Form #AGITATION

Operators Instructions
Agitation Systems

Bypass Agitation (Standard on most PBM Sprayers)

Bypass agitation is standard on most PBM sprayers. The pressure relief valve is also known as a bypass valve and is used on systems with positive displacement pumps.*(Roller, Piston and Diaphragm pumps are positive displacement pumps.)* The hose coming from the pressure relief valve returns fluid not used by the accessories to the tank and, in most cases, through an agitator device which aids in the distribution and mixing process. Lowering the pressure increases the amount of fluid returning to the tank. Increasing the pressure decreases the amount of fluid returning to the tank.

Centrifugal pumps create enough volume that a agitator nozzle is not used. A 45 degree elbow is installed to aid in mixing and reduce the chance of material being splashed out of the lid when open.

Jet Agitation

Jet agitation is similar to bypass agitation. A control valve from the pressure side of the spray system is plumbed back to the tank and is usually distributed through a jet agitation nozzle. This system is controlled by opening the control valve until adequate flow is achieved to keep chemicals in suspension.

Mechanical Agitation

Mechanical Agitation is exactly what the name implies. A series of paddles, *(or sometimes a propeller,)* is attached to a shaft that is driven by an auxiliary power output shaft or separate motor. Operation of most mechanical agitation systems produced by PBM start operating as soon as the engine is started. The engine RPM or adding/removing paddles are the only means of controlling this form of agitation.