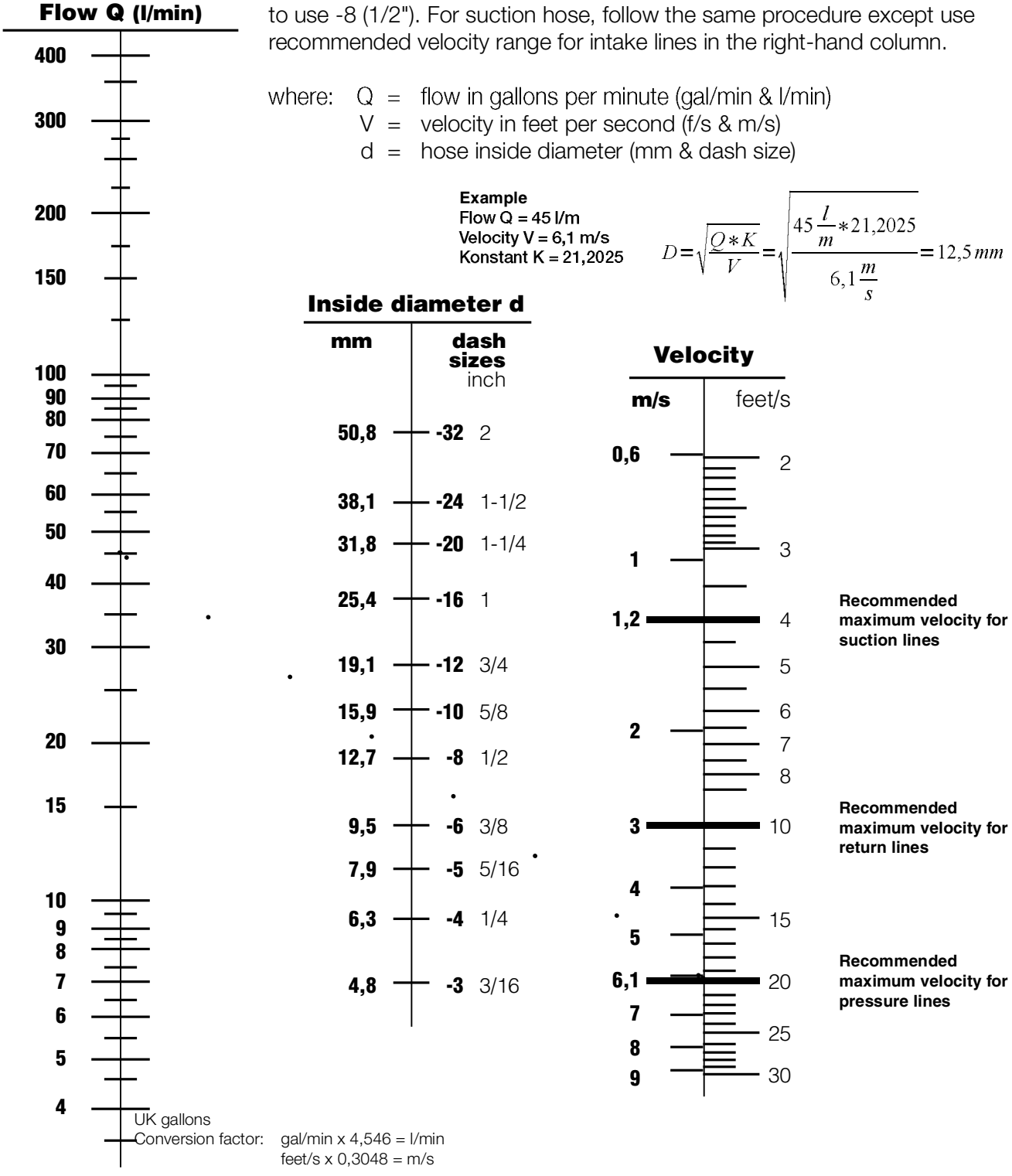
Flow Capacity Nomogram

The chart below is provided as an aid in the determination of the correct hose size.
Example: at 10 gallons per minute (gal/min), what is the proper hose size within the recommended velocity range for pressure lines?
Locate 10 gallons per minute in the left-hand column and 20 feet per second in the right-hand column (the maximum recommended velocity range for pressure lines). Lay a straight line across these two points.
The inside diameter shown in the centre column is above -6 so we have to use -8 (1/2"). For suction hose, follow the same procedure except use recommended velocity range for intake lines in the right-hand column.

where: Q = flow in gallons per minute (gal/min & l/min)
V = velocity in feet per second (f/s & m/s)
d = hose inside diameter (mm & dash size)

Example
Flow Q = 45 l/m
Velocity V = 6,1 m/s
Konstant K = 21,2025

$$D = \sqrt{\frac{Q * K}{V}} = \sqrt{\frac{45\,\frac{l}{m} * 21{,}2025}{6{,}1\,\frac{m}{s}}} = 12{,}5\,mm$$



* Recommended velocities are according to hydraulic fluids of maximum viscosity 315 S.S.U. at 38°C working at roomtemperature within 18° and 68°C.