# Humphrey Glue Valves

Humphrey glue valves are 2-way, double air-piloted valves with a full 0.125-inch or 0.250-inch orifice. They are simply and reliably constructed with only two flexing diaphragms and no sliding seals. Humphrey glue valves are self-cleaning since there are no pockets in which glue can collect. They have positive "open" and "close" with no dripping due to the volume under the top solid diaphragm which sucks the glue back into the valve upon closing.



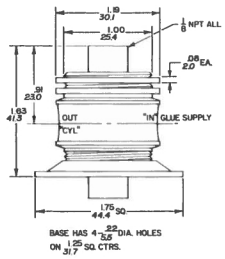
**R561**
Model R561 glue valve has a full 0.125-inch orifice and, with diaphragms featuring a 0.010" Teflon® profile, is unaffected by almost all chemical solvents. Order mounting hardware separately: #8-10 Mounting Base; #120-301 Mounting Nut.

**R322C**
Model R322C is identical to the R561 glue valve but has Viton A diaphragms for handling glues with a water or mild-chemical base. Order mounting hardware separately: #8-10 Mounting Base; #120-301 Mounting Nut.

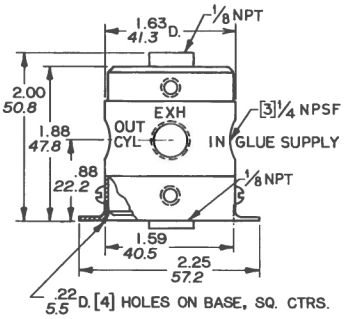
**R332**
Model R332 glue valve features a full 0.250-inch orifice and Viton A diaphragms for handling glues with a water or mild chemical base. Teflon profile diaphragms are not available for the R332 or other 0.250-inch orifice valves. Order mounting hardware separately: #8-20A Mounting Base.

**Note:** Glue valves may become "stiff" at temperatures of 40°F (4.4°C) or below, because of the stiffness of the diaphragms. This condition can be corrected by increasing pilot pressure somewhat, but always keep both glue and pilot pressures at a minimum for maximum reliability.

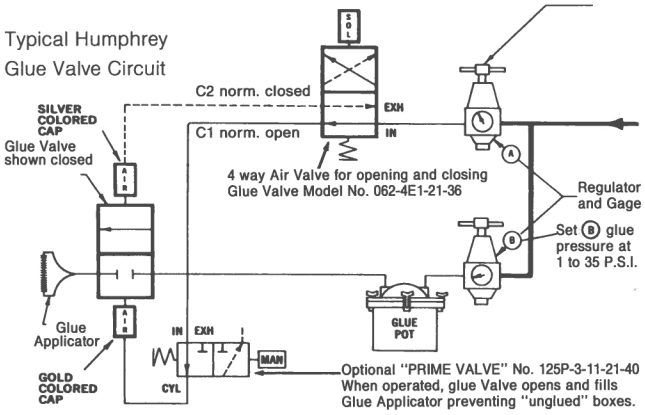
R561/R22C




R332




Typical Humphrey Glue Valve Circuit




**Do not shut off Regulator (A) (air pilot pressure) before Regulator (B) or the Glue Valve will be forced to the open position permitting glue flow to the applicator. On the R561 Series the bottom diaphragm may come off the main stem (if glue pressure is 20 PSI or above) allowing glue to enter the pilot air system.**

**HOW TO SELECT THE RIGHT GLUE VALVE**

**The 1/8" R322 Series or 1/4" R332 Series** valve will handle most glue applications with a water or mild chemical solvent base. However, some strong chemical solvents (ketones, acetones and low molecular weight esters and ethers) may cause the Viton "A" diaphragms to swell and a gradual reduction in the glue flow would be an indication of this condition. Increasing the glue pressure would accelerate the swelling of the Viton "A" diaphragms under such conditions. Most "HOT" glue applications (to 350°F.) are suitable for these valves. Five to seven million cycles should be expected, if used in accordance with the specifications.

**The 1/8" R561 Series** glue valve is unaffected by almost all chemical solvents and thus resists swelling exept in the most extreme applications. This valve incorporates 0.010" thick Teflon bonded to a Buna "N" (never exposed to the glue) diaphragm. Five to seven million cycles should be expected, if used in accordance with the specifications.

**All of the glue valves** may become "stiff" at temperatures of 40°F. or below due to stiffness of the daphragms. Increasing the pilot air will correct this condition.

Always keep the glue and pilot air pressures at a minimum and these valves will provide excellent reliability.