Izračun hitrosti plina v cevi:

$$Q_d = \frac{V}{t_h}[m^3/h]$$

$$\frac{Q_d}{3600} = \frac{V}{t_h \cdot 3600}[m^3/s] = \frac{V}{t_s}[m^3/s]$$

$$\frac{Q_d}{3600} = \frac{A \cdot l}{t_s} = \frac{A[m^2] \cdot l[m]}{t_s[s]} = A \cdot w[m^3/s]$$

$$w = \frac{Q_d \cdot 4}{\pi \cdot D_n^2 \cdot 3600}[m/s]$$

$$D_n = D_z - 2 \cdot S[mm]$$

Q_d ..... dejanski pretok [m3/h]
D_z ..... zunanji premet cevi [mm]
S ..... debelina stene cevi [mm]
D_n ..... notranji premer cevi [mm]
w ..... hitrost plina v cevi [m/s]