

Improving CD and DVD Manufacturing with Shock Absorbers Enidine Energy Absorption Application

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Product Overview

For more than 20 years, CD-ROMs and related technologies have been popular throughout the world for their consistent quality and long life. Ensuring quality CD-ROM production is quite sophisticated and requires precise and reliable equipment.

An ITT Enidine Inc. customer in Europe, one of the largest OEMs of CD/DVD production machines, needed to increase production speed and reduce costs of their machines. In a pick-and-place application of the machine, the discs are moved from station to station by vacuum grippers and conveyors that have to be smoothly stopped within a virtually clean room environment. The required solution had to provide the necessary dampening to enable mass production with a high throughput (i.e., 2000 CD's per hour) and decrease costs.



Product Solution

ITT Enidine Inc. recommended the use of our PMX 8 shock absorber series because of their minimal mounting envelope size and high cycle life performance. Utilizing a self-compensating design to provide effective energy absorption in low velocity and high drive force applications, the PMX 8 was incorporated into many machines throughout CD/DVD production cycle. At each stage of production (i.e. molding, coating, scanning, printing and packaging), high production rates could be supported due to the units combined features of zero hydraulic cushion option, short stroke and maximum energy absorption. The external positive stop capabilities of the product helped a long lifetime, exceeding 20 million cycles during production.

Application Opportunity

The performance of the PMX 8 shock absorbers provided a cost effective and efficient solution for the customer. It enabled the manufacturer to significantly reduce their cost and increase the production rate on their machines. Given the popularity of the current CD/DVD market and its trend for continued growth, the potential exists for other CD/DVD manufacturers to increase production to meet their demands. In addition, other manufacturers utilizing similar pick-and-place mechanisms demanding high throughput in areas where mounting space is a concern will also benefit from the PMX Series.