

# CASE STUDY – SHINGLE LINE PRODUCTION



**\$62,000 ANNUAL MATERIAL  
COST SAVINGS PER MACHINE**

*"I stood with the mechanics as they went through this process and got a feel for how the process worked. I was extremely pleased and excited to see what a win this was."*

*~Shingle Division President*

## SOLUTIONS FOR INTENSE APPLICATIONS

An East Coast based building materials manufacturer, with revenues over \$3 billion, was looking to improve common issues with belts used in their shingle production facility. Roofing plants have commonly struggled with losing belts due to failure of the mechanical fasteners. In most cases, the belt carcasses remained intact, and the failure resulted from shingle grit wearing out the bottom of the mechanical fastener plate that ran across the slider bed.

Apache worked with the manufacturer to install the Volta FEZ Homogeneous Green TPE Smooth x Embossed belt to multiple applications within different production stages throughout their facility. This belt completely eliminates the need for a mechanical fastener, and instead uses a butt weld – where the ends of the belt are melted together.

The picture to the left shows a belt that started at a 4 mm width, and 4 weeks later, the belt pictured was still 4 mm thick! One belt showed wear, including a large puncture from something getting caught in the machine during the 4th week of use. The customer chose not to change the belt to see how long it would run, and 10 weeks later the belt still had not failed. Throughout the 10 week timetable, there was no need to re-tension or re-weld any belts. Previous belt specs used included a 3-ply blue rough top or 4-ply transmission belt, each typically lasting about two weeks. When using this same Volta FEZ belt on another application, the customer achieved 8 months of use.



Having to change belting on a weekly basis forced the customer to make large investments in belt replacements for the machine, as well as a requirement of at least 4 man hours per week to change out the belt. The customer completed a cost savings analysis for a total annual materials cost savings of \$62,000 on this particular line.

### BETTER LIFE & MORE PROFIT

Due to the success with this one location, communication was given by the president of the shingle division to put these high abrasion resistant Volta belts into additional shingle production facilities.

#### KEY POINTS:

- ▶ Eliminate lacing by using a tool that melts and butt welds belts together
- ▶ Applications requiring guides have been found to have a stronger bond, due to welding directly to the urethane
- ▶ Can be ordered in specific lengths, or bulk rolls that can be cut to required length
- ▶ Available in various styles and thicknesses
- ▶ Belts can be welded and ready for use in less than 10 minutes
- ▶ Highly recommend cleaning shingle grit from the system to ensure longer life



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