

Before any actual installation, develop a plan for the mounting location. Mounting the mixer in a baffled tank will provide the best mixing performance. There is no equivalent substitute that will provide the level of performance of mixing in a baffled tank. If the installation of baffles in your tank is not a possibility, then angle-offset your mixer. Correct angle-offset mounting will provide acceptable mixing performance where baffles are not an option. If none of these options are a possibility, then contact the factory for a suggested mounting location. Center mounting your mixer in the middle of the tank will cause vortexing, thus resulting in the WORST mixing performance. Center mounting without baffles will also reduce the lifetime and mechanical integrity of the mixer. **DO NOT** center mount the mixer vertically unless authorized by the factory. **See Mounting Guidelines section for more information.**

Confirm that your tank nozzle and/or mixer support structure are suitable for the weight and dynamic loads from the mixer. Small deflections in the mount will cause large deflections in the mixer shaft. Loading information can be found on your approval drawing or by contacting your Fusion distributor. Consult the tank fabricator to confirm the tank is capable of supporting these loads. Fusion is not responsible for damage resulting from inadequate tank design or mount design.

Industrial process equipment requires use of caution, care, and common-sense during installation. Take care to preplan all actions after reading the instructions to ensure a successful and safe installation of your Fusion mixer.



**USE CARE. MULTIPLE HAZARDS EXIST**

## Installation Process Overview

- Define Correct Mixer Placement
- Mount the Mixer Drive
  - Clamp – Pro Series Only
  - Cup – Pro Series Only
  - Plate
  - Circular Plate – Flow Series Only
  - Plate & Angle Risers
- Shaft Installation
- Impeller Installation
- Electrical Installation

## Mount the Mixer Drive

Mount the mixer to the desired location. Be careful, as there are several pinch points in the mounting hardware, couplings, hubs, flanges, etc. **Make sure there is adequate clearance between impeller and the side wall of tank to account for shaft deflection.**

### RETAIN THIS DOCUMENT FOR HARDWARE TIGHTENING TORQUE REFERENCE

### Recommended Tightening Torques

Tighten all of the hardware to the torque specifications in the table below. These average torque values should be used as a guide and not as absolute values:

Torque Specifications:						
BOLT SIZE	18-8 & 304 STAINLESS (uncoated/no lube)		316 STAINLESS (uncoated/no lube)		Gr5 / Gr8 STEEL (uncoated/no lube)	
1/4"-20	57	<i>in-lbs</i>	60	<i>in-lbs</i>	75	<i>in-lbs</i>
5/16"-18	103	<i>in-lbs</i>	108	<i>in-lbs</i>	165	<i>in-lbs</i>
3/8"-16	189	<i>in-lbs</i>	198	<i>in-lbs</i>	300	<i>in-lbs</i>
7/16"-14	308	<i>in-lbs</i>	322	<i>in-lbs</i>	480	<i>in-lbs</i>
1/2"-13	36	FT-LBS	38	FT-LBS	61	FT-LBS
9/16"-12	48	FT-LBS	51	FT-LBS	88	FT-LBS
5/8"-11	81	FT-LBS	84	FT-LBS	121	FT-LBS
3/4"-10	114	FT-LBS	118	FT-LBS	215	FT-LBS
7/8"-9	178	FT-LBS	186	FT-LBS	251	FT-LBS
1"-8	269	FT-LBS	281	FT-LBS	375	FT-LBS
1-1/4"-7	492	FT-LBS	513	FT-LBS	750	FT-LBS

*Note: These values are provided for reference only. Every torquing situation needs to be evaluated as small differences can have significant impact on torque. These numbers assume clean, uncoated, non-lubricated stainless threads. In general, lubricated threads require less torque, while coated threads may require more or less. Dirty threads will require more torque.*

- 1) **ALL BOLTS SHOULD BE TIGHTENED TO TORQUE SPECIFICATIONS AFTER 12 HOURS OF SERVICE AND AT EACH SCHEDULED SHUT DOWN.**
- 2) **SOME INSTALLATION INSTRUCTIONS (e.g., FIXING ELEMENT or SHRINK DISC) MAY REQUIRE DIFFERENT TIGHTENING TORQUE SPECIFICATIONS OTHER THAN SHOWN IN THE TABLE ABOVE. PLEASE FOLLOW THE APPROPRIATE SPECIFICATION PER INSTRUCTIONS.**
- 3) USE OF SERVICE REMOVEABLE THREAD-LOCKER RECOMMENDED (BLUE 242 LOCTITE OR SIMILAR). *NOTE: Some thread-locking compounds act as a lubricant, requiring torque settings to be adjusted. Follow manufacturer's instructions for this adjustment.*
- 4) **CONVERSION FACTOR:**  
 Torque values are shown as dry values (no lube or thread locker). For a typical lubricated thread torque value multiply by 80%. For use of thread locker follow manufacturer's instructions for torque adjustment.