



Description

The vertical surge tank is a H₂S service vessel designed to store liquid hydrocarbons after separation. The tank is used to measure liquid flow rates, as well as the combined shrinkage and meter factor. It can also be used as a low pressure second stage separator; it can hold a constant backpressure by using automatic pressure control valve on the gas outlet,

The surge tank consists of a single compartment vessel and a level measuring system with sight glasses. To prevent overpressure and overfilling, the tank is fitted with pressure safety relief valves and a high and low level alarm system.

Features

- ✓ Suitable for H₂S environments.
- ✓ Automatic control valve on the gas outlet line maintains a constant pressure in the vessel.
- ✓ Protected against overpressure by two safety relief valves.
- ✓ Sight glasses with graduated scale to monitor level change & calculate volume based on tank dimensions.
- ✓ High and low level audible alarms for liquid level monitoring.
- ✓ Bypass manifold allows isolating surge tank from flow process.
- ✓ Fitted with sampling points, pressure and temperature ports.
- ✓ Equipped with jet breaker and vortex breaker on the oil line.

Benefits

- ✓ Allows temporary oil storage before being pumped to burner when separator pressure is not sufficient.
- ✓ Allows storing liquids when large samples are required.
- ✓ Allows calibrating separator liquid meters for mechanical error.
- ✓ Allows the calculation of shrinkage factor for volume correction,
- ✓ Can be used as secondary low pressure separator, to provide additional de-gassing before being pumped to a storage Barge.

Specifications

ASME VIII Division 1 / ANSI B31-3 100 bbl (16 M1)

Capacity 80bbl at 50psi

-29 to 100°C (-20°F to +212°F)

H₂S as per NACE MR01-75

Gas from tank flared if sour gas. Can be vented if sweet gas