



SAFETY BULLETIN



Blocked bitumen delivery pipework – Potential Solutions

The issue

Reports by Eurobitume UK delivery drivers of blocked and partially blocked bitumen pipework at asphalt plants are increasing. Blocked pipelines are potentially very dangerous as the blockage can result in pressure retained in the pipework. This can result in a spray of hot bitumen when the delivery driver uncouples the flexible hose from the delivery flange.

The cause

Retained pressure in the pipework may be the result of:

- Poorly designed pipework with too many bends.
- Inadequate vent capacity.
- Cooling of the bitumen due to cold pipelines.
- Build-up of carbon deposits in the pipework.
- Inadequate clearing of pipelines following a bitumen delivery.



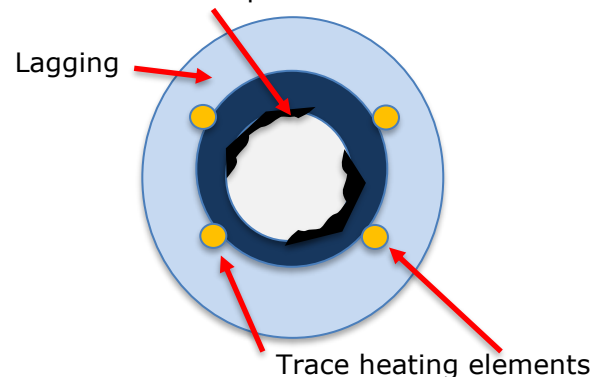
A solution

One solution to reduce the incidence of full or partial blockages is to install trace heating around bitumen delivery pipelines. If trace heating is well controlled it will provide an extremely effective way to manage the free flow of bitumen within the pipework avoiding time consuming and expensive blockages.

The trace heating should be:

- Set around the minimum pumping temperature of the bitumen being delivered.
- Timed to come on between 1 and 2 hours before the bitumen is delivered.
- Timed to turn off approximately one hour after completion of the delivery.

Risk of carbon deposits if overheated



If the above recommendations are followed this will aid the flow of bitumen through the pipeline, avoid build-up of carbon deposits and significantly reduce the instances of residual pressure in the delivery pipework at the completion of the delivery.

A risk assessment should be carried out, utilising assessment tools such as HAZOP, to determine the most appropriate solutions for each individual delivery site.

Further information

Eurobitume UK toolbox talks on blocked pipework and trace heating can be downloaded free of charge from www.eurobitume.eu.

Your bitumen supplier would be delighted to discuss these issues with you.