

Streamlining and Simplifying the Washdown Process

Enidine Air Spring Application

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Product Overview

A California based manufacturer of construction supplies for the dairy industry (SIC 3523 and 5083) needed to redesign and automate its dairy flush valve product. The grated valve, designed to block drainage systems during livestock washdown, is installed under a floor to protect plumbing, and can swivel to redirect water where necessary. The customer's initial valve design featured manual drain blockage, which was inconvenient for the end user. Having learned of ITT Enidine Inc. through one of our West Coast distributors, the customer approached us for assistance.

Product Solution

For the valve to properly automate, a wide actuation range within a relatively small space was required. This parameter made the application particularly challenging. The customer's first attempt at automation involved use of a competitive Air Spring product that was unable to provide effective results. ITT Enidine Inc. determined that, for the valve to consistently actuate, the product solution would have to offer a much wider retract vs. extend ratio than was initially employed. The Air Spring would also have to be able to withstand the harsh dairy environment, typically characterized by frequent intermittent usage, exposure to harsh solvents and variant temperature ranges. After extensive analysis ITT Enidine Inc. recommended the use of our YI-1B8-560 Air Spring, for proven consistent performance. As an actuator, ITT Enidine Inc. Air Springs can accept a variety of media, including air, water, nitrogen or antifreeze, and can provide either linear or angular motion, depending on the application. The ITT Enidine Inc. Air Spring was the only tested product solution that enabled the customer to achieve successful valve automation.

Application Opportunity

As a result of successful implementation, ITT Enidine Air Springs have replaced the competitor product in drain design specifications. The utilization of ITT Enidine Inc. Air Springs, in similar applications where space is limited and extended movement is required, has proven an effective means of solving customer vibration isolation challenges. This application illustrates the versatility of the Air Spring product, and its potential for utilization in other unique product solutions. Any dairy industry construction supply manufacturer could benefit from the use of this ITT Enidine Inc. technology.

