INSTALLATION AND INSTRUCTION SHEET
SUREGEAR® PLANETARY GEARBOXES FOR NEMA MOTORS – PGCN SERIES

Thank you for purchasing a SureGear® Planetary Gear Reducer.
We recommend that you read this installation and instruction sheet before operation, to ensure proper performance.

INSPECTION

- Unpack the SureGear and check to see that it is identical to what is specified in the purchase order. Inspect for shipping damage. Notify the returns department immediately if damage is discovered.
- For some configurations, a shaft bushing (or sleeve) is included to adapt the motor shaft to the clamping element.
  Do not lose the bushing, as it is required for proper operation.

NOTICE

These installation instructions are intended to help in the use of this gearbox as well as to maximize the life of the gearbox. The required technical specifications can be found in the catalog or online. In addition, the catalog also contains important information regarding the limitations and ratings of the gearbox.

LUBRICATION

All units are supplied and filled with lubrication. They are lubricated for life and no grease change is necessary.

ORIENTATION

The gear unit may be mounted in any orientation without any concern for lubrication.

TIGHTENING TORQUES

General Tightening Torques			
Bolt Size	**Hex Size [mm]**	**Torque**	
		N·m	**lb·in**
M3	2.5	1.5	13
M4	3	4.5	40
M5	4	9.0	80
M6	5	14.7	130
M8	6	36.2	320
M10	8	72.3	640
M12	10	124.3	1100

Torques for Gearbox Clamping Bolts		
Gearbox Series	**Torque**	
	N·m	**lb·in**
PGCN17-xxxxx	3.7	33
PGCN23-xxxxx	3.7	33
PGCN34-xxxxx	6	53

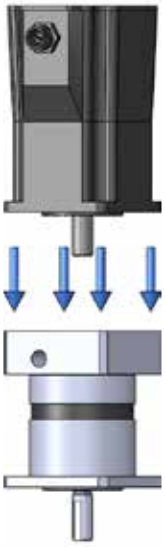
MOUNTING THE MOTOR TO THE GEARBOX

STEP 1

Rotate input clamping element until the bolt is visible through the access hole on the adapter.

STEP 2

Ensure that all mounting surfaces are clean. With the motor and gearbox VERTICAL, insert the motor into the gearbox.



STEP 3

Using the four bolts provided, tighten the motor to the gearbox adapter per the General Tightening Torques table provided.

STEP 4

Tighten the clamping element onto the motor shaft. Finally, insert the provided plug into the access hole.

Note – On the PGCN17 and PGCN23 gearboxes, there are two bolts on the input clamping element. Each of these bolts should be torqued to their listed values using the Torques for Gearbox Clamping Bolts table provided.

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CONNECTION TO LOAD

- When installing couplings, pulleys, gears, etc. on the shafts, do not apply impact or excessive thrust loads to the output shaft. Mount all components as close to the reducer housing as possible.
- Shafts must be free from vibration, excessive impact, radial loads, or thrust loads transmitted from the machine.

OPERATION

1) When starting, check for correct rotational direction of the output shaft, and apply the load gradually.
2) Pay careful attention not to overload the unit.
3) Periodically inspect the unit. Stop the unit for inspection if the following should occur:
   a) Case temperature suddenly rises, or exceeds the ambient temperature by 50 °C (122 °F).
   b) Noise from the unit becomes louder.
   c) Vibration becomes abnormal.
   d) Rotational speed becomes unstable.
   e) Lubricant leaks.
   f) Other faults or defects are found.
4) The following are possible causes of improper operating conditions:
   a) Faulty operation of the motor.
   b) Unit has become overloaded.
   c) Lubrication has deteriorated.
   d) Bearings or gears have been damaged.
   e) Connection between the SureGear and the motor is improper (clamp bolt on the SureGear clamping element has become loose).
   f) Connection between the SureGear and the machine is improper (set bolts on pulleys, couplings, etc. have become loose).

SUREGEAR PGCN GEARBOXES (GEAR REDUCERS) ARE NOT DESIGNED FOR BACK DRIVING.