STÖBER

ELIMINATED **SHOCK LOADS**

Issue: Shock loads causing downtime

Shock loads are a common cause of premature gear reducer failure and have damaging effects on production, often resulting in unplanned downtime. Many companies lose thousands of dollars a minute when production stops. STOBER has helped numerous customers overcome this issue.

One case study involves a beef process plant in the Midwest with a bone screw conveyor. The screw conveyor moves bones, which can sometimes become jammed. This jam causes shock loads when the screw is forced to break them, which results in premature failure to the gear reducer on the line.

STOBER Solution

STOBER eliminated this premature failure by evaluating the application and recommending a peak torque booster or high shock coupling, as well as moving the service factor to the severe shock load category.

Result

These two solutions eliminated the premature failure the processor was experiencing on the screw conveyor, saving the company thousands of dollars in downtime and eliminating the need for replacements.

MGS™ SPEED REDUCER SELECTION PROCEDURES

Service Factor:
Service factor should be determined for conditions such as non-uniform load, hours of service, and ambient temperature.

To establish a service factor use the information in tables 2 to 5

$$SF = f_B \times f_T \times f_L \times f_V$$

Choose an MGS reducer that will meet or exceed:

Design HP = HP x SF
Design Torque = Torque (in./lbs.) x SF

Note: Do NOT service factor the motor

Table 2. Load Factor (f_B)

Uniform Load	1.0	Medium Shock	1.4
Non-uniform Load	1.25	Severe Shock	1.6

Contact STOBER Technical Support for selection assistance on applications requiring frequent starts and stops.

Table 3. Ambient Temperature Factor (f_T)

	Ambient Temperature (°F)					
	32	50	70	85	100	120
f_T	1.15	1.15	1.0	1.0	1.15	1.3

For temperatures less than 32° or greater than 120°, contact STOBER Technical Support.

Table 4. Hours of Service Factor (f_L)

	Hours of Service						
	2	4	6	8	12	16	24
f_L	0.75	0.85	0.95	1.0	1.10	1.15	1.20

Table 5. Torque Characteristics (f_V)

Use for Frequency Convertor Only

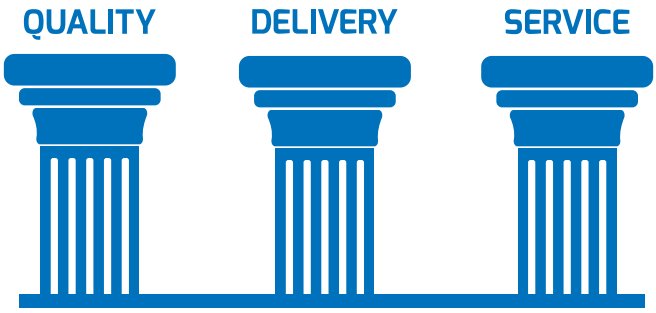
	f_V
Constant torque over entire speed variation	**1.0**
Increasing output torque from 87 – 50 Hz	**1.7**

- Additional locking of the input pinion by a shrink ring
- Emergency-off torques increased up to 80%, especially at low ratios and small gear unit sizes

STÖBER

Our Three **Pillars**

STOBER is your **trusted partner** in providing the ultimate customer experience. From unsurpassed quality to rapid response support to fast delivery, we are the **gold standard** for gearboxes.



STOBER CONFIGURATOR

With the new STOBER Configurator, engineers and designers will save time in product selection and designing. Everything is a simple click away!

World's Toughest Gearbox
Best components and quality

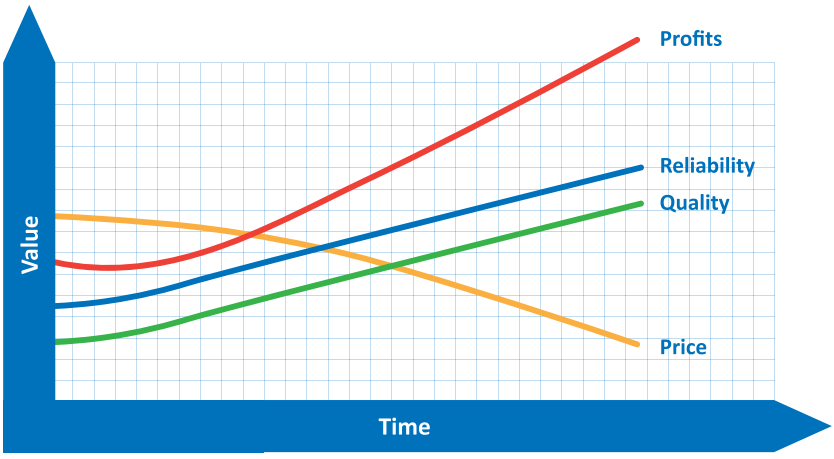
Quick Delivery
Build & Ship in 1 Day

24/7, 365 Support
Real people all the time

9.1 YEARS

Average mean time to failure for STOBER gearboxes in 24/7 harsh environment application.

Asset reliability means you can depend on a STOBER gear reducer for years, increasing profits and surpassing plant efficiency and targets.



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