

# MUELLER

INNOVATIVE CUSTOM CUT SOLUTIONS

## FLOATING FEED TABLE FOR LAMINATION

### INTRODUCTION

Adhesives provide stability for a number of industrial gaskets, which already meet stringent standards for performance and reliability. Effectiveness and reliability are the two key components for successful products of any type, and pre-cut foam materials are no exception. They provide insulating functions in the most intricate ways, which are many times out of sight, but still important. The specifications of these pre-cut insulating gaskets require adhesives to allow them to perform at precision capacity, and not become misshapen at any step in the manufacturing process.

### THE SITUATION

Most companies who manufacture gaskets understand the need for adhesive application. Adhesives allow pre-cut insulating foam to stay positioned where it's needed. A downside of the application, however, is that the materials that need adhesives applied are often rolled or packaged in a way that creates tension in the materials, and attributes to the materials stretching as they are unrolled for adhesive application.

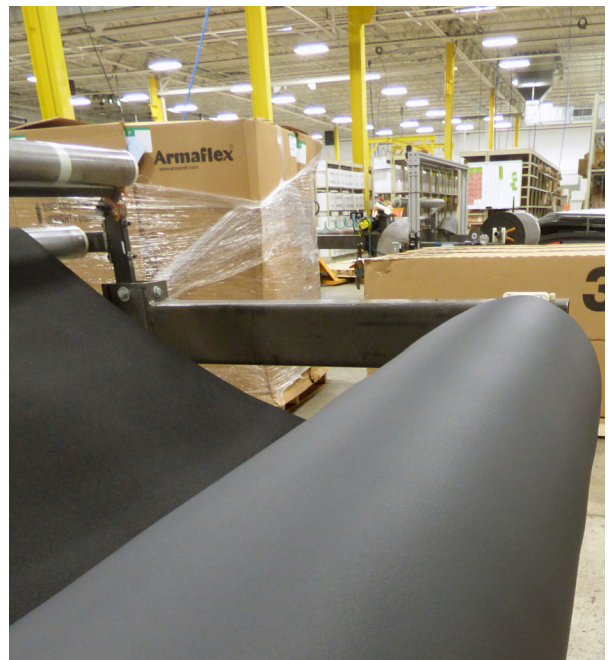
Engineers applied the "Mueller Way" of finding an engineered solution to this problem of material stretching during the rolling and unrolling process

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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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by creating a method that allows material to relax in a flat position before adhesives are applied.

## THE SOLUTION

Understanding the reasons behind the stretching of materials during adhesive application is just one part of the “Mueller Way.” Mueller engineers used their deep understanding of the physics of foam behavior to create a unique solution for this problem. They created a floating feed table for the laminating process that allows material to relax and straighten while adhesives are applied. This feed table essentially uses blown air to keep materials afloat during lamination to reduce tension inherent in the process when other methods are used. Once adhesives and their paper backing are applied, the foam materials no longer stretch and can be cut into rolls or gaskets for their intended use.

## THE OUTCOMES

Mueller proved once again that a creative engineered solution to a common problem could save time and eliminate waste in the manufacturing process. While stretching is a defect inherent in laminating and die-cutting of rolled materials, Mueller saw that overcoming this challenge involved thinking beyond standard manufacturing processes. Not only did Mueller’s creativity decrease the amount of stretching that took place during the laminating process, it also required less time spent inspecting the final products -- saving valuable employee hours and money.



## THE SITUATION

During the application of adhesives to rolled foam tension is created which can deform the finished foam as it is unrolled.

## THE SOLUTION

Mueller engineers created a floating feed table for the laminating process that reduces inherent tension and prevents stretching of finished products.

