

CPVC Pipe Schedule 80 (ASTM F441) Calculated Loop (offset) Lengths with ΔT of approx. 100°F				
Nominal Pipe Size	Length of Run in Feet			
	40	60	80	100
	Loop Length (ft) in inches			
2-1/2"	52	64	74	83
3"	58	71	82	91
4"	65	80	92	103
6"	79	97	112	125
8"	91	111	128	143
10"	101	124	143	160

Assume Modulus & Stress at 160°F

Thermal Expansion (inches)		
Length of Run (feet)	ΔT 80°F	ΔT 100°F
20	0.65	0.82
40	1.31	1.63
60	1.96	2.45
80	2.61	3.26
100	3.26	4.08

$$\Delta L = L_p \times C \times \Delta T$$

ΔL = change in length of pipe in inches

L_p = length of pipe in inches

C = coefficient of thermal expansion for CPVC, 3.4×10^{-5} in/in/°F

ΔT = change in temperature in °F