 2" | 350 | 1750 | R09016330000 |
| 3" | 350 | 1750 | R01024320000 |



PROM TEC, S.R. DE C.V.

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LL3 Engineering Data



LL3 incorporates an internally coated cable connected to normally unseated “Valve Flappers” located on each end of the cable. If the hose assembly experiences a catastrophic hose failure, the Smart-Hose Safety System is designed to instantaneously shut off the flow in both directions. Designed as a passive safety device, the Smart-hose Safety System needs no human intervention to activate.

- Each hose is tested under water with dry air or nitrogen to working and test pressure
- Each hose is serial numbered
- Each hose is shipped with a Test Certificate and Operating Booklet

Normal Flow—LL3 Valves Open



Coupling Ejection - LL3 Valves Closed



Coupling Data - LL3 is recommended for gaseous flow and liquid applications

| | |
|------------------------------|---|
| Chemical Version | All metal parts are 316 stainless steel |
| HCL Version | All metal parts are Hastelloy |
| Flammable Gas Version | All parts are 316 stainless steel |
| Brass Version | All metal parts are Brass |
| O-ring | All couplings use PTFE Teflon unless other material is required |

| Size | Alloys Offered | End Configurations | Weight / lbs | Length / Inches |
|--------|--------------------|--------------------------------------|--------------|-----------------|
| 1-1/2" | 316-SS | Male & Female NPT, Flanges, Cam lock | 3.4 ea | 4.74" |
| 2" | 316-SS , Hastelloy | Male & Female NPT, Flanges, Cam lock | 4.7 ea | 5.36" |
| 3" | 316-SS | Male & Female NPT, Flanges, Cam lock | 12.1 ea | 8.21" |
| 4" | 316-SS, | Male & Female NPT, Flanges, Cam lock | 20.7 ea | 9.1" |
| 6" | 316-SS | Male & Female NPT, Flanges, Cam lock | 61.5 ea | 12.25" |
| 8" | 316-SS | Male & Female NPT, Flanges, Cam lock | 78 ea | 15" |



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LL3-B Engineering Data



The Smart-Hose Break-Away has been designed to protect your plant's piping and bulkhead from pull-away incidents. Designed to integrate with the Smart-Hose safety system and engineered with a predetermined break point. The Smart-Hose Break-Away can add an additional layer of protection inside your hose assembly while protecting your facility from the devastating consequences of a pull-away accident.

- 360 Degree Engineered Break-away point.
- Rugged shock proof design with annular seals.
- Built in Bumper feature.
- 316 SS Schedule 80 construction.
- Integrated to work with the Smart-Hose safety system
- Rebuildable.
- Custom Engineered break-points for specific applications.
- Meets 5 to 1 burst specifications.
- Currently available in 2" Male NPT or 2" Female NPT.
- Available for both Plant and Transport applications.

Coupling Data - LL3-B is recommended for loading arm applications

| | |
|------------------------------|---|
| Chemical Version | All metal parts are 316 stainless steel |
| HCL Version | All metal parts are Hastelloy |
| Flammable Gas Version | All parts are 316 stainless steel |
| O-ring | All breakaways use PTFE Teflon seals unless otherwise specified |
| Break Seal | Viton / EPDM / PTFE Teflon |

| Size | Alloys Offered | End Configurations | Weight / lbs | Length / Inches |
|------|--------------------|--------------------------------------|--------------|-----------------|
| 2" | 316-SS , Hastelloy | Male & Female NPT, Flanges, Cam lock | 5.1 ea | 5.36" |

