



CASE STUDY: AUTOMOTIVE ASSEMBLY PLANT

APPLICATION: STAMPING MACHINE

This automotive assembly plant was using a stamping machine to produce metal plates. The press on the machine would slide up and down on four cylinder shafts, which required lubrication. When the customer approached FLO, the machine was being lubricated manually via a central manifold outside the machine cell, with the four points requiring grease remote-lined out to the manifold.

Unfortunately, scheduling problems and other issues often meant the lubrication wasn't getting done. Furthermore, the customer was planning on ramping up run-time on the machine from one 8-hour shift to a 24-hour shift and could not afford a machine failure. They wanted a lubrication system that would grease the machine automatically as the machine operated. They also wanted the system to be tied into the press' PLC so that lube failure and low lube level alarms could be easily monitored.



THE FLO SOLUTION

FLO installed an Automatic Lubrication System that would feed grease directly to the existing grease manifold. The System consists of a Lincoln QLS® 24 VDC Series pump package with a 1L grease reservoir, SSV positive displacement grease metering valve, hydraulic hose and all the fittings, hose couplings and ferrules required to connect to the manifold. FLO removed the existing grease fittings on the manifold, put in adapters and connected supply lines directly from the SSV valve.



System Features:

- The QLS® Series pump includes an integrated adjustable timer for trouble-free operation and maximum flexibility to quickly adjust grease frequency to suit any location, environment or requirement. In this application, the pump timer was connected to the press' PLC to remotely monitor the system for alarms, from the PLC.
- Grease delivery to bearings is monitored by a proximity switch connected to a cycle indicator pin on the SSV grease metering valve. When the system cycles, the indicator pin shuttles back and forth and the proximity switch alerts the machine PLC.

With each cycle, LED lights on the pump controller board go on, allowing for quick and easy visual monitoring of system performance as well.

- A grease pressure gauge on the main supply line also provides visual indication a successful lube event has occurred and aids in troubleshooting and system diagnostics.
- The System is supplied with a back-up remote, manual, high-pressure lubrication fitting. In the unlikely event of a pump failure, the SSV valve can still be greased through the back-up grease fitting.
- This System is suitable for most off-the-shelf North American lubricants up to an NLGI #2 rating, allowing the customer to use the lubricants they already purchase.



FLO RESULTS

FLO's completely reliable automatic lubrication system keeps the stamping machine up and running and making money, with reduced downtime, reduced maintenance time, better housekeeping and increased machine reliability.

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

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