

ServoClass® Coupling

Installation Instructions For ServoClass® Couplings

The ServoClass coupling is a high performance coupling designed for precision motion control applications. To maintain precise concentricity, the coupling is assembled at the factory to precise tolerances using special fixtures.

As a result, the ServoClass Coupling is not intended to be disassembled or repaired in the field.

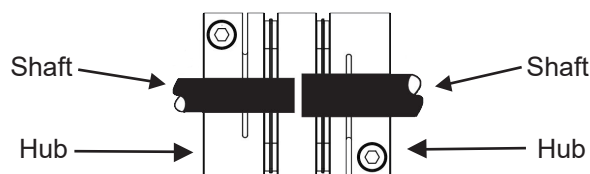
TOOLS REQUIRED

- Calibrated torque wrench
 - Hex socket set
 - Shaft alignment tools
 - Cleaning cloth
 - Caliper
- Align the drive shaft and the driven shaft before assembly; avoid excessive misalignment between the shafts when installing the coupling.
 - Examine shafts and clean if necessary. Shaft surface should be clean, free of lubricants, corrosion, burrs or galling, etc.
 - Loosen, do not remove, the clamping screws on the coupling hubs.

Note: ServoClass hubs are designed to have a clearance fit with the shaft. Only apply pressure to the hubs when installing as applying pressure to the flex elements during installation may cause damage. If the hub does not slide easily onto the shaft, stop installation and check for burrs on the hub and shaft, then measure the hub bore and shaft diameter to verify there is clearance between them.

- Mount the ServoClass Coupling hub onto the driver shaft. It is recommended that you do not tighten the clamping screw at this point.
- Carefully slide the other shaft into the other hub of the ServoClass Coupling. It is recommended that you do not tighten the clamping screw at this point.

- Confirm the alignment of the connected shafts by rotating and moving the coupling axially. If the coupling does not move freely, the shaft alignment needs to be improved.
- It is recommended that the shafts be in full contact with the entire length of the coupling hub. The shaft may extend into the interior of the coupling; however, the shaft ends should not touch or touch the internal stainless steel disc pack(s). Transmittable torque may be compromised if shaft contact length is less than the length of the hub.



After positioning the coupling to the optimal shaft-hub engagement, tighten the clamp screws to the specified torque value (see table on page 2). A calibrated torque wrench is recommended for this operation.

The ServoClass Coupling is now ready for operation. Please contact the factory with any questions.

Note: Aligning the shafts as closely as possible at the time of initial installation will reduce noise and allow the coupling extra capacity for misalignments and loads which will occur during operation over the life of the connected equipment. Installing and operating coupling at higher degrees of misalignment is possible (see catalog ratings), but will generally reduce the life of the coupling. Laser alignment tool or dial indicator are recommended for best shaft alignment. If not available, a straight edge and feeler gauges can be used.



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.

Clamp Screw / Tightening Torque Table

Model	Clamp Screw Size	Tightening Torque	
		In. lb.	(Nm)
SC005R or SD005R	M2.0	3.5	(0.4)
SC010R or SD010R	M2.0**	3.5	(0.4)
SC010R or SD010R	M2.5***	9.0	(1.0)
SC020R or SD020R	M2.5	9.0	(1.0)
SC025R or SD025R	M2.5	9.0	(1.0)
SC030R or SD030R	M3.0	13.0	(1.5)
SC035R or SD035R	M4.0	30.0	(3.4)
SC040R or SD040R	M4.0	30.0	(3.4)
SC050R or SD050R	M5.0	62.0	(7.0)
SC055R or SD055R	M6.0	124.0	(14.0)
SC060R or SD060R	M6.0	124.0	(14.0)
SC080R or SD080R	M8.0	266.0	(30.0)
SC090R or SD090R	M8.0	266.0	(30.0)
SC100R or SD100R	M8.0	266.0	(30.0)

** for 8mm bore

*** for 4mm–7mm bores

Style of coupling is dependent on the size of the coupling and bore combination selected. Therefore, the coupling could be comprised of the combinations shown to the right.



Style A



Style B



Style C

ZERO-MAX®