



**WASHGUARD®**

# WASHDOWN DUTY PT PRODUCTS

Electric Motors  
Gear Reducers  
AC and DC Drives



ELECTRIC MOTORS  
GEARMOTORS AND DRIVES

# WASHGUARD® Motors Are Built To Handle High-Pressure Washdowns!

LEESON's WASHGUARD® motors are specifically designed to last longer and perform better than any conventional motor in wet environments. These include washdown applications such as food processing plants and dairies, as well as other areas with high humidity.

Major mechanical and electrical features common to the WASHGUARD® line are called out below. For added durability and maximum corrosion resistance in the most demanding applications, WASHGUARD® II Stainless Frame or WASHGUARD® All-Stainless motors are the choice.

See the facing page for “full line” details. For complete ordering information, refer to LEESON Stock Catalog No. 1050.

**Stainless-steel fan guard** (48-145T frames) or heavy-duty epoxy-coated fan guard (182T-215T frames).

**Composite fan** is chemically-inert and static-free. Fan is positively positioned on shaft. On TEFC designs only.

**USDA-approved, white epoxy finish** for superior protection and resistance to caustic cleaning solutions.

**Encapsulated starting switch** (single-phase WASHGUARD® motors) uses a patented, field-proven design that is immune to moisture, shock and vibration. No moving parts or exposed contacts to become corroded or inoperable.

**Moisture-resistant shaft system** includes 303 stainless-steel shaft and lubricated, spring-loaded contact seals in each endshield. Patented V-ring Forsheda seal on shaft end to deflect water (see inset). Double-sealed, oversized bearings lubricated with Shell Dolium R high-temperature, moisture-resistant lubricant. Bearing cavities packed to further retard entrance of moisture.

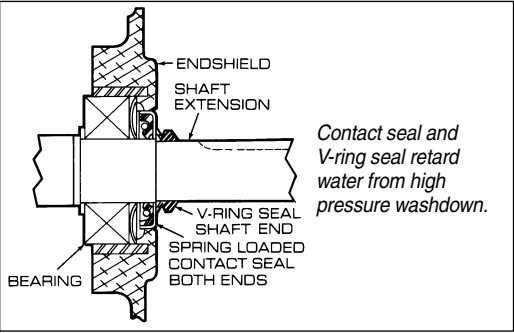
**Stainless-steel, “full-fact” nameplate** includes information on motor efficiency and connections. Readable even after repeated washdowns.

**WASHGUARD® White Epoxy Model Shown**

**Cast, oversized conduit box** with tough, high-temperature nitrile gaskets and stainless-steel cover and hardware. Oversized design with threaded entrance. All machined fits are sealed and nylon gaskets are used under bolt heads.

**Interior coatings** protect against moisture and corrosion. Frame, base, endshields, rotor, and interior components are protected by enamel and polyester compounds of outstanding adhesion and resistance to moisture, acids, alkalies, and oils. Efficiencies meet EPACT mandates for *covered* motors when tested without shaft seals. High temperature, moisture resistant IRIS insulation system ensures long life on inverter service. Windings are immersed and cured in polyester insulating compound.

**Four condensate drains in each endshield** (at three, six, nine, and twelve o'clock) purge condensate and water which may enter the motor.



## NEW WASHGUARD® Worm Reducers

**WASHGUARD®** three-phase Gear+Motor™. Single-phase and DC models are also available.

**WASHGUARD®** quill-input motorized gear reducer features stainless steel output shaft.

## WASHGUARD® White Epoxy

Enhanced Performance in Wet, Humid Areas

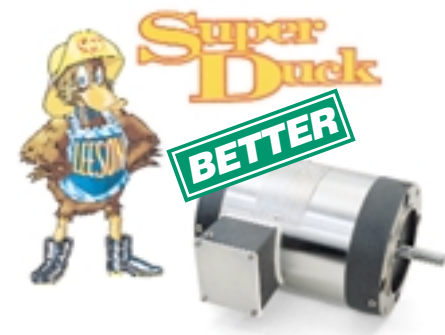


- Our original moisture-shedding “Duck” motor
- Durable RUST-OLEUM® white epoxy coating
- Stainless steel shaft, conduit box cover, nameplate, fan guard
- Special gaskets, slingers and seals
- Four endshield drains
- Moisture-resistant interior components
- Inverter rated IRIS™ insulation system
- Single-phase, three-phase and DC SCR models
- NEMA and IEC metric frames in stock



## WASHGUARD® II Paint-Free

Superior, Extended Life in Severe Environments



- Paint-free exterior — 300 series stainless frame, base, conduit box lid and fasteners
- Specially processed endshields and conduit box housing, qualified to withstand more than 2,500 hours of salt spray on external surfaces
- Etched stainless steel nameplate
- Proven WASHGUARD® mechanical and electrical features
- IRIS™ insulation system
- BISSC certified for baking industry



## WASHGUARD® All-Stainless

Maximum Service in Critically Clean or Corrosive Environments



- All exterior components of 300 series stainless steel, including motor frame, endshield and conduit box castings
- Endshields o-ring sealed to frame
- IEEE 841 severe-duty features standard
- Meets demanding pharmaceutical requirements; also excellent for chemical-processing applications involving nitric acid and caustic lye
- Incorporates all WASHGUARD® mechanical and electrical features, plus IRIS™ insulation system
- BISSC certified

Our new line of washdown-duty gear reducers are designed and built to withstand the rigors of high-pressure washdowns in food service or other wet applications. Built on the foundation of LEESON's industrial-duty IRONMAN™ line, these reducers add exclusive WASHGUARD® features to ensure trouble-free operation.

Combine the reducer with a LEESON WASHGUARD® motor, AC or DC, for a gearmotor that boasts an unmatched ability to thrive under conditions that would quickly destroy most other motors and gear reducers.

Standard WASHGUARD® reducer features include:

- Stainless steel output shaft and hardware
- Food grade white epoxy paint
- Viton double-lip seals
- Patented Forsheda V-ring output shaft seal to retard moisture entrance
- Spring-loaded pressure vent
- Food grade synthetic lubricant, USDA Class H2
- Stainless steel data plate riveted to frame and adhesive backed to eliminate particle entrapment
- BISCC certified for baking industry use



# SPEEDMASTER® Washdown-Duty Drives

Micro Series WASHGUARD® inverters, 1/2 through 20 HP, offer these and more “big drive” features:

- Food-safe epoxy finish
- Rugged heavy-gauge NEMA 4/12 (IP 65) dust-tight, water-tight steel enclosure with barrier-type terminal strips
- Plain-English readout for ease of programming and operation
- Intelligent Power Module, advanced IGBT electronics
- Selectable carrier frequencies for optimized motor performance and quietness
- 200-230, 460-480 and 550-575 VAC versions
- No external cooling fan required

SPEEDMASTER® DC SCR controls, fractional through 3 HP, provide straightforward, economical speed control with these features:

- Steel or lower cost non-metallic NEMA 4/12 enclosures
- Precise 1% speed regulation
- Reversing and non-reversing versions available



Combine LEESON's NEMA 4/12 SPEEDMASTER® Micro Series inverters with WASHGUARD® motors and gearmotors for matched washdown-duty drive packages.

## Custom Solutions — A LEESON Specialty

Specially engineered washdown-duty motors and gearmotors are available from LEESON to meet specific application needs and wants. At our Design Center in Grafton, Wisconsin, collaborative engineering efforts come together to develop fast-track prototypes for customer evaluation.

Then, flexible manufacturing processes allow production lots matched to OEM build schedules. Pictured are just a few of the many special WASHGUARD® motors and gearmotors we have developed to meet customer application requirements.



LEESON's flexible epoxy coating systems allow custom runs of WASHGUARD® and other severe-environment motors.



Parallel-shaft DC SCR adjustable speed drive gearmotor for food packaging machine.



Metric flanged (B14) motor for close-coupling of European gear reducer.



Electrically special stainless steel motor for seafood processing equipment.



NEMA C face, custom shaft motor for pump coupling.



Mechanically special WASHGUARD® motor for the poultry processing industry.



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