

Shock Absorbers Reduce Field Service and Improve Circuit-Breaker Reliability

Enidine Energy Absorption Application

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Application Overview

A major circuit-breaker manufacturer (SIC 3699) had been utilizing gas springs as an integral control component for contacts within its power system. Usage of the product in that manner was creating premature field failure, part replacement difficulty and unacceptable performance in outdoor conditions.

As circuit breakers control power distributions within hospitals, schools, data centers and telecommunications facilities, the need for component safety was also of particular importance. Having learned of ITT Enidine Inc. through our distributor, the customer approached us for a solution.

Product Solution

ITT Enidine Inc. recommended the use of our PRO Series hydraulic shock absorbers for this application. These self-contained products offered solid, repeatable performance and operated well over a wide range of temperatures.

To meet specific application needs, ITT Enidine Inc. added a customer-designed piston cap that improved durability in rotary installations, with high impact force and minimal pivot radius. Our engineers also used fluid suitable for outdoor ambient conditions, as ITT Enidine Inc. wanted to take every possible measure to ensure that the product was functioning well in all environments.

Application Opportunity

Customer performance expectations were surpassed with the first installation. The ITT Enidine Inc. solution replaced existing product for initial build, and the customer designed field replacement kits for existing gas spring installations. As a result of this successful implementation, the customer noted a significant decrease in service calls from operational failure of contacts within the circuit breaker. It is estimated that this solution has saved nearly \$10,000 to \$20,000 per year on labor and replacement part costs. All major circuit-breaker OEMs with heavy commercial or industrial switch gears could benefit from this ITT Enidine Inc. application.

