

Success Story

JBT Portioning System Benefits from Kollmorgen Hygienic Motor Design.

Hygienic machine components should be designed to work with existing cleaning regimens, not against them. The AKMH™ Servo Motor is built to withstand the most rigorous wash-down regimens.

Challenge

JBT Corporation has been producing food industry machinery since the 1880s. Expanding upon the success of their *DSI*™ portioning systems, they sought to develop a new blade portioner that would be easy-to-maintain, easy-to-clean and use less floor space while continuing to utilize both *DSI Q-LINK*™ Software and *BladeSense*™ Software technologies for yield optimization and blade condition monitoring.

Solution

The result was the *DSI DB20* Portioning System - an accurate, hygienic, easy to operate system suitable for a wide range of linear portioning applications. Machine maintenance requirements are reduced significantly using self-aligning belts and software that suggests replacement blades at the optimal time. In addition to reducing maintenance frequency, the system is designed for routine maintenance to occur quickly with conveyor belts or belt sections and blades designed to be safely replaced in a matter of minutes increasing machine uptime.

The *DB20 System* is designed for easy hygienic cleaning with the application of the Kollmorgen AKMH™ IP69K servo motors which are directly coupled to the blades to allow for a compact yet open design of the cutting compartment. The AKMH servo motors deliver the excellent servo performance and are durable enough to be applied without bulky motor covers that complicate cleaning and maintenance procedures and add to machine size.



AKMH Stainless Steel Servo Motors can be cleaned with solutions ranging from 2 to 12 pH and high pressure spray up to 1450 psi, allowing them to be cleaned just like the rest of the machine and hence save valuable time. Kollmorgen's AKMH motors are designed per guidelines EHEDG, 3-A and NAMI standards and are designed with a smooth 32µ surface finish, laser annealed nameplate, no external fasteners, no metal to metal seams, no flat surfaces and no nooks and crannies leaving no place for pathogens or food to hide.

"These motors reliably survive direct spray from sanitation personnel, eliminating the troublesome housing and ventilation systems present on other blade portioners," said Jon Hocker, Director of Technology and Product Line Management, JBT Corporation.

In addition to the motors, the machine is designed with ample lighting and open surfaces for inspection and cleaning and low profile removable trays for easy collection and clean-up of any minor cutting debris. The *DB20* portioner can operate at belt speeds up to 100 feet per minute and perform up to 2200 cuts per minute, increasing production rates.

The Kollmorgen AKMH motor enabled the innovators at JBT to move their machine design forward and to deliver additional value to their customers.

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Because Motion Matters™

FAST FACTS

Challenge:

Design a compact, sustainable, easy-to-clean portioning machine. A significant issue in completing the design was the limitations of standard servo motors in wash-down environments.

Solution:

Kollmorgen's AKMH™ IP69K hygienic stainless-steel servo motor.

Benefits:

- **Motor covers are not required, reducing machine size, cleaning time and sanitation risk**
- **Motor and cables can be exposed to 2 - 12 pH cleaning solutions and high-pressure spray up to 1450 PSI**
- **Motor is designed to be easily cleaned and can be applied very close to the product production surface**
- **Motor has a two-year warranty against water ingress**

Have Similar Challenges and Want to See Real Results?

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About Kollmorgen

Since its founding in 1916, Kollmorgen's innovative solutions have brought big ideas to life, kept the world safer and improved lives. Today, its world-class knowledge of motion systems and components, industry-leading quality, and deep expertise in integrating standard and custom products delivers breakthrough motion solutions that are unmatched in performance, reliability, and ease-of-use. This gives machine builders around the world an irrefutable marketplace advantage and provides their customers with ultimate peace-of-mind.

For more information, visit kollmorgen.com, email support@kollmorgen.com, or call 540-633-3545.

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