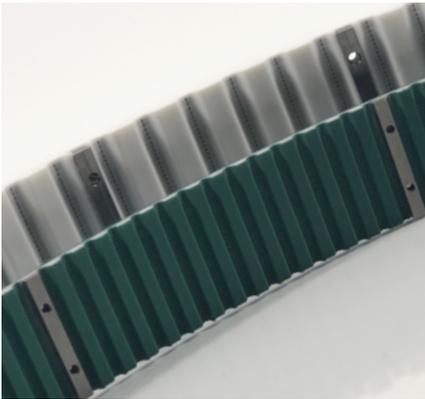


INDUSTRY

CERAMIC, GLASS, BRICK & STONE

APPLICATION

TILE MANUFACTURING

PRODUCTJOINED MEGALINEAR - AT10
WITH FALSE TEETH**SITUATION/APPLICATION**

Ceramic tile, brick and glass manufacturing applications are one of the most demanding manufacturing environments belts encounter. Heavy loads, fragile products and abrasive materials conveyed at extremely high temperatures combine to create an atmosphere that can quickly cause failure with the use of inferior belt materials.

In ceramic tile production, timing belts are commonly used in a parallel path arrangement where the belts move uncured tile through the production process. A very important step in the process is the shaping of the tiles, which is done by conveying the raw material through a press. High precision positional accuracy is required in order to ensure the best tile quality as many styles have intricate designs. The application demands a belt with repeatable, precise synchronous movement as well as a strong system for attaching the plates used to move the tiles, further guaranteeing precise positioning of the tiles.

THE PROBLEM

A tile manufacturer contacted Megadyne with a complaint about the lack of positional accuracy and the resulting low quality product they achieved with a competitor's belt on their existing production machinery. The positioning was inconsistent from one tile to the next. This resulted in wasted raw material and production time as the tiles were not correctly formed during the press cycle. They were forced to scrap an excessive amount of defective product.

THE SOLUTION

After a thorough analysis, Megadyne Application Engineering determined a standard product was not up to the task. A unique design was recommended using Megalinear AT10 joined timing belt with special construction. Manufactured to work in matched length pairs, the combination of reduced length tolerance, reduced backlash AT10 tooth profile and strong, stable, steel cord construction imparted the precise positional accuracy required. Additionally, Megadyne FTS (false teeth – stainless) profiles were supplied giving the system a very strong, easy mechanical attachment option for placement of the plates holding the tiles during the production process. The FTS option also gave the added benefit of a cost saving method to replace broken or worn plates without the need to replace the belt.

THE RESULT

The customer now enjoys cost savings with increased productivity through extended production runs and improved quality as the amount of defective product has been reduced to an absolute minimum.

