

## Zinc die casting helps drive the interior design revolution



*Window blinds have recently benefited from engineering innovations that are driving an interior design revolution. Springs Window Fashions is leading the charge, with blinds that do more than just look good: they manage light and temperature, conserve energy, and help enterprises support their brands visually. So when the company sought a partner to help design and produce critical components using zinc instead of plastic, it needed a trusted specialist to deliver the anticipated production and commercial gains. Dynacast took up the challenge.*

### A PASSION FOR WINDOW FASHION

North America's home décor industry is huge. The growth of Wisconsin based Springs Window Fashions reflects the scale of this opportunity, employing 5,000 people across its nine production facilities.

Window blinds add unique style to homes and businesses. Increasingly though, they add more to environments than visual interest. They also feature motorized and automated controls, frequently integrating with other room management systems such as air conditioning.

We interviewed Michael Graybar, a product engineer at Springs Window Fashions, to learn more about how the product design process drives success – and how Dynacast efficiently delivered critical new zinc components.

### IN-HOUSE PRODUCT DESIGN

Springs Window Fashions has a full engineering lab and undertakes much of its product design in-house. As a business, it has also become adept at plastic

injection molding, a process at the heart of its products and manufacturing methods. "We work very fast," said Michael Graybar. "The product development process is getting shorter and shorter."

### ENGINEERING ADVANCES

"Engineering changes all the time, and processes change with it," he added. So when a requirement arose for a system-critical, heavy load carrier component, Graybar decided he needed to look beyond plastic.

Springs Window Fashions favored zinc because of its strength, resistance to material creep, low cost, and suitability for die casting. Dynacast was among the first suppliers Graybar approached, as he had worked with the company on previous projects, and knew it offered specialized die casting capabilities.

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## PARTNERS IN DESIGN

Speed, cost effectiveness, the ability to meet very tight tolerances, and materials expertise all helped make Dynacast a valuable partner for Springs Window Fashions.

Undercut feet were a unique feature of the new planetary output carrier and shaft design, aiding manufacturing efficiency and countering the axial load from the helical gear teeth.

During the project, Graybar liaised with a Dynacast specialist with direct access to the tooling team, saving time and ensuring any issues were rapidly resolved. Developing products and taking them to market quickly is key to success in the window treatments business, and Dynacast was able to supply the components employing its six slide mold, further reducing tooling time and costs.

## MATERIAL DIFFERENCES

Dynacast took part in web conferences with Graybar's team, discussing the pros

and cons of different production methods, resolving engineering issues, and then executing the agreed approach.

"They were really good," said Graybar. "Dynacast provided solutions and were very knowledgeable on zinc product properties, as well as coatings." Dynacast's experience and expertise allowed them to advise on issues of stability and dimensional tolerances.

## CLEAR ADVANTAGE

The partnership between Springs Window Fashions and Dynacast resulted in a rapid development process, lower costs, and – most importantly – a durable, high quality end product. This translated into clear competitive advantages in the home décor retail market.

Michael Graybar summed up, "The planetary output carrier and shaft came in perfect first time. My contact at Dynacast was so responsive – he really wanted us to have quality parts. I've been very impressed with what they do."

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