

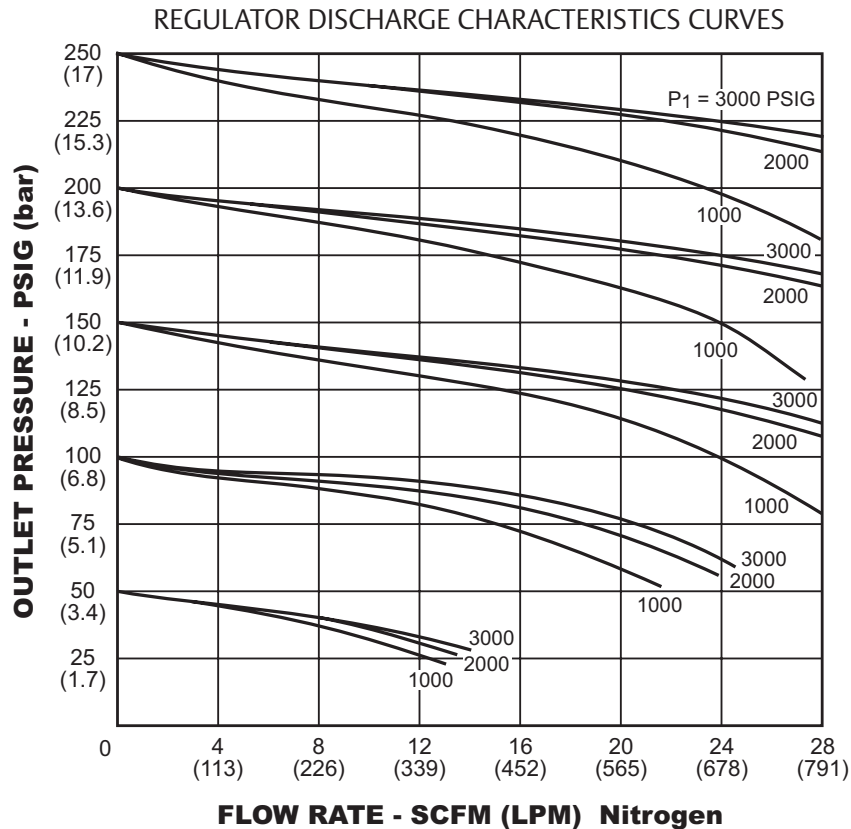
# HOW TO USE FLOW CHARTS

Tescom flow charts are the graphic representation of test results which show the change in outlet pressure ( $P_2$ ) with a varying flow rate. All curves are based on using nitrogen at ambient conditions as a media. Inlet pressure ( $P_1$ ) is shown on the right end of each curve.

To use these charts, select the curve to fit the following:

- Regulator model
- Inlet pressure range ( $P_1$ )
- Outlet pressure range ( $P_2$ )

Determine the maximum dead-ended (zero flow)  $P_2$  pressure permitted by your system. Locate this pressure on the  $P_2$  (vertical) axis. If no curve is plotted for that exact pressure, extrapolate a new curve between the two closest existing curves and follow from the zero flow point to the intersection of the new curve and the vertical coordinate of the desired flow. Read horizontally to locate the corresponding  $P_2$  pressure.



NOTE: ALL UNITS IN PARENTHESES ARE IN METRIC

Example:

Using the flow chart above, determine the droop ( $P_2$  at the 20 scfm condition).

Note: You are given that  $P_1=2000$  PSIG,  $P_2 = 150$  PSIG maximum,  $Q=20$  scfm.

- 1) Locate maximum outlet pressure (150 PSIG) on  $P_2$  axis with zero (0) flow.
- 2) Follow the discharge curve until it crosses the vertical line corresponding to 20 scfm.
- 3) Follow the intersecting point horizontally to the vertical  $P_2$  axis and read the corresponding pressure of 125 PSIG. Hence droop is 25 PSIG (150-125).

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