

# SUNTEC INDUSTRIES, INC.

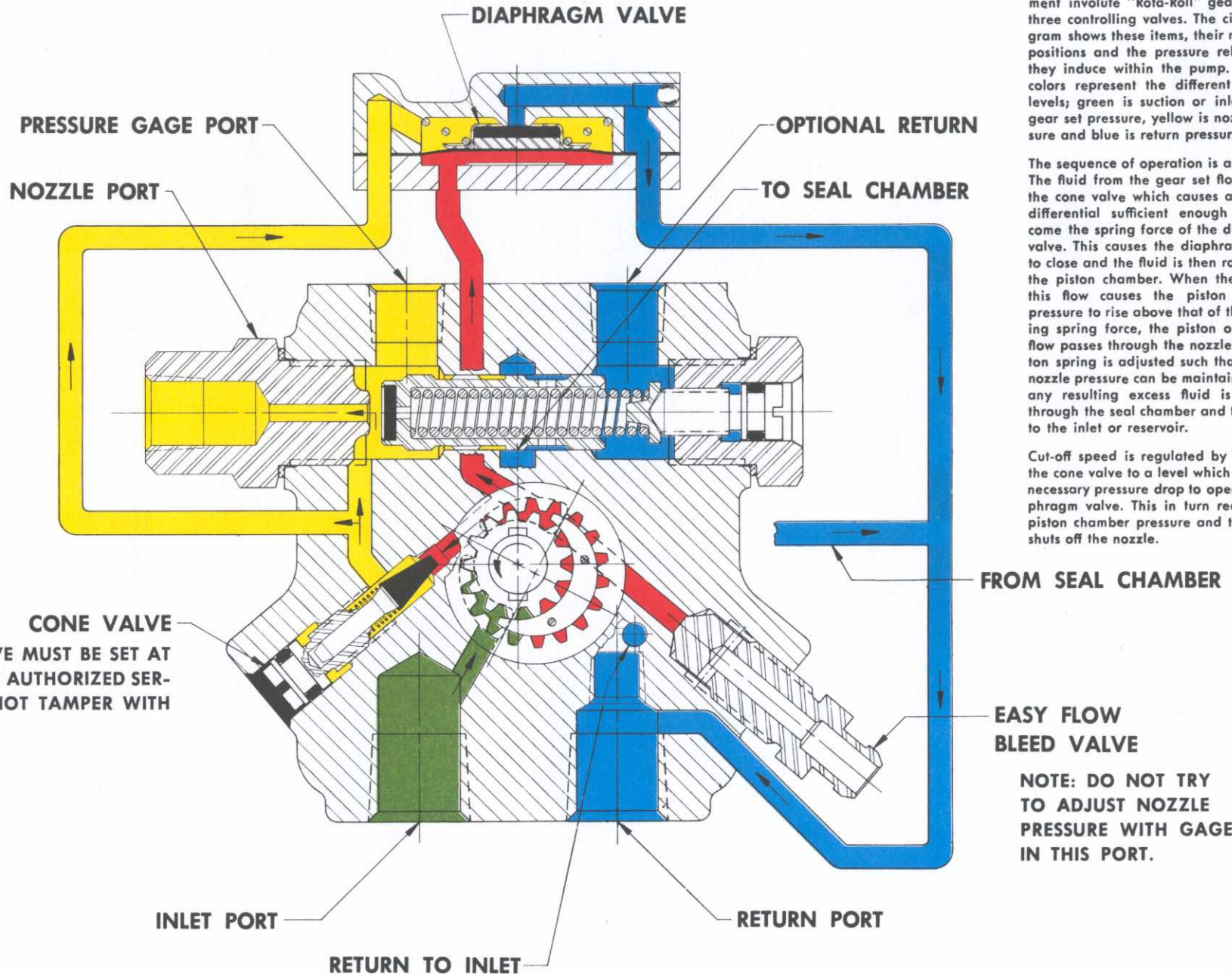
## MODEL A 70 FUEL UNIT

The A-70 has a unique circuit that exhibits a dependable cut-off, a high single pipe lift capacity and automatic two pipe purging.

The circuit contains a positive displacement involute "Rota-Roll" gear set and three controlling valves. The circuit diagram shows these items, their respective positions and the pressure relationship they induce within the pump. The four colors represent the different pressure levels; green is suction or inlet, red is gear set pressure, yellow is nozzle pressure and blue is return pressure.

The sequence of operation is as follows: The fluid from the gear set flows across the cone valve which causes a pressure differential sufficient enough to overcome the spring force of the diaphragm valve. This causes the diaphragm valve to close and the fluid is then routed into the piston chamber. When the level of this flow causes the piston chamber pressure to rise above that of the opposing spring force, the piston opens and flow passes through the nozzle. The piston spring is adjusted such that a given nozzle pressure can be maintained while any resulting excess fluid is metered through the seal chamber and then back to the inlet or reservoir.

Cut-off speed is regulated by adjusting the cone valve to a level which gives the necessary pressure drop to open the diaphragm valve. This in turn reduces the piston chamber pressure and the piston shuts off the nozzle.



**CAUTION: THIS VALVE MUST BE SET AT THE FACTORY OR AN AUTHORIZED SERVICE STATION. DO NOT TAMPER WITH IT IN THE FIELD.**

**NOTE: DO NOT TRY TO ADJUST NOZZLE PRESSURE WITH GAGE IN THIS PORT.**