

# Rosemount 2120 Leakage Control on Double-Walled Tanks

## RESULTS

- Reliable leakage control
- Spillage protection - peace of mind
- Fit and forget

## APPLICATION

Leakage detection of hazardous chemical liquids in storage tanks with surrounding bund wall water jacket. The chemicals are stored at atmospheric pressure and temperatures up to 68 °F (20 °C).

## CUSTOMER

Customers storing hazardous chemicals

## CHALLENGE

When storing corrosive, harmful, and toxic liquids, frequent use is made of double walled tanks, which have the advantage that, in the event of a leakage, the product is not spread out into the external atmosphere.

Apart from the need to quickly detect the presence of a tank-wall leak, it is important to be able to discriminate between a leakage of the inner or a leakage of the outer tank-wall.



Figure 1: The Rosemount 2120 vibrating fork level switch has no moving parts meaning minimal maintenance.

***Apart from the need to quickly detect the presence of a leak, it is important to be able to discriminate between a leakage of the inner tank-wall or a leakage of the outer tank-wall.***

**SOLUTION**

The tank is sunk into a subterranean bund designed to take the entire contents of the tank in the event of catastrophic failure. The water level between the walls of the tank must be lower in comparison to the level of the liquid within the tank. A ‘high level’ 2120 is installed with the forks between points A and B as in Figure 2. A ‘low level’ 2120 is installed below point B.

In the event of failure of the inner tank, the water level within the skin will rise and trigger a high level alarm. In the event of an outer tank failure, the water level in the skin will fall thus triggering a low level alarm. By using appropriate (P + F or MTL) relays in a two-wire system, it is also possible to discriminate between the appropriate alarm and cable break.

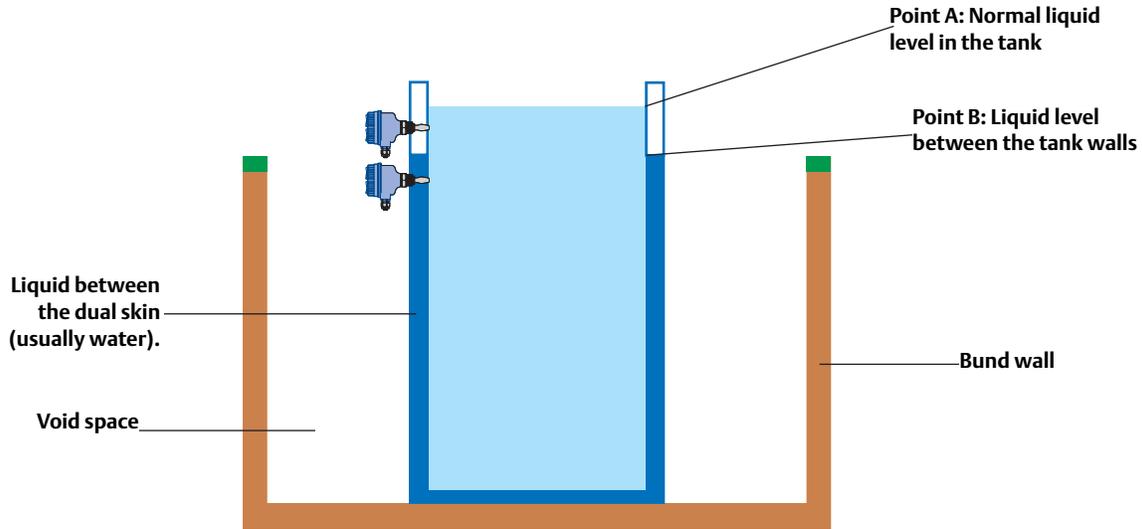


Figure 2: Rosemount 2120 mounting diagram for successful leakage control

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