

How the VR300 Fast Fuel System Works

1.
The nozzle and receiver mate using bayonet lugs. A 30° turn locks and seals the two mating components. The nozzle actuating handle will not move unless the nozzle has been attached and locked onto the receiver.
2.
The nozzle actuating handle is rotated upward to the "ON" position which opens the nozzle and receiver poppets. Fuel flows through the nozzle and builds pressures within the receiver. Pressurized fuel flowing through the jet sensor opens the main fuel gate.
3. Fuel fills tank at a rate up to 300 GPM.
4.
When the fuel level reaches jet sensor, the pressure maintaining the open position of the main fuel gate is eliminated. A return spring closes the main gate and fuel ceases to flow into the tank.

5.

With the main fuel gate closed the pressure within the receiver and nozzle builds. Pressurized fuel is forced through the hollow nozzle actuator shaft into the poppet return chamber. The pressure in the poppet return chamber pulls the nozzle sealing poppet back to the closed position, and the red indicator button extends out the back of the nozzle.

6.

The extended indicator button signals that the nozzle actuating handle may be rotated to the "OFF" position. Only when the actuator is in the "OFF" position will the nozzle rotate off the receiver.