Access, Maintenance and Operation of Vacuum Pumps

Below are some common problems that are encountered with Vacuum Pumps and possible solutions:

Difficult Access: Many vacuum pumps are tucked away in corners, making access difficult. The perfect installation would be on a concrete slab, outside the shed, with space around the pump and with any easy to remove lean too roof. Good access is required for the following reasons:

- Testing at the pump inlet. The pump needs to be able to be isolated from the pipework, with enough space for testing equipment. This way you can trouble shoot quickly is the pump at fault or the pipework?
- Removal for repair. Pumps weigh from 80-250kg so from a health and safety point of view no one should be lifting pumps without lifting gear. Many sheds don't have lifting equipment and access to the pump creates even more difficulties. The penalties for work place injury are high and the farm owner is liable if you hurt yourself on his property. It is worth discussing access and lifting equipment changes with the shed manager and planning a fix!

Electrical Hazards: Vacuum pumps should have electrical isolation available to enable safe maintenance to take place. The perfect installation would be 3 phase plugs (PDL 56 series with switch). This would also allow for easy installation of hire pumps. Not an expensive fix but could save a life!

Water supply for liquid ring pumps: Water supply tanks must be set up with the correct capacity and flow. Check manufacturers specifications for the individual pumps to ensure this has been done or there will be pump problems.

We have found 99% of pump failures are due to faulty installations – it is worth the time and effort to get it right!

Author: Paul Vickers - Blower & Vacuum Solutions Ltd T/A mbar