



# MicroDrop®

## Care Home Providers

Dr. Werr-Heim Elderly Care Home, Nürnberg - Germany

### The Challenge

The move into a care home is usually precipitated by an adverse health event, such as a stroke or fall, or result from a more gradual decline in health, such as the increasing memory loss and confusion associated with dementia.

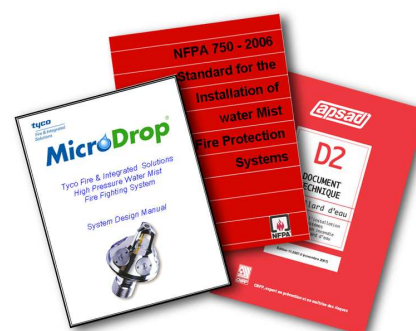
Care homes catering for these patients face a number of challenges. In addition to providing high quality medical support for residents with reduced mobility, strength, vision, and hearing and failing cognition, they must provide them with social activities with the wider community, choice over where to spend the day, and opportunities for privacy.

All of these challenges create intensive health and safety regulations for care home operators to provide a safe and secure environment to protect their frail residents from the threat of fire.

Faced with these challenges, the operators of the Dr. Werr-Heim elderly care home approached the Total Walther GmbH design team to provide a fire protection solution that would exceed the fire safety building requirements of their refurbishment programme, safeguard their residents from the threat of fire and maximise the business continuity opportunities of their 'Daily Work Schedules'.

In order to meet these demanding requirements, the Total Walther GmbH design team designed a MicroDrop® High Pressure Water Mist System to protect the resident's bedrooms, toilet facilities, community lounges, TV rooms, and all public spaces to OH1 sprinkler equivalency.

This system was designed to NFPA 750 based on an approved full scale fire test EN TS 14792 CEN for Ordinary Hazard Group 1.



# tyco

Fire & Integrated Solutions

*The intelligent use of water...*

## HEALTHCARE

# MicroDrop®

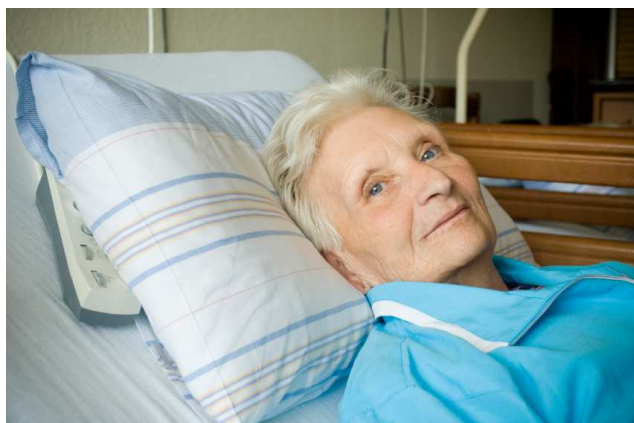
## What were the unique benefits of using MicroDrop® for this project?

In the event of a fire, only the MicroDrop® nozzle closest to the seat of the fire operates. It discharges high pressure water mist into the fire in a pre-determined spray pattern at an average of 12 - 27 litres per minute compared with 60 litres per minute from a conventional sprinkler head.



The high pressure water mist discharge from the very fine water droplets has extremely unique benefits for care home operators. It rapidly cools and suppresses a fire whilst simultaneously 'Scrubbing' or 'Knocking down' smoke particles. This feature significantly reduces the threat of smoke permeating through to other areas of the care home.

This process in turn, creates a 'Safe Air Environment' for other frail or immobilised residents who may need to be safely evacuated from the area until the fire has been fully extinguished following the arrival of the fire brigade.



*The intelligent use of water...*

The minimal amount of water used by the MicroDrop® system in the event of a fire significantly reduces the threat of water damage reaching other areas or floors especially within large or 'High Rise' care home buildings. This feature reduces the time taken for 'Post Fire' clean up requirements and enables other 'Business Critical' activities in 'Non Fire' areas of the care home to continue without disruption.



Equally important is the fact that the ultra-fine MicroDrop® high pressure water mist droplets significantly reduces the threat of fire water damage to high value "Special Care" bedroom and facilities containing vital intensive care electrical equipment.



**tyco**

*Fire & Integrated Solutions*

## HEALTHCARE

# MicroDrop®

## What we did and how we did it

To prove the functional efficiency of the MicroDrop® system design and illustrate how unobtrusive the pipework and nozzles would be when fitted into the care home, the Total Walther GmbH design team installed MicroDrop® within two typical care home bedrooms.



This installation gave the Dr. Werr-Heim care home operators a valuable insight as to how the MicroDrop system could be successfully integrated within their building.

After carefully reviewing this installation and witnessing fire test validation videos, Total Walther were awarded the contract to install the MicroDrop® system throughout the entire care home.



*The intelligent use of water...*

The system comprised of a series of MicroDrop® nozzles fitted into a distribution network of stainless steel pipework.

The water supply to the nozzles was provided by a High Pressure Water Mist skid mounted Pumpset containing the HPWM pumps, water supply tank and control panel.



The system was designed to provide a water supply to suppress and control a potential fire for a minimum period of 30 minutes until the arrival of the Fire Brigade.

A series of MicroDrop® Zone Directional Valves were fitted into the system to direct the required flow of water from the High Pressure Water Mist skid mounted Pumpset to the exact location of a fire.



### For further information contact

Total Walther GmbH  
 Feuerschutz und Sicherheit  
 Sachsenallee 24  
 01723 Kesselsdorf  
 Tel.: +49 (0)35204 9710  
 Or visit our website at [www.totalwalther.de](http://www.totalwalther.de)

**tyco**

*Fire & Integrated  
Solutions*