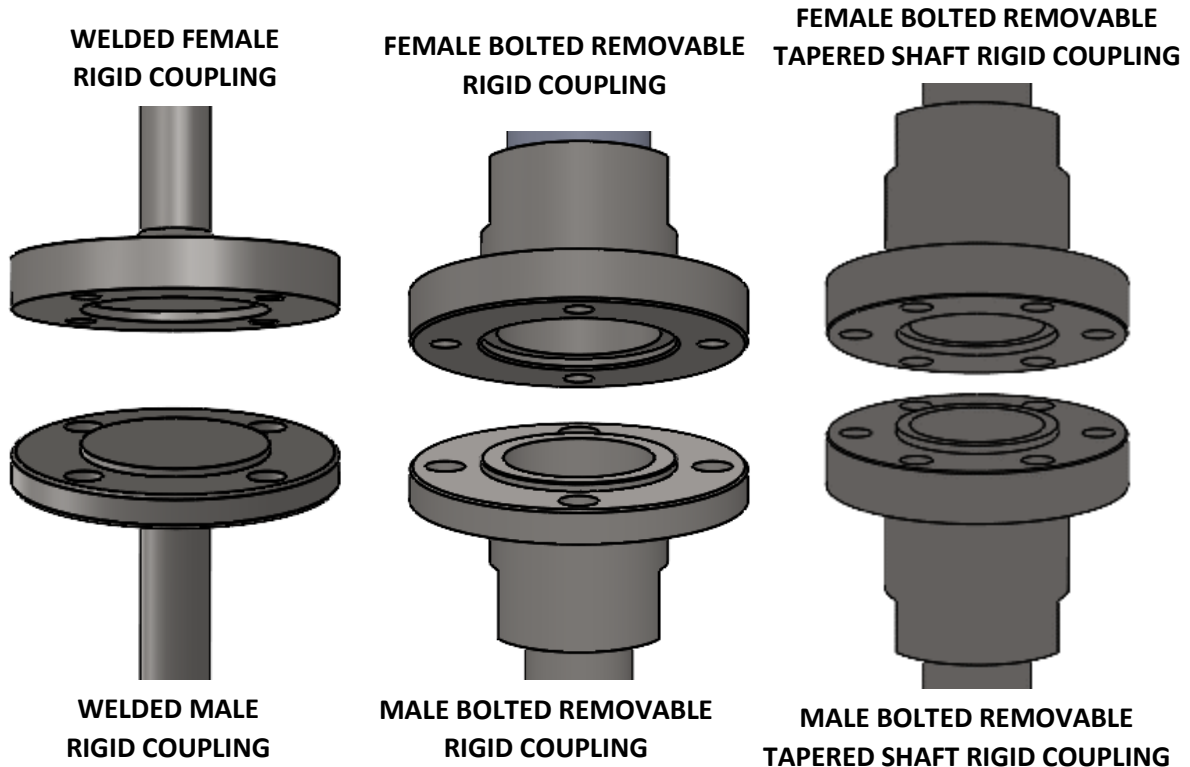


Overview

Depending on your mixer configuration, there are several types of rigid couplings which can be used. If you have a bolted removable coupling it must be assembled before the coupling halves can be connected. Rigid couplings are typically a match set with one having a male registration and one having a female registration to maintain alignment during assembly. Below are images of typical rigid coupling types.

Bolted Removable and Welded Shaft Rigid Coupling Types



CAUTION: FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DAMAGE TO THE MIXER. CHECK MOUNTING FACES FOR BURRS OR ANY OTHER PROTRUSION THAT MAY CAUSE PROBLEMS WITH ASSEMBLY. REMOVE BURRS AS NEEDED TO COMPLETE ASSEMBLY. MAKE SURE MIXER SHAFT SHOULDER IS TIGHT TO BOTTOM OF BOLTED REMOVABLE RIGID COUPLING. ALSO, MAKE SURE TO USE A THICK WASHER TO AVOID DEFORMING WASHER AS IT IS PULLED TIGHT.

Installation – Bolted Removable Rigid Coupling

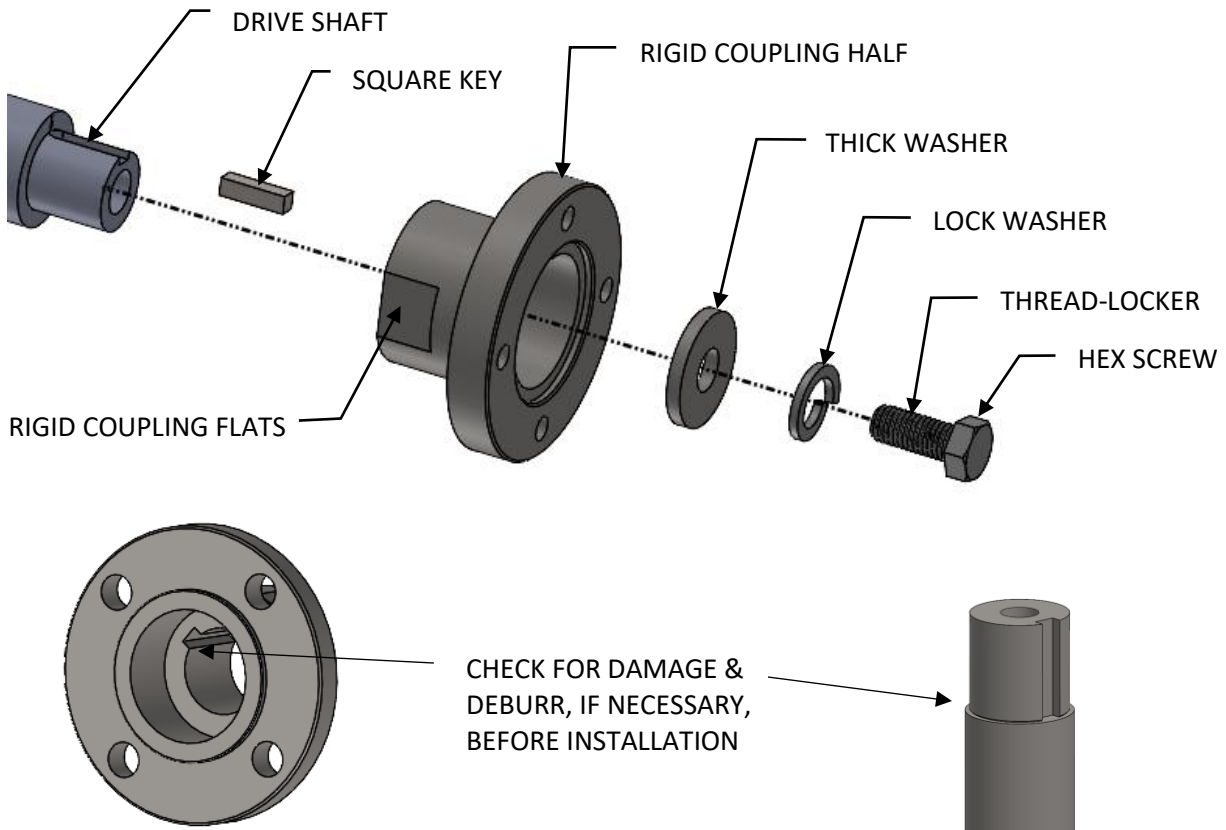
The following section is for the installation of a Bolted Removable Rigid Coupling which may be above or below mount.



CAUTION: PINCH POINTS & SHARP EDGES MAY BE LOCATED IN THIS AREA.

FOR PRO & PRO XL MODELS THE UPPER HALF OF BOLTED RIGID COUPLING WILL BE RECEIVED ASSEMBLED TO SHAFT OUTPUT OF BEARING HOUSING. PLEASE CONFIRM THAT THE HEX SCREW IS TIGHTENED TO TORQUE CHART ON PAGE 2 IN INSTALLATION SECTION. USE A WRENCH ON THE COUPLING FLATS TO PREVENT FROM ROTATING AND TIGHTEN HEX SCREW TO TORQUE SPECIFICATION.

EXPLODED VIEW OF BOLTED REMOVABLE COUPLING ASSEMBLY

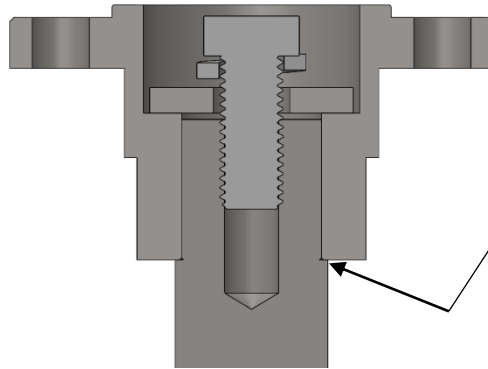


To avoid binding in the future and ease of installation, apply process compatible grease or anti-seize compound on the drive end portion of the drive shaft.

Assemble the rigid coupling half to the drive shaft:

- Insert square key into drive shaft slot.
- Assemble shaft with key into rigid coupling half, then attach shaft to coupling with a hex head screw, lock washer and thick washer. Use service removable thread-locker (Blue 242 Loctite or similar) compound to threads on hex screw. Tighten screw to recommended torque for bolt size according to Torque Chart on page 2 of Installation Section.
- Check that coupling is tight to shoulder on shaft. Use a .001" feeler gauge.

CROSS SECTION OF BOLTED REMOVABLE COUPLING



USE A .001" FEELER GAUGE TO ENSURE THE COUPLING IS TIGHT TO THE SHOULDER ON THE SHAFT

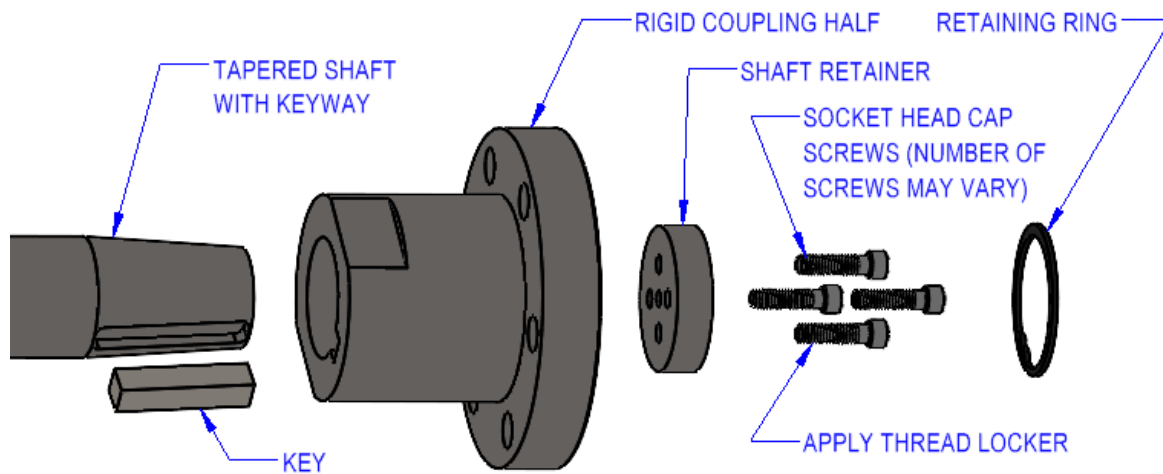
Installation – Bolted Removable Tapered Shaft Rigid Coupling



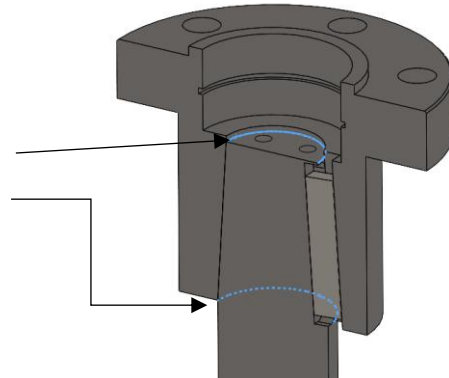
DO NOT USE LUBRICATION OR ANTI-SEIZE ON TAPERED SHAFT COUPLING

The following section is for the installation of a Bolted Removable Rigid Tapered Shaft Coupling which may be above or below mount. Below is an image showing components used in the assembly.

EXPLODED VIEW OF TAPERED SHAFT COUPLING ASSEMBLY



USE A .001" FEELER GAGE TO CHECK THESE MATING SURFACES TO ENSURE THAT THE TAPERED SHAFT IS FULLY SEATED IN RIGID COUPLING



Assemble the tapered rigid coupling half to the tapered shaft:

- Insert key into tapered shaft slot.
- Insert shaft with key into rigid coupling half.
- Make sure mixer shaft taper is tight to the rigid coupling. Use .001" feeler gauge to ensure the tapered shaft is seated into rigid coupling.

CLICK ON THE LINK BELOW FOR A VIDEO SHOWING THE INSPECTION PROCESS:

[Inspecting and Checking Fit of Tapered Shaft in Coupling](#)

- If the shim slides in at any point during inspection, re-position the coupling and file the key if necessary.
- Attach shaft to coupling with socket head cap screws through shaft retainer into end of tapered shaft. Apply service removable thread-locker (Blue 242 Loctite or similar) compound on cap screw threads. Using a wrench on the coupling flats and a torque wrench on the cap screws, tighten screws to recommended torque for bolt size according to Torque Chart on page 2 of Installation Section.
- Install retaining ring into groove in coupling half.

Installation – Bolting Coupling Halves together



CAUTION: FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DAMAGE TO THE MIXER. CHECK MOUNTING FACES FOR BURRS OR ANY OTHER PROTRUSION THAT MAY CAUSE PROBLEMS WITH ASSEMBLY. REMOVE BURRS AS NEEDED TO COMPLETE ASSEMBLY.

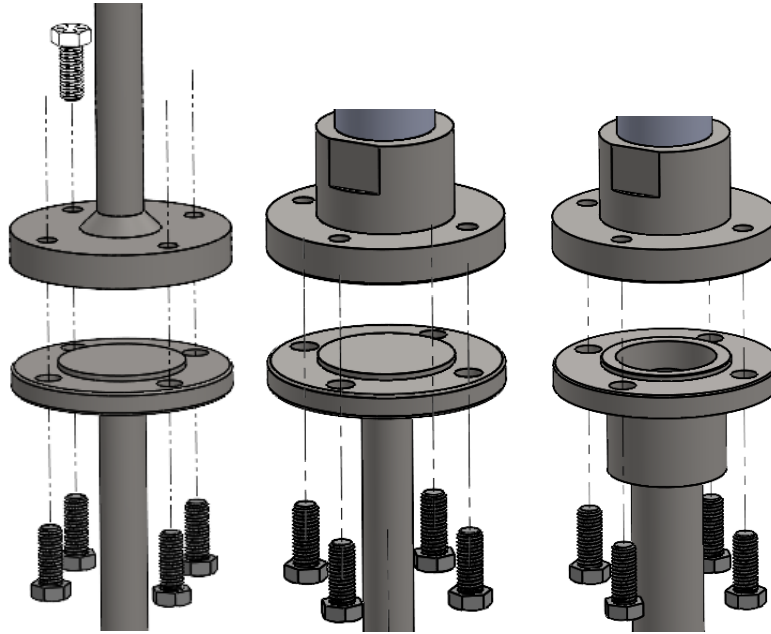
Each mixer leaving the Fusion factory is supplied with a unique identifier, which is marked and/or labeled on the equipment. Rigid coupling halves are manufactured and tested as matched sets. During factory run-testing, the optimal assembled position is determined, and alignment marks are applied to both halves.

When assembling in the field, verify that the coupling halves belong to the same mixer by checking identification marks. If multiple mixers are included in your order, ensure that drive and shaft coupling sets are matched. Align the factory marks on both coupling halves before bolting together. Install bolts evenly, tightening in a criss-cross pattern, as shown on next page, to maintain proper alignment.

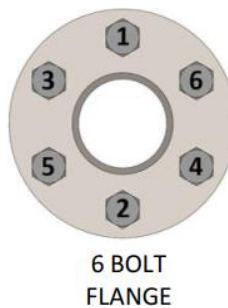
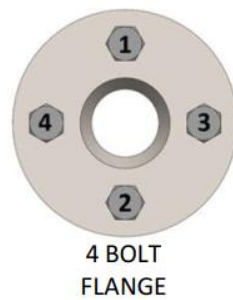
The registration marks should match your mixers serial number. Use .001" feeler gauge to ensure the coupling halves are fully seated. If not running true, excessive runout, then take apart coupling halves, check to make sure there are no burrs and reassemble.



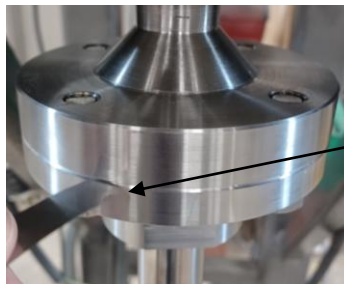
ALIGN REGISTRATION
MARKS ON COUPLING
HALVES.



Assemble shaft and mixer drive rigid coupling halves together typically using hex head screws. Screws may come from top or bottom. Snug all screws, then tighten screws following the crossing pattern image below for the amount screws used in your application.



Tighten screw to recommended torque for bolt size according to Torque Chart on page 2 of Installation Section. Once all screws have been tightened to torque specifications, use a .001" feeler gauge where coupling halves meet to ensure the coupling halves are fully seated.



Use .001" feeler gauge to ensure the coupling halves are fully seated.

For additional Rigid Coupling Installation support go to our YouTube Channel -
[FusionFluidEquipment](https://www.youtube.com/channel/UCFusionFluidEquipment)