

Vacuum Actuated Cooling System (VACS)

The Fruitland 870 series pump is a true 500 CFM machine with 4" porting. Although, dimensionally, it is only slightly larger than the Fruitland 500 series pump it works exactly the same with the exception of the VACS system.

Under high vacuum (vacuum above 20"hg) very little air moves through a rotary vane vacuum pump. This may result in heat buildup which reduces the duty cycle and under extreme conditions can cause the pump and components to fail prematurely. The Fruitland VACS system allows the pump to remain cool under high vacuum through extended periods of operation.

Here is how it works: We take a small pilot air line from the filter pod of the pump directly to the VACS valve. The VACS valve is controlled by the amount of vacuum created by the pump. The valve is factory set at 20" hg but can be adjusted in the field. When the VACS valve starts to open under high vacuum it allows ambient air to enter the pump just ahead of the exhaust port. This will keep the pump operating at a safe temperature in normal operating environments. The VACS system consists of the air injection valve, 3/8" pilot control tube, 1.5" air injection hose, air filter (optional muffler) and mounting hardware. The valve can be remotely mounted and is quiet.

Air Injection Shut Off

The air injection system for the Fruitland 870 vacuum pump whether installed at the Fruitland factory or by one of our many rig up companies should be installed with an in-line ball valve shut off.

The ball valve should be installed between air injection valve and the filter pod.

If a vacuum truck operator chooses to leave vacuum (negative pressure) or pressure in the vacuum tank (vessel) while disengaging the Power Take Off (PTO), the operator needs to shut the air injection ball valve off prior to dis-engaging the PTO. Failure to do so may cause the vacuum pump to spin backwards at very high RPM.

