**3-A SANITARY STANDARDS, INC. Education Program** 

## **Sanitary Stainless Electric Motor Design**

Presented by John Oleson, Chief Engineer Stainless Motors, Inc.



# Quality Performance Reliability Cleanability

## HOW DOES CONTAMINATION HAPPENS?

## ENDBELL, FAN AND AREA INSIDE SHROUD ARE NOT ACCESSIBLE FOR CLEANING

Endbell and fan concealed inside fan shroud

**Fan shroud** 

## RISK AREAS aka "The Dirty Little Secret"

## **INSIDE FAN SHROUD**









## **ON ENDBELL, FAN AND HARDWARE**









## CONVENTIONAL DESIGNS THAT CREATE THE RISK













## Question you should ask when choosing a sanitary motor for processing environments:

- 1. Are there any areas that could possibly collect food product and harbor bacteria?
- 2. Is the cooling fan plastic or polished stainless?
- 3. Are the feet securely welded with no gaps or crevices?
- 4. Is there access to areas in and around the fan and fan shroud for thorough spray cleaning?
- 5. Can the motor be integrated into a CIP system?

An example of a motor that meets the criteria and sanitary standards for food safety is a motor that incorporates Sanifan Technology



Sanifan Technology<sup>™</sup> is a patent pending comprehensive solution which dramatically reduces crevices and provides a means of washing areas previously inaccessible.



### **SIDE BY SIDE COMPARISON**







#### **Conventional Design**

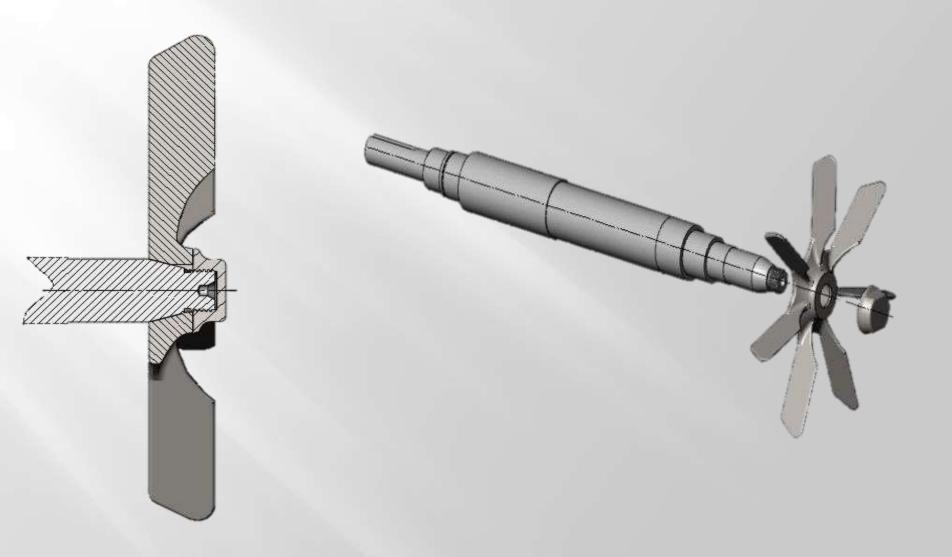
Sanifan Technology Design

Sanifan Technology Design with Optional Spray Cleaning Endbell

## **POLISHED CREVICE-FREE STAINLESS FAN**



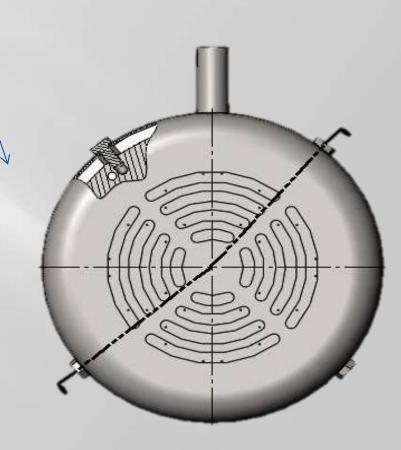
### **SANITARY FAN TO SHAFT MOUNTING**



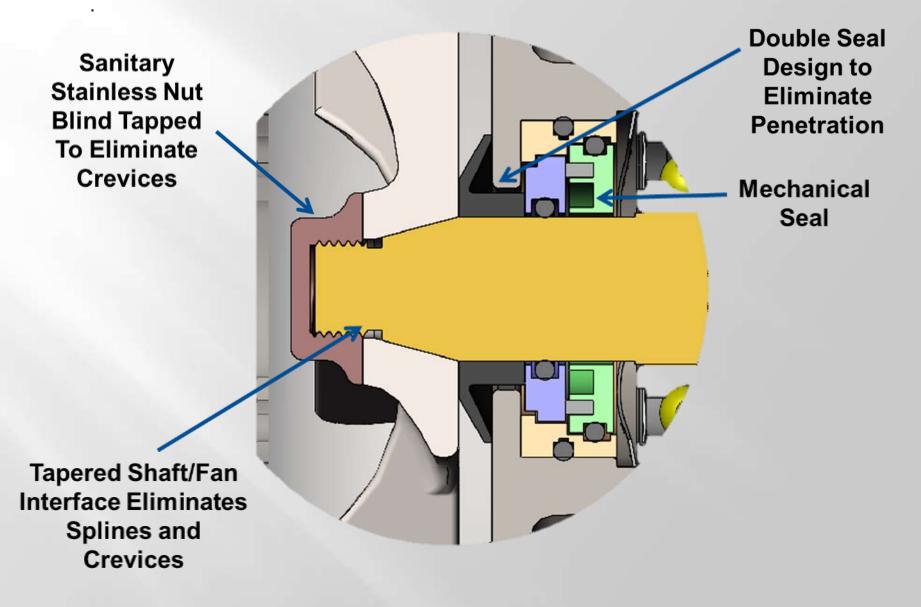
## **CREVICE FREE FAN SHROUD MOUNTING**

### EPDM SANITARY STANDOFF

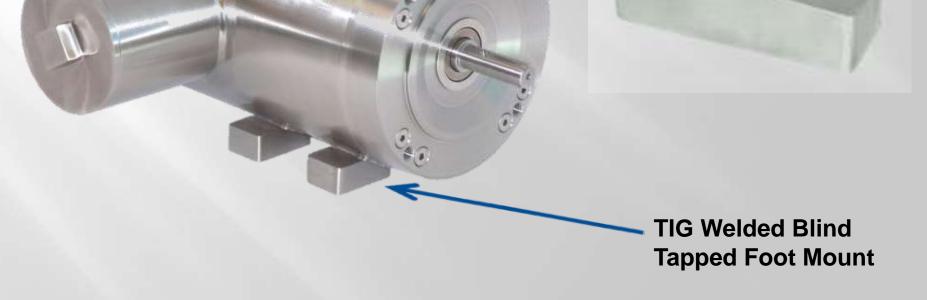




## **ENDBELL SANITARY SEAL DESIGN**



## **BLIND TAPPED SANITARY FOOT**





Stainless washdown duty motors that incorporate Sanifan Technology™ also offer an optional integral wet spray cleaning endbell for the ultimate level of cleanability!





## WATER PORT STYLES (spray endbell option only)



#### **Tri Clamp**

Capped

#### **Spring valve**

Pipe

