
Case Study

Coated Wear Parts Meat Processing



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Coated Wear Parts - Meat Processing

In a Danish meat processing plant, hundreds of knives need sharpening each day. To accomplish this task a robotic cell is installed. Inside the cell, stainless steel spring leaves fixate the knives in big cassettes for the robot to retrieve them and re-insert them after sharpening.

Problem

When inserting the pointy knives into each set of spring leaves, the knife would often “bite” into the softer stainless steel. This would cause a collision bending both spring leaves and knives, in some cases causing defects on the robotic arm.

This problem led the team to a monthly replacement of the spring leaves, which would bind up one engineer in two hours per cassette. Even under this maintenance regime, however, collisions would still happen.

Solution

The team approached CeramicSpeed with a request to deliver a harder and lower-friction surface on the springs and a test was set up. The same spring leaves as always were used, simply coated by CeramicSpeed, with the same HardCoat solution often used on CeramicSpeed bearing parts.

Result

Now two years after the test was set up, the same set of spring leaves has been through more than 700.000 knives and are still spotless.

This led to a notable decrease in maintenance cost as well as downtime cost for the Danish customer, proving that Coated Wear Parts provide an ideal solution.

Technical Highlights

- Temp. regime: Ambient -20 to 25°C
- CeramicSpeed HardCoat

