

## CASE STUDY



### United Utilities TUBE VENT UNITS



#### What was the problem?

New storm tanks have been installed in and around Oldham. Vents were needed to allow air to be drawn in when the storm tanks were emptied and air to be pushed out when they fill up. When this air leaves the storm tank it could be odorous and this needed to be prevented from being released into the air where people are as this would be very unpleasant.

The challenges were:

To meet the client's requirements of designing and manufacturing a passive carbon filter unit. The client required the units to be installed above the new Storm Tanks and treat the odour from the odorous air that left the Storm Tank through a carbon filter designed to remove the odorous compounds before the air is expelled into the surrounding atmosphere.

Concern on manual handling when it came to media changes.

Manufacturing difficulties.

Very short lead time.



#### How did OSIL approach the challenge?

Based on the volume of air that would be displaced, the diameter and the height of each tube vent was decided on after a dispersion model had been created. The construction material that was decided upon was uPVC/GRP. Each tube vent stack was designed with manual handling in mind with the height from the ground level to center of the carbon media pod/shuttle being 1305mm from ground level. In addition, the position on the media pod/shuttle was sized to be no more 20kg. The weight along with the position allows the carbon media to be manually handled safely when doing a media change but equally still effective at removing the odour from the odorous air.

Following design approval, the tube vents were manufactured to a very tight timeline. We kept the client informed throughout regarding the progress being made which enabled them to plan their own works in a timely manner.



## How did the Client win?

This design ensures that the tube vent effectively allow fresh air to be drawn in and odourless air to be expelled into the surrounding area while also ensuring that the future maintenance can be undertaken on each unit with as little risk to the operatives as practicable.

An Operations & Maintenance manual was produced for the Tube Vent Units to help the Clients Engineers understand the system and perform regular maintenance themselves.



## OSIL Comments

We would be pleased to have the opportunity of working with Lima employees again as it was a pleasure on this project with the communication between both parties being regular which enabled us to work effectively together. We would welcome other opportunities for OSIL to do future work for Lima.

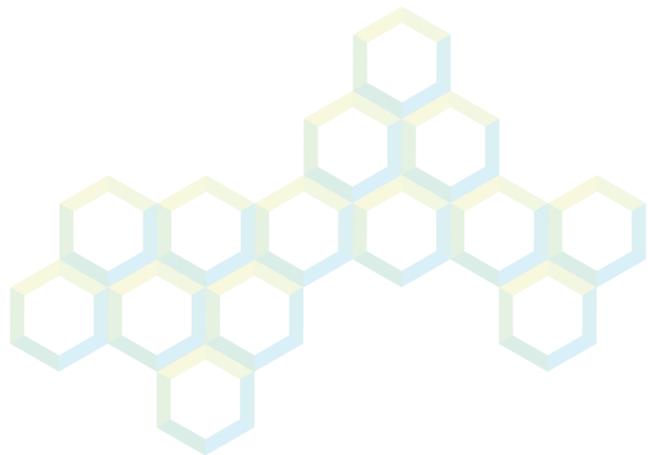


## Downloadable content

[OSIL Brochure](#)

[Service & Maintenance Brochure](#)

[LavaRok Media Data Sheet](#)



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