

V-tex[®]

for the management of vent gasses from liquid storage tanks

Technology
for a
Sustainable Future

The use of tanks for the storage of liquid chemicals, solvents and fuels is commonplace in most industries around the world. During everyday operations, these tanks have to deal with many changes in temperature, pressure and vacuum conditions, any of which can cause problems for the operator.

The routine transfer of liquids to and from the storage tank is one cause of potential problems. This transfer changes the liquid volume within the tank. As a result, the vapour in equilibrium with the stored liquid must either contract or expand to fill the space available. Even when liquids are not being transferred, changes in pressurisation will occur due to the expansion and contraction caused by the differences between day-time and night-time temperatures. Unless there is some form of venting fitted to the storage tank, excessive pressure and/or vacuum accumulations in the vapour space will lead to serious tank damage.



V-tex[®] is a highly efficient scrubbing technology which provides solutions to issues such as these and offers many other benefits as well as protecting your storage tanks.

- One V-tex[®] system can manage the off-gases from many storage tanks
- V-tex[®] scrubs at very high efficiencies at all gas flow rates, even where variations in flow rate occur
- V-tex[®] is proven to successfully capture acids, alkalis, polar VOC's and odours
- V-tex[®] gives scrubbing efficiencies of >99.9% for acid and alkali gases
- Using V-tex[®] can lead to considerable cost savings due to the reduced loss of stored product through evaporation
- All V-tex[®] units are made in materials that are suitable for the off-gas being treated



Stored product quality

- Product quality is maintained as the risk of product dilution through evaporation, and the risk of cross contamination from adjacent storage tanks, is eliminated
- When the tank is breathing out, V-tex[®] scrubs the vapours from the vent gas
- When the tank is breathing in, V-tex[®] can scrub potential contaminants from the incoming ambient air e.g. dusts, particulates and water vapour

Safety

- In an emergency situation such as a fire, the vapour released from a storage tank may increase rapidly as the air surrounding the storage tank and the chemical itself begins to increase in temperature. Due to the unique way V-tex[®] operates it is able to start-up at its maximum efficiency immediately on request, thus stopping pressure build up and ensuring safety
- Due to the constant, intense mass transfer that V-tex[®] generates during its scrubbing operation its efficiency is not affected by variations in gas flow rates
- As V-tex[®] cannot block, pressure-relief and vacuum-relief are automatic
- Its low pressure-drop design prohibits dangerous overpressurisation in both fibre glass and plastic storage tanks

Low standing costs

- As V-tex[®] can start-up instantaneously it has no standing costs associated with its emergency operation
- Due to the way V-tex[®] operates, having no moving parts and using no packing to achieve its high gas removal efficiency, it requires virtually no maintenance

Low installation costs

- V-tex[®] is compact and lightweight thus making it easy to retrofit - either at ground level or on top of the storage tank.

Some applications of V-tex[®]

- Acid/Alkali gas scrubbing
- De-dusting
- De-odourising
- Gas quenching
- Emergency gas scrubbing
- Tank vent scrubbing
- Air stripping
- Steam stripping
- Fuel gas cleaning
- Halogen scrubbing
- Particulate removal
- Biogas cleaning

