

Protection of Industrial Oil Fryers with Watermist

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Bio Intro: Hans is the Manager of the Technical Service and Training department for Water Mist Systems. In this role Hans is the Technical Trainer and Support contact for internal and external customers to develop new opportunities for today's and future developments in the water mist industry.



Hans Schipper from Johnson Controls International (formally known as Tyco Fire Protection Products) is based out of Enschede, the Netherlands. Hans, with a background as a mechanical engineer in the process industry started his career with JCI more than 12 years ago as a Technical Service Engineer for fire suppression systems. Through the years he primarily focused on water mist and sprinkler systems and got promoted from Engineer to Manager of the Technical Service and Training department for Water Mist Systems. In this role Hans is the Technical Trainer and Support contact for in and external customers to develop new opportunities for today's and future developments in the water mist industry.

Abstract:

Industrial fryers are cookers commonly used in the food industry to produce consumables, such as chicken nuggets, potato products and pre-cooked snacks. They contain large amounts of cooking oil (up to 19,000 litres or 5,000 US gallons) and operate at temperatures of up to 354°C (670° F). This combination of extreme heat and fuel source can create a significant fire risk. Fire can occur if oil reaches its auto ignition temperature (AIT), or if ignition sources are introduced above the flash point. Large volumes of oil, once heated, maintain high temperatures and therefore fire risk for a long time. Cooling the oil is critical to help avoid re-ignition. Fire incidents in the food industry tend to be especially costly due to stringent food hygiene policies and the mission critical nature of the fryer. For the food industry it is vital to find a fire suppression method that is safe, environment friendly and cost effective. Watermist fire suppression solution checks all these boxes and delivers more in terms of effective fire suppression for the food industry.

Watermist offers high cooling effect for industrial oil fryers with less water consumption. It also has reduced downtime and minimized clean-up costs. To bring more value to the use of water mist for these applications we will present the benefits why to choose water mist, looking to the aspects as mentioned above. This will be backed by Industrial Oil Fryer projects protected with low pressure water mist and the challenges faced and solved.