

StarFlex™ Jaw Coupling Installation Instruction Manual

These instructions must be read thoroughly before installation or operation. This instruction manual was accurate at the time of printing. Please see dodgeindustrial.com for updated instruction manuals.

WARNING: To ensure the drive is not unexpectedly started, turn off and lock-out or tag power source before proceeding. Failure to observe these precautions could result in bodily injury.

WARNING: All products over 25 kg (55 lbs) are noted on the shipping package. Proper lifting practices are required for these products.

INSTALLATION INSTRUCTIONS

1. Inspect all coupling components and remove any protective coating or lubricants from bores, mating surfaces and fasteners. Address any burrs, nicks, dents, gouges, or other irregularities on shafting.
2. Slide one coupling hub onto each shaft, using keys where required. Keys should fit snugly while maintaining clearance at the top of the key.
3. Position the hubs on the shafts to approximately achieve the "C" dimension shown in Table 2, refer to Figure 3. It is usually best to have an equal length of shaft extending into each hub as long as a minimum of 80% shaft engagement is maintained on both hubs. Tighten one hub in its final position using the set screw tightening torque given in Table 1.
4. If possible, slide the other hub far enough back on the shaft to install the elastomer. If the hub cannot be slide back, or if "blind" assembly is required, tighten the second hub on shaft and bring the equipment together approximately achieving the "C" dimension shown in Table 2.
5. Check parallel alignment by placing a straight edge across the two coupling hubs to measure the maximum offset. This measurement is performed at a minimum of four points, 90° apart, around the periphery of the coupling without rotating either hub. If the maximum offset exceeds the value in Table 2, realign the shafts. See Gap in coupling flanges as illustrated in Figure 1.

6. Check angular alignment with a calibrated micrometer or caliper. Measure "X" from one hub to the other at intervals around the coupling. See "X" in Figure 2. Determine the maximum and minimum dimensions without rotating the coupling. The difference of these two measurements must be less than the angular value in Table 2. If a correction is necessary, be sure to recheck the parallel alignment. Follow the process in Step 5.

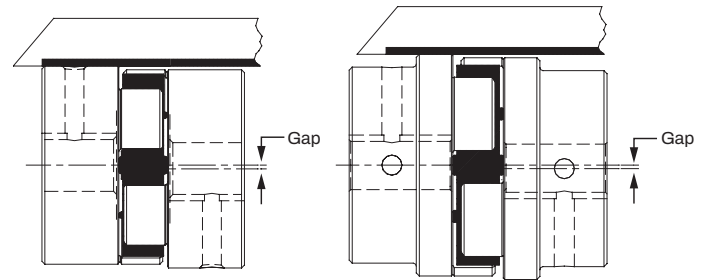


Figure 1 - Parallel Misalignment

WARNING: Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed. Products must be used in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions in the instruction manuals must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures as may be desirable or as may be specified in safety codes should be provided, and are neither provided by Dodge® nor are the responsibility of Dodge. This unit and its associated equipment must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment in the system and the potential hazards involved. When risk to persons or property may be involved, a holding device must be an integral part of the driven equipment beyond the speed reducer output shaft.

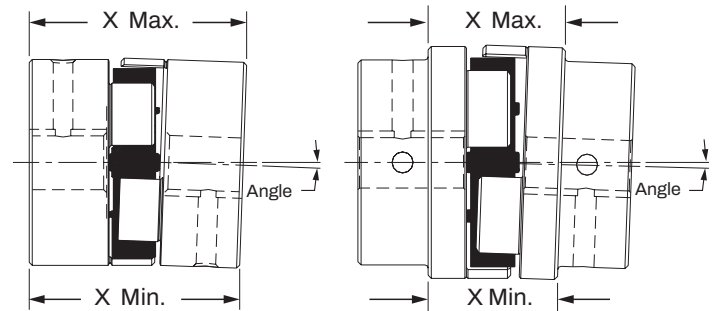


Figure 2 - Angular Misalignment

Table 1 - Tightening Torque for Set Screw			
Part No.	Set Screw		
	Qty.	Size & Length	Tightening Torque in.-lbs
L035	1	#6-32UNC x 1/8"	7
L050	1	¼-20UNC x 3/16"	45
L070	1	¼-20UNC x 1/4"	78
L075	1	¼-20UNC x 3/8"	78
L090	1	¼-20UNC x 3/8"	78
L095	2	5/16-18UNC x ¼"	80
L099	2	5/16-18UNC x 3/8"	150
L100	2	5/16-18UNC x 3/8"	150
L110	2	3/8-16UNC x 5/16"	225
L150	2	3/8-16UNC x 1/2"	260
L190	2	1/2-13UNC x 1/2"	540
L225	2	1/2-13UNC x 1/2"	540

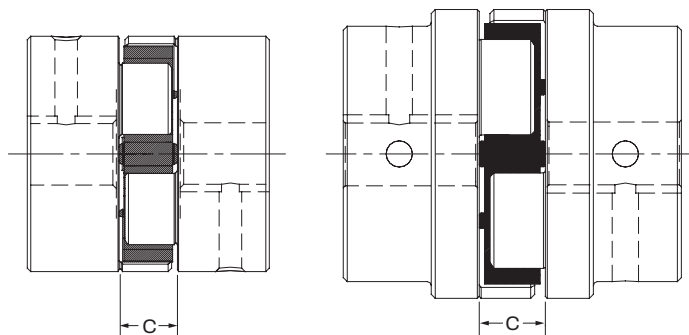


Figure 3 - Proper Alignment

Table 2 - Maximum speed and allowable misalignment									
Part No.	Type	Max RPM1	C Inch	Allowable Misalignment, inch (at 3600 RPM or lower)					
				NBR or Urethane		Hytrel		Bronze	
				Parallel	Angular2	Parallel	Angular2	Parallel	Angular2
L035	1	31,000	0.281	0.015	0.010	N/A	N/A	N/A	N/A
L050	1	18,000	0.469	0.015	0.018	0.015	0.012	0.010	0.012
L070	1	14,000	0.500	0.015	0.022	0.015	0.012	0.010	0.012
L075	1	11,000	0.500	0.015	0.030	0.015	0.015	0.010	0.015
L090	1	9,000	0.500	0.015	0.035	0.015	0.018	0.010	0.018
L095	1	9,000	0.500	0.015	0.035	0.015	0.018	0.010	0.018
L099	1	7,000	0.750	0.015	0.040	0.015	0.022	0.010	0.022
L100	1	7,000	0.750	0.015	0.040	0.015	0.022	0.010	0.022
L110	1	5,000	0.875	0.015	0.055	0.015	0.030	0.010	0.030
L150	1	5,000	1.000	0.015	0.065	0.015	0.033	0.010	0.033
L190	2	5,000	1.000	0.015	0.075	0.015	0.040	0.010	0.040
L225	2	4,200	1.000	0.015	0.085	0.015	0.044	0.010	0.044

Maximum shown is for NBR, Urethane, and Hytrel spider elements. Maximum RPM for bronze spiders is 250 for all sizes. Angular misalignment is the difference between X min and X max. (Refer to Figure 1 and 2)

ADDITIONAL INSTRUCTION FOR SAFE INSTALLATION AND USE

All rotating parts should be guarded to prevent contact with foreign objects which could result in sparks, ignition, or damage to the coupling.

Couplings should be periodically inspected for normal wear, dust/dirt buildup or any similar scenario that would impede heat dissipation.

Increasing levels of vibration and noise could indicate the need for inspection, repair or replacement of the coupling or element.

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Electrical sparks are a source of ignition. To reduce the risk, proper electrical bonding and grounding is recommended.

Overloading may result in breakage or damage to the coupling or other equipment. As a result the coupling could become an explosion hazard. Damaged coupling components or elements must not be operated in hazardous environment.

Star-Flex couplings are not intended to be used as thrust bearing members.

