

INDUSTRY
FOOD**APPLICATION**
ICE CREAM MACHINE**PRODUCT**
PV-J / MEGARIB**SITUATION/APPLICATION**

Ice cream machines for gelato, frozen ice, sorbet and yogurt are self-contained machines refrigerated by cooling systems. These machines produce ice cream for consumption on streets or in cafés, restaurants and small food shops. They typically operate in small spaces in view of the customers. They must deliver a long reliable life while being compact and clean with operation at low sound levels.

THE PROBLEM

The Megadyne OEM team was contacted by a manufacturer experiencing problems with their drive system. The high speed drive suffered from excessive noise, vibration and contamination. The contamination was the result of wear from the synchronous rubber drive belt. Although the drive was enclosed inside a cover, black belt dust contamination was still an issue the customer wanted to resolve and eliminate from the system.

THE SOLUTION

Megadyne offered the best solution with their **MEGARIB polyurethane PV-J** section belt. Molded to exact dimensions and clean running in application make it the perfect choice for compact power transmission applications in food machines. Clean, quiet, and smooth running MEGARIB polyurethane belt delivered a compact drive system with low vibration. Its longitudinal V shaped grooves transmit power by friction from the driver to the driven side of the machine with high flexibility and great power performance. The belt body is made of thermoset polyurethane with high abrasion resistance and low wear to reduce dust. Additionally, the body of the belt has a very thin profile making it a very flexible and low vibration construction. The tensile member consists of high-tension polyester cords, which combine the high flexibility of flat belts with the power transmission capability of V-belts while ensuring length stability. With the ability to work efficiently up to 60 meters per second Megadyne PV belt easily handled the high speed of this ice cream machine application.

THE RESULT

In this application the **MEGARIB polyurethane PV** belt achieved the best performance for the drive, preventing noise and vibration while keeping the drive clean and free from belt dust contamination. The polyurethane compound combined with the ribbed belt structure allowed a strong reduction in belt dust as there is no tooth meshing between belt and pulley as in a synchronous drive, but still provides continuous, constant engagement. The customer requirements for a smooth, quiet, clean drive with long life and reliability were achieved with this solution.

