

# Industrial Chemical Mixer Operations & Maintenance Manual



This "QUICK START" manual is supplied as a guideline for installation; please visit [www.gtpcompany.com](http://www.gtpcompany.com) for complete instruction manual, assembly drawings and installation drawings.

GENERAL INFORMATION					
MODEL:				SERIAL:	
HORSEPOWER:	<input type="checkbox"/> 1/15HP	<input type="checkbox"/> 1/6HP	<input type="checkbox"/> 1/4HP	<input type="checkbox"/> 1/3HP	_____
	<input type="checkbox"/> 1/2HP	<input type="checkbox"/> 3/4HP	<input type="checkbox"/> 1HP	<input type="checkbox"/> 1 1/2HP	<input type="checkbox"/> _____
VOLTAGE:	<input type="checkbox"/> 115/1/60	<input type="checkbox"/> 230/1/60	<input type="checkbox"/> 220/1/50	<input type="checkbox"/> 230/3/60	<input type="checkbox"/> _____
MOUNT:	<input type="checkbox"/> Clamp		<input type="checkbox"/> Bracket		<input type="checkbox"/> Flange
	<input type="checkbox"/> Thread		<input type="checkbox"/>		
ACCESSORIES:	<input type="checkbox"/> 316SS Coupling		<input type="checkbox"/> Suction Tube Shield		<input type="checkbox"/> Epoxy Coating
	<input type="checkbox"/> Teflon Coating		<input type="checkbox"/> Control Panel/Motor Starter		
	<input type="checkbox"/> Variable Speed		<input type="checkbox"/>		

**\*\*\* WARNING – BEFORE YOU GET STARTED \*\*\***

- 1) All fasteners & fittings should be inspected and secured before operation as they may be loosened in transit
- 2) Personnel safety practices should always apply
- 3) Safety glasses or face shields and gloves should be worn
- 4) Do not service without disconnecting power
- 5) Close isolation valve and release pressure before servicing any components on the system
- 6) All liquids in system should be drained before servicing

**2.0 WARRANTY** General Treatment Products "Chem-Mix" Chemical Mixers are guaranteed for two years from date of shipment against manufacturing defects in material and workmanship that develop in the service for which they are designed. We will repair or replace a defective part of this system when returned to our factory with freight prepaid; providing that the part is found to be defective upon inspection. We assume no liability for labor and/or other expenses in making repairs or adjustments.

**3.0 UNPACKING** Upon receipt of order, inspect package thoroughly. In the event damage occurred in transit you must notify the freight company within **3-5 days of receipt of order**. Once mixer is inspected for damage and received in good condition, store indoors until installing.

**4.0 LOCATION AND ENVIROMENT** All standard GTP "Chem-Mix" models are standard as totally enclosed motors but should be protected from harsh environmental conditions. The addition of an awning or shed is recommended on outdoor applications will needed to validate warranty and will prolong the life of any equipment.

**5.0 INSTALLATION** Once location is decided on, chemical mixer needs to be securely mounted to frame or sturdy structure. "Chem-Mix" mixers may not be mounted directly to the wall of polyethylene tanks unless adequate strength is provided. Polyethylene is a flexible material and eventually will give way to the vibrations and weight of the mixer. **Be sure that anchoring bolts and wiring comply with local building codes.** The following diagrams will help provide the mixing needed. Please contact the factory for assistance.

**5.1 MIXER ORIENTATION** How the mixer is oriented determines the type of mixing produced.  
**Blending Installation** Note: Mixer needs to be installed at 10-15 degrees from vertical and towards center of tank. This will force fluid movement from bottom to top of tank. If vortexing (fluid funneling) appears, shift angle of mixer towards side wall.

**Vortexing Installation** Note: Mixer needs to be installed vertically and in the center of the tank. This will create the best vortex and help draw in dry chemicals. Baffles can be added to the inside of the tank to decrease the vortexing. If Dry chemicals are not being drawn in, mixer may be undersized. If dry chemicals are settling at the bottom of the tank, the mixer shaft may be too short.

**5.2 MIXER SHAFT INSTALLATION** When installing the mixer shaft, align the red arrow and the set screw dimple, and then hand tighten the shaft set screw with Allen wrench. Be sure to check all fasteners, mounting and set screws, before startup, to ensure proper mixer performance. **DO NOT USE LOCK TIGHT ON SET SCREW, OR SHAFT WILL NOT BE ABLE TO BE REPLACED.**

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**6.0 PRESSURE AND TEMPERATURE LIMITATIONS:** GTP Chemical Mixers maximum operating perimeters are 104F. Some optional fittings, as noted in descriptions, may change limitations, contact factory for assistance.

MATERIAL	MAXIMUM SHORT-TERM TEMPERATURE	MAXIMUM OPERATING TEMPERATURE	MAXIMUM OPERATING PRESSURE
Polyethylene (PE)	160°F/69°C	85°F/36°C	N/A
Polyvinylchloride (PVC)	140°F/60°C	85°F/36°C	100PSI/6.9BAR
Chlorinated Polyvinylchloride (CPVC)	180°F/77°C	120°F/49°C	100PSI/6.9BAR
Polypropylene (PP)	180°F/77°C	120°F/49°C	100PSI/6.9BAR
Epoxy	180°F/77°C	120°F/49°C	N/A
Teflon (PTFE)	200°F/93°C	200°F/93°C	N/A
Carbon Steel (CS)	200°F/93°C	200°F/93°C	150PSI/10.3BAR
Cast Iron (CI)	200°F/93°C	200°F/93°C	150PSI/10.3BAR
Brass (BR)	200°F/93°C	200°F/93°C	150PSI/10.3BAR
Stainless Steel (SS)	200°F/93°C	200°F/93°C	150PSI/10.3BAR

Note: Minimum Fluid Temperature is 50°F/10°C.

**7.0 ROUTINE MAINTENANCE** Routine maintenance in this section is referred to as checking once a week until a maintenance schedule can be determined. **All fasteners should be checked for proper operations.** Maintenance and care will depend upon the usage and environment in which the chemical mixer is subject to.

**Inspection of should include:**

**Balance** – Be sure that the mixer is not shaking or wobbling

**Mounting Hardware** – Be sure that the mounting hardware is secure.

**Shaft Integrity** – Check the shaft for chemical attack.

**Fluid Consistency** – Check that the fluid is being mixed to your requirements.

**8.0 PARTS LISTING** Please see complete manual online at [www.gtpcompany.com](http://www.gtpcompany.com), or contact the factory for assistance.

## 9.0 TROUBLE SHOOTING

If you are having problems, please visit [www.gtpcompany.com](http://www.gtpcompany.com) or contact customer service.

**Manufacturing:** Bypass & Filter Feeders, Glycol Feed Packages, Separators & Separator Systems, Tanks, Tank Stands, Chemical Batch Mixers, Corrosion Coupon Racks, Packaged Feed Systems and Custom Systems

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