PACKAGING

CAPPING MACHINE

MEGADYNE

CASE STUDY

CAPPING MACHINES

INDUSTRY
PACKAGING

APPLICATION
CAPPING MACHINE

PRODUCT
MEGADYNE
WHITE CAP BELTS

SITUATION/APPLICATION

A capping machine is one of the most widely used devices in packaging manufacturing. It applies caps, plugs, and other fitments to containers such as bottles and jars, relying on two complementary belt systems to ensure efficient and reliable capping across a wide range of container formats.
In these machines, two V-belts are positioned on either side of the container to move it forward, while a pair of flat belts is placed above the jar and cap. The flat belts operate at different speeds, enabling the cap to rotate and screw onto the container with the correct torque.

The most critical component in this process is the flat belt, commonly known as the “White Cap” belt.

THE PROBLEM

A manufacturer specialising in filling and capping machines for glass containers (handling liquid, semi-liquid, and pasty products sealed with twist-off caps) approached Megadyne to resolve a series of recurring limitations with their existing White Cap belts:

- Insufficient heat resistance, with belts unable to withstand steam at 110 °C and peak temperatures of 190–210 °C in superheated steam applications
- Inadequate grip, leading to improper cap closure in hot and humid operating conditions
- Poor wear resistance, resulting in frequent belt replacements and unplanned maintenance downtime

These limitations were directly impacting machine performance and overall line efficiency.

MEGADYNE SOLUTION:

MEGADYNE WHITE CAP FDA BELT

This flat belt features a 5 mm blue FDA-compliant rubber covering with a hardness of 55 ShA, specifically designed to meet the demanding conditions of high-temperature and high-humidity environments while ensuring optimal performance during the capping process.

THE RESULT

The implementation of the Megadyne White cap FDA belt delivered significant improvements:

- Resistance to steam at 110 °C, with peaks up to 190–210 °C, making it suitable for superheated steam applications
- High grip performance, ensuring correct cap closure torque even in hot and steamy conditions
- Extended service life, with durability improved by up to 3.5 times compared to the previous solution

These benefits resulted in increased machine reliability, reduced downtime, and overall enhanced productivity.

Contact our experts
to find out more