

CUSTOMER INDUSTRY

Plastic Injection Molding.

THE APPLICATION

Squeeze chute system used to push a highly viscous silicone-rubber compound through a chute into an auger prior to being injected into form molds.

THE PROBLEM

The pneumatic cylinder used to push the silicone-rubber compound into the auger was improperly sized and lacked the pressure to consistently push the compound through the auger and into the molds. This inconsistency caused major issues in the user's production process as some of the compound was not fully pushed out of the auger, causing system jams which resulted in increased maintenance and repairs. More importantly, since the pneumatic system wasn't fully pushing the compound into the molds, the user had major output and production issues as inconsistent amounts of compound caused imperfections in the final product.

THE SOLUTION

The customer needed to increase pressure within their system in order to properly push the silicone-rubber compound into the molds. However, installing a pneumatic cylinder capable of the necessary pressures would require a cylinder too large to fit into the system. The Controlled Fluids representative noticed that the customer had an unused hydraulic power unit that could supply the necessary power if the pneumatic cylinder was replaced with a hydraulic cylinder. Using the customer's HPU for power, Controlled Fluids replaced the existing pneumatic cylinder with a hydraulic cylinder.

THE RESULTS

Not only did the solution provide the required power to effectively push the compound, but also provided the customer with a smaller cylinder that could do more work. Furthermore, the customer saved money by repurposing their old HPU to work with their squeeze chute system. The increased pressure

from the hydraulic cylinder fully pushed the compound to the molds instead of leaving residue within the system, which greatly reduced downtime caused from jams. In addition, the customer reduced imperfections in the final product as all of the silicone-rubber compound was reaching the molds.