

# ENIDINE By Design

Volume 3 Number 1

## ***Enidine Energy Absorption Application. Cost-effective Tool Changer Machine Design***

*By Craig Hooks*

### **Application Overview**

A California-based manufacturer of milling machines with automatic tool changers needed to find a cost-effective alternative to its existing servomotor-powered design. In order to become more competitive, the customer searched for alternative technologies that would match machine performance while reducing overall production costs.

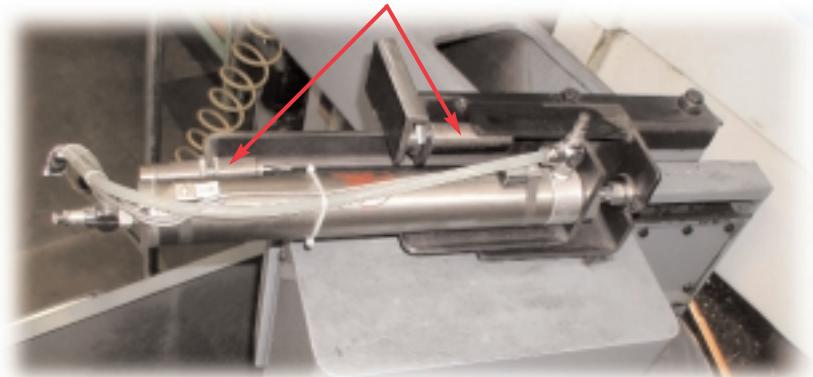
The first attempted remedy from a pneumatic component manufacturer did not provide enough energy dampening to properly decelerate the tool changer. The customer approached Enidine through a local distributor for assistance.



### **Product Solution**

Enidine engineers began a careful analysis of the exact nature of the application. It was determined that, with the simple extend/retract function of the tool changer, the use of a servomotor was expensive and unnecessary technology. Two PRO 100 IF-3 Platinum Series shock absorbers, mounted with a pneumatic actuator to dampen the extend/retract stroke during the tool change cycle, would provide a simplified design and reduced overall cost.

Enidine Shock Absorbers



### **Application Opportunity**

Enidine Platinum Series shock absorbers are the integral component for automation of the milling machine tool changer, replacing the servomotor design. As a result, this Machine Tool manufacturer will maximize profitability and become more competitive. Because of the success with this Enidine solution, the technology interchange will be integrated into other mills. Any machine tool manufacturer looking to increase efficiencies and improve overall costs would benefit from the use of this Enidine technology.

#### **World Headquarters**

**Enidine Incorporated**  
7 Centre Drive  
Orchard Park, New York 14127 • USA  
Tel: +1 716 662-1900  
Fax: +1 716 662-1909  
Hot-Line: 1-800-852-8508  
techsales@enidine.com  
www.enidine.com

#### **European Headquarters**

**Enidine GmbH**  
Rheinauenstr, 5  
79415 Bad Bellingen  
Rheinweiler • Germany  
Tel: +49 7635 8101-0  
Fax: +49 7635 8101 99  
info@enidine.de  
www.enidine.de

#### **European Subsidiary**

**Enidine UK**  
Patrick Gregory Road  
Wolverhampton, West Midlands  
WV11 3DZ United Kingdom  
Tel: +44 1902 304000  
Fax: +44 1902 305676  
sales@enidine.co.uk  
www.enidine.co.uk