

PSC Legacy Series Installation and Troubleshooting Guide

T Service Parts - Sizes 31-92



Installation Specifications

The following table provides fastener details, torque specifications, and runout specifications:

TB Woods HSH/FSH	TIR (in)	Thread Size	Bolt Torque		Locknut	Bolt Head
	Angular & Parallel		ft-lbs	Nm	Wrench Hex Size (in.)	Wrench Hex Size (in.)
31	0.004	7/16-20	40	54	0.63	0.63
35	0.004	1/2-20	70	95	0.75	0.81
37	0.005	9/16-18	95	129	0.88	0.94
42	0.005	5/8 -18	125	169	0.94	1.06
45	0.006	5/8 -18	150	203	1.06	1.13
50	0.006	3/4-16	210	285	1.25	1.25
55	0.007	7/8-14	320	434	1.44	1.38
60	0.008	1-14	450	610	1.63	1.63
70	0.009	1-1/8-12	575	780	1.81	1.75
75	0.010	1-1/4-12	830	1125	2.00	1.94
80	0.011	1-3/8-12	1000	1356	2.19	2.13
85	0.012	1-1/2-12	1400	1898	2.38	2.50
92	0.013	1-1/2-12	1400	1898	2.38	2.50

Note on Effective Washers

- 1. Effective washers between the hub flange and disc pack may be required for proper installation.
- 2. If the existing hub has bosses machined into the flange or washers welded to the flange that provide separation between the flange and disc pack, no additional effective washers are required.
- 3. If the existing hub flange does not include bosses or welded effective washers, please contact PSC Couplings to provide the effective washers.
- 4. The effective washers have a machined groove around the outer diameter.
- 5. **WARNING:** Do not use an ineffective washer in place of an effective washer; do not use an effective washer in place of an ineffective washer.



Process to Measure Total Indicator Reading (T.I.R.)

- 1. <u>Angular</u>: Rigidly mount a dial indicator on one hub or shaft, reading the face of the other hub flange, as shown in Figure 1. Rotate both shafts together making sure the shaft axial spacing remains constant. If the coupling has a flywheel adapter, adjust the equipment by shimming and/or moving so the indicator reading is within .002 inch per inch of coupling flange diameter. For a coupling with 2 hubs, see the table above.
- <u>Parallel</u>: Rigidly mount a dial indicator on one hub or shaft, reading the other hub flange outside diameter as shown in Figure 2. Compensate for indicator set-up sag. Rotate both shafts together. Adjust the equipment by shimming or moving so that the indicator reading is within the values in the table above.

Figure 1: Angular Misalignment





PSC Couplings 3062 Helsan Drive Richfield, WI 53076

Figure 2: Parallel Misalignment





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Troubleshooting Guide

If you have questions about troubleshooting, please contact PSC. The technical team at PSC will be glad to review conditions and provide recommendations.

	Failure Type					
	Excessive Misalignment	Loose Bolts	Torque Overload			
Indication	Broken or cracked discs with crack adjacent to edge of washer or bushing.	Disc broken with the fracture passing through the bolt hole. May see elongated or oval bolt holes as well as damaged bolts.	Excessive buckling or severe spreading of the discs.			
	CHACK	HOLE ELONGATION -				

Important Notes

- 1. The following document is intended for the explicit use of PSC Couplings' customers to aid in the installation of PSC T Service Parts components for disc couplings.
- 2. PSC's T Service Parts are designed to withstand the toughest environments while providing reliable mechanical connections. It is very important to follow the instructions provided by the original manufacturer of the coupling to insure the longest life possible from your coupling. Correct installation and alignment practices will ensure longer component life, trouble free operation, and a safer operating environment.
- 3. Please thoroughly review all instructions in this document prior to installation and placing in operation. Proper safety guidelines and practices should always be followed during every phase of the installation. This installation document is considered part of the purchased product and should be retained for future reference.
- 4. If there are any questions, please contact us at support@psccouplings.com.

Safety - **WARNING** Safety is a top priority at PSC. Please pay attention to the following statements:

- Accidents involving rotating equipment may result in loss of life, serious bodily harm, or property damage. The purchaser of this equipment must ensure that the equipment is properly assembled, installed, safeguarded, operated, and maintained.
- This equipment should never be operated at, or subjected to, conditions that exceed the manufacturer's specifications. Consult all applicable Federal, State and local laws and regulations covering the safe operation and maintenance of equipment, including, without limitation, the USDOL-OSHA "Lockout/Tag-out" procedure set forth in 29 CFR 1910.147.
- 3. Because of the possible danger to persons or property from accidents which may result from the improper use or unapproved modifications of the product, this product must be installed, maintained, and operated in accordance with the procedures, standards, and engineering specifications specified in the original manufactures literature. To ensure safe operation, this product should be inspected in accordance with the instructions described in the original manufacture's literature. Proper guards and any suitable safety equipment or procedures as may be necessary, or as may be specified in safety codes, should be installed by the user. Safety equipment, coupling guards, and shields are not provided by, nor are they the responsibility of PSC Couplings.
- 4. Do not touch any coupling or rotating equipment when it is in operation.
- 5. Only skilled professionals should install couplings. During operation all rotating couplings must have coupling guards installed that comply with whatever local standard is the rule of law in the geographical vicinity where the coupling is being installed.
- 6. All PSC R-Series parts should be stored in a protected environment to prevent damage which may prematurely compromise the coupling during its life span.
- 7. Follow all static dissipative requirements when working in sensitive areas. Packaging can hold static charges so be sure to remove outside of critical areas.
- 8. Any work done on the coupling must only occur when the coupling has zero stored energy.
- 9. Do not engage the drive system without fully assembling all coupling components. If the equipment is started with only a hub attached, the hub must be ready for normal operation, with the key and set screw (if included) fastened.
- 10. When the full coupling assembly is started, all fasteners and hardware must be completely and properly secured.
- 11. Follow DIN EN 1127-1:2008:02, Annex A for any explosive tool requirements.
- **WARNING** DO NOT RUN THE COUPLING WITH OUT ALL FASTENERS TORQUED TO PROPER LEVELS
- ** WARNING ** DO NOT MODIFY ANY PART OF THE R SERIES COMPONENTS FOR ANY REASON