

WEST SYSTEM® 301F Pump is a single action, double cylinder, high capacity pump, designed to dispense large metered quantities of resin and hardener, from drum quantities, at the designated 5:1 ratio to reduce mixing time and waste.

SETTING UP

The pump should be securely fastened to a plate, which in turn is located to any convenient, steady structure, for example a bench staunchion, in order to prevent any movement during operation.

INSTALLATION

When using 20 ltr containers:

The 20 litre containers have a threaded bung at the base to accept a barb hose fitting.

Mount the pump 150mm below the base of the containers to ensure a positive feed to the pump.

Bolt the pump securely in an upright position, dispensing outlets go to the top, and the WEST SYSTEM writing embossed on the front of the unit should be upright.

Connect the hoses to the supply side (rear) of the pump, ensuring that the Resin and Hardener lines feed into the correct supply inlets.

Resin connects to the inlet with SYSTEM embossed on the front

Hardener connects to the inlet with WEST embossed on the front

When using 200 ltr drums:

If possible, mount the pump 150mm below the level of the drums to ensure a positive feed to the pump.

If not possible, ensure the pump does not have to "lift" the resin too far, as this can create voids in the line and an incorrect ratio being dispensed.

Ensure the pump is mounted in the upright position, with the WEST SYSTEM writing embossed on the front, and upright.

Connect the hoses to the supply side (rear) of the pump, ensuring that the Resin and Hardener lines feed into the correct supply inlets.

Resin connects to the inlet with SYSTEM embossed on the front.

Hardener connects to the inlet with WEST embossed on the front.

Cut the end of the feeder hose at a 30° angle to prevent the hose from vacuum sealing to the bottom of the drum.

PRIMING THE PUMPS

Pump the handle up and down, with one container under each outlet, until both the resin and hardener are purged of air. The fully primed pump will produce a continuous stream of liquid.

The resin and hardener can be poured back into the main drums if they have not been contaminated. Take care not to mix them up!

One fully primed pump will deliver approximately 50gms of resin and 10gms of hardener.

A simple test to check the mix ratio is to pump 1 full stroke of resin and 5 full strokes of the hardener pump into separate, equal sized containers. The level in each container should be equal to slightly more in the hardener sample.

OPERATION

Use slow, steady strokes, as opposed to short jerky ones, and allow the cylinders to fill before reversing the stroke. Vigorous action can cause an incorrect ratio to be dispensed.



Cold temperatures cause a substantial increase in the viscosity of the resin and hardeners, requiring more force to pump the thicker materials. Allow time for the resin and hardener to flow by not forcing the pump handle.

Do not use pump below 15°C. For prolonged use at low temperatures, warming the resin/hardener using a “hot box” is suggested.

TROUBLE SHOOTING

If the pump starts to splutter it is obviously affecting pumped quantities, and therefore delivering an incorrect ratio. Repair or solve the problem before further use.

The spluttering could be due to:

- out of resin or hardener.
- hardener or resin being too low or too far away from the pump. Raise the resin or hardener drums, or install pumps closer to the drums.
- contamination inside the pump, preventing the ball seals from working correctly. Try cleaning the pump as above. If the problem still persists, contact ATL Composites Technical Staff.
- blockages caused by the crystallization of resin/hardener due to extended very low temperatures. Warming the resin/hardener can prevent this.

PACK SIZES	
	Mix ratio 5:1
Order Code	SIZE
301F	240 L

NOTE ATL Composites check each pump as it is packed to ensure it is correctly assembled. It is the responsibility of the end user to check the pumps are working correctly before use. If a faulty pump is found, ATL Composites will be happy to replace it.

ATL Composites accept no responsibility for incorrect mix ratios caused by human error or faulty pumps.

* Due to pump manufacturing tolerance limitations, the pumps are set up at a 4.7:1 ratio but could vary between 4.5:1 and 5:1. This is the acceptable mix ratio variation range for WEST SYSTEM® epoxy.

STORAGE & CLEANING

Store resin and hardener in a dry location at room temperature. Keep containers upright to prevent leaks.

Cleaning is not required after every use, but the exterior should be wiped to remove any liquid material which may find its way through the hose joints, and contaminate the outside of the pump. Regular renewal of the piston ‘o’ rings – every 6 months or every 200 ltrs – is recommended.

For extended periods of storage, dismantle pump and clean thoroughly. Remove the pump from the hoses, and pump until it is as dry as possible. Use a solvent such as acetone to clean the pump. Rinse the pumps thoroughly and allow to completely dry before reusing.

Pump seal kits are available from ATL Composites.

HEALTH AND SAFETY

WEST SYSTEM® R105 resin and hardeners have moderate sensitising potential, and should be kept out of the eyes and off the skin.

- Use with good ventilation and adequate safety equipment including impervious gloves and safety glasses.
- If skin contact occurs, remove contaminated clothing immediately, and wash the affected area thoroughly with ATL’s 845 hand cleaner and water, avoiding the use of solvents except in the case of massive contamination.
- If eye contact occurs, immediately flush with running water for at least 15 (fifteen) minutes and seek medical advice.
- If swallowed:

Resins - DO NOT induce vomiting, and contact a doctor or the Poisons Information Centre.

Hardeners - DO NOT induce vomiting, give plenty of milk or water and contact a doctor or the Poisons Information Centre.



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