

# V-tex<sup>®</sup>

for fuel gas cleaning

Technology  
for a  
Sustainable Future

Generating electricity from waste is an expanding industry. A key method fuels engine driven generating sets with gas derived from various sources by either hot or cold processes. To ensure good engine life and reliability the fuel gas needs to be clean. Our V-tex<sup>®</sup> equipment provides a reliable and flexible way of ensuring the gas is clean.

## Hot gasification fuels

Gasification of waste bio-materials (eg. wood chips) produces a hot fuel gas that is cooled and cleaned before being fed into an engine driving a power generator. As the gas is cooled the tars present begin to condense (usually 90-120°C) forming viscous sticky liquids that cause fouling.

V-tex<sup>®</sup> offers the power plant engineer a self cleaning, high-efficiency, compact heat-exchanger that will remove all condensibles ahead of his blower or compressor.

## Cold gas fuels

Biofuel gases can be produced from sewage works, landfill sites and by the anaerobic digestion of organic waste materials. These gases are cool so contain fewer condensibles. Instead, they contain other compounds that can foul blowers, compressors or engines including sulphurous compounds (eg. H<sub>2</sub>S, mercaptans) or VOCs (eg. styrenes, xylenes). Once again, the power plant engineer needs a self-cleaning, high-efficiency, compact reactor that will remove these compounds from the fuel gas.

V-tex<sup>®</sup> can remove any of these by careful selection of scrubbing-liquor.

V-tex<sup>®</sup> 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.

- V-tex<sup>®</sup> scrubs at very high efficiencies at all gas flow rates, even where variations in flow rate occur. This means you can optimise your engine performance without worrying about the gas-cleaning.
- V-tex<sup>®</sup> is proven to successfully capture acids, alkalis, polar VOC's and tars
- V-tex<sup>®</sup> gives scrubbing efficiencies of >99.9% for acid and alkali gases
- Using V-tex<sup>®</sup> can lead to considerable cost savings due to the reduced loss of product through evaporation
- All V-tex<sup>®</sup> units are made in materials of construction that are suitable for the fuel-gas being treated



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## Fuel gas quality

Engine or turbine downtime.

- Cleaner gas means greater generator availability;
- Cleaner gas means fewer maintenance stops
- Cleaner gas means lower maintenance costs
- V-tex<sup>®</sup> removes tars, H<sub>2</sub>S, BXT, etc
- V-tex<sup>®</sup> means cleaner gas.

## Safety

- Due to the constant, intense mass transfer that V-tex<sup>®</sup> generates during its scrubbing operation its efficiency is not affected by variations in gas flow rates.
- As V-tex<sup>®</sup> cannot block, pressure-relief and vacuum-relief are automatic

## Low standing costs

- As V-tex<sup>®</sup> can start-up instantaneously it has no standing costs associated with its emergency operation
- Due to the way V-tex<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup>

- 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

