305

High-Capacity Positive Displacement
Metering Pump

- Dispenses five parts resin and one part hardener (5:1) by volume.
- For use with West System 105 Resin and 205/206 Hardeners.

Read all directions before using pump.
Keep these instructions for reference.

Operating Instructions

The 305 Metering Pump consists of two separate parallel pump systems, one for the resin and one for the hardener. The two systems are operated simultaneously by a single lever. The pump delivers about 2.0 fl. oz. of the proper ratio of resin and hardener per full stoke of the dispensing lever. The reservoirs hold two gallons of resin and one gallon of hardener.

SET UP

Desiccant filter must be installed on hardener lid before operation. The desiccant filter is designed to remove moisture from the hardener reservoir. To install filter, remove the orange plug at either end of the filter and screw into the port on the hardener lid until it is hand tight.

PRIMING

It is recommended that you fill and prime the hardener side before filling the resin reservoir. Fill the pump reservoirs with West System products only.

Fill the hardener reservoir and operate the pump by pushing the dispensing lever down and releasing until hardener flows evenly from the hardener (left) spout. Dispense the hardener into a clean container or the original hardener container.

Fill the resin reservoir and prime in the same manner. Dispense resin and hardener into separate clean containers until no air is emitted and the resin and hardener flow smoothly. Return the resin and hardener to the proper reservoirs. Note: When filling the reservoirs, *do not get any resin in the hardener reservoir or hardener in the resin reservoir*. Always keep one reservoir covered while filling the other. Keep reservoirs covered at all other times to prevent contamination.

PUMP OPERATION

The dispensing lever operates pistons which draw resin and hardener from their reservoirs into cylinders on the lever down stroke and push the resin and hardener out through the spouts on the return up stroke. In normal operation a spring returns the lever to the up position.

If pump has not been used in 24 hours, dispense one full pump stroke of resin and hardener into separate, clean cups to ensure the system is fully primed. Purged material can be returned to the proper reservoirs.

Pump is most accurate when dispensing between 65°F and 85°F. Consult the Technical Data Sheet for minimum recommended cure temperature of Hardeners. The pump will dispense at a slower rate in lower temperatures and a faster rate in higher temperatures due to the variance in viscosity caused by temperature. Store the pump at room temperature.

Maintain a minimum of one inch of resin and hardener above the bottom of the reservoirs to prevent air from being drawn into the pumps. If air is drawn into one of the pumps and discharged from the spout, do not use the mixture as the ratio may be unreliable. Re-prime the pump after refilling the reservoir.

When switching between hardeners, drain the reservoir and operate the dispensing lever until air is emitted from the spout. Fill the reservoir with the desired hardener and re-prime. It is not necessary to thoroughly clean the system before refilling.

RATIO VERIFICATION

After priming the pump, we recommend mixing a small test batch of epoxy before using a mixture on your project. This will confirm the ratio is accurate and will allow you to observe the resin/hardener combination's curing characteristics under your working conditions. Re-check the ratio periodically or if you later experience incomplete or unusually fast or slow curing.

The most accurate method of checking the proper ratio is by weight. Pump at least four strokes of resin and hardener simultaneously into separate, pre-weighed containers. The larger the sample, the more accurate the check. Weigh each of the samples and subtract the weight of the container to determine the net weights of each. Divide the net weight of the resin by the net weight of the hardener to find the ratio of resin to hardener.

The ratio should fall between the maximum and minimum acceptable weight ratios shown in the products Technical Data Sheet. (Contact the Gougeon Technical Staff or visit westsystem.com for product Technical Data Sheets.) A ratio outside of the acceptable range will cause insufficient cure and weakening of the epoxy proportionate to the amount of deviation.

The ratio can also be checked by volume. Pump at least four strokes of resin and hardener separately into the two graduated measuring cups included with the pump. Set the cups on a level surface to accurately determine the volume of resin and hardener. Divide the volume of resin by the volume of hardener to find the ratio of resin to hardener. The ratio should fall between the maximum and minimum acceptable volume ratios shown in the product's Technical Data Sheet. The acceptable ratio range by volume is different than by weight because hardener is less dense than resin.

A volume check can also be done with any two identical, narrow, cylindrical containers. Measure the levels of the dispensed resin and hardener in the containers with a ruler. Divide the measured height of the resin by the measured height of the hardener to find the ratio.

Monitor the resin/hardener by examining the cured epoxy left in the mixing cup. If the residue is not sufficiently hard after the appropriate cure time has passed, recheck the pump ratio. Re-check the ratio periodically especially prior to a critical project.

CLEANING

Clean resin or uncured epoxy with one of the following solvents, listed in order of their effectiveness: Lacquer thinner, Acetone, MEK (Methyl Ethyl Ketone), or Isopropyl Alcohol. Clean hardener with Isopropyl Alcohol or water.

PARTS AND SERVICE

Replacement parts are available from Gougeon Brothers, Inc. Call or write for information and pricing. If you have trouble maintaining the correct ratio after cleaning or replacing damaged parts, contact Gougeon Brothers, Inc.

WARRANTY

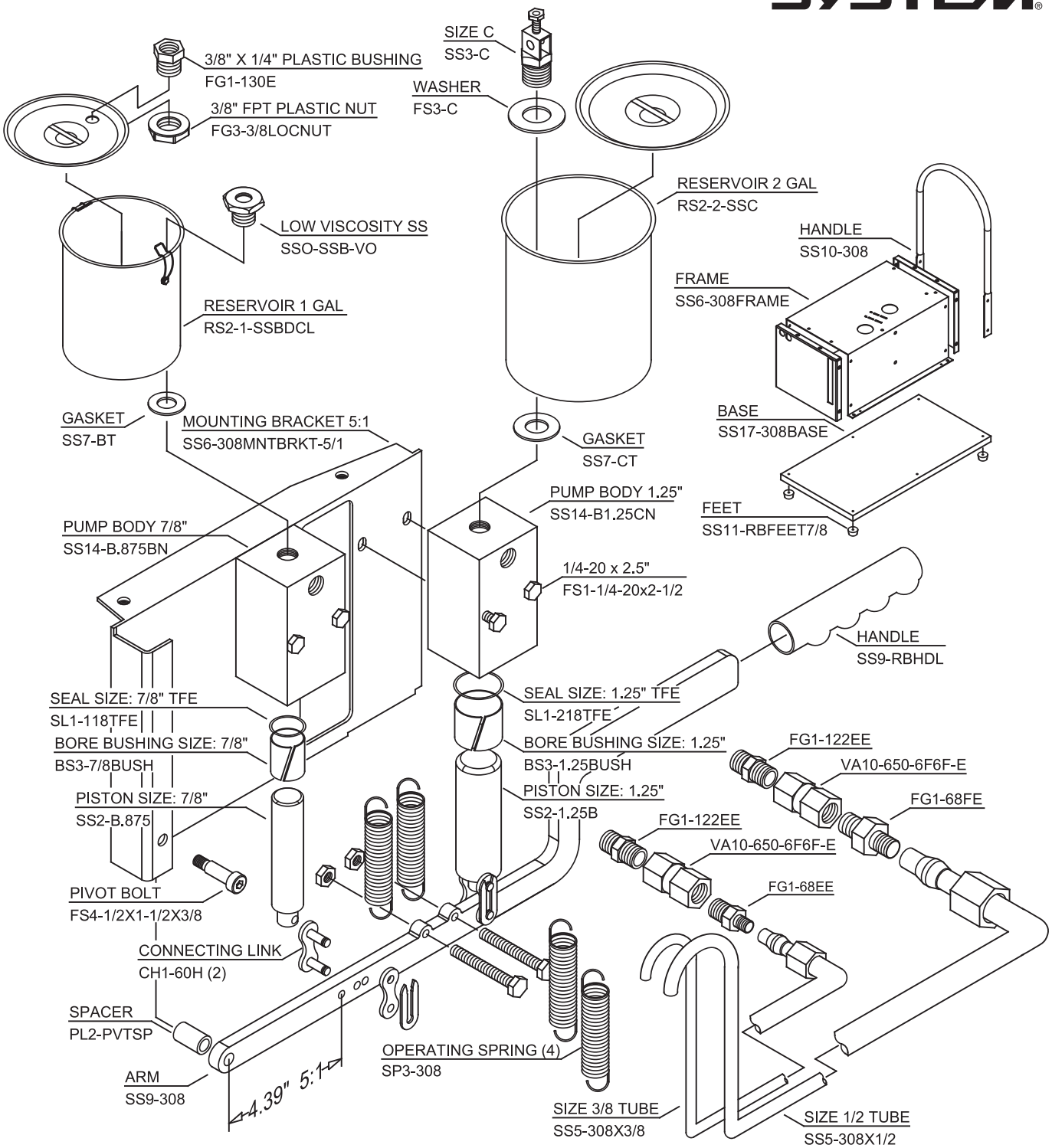
Gougeon Brothers, Inc. will repair or replace a West System 305 Metering Pump found to be defective due to materials and/or workmanship. This warranty does not include the cost of extensive cleaning, freight charges, removal of foreign material, accidental damage, or repair if resin and hardener are accidentally mixed in the reservoirs. This warranty is made in lieu of all other warranties, express or implied, including merchantability and fitness for purpose intended. Any alteration of the pump by the purchaser will void any warranty obligation of the manufacturer.

Gougeon Brothers, Inc. makes no warranty of any kind concerning the results obtained using the materials dispensed by this pump. It is the user's responsibility to monitor pump performance, mix ratio and epoxy curing. Gougeon Brothers, Inc. will not be liable for incidental or consequential damages.

TECHNICAL INFORMATION

For product Technical Data Sheets contact the Gougeon Technical Staff or visit westsystem.com. Questions about the 305 Metering Pump or other West System products can be directed to:

Gougeon Brothers, Inc., P.O. Box 908, Bay City, MI 48707
866-937-8797 / westsystem.com



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Metering Pump Parts Diagram

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