

Cogeneration / CHP Engines

The Challenge

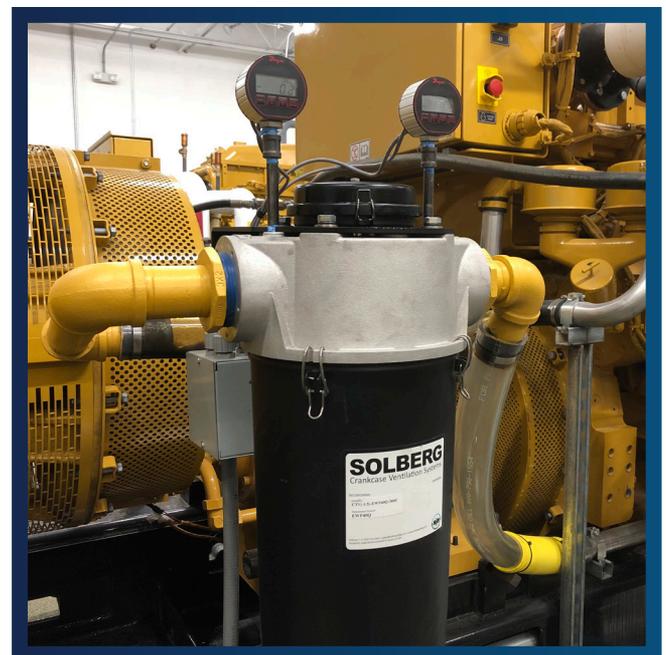
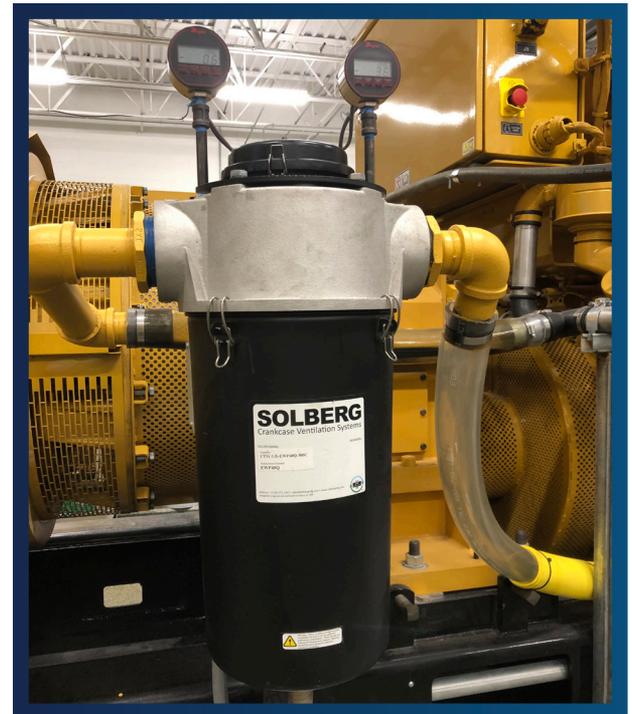
A power systems dealer was looking for a reliable closed crankcase solution. This was a new installation for three Caterpillar G3512E natural gas engines in the Mid-West United States. These engines were to be used in a CHP application.

The Solution

Solberg scheduled multiple on-site visits to review installation details and provide installation location recommendations. Solberg provided its ACV Series Advanced Crankcase Ventilation System. This includes Solberg's vacuum regulation technology. The Solberg vacuum regulation valve maintains a precise range of vacuum that is best in the industry. This ensures the vacuum levels are at an acceptable range per the OEM's specifications. After calculating the crankcase blow-by and drawing on field tests, one unit would be required per engine. Solberg provided a specific kit that included digital gauges.

Results

With constant communication throughout the entire project, the three Solberg ACV units were successfully installed. They are currently running without any challenges. The high efficiency coalescing filter successfully captured the oil mist and drained it back to a Solberg waste oil console. The ACVs were run in the closed configuration and provided the clean, filtered, crankcase blow-by back to the intake manifold along with a consistent level of vacuum in the crankcase.



Rev: G3512E-US1903K

Solberg Products Provided

ACV-1-40-300L

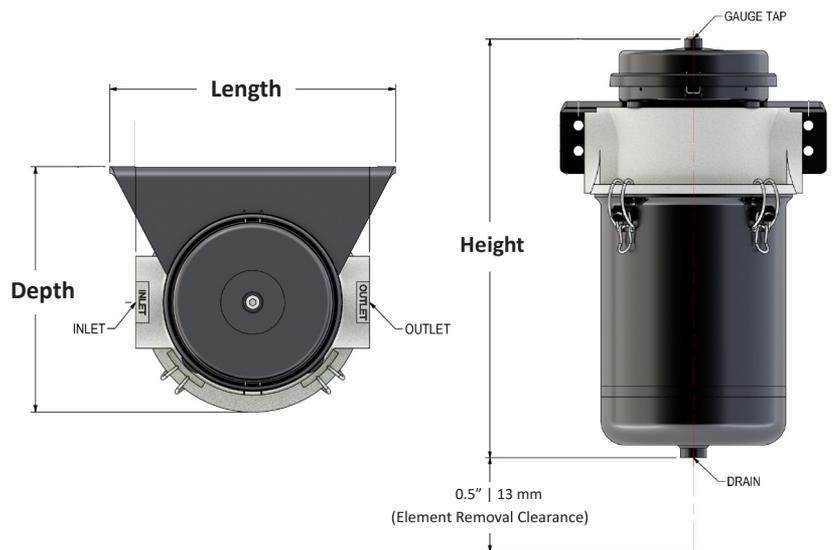
Advanced Crankcase Ventilation System

ACV2910, ACV2911

Drain kits with waste oil console.

The Product

The ACV 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 & 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.



ACV Design Features

- Eliminates visible emissions (99%+ efficient at 0.3 um)
- High performance coalescing elements offer long life
- Flow ranges from 2 - 40 CFM (3 - 68 m³/hr) for single units
- Integrated vacuum control valve controls precise range of vacuum
- Diaphragm vacuum regulation valve design, no springs; no manual vacuum adjustment required
- Drain port for oil recovery
- Universal mounting bracket
- Available with installation kits
- Optional atmospheric bypass

PART NUMBER	ACV-1-40-300L/R
INLET/OUTLET	3" NPT
DRAIN	1" NPSC
GAUGE TAP	.25" NPSC
FLOW RATE	40 CFM 68 m ³ /hr
HEIGHT	28.6" 718 mm
LENGTH	10" 254 mm
DEPTH	14.7" 374 mm

