

# OPERATING INSTRUCTIONS

## MODEL VRV-05 THD

### IN-LINE ADJUSTABLE VACUUM RELIEF VALVE



#### APPLICATIONS:

Valve should only be used for non-corrosive fluids, or where the materials selected are compatible with the fluid and will not cause corrosive buildup which could keep the poppet from opening. (Consult Factory) When liquid contain debris or other solid matter, a strainer with fine wire mesh should be placed before the vacuum relief valve. Strainers can be purchased from STRAVAL to address this concern.

#### PRINCIPLE OF OPERATION

This is a poppet (piston) and spring type vacuum relief valve where the spring constantly opposes the pressure acting against the piston seat area. The desired cracking pressure is achieved by compressing the spring until the spring force is adequate to balance the pressure force acting against the poppet. When the inlet pressure exceeds the cracking pressure, the poppet will open to allow flow through and will reset when the overpressure condition is below the cracking set point.

#### MAINTENANCE & REPAIR

This valve requires little or no maintenance. It is designed so that the cracking pressure can't be disturbed while in use. To change the cracking pressure setting requires complete removal of the valve from its pressure port. Caution: Make sure the pressure source is shut off to avoid injury, while removing the valve. The only item that will require replacement is the elastomeric seal when leakage is observed. Usually the body or spring rarely requires replacement unless there is severe corrosion. If corrosion is present typically the entire valve must be replaced and upgraded to materials which can hold up to the corrosive elements. Ordinarily the spring is supplied in stainless steel, but other options are available such as Hastelloy and titanium. The only other reason for removing the valve from the line is to adjust the cracking pressure. Under no circumstances over tighten the spring to where it bottoms out! The poppet must be allowed to travel for flow to take place.

