



EXTREME DUCK® ULTRA WASHGUARD™ INDUSTRIAL-DUTY ELECTRIC MOTORS

REGAL®





Extreme DUCK® ULTRA

from LEESON®

HIT IT WITH YOUR BEST SHOT.

There's a new, higher bar to cross in the washdown motor category, and LEESON just raised it—again. Building on the success of the industry-leading Extreme Duck series, we took it a giant leap forward with sealing enhancements you just won't find everywhere. We're talking major improvements to the shaft seal technology to handle installation in any orientation, a welded conduit connection to the stainless steel body, and an exclusive vacuum epoxy encapsulation system that ensures whatever is trying to get into the windings is effectively kept out. Water, oil, cutting fluid—go ahead, give it your best shot.

PHOTOS CLOCKWISE FROM TOP.

1. The new Extreme Duck ULTRA is rated IP69k for the most demanding installations.
2. The O-ring sealed conduit box protects non-wicking lead wires.
3. New, two-piece shaft seal technology provides three points of protection.
4. For ingress protection, the conduit box is welded to the stainless steel frame.
5. Four bolts secure the Q-Car™ rotor cartridge assembly to a dual O-ring seal design.

WE TOOK TIME TO WATCH YOUR INSTALLATION PROCESS.

ALL TO TAKE TIME AND EFFORT OUT OF IT.

The finest product design should never get in the way of your ability to install it. That's true whether it's an OEM installation in a controlled environment, a retrofit on the production line floor, or in-line maintenance when every lost minute counts. So we watched how you install, noted where time adds up, and asked how we could help improve it. The result? Smart design features such as color-coded leads, a conduit box that rotates to enable convenient wire entry, and exclusive Q-Car™ rotor cartridge design for interior access without removing the motor from the installation.

SPECIFICATIONS

PERFORMANCE

⅓–3HP, three-phase, c-face with base

⅓–3HP, three-phase, c-face less base

2, 4 and 6 pole

TENV and TEFC

NEMA Premium efficiency design

IRIS®—Inverter-Rated Insulation System

10:1 constant torque

Full-fact nameplate, laser etched in the motor frame

Q-Car™ rotor cartridge design for quick access to the interior

Low-stress winding design

SEALING

IP69K enclosure protection

Shaft grounding rings on ½–3 HP, 4 pole, rigid c-face

Enhanced encapsulation process

Non-wicking lead wires

Two-piece shaft seal with flinger

INSTALLATION

Color-coded motor leads

Chemical and abrasion-resistant lead markers

Welded pipe nipple at ingress on TEFC models

Conduit box rotates 360 degrees on TEFC models



The entire motor housing—including the end bells—is encapsulated for unsurpassed sealing. LEESON's unique Q-Car™ rotor cartridge design makes it possible.

The two-piece shaft seal with flinger resists water, oil and chemicals for improved performance in vertical installations.



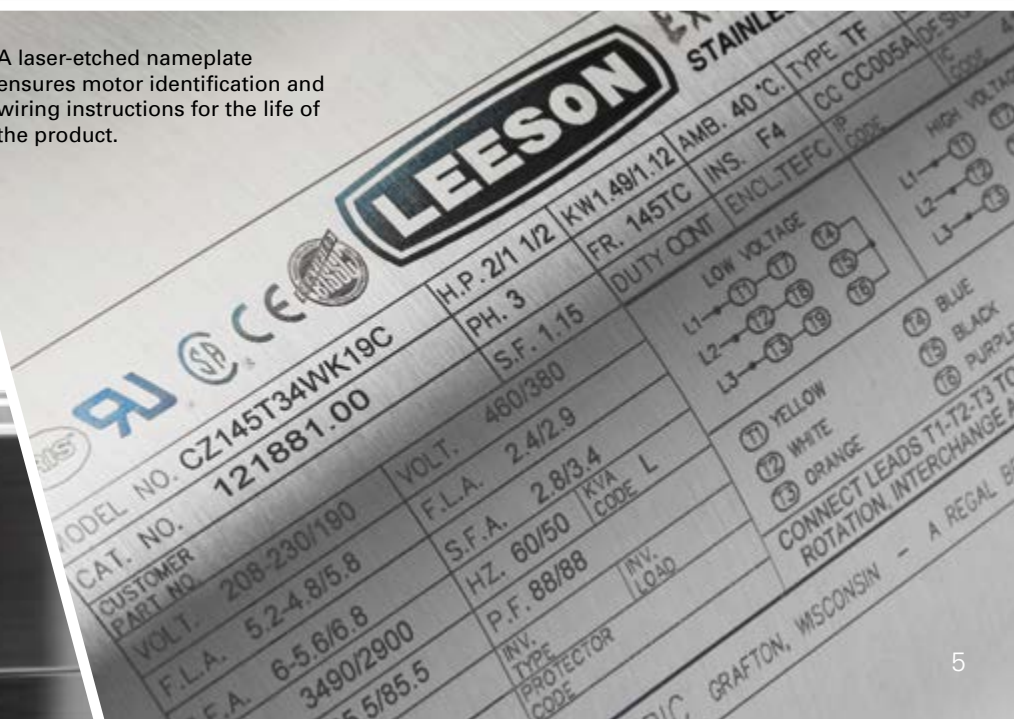
Non-wicking, color-coded leads match industry standards and feature abrasion and chemical resistant markers.



The conduit box rotates 360° on TEFC models.



A laser-etched nameplate ensures motor identification and wiring instructions for the life of the product.



THERE'S NO MOTOR SEALED LIKE

TEFC motor design shown.

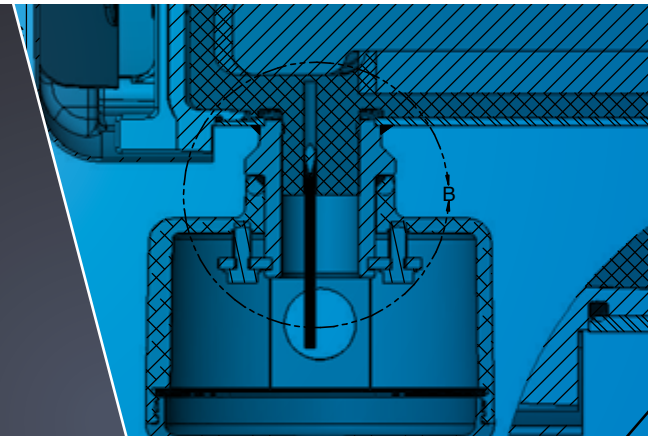
300 Series stainless steel components include the frame, base, conduit box cover, endshields and bearing carrier cover. It's the perfect motor design for extreme washdown conditions.

Vacuum assisted internal epoxy encapsulation—including both endbells—reduces interior air pockets where condensation can occur. This minimizes points of entry for contaminants and eliminates the need for drain plugs and breathers.

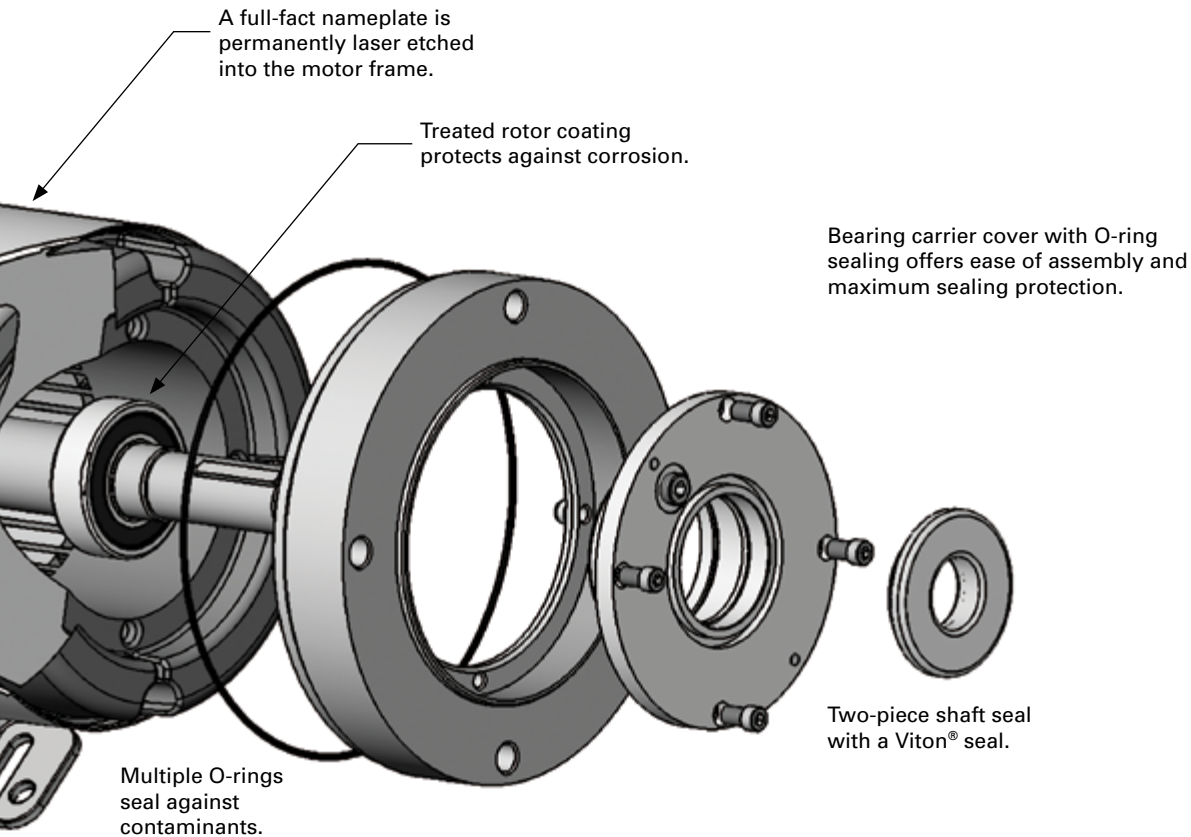
A round, stainless steel conduit box rotates 360° for convenient wire placement.

Water-tight welded conduit nipple filled with encapsulant.

Where water, oil, cutting fluid and other contaminants can find their way in, LEESON has an answer to keep them out. Our patented solutions ensure greater reliability and uptime in the most demanding installations.

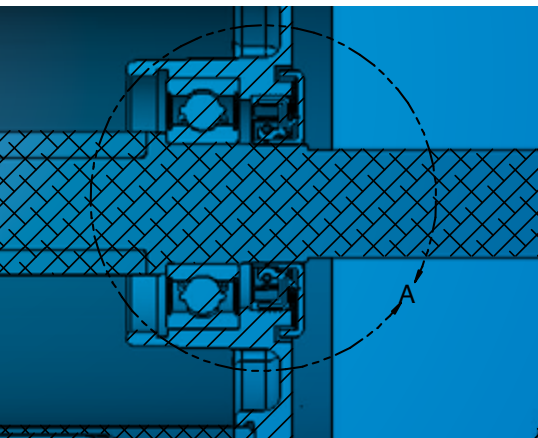


EXTREME DUCK® ULTRA FROM LEESON.®

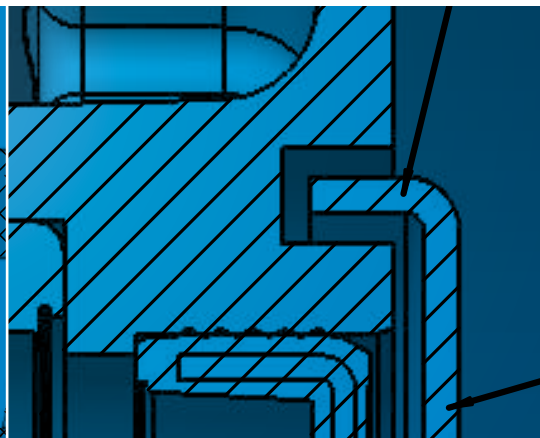


When our engineering team embarked on taking the original Extreme Duck to the next level, one concept kept coming into play: How do we make this product ultra simple to install and ultra tight at every sealing point? With that, a new motor was born and the name was a natural fit. Extreme Duck ULTRA from LEESON is the new model for mission critical performance in the toughest environments. The way it's built says it all.

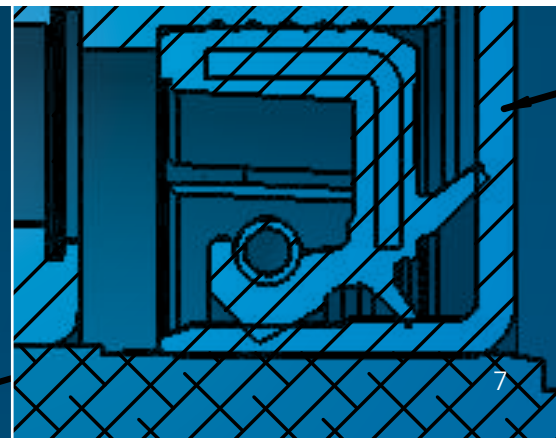
Two-piece shaft seal with wear seal and flinger.



Shaft seal has physical contact on shaft and housing.



Viton®* shaft seal material is impervious to most solvents.





THE MOTORS THAT STAND UP TO WASHDOWN.

LEESON® WASHGUARD™ MOTORS FEATURES AT A GLANCE



FEATURE	WHITE DUCK	WASHGUARD II	SST DUCK	STAINLESS DUCK	EXTREME DUCK® ULTRA
SEALING ADVANTAGES					
Complete motor encapsulation					■
Interior corrosion protection	■	■	■	■	■
Motor breather plugs/drain plugs	■	■	■	■	Not needed for total encapsulation
Shaft seals on both ends of TEFC motors	■	■	■	■	■
Two-piece shaft seal					■
Viton®* seals between endbells and frame				■	■
O-ring sealed openings				■	■
Potted lead entrance					■
INSTALLATION AND MAINTENANCE					
Color-coded leads					■
Non-wicking lead wires					■
Sealed bearings	■	■	■	■	■
Internally locked shaft-end bearing	■	■	■	■	■
Screw-on conduit box cover				■ ①	■
360° rotatable conduit box					■
Q-Car™ rotor cartridge change-out				■	■
CERTIFICATIONS					
Nameplate permanently etched in frame			■	■	■
60Hz and 50Hz data on nameplate	■	■	■	■	■
CE mark on nameplate	■	■	■	■	■
Standard motors built with Inverter-rated Insulation System and marked on nameplate (1 HP and higher)	■	■	■	■	■
IP Ratings	IP55	IP55	IP55	IP56	IP69k
UL, CSA listed	■	■	■	■	■
BISCC approved		■			■
SPECIAL CONSIDERATIONS					
Pump motor designs	■			■	
Brakemotor designs	■			■	
DC motors available	■			■	
Metric designs available				■	
3-year warranty	■ ②	■ ②	■ ②	■ ②	■
Local inventory support	■	■	■	■	■

① 56/143/145T Frame Ratings ② Premium Efficient Motors

EXTREME DUCK ULTRA HANDLES THE HARSHTEST WASHDOWN ENVIRONMENTS.

1. Poultry processing plants.
2. Cheese processing plants.
3. Water bottling plants.
4. Conveying for bottling industry for breweries.
5. Chemical processing plants.
6. Pharmaceutical plants.
7. Brewery equipment.
8. Seafood processing plants.

CHEMICAL RESISTANCE COMPARISON

CHEMICAL NAME	% CONCENTRATION	EXPOSURE	WHITE EPOXY	STAINLESS STEEL
Fresh Water	100	Continuous	Excellent	Excellent
Salt Water	5	Continuous	Excellent	Excellent
Salt Brine	Dilute	Continuous	Fair	Good
Ammonium Hydroxide	Dilute	Continuous	Good	Excellent
Calcium Hydroxide (Lime)	100	Intermittent	Good	Excellent
Citric Acid	10	Continuous	Good	Excellent
Ethylene Glycol	100	Continuous	Excellent	Excellent
Hydrochloric Acid	37	Intermittent	Good	Poor
Lactic Acid	Dilute	Intermittent	Excellent	Excellent
Lactic Acid	100	Intermittent	Fair	Fair
Mineral Spirits	100	Continuous	Excellent	Excellent
Potassium Hydroxide	50	Intermittent	Fair	Fair
Sodium Hydroxide	5	Continuous	Fair	Excellent
Sodium Hydroxide	20	Continuous	Fair	Excellent
Sodium Hydroxide	50	Continuous	Excellent	Excellent
Sodium Hypochlorite (Bleach)	15	Intermittent	Excellent	Excellent
Sulfuric Acid	10	Intermittent	Fair	Fair
Toluene	100	Continuous	Fair	Fair
Animal Fats	NA	Continuous	Excellent	Excellent
Mineral Oils	NA	Continuous	Excellent	Excellent
Vegetable Oils	NA	Continuous	Excellent	Excellent
Cutting Oils	NA	Continuous	Excellent	Excellent
Detergents	NA	Continuous	Excellent	Excellent
Gasoline	NA	Continuous	Fair	Fair
Hydraulic Fluid	NA	Continuous	Excellent	Excellent
Lubricating Oils	NA	Continuous	Excellent	Excellent
General Weathering	NA	Continuous	Fair	Excellent
Mold/Mildew	NA	Continuous	Excellent	Excellent
Light Abrasion	NA	Continuous	Excellent	Excellent
Heavy Abrasion	NA	Continuous	Fair	Excellent



WASHDOWN MOTORS COMPETITOR CROSS REFERENCE

HP	RPM	FRAME	BASE	LEESON EXTREME DUCK® CAT #	ENCL	BLUFFTON MOTOR* WORKS HYDRODUTY MODEL #	ENCL	BALDOR* SSE MODEL #	ENCL
0.5	3600	56C	Yes	117118	TENV	1323007112	TENV	CSSEWDM3537	TENV
0.5	3600	56C	No	117126	TENV	1323007113	TENV	VSSEWDM3537	TENV
0.5	1800	56C	Yes	117119	TENV	1321007115	TENV	CSSEWDM3538	TENV
0.5	1800	56C	No	117127	TENV	1321007121	TENV	VSSEWDM3538	TENV
0.5	1200	56C	Yes	119266	TENV	1311017133	TEFC	NA	
0.75	3600	56C	Yes	117120	TENV	1323007110	TENV	CSSEWDM3541	TENV
0.75	3600	56C	No	117128	TENV	1323007114	TENV	VSSEWDM3541	TENV
0.75	1800	56C	Yes	117121	TENV	1321007113	TENV	CSSEWDM3542	TENV
0.75	1800	56C	Yes	103412	TEFC	1311017121	TEFC	NA	
0.75	1800	56C	No	117129	TENV	1321007117	TENV	VSSEWDM3542	TENV
0.75	1800	56C	No	103414	TEFC	1311017122	TEFC	NA	
0.75	1200	56C	Yes	119267	TENV	1311017134	TEFC	CSSEWDM3543	TEFC
1	3600	56C	Yes	117122	TENV	1313017156	TEFC	CSSEWDM3545	TEFC
1	3600	56C	No	117130	TENV	1313017161	TEFC	VSSEWDM3545	TEFC
1	1800	56C	Yes	117123	TENV	1321007112	TENV	CSSEWDM3546	TENV
1	1800	56C	Yes	119511	TEFC	NA		CSSEWDM3546	TENV
1	1800	56C	No	117131	TENV	1321007125	TENV	VSSEWDM3546	TENV
1	1200	56C	Yes	119268	TEFC	1311017138	TEFC	CSSEWDM3556	TEFC
1	1200	56C	Yes	119513	TEFC	NA		CSSEWDM3556	TEFC
1.5	3600	143TC	Yes	121879	TEFC	1313017155	TEFC	CSSEWDM3550T	TENV
1	1800	56C	No	119512	TEFC	NA		VSSEWDM3546	TEFC
1.5	3600	143TC	No	121750	TEFC	1313017160	TEFC	VSSEWDM3550T	TENV
1.5	1800	145TC	Yes	121880	TEFC	1311017111	TEFC	CSSEWDM3554T	TEFC
1.5	3600	143TC	No	121908	TEFC	NA		VSSEWDM3550T	TENV
1.5	1800	145TC	No	121751	TEFC	1311017118	TEFC	VSSEWDM3554T	TEFC
1.5	1800	56C	Yes	117296	TEFC	1311017110	TEFC	CSSEWDM3554	TEFC
1.5	1800	56C	Yes	119522	TEFC	NA	TEFC	CSSEWDM3554	TEFC
1.5	1800	145TC	No	121909	TEFC	NA		VSSEWDM3554T	TEFC
1.5	1800	56C	No	117297	TEFC	1311017117	TEFC	VSSEWDM3554	TEFC
1.5	1200	56C	Yes	119269	TEFC	1311017127	TEFC	NA	
1.5	1200	56C	Yes	119781	TEFC	NA		NA	
2	3600	145TC	Yes	121881	TEFC	1313017153	TEFC	CSSEWDM3555T	TEFC
1.5	1800	56C	No	119520	TEFC	NA		VSSEWDM3554	TEFC
2	3600	145TC	No	121742	TEFC	1313017158	TEFC	VSSEWDM3555T	TEFC
2	1800	145TC	Yes	121882	TEFC	1311017113	TEFC	CSSEWDM3558T	TEFC
2	3600	145TC	No	121910	TEFC	NA		VSSEWDM3555T	TEFC
2	1800	145TC	No	121743	TEFC	1311017120	TEFC	VSSEWDM3558T	TEFC
2	1800	56C	Yes	117299	TEFC	1311017114	TEFC	CSSEWDM3558	TEFC
2	1800	56C	Yes	119523	TEFC	NA		CSSEWDM3558	TEFC
2	1800	145TC	No	121911	TEFC	NA		VSSEWDM3558T	TEFC
2	1800	56C	No	117298	TEFC	1311017119	TEFC	VSSEWDM3558	TEFC
2	1800	56C	No	119524	TEFC	NA		VSSEWDM3558	TEFC

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APPLICATION CONSIDERATIONS

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