

# "Chem-Mix" High Speed Industrial Mixers



# Record Your Model, Serial Number and Other Information on the back of this document.

**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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## \*\*\* 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 apply at all times
- 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
- **1.0 INTRODUCTION** Thank you for choosing General Treatment Products "Chem-Mix" Chemical Mixers. This industrial, assembly comes complete and ready to install. In this document we explain the basics for locating, installing and operating this chemical mixer. For further information, please visit <a href="www.gtpcompany.com">www.gtpcompany.com</a> or contact customer service.
- **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.

## **3.1 ORDER VERIFICATION**

In order to verify receipt of correct product, use the following table and model number to identify the contents.

		MC	DDEL			·
MH	-B	-0066	Е	/SS	C-EK	
					<b>OPTIONS</b>	
				_	SSC	Stainless Steel Coupling, in place of standard brass
					STS	Pump Suction Tube Shield
					PSW	Power Cord Switch, 2amp resistive
	CPM		CPM	Control Panel, Motor Starter and Overload		
					EK	Green Epoxy Coating of Shaft and Axial Impeller
					TFE	Green Teflon Coating of Shaft and Axial Impeller
					( ")	Shorter than Standard Shaft
					MIXING I	MPELLER
					N	Neoprene Radial Impeller
					_ <u>E</u>	Economy Stamped Axial Impeller (Propeller)
					<u>P</u>	Cast Axial Impeller (Propeller)
					HORSEPO	WER
					0066	1/15HP
					0166	1/6HP
					0250	1/4HP
					0330	1/3HP
					0500	1/2HP
					0750	3/4HP
					1000	1HP
					1500	1 1/2HP
					2000	2HP
					MOUNT	
					В	Bracket Mount, Adjustable
					С	Clamp Mount, Adjustable
					_T	Thread Mount
					_ <u>F</u>	Flange Mount
					Χ	Tank Stand Mount/No Mount
					MODEL BA	
					MH	"Micro-Horsepower" 1/15HP
					GD	"General-Duty" 1/6HP to 3/4HP
					HD	"Heavy-Duty" 1HP to 2HP

**Note:** Not all options and sizes available on all mixers.

#### **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.

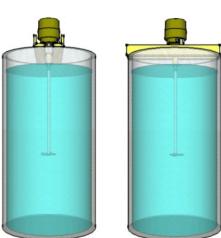
**5.1 MIXER ORIENTATION** How the mixer is oriented determines the type of mixing produced.

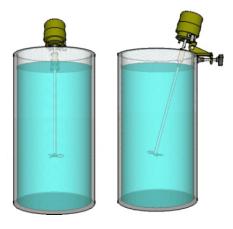
# Blending Installation (shown to right)

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 (shown to left)

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 start up, to ensure proper mixer performance. DO NOT USE LOCK TIGHT ON SET SCREW, OR SHAFT WILL NOT BE ABLE TO BE REPLACED.

**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.

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				,
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	MATERIAL	SHORT TERM	<b>OPERATING</b>	<b>OPERATING</b>
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	Polyethylene (PE)	160°F/69°C	85°F/36°C	N/A
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	Polyvinylchloride (PVC)	140°F/60°C	85°F/36°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	Chlorinated Polyvinylchloride (CPVC)	180°F/77°C	120°F/49°C	100PSI/6.9BAR
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	Polypropylene (PP)	180°F/77°C	120°F/49°C	100PSI/6.9BAR
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	Ероху	180°F/77°C	120°F/49°C	N/A
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	Teflon (PTFE)	200°F/93°C	200°F/93°C	N/A
<b>Brass (BR)</b> 200°F/93°C 200°F/93°C 150PSI/10.3BAR	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
Stainless Steel (SS) 2009E/020C 2009E/020C 1E0DSI/10 2RAD	Brass (BR)	200°F/93°C	200°F/93°C	150PSI/10.3BAR
200°F/93°C 200°F/93°C 150F5I/10.5BAR	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 check for proper operations. Maintenance and care will depend upon the usage and environment in which the chemical mixer is subject to.

Inspection	οf	should	include:
THISPECTION	v	Silvaia	miciaac.

- 1) **Balance** Be sure that the mixer is not shaking or wobbling
- 2) **Mounting Hardware** Be sure that the mounting hardware is secure.
- 3) **Shaft Integrity** Check the shaft for chemical attack.
- 4) **Fluid Consistency** Check that the fluid is being mixed to your requirements.

**8.0 PARTS LISTING** For replacement parts, contact us for assistance. Have model number and serial number ready for part verification.

**9.0 TROUBLE SHOOTING** If you are having problems, please visit <a href="www.gtpcompany.com">www.gtpcompany.com</a> or contact customer service.

10.0 NOTES		
11.0 PRODUCT LABEL		
Model:		
Serial Number:		