

TECHNICAL DATA

Flow Capacities of Hose Assemblies at Suggested Flow Velocities

This chart is provided as an aid for determining correct hose sizes.

Example

At 13 U.S. gallons per minute, what is the proper hose size within the suggested velocity range for pressure lines?

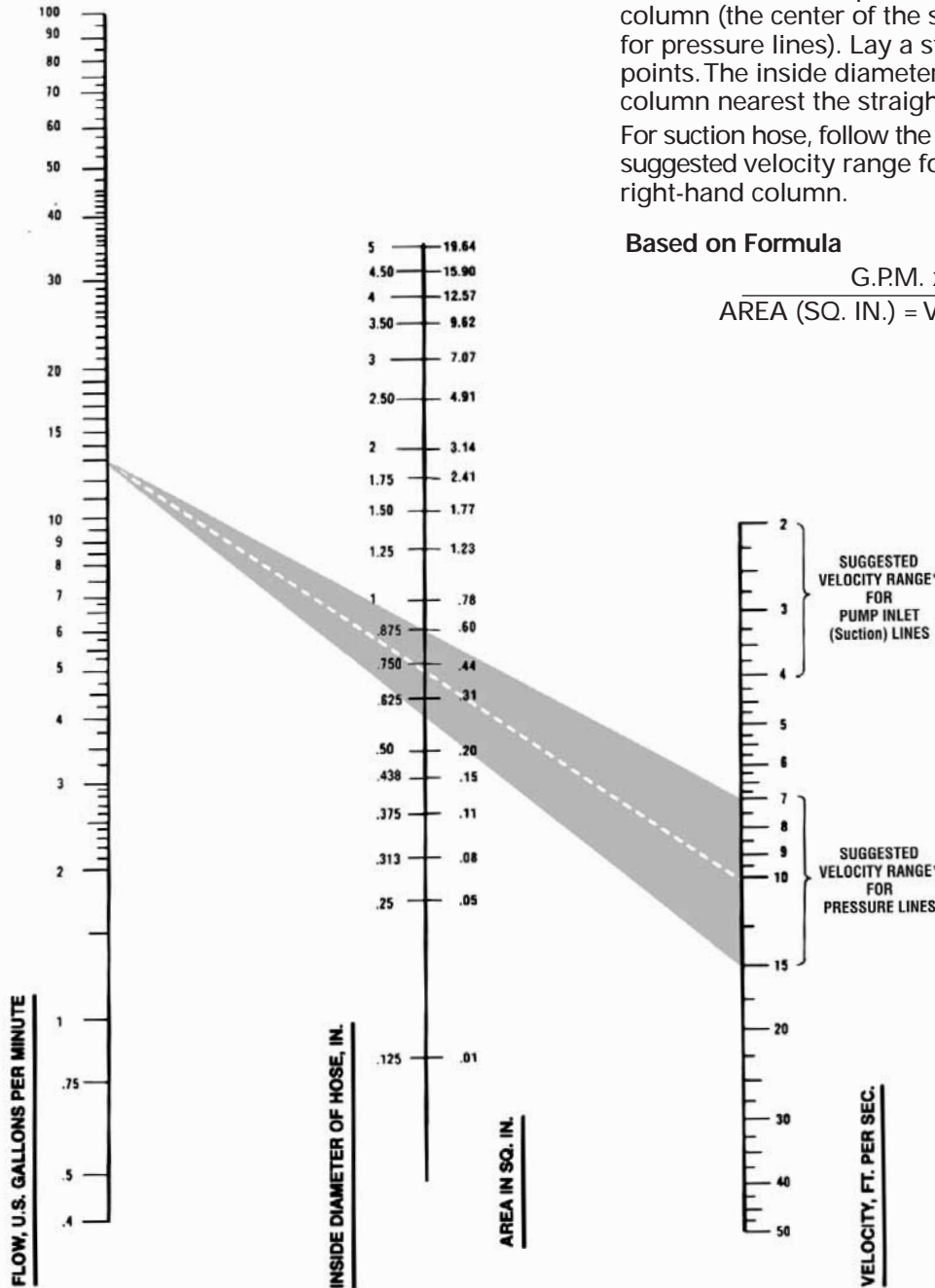
Solution

Locate 13 U.S. gallons per minute in the left-hand column and 10 feet per second in the right-hand column (the center of the suggested velocity range for pressure lines). Lay a straightedge across the two points. The inside diameter is shown in the center column nearest the straightedge.

For suction hose, follow the same procedure except use suggested velocity range for pump inlet lines in the right-hand column.

Based on Formula

$$\text{AREA (SQ. IN.)} = \frac{\text{G.P.M.} \times 0.3208}{\text{VELOCITY (FT./SEC.)}}$$



Conversion Factors

- To convert U.S. gallons into Imperial gallons, multiply U.S. gallons by 0.83267.
- To convert Imperial gallons into U.S. gallons, multiply Imperial gallons by 1.20095.
- To convert U.S. gallons into liters, multiply U.S. gallons by 3.785.
- To convert liters into U.S. gallons, multiply liters by 0.2642.

*Suggestions are for oils having a maximum viscosity of 315 S.S.U. at +100°F (+38°C) and operating at temperatures between +65°F and +155°F (+54°C to +69°C). Under certain conditions, velocities in pressure lines can be increased up to 25 feet per second. Contact Eaton with specific information on your application.

