

## Motors for poultry feather picking machines

The feather picking machine is a critical application in poultry processing plants, as downtime on this machine causes the whole process to shut down. The machine's motors therefore have to be highly reliable, even though they operate in a hot, wet environment with daily washdown.



The machine is located after the kill area. It is equipped with numerous rotating wheels with rubber fingers. The fingers are rotated at high speed, pulling off the feathers as the birds travel through the machine.

The rotary wheels are driven by a serpentine belt drive system, which is typically a two groove v-belt or sometimes a flat belt design. Each machine is driven by four to ten motors, depending on size, and they are normally aligned one above the other, driving picker wheels on the top and bottom of the machine.

Harsh operating conditions and frequent washdowns with hot water and caustic solutions at high pressure mean that conventional motors tend to have a very short lifetime in this application. Working with customers, ABB has engineered a new range of feather picker motors with unique features to enhance their reliability and operating life.

The three-phase Baldor•Reliance® white washdown motors have labyrinth seals at each end and an encapsulated winding. For easy installation they are dimensionally interchangeable with many of the OEM motors supplied in leading feather pickers. They provide a significantly extended life compared to OEM motors.

### Main specifications

Output power:	1.1–2.2 kW (1.5–3 HP)
Speeds:	1200 and 1800 RPM
Cooling:	TEFC (Totally Enclosed, Fan Cooled)
NEMA frame:	145T – 184TZ
NEMA design:	C
Insulation class:	F with Service Factor 1.15 or higher, operates within Class “B” temperature limits HP rated
Mounting:	Foot mounted (C-Face available in 3HP motors)

### Key benefits

- Designed to withstand harsh conditions in feather picking machines
- Labyrinth seals at both ends for added protection from washdown spray
- Epoxy encapsulated windings for extra moisture protection
- Moisture resistant insulation system
- Top mounted F-3 conduit box for easy connections
- Neoprene gaskets
- Stainless steel shaft extension
- Double sealed ball bearings with moisture resistant grease
- Standard dimensions interchangeable with common OEM motors

## Full range of products for food processing applications

ABB's offering for the food and beverage industry ranges from high performance servo motors and drives to washdown duty motors and power transmission products. These products are corrosion-resistant and designed for easy cleaning and maintenance.

All ABB products for the food processing sector are backed by industry-focused engineers trained to analyze and solve customers' problems. By taking a Total Cost of Ownership approach and working with the customer, ABB's team enables customers to maximize efficiency, identify and eliminate waste, reduce unplanned downtime, and increase overall productivity.

For more information please contact:

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