



Belvac Production Machinery Technical Bulletin

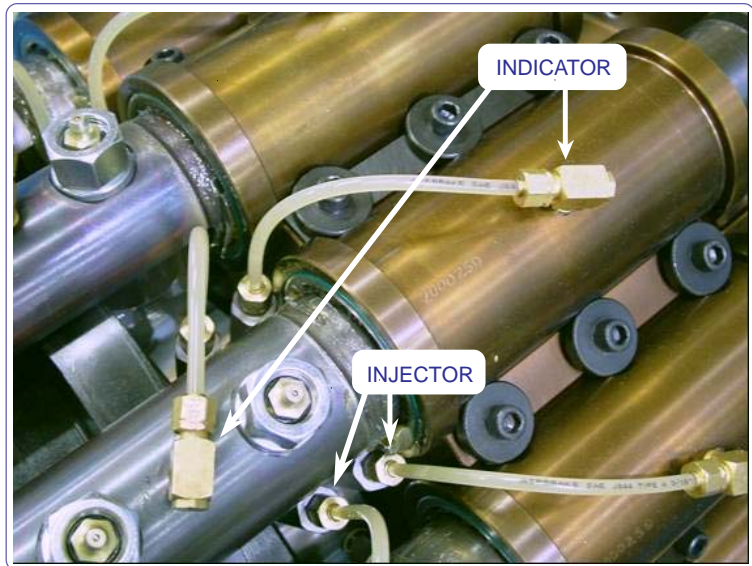
Information for Customers Operating & Maintaining Belvac Machines

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595 Necker Systems - Graco (Lubriquip) Indicators

In April 2006, Belvac discovered a malfunctioning issue with the Graco (Lubriquip) brand indicator: the indicator stem would not extend during a grease cycle event. This was not an isolated issue, as the malfunction was apparent on many indicators. Although the indicator was not verifying grease flow, it clearly passed grease to the final bearing point, in the same fashion as a typical elbow fitting.

Field and in-house verification confirmed the injectors functioned properly: grease was provided to the final bearing point.



At the onset of the discovery, Belvac involved our supplier Lubriquip (since then purchased by Graco Inc. in July 2006) to determine the root cause.

After months of evaluations and testing, the problem was isolated to a post-processing step in their manufacturing cycle, causing the clearance between the pin and the bore to grow. With the increased clearance, grease entering the indicator flowed around the pin, as opposed to pushing the pin forward: thus grease reached the final bearing point without visible indication from the pin itself.

Graco (Lubriquip) has corrected the processing issue, and has supplied fully functional indicators for all machines shipped since November 2006. As part of their quality review, they inspect every indicator by verifying proper pin actuation with a grease charge -- replicating the same process it undergoes on Belvac's 595K equipment.

In addition to the above, Belvac has changed the stiff "black" tubing to a more compliant "clear" tubing, enabling maintainers to see grease in the lines, and ensure air bubbles have been effectively purged.

Contact Belvac Service for replacement information on existing machines.

In accord with the latest Technical Bulletin on Lubrication Requirements (Issue 07, Vol. 09, July 2006), a simple overview is provided as follows:

- ◆ Belvac Recommends ExxonMobil's Mobilux EP1 Grease for the Auto Lubrication System.
- ◆ Autolube Grease Pulse System Settings:
 - Activate the pump solenoid once every 384,000 pulses (384,000 cans for every lubrication event).
 - For a 595K machine averaging 2400 CPM this equates to a lubrication event every 2.67 hours.
 - For a 595SK machine averaging 3000 CPM this equates to a lubrication event every 2.13 hours.
 - Each lubrication cycle requires 5-minute "On-Time" of the pump solenoid when the autolube pressure switch meets system pressure (1250 - 1500 PSIG / 87-105 BARS): the 5 minutes will guarantee sufficient time to activate all injectors in "cold ambient" conditions. The "Off-Time" is 384,000 pulses as stated above.

Contact Belvac Sales or Service Representatives for additional information.

All Technical Bulletins may be viewed on Belvac's web site, www.belvac.com.