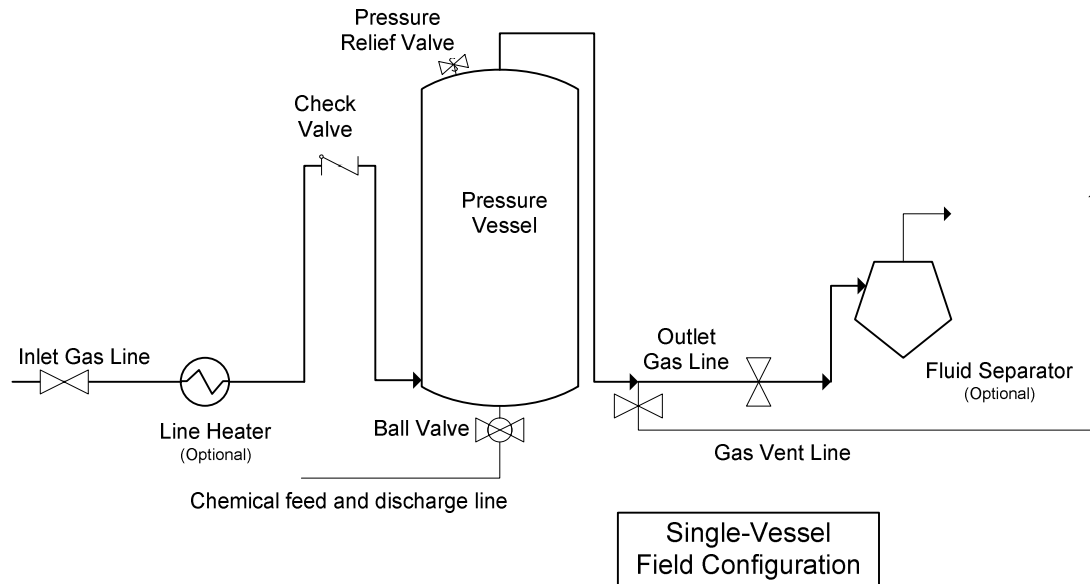


Field Installation Instructions



Heliodor Solutions' units remove hydrogen sulfide from natural gas streams. The above diagram represents a typical field installation with a single vessel.

The gas stream entering the treatment vessel cannot contain any free liquid, such as water or liquid hydrocarbons. If present, they must be removed by a separator. Under certain conditions, a line heater may be required after the separator to raise the gas temperature before it enters the pressure vessel.

The vessel should be placed on a concrete pad. The natural gas passes through the inverted U bend in the pipeline before it enters the vessel. The U-bend should be approximately 3/4 the height of the vessel. Gas enters near the bottom of the vessel and exits the top. A pressure relief valve must be included on the vessel, or on the pipeline exiting the vessel. The exit (sweet) gas line must have a vent, with the vent valve preferably at a level easily reached by the operator. Ideally, the vent line should run along the ground away from the vessel then rise 10 feet in the air so the vent gas escapes away from the operator, or be plumbed into a vent tank.

A liquid separator after the H₂S treatment vessel is optional and may be added to prevent fluid from traveling down the pipelines in the unlikely event of a system upset. If a dehy unit is needed, it must be installed **downstream** of the treatment vessel and separator.

The gas stream exiting the vessel is monitored for H₂S, which is easily accomplished by using an inline detection device or a drager type tube. The H₂S reading is used to determine when the chemical solution needs to be replaced.

The above system does not include any storage for fresh chemical or spent solution. HS-1500 solution is pumped directly from the delivering trailer into the pressure vessel. The spent solution is either pumped into a Class II injection well on site or hauled off for disposal. If the spent solution will be pumped into a storage tank or produced water tank before disposal, ensure that there is a T on the line to the storage tank to provide the option of discharge directly into a wastewater truck.