

Cogeneration / CHP

The Equipment

Cummins QSK60 & QSV91 Gas Engines

The Challenge

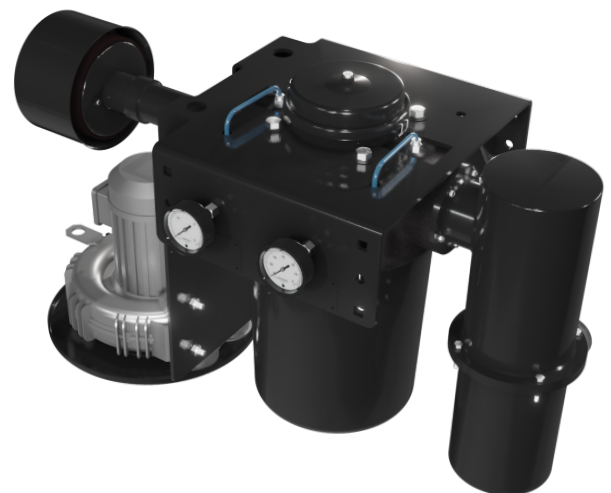
An engine service group is responsible for maintaining and servicing many different engines. For a handful of Cummins engines, the crankcase ventilation systems were under-performing, even failing. They tried many different styles and types of closed crankcase systems with no success. These systems had minimal element life and high crankcase pressures. Low-efficiency elements did not provide the needed protection for the turbo and aftercoolers, therefore, service costs were increasing.

The Solution

Solberg offered an ACVB active demister unit with a high-efficiency filter element and integrated vacuum regulating valve. This valve automatically controls crankcase pressure and regulates a specific amount of suction in the crankcase. The unit is insulated with a thermal jacket to avoid the formation of emulsion.

Results

The engines are seeing a constant negative pressure in the crankcase of $-2.5\text{mbar}/-1''\text{ W.C.}$ The lifetime of the filter element is exceeding 5000 hours. The turbo and aftercoolers are protected and staying clean and oil free. Downtime and service costs have been reduced.



Rev: CQSK60 ACVB US0420K

Solberg Products Provided

ACVB-80136-PS-J

Advanced Crankcase Ventilation with blower, optional pre-separator and insulation jackets for both the main housing and pre-separator.

The Product

The ACVB is designed to protect your engine's turbo, coolers, and inlet air filters as well as help ensure environmental compliance while keeping engine rooms clean, safe and free of oil mist. The series comes standard with industry leading automated vacuum control technology to regulate crankcase pressure and prevent seal leakage. The replaceable filter element contains a proprietary media pack offering exceptional efficiency levels with an extremely long life, allowing operators up to one year before an element change is required.

ACVB Design Features

- Integrated vacuum control valve to automatically maintain a 0-1" W.C. vacuum/suction level in the crankcase
- Drop down bucket for easy element change-out
- Minimal required drain mounting height (from Solberg canister drain port to high oil level of waste oil console)
- Gauges supplied as a standard to easily monitor vacuum level and filter life (change-out values listed on nameplates)
- High efficiency coalescing element – 99.97% @ droplet and particle size of 0.3um and larger
- Make up air is brought in downstream of coalescing element to provide maximum coalescing element longevity. Make up air is also filtered
- Vacuum relief valve as a standard
- Utilizes regenerative blower as suction source

Previously Installed Unit:

