



CASE STUDY: AUTOMATED GENSET LUBRICATION SYSTEM

APPLICATION: OIL SKID PACKAGE

Reliable lubrication is essential to keeping generator sets (gensets) operating efficiently and preventing lube-related failures. For this application, FLO Components designed and supplied an automated lubrication system that continuously monitors and delivers oil from a storage reservoir to the gensets and operates with minimal operator involvement.



THE FLO SOLUTION

FLO's Genset Lubrication System combines automated oil delivery, automatic tank replenishment, filtration and continuous monitoring into one integrated system.

Automated Oil Delivery

Oil is stored in a 2,500L reservoir and supplied to the gensets through a dedicated pump and distribution system. The supply pump operates based on system conditions, with level and temperature information continuously monitored by the control system. The customer's PLC manages the system through connections provided in the electrical junction box. This allows operators to monitor system conditions and use the available information for control and diagnostics.

Automatic Refill

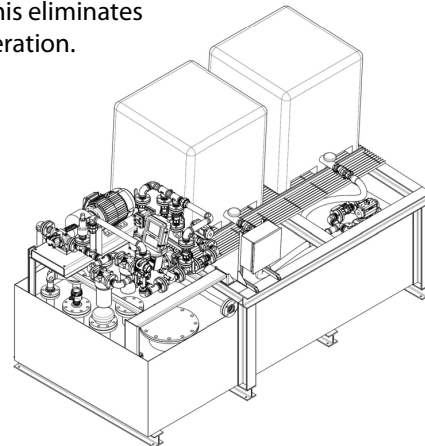
The system is designed to automatically maintain the oil level in the storage tank. Two IBC totes are placed on top of the storage tank and connected to the system. When the tank reaches its low-level set point, a high-precision radar level sensor signals the PLC which opens a flow valve, allowing oil to be transferred from the IBC totes into the main storage tank. Once the tank reaches its high-level set point, the PLC closes the flow valve automatically. This eliminates the need for operators to manually monitor and refill the main tank during normal operation.

Continuous System Monitoring

Several sensors provide the PLC with information about the system while it is operating:

- Radar level sensor - monitors oil level in the 2,500L tank.
- Pressure transmitter - monitors oil pressure in the system.
- Temperature sensor - monitors oil temperature.
- Flow sensor - monitors flow of oil to the gensets.
- Pressure relief valve - protects against overpressure.

This information allows for continuous system monitoring and helps identify operating conditions that may require attention.



Oil Filtration

Before oil reaches the gensets, it passes through a parallel filtration assembly designed to keep the oil clean. Both filters operate simultaneously during normal operation, helping minimize pressure drop through the system. Manual override valves allow operators to redirect flow when required for filter servicing or other controlled maintenance activities.

Emergency Manual Fill

Although the system is designed for automatic operation, a 1½" manual spring-return ball valve provides an emergency filling option. The valve remains closed during normal operation and can be used when a controlled manual fill is required.

FLO RESULTS

The FLO Genset Lubrication System provides a controlled, reliable, automated and continuously monitored oil supply that helps protect critical equipment, reduce maintenance requirements and keep gensets available for operation.

***For Total Lube Solutions,
GO WITH THE FLO!***

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