OPERATING INSTRUCTIONS

LEHMAN EQUIPMENT Model GS20C Glaze Dipping System

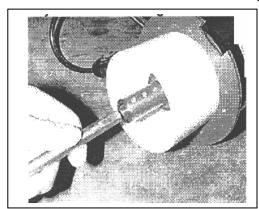
IMPORTANT:

Do not attempt to use this machine until you have read these instructions and you understand the general operation of the mechanical parts. Check all parts for damage that may have occurred during shipping.

ASSEMBLY:

This machine was shipped with some of the parts not installed in their functional positions. Some of the machines are shipped with the casters bolted in place and others have the casters off. If the casters are not factory installed the necessary fasteners are included. There is one swivel caster and two rigid casters that each fasten with four, 1/4"-20 carriage bolts. The rigid casters are to be installed on the feet that are parallel and the swivel caster fastened to the leg that is at a right angle to the others.

The motor is already pre-wired with the cord and switch. The mixer shaft has the mixing propeller already attached. The rigid drive coupling is attached to the motor shaft. Simply insert the 1/2' mixer shaft into the drive coupling so that the setscrews are over the flat on the shaft as shown. Tighten the set screws with a 1/8" allen wrench. Make sure that the set screws are tight on the flat surface and not on the round area of the mixer shaft.



There are two small brackets that need to be fastened to the legs. One of the mounting brackets holds the frame for the drying rack and the other is the bracket that holds the mixer. Two of the legs has been pre-drilled and threaded to accept the 1/4"-20 bolts. The holes of the brackets are slightly oversize to allow for adjustment so you can properly align the frames in the vertical position.

TESTING THE MACHINE:

Warning: The motor on this machine is equipped with a grounded, three pronged electrical plug. This unit operates on standard 110 volt current and is designed to plug into any normal household grounded wall outlet. <u>AN UNGROUNDED ELECTRICAL PLUG, OR AN UNGROUNDED EXTENSION CORD CAN CAUSE</u>

SEVERE ELECTRICAL SHOCK!! The motor CANNOT be re-wired to operate on 220 volts.

NEVER turn the motor on unless it is properly mounted on the top lid with the drive shaft down in the tank. NEVER turn the motor on with the prop exposed or resting in a horizontal position. Unplug the motor from the wall outlet before placing it in the tube base.

Check the switch to insure it's in the off position. Once the cord is properly connected to a wall outlet and with the mixer down in the tank, the switch may be turned to the on position for about 2 seconds to see that the motor runs properly. It should run quietly and very smooth with no vibrations. Once you determine that the motor is functioning properly you are ready to use the unit to mix glaze.

FILLING THE MACHINE WITH DIPPING GLAZE:

As you know, all dipping glazes will separate and settle out in transportation and storage. You can greatly help the mixing process by shaking the bucket prior to opening. You can turn the bucket upside down for a few hours before opening and it can even be rolled around or shaken with the handle. Any type of movement will aid the agitation process.

Open the bucket and pour the glaze into the tank. Scrape any remaining thick glaze that is still in the bucket into the tank. This thick "stuff" is simply a concentration of solid particles and needs to be used. It will be mixed up perfectly in just a few seconds.

You may determine that 5 gallons is not enough glaze. It's a good idea to pour in another bucket and begin with at least 10 gallons. For best results with the dipping process you may find that 15 gallons is the best amount of glaze to start with.

MIXING THE GLAZE TO IDEAL DIPPING CONSISTENCY:

When you have filled the tank with the desired amount of glaze turn the switch to the ON position and the mixing action will begin. You will notice a rolling action in the bottom of the tank as the vortex becomes very strong. The entire mixing process will take only ONE or TWO MINUTES. There is no need to run the mixer for long periods of time. Excessive run time can break down the solid particles and change the characterists.

Check the glaze for any thickness that may remain in the bottom. You can turn the top mounting lid a full 360 degrees. You can turn the top about 90 degrees and run the mixer a few seconds. You can repeat the process until the entire tank has been mixed. There should be no more thick glaze anywhere.

Most dipping glazes are formulated to stay in condition for quite some time. You should have plenty of time to dip numerous pieces before running the mixer again. If there is any doubt about the consistency of the glaze, simply turn the motor on for a few seconds.

CAUTION: The mixer does not have to run very long. The action created is quite thorough. After a few minutes the glaze is mixed as well as it's going to be and excessive mixing can eventually increase the temperature and then start to break down the glaze. So therefore, only run the motor only a few minutes at a time.

THE DIPPING PROCESS:

Remove the motor and place it in the storage bracket. The lid will hang on the hook on the side of the top of the tube. The tank is now totally open and ready for dipping.

Follow the instructions that are provided with each brand of glaze.

STORING THE GLAZE FOR THE NEXT DIPPING SESSION:

When you have coated all the required pieces, simply put the cover and mixer back on the top of the tank. Most glazes will stay fluid for extended periods of time.

To keep the glaze in good condition, you may want to run the mixer a few minutes once each week whether you're dipping pieces or not.

CLEANING THE GS20C:

Once glaze has been used in the machine the main concern for care and maintenance is for the condition of the glaze. The machine itself does not have any regular maintenance requirements. When the unit is not in use it is best to return the lid to the top of the tank to keep the glaze covered. Also, insert the mixer in the lid and this will help eliminate air getting into the top opening. If you want to totally seal the tank (more air tight) for long term storage, simple cover the entire tank with light weight plastic (like a garbage bag) and put the lid over it. The plastic will seal nearly air tight and the glaze will keep for months.

Each glaze is a little different, but all brands will settle with age. Most often you will see water "ponding" on the surface. Sometimes this can happen within a few hours, or it may take a few days. Either way, the materials are still in there; they just need to be mixed up again. After running the mixer for about a minute or two everything will be consistent and ready for dipping. If the glaze becomes "caked" and hardened in the bottom of the tank this would be considered unusual settling. However, once the chunks are broken loose from the tank the mixer has the action required to re-mix the glaze to dipping condition. If it will not breakup and re-mix, you have a glaze problem. Contact your supplier.

If for any reason you need to completely clean the GS20C use a small volume bowl on pail to dip the glaze out of the tank. (Return the glaze to an original bucket.) You do not have to remove the entire glaze, when the major portion has been removed the entire white fiberglass tank can be lifted out of the gray steel frame. The tank can then be completely emptied and washed PERFECTLY clean with water.

Any dried glaze can also be washed off the mixer shaft and prop. These parts have little corners and undercuts where dried glaze can hide, but with a little scrubbing they'll come clean. The GS20C has plenty of mixing capacity and could be used for additionally mixing applications. For example, it will mix glazes from dry powered materials. It will also mix ceramic slip and reclaim trimmings. For specific information regarding these uses you may contact us at the address listed below.

TECHNICAL ASSISTANCE:

For any additional information regarding the operation of this equipment, you may contact the factory at the location listed below. Normal business hours are from 7:00 a.m. until 5:00 p.m. (CST), Monday through Thursday. Limited office staff is available on Fridays.