



LEAK DETECTION

Industrial Leak Detection



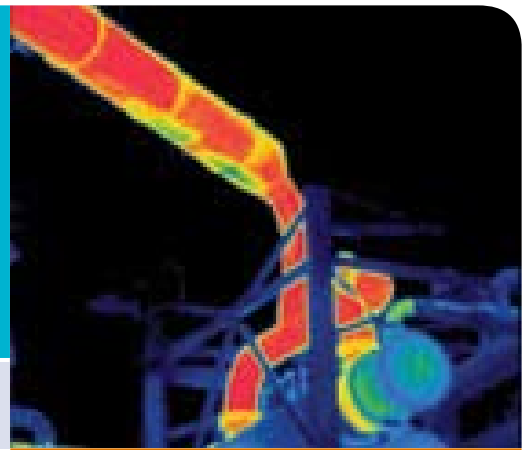
Property Damage Restoration



Temporary Humidity Control



Property Damage Prevention



APPLICATION

Overview

Munters leak detection service provides a non-destructive solution to finding hidden leaks. In contrast to traditional methods of large-scale excavation, Munters utilise specialist equipment coupled with technical expertise to locate hidden leaks quickly and accurately, saving both time and money.

Munters MCS offers vast knowledge experience and technical expertise in the total drying of the inside of gas pipes following hydraulic testing and pipeline maintenance during the shutdown of refineries.

Having supplied pipeline maintenance solutions and services to more than 20 industries globally Munters understands that liquid droplets within pipelines can cause severe technical problems. Applying this knowledge most pipelines require a target dew point between -30°C and -50°C , below atmospheric pressure.

Through the use of high pressure units, Munters is able to dry pipelines to reach target dew points, irrespective of pipe diameter and external landscape.



Our faster repair period mitigates against interruption.

Munters uses the latest proven techniques such as acoustic profiling, thermal imaging, endoscopy, Euroform or tracer gas technology to identify the location of leaks. A Munters' technician will use one, or a combination, of specialist techniques to investigate the cause of the leak and identify possible sources.

Using this equipment makes it possible, in the majority of cases, to locate the leak to within a small area. This location will be clearly identified so that the leak site can be excavated and repaired, with minimal cost and disruption.

In most chemical or petrochemical processes, gas streams contain droplets. These droplets are caused either by condensation after cooling, generated by liquid injection in absorption or gas scrubbing processes, or by carry-over in evaporator processes.

To eliminate the droplets in these processes, highly efficient mist eliminator systems are important. These help to:

- Optimise chemical and petrochemical processes by eliminating the presence of undesirable liquids
- Prevent pollution after evaporation
- Recover valuable liquid droplets found in the recycling process
- Restrict emissions from pollution control processes like scrubber systems and flue gas desulphurisation installations
- Prevent corrosion and erosion of gas turbines, air inlets and compressor stations.



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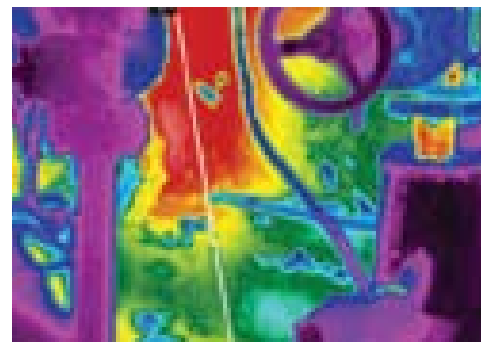
PROCEDURE

Every project is undertaken by a trained engineer and Munters has a number of specialist techniques for leak detection which include:

- Acoustic detection, which uses sensitive microphones to enhance the sound of the leak and locate it precisely
- Pressurised tracer gas is used when leaks are either too big or too small for acoustic detection. The gas is pressurised into the pipe and detected above ground level by hydrogen sensitive probes
- Boroscope/endoscopy cameras are used to investigate places invisible to the eye, for example cavities and service voids

- Thermal imaging, involving the use of cameras, is used to detect hot/heating pipe leaks. The camera works on temperature differentials and defines heat patterns through various materials
- Water and salts analysis; carried out on samples taken from the site to determine whether the water is coming from tap or soil evaporation
- Moisture investigation surveys, pipe tracing and drain dye testing are also used in the pipe leak detection process.

Prior to application, Munters specifies a course of action based on a study of plant and process requirements. Following this a detailed specific engineering proposal is produced.



The latest proven technologies are employed.

RESULTS

The competence and experience that Munters' technicians offer, guarantees that the most appropriate process is identified and used, resulting in leaks being effectively located and prepared for excavation. This reduces potentially costly and problematic damage.

BENEFITS

- Munters' techniques identify and repair areas of concern. The project report highlights potential areas for monitoring, including an annual inspection to identify areas that have been repaired, in order to monitor deterioration
- Application specific development to customers' needs, including modelling and demonstration
- A non-destructive testing solution
- Increased detection speed of all types of leaks
- Cost effective
- Faster repair period which mitigates interruption
- Quality Assurance to ISO9001 standards.



We can optimise chemical and petrochemical processes by eliminating the presence of undesirable liquids.

