



WATER DAMAGE RESTORATION

Flat Roof Drying



Property Damage Restoration



Temporary Humidity Control



Property Damage Prevention



APPLICATION

Overview

If left unchecked, roof leaks can lead to damage in the roof and throughout the building, with the most serious and costly scenario being a total replacement of the roof and ceiling below.

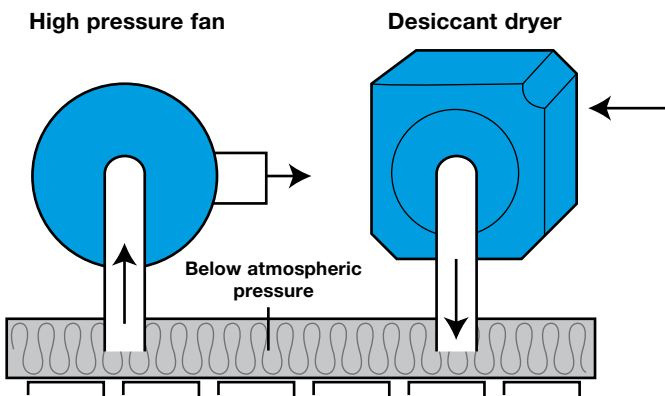
A 500m² flat roof could cost around €37,700 to replace.

To take up roofs and remove wet insulation is an expensive and lengthy process. The business interruption and loss of trade associated with such a scenario could prove to be catastrophic, however it is entirely avoidable.

Munters' drying solutions have effectively negated the need for substantial reconstruction work through faster response times, the deployment of efficient drying technologies and effective management of the project. While drying operations may take days or weeks, reconstruction often means months of disruption.

Whatever the cause of water damage, the secondary effects such as mold growth, corrosion and structural deterioration can be potentially more significant than the initial damage itself. Munters technicians have expertise in drying all kinds of environments, quickly and cost effectively returning facilities to pre-incident condition.

Using the latest technologies to detect temperature differences in the roof material, our technicians can identify areas of trapped moisture and damaged insulation, enabling customers to take the appropriate action whether that be a minor repair or in the worst case scenario - a completely new roof. This detection method is both non-destructive and quick. For example a 500m² roof can be scanned and assessed in as little as four hours.



Drying solutions negate the need for expensive replacement.



Rapid installation of equipment.



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APPLICATION (CONTINUED)

Flat roofs are level or slightly slanted and are designed as heavy or lightweight, single or double-shell flat roofs, serving a variety of functions:

- Ventilated roofs – which are insulated or double-shell roofs
- Inverted roofs – where the insulating layer is on top of the roof covering, which also serves as the vapour seal. The insulating panels have to be covered with gravel or paving tiles to prevent them from floating to the surface
- Non-ventilated roofs – non-insulated or single-shell roofs. The individual layers of the roof construction are in direct contact with each other and the entire construction serves as thermal insulation
- Duo roofs – a special version of the non-ventilated roof whereby the insulating areas are beneath the waterproof roof covering.

Munters tailor their drying process to suit any type of roof construction, for example, in non-insulated roofs and duo roofs it is often necessary to locate leaks to determine the exact location of the leak and repair it.



Drying equipment in place.

PROCEDURE

In preparation for technical drying, the required inlet and outlet ports need to be installed in the waterproof seals by a specialist. Using advanced measuring methods, Munters can dry the insulating layers of roof constructions without complication after water damage has been detected.

A critical factor at the time of drying is the temperature. During winter months there is a risk of water entering the roof construction due to temperatures below the dew point, producing the exact opposite of the desired drying effect.

Munters use a combined suction/pressure process. The dryers use the inherent pressure of the dryer to blow the dried air in and remove the humidified air at the suction ports by means of turbines. Electric interlocking of the equipment used is necessary to ensure that the dryer shuts down together with the turbine in case of an outage. This process is especially important for roofs that are not weighted down or only lightly weighted down because the relatively warm dry air of the adsorption dryers could blow up the outer roof covering like a balloon.

Constant monitoring of the drying process is conducted throughout the duration of the project.



A fully restored dry roof.



A targeted patch of damaged material.

RESULTS

A solution to many problems – not only can Munters detect the leakages and make a complete inspection of the customers' roof, giving an exact picture of the damage, but the technique also puts an end to wet insulation in flat roofs.

Turnkey service – Construction technicians can be on-site within hours of a call. A comprehensive written evaluation prior to appointment will specify the solution and the rate of drying will be monitored throughout the project.

BENEFITS

- Prevents growth of mould and other destructive microbes
- Cost-effective solution because instead of tearing down and replacing the roof at high cost, the entire roof construction is restored
- Efficient and environmentally friendly
- Non-destructive solution
- Less disruptive solution than competitors.