

Wernsing Feinkost Customer Success Story

Customer: Wernsing Feinkost GmbH Region: Addrup-Essen, Germany Sector: Food Packaging Benefit: 75% energy savings annually

Wernsing is a manufacturer of high quality food products that include potato products to antipasti, bread spreads, desserts, dressings, to dips and sauces, marinades, pasta and piquant snacks, salads or soups and stews. Their products are in demand with specialized wholesalers, retailers and industrial partners throughout Germany. This makes vacuum quality critical to the taste and quality of their products.

Challenge:

Wernsing's Baked and Table Potatoes department used a vacuum supply to its packaging machines through two separate networks. A total of six rotary vane pumps with similar suction flows provided maximum pumping speed but no speed control. As a result the pumps continually operated at maximum levels even when there was no demand in production. The result was strong pressure fluctuations and increased energy consumption.

With 400,000 tonnes of potatoes processed and packaged annually and with sustainability as one of the company's priorities, the problem of excess vacuum supply for fluctuating production demand needed to be addressed on priority.

"The production was not affected by the reconstruction of the vacuum station. The vacuum was stable and reliably covered peak loads. At the same time it became clear that the enormous energy and thus cost savings would have a very positive effect on the production costs of our department."

Gerold Schmit

Head of the Department, Baked Potatoes Wernsing Feinkost GmbH





Solution:

After a successful six-week free trial of Atlas Copco GHS VSD⁺ vacuum pumps, Wernsing Feinkost replaced their six rotary vane pumps with two oil-sealed screw vacuum pumps with variable speed drives, Atlas Copco GHS 730 VSD⁺ and GHS 900 VSD⁺.

The GHS 730 VSD⁺ replaced two rotary vane pumps in the Baked Potatoes department. The department's previous power consumption has reduced from 12.5 -13 kW to below 4 kW.

The Table Potatoes department gets its vacuum supply from the Atlas Copco GHS 900 VSD⁺. The variable speed drives ensure stable vacuum supply during fluctuating production demand.

The easy-to-install vacuum pumps did not interfere with the daily production schedule and integrated easily into the existing system.

Equipped with the pioneering Elektronikon control panel, Wernsing is able to leverage the energy efficiency and vacuum accuracy capabilities of the GHS VSD⁺ vacuum systems.



Outcome:

Using two oil-lubricated VSD⁺ screw pumps allows for reliable vacuum supply at the optimal operating pressure. Wernsing is able to specify a fixed pressure point and the pumps are capable of providing the pressure as dictated by the production demand. As a result, the suction volume flow and power consumption is reduced.

Within a few months Wernsing experienced improvements in operational efficiency with the new vacuum systems. The Baked Potatoes production achieved 75% savings or 65,000 kWh and the Table Potatoes production achieved a 50% saving, equivalent to 96,000 kWh. The speed-controlled pumps have given Wernsing the ability to precisely map fluctuations in production demand. © 2019, Atlas Copco. All rights reserved. Designs and specifications are subject to change without notice or obligation

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And perhaps the most significant benefit during production; when the production schedule is complete the GHS VSD⁺ pumps operates at its absolute minimum and then takes mere seconds to rebuild the desired vacuum for the next production cycle.

For Wernsing, this optimal operational cycle combined with energy savings of 160,000 kWh per year has delivered an extremely positive impact on the performance of the processing and packaging departments.



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