Manifold Mounted Valves Make Posidyne Clutch Brakes More Consistent

A Manifold Mounted Valve Can Make a Posidyne Clutch Brake Position Accurately and Cycle 250 CPM

Force Control clutch brakes operate by applying pressure to a centrally located piston applying pressure to the friction stacks. There is a clutch friction stack and a brake friction stack. The unit is operated by applying pressure to the clutch side of the piston to engage the clutch friction stack, or the brake side of the piston to engage the brake friction stack. The acceleration or deceleration torque is controlled by the pressure exerted on the piston.

Typically Force Control clutch brakes are air actuated and often used for high cycle applications, or when positioning accuracy is critical. For the quickest, most consistent response, mounting the solenoid valve as close to the unit as possible is ideal. Long hoses with the valve mounted far away will be sluggish, and less consistent.

Force Control Industries designed the manifold mounted valve for most of the clutch brake units. This consists of a mounting plate directly mounted to the piston housing with means for the valve to be bolted on this mounting plate. This puts the valve right at the piston. The pressure regulators can be mounted away from the unit or regulators can be sandwiched within the valve body. This is great for a compact, all in one package with easy installation and minimal possibly of air leaks.

For quickest response the ideal system would consist of regulators mounted on accumulators with short hoses leading to the manifold mounted valve.