

Smooth Operation of Turnstile Enidine Rate Control Application

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Situation Overview

A Metro subway system in Mexico uses turnstile to control the flow of people in and out of subway and train station locations. The maintenance department, which repairs and refurbishes the turnstiles, was continually replacing gas springs used within the turnstile mechanism.

The gas springs were used to control the movement and damping characteristics of the access bar during operation. Due to the high cycle rate and broad temperature range that the turnstile operated in, the gas springs were exhibiting inconsistent performance.

These high maintenance costs were unacceptable to the Metro. They needed a solution with longer cycle life and reliable performance through a broad temperature range. The solution also needed to be a direct drop-in replacement that could not interfere with any existing components in the turnstile.

Product Solution

Through its local distributor, ITT Enidine Inc. recommended the use of two modified RC Series rate controls. One unit is used as a damper and the second functions as a combined damper/actuator to assist the return of the access bar.

The modified RC Series units fit well within the package constraints and produced a smoother operating turnstile. The wide temperature operating capacity of the RC units provides greater reliability when subjected to the varying conditions of the subway system. The hydraulic rate control provides consistent performance and longer cycle life compared to a gas spring.

Project Results

The customer is very satisfied with the ITT Enidine Inc. solution. The performance of the RC Series units has enabled them to reduce maintenance costs and improve operation of the turnstiles. The success of this project has led to a second application with the Mexico municipal subway on an older generation turnstile.

ITT Enidine Inc. has a long history of supplying dampers to turnstile manufacturers worldwide. Opportunities exist at the OEM level (SIC 3829), as well as for retrofit and replacement business in public facilities such as metro systems (SIC 4111) and sporting arenas (SIC 6512).

