

### STAINLESS STEEL MOTORS – GEARMOTORS - SPECIALTY COMPONENTS





Stainless Motors, Inc. was founded in 1988 with the mission of supplying the Pharmaceutical and Food Processing industries with the first stainless steel washdown duty motors and gear reducers. Since inception, we have continued to provide innovative designs to increase the sanitary and safety advantages of our products while maintaining the performance and reliability that our customers depend on. We offer the only UL approved stainless Explosion Proof (XP) hazardous location motor and our exclusive patented Sanifan Technology design. Our products are crafted to meet the most stringent cGMP processing standards with design emphasis on uncompromised hygiene, reliability and performance.



Our patented Sanifan Technology is a breakthrough in sanitary motor design. Previously hidden contaminants, food debris, pathogens and bacteria are easily flushed away leaving a clean and sanitary processing environment. No other stainless washdown duty motor can provide this level of hygiene and performance.



### STANDARD SANITARY FEATURES

### **Sanitary Fan Shroud Mount**

Aerodynamic design with an EPDM standoff, eliminating metal to metal contact and preventing contamination build-up.

### **Stainless Fan (TEFC)**

Standard on all of our TEFC models is a stainless steel, crevice free cooling fan. Providing resistance to rust, bacteria and other contaminants.

### **Laser Nameplates**

Laser engraved nameplates come standard on all of our motors leaving no place for contaminants to hide.

### **Junction Box & Feet TIG Welded**

Precise and clean welds so that there are no crevices around these areas, eliminating contamination build-up. Includes an O-ring sealed cover making it water tight.

### **IP69K Protection**

Designed to withstand the toughest cleaning conditions.

### 17-4 H1150 Stainless Shaft

Provides exceptional strength, corrosion resistance and mechanical properties.

### **FDA Approved O-rings**

Create a water tight seal with chemical, ozone and ageing resistance for the highest degree of protection and reliability.

### **#4 Line Finish Surface**

Highest quality T304 stainless steel. Extremely tough and nearly impervious to rust.

### **Double Sealed Bearings**

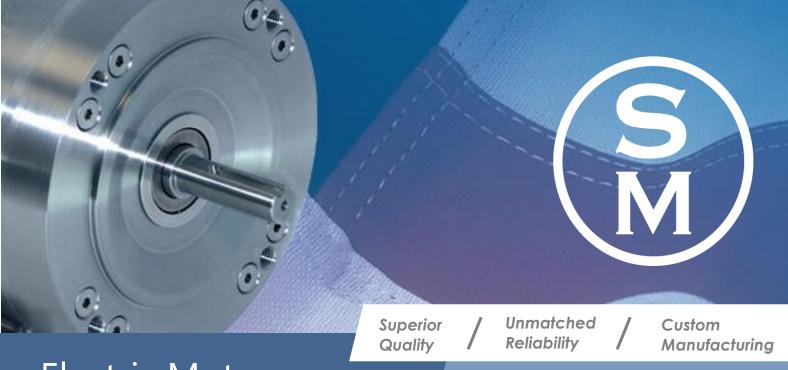
Providing a superior layer of protection against water and other contaminants entering the motor.

### **Bearing Protection**

Our unrivaled stainless steel mechanical shaft seals provide premium protection against water entering into the motor.

### **Premium Efficiency**

Resulting in energy savings and increased motor life.



**Electric Motors** 

**STANDARD** 

304 & 316 Premium Stainless Steel

**NEMA Frames** 3 phase, TEFC frames up to 50HP. 3 phase, TENV up to 5HP & Single phase up to 5HP TELC up to 500HP

**IEC Frames** Up to 22KW



**TEFC** 

**T**otally **E**nclosed

Fan

Cooled



**TENV** 

**T**otally **E**nclosed

Non

**V**ented



**TELC** 

**T**otally **Enclosed** 

**L**iquid Water

Cooled



**TEBC** 

**T**otally **E**nclosed

Blower

Cooled



**TECAC** 

**T**otally **E**nclosed

Compressed

Air

Cooled



**COOLING OPTIONS** 

A variety of cooling options are available for your specific application. TEFC and TENV are the most common cooling options for pharmaceutical and food processing applications.

# **FOOT** OPTIONS

When a foot mount is necessary, we offer two stylesblind tapped and thru hole mount. The blind tapped foot mount is the most sanitary and easy to clean foot option available. It allow crevice free mounting without any exposed hardware. Both styles are sanitary stainless steel and are fully TIG welded to the body.





**BLIND TAPPED FOOT MOUNT** 



THRU HOLE FOOT MOUNT

Sanifan®PLUS Series is made to withstand the harshest cleaning conditions and can be connected directly to any existing CIP system. With Sanifan®PLUS you have the flexibility to select the water port location and port connection style on the endbell that meets the needs of your particular application.

### **WATER PORT OPTIONS**

for Sanifan®PLUS series motors











### **CUSTOM MOTORS**

### **Freezer Duty Motors**

When temperatures of -40° C and below are present, unique challenges are created for stainless steel motors. We have optimized design parameters and materials, including low temperature arctic grease, EPDM O-rings, mechanical seals with silicon outer O-rings, and tolerance rings for these extreme temperature applications.

#### **Brake Motors**

For applications requiring power-off torque holding, we integrate a stainless steel housed, spring set brake with our motors. Our brake motors feature torque ratings form 6-124 ft-lb, power off operation and optional manual release that automatically resets. Most of our brakes feature AC coils, eliminating DC rectifiers.





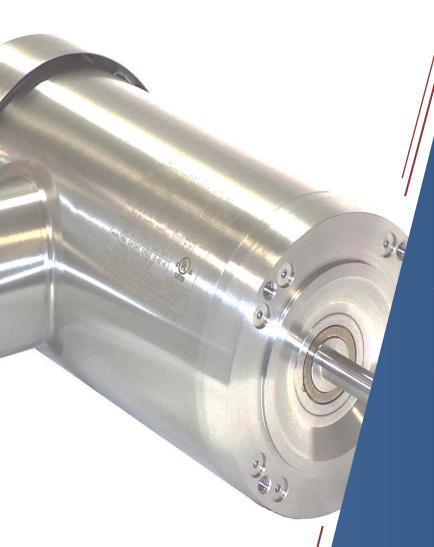
### **Vertical Shaft-Up Motors**

These motors present a special challenge to washdown duty motors. Any recess in the shaft-end endbell will pool water and increase the risk of water entry past the shaft seal. We have solved this challenge by developing a motor with an optimized, tapered endbell and an O-ring sealed rotating shield. Together they virtually eliminate shaft seal problems.



### **Specialty Motors**

Stainless Motors, Inc. custom engineers high-precision, high-performance products to solve the most difficult application requirements.





# **XP**Motors

### **HAZARDOUS LOCATION**

All of our XP motors are approved for the use with PWM inverters. 1/2HP-2HP yield a 4:1 constant torque and 10:1 variable torque turndown ratio. 3HP-5HP yield a 2:1 constant torque and 10:1 variable turndown ratio. Stainless steel, severe washdown duty 1750 and 3500 RPM.

All XP Series are approved for Class I, Division I, Groups C & D, T3B Class II, Division I, Groups F & G, T3B UL File # E321578



Water cooling of an electric motor provides a far more efficient means for the collection and removal of waste heat. The warm water discharge from a water cooled motor can be directly used and affords huge energy savings. The stainless steel housing, water jacket and endbells will not rust or impact corrosion debris to the cooling water assuring its chemistry and purity is unchanged.



## **RIGHT ANGLE WORM**

Ratios from 5:1 to 60:1

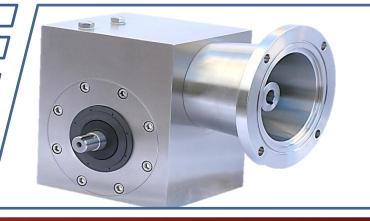
Compact, Right Angle Drive

Single, Double and Hollow output shafts available

Right-Hand, Left-Hand and Vertical assembly options

Purity FG EP 460 (USDA H1) Lubricant for extended life performance

**Optional Flange Mounts** 



Our Right Angle Worm Drive Gear Reducers feature hardened and ground worms and aluminum-bronze worm gears for high capacity and long life. Gearboxes are machined to a sanitary #4 finish on all surfaces. Single, double and hollow bore output shafts are available with right-hand, left-hand and vertical assembly options. Larger RA gearboxes with vertical output shafts feature our Positive Pressure Lubrication System, ensuring that all bearings and gears are well lubricated even at very low rotational speeds.

# **INLINE PLANETARY**

Efficient and compact, our Inline Planetary Gearmotors feature cast 304 housings with sanitary foot mounts. GMP design is evident in the smooth, cylindrical shape and integral motor interface. All outer surfaces are fully machined and ground for a superior sanitary finish. Custom modifications such as a flange, C-face mount, or altered shaft dimension are readily produced to order. High ratio units feature unique compound gearing to produce very low output speeds with a compact reducer.





- Standard ratios from 3:1 to 25:1
- Extremely high ratios possible (1000:1 or more)
- Foot, C-face or Flange mount

- T304 housings
- Superior sanitary finish





Spiral Bevel reducers provide high efficiency and quiet operation in low ratios. Our Spiral Bevel gearmotors are built as integral gearmotors, with the pinion gear mounted directly on a modified motor shaft. Right-hand, left-hand and vertical assembly options are available.

**Excellent efficiency** 

**Ratios from 1:1 to 4:1** 

C-face or flange mount output faces

SPIRAL BEVEL



High ratio, high power applications up to 40HP

Purity FG EP 460 (USDA H1) lubricant for extended life

**Premium Efficiency** 

Flange or C-face mounts

Superior sanitary surface

**Excellent for stainless retrofit applications** 



### **Corporate Office/Manufacturing Facility**

7601 Nita Place NE Rio Rancho, NM 87144

All of our products are designed, manufactured and supported in the U.S.A. All standard motors meet NEMA MG1, part 31 inverter performance and are recognized by UL under component file #E135744 for the United States and Canada. Hazardous location motors are UL approved under file #E321578.

This catalog presents an overview of our standard product offering. For more information please visit our website at www.stainlessmotors.com. You may also contact us at (505) 867-0224 or email us at info@stainlessmotors.com.

Your partner for a cleaner, safer, and more sanitary processing environment.

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