ZERO-MAX

# Control-Flex Bolted Set-Screw Hub Coupling

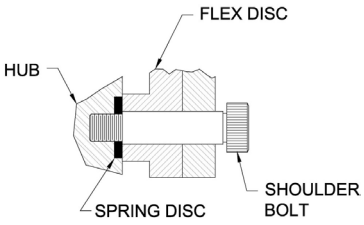
C030P, C045P, C060P, C075P

## Installation Instructions For Control-Flex Bolted Set-Screw Hub Couplings

### Tools Required

- Calibrated torque wrench
- Hex socket set
- Shaft alignment tools
- Cleaning cloth
- Caliper

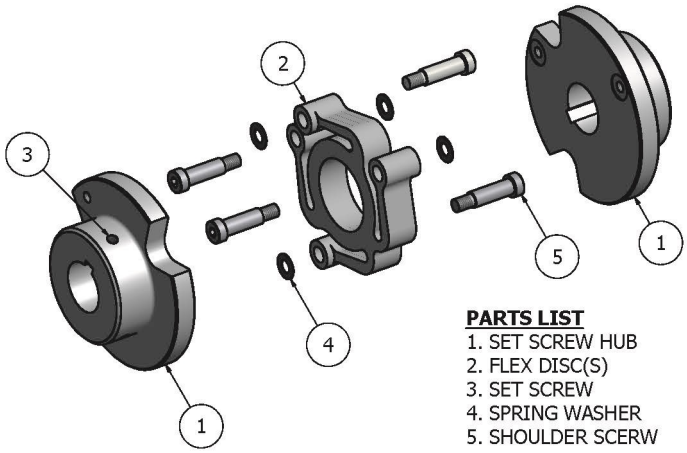
- These instructions are for standard series Control-Flex Couplings with normal running conditions. Special couplings may have different instructions or drawings.
- Inspect hub bores, shafts, and keyways making sure there are no burrs. Clean hub bores and shafts. Standard Control-Flex coupling hubs are supplied with slight clearance fit (see catalog).
- Install coupling on shafts. Place the inside face of one of the hubs flush with end of shaft. Tighten the hub's set-screw to lock the hub to the shaft, see Table 2 on page 2 for proper tightening torque. If necessary the flex disc(s) can be removed and reinstalled after aligning shafts. See detail below and Table 1 on page 2 for details on reassembly.




**Flex Disc Assembly Detail**

- Adjust the hub separation to dimension "C" specified in Table 1 on page 2. If possible, the shafts should not extend inward beyond the inside hub face. If the shaft extends past the hub face, verify the shaft will not contact the flex element(s) during operation. Tighten the second hub's set-screw to lock the hub to the shaft. See Table 2 on page 2 for the proper tightening torque.
- Align the shafts within the limits for parallel and angular misalignment specified on Table 1 on page 2. For best alignment results, use a laser alignment tool or dial indicator. If not available, a straight edge and feeler gauges can be used.

**Note:** When installing the coupling, shaft alignment is critical. Proper shaft alignment will improve the performance of the coupling. When properly aligned, the coupling has the extra capacity for misalignment and loads which will occur due to machine settling and equipment wear. Installing the coupling at higher degrees of misalignment is possible (see catalog ratings), but may reduce the operational life of the coupling flex disc. Coupling and shaft misalignment should be checked periodically due to foundation settling, equipment shifting, etc.




**PARTS LIST**
1. SET SCREW HUB
2. FLEX DISC(S)
3. SET SCREW
4. SPRING WASHER
5. SHOULDER SCERW

**Caution: Rotating equipment is potentially dangerous and should be properly guarded. It is the responsibility of the machine builder, user, or operator to follow all applicable safety codes and provide a suitable guard. Make sure the machine is "locked out" and cannot be accidentally started during installation or maintenance of coupling.**

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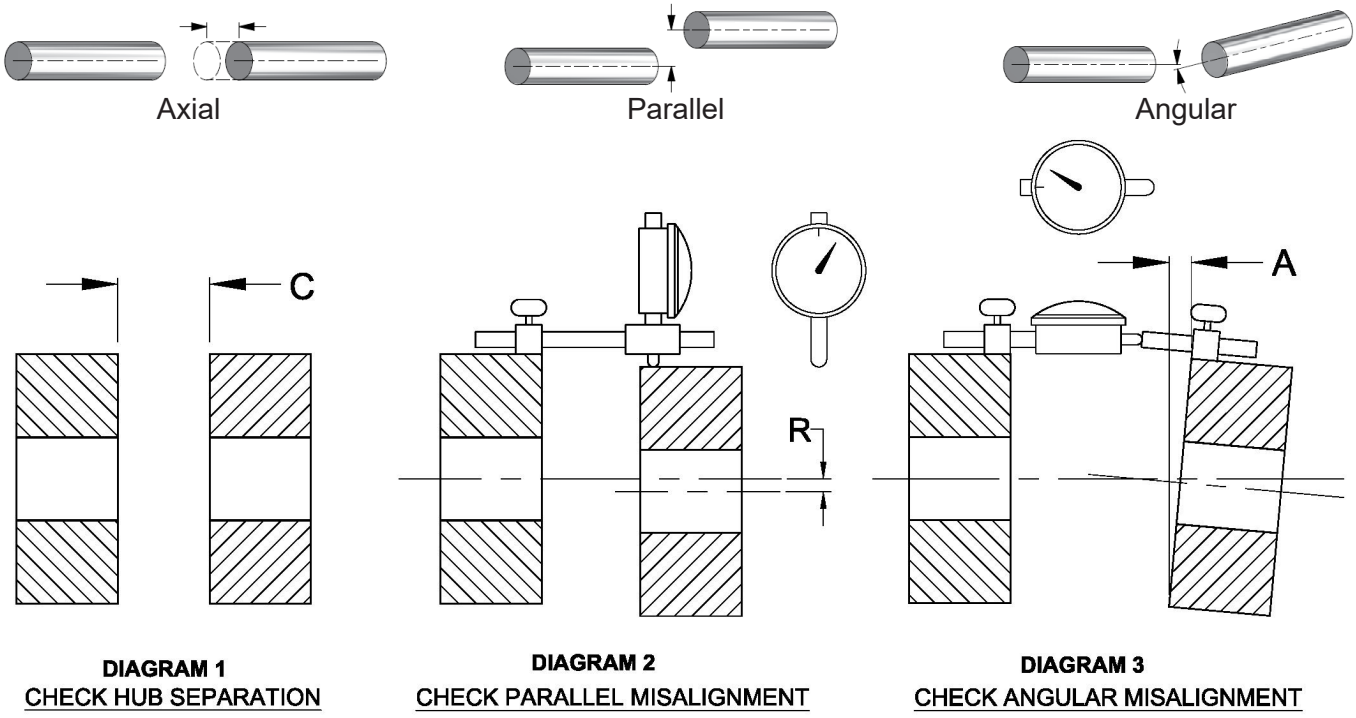


**DIAGRAM 1**
CHECK HUB SEPARATION

**DIAGRAM 2**
CHECK PARALLEL MISALIGNMENT

**DIAGRAM 3**
CHECK ANGULAR MISALIGNMENT

**Table 1: Alignment and Assembly Specifications for Control-Flex Bolted Disc Couplings.**

| Model | Separation and Misalignments | | | | | | Shoulder Bolt Specs | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | C See Diagram 1 | | R See Diagram 2 | | A See Diagram 3 | | Screw Size | Hex Size | Tightening Torque (dry values) | |
| | Inch | mm | Inch | mm | Inch | mm | | | | |
| C030P | 0.750 ± 0.042 | 19.05 ± 1.0 | 0.055 | 1.4 | 0.078 | 2.0 | 1/4" | 1/8" | 45 in-lb | 5.1 Nm |
| C045P | 1.125 ± 0.063 | 28.58 ± 1.6 | 0.083 | 2.1 | 0.117 | 3.0 | 3/8" | 3/16" | 230 in-lb | 26 Nm |
| C060P | 1.500 ± 0.083 | 38.10 ± 2.1 | 0.111 | 2.8 | 0.156 | 4.0 | 1/2" | 1/4" | 338 in-lb | 38 Nm |
| C075P | 1.875 ± 0.104 | 47.63 ± 2.6 | 0.139 | 3.5 | 0.196 | 5.0 | 5/8" | 5/16" | 82 ft-lb | 111 Nm |

**Note:** The above misalignment specifications are recommended values for installation. They allow for extra capacity from operation over time. Refer to the catalog for maximum allowable misalignment specifications.

**Table 2: Set-Screw Specifications**

| Model | Set-Screw Specifications | | | |
|---|---|---|---|---|
| | Screw Size | Hex Size | Tightening Torque (dry values) | |
| C030P | 1/4-20 | 1/8" | 87 in-lb | 9.8 Nm |
| C045P | 3/8-16 | 3/16" | 290 in-lb | 33 Nm |
| C060P | 1/2-13 | 1/4" | 52 ft-lb | 70 Nm |
| C075P | 1/2-13 | 1/4" | 52 ft-lb | 70 Nm |


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