

Service and Maintenance Packages

Breather Vents



Conservation breather vents perform an important role in the control of emissions to the environment, retention of product quality and reducing corrosion rates of the tank and surrounding equipment. Unlike higher pressure control devices which are regulated by ISO 4126 or ASME VIII, conservation vent performance and maintenance guidelines are less well publicized but equally as important. The pressures are not so high but colossal loss of containment as a consequence of structural tank failure is a life threatening event.

Level 1 (Service Code: BV01): Inspection and clean. We follow a checklist of items beginning with a 'health check' and tool box chat with the client at their premises to check that the vent is sized and set to within the tank design parameters. If this is not the first visit we ask if anything has changed since the last inspection. Changes affecting the performance of the vent could include an increase in pump size or changes to the stored media. We then remove all internal components and inspect them for wear, corrosion and overall condition. This includes a detailed review of the weight package, soft goods and seat faces. All debris is removed from the body and the vent is reassembled and wire locked. A report is written detailing vent identifications, settings, Service Engineer, items checked and general observations made.



Level 2 (Service Code BV02): All elements detailed in level 1 plus the vent will be removed from its location. We begin with a review of the original manufacturers test certificate if it is available. If not we calculate the required setting package weight using first principles which is backed up by a physical relief test. We visually inspect the soft goods and overall condition of the weight package. This is followed by a check of the physical weight of the weight package assembly using calibrated scales noting the optimum weight compared with the actual weight recorded. We then reassemble the vent and mount it onto our mobile calibrated leakage test rig and record the leakage rates in accordance with ISO 28300. All performance figures are recorded on a test certificate.

Level 3 (Service Code: BV03): Generally done at the Assentech workshop. All activities to be done in accordance with level 2 above but a new nameplate is fitted and the option to change the vent set point is available.

Additional services include painting of steel vents to a number of corrosion resistant finishes, gel coating of fibreglass vents and fitting opening sensors.



Loading Arms

Loading arms are critical logistical components in the safe transfer of hazardous fluids. They must be light to handle, leak tight, reliable but above all safe.

For many of our customers their loading arm is used daily for loading/off loading stock media that is critical for the smooth running and profitability of their business. In many cases there is no alternate means of fluid transfer if the arm comes out of service. To function efficiently and safely the arm must be balanced with free moving but tight sealing swivels. The coupler and/or control valve must be simple and safe to activate.

Safe management of the loading arm requires that it is maintained and inspected regularly. The simple construction and good design of loading arms regularly results in them being excluded from routine maintenance programs. This is often a conscious decision by operators who cannot allow the arm to be out of service for more than a few hours.

Many arms are hard connected to the tanker while loading and drivers are fallible. A drive off can result in difficult to repair damage to pipe work and control valves. This damage usually renders valves inoperable resulting in massive loss of containment with catastrophic consequences for personnel and the environment.

Swivel seals have a service life counted in years as long as it is compatible with the process and lubricated regularly with the right grease.

Assentech can offer a maintenance program to ensure the arm is reliable and safe. Service inspections can reveal potential problems such as seals beginning to weep or seize. Our focus will be on the performance of the arm and how we can keep it in service, leaving the customer to focus on manufacturing and logistics. We offer the following maintenance:-

Level 1 (Service Code LA01): Service or repair individual swivels at the customers premises but not requiring total removal of the arm.

Level 2 (Service Code LA02): Removal of the arm and full refurbishment of the swivel assemblies and pressure test on site.

Level 3 (Service Code LA03): Serviced at Assentech premises and includes the capability to replace sections of loading arm if required.



Break-away Couplings

Assentech can provide KLAH break-away couplings to protect a loading facility from the aforementioned consequences of a drive off. The break-away coupling is a critical safety device and requires periodic maintenance inspections. This coupling has the potential to be used as a fundamental safety mechanism for all Tier 1 COMAH (Control of Major Accidents and Hazards) sites in the UK. It is a key shield to protect the business from lost production, the environment from uncontrolled spillages and workers from explosive hazardous fluids.

Transfer of hazardous chemicals requires an engineered solution that ensures personnel remain safe during loading. The key benefit of an engineered coupler over a bolted flange connection is speed of activation. There remains applications where bolted flanges are still the standard solution due to the dangerous nature of media being transferred, however Assentech can offer a solution for almost every application using high integrity quick release couplers. Far safer than bolted flanges these devices can offer dry break operation and key coding that will ensure mismatching of arms/hoses. The Epsilon coupler is a peerless design offering unparalleled levels of safety with all the benefits of quick release functionality.

We have accumulated a vast amount of experience on the application of break-away couplings which provide an engineered self sealing weak link in the loading arm. It is essential that the coupling is robust enough to withstand the rigours of daily loading procedures but designed to activate before damage occurs to the facility.

Assentech are the only approved KLAH service and maintenance (KTAC) provider and we can offer a support package to ensure continued performance and reliability.



Level 1 (Service Code BC01): Site inspection. This is to check if the break stud tensions are holding up .

Level 2 (Service Code BC02): Replacement of any worn parts and routine change-out of fatigued components.

This includes replacement of old or fatigued pins and seals. Followed by pressure test and certification.

Hose Testing

Level 1 (Service Code HT01): Site testing. Annual hose test to confirm hose integrity. Completed at the customers premises.