



# Washdown Gear Drives & Gear Motors for the Food & Beverage Industry

*The Best Choice for  
Food & Beverage  
Safety*

The original  
**Domed Crown™**  
Design



## ALTRA INDUSTRIAL MOTION PROVIDES POWER TRANSMISSION SOLUTIONS FOR THE FOOD AND BEVERAGE INDUSTRY

Tightened federal regulations regarding food safety and hygiene in food processing and beverage industries has forced producers to continue to adapt their equipment to meet those changing requirements.

The areas in production facilities where drive systems are located are often the areas that have the most stringent requirements for hygiene and sanitation, due to their proximity to the food product. The key to food safety is prevention of microbial contamination and bacteria growth. Equipment in these areas needs to be resistant to alkali or acid based cleaning agents and disinfectants. This is the primary focus of most HACCP analyses.



For installations where the drive system is located above the food product, there is a higher risk of product contamination due to rigorous cleaning standards. For these installations special attention must be given to drive design & materials, so that bacterial growth on surfaces will be avoided. Drive systems with the most extreme protection such as stainless steel and aseptic units are most often utilized in these applications.

For installations located near but below the food line, exposure is less likely but still possible. Therefore, it is recommended that the drive units be readily accessible, easy to clean, and have resistance to commonly used cleaning products. In these applications, painted drive systems are often used.

In other areas of the plant where there is no contact with open product flow, the hygiene requirements are typically less strict, allowing for standard finish drive products.

Some producers use highly caustic wash down solutions; others use high-pressure hot water. Equipment can also be exposed to process by-products such as sugar, seasonings, brines, or animal blood. Whatever challenges the integrity of your drive system, Altra has a solution for you. The family of gearing & motor products manufactured by Boston Gear and Bauer Gear Motor includes varying degrees of protection against the harsh elements increasingly used in the prevention of microbial contamination and bacterial growth in hygiene sensitive environments.

[www.AltraFoodandBeverage.com](http://www.AltraFoodandBeverage.com)

## AS THE LEADING INNOVATORS IN GEARING & GEAR MOTOR TECHNOLOGY...

**Boston Gear and Bauer Gear Motor** provide a full complement of worm and helical gear drives together with helical, bevel and parallel shaft gear motors with varying degrees of sanitary protection to meet the needs of the diverse requirements within a production facility. Boston Gear products enable flexible motor assembly independent of the manufacturer while the gear motor solutions from Bauer Gear Motor provide compact space saving integral geared motor solutions. The varying drive system products shown below are designed for not only for harsh-duty washdown typically located at or above the food product but also for applications where hygiene and cleanability are of utmost importance.

### STAINLESS STEEL Highest mechanical resilience in washdown applications

#### BOSTON SERIES GEAR DRIVES

Right Angle



**Helical Bevel Gear Drive**  
SS2000R Series

Right Angle



**Worm Gear Speed Reducer**  
SS700 Series

Inline



**Helical Inline Gear Drive**  
SS2000 Series

#### BAUER SERIES GEAR MOTORS

Right Angle



**Helical Bevel Gear Motor**  
HiflexDRIVE - SS

Inline



**Helical Gear Motor**  
Series BG - SS

#### SHAFT ACCESSORIES



**Mounted Bearings**



**Jaw Couplings**



**Universal Joints**



**Shaft Collars**

### ASEPTIC Guarantees highest hygiene levels through smooth water repellent coated surfaces

#### BAUER SERIES GEAR MOTORS

Right Angle



**Helical Bevel-Gear Motor**  
HiflexDRIVE - Aseptic

Right Angle



**Helical Worm Gear Motor**  
Aseptic Series BK

Inline



**Helical Gear Motor**  
Aseptic Series BG

Parallel Shaft

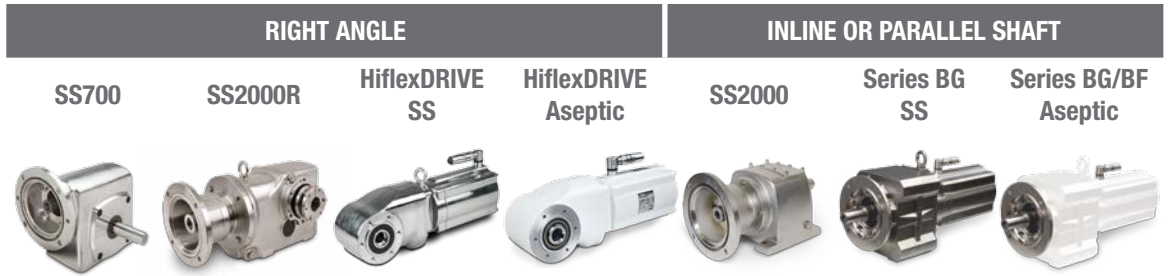


**Helical Parallel Shaft Gearmotor**  
Aseptic Series BF





## FEATURES VIRTUALLY ELIMINATING RISK TO FOOD PRODUCTS: SEALING FEATURES



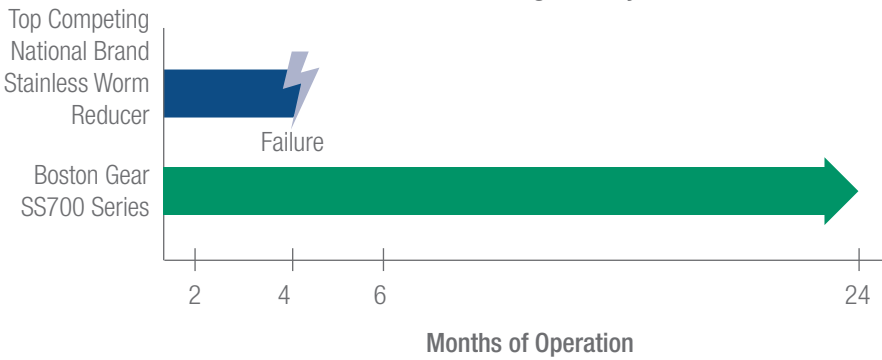
		RIGHT ANGLE				INLINE OR PARALLEL SHAFT		
		SS700	SS2000R	HiflexDRIVE SS	HiflexDRIVE Aseptic	SS2000	Series BG SS	Series BG/BF Aseptic
<b>Non-Vented Housing</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>Double-Lipped Shaft Seal</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>High-Pressure Washdown Seal</b>		Optional	Optional	Optional	Optional	Optional	Optional	Optional
<b>Gasketed Shaft Cover</b>		—	Optional	Optional	Optional	—	—	—
<b>Internal Magnets to Prevent Metallic Wear Debris from Damaging Seals</b>		—	Standard	—	—	Standard	—	—
<b>O-Ring Mounting Surfaces</b>		Standard	Standard	Optional	Optional	Standard	Optional	Optional
<b>Non-Ventilated Motor</b>		—	—	Standard	Standard	—	Standard	Standard
<b>Plug-In Motor Connection</b>		—	—	Standard	Standard	—	Standard	Standard
<b>*IP67 Compliance</b>		Standard / Optional	Standard / Optional	Standard	Standard	Standard / Optional	Standard	Standard
<b>*IP69K Compliance</b>		Standard / Optional	Standard / Optional	Optional	Optional	Standard / Optional	Optional	Optional
<b>Integral Brake/Encoder</b>		—	—	Optional	Optional	—	Optional	Optional

\*Approval pending for SS700, SS2000R and SS2000

# EFFICIENCIES THAT MAXIMIZE **PRODUCTIVITY** & **PROFITS** IN A COMPETITIVE INDUSTRY

## LONGER PRODUCT LIFE

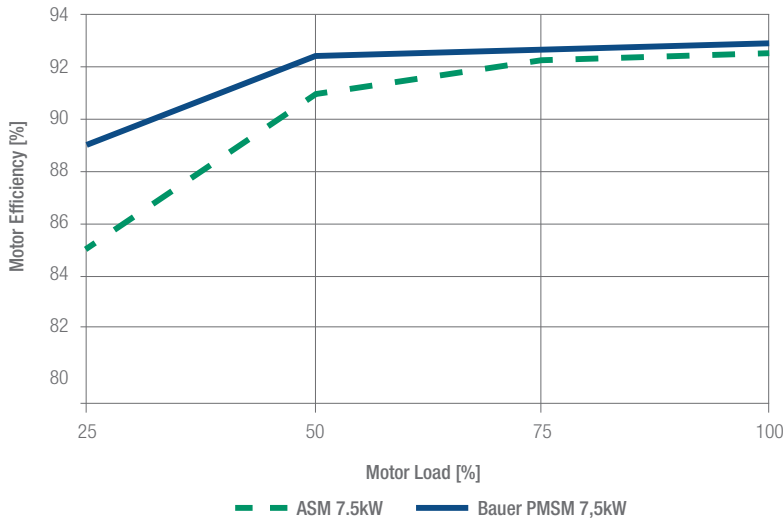
Real Life Head-to-Head Testing at a Major Meat Processor



## HIGHER MOTOR EFFICIENCIES

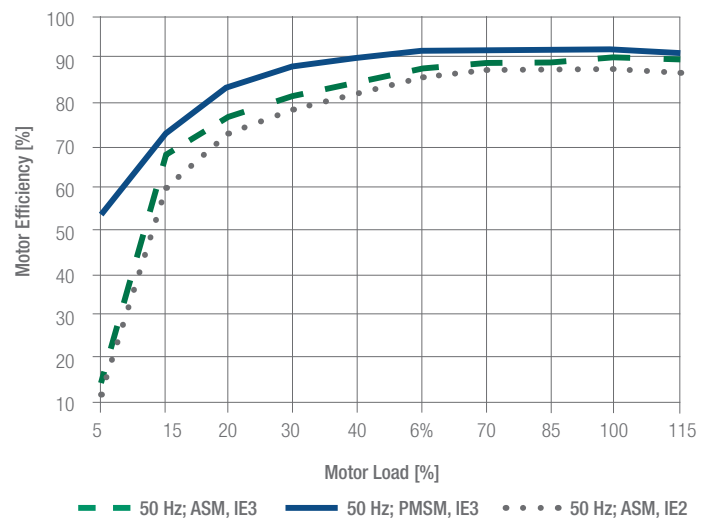
The BAUER Series integrated motors are available in efficiency classes from IE1 to IE4. All motors are optimized for partial load duty according to EN 50598-2 with the PMSM technology, allowing a proven energy savings of up to 40% under these exact conditions.

Energy efficiency IE4 Motor (ASM vs. PMSM at 50Hz)



ASM = Asynchronous Motor

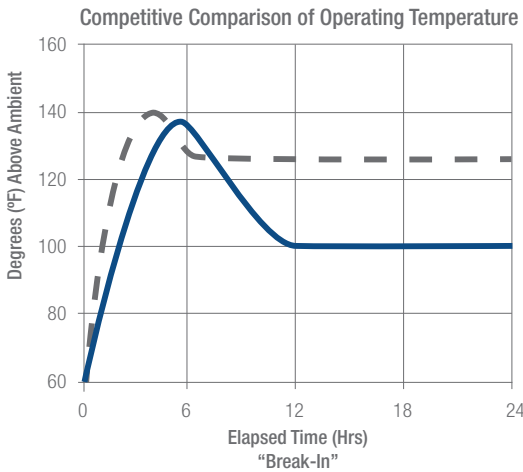
ASM & PMSM 5,5kW; IE3; 50Hz



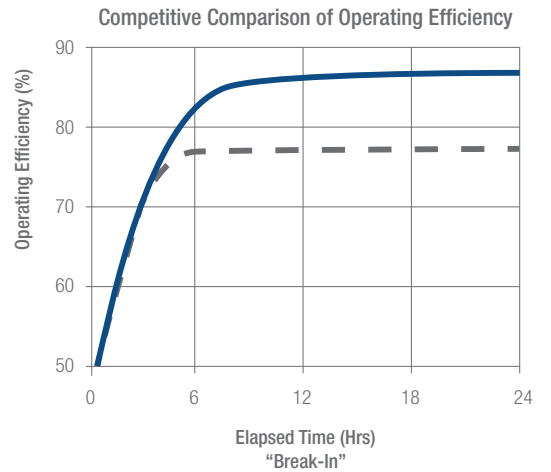
PMSM = Permanent Magnet Synchronous Motor

## HIGHER SYSTEM OPERATING EFFICIENCIES

Efficiencies are tested and reported for the complete geared assembly, unlike many competing brands who report efficiencies per gear mesh. Many competing brands even assign Ratings that are not in accordance with AGMA guidelines. The test results below clearly demonstrate our performance advantages in both Operating Temperature and Operating Efficiency.



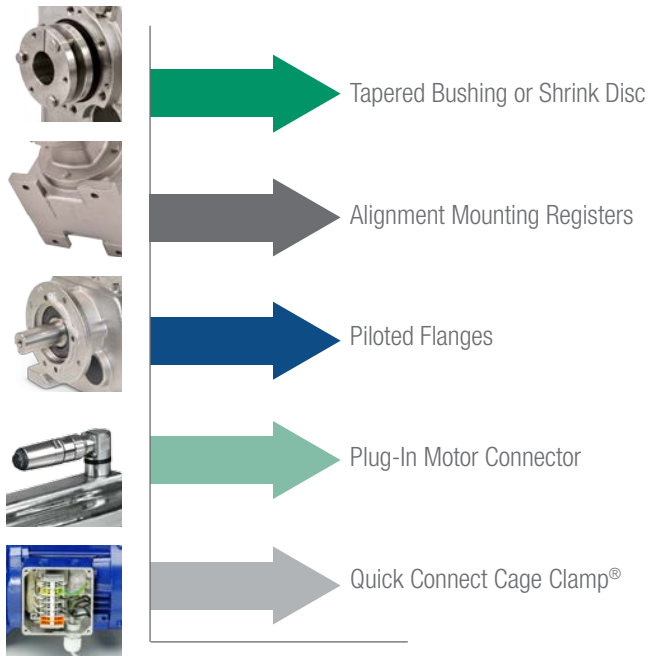
--- Competing National Brand    — Boston Gear SS700 Series



--- Competing National Brand    — Boston Gear SS700 Series

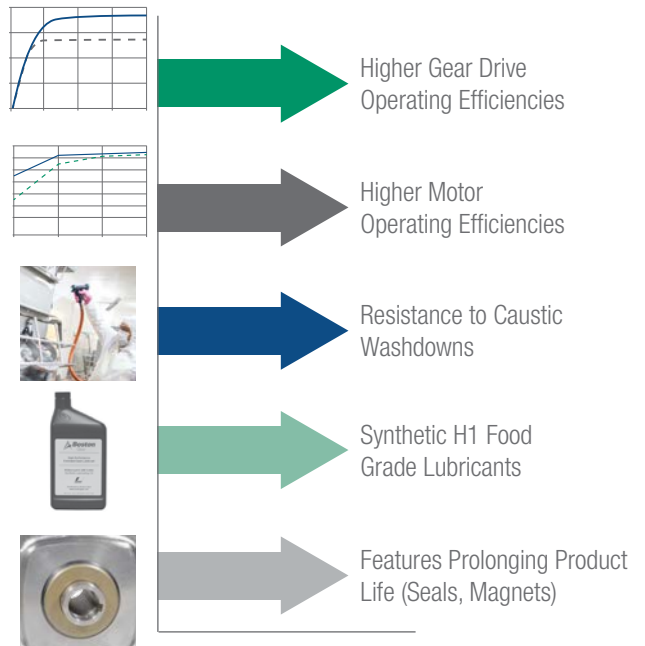
## REDUCED INSTALLATION TIME AND MAINTENANCE COST

### Installation



Time Saved [%]

### Maintenance



Maintenance Savings [\$]

**Belted Drives and Sheaves**

**TB Wood's**

*Belted Drives*

Chambersburg, PA - USA  
**1-888-829-6637** – Press #5

*For application assistance:*  
 1-888-829-6637 – Press #7

**Couplings**

**Ameridrives Couplings**

*Mill Spindles, Ameriflex,  
 Ameridisc*

Erie, PA - USA  
**1-814-480-5000**

*Gear Couplings*

San Marcos, TX - USA  
**1-800-458-0887**

**Ameridrives Power Transmission**

*Universal Joints, Drive Shafts,  
 Mill Gear Couplings*

Green Bay, WI - USA  
**1-920-593-2444**

**Bibby Turboflex**

*Disc, Gear, Grid Couplings,  
 Overload Clutches*

Dewsbury, England  
**+44 (0) 1924 460801**

Boksburg, South Africa  
**+27(0) 11 918 4270**

**Guardian Couplings**

*Engineered Flywheel Couplings,  
 Engine Housings and Pump Mounts,  
 Flexible Shaft Couplings*

Michigan City, IN - USA  
**1-219-874-5248**

**Huco Dynatork**

*Precision Couplings and  
 Air Motors*

Hertford, England  
**+44 (0) 1992 501900**

Chambersburg, PA - USA  
**1-888-829-6637**

**Couplings Cont.**

**Lamiflex Couplings**

*Flexible Couplings, Bearing  
 Isolators, and Coupling Guards*

Cotia, SP - Brasil  
**+55 (11) 4615-6300**

**TB Wood's**

*Elastomeric Couplings*

Chambersburg, PA - USA  
**1-888-829-6637** – Press #5

*For application assistance:*  
 1-888-829-6637 – Press #7

*General Purpose Disc Couplings*

San Marcos, TX - USA  
**1-888-449-9439**

**Electromagnetic  
 Clutches and Brakes**

**Inertia Dynamics**

*Spring Set Brakes; Power On and  
 Wrap Spring Clutch/Brakes*

New Hartford, CT - USA  
**1-800-800-6445**

**Matrix International**

*Electromagnetic Clutches  
 and Brakes, Pressure Operated  
 Clutches and Brakes*

Brechin, Scotland  
**+44 (0) 1356 602000**

New Hartford, CT - USA  
**1-800-825-6544**

**Warner Electric**

*Electromagnetic Clutches  
 and Brakes*

New Hartford, CT - USA  
**1-800-825-6544**

*For application assistance:*  
 1-800-825-9050

Saint Barthélemy d'Anjou, France  
**+33 (0)2 41 21 24 24**

*Precision Electric Coils and  
 Electromagnetic Clutches and  
 Brakes*

Columbia City, IN - USA  
**1-260-244-6183**

**Engineered  
 Bearing Assemblies**

**Kilian Manufacturing**

*Engineered Bearing  
 Assemblies*

Syracuse, NY - USA  
**1-315-432-0700**

**Gearing**

**Bauer Gear Motor**

*Gearred Motors*

Esslingen, Germany  
**+49 (711) 3518-0**

Somerset, NJ - USA  
**1-732-469-8770**

**Boston Gear**

*Enclosed and Open Gearing,  
 Electrical and Mechanical  
 P.T. Components*

Charlotte, NC - USA  
**1-800-825-6544**

*For application assistance:*  
 1-800-816-5608

**Nuttall Gear and  
 Delroyd Worm Gear**

*Worm Gear and  
 Helical Speed Reducers*

Niagara Falls, NY - USA  
**1-716-298-4100**

**Heavy Duty  
 Clutches and Brakes**

**Industrial Clutch**

*Pneumatic and Oil Immersed  
 Clutches and Brakes*

Waukesha, WI - USA  
**1-262-547-3357**

**Svendborg Brakes**

*Industrial Brakes and  
 Brake Systems*

Vejstrup, Denmark  
**+45 63 255 255**

**Twiflex Limited**

*Caliper Brakes and Thrusters*

Wichita Falls, TX - USA  
**1-844-723-3483**

Twickenham, England  
**+44 (0) 20 8894 1161**

**Heavy Duty  
 Clutches and Brakes Cont.**

**Wichita Clutch**

*Pneumatic Clutches  
 and Brakes*

Wichita Falls, TX - USA  
**1-800-964-3262**

Bedford, England  
**+44 (0) 1234 350311**

**Linear Products**

**Warner Linear**

*Linear Actuators*

Belvidere, IL - USA  
**1-800-825-6544**

*For application assistance:*  
 1-800-825-9050

Saint Barthélemy d'Anjou,  
 France  
**+33 (0)2 41 21 24 24**

**Overrunning Clutches**

**Formsprag Clutch**

*Overrunning Clutches  
 and Holdbacks*

Warren, MI - USA  
**1-800-348-0881** – Press #1

*For application assistance:*  
 1-800-348-0881 – Press #2

**Marland Clutch**

*Roller Ramp and Sprag Type  
 Overrunning Clutches  
 and Backstops*

South Beloit, IL - USA  
**1-800-216-3515**

**Stieber Clutch**

*Overrunning Clutches  
 and Holdbacks*

Heidelberg, Germany  
**+49 (0) 6221-30470**

For information concerning our  
 sales offices in Asia Pacific  
 check our website  
[www.altramotion.com.cn](http://www.altramotion.com.cn)



An Altra Industrial Motion Company

[www.bauergears.com](http://www.bauergears.com)

31 Schoolhouse Road  
 Somerset, NJ 08873 - USA  
 Phone: 732-469-8770  
 Fax: 732-469-8773



An Altra Industrial Motion Company

[www.bostongear.com](http://www.bostongear.com)

701 Carrier Drive  
 Charlotte, NC 28216 - USA  
 Phone: 704-588-5610  
 Fax: 704-588-7181

**Customer Service:**

800-825-6544

**Application Assistance:**

800-816-5608