



## APPLICATION STORIES

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### **APPLICATION: PUMP DIAPHRAM LIFE**

A manufacturer of metal soup cans located in New Jersey uses (8) 2" air diaphragm pumps to transfer the product which is used to line the cans. The suction of the pump is attached to the bottom of a 35' tall tank.

### **PROBLEM:**

The air-operated diaphragm pumps are fitted with expensive PTFE diaphragms. The diaphragms were failing prematurely which resulted in loss of product, excessive downtime, and expensive part replacement. Additionally, leakage was occurring at the pump's clamping bands and the pumps were noisy during operation.

### **SOLUTION:**

After reviewing the pump's inlet conditions, it was determined that the 35' tall tanks created excessive inlet pressure. Air operated diaphragm pumps are not designed to handle high inlet pressure above 10 psi maximum for PTFE diaphragms. This high inlet pressure also caused the pump's inlet valves to work harder to close which resulted in damaging pump vibrations and excessive noise.

After explaining to the customer that a BLACOH Inlet Stabilizer installed at the pump inlet would cushion and absorb the pressure spikes created by the higher inlet pressure, he was still skeptical. A copy of the BLACOH demonstration CD was provided which proved conclusively that the high inlet pressure was damaging the pump's diaphragm.

A BLACOH model J2400T stainless steel inlet stabilizer was installed at the pump's inlet.

### **RESULT:**

Flow into the pump is now smooth and pulse-free. Diaphragm life is much longer and pump operation noise is greatly reduced. They were so pleased that a second stabilizer has been ordered.

### **SUBMITTED BY:**

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