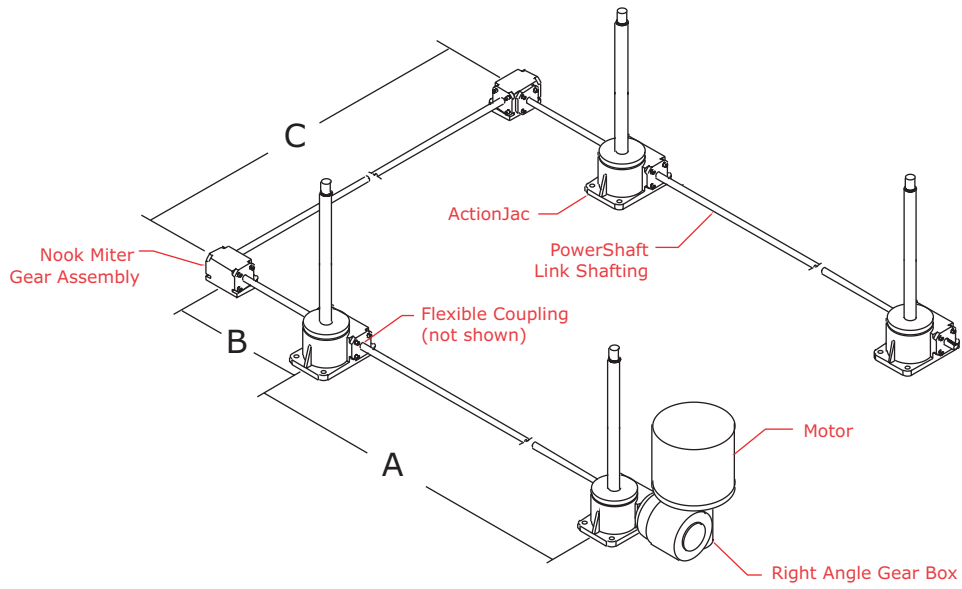
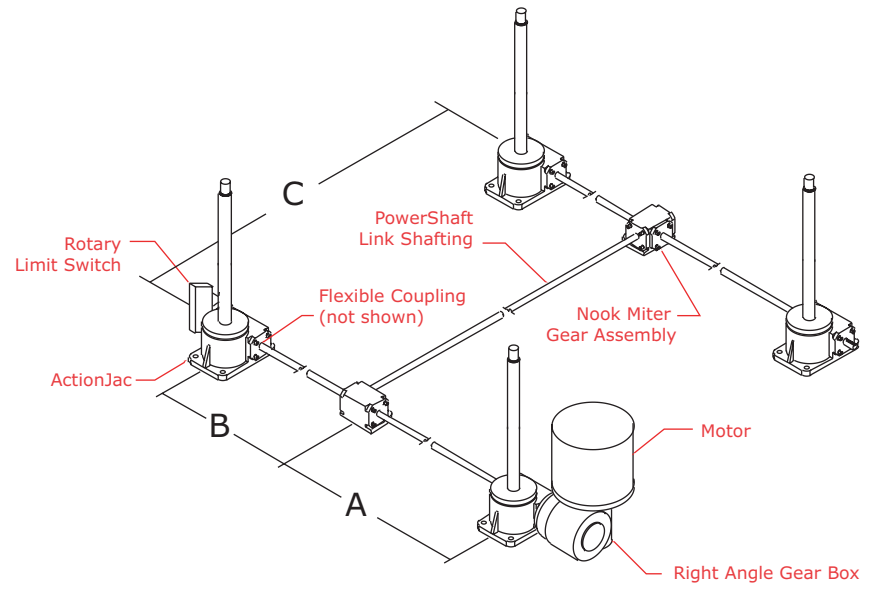


### 4-Jack Arrangement (U) - 2 Miter Gear Boxes



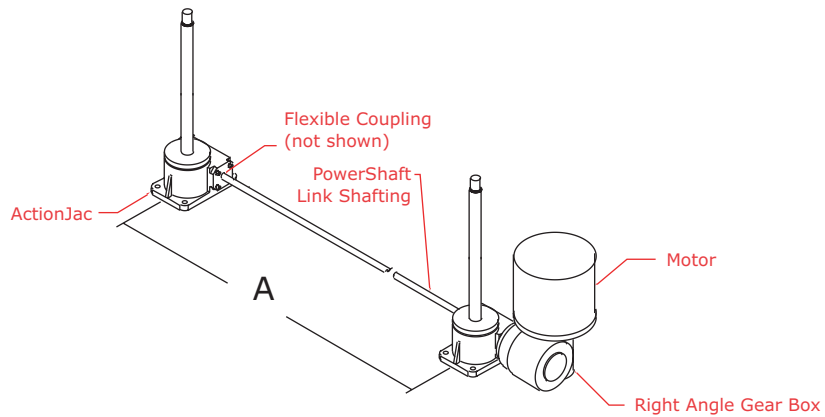
	Center to Center Distance	Shaft Diameter
A		
B		
C		

### 4-Jack Arrangement (H) - 2 Miter Gear Boxes



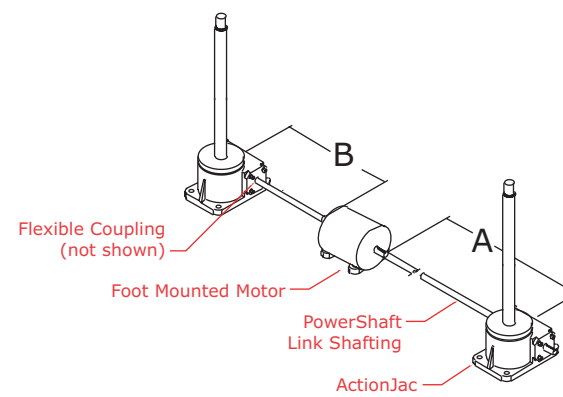
	Center to Center Distance	Shaft Diameter
A		
B		
C		

### 2-Jack Arrangement



	Center to Center Distance	Shaft Diameter
A		

### 2-Jack Arrangement

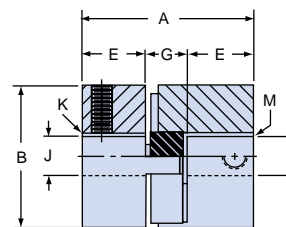


	Center to Input Shaft Distance	Shaft Diameter
A		
B		

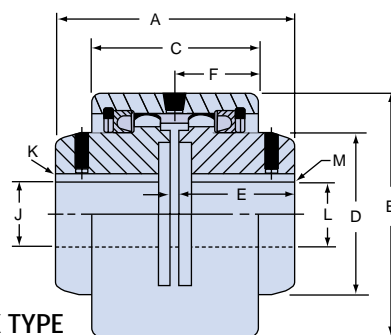
Jacks used alone or in multiple arrangements require couplings to transmit power to the input shaft. Nook Industries provides jaw type and flex type couplings for use with jacks. The selection process for couplings includes the following steps:

- 1) Refer to the jack specification tables to determine torque requirements per jack for your application.
- 2) Determine total coupling capacity required by multiplying the torque required per jack by the number of jacks to be driven by the coupling.
- 3) Check the torque required against maximum torque rating as shown in the table. Select a coupling with a maximum torque greater than the application torque.
- 4) If using flex type couplings, full-flex couplings should be used for close coupled arrangements. For floating shaft applications, use two Flex-Rigid couplings. The rigid half should be mounted on the floating shaft.

All jacks, shafts, couplings and motor should be carefully aligned for maximum performance. Couplings with bores other than those specified are available upon request.



JAW TYPE



FLEX TYPE

WORM GEAR SCREW JACK ACCESSORIES TECHNICAL DATA

JACK PART NO.	MAX. TORQUE RATING IN.-LBS.	APPROX. WT. LBS.	COUPLING DIMENSIONS							BORE SIZES			
			A	B	C	D	E	F	G	J	KEYWAY K	L	KEYWAY M
C-2020-01	38.5	.25	1.66	1.06	—	—	.56	—	.53	.376	—	.376	—
C-2025-01	126	.75	25/32	1.75	—	—	13/16	—	.53	.5005 .5000	1/8 X 1/16	.5005 .5000	1/8 X 1/16
C-2025-05	126	.75	25/32	1.75	—	—	13/16	—	.53	.5005 .5000	1/8 X 1/16	.6255 .6250	1/8 X 1/16
C-2025-02	126	.75	25/32	1.75	—	—	13/16	—	.53	.5005 .5000	1/8 X 1/16	.7505 .7500	3/16 X 3/32
C-2025-03	126	.75	25/32	1.75	—	—	13/16	—	.53	.6255 .6250	1/8 X 1/16	.6255 .6250	1/8 X 1/16
C-2025-04	126	.75	25/32	1.75	—	—	13/16	—	.53	.6255 .6250	1/8 X 1/16	.7505 .7500	3/16 X 3/32
C-2025-06	126	.75	25/32	1.75	—	—	13/16	—	.53	.7505 .7500	3/16 X 3/16	.7505 .7500	3/16 X 3/32

JACK PART NO.		MAX. TORQUE RATING IN.-LBS.	APPROX. WT. LBS.	COUPLING DIMENSIONS							BORE SIZES			
FULL FLEX	FLEX-RIGID			A	B	C	D	E	F	G	J	KEYWAY K	L	KEYWAY M
C-1800-04	C-1805-04	2500	5	31/8	35/16	2	2	11/2	1	1/8	.4995 .4990	1/8 X 1/16	.7495 .7490	3/16 X 3/32
C-1800-01	C-1805-01	2500	5	31/8	35/16	2	2	11/2	1	1/8	.4995 .4990	1/8 X 1/16	.9995 .9990	1/4 X 1/8
C-1800-05	C-1805-05	2500	5	31/8	35/16	2	2	11/2	1	1/8	.7495 .7490	3/16 X 3/32	.7495 .7490	3/16 X 3/32
C-1800-02	C-1805-02	2500	5	31/8	35/16	2	2	11/2	1	1/8	.7495 .7490	3/16 X 3/32	.9995 .9990	1/4 X 1/8
C-1800-03	C-1805-03	2500	5	31/8	35/16	2	2	11/2	1	1/8	.9995 .9990	1/4 X 1/8	.9995 .9990	1/4 X 1/8
C-1810-01	C-1815-01	7500	8	33/4	33/4	217/32	23/8	113/16	117/64	1/8	1.2495 1.2490	1/4 X 1/8	1.2495 1.2490	1/4 X 1/8
C-1810-02	C-1815-02	7500	8	33/4	33/4	217/32	23/8	113/16	117/64	1/8	1.3745 1.3740	5/16 X 5/32	1.2495 1.2490	1/4 X 1/8
C-1810-03	C-1815-03	7500	8	33/4	33/4	217/32	23/8	113/16	117/64	1/8	1.4995 1.4990	3/8 X 3/16	1.2495 1.2490	1/4 X 1/8

## POWERSHAFT™ LINK SHAFTING

ActionJac™ LinkJac™ Line Shafting is used to interconnect the input shafts of ActionJac™ Worm Gear Screw Jacks used in a multiple arrangement. The shafts transfer the torque from the motor to the jack or from jack to jack.

Nook Industries LinkJac™ Line Shafting is made from steel and is available in standard lengths up to 144". Custom end machining and other diameters are available, contact Nook Industries for information.

### SELECTION:

There are two major concerns when selecting interconnect shaft:

- Critical Speed: How fast will the shaft be turning?
- Torque: How much load will the shafts be carrying?

The two characteristics of a LinkJac™ Line Shaft which can be varied to accommodate these requirements are:

- Length of the shaft
- Diameter of the shaft

When selecting a LinkJac™ Line Shaft, use the largest diameter or shortest length which satisfies both of the following equations.

If you know length and operating speed of the shaft:

$$\frac{L^2 \times N}{4.76 \times 10^6} = \text{Minimum Diameter of the LinkJac™ Shaft in inches}$$

WHERE:

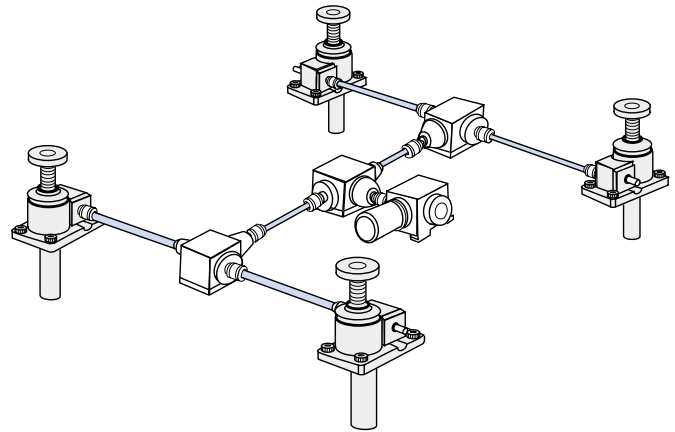
- L = length of unsupported shaft in inches
- N = operating speed in revolutions per minute

If you know the torque to be transmitted and the length of the shaft:

$$(T \times L \times 51 \times 10^{-6})^{.25} = \text{Minimum Diameter of the LinkJac™ Shaft in inches}$$

WHERE:

- T = torque in inch-pounds
- L = total length of shaft in inches



### DESIGN INFORMATION:

- The length used in the Speed-Length-Diameter Calculation is the supported length of the shaft. If support bearings are used on the shaft, the length is the longest unsupported length between bearings.
- The formulas above give a theoretical value of critical speed. Alignment, straightness and stiffness of the system all contribute to determining the actual value.
- The formula used for finding minimum diameter when torque and length are known is based on an allowable twist of 1°. Restricting the twist allows for better synchronization of ActionJac™ motion.
- The torque in the system is also limited by the torque capacity of the coupling.
- Allow 1/8 inch spacing between the jack input shaft and the LinkJac™ shaft inside the coupling.
- For some combinations of couplings and jacks, the radius of the suggested coupling is larger than the distance from the center of the worm shaft to the base.
- Nook Industries offers a range of couplings for use with LinkJac™ and ActionJac™ products in both floating shaft and supported shaft applications. See page 257 for more information.

LINKJAC™ SHAFT PART NUMBER	NOMINAL DIAMETER	KEYWAY	COUPLING SERIES	
			C-1800 / C-1805	C-1810 / 1815
LJ-8	1/2	1/8 x 1/16	●	
LJ-12	3/4	3/16 x 3/32	●	
LJ-16	1	1/4 x 1/8	●	
LJ-24	1 1/2	3/8 x 3/16		●

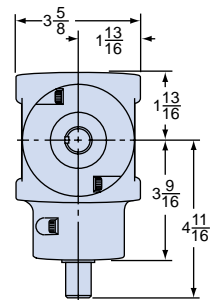
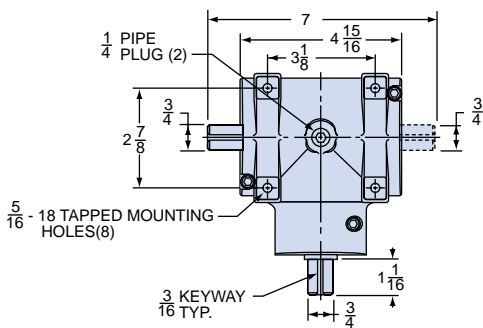
Jacks may be used in multiple arrangements by connecting shafting, couplings and gear boxes to simultaneously transmit power to the input shafts of the jacks. Nook Industries provides gearboxes for use with jacks. Make certain that the total torque and horsepower required by the

arrangement does not exceed the ratings of the box. Miter gear boxes can be operated up to 900 rpm. Higher speeds are permissible at lower torque ratings. Noise levels may increase at higher speeds. The operating efficiency of a miter gear box is 90%.

WORM GEAR SCREW JACK ACCESSORIES TECHNICAL DATA

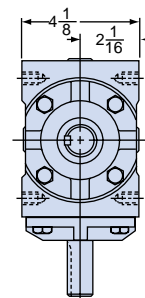
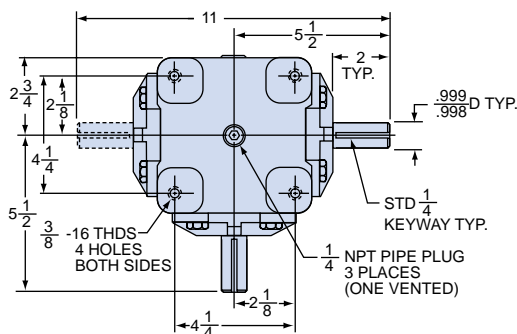
MODEL	RATED LOAD AT 900 RPM	ESTIMATED WT.
GB210	666 IN. LBS. @ 900 (9.52 H.P.)	6 <sup>1</sup> / <sub>4</sub> LBS.

LUBRICATION:  
GB 210  
Filled with EP-90  
Gear lubricant at  
time of shipment



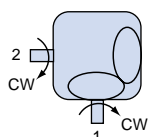
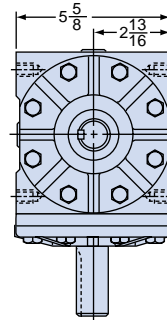
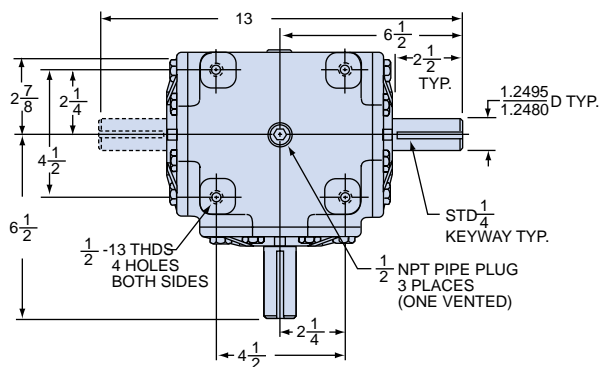
MODEL	RATED LOAD AT 900 RPM	ESTIMATED WT.
GB15	1094 IN. LBS. @ 900 (15.62 H.P.)	26 LBS.

LUBRICATION:  
GB 15  
Shipped dry  
Fill with EP-90  
Gear lubricant  
Capacity 1 qt.

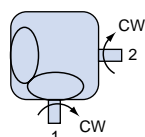


MODEL	RATED LOAD AT 900 RPM	ESTIMATED WT.
GB12	2712 IN. LBS. @ 900 (38.72 H.P.)	39 LBS.

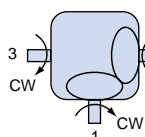
LUBRICATION:  
GB 12  
Shipped dry  
Fill with EP-90  
Gear lubricant  
Capacity 1 qt.



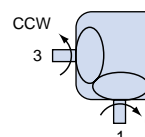
TYPE B



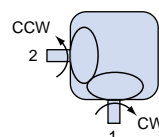
TYPE C



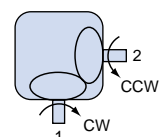
TYPE D



TYPE E



TYPE F



TYPE G

Gears are forged alloy steel. Shafts are stressproof steel ground and polished. Clockwise (CW) and counterclockwise (CCW) notations indicate direction of shaft rotation when facing outer end of shaft. All shaft arrangements will operate opposite direction for that shown. To order specify model number and desired shaft arrangement.