

ENIDINE By Design

Enidine Energy Absorption Application.

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Maintaining Proper Counterbalance on X-Ray Equipment

By Sean France

Application Overview

A world-renowned manufacturer of x-ray equipment (SIC 3844 and 3861) needed a better counterbalance for its spinal x-ray processor. The machine stands vertically against a wall and adjusts to patient height. A portion of the device that holds x-ray film was moved manually, with assistance from a counterbalance system.

The problem lay with the counterbalance system, currently maintained by a cable, which was prone to breakage. In the event of the cable breaking, x-ray film would fall to the floor, destroying it. As a result, x-rays would need to be repeated, an occasion both costly and inconvenient for the patient.

With current conditions, the manufacturer could not effectively sell the machine's capabilities, as the overall cost created by film waste was significant. Having learned of Enidine through a distributor, the customer approached us for an immediate product solution.

Product Solution

An optimal product solution needed to provide consistent operation over a 26-inch stroke, to provide proper counterbalance for reliable machine operation. With this in mind, Enidine recommended the use of our ADA 765 rate control, attached to the film holder portion of the device. The customer tested a standard ADA model, but found an additional requirement — that the product should not impose resistance in normal operation. After a few modifications to the shock tube and internal hydraulic fluid, the ADA was installed into the machine.

Application Opportunity

This safety solution eliminated the possibility of film damage caused by machine counterbalance malfunction. The Enidine rate control allowed the customer to bring this equipment to market with the confidence that they would help make a patient's x-ray experience a comfortable one. As a result of this success, the ADA 765 was specified into the customer's machine.

The customer was very satisfied with the Enidine solution and fast response times. As a result, other shock and vibration challenges are being solved for the customer with Enidine products. Further opportunities for this technology exist in counterbalanced systems or medical devices that are moving costly or delicate items, in order to prevent damage to materials or equipment.



Enidine Adjustable, Double Acting (ADA Series) Rate Controls, like the ADA 765, are designed to let end users adjust the rate, in tension or compression modes, to suit specific requirements.

World Headquarters

Enidine Incorporated
7 Centre Drive
Orchard Park, New York 14127 • USA
Tel: +1 716 662-1900
Fax: +1 716 662-1909
Hotline: 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