

Flexible, double-wall corrugated pipe system with optional permanent leak detection

General description

The FLEXWELL-HL pipe system is specifically designed for hazardous fluids and gases, such as gasoline, ethanol blends, biodiesel, LPG and other hazardous fluids typically transported in chemical plants. The pipe is used in gas stations underground as well in above ground applications such as marinas and bulk facilities.

FLEXWELL-HL can operated as a suction or pressure systems and can be continuously monitored via suitable and approved leak detection systems.

Construction

FLEXWELL-HL is a flexible pipe system made of corrugated 316L (1.4404) or 316Ti (1.4571) corrugated stainless steel primary and secondary pipes with a reinforcement tape in the interstitial space for elevated operating pressures of up to 360 PSIG (25 bar). The interstitial space between primary and secondary pipe can be used for leak detection. The pipe is corrosion protected by a polyethylene jacket. This polyethylene jacket is UV resistant and withstands typical prevailing temperatures. The stainless steel pipe provides an enduring, impermeable barrier, even with future new fuels or fuel combinations.

Applications*

- Suction pipes
- Pressure pipes
- Fill pipes

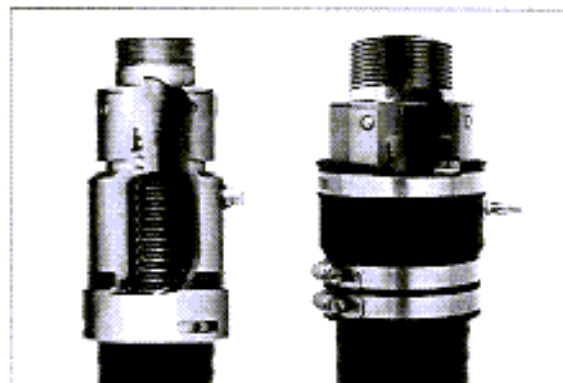
* Subject to compliance with local and national regulations

Sizes and pressure ratings

FLEXWELL-HL is available with an ID of 1 1/2" (ND 32) to 3" (ND 80) for conventional use at an operating pressure of up to 145 PSIG (10 bar) and temperatures between -50 °C (-58 °F) to +50 °C (+122 °F). For gases such as LPG the pipe can be operated at up to 360 PSIG (25 bar) with a special end fitting that connects the reinforcement tape in the interstitial space. The 1 1/2" and the 2" size pipes are available with UL label.

Installation

FLEXWELL-HL is manufactured in factory lengths up to 1,500 ft. FLEXWELL-HL can be laid directly into a trench in one piece following any directions without necessity of intermediate joints or fittings. The corrugated design of the primary and secondary pipes



assure excellent impact resistance while at the same time providing a high degree of flexibility.

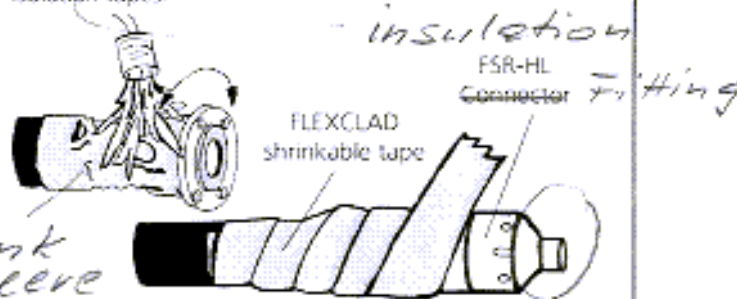
For floating marinas the pipe is typically attached underneath or to the side of the gangway connecting the land to the floating dock. Due to the flexibility of the pipe the pipe can be installed from the storage unit or fill box to the dispenser on the floating dock in one continuous run.

Double-wall joints and Ts

All our joints, T-pieces and other connections are designed for continuous leak monitoring throughout the system.

Corrosion protection

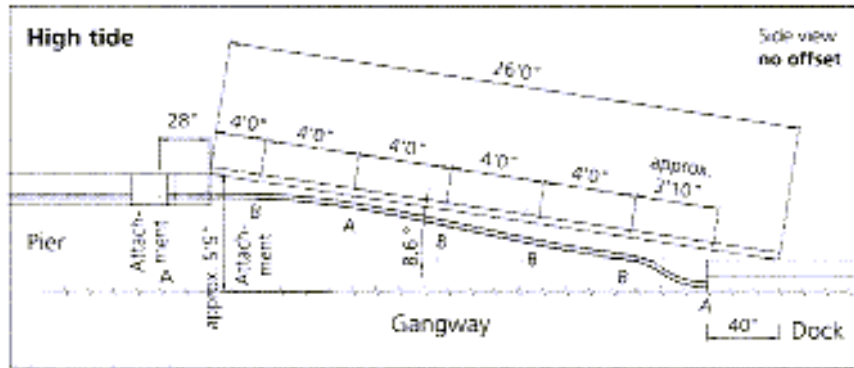
The polyethylene pipe jacket and shrink sleeves or tape for the exposed connection fittings provide further corrosion protection. All metallic parts must be covered by using heat shrinks or heat shrinkable isolation tapes.



Leak detection

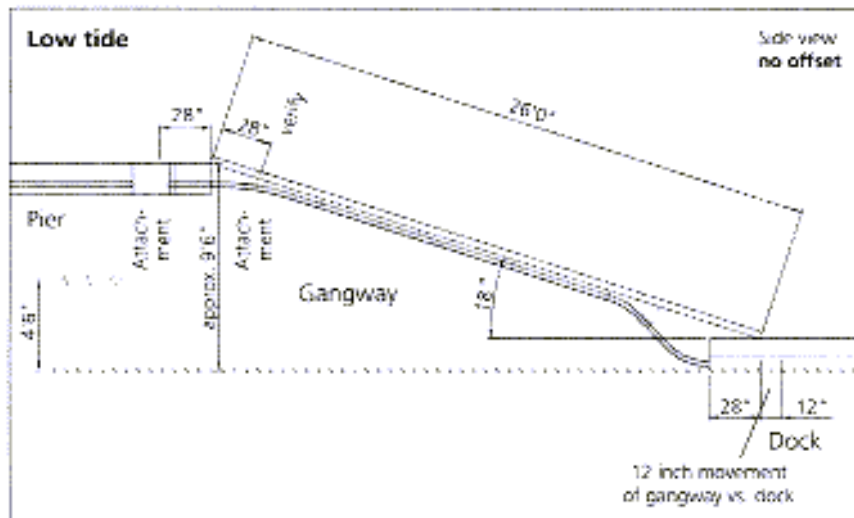
The interstitial space between the primary and secondary pipes is designed for leak detection via either pressure or vacuum, depending on local regulations or operating requirements.

Installation example 1 (typical)



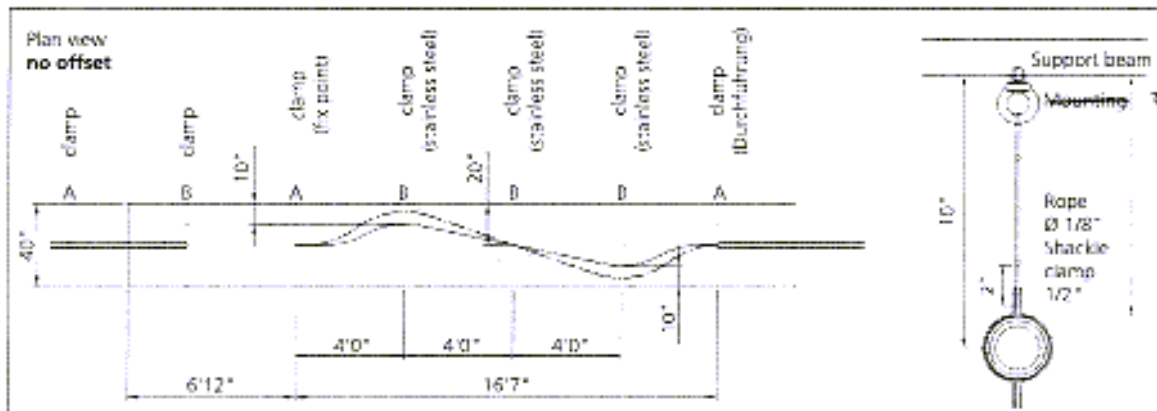
The FLEXWELL-HL pipe provides a continuous, uninterrupted run from storage tank on ~~the~~ land to the dispenser on the floating dock. The inherent flexibility of the pipe compensates for the tidal movement.

The pre-shaped pipe, supported by a ~~corrosion protected~~ *stainless* steel rope, compensates for the longitudinal movement between gangway and floating dock caused by the tides.



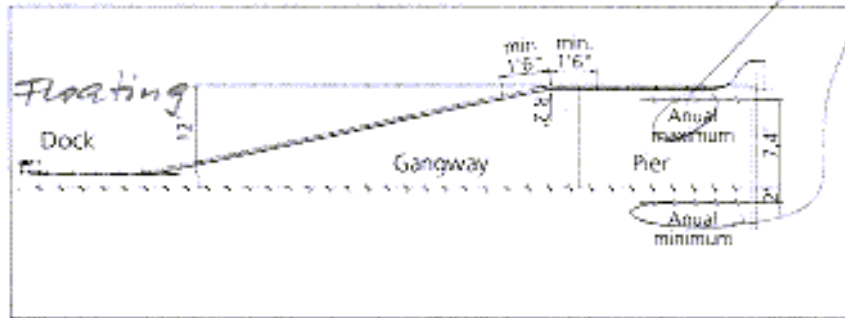
The "S" is preformed on land prior to the installation. It is preferred to create the bends with a special bending machine.

A = Fixed support
B = Flexible wire rope support
all radii R = 32"/40"



This is a typical fuel pipe installation for floating marinas. For actual cases please ask for specific layout.

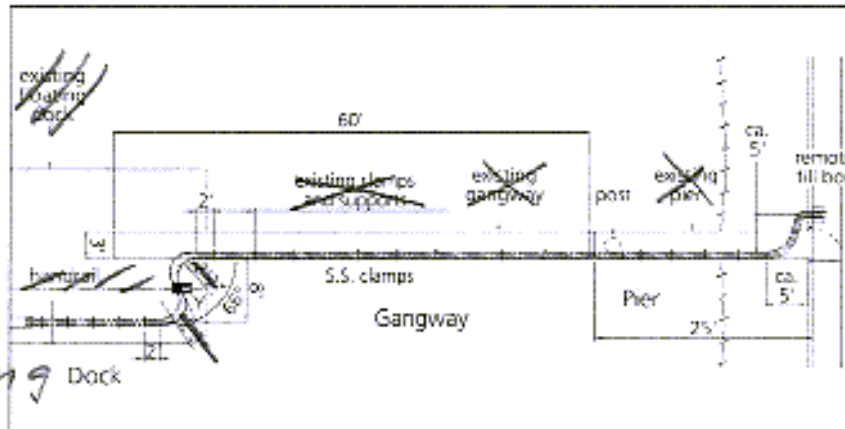
Installation example 2 (typical)



The FLEXWELL-HL pipe provides a continuous, uninterrupted run from storage tank on the land to the dispenser on the floating dock. The inherent flexibility of the pipe compensates for the tidal movement.

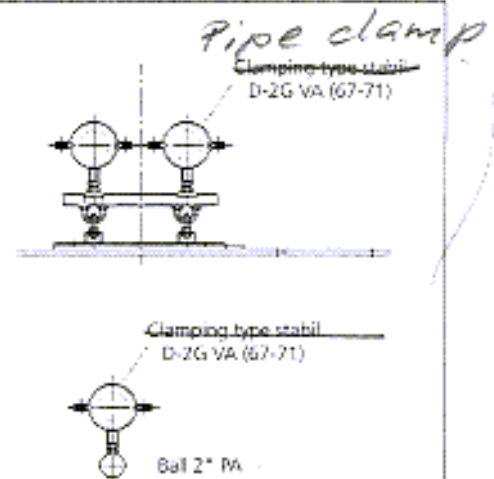
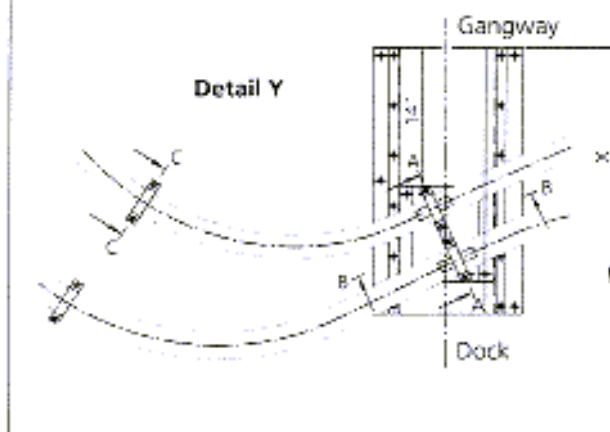
The pre-shaped pipe and the special compensation slide take up the longitudinal movement between gangway and floating dock caused by the tides.

The "S" is preformed on land prior to the installation. It is preferred to create the bends with a special bending machine.



A = Fixed support
B = Flexible wire rope support
~~all other R = 30" MIN~~

Compensation slide



This is a typical fuel pipe installation for floating marinas. For actual cases please ask for specific layout.