

**STÖBER**

# **Industrial Design Solutions**

**Geared to a higher standard®**

# STÖBER Drives Inc., Maysville KY

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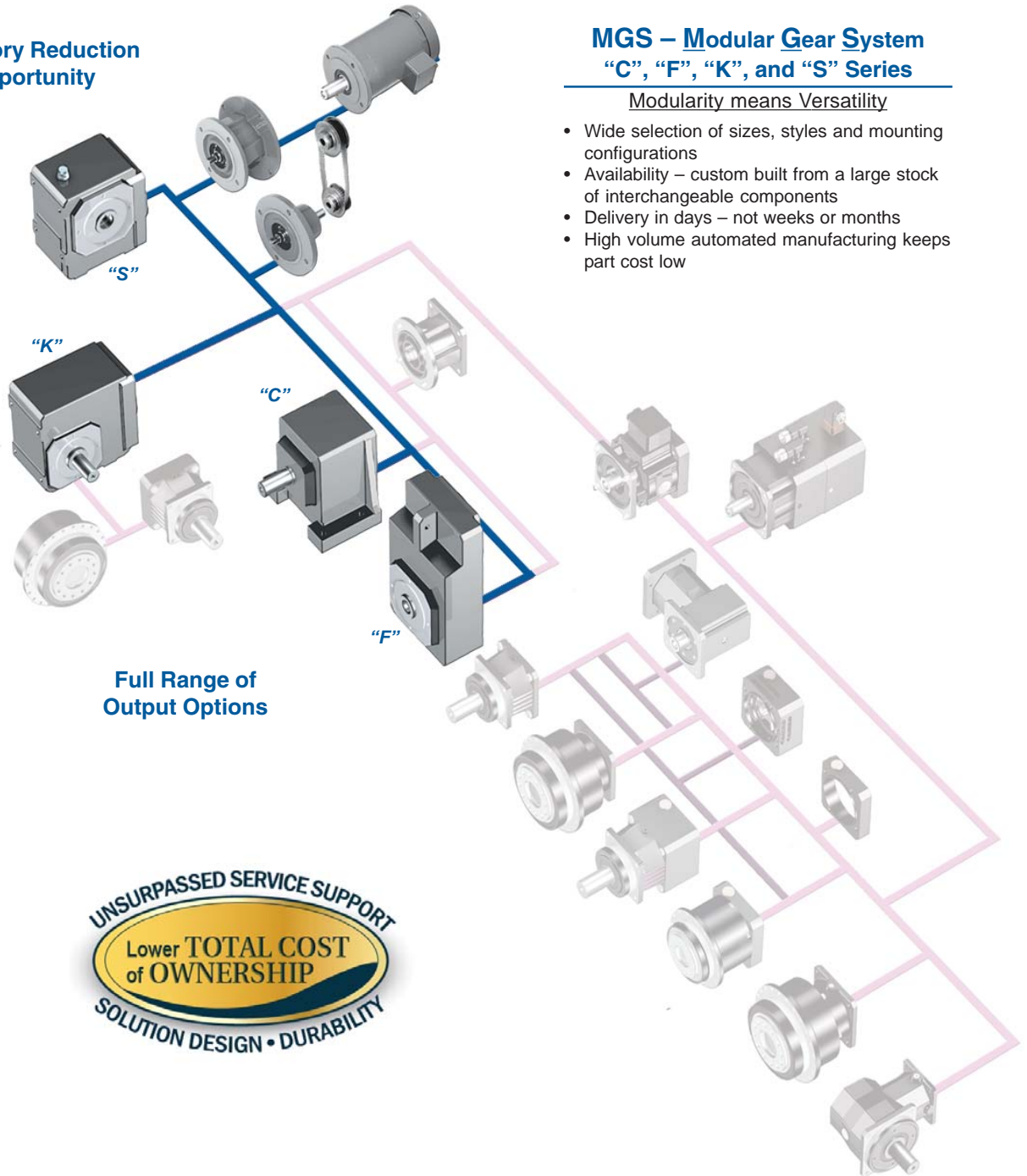


# STÖBER

# TOP™ – Total Operational Performance

With the very first STOBBER drive our clients' own, they learn that STOBBER delivers more than outstanding accuracy and reliability, it lowers their total cost of operation. How? Our products optimize your Total Operational Performance by significantly reducing energy usage, eliminating maintenance, minimizing downtime and repair, and providing measurably better efficiency. Every STOBBER drive is designed to out-last any other gearbox on the market. Once you experience a STOBBER drive, you will know why our passion is to exceed your expectations in all that we do.

**Inventory Reduction Opportunity**



## **MGS – Modular Gear System** “C”, “F”, “K”, and “S” Series

Modularity means Versatility

- Wide selection of sizes, styles and mounting configurations
- Availability – custom built from a large stock of interchangeable components
- Delivery in days – not weeks or months
- High volume automated manufacturing keeps part cost low

**Full Range of Output Options**



# Total Cost of Ownership

The total cost of owning any product is more than the original price that is paid. In the event of a breakdown or other catastrophe, many factors will add to the price of using a product that is less reliable or of lower quality than a drive from STOBER. The versatility and interchangeability of our components allow most products to be shipped in 1 day.



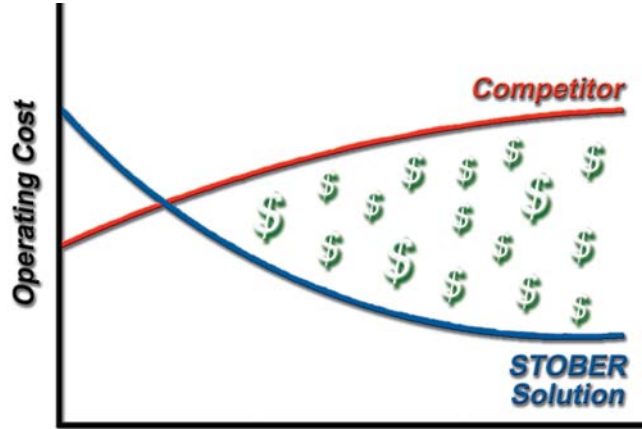
No Maintenance



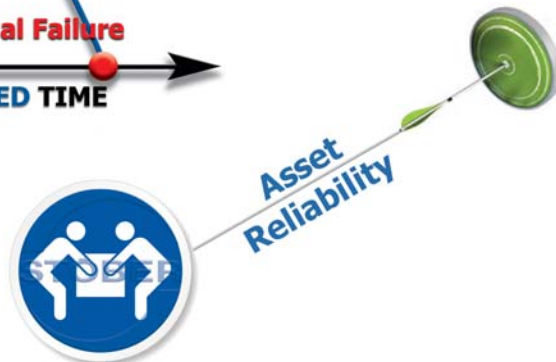
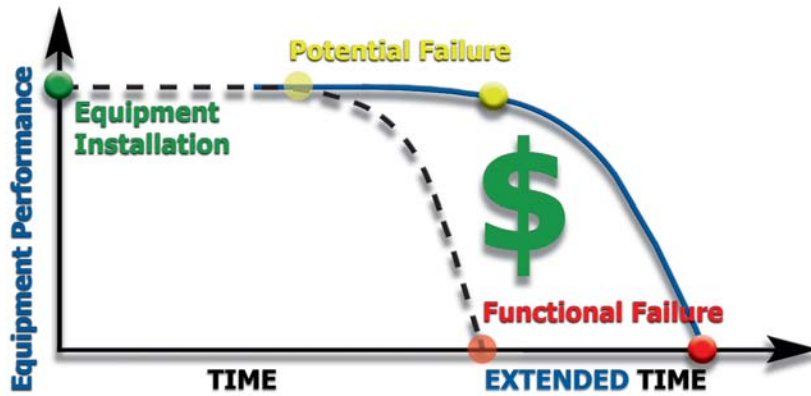
No Oil Changes or Disposal Issues



Lower Energy Cost



$$\begin{array}{c}
 \$ \times \$ \times \$ \times \$ \times \$ \times \$ \times \$ \\
 \text{Maintenance Cost} \quad \text{Engineering Cost} \quad \text{Travel Cost} \quad \text{Down Time Cost} \quad \text{Replacement Cost} \quad \text{Energy Cost} \quad \text{Inventory Cost} \\
 = \$ \text{Total Cost of Ownership}
 \end{array}$$

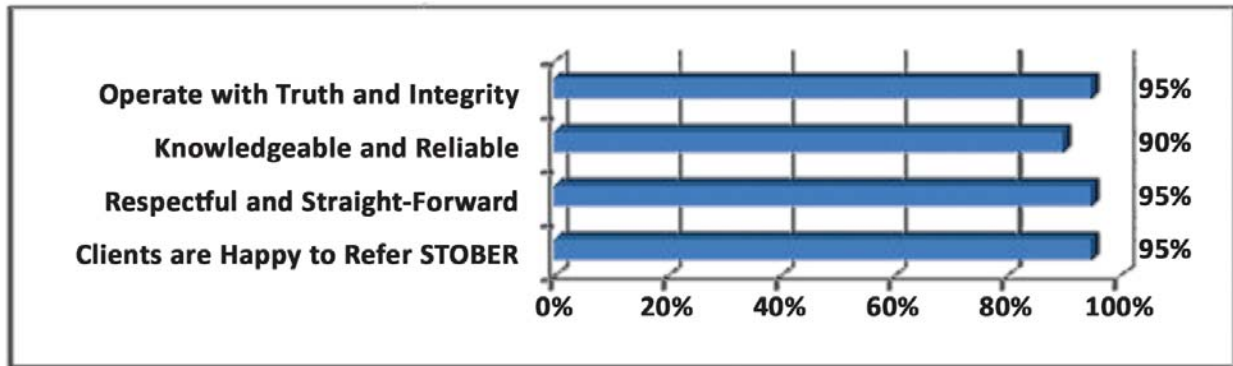


At STOBER we are committed to creating lasting partnerships by serving you with uncompromising integrity and excellence.

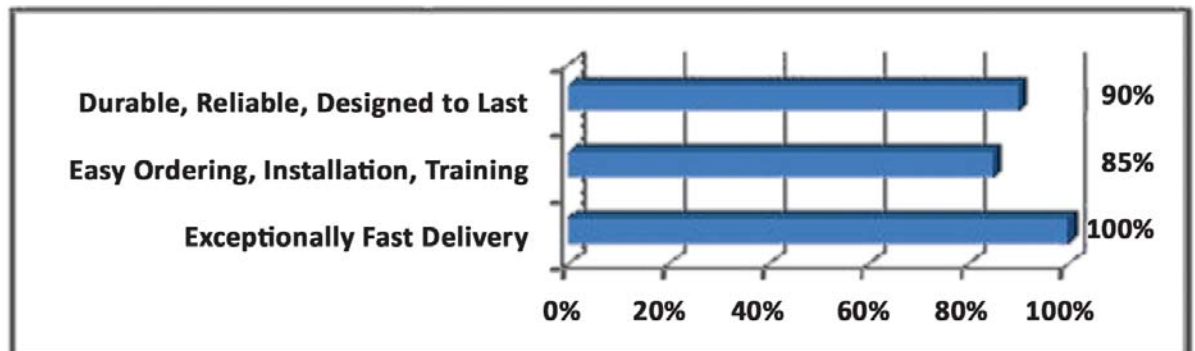
# Unsurpassed Service Support

Our goal is to serve our clients with excellence and base every decision on our core values. Our clients tell us that we deliver measurably stronger results and serve them with truth, integrity, and respect. A survey of STOBER clients revealed the following results.

## Best Service



## Best Product



# Delivering the World's Best Gear Solutions

The design of a STOBER drive begins with the end in mind. Our inspired German engineering starts with finding the highest quality parts. If commercial parts are not up to our standards, we design and manufacture them ourselves. Our expert assembly adheres to the strictest tolerances while our designs deliver virtually unlimited adaptability. Every element of STOBER's customized products culminates to deliver years of unflinching performance, even in the toughest environments.

## Engineered – Structural Rigidity



## Engineered – Precision Gearing Process



- blanked
- turned
- rough milled
- case hardened (61 RC)
- grinding
  - bearing seat
  - pinion outside diameter



## Engineered – High Quality Bearings

Tight Tolerance – Reduced Clearance  
Crowned cage for optimal lubricant flow

- improved ball guidance
- fast lubrication film formation
- reduced friction
- lower running noise
- eliminates cage ejections



**3 and 5 YEAR WARRANTY**



**Mobil Industrial Lubricants**

Low Deposit Formation, Low wear, Potential Energy Efficiency

Industry performance specifications

**GM Gear Performance**

Equipment protection, Additional food benefits, Incidental food contact

Material: Metal, Kosher, Allergens, Gluten Free

H1 Registration, Canadian Food Safety Directorate - M080



## Attention to Detail – Robustness

- NEMA C-face adapter with O-ring
- dual output seals
- flexible coupling eliminates misalignment, motor easily removed
- long-life input seals
- stainless steel oil plugs
- magnetic drain plugs
- gears supported with dual bearings in one-piece housing for structural rigidity

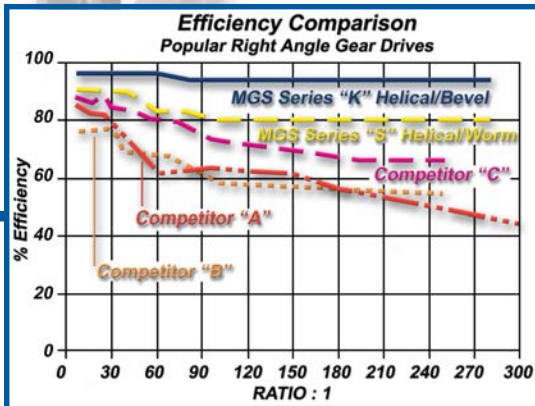
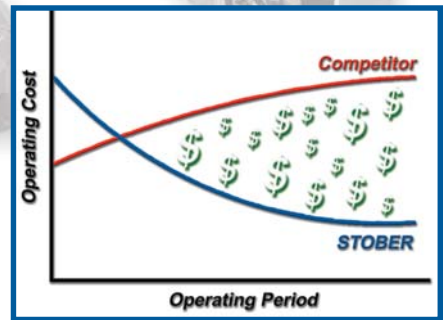
# Reliability, Adaptability, Maintainability

**3 WAY**  
**After Sale Service**  
 5 Day Factory Service  
 Field Service  
 Training Support

**SHIPS in  
 1 DAY**

**SAME DAY  
 EMERGENCY  
 SHIPPING**

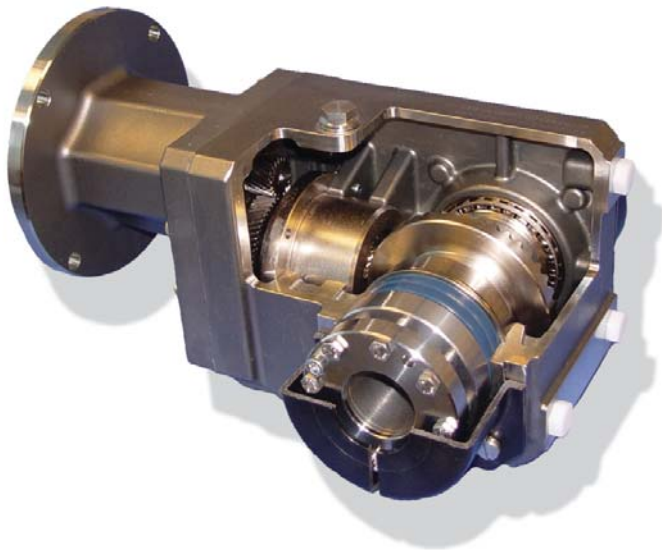
**3 Rings**  
 To get competent,  
 "one-stop" shopping!



# What's New @ STOBER?

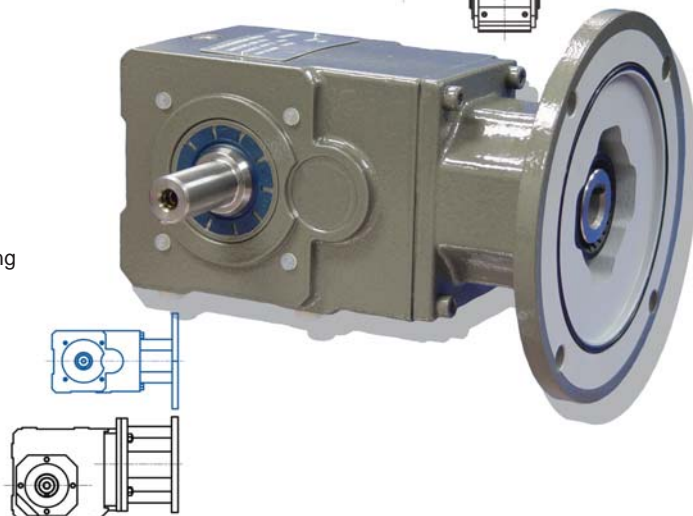
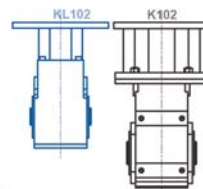
## "KSS" Series

Stainless Steel Right Angle Helical/Bevel. Options include solid shaft, hollow output, and wobble free bushings.

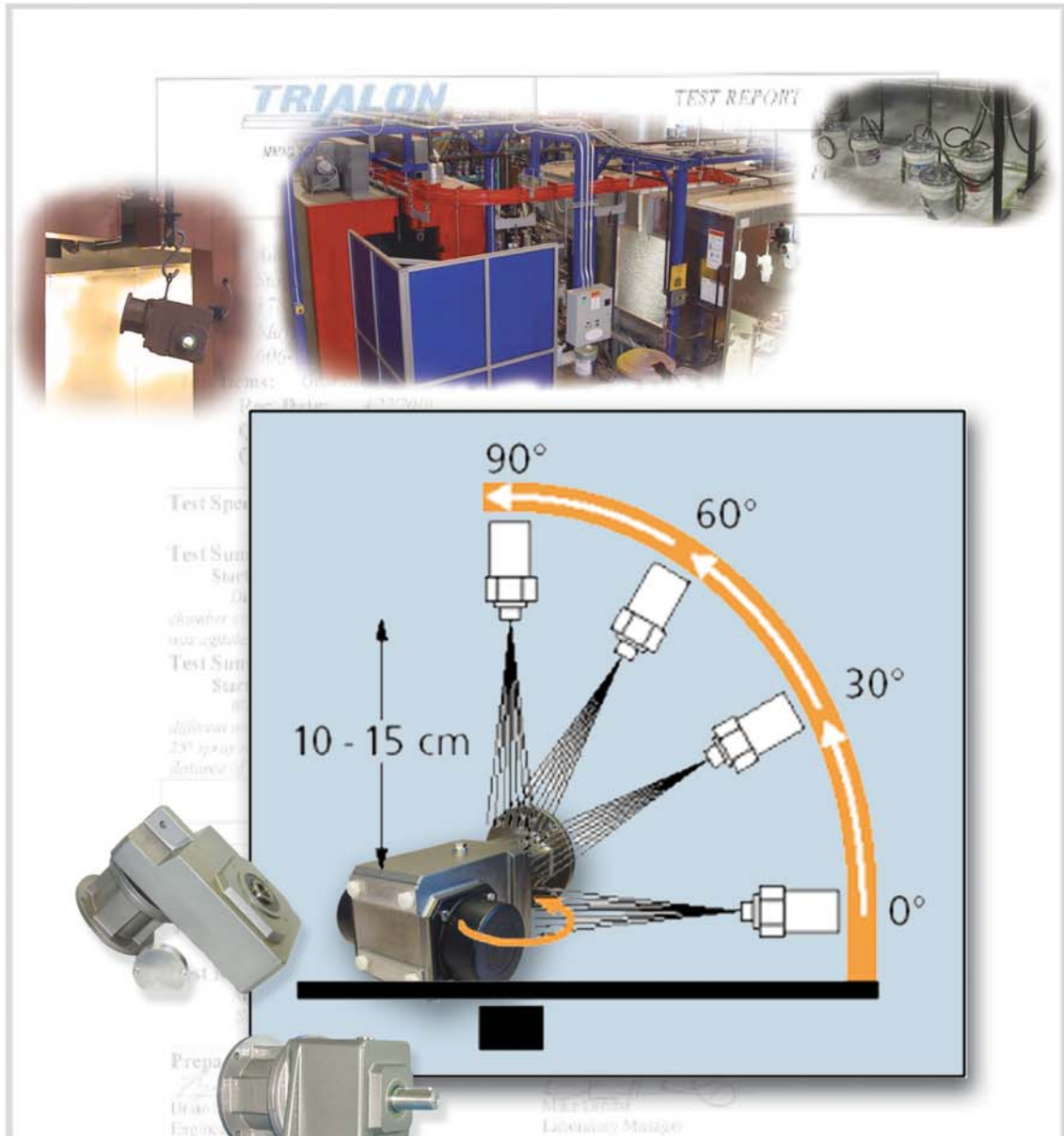


## "KL" Series Helical/Bevel

- compact – 30% smaller than "K1" unit
- high efficiency helical gearing
- long life
- maintenance free
- symmetrical around horizontal centerline
- output available hollow, solid, and wobble free bushing







Value	pH	Substance
-1.0	Hydrochloric Acid	
0.5	Batteries	
1	Toilet Bowl	
1.5 - 2.0	Gastric & Citric Acid	
2.4	Lemon Juice	
2.5	Coke	
2.9	Vinegar, Wine	
3.5	Apples, Orange Juice	
4.5	Beer	
5	Coffee	
5.5	Tea	
6.5	Milk	
7	Pure Water	
6.5 - 7.5	Human Saliva & Blood	
7.7 - 8.3	Sea Water	
9.8 - 10.0	Detergent & Soap	
11.5	Ammonia	
12.5	Chlorine	
13.5	Lye	
14	Caustic Soda	

# IP69K Certified



# Beverage and Food Duty

- Lubricated for Life – Double Output Seals (where possible with a dual lip outer seal and a single lip inner seal)
- Maintenance Free – No Breather – Mounts in ANY Horizontal Output Position
- Stainless Output Bushing, Shaft, or Bore

Patented (U.S. Patent Number 5,496,127) Stainless Steel Double Sided Bushing Mounted into Stainless Steel Output Quill easily mounts onto standard cold finished, ground, or stainless shafting.

- Output Covers Included with Double Bushings – protects seals from high pressure washing
- Inside Split Cover Cap – enables easy assembly onto the shaft
- Output Covers Optional with Single Bushing and Quills
- ALL Stainless Steel Hardware



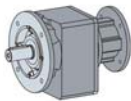
- 3 Year Warranty with 5 Year Long Life Option
  - Long Life features: Improved Input Design, SHC630 Synthetic Oil, Application specific mounting position
- Multilayer Industrial 316 Stainless Steel Epoxy Coating (also available with White Epoxy (BISC approved))

## "C" Series Concentric Helical Solid Shaft

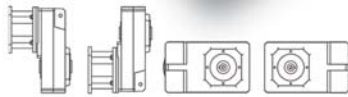


Also available:

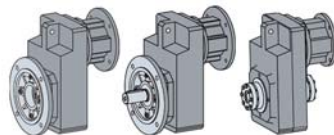
Flange Output



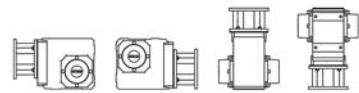
## "F" Series Offset Helical Hollow Output Bushing Solid Shaft Output



Flange Output, Hollow or Solid Shaft  
Single or Double Side Bushing



## "K" Series Right Angle Helical/Bevel Hollow Output Solid Shaft Output Double Side Wobble Free Bushing



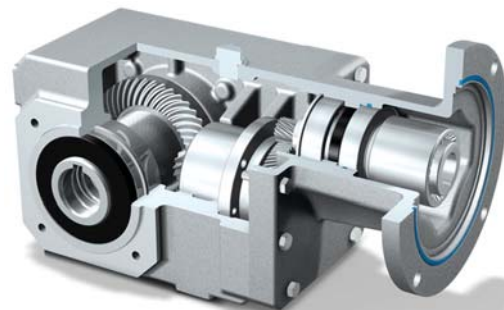
Flange Output, Hollow or Solid Shaft  
Foot Mount, Hollow or Solid Shaft



STOBER Drives Inc. now offers our quality-proven, high-efficiency, food duty units with many configurations to fit your harshest applications. The "KSS" Series STAINLESS STEEL unit is available with a 3 Year Warranty.

## "KSS" Stainless Steel Series

- Lubricated for life with CIBUS SHC 220-H1 food grade oil
- Application specific mounting position
- Laser etched nameplate data



Silver Bullet AM™ is a registered trademark of Burke Industrial Coatings.

# Coating Options – Understand the Difference

STOBER can meet your needs in any of these areas.

## Beverage Duty – Moderately Wet Areas

- Stainless Steel Hardware – Plastic Covers
- Suitable for **Moderate** washdown applications
- 316 Stainless Steel Pigmented Finish
- **IP69K Option**



## Standard – Dry Areas

- Non-plated hardware
- **Not Suitable** for washdown applications
- Gloss gray finish



## Food Duty – Severely Wet Areas

- Stainless Steel Hardware – Plastic Covers
- Suitable for the **Most Severe** washdown applications
- Multilayered 316 Stainless Steel Pigmented Finish
- Antimicrobial clear top coat
- USDA Compliant
- **IP69K Option**



## Stainless Steel – Extremely Harsh Areas

- Stainless Steel Hardware – Plastic Covers
- Suitable for the **Harshesht** washdown applications
- USDA Compliant
- **IP69K Option**



# IP69K

# MGS – Modular Gear System Speed Reducers



## “C” Series – Concentric Helical

These versatile gear drives offer you performance, durability, and economy for a wide range of constant speed applications. High efficiency helical gearing keeps motor size to a minimum while conserving energy.

### Performance Specifications:

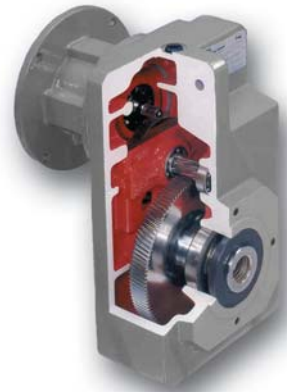
- Horsepower ratings from 1/6 to 165
- Output torques to 62,000 in. lbs.
- Output speeds available from 875 to 6.3 RPM
- Speed reducer ratios from 2.0:1 to 276:1
- 3 year warranty standard with option for 5 years
- Available beverage duty, food duty, and IP69K

## “F” Series – Offset/Helical

Compact size and flexibility make these gear drives a popular choice for applications that require high performance, efficiency, and durability. Series "F" gear drives are available with a wide selection of exact ratios and output speeds to eliminate the need for expensive and maintenance prone external input drives. It's a compact package that reduces product and installation costs today— and maintenance costs tomorrow.

### Performance Specifications:

- Horsepower ratings from 1/6 to 33
- Output torques to 9,743 in. lbs.
- Output speeds available from 406 to 3 RPM
- Speed reducer ratios from 4.3:1 to 552:1
- 3 year warranty standard with option for 5 years
- Available beverage duty, food duty, and IP69K.



## “K” Series – Right Angle Helical/Bevel

Right angle helical/bevel gear drives offer higher input-to-output efficiencies than conventional worm gear drives. This added efficiency reduces your costs today through smaller gear drive and motor sizing. Tomorrow, you'll benefit through optimum energy savings.

### Performance Specifications:

- Horsepower ratings from 1/6 to 165
- Output torques to 106,296 in. lbs.
- Output speeds available from 437 to 4.5 RPM
- Speed reducer ratios from 4:1 to 381:1
- 3 year warranty standard with option for 5 years
- Available beverage duty, food duty, stainless steel, and IP69K.

## “S” Series – Right Angle Helical/Worm

These durable units combine economy and versatility for a wide range of applications. MGS helical-before-worm gearing offers twice the efficiency of two-stage worm drives.

### Performance Specifications:

- Horsepower ratings from .12 to 8.19
- Output torques to 7,086 in. lbs.
- Output speeds available from 190 to 2.5 RPM
- Speed reducer ratios from 9.2:1 to 683:1
- 3 year warranty—your assurance of satisfactory product performance



# ComTrac® – Speed Control Made Simple!

## Series "0N" – Non geared – Foot Mount

These drives have been designed to provide dependable performance in adjustable speed applications which require high output speeds.

- 1/2 to 10 HP
- Output torques up to 496 in. lbs.
- Output speeds from 2180 to 311 RPM
- Ratios from 5:1 to 7:1
- NEMA C-face input — 56C thru 213/215TC



## Series "0F" – Non geared – Flange Mount

Series 0F allows the use of C-face input and output letting you add a reducer that meets your performance, configuration, and maintenance needs.

- 1/2 to 10 HP
- Output torques up to 496 in. lbs.
- Output speeds from 2180 to 311 RPM
- Ratios from 5:1 to 7:1
- NEMA C-face input — 56C thru 213/215TC

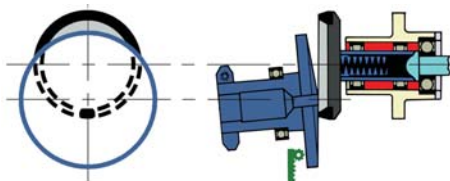


Series "0F" units mounted to MGS speed reducers will provide a wide variety of mounting and output configurations. Ask your STOBBER representative for information.

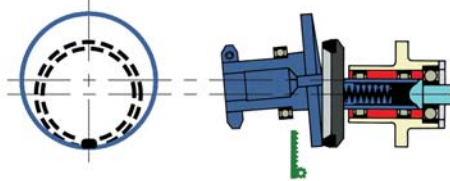


## Simple Operation

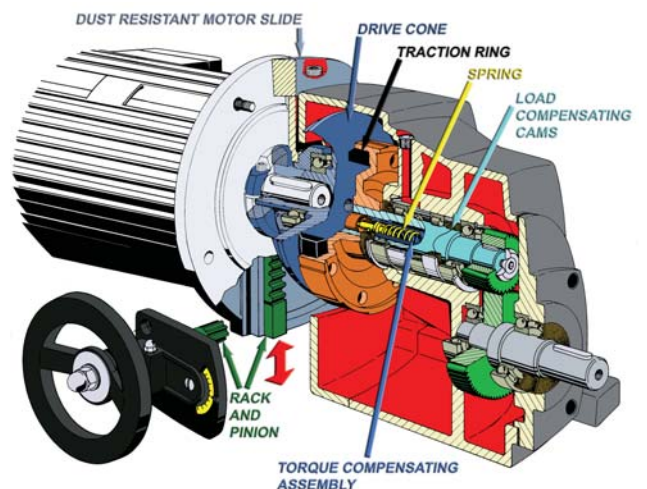
- Easily operated and serviced by semi-skilled personnel.
- Speed control made simple: Turn the handwheel — pinion moves the rack on the motor slide — up or down.



Maximum speed — motor slide up.



Minimum speed — motor slide down.



# ServoFit® Gearheads

P and PA



PH and PHA



PHQ and PHQA



PE



C



F



## INLINE AND OFFSET

Product	P	PA	PH	PHA	PHQ	PHQA	PE	C	F
<b>Typical Industries</b>									
Packaging	✓						✓	✓	✓
Machine Tool	✓	✓	✓	✓	✓	✓			✓
Robotics	✓	✓	✓	✓	✓	✓			
Material Handling	✓		✓				✓	✓	✓
Semiconductor	✓		✓					✓	✓
Printing	✓	✓		✓		✓			
Converting	✓	✓	✓	✓	✓	✓		✓	
Food Processing	✓							✓	✓
<b>Nominal Output Torque Ranges – NM (In-lbs)</b>									
0-50 (0-450)	✓	✓	✓	✓			✓	✓	✓
50-200 (450-1,770)	✓	✓	✓	✓			✓	✓	✓
200-1,000 (1,770-8,850)	✓	✓	✓	✓	✓	✓		✓	✓
1,000-5,000 (8,850-45,000)	✓	✓	✓	✓	✓	✓		✓	✓
5,000-10,000 (45,000-88,500)			✓		✓	✓		✓	✓
10,000-23,000 (88,500-203,000)					✓	✓			✓

PKX



PK



PHKX



PHK



PHQK



K



KL



KSS



KS

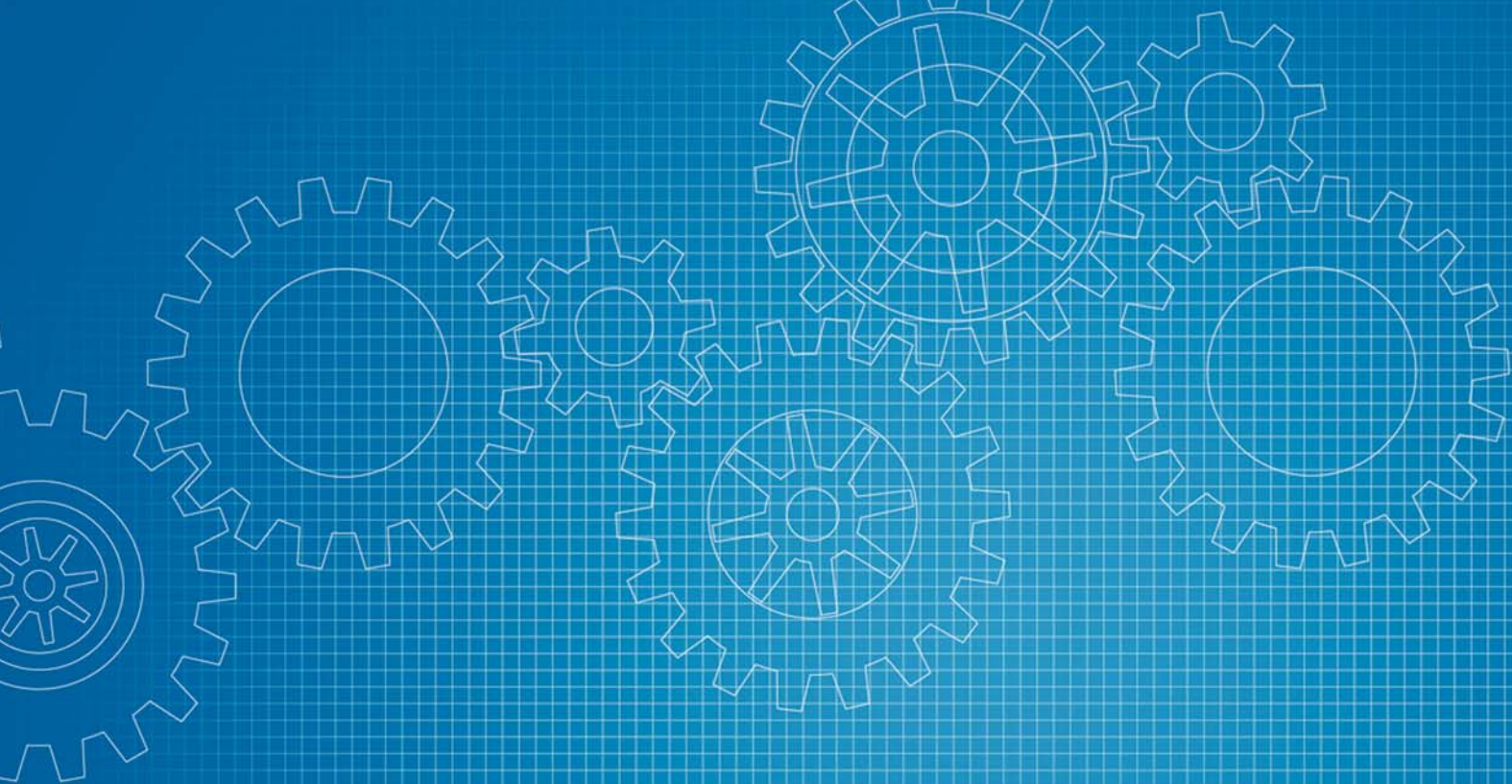


## HOLLOW AND RIGHT ANGLE

Product	PKX	PK	PHKX	PHK	PHQK	K	KL	KSS	KS
<b>Typical Industries</b>									
Packaging	✓	✓	✓	✓		✓	✓	✓	✓
Machine Tool	✓	✓	✓	✓	✓	✓			✓
Robotics	✓		✓	✓					✓
Material Handling	✓	✓	✓	✓	✓	✓	✓	✓	✓
Semiconductor			✓						✓
Printing		✓		✓					✓
Converting	✓	✓	✓	✓		✓	✓		
Food Processing	✓	✓				✓	✓	✓	
<b>Nominal Output Torque Ranges – NM (In-lbs)</b>									
0-50 (0-450)	✓		✓		✓	✓	✓		
50-200 (450-1,770)	✓		✓		✓	✓		✓	✓
200-1,000 (1,770-8,850)	✓	✓	✓	✓	✓	✓		✓	✓
1,000-5,000 (8,850-45,000)	✓	✓	✓	✓	✓	✓			
5,000-10,000 (45,000-88,500)			✓		✓	✓			
10,000-23,000 (88,500-203,000)					✓	✓			

# STÖBER Subsidiaries





ServoFit, MGS, STOBER, and ComTrac are registered trademarks of STOBER Drives Inc.  
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