SDP/SI
Gearhead to Motor Mounting Information
Stock Drive Products/Sterling Instrument

MOUNTING INSTRUCTIONS

A) Using the screws provided, bolt the mounting bracket to the input end of the gearhead ratio unit.

B) Slide the motor shaft sleeve into the input clamp and align the slot in the sleeve with the slot in the clamp.

C) Rotate the clamp to align the mounting bracket access holes with the clamping bolts.

D) Place the motor on a solid work surface with the output shaft pointing up. Slide the assembled gearhead onto the motor shaft.

E) Using a torque wrench, tighten the clamp bolts to the pretorque values listed below.

F) Using the screws provided, bolt the gearhead to the motor.

G) Using an alternating pattern, gradually tighten the clamp bolts until you reach the final tightening torque listed below.

Clamp Bolt Tightening Torques				
Gearhead Frame Size	Pretightening Torque		Final Tightening Torque	
	lb. in.	N • m	lb. in.	N • m
NEMA 23	2	0.2	39	4.4
NEMA 34	4	0.4	76	8.5
NEMA 42	16	1.8	316	36
Metric 60	2	0.2	39	4.4
Metric 90	4	0.4	76	8.5
Metric 115	16	1.8	316	36

USEFUL FORMULAS

$$\text{The maximum output HP of Gearhead} = \frac{(\text{Maximum continuous torque}) \times (\text{Maximum rated output rpm})}{63025}$$

$$\text{The maximum allowable output HP of the motor} = \frac{\text{The maximum output HP of gearhead}}{0.90 \text{ (single stage) or } 0.85 \text{ (double stage)}}$$

$$\text{Effective inertia} = \frac{\text{load inertia}}{(\text{gear ratio})^2} + \frac{\text{gearhead}^\Delta}{\text{inertia}} + \frac{\text{pinion}^\Delta}{\text{inertia}}$$

For very fast response, the effective inertia should be one to three times larger than the motor inertia (including the pinion).

For acceptably fast response, the effective inertia should be less than ten times larger than the motor inertia (including the pinion).

$^\Delta$Inertia values shown in this catalog include both the gearhead and pinion values.