Gearbox Application Worksheet

Use this form to request engineering assistance. The data you furnish will enable us to understand your application and recommend* the appropriate gearbox. When available please attach prints or dimensional drawings.

CONTACT INFORMATION

Name: _____

Email: _____

Company: _____

Address: _____

City: _____

State: _____ Zip: _____

Phone: _____

TORQUE, RPM, GEAR RATIO AND BORE SIZE

Required Input Torque (in-lbs): _____

Required RPM:** _____

**Maximum RPM for input or output shaft:
Float-A-Shaft = 500 RPM | Slide-Rite = 1200 RPM

To determine the gearbox for your required torque: Reference the the Torque and Efficiency charts from the product catalog or on www.tolomatic.com the performance data for each model. Locate your input torque on the graph and intersect it with the RPM of the input shaft. In general, gearbox capacity increases as listed below:

1.) Float-A-Shaft: Compact: Low Torque Journal Bearings
2.) Float-A-Shaft: Compact: High Torque Roller Bearings
3.) Slide-Rite CR: Compact
4.) Float-A-Shaft: Standard: Low Torque Journal Bearings
5.) Slide-Rite: Compact
6.) Slide-Rite CR: Standard
7.) Float-A-Shaft: Standard: High Torque Roller Bearings
8.) Slide-Rite: Standard

For ratios other than 1:1: Refer to the performance graph for that gearbox. When torque vs RPM intersects below the 300°F curve, you have selected a gearbox suitable for your application.

If your torque vs RPM intersection point is above the 300°F curve, then you do not have a proper application for that gearbox. Your options are to reduce either your input torque or RPM to get under the 300°F curve or try a gearbox with greater capacity.

Bore size for shaft requirements (in): _____

Output Torque (in-lbs): _____

Output Torque= Input torque X efficiency X ratio

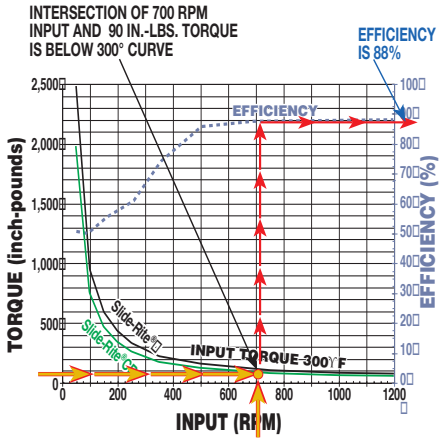
SLIDE-RITE® SELECTION EXAMPLE

Slide-Rite® Gearbox Standard Series at 700 RPM and 90 inch-pounds of input torque

Output torque = (Input torque) (efficiency) (ratio)
Output torque = (90 in.-lbs.) (.88) (1:1)
Output torque = 79 in.-lbs.

High Torque Ball Bearings

Torque / Efficiency vs RPM at Maximum Bearing Temperature



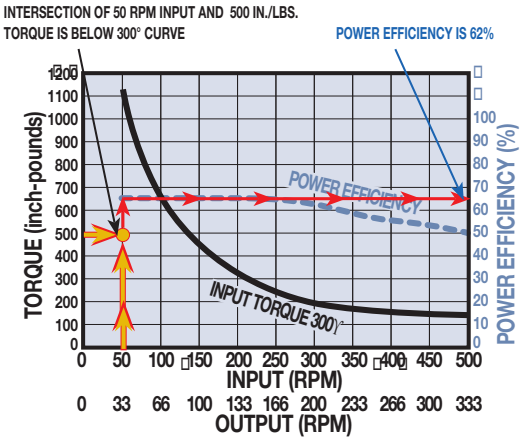
FLOAT-A-SHAFT® SELECTION EXAMPLE

3:2 Ratio Journal Bearing Float-A-Shaft at 50 RPM and 500 inch-pounds of input torque (See graph below)

Output torque = (Input torque) (efficiency) (ratio)
Output torque = (500 in.-lbs.) (.62) (3:2)
Output torque = 465 in.-lbs.

Low Torque Journal Bearings

Torque / Efficiency vs RPM at Maximum Bearing Temperature



*Recommendation is based on information supplied by the customer. Final acceptance and approval is the responsibility of the customer. Tolomatic recommends field testing or simulation of field testing on the machine it is designed for.