

MUELLER

INNOVATIVE CUSTOM CUT SOLUTIONS

ELECTRICAL ENCLOSURE GASKETS

INTRODUCTION

Gaskets are an important part of electronic, automotive, and HVAC installation. Long-term performance and safety depend on gaskets fitting properly and staying in place. Gaskets shifting during long-term use could drastically reduce their efficiency over time, and in some cases, create a hazard. A Mueller client has manufactured gaskets that meet the high standards of durability in electrical and HVAC applications. In order to provide a customized gasket product for its own customer, they looked to Mueller Die Cut Solutions to develop a creative, engineered solution that met their requirements and the demands of their customer.

THE SITUATION

A client producing gaskets made of high-quality compressible foam seal for electrical components seeks an adhesive backing process that will not distort or otherwise compromise the effectiveness of the gasket. These gaskets are typically housed in an electrical enclosure that can be opened for maintenance and closed for protection. Any movement involving opening the enclosures risks shifting the insulating gaskets and decreasing their efficiency, while creating a possible safety hazard. The client approached Mueller Die Cut Solutions to provide an engineered method to apply adhesives to the

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Located in Charlotte NC, Mueller is a custom fabricator of flexible materials. Mueller has served Military and Government, HVAC, Health and Safety, and Lighting markets since 1940.

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insulating gasket, which would prevent shifting when enclosures were open and shut. Traditional application of adhesives to rolled insulating gaskets can cause them to stretch and not conform to the client's desired specifications. Mueller would need to cut rolled gaskets to proper widths, and also devise a way to apply adhesives without the stretching and distortion that can render adhesives less effective.

THE SOLUTION

Mueller would need to cut the 60-inch compressible foam gasket rolls to the desired widths for its client, and also apply adhesive to the product. To meet these particular specs, Mueller was able to design a process which included a compression tool inserted in the current die-cutting equipment to keep the gaskets straight and flat as they were cut. This allowed the adhesive to be aligned and applied as the gaskets were cut, streamlining what was formerly a multi-step process.

THE OUTCOMES

With an automated process to compress, straighten, flatten, and apply adhesive to the compressible foam gaskets, Mueller was able to shorten a two- or three-step process into one fluid motion. The compression tool works without issue and allows Mueller to provide longer length rolls using a single operator. The automation and resulting efficiency saved the client time and money, allowing it to serve its customer's needs more quickly and without adding significantly to the cost.



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THE SOLUTION

Mueller engineers designed a process which kept the gaskets flat as they were cut, allowing the adhesives to be applied during cutting.

