

Technical Note

Mounting Procedures – Installing Shaft Components

While installing components on a solid shaft, it is important to follow correct mounting procedures to avoid unnecessary damage. Hammering on the shaft can create Brinell marks (indentations) on the bearing raceway, causing premature bearing failure.

All of the SEW 7-series reducers are supplied with a tapped hole on the output shaft as an aid when installing couplings, sheaves, or sprockets. The following table shows the size and depth of the threads.



Inch:

Shaft Diameter	Thread Size	Thread Depth (in)
0 to 13/16"	1/4 - 20	0.630
7/8" to 15/16"	5/16 - 18	0.870
1.0" to 1-1/8"	3/8 - 16	0.870
1-1/4" to 1-3/8"	1/2 - 13	1.120
1-1/2" to 1-7/8"	5/8 - 11	1.380
2.0" to 3-1/4"	3/4 - 10	1.610
3-3/8" to 4-3/4"	1 - 8	2.130

Metric:

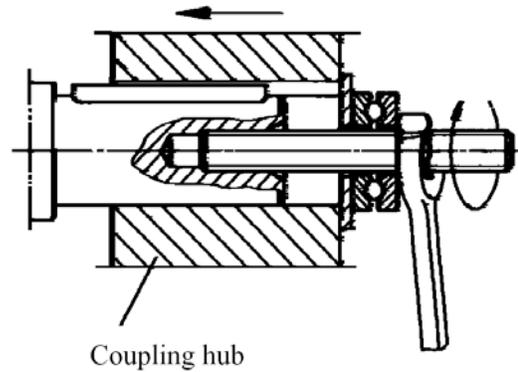
Shaft Diameter	Thread Size	Thread Depth (mm)
16 mm to 21 mm	M6	16
22 mm to 24 mm	M8	19
25 mm to 30 mm	M10	22
31 mm to 38 mm	M12	28
39 mm to 50 mm	M16	36
51 mm to 85 mm	M20	42
86 mm to 130 mm	M24	50
Over 130 mm	M30	63

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Figure 1 shows the correct procedure for mounting couplings or hubs onto an output shaft. In some cases, the thrust bearing at the mounting jig is not required.

Tightening the nut pushes the coupling hub onto the output shaft.

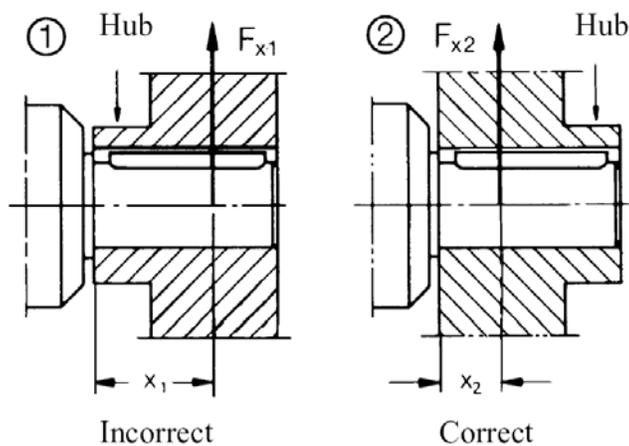
Figure 1 – Installation



The arrangement of the protruding hub should also be carefully observed. The load force, F_x , should be as close to the reducer housing as possible to maximize the overhung load capacity of the reducer.

Figure 2 shows correct and incorrect arrangements of a sprocket or gear hub. Notice how the hub is correctly placed away from the reducer housing in order to minimize the distance, x , from the reducer.

Figure 2 - Arrangement



For easier installation, apply a lubricant to the bore of the hub, or preheat the component to approximately 175°F.