

# Actuator Sizing

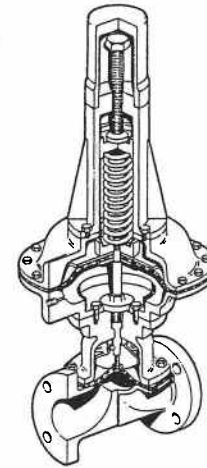
## Type "HRT" Actuators

100%  $\Delta p$

### Air to open, spring to close

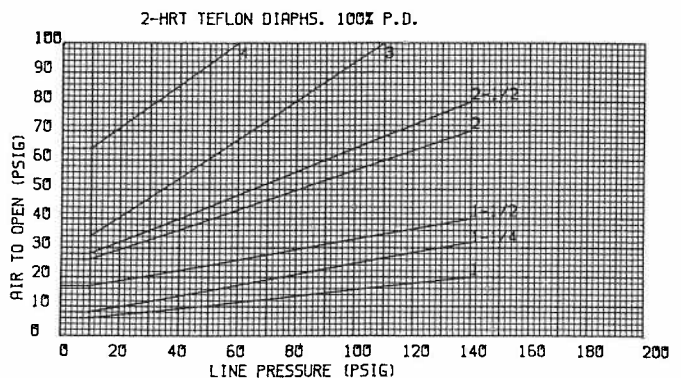
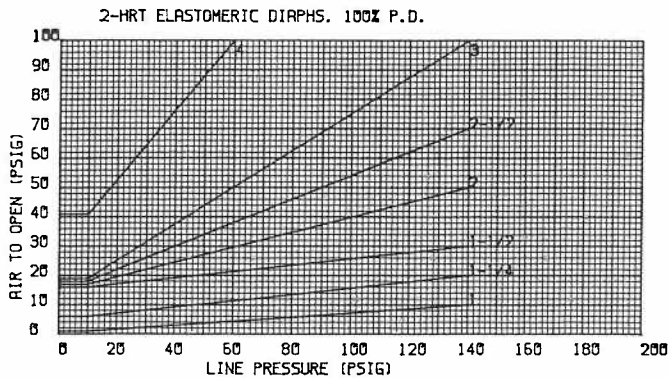
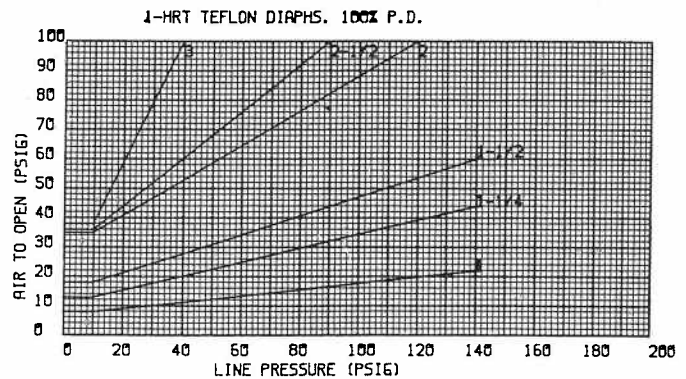
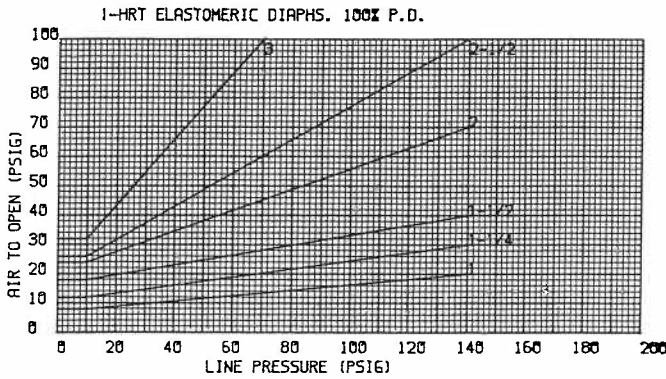
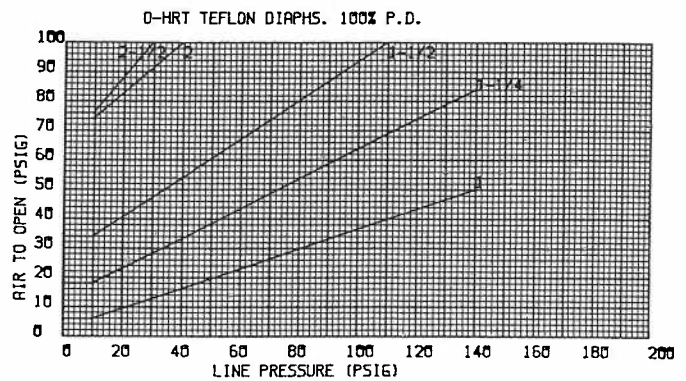
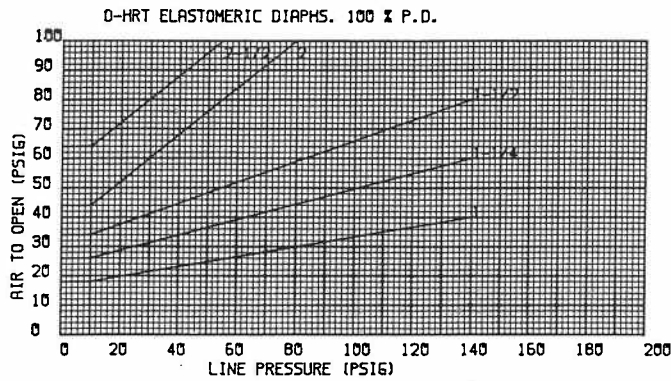
The choice of actuator size is determined by the line pressure through the valve and the available operating air pressure. Some operating conditions call for substantial line pressure downstream when the valve closes.

After the valve closes, if the downstream pressure is less than 30% of the upstream pressure — this condition is 100%  $\Delta P$ . If the downstream pressure is 30% or more of the upstream pressure — the condition is 0%  $\Delta P$ .



Air pressure on the underside of the actuator diaphragm opens the valve. A spring or set of springs closes the valve.

The charts shown below are for 100%  $\Delta P$  condition and show the air pressure required to fully open the valve against the spring thrust necessary to close the valve against various line pressures.



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100%  $\Delta p$

