PRODUCT BROCHURE

ABB BALDOR-RELIANCE® WASHDOWN MOTORS

Optimal protection and reliability

- Designed for different production zones, with options tailored to cleaning demands and exposure levels.
- Multiple protection choices, helping you select the right washdown motor for your application environment.

ABB BALDOR RELIANCE

ENGINEERED TO OUTRUN

CLEANABILITY, RELIABILITY, AVAILABILITY

A brand you trust
ABB Baldor-Reliance® washdown motors are available in a variety of designs to meet the many needs of the marketplace. From White Washdown to paint-free, stainless steel to Food Safe, these options allow you to select the right motor for the level of protection required in your specific application. While some areas may experience only light washdown, others require protection against high-pressure cleaning, caustic solutions and the harshest sanitation conditions.

When and where you need a motor
Built in U.S. manufacturing facilities and supported by an industry-leading global distribution network, ABB Baldor-Reliance washdown motors are available when and where you need them. ABB Baldor-Reliance motors are also NEMA Make it American compliant, meeting Build America, Buy America requirements for U.S.-made products.

Minimize unplanned downtime
Each washdown motor design is specifically tailored to different areas and zones within a production environment. Whether the application requires basic moisture protection or the highest level of washdown durability, ABB Baldor-Reliance has a solution to help keep motors in service longer, reduce failures and minimize unplanned downtime.

NEMA BABA CERTIFIED 70901-7 ELECTRIC MOTORS

A brand you trust — Global distribution — Uptime

KNOW YOUR ZONE

Save money by specifying the right equipment for the operating environment

—

"What's the most cost-effective design available that will provide the best longevity for my equipment?"

That is the most common question we get every day when we talk with food producers. The answer is not as simple as just choosing the appropriate horsepower, speed or torque and basing it all on price. It goes beyond the initial purchase price, and an evaluation of the total cost of ownership is critical.

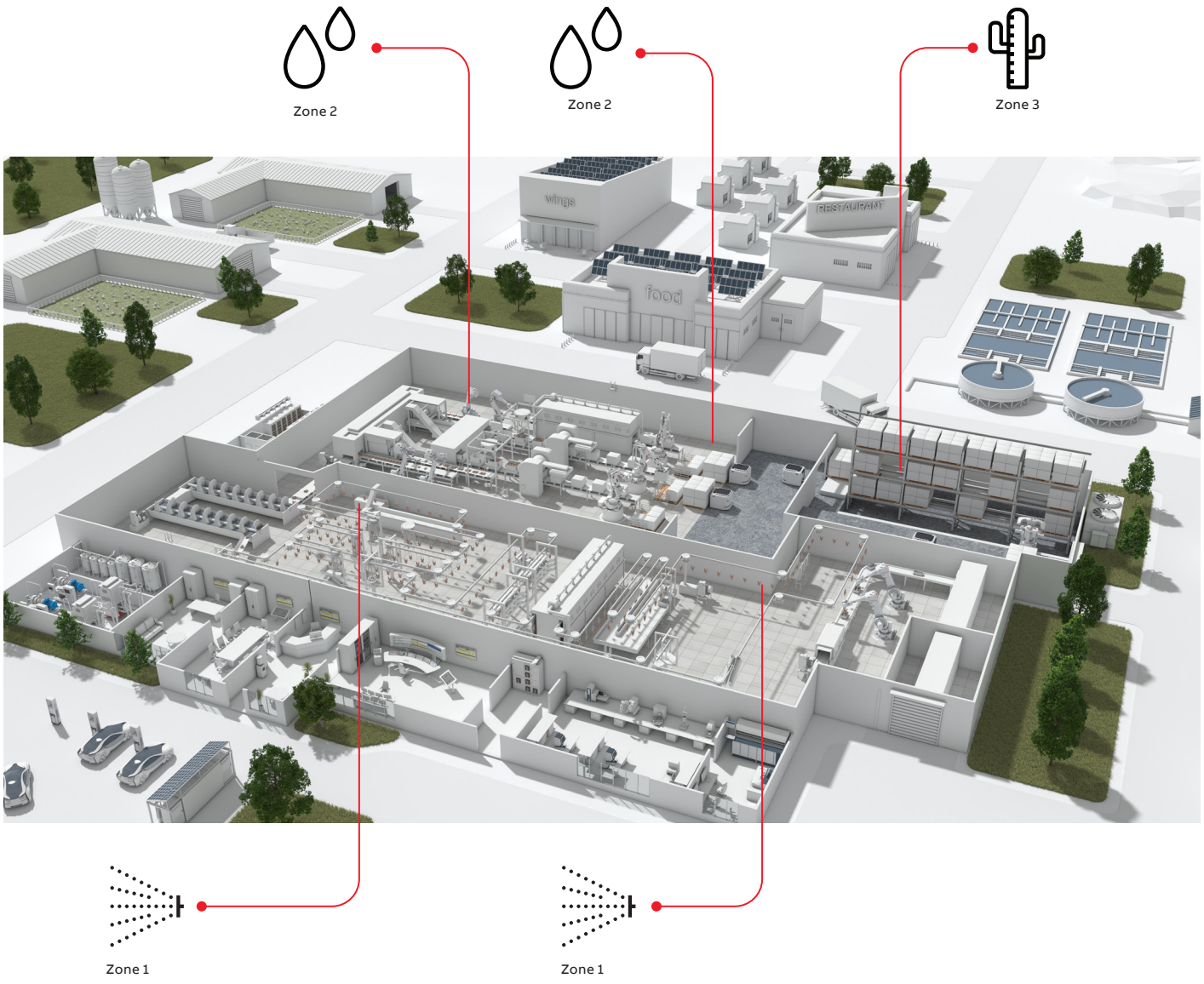
Underspecifying a motor can be very costly. Selecting and installing a motor based on the operating environment is paramount to ensuring your process runs without interruption and keeps your operations clean and safe.

Following the National Sanitation Foundation (NSF) guidelines, food equipment standards are designed in a manner that classifies different surfaces or areas of equipment into defined zones of exposure.

Food zone 1	
	Zone 1 areas are where direct contact with food products is normal and expected. Components must be able to withstand aggressive, high-pressure, high-temperature cleaning methods.
Splash zone 2	
	Direct contact with food products is not expected with the potential that liquids used in processing or cleaning may come into contact with the equipment. Equipment must be able to withstand regular or frequent washdowns.
Dry zone 3	
	Equipment is typically located outside of a normal washdown area where direct contact with food products during normal operation is not expected.

FOOD & BEVERAGE

Watch the video

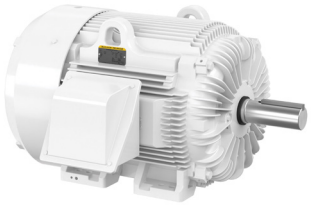


WHITE WASHDOWN MOTORS

Single phase

Three phase

Specialty



Cast iron

Features
- Stainless steel hardware
- Neoprene gaskets
- Double sealed ball bearings
- Lip and v-ring seal on drive end
- Two-part epoxy finish

Broadest selection
- Single and three phase
- Pump designs
- Brake motors
- Shaft grounding
- Sinewave and inverter

Specifications
(Rolled steel available from 1/3 - 20 Hp
Cast iron available from 5 - 150 Hp)

Horsepower	1/3 - 150 HP (Three phase)
	1/2 - 1-1/2 HP (Single phase)
Frame	56C - 447TCS
Voltage	115/230, 230/460, 575 volt
Speed	3600, 1800 or 1200 RPM
Enclosure	TEFC & TENV
IP code	IP55
Mounting styles	Standard foot-mounted, C-face, foot-mounted, and footless
Frame material	Heavy gauge steel or cast iron
Hardware	300 series stainless steel
Finish	White epoxy topcoat

ABB Baldor-Reliance white washdown motors have been the workhorse of the food industry for over 40 years, delivering reliability and energy cost savings. These motors are designed for wet, humid environments that see splashing and light washdown.

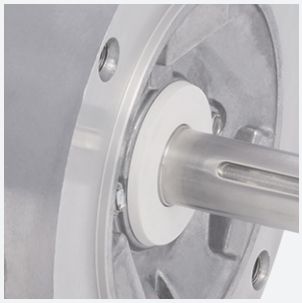
Minimizing corrosion
Corrosion is a significant issue in the food and beverage industry, and that is why we continually improve our designs to ensure corrosion is minimized.
- Stainless steel hardware and shaft extension
- Two-part epoxy finish that is five times more resistant to corrosion and chipping than standard paint

Sealed frame
Neoprene gaskets, lip and v-ring seals keep moisture from entering the internals of the motor. As the motor heats up and cools down, condensation can build up. To relieve this condensation, maintenance-friendly drain holes and plugs can be removed.

PAINT FREE MOTORS

Three phase inverter duty

Conduit box



Endplate and seal

Features
- Stainless steel frame, base, shaft and hardware
- Rotating non-contact labyrinth seal
- Neoprene gaskets
- Double sealed ball bearings

Broadest selection
- Single and three phase
- Sinewave and inverter

When an application requires cleaning solutions and light washdowns that could potentially compromise the surface of a painted motor, paint free motors are the answer.

Protecting the internals
A rotating non-contact labyrinth seal on the drive end shaft extension protects the motor bearings by rotating and expelling contaminants. As an added layer of protection to ensure debris does not reach the bearing lubricant, double sealed bearings are standard on paint free motors. By utilizing sealed bearings, relubrication and maintenance is minimized.

Specifications	
Horsepower	1/2 - 10 HP (Three phase)
Frame	56C - 215TC
Voltage	230/460, 575 volt
Speed	3600, 1800 or 1200 RPM
Enclosure	TEFC & TENV
IP code	IP55
Mounting styles	C-face, foot-mounted, and footless
Frame material	Stainless steel
Hardware	300 series stainless steel
Finish	Stainless steel/aluminum

STAINLESS STEEL MOTORS

Three phase inverter duty

Conduit box

Shaft seal

Features
- Stainless steel frame, base, shaft and hardware
- Rotating non-contact labyrinth seal
- Neoprene gaskets
- Double sealed ball bearings

Broadest selection
- Single and three phase
- Sinewave and inverter

When the application requires caustic cleaning solutions and sanitizing washdowns that will compromise the surface of a standard washdown motor, stainless steel motors are the answer.

Minimize your risk of safety violations
Designed for harsh food processing environments; impervious to rust and deterioration caused by caustic sanitizing.

Stainless steel motors utilize corrosion-resistant materials across all components minimizing your risk of potential violations for inadequate equipment.

Specifications	
Horsepower	1/3 - 20 HP (Three phase)
Frame	56C - 256TC
Voltage	230/460, 575 volt
Speed	3600, 1800 or 1200 RPM
Enclosure	TEFC & TENV
IP code	IP56
Mounting styles	C-face, foot-mounted, and footless
Frame material	Stainless steel
Hardware	300 series stainless steel
Finish	Polished stainless steel

FOOD SAFE MOTORS

Single phase

Three phase inverter duty

Feather picker

Features
- All stainless steel construction
- Epoxy encapsulated windings and conduit box
- Two-barrier mechanical seal on the output shaft
- 360 degree rotatable conduit box (three phase)
- Laser marked nameplate
- Removable condensation drain holes with stainless steel plugs for thorough drainage
- Independently welded feet

Broadest selection
- Single and three phase
- Pump designs
- Sinewave and inverter
- Feather picker option for tight spaces with cord that provides connection outside washdown area
- SP5+ variable speed IE5+ motor

Specifications

Horsepower	1/2 - 30 HP (Three phase)
	1/2 - 1 HP (Single phase)
Frame	56 - 286TC
Voltage	115/230, 230/460, 460, 575 volt
Speed	3600, 1800 or 1200 RPM
Enclosure	TEFC & TENV
IP code	IP69 for water
Mounting styles	Standard foot-mounted, C-face, foot-mounted, and footless
Frame material	300 series stainless steel
Hardware	300 series stainless steel
Finish	Polished stainless steel

Designed for food processing where reliability and cleanability are of utmost importance in an intense, caustic cleaning environment. ABB Baldor-Reliance Food Safe motors are designed to perform reliably- at maximum efficiency- around the clock and be effectively cleaned to a hygienic level to ensure uncompromised food safety.

ABB Baldor-Reliance Food Safe stainless-steel motors are designed to perform longer than any other industrial electric motor available today.

Reliability
- Available with internal bearing protection ring (up to 10 Hp) to help mitigate harmful bearing currents
- 3 year warranty on Food Safe (2 year on feather picker)
- NEMA Premium® efficiency; (IE3) for three phase motors and NEMA Premium 5 (IE5+) for SP5 Food Safe motor

Cleanability
- Smooth contours and finish with a rotatable, round conduit box allow water and debris to shed from the housing
- Independent feet allow the motor to be effectively and efficiently cleaned

Flexibility & safety
- Our rotatable conduit box eliminates the need to reorient the motor to match power supply
- Color-coded leads are easily identifiable and make connection safer and easier with field-tested, waterproof connectors
- Lifting provisions on 180 – 280 frame allow for easier and safer maneuvering

EXPANSION TO THE WASHDOWN LINE

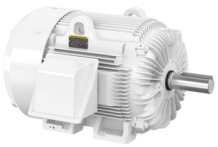
Since the creation of the White Washdown motor in the mid-1980s, the ABB Baldor-Reliance line of motors has been on the cutting edge for wet applications. This full line of motors provides a long, trouble-free life in the harshest washdown applications.

1986
White washdown motor
Stainless steel hardware, shaft extensions, coated rotor with two-part paint and double-sealed bearings.

1995
Paint-free motor
Stainless steel frame, motor base, shaft and hardware, ball-burnished aluminum endplates, rotating non-contact labyrinth seal.

2001
300 series stainless steel components, Labyrinth seals on DE and ODE, dual sealed bearings.

2017
Food Safe motor
All stainless-steel construction, totally encapsulated windings, labyrinth seal on drive end and opposite drive end, internal lip seal and an external axial face seal, laser marked nameplate.



2026
100 - 150 Hp White Washdown Features expansion to include 100 - 150 Hp, motors reach NEMA Premium 4 efficiency, helping customers prepare for the upcoming U.S. DOE efficiency mandate while delivering proven washdown-duty performance.

2025
SP5+ Food Safe variable speed motors deliver the highest efficiency in IP69 washdown environments, reaching IE5+ / NEMA Premium 5 efficiency levels for demanding food processing applications.

2022
Shaft grounding Food Safe motors provide increased reliability in variable speed performance.

2020
Cast-iron washdown motor
Rugged cast iron construction, stainless steel shaft extension and hardware, white epoxy corrosion resistant finish. Available up to 75 Hp.

CELEBRATING
40 YEARS
OF WHITE WASHDOWN

SMART SENSORS FOR MOTORS

The ABB Ability™ Smart Sensor for motors are IP66/67 rated, so any Zone 2 or 3 washdown areas are suitable to have condition monitoring.

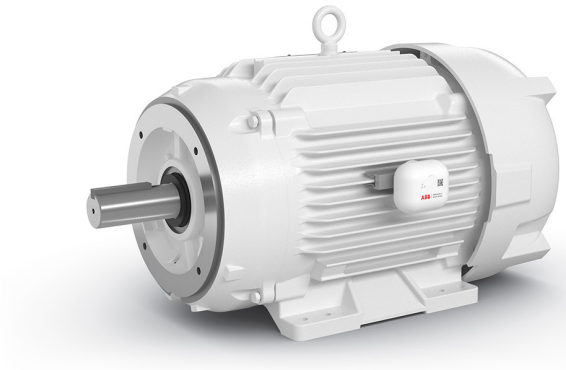
Sensor features

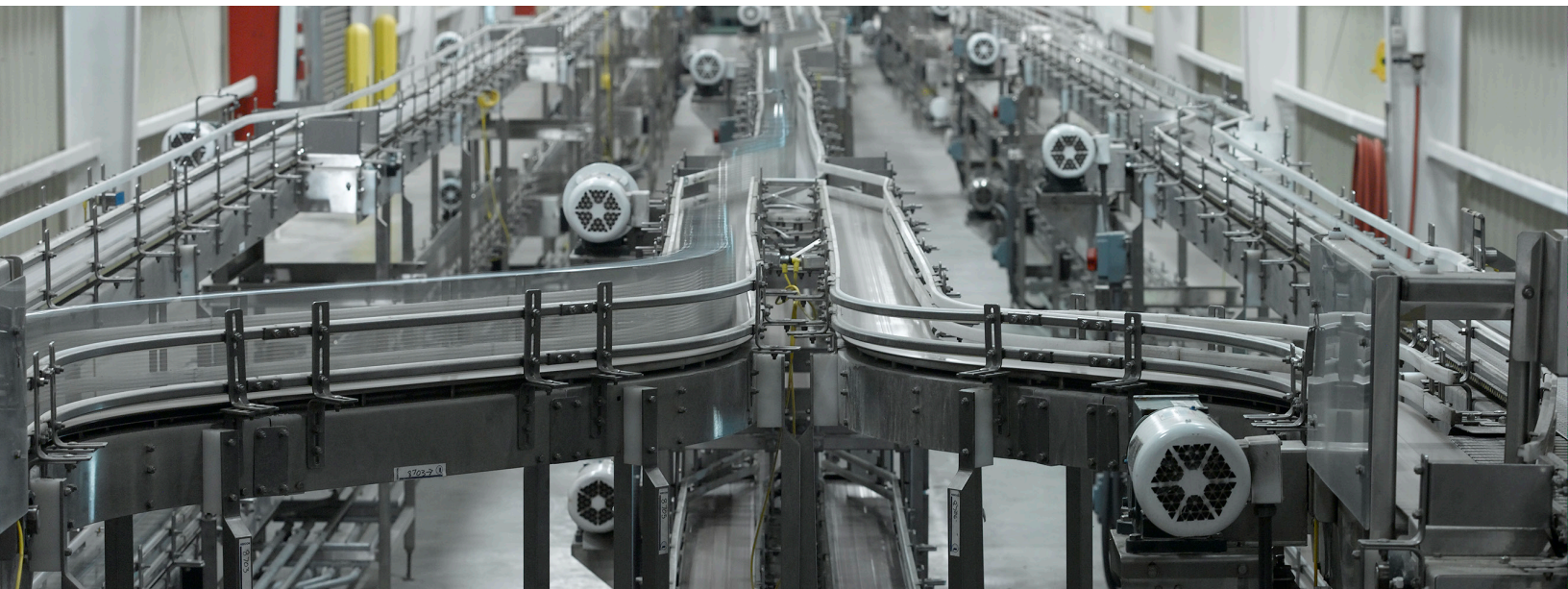
Suitable for Zone 2 washdown areas

The ABB Ability Smart Sensor is designed for harsh environments. Its enclosure withstands high vibration levels, protects the sensor from dust and water ingress and is rated IP66/67. In addition, the sensor is certified for ATEX, IECEx and NEC500, making it compliant with the strictest requirements for equipment operating in explosive atmospheres such as grain handling.

Health checks

Based on ABB's extensive know-how, advanced algorithms are used to analyze the data and produce meaningful information such as temperature, vibration, load, number of starts and more. The sensor sends this information directly to a smartphone or gateway and to a dedicated ABB Ability Smart Sensor portal. Data is also tracked over time for trend analysis so you can schedule preventative maintenance and eliminate unplanned downtime.

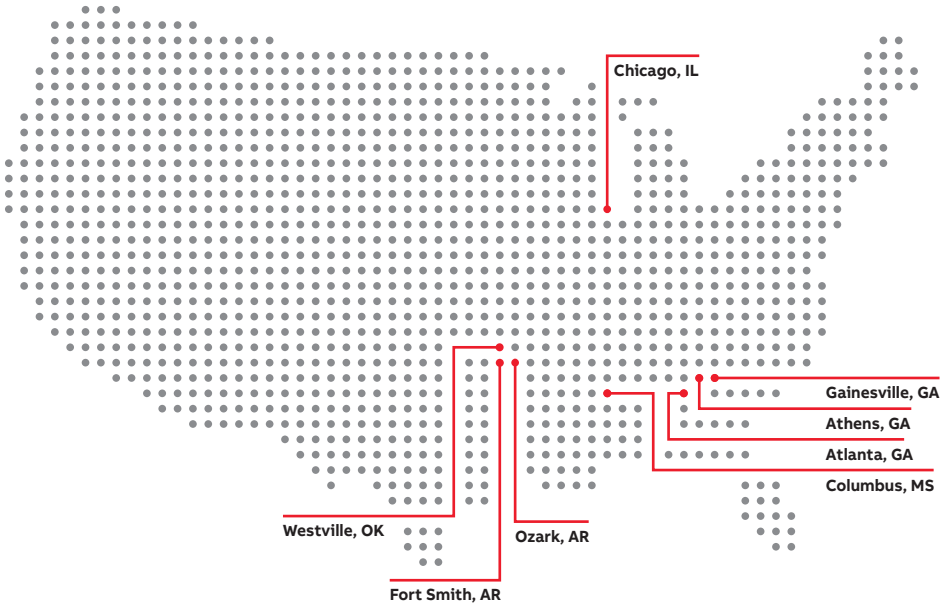




FLEXIBILITY

Custom capabilities, Mod Express & accessories

Modifying or designing a custom washdown motor is a specialized task because the motors must meet rigorous safety and quality requirements. Our network of manufacturing facilities and modification centers have the training and capabilities to design or modify a motor to fit your exact requirements.



Manufacturing locations: Fort Smith, AR; Ozark, AR; Athens, GA; Gainesville, GA; Columbus MS; Westville, OK
Mod Express centers: Fort Smith, AR; Atlanta, GA; Chicago, IL

ABB Baldor-Reliance® motors are manufactured in the U.S. and compliant with NEMA's Make it American program, meeting Build America, Buy America requirements.

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new.abb.com/motors-generators

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