

INSTALLATION VOLUME (IV) AND PURGE VOLUME (PV) CALCULATION SHEET FOR STEEL PIPE SYSTEMS

Pipe bore	Individual leg lengths (m)	Total length (m)	x (m ³ per m)	= Installation Volume (m ³)
150s			0.02	
125s			0.014	
100s			0.009	
80s			0.0054	
65s			0.0038	
50s			0.0024	
40s			0.0015	
32s			0.0011	
25s			0.00064	
20s			0.00046	
15s			0.00024	

Meter designation	IV _{meter} (m ³)	Cyclic volume (m ³)
E6	0.0024	N/A
G4, U6	0.008	0.002
G10, U16	0.025	0.006
G16, U25	0.037	0.01
G25, U40	0.067	0.02
G40, U65	0.100	0.025
G65, U100	0.182	0.057
G100, U160	0.304	0.071

IV _{pipework} (m ³)	
IV _{fittings} = 0.1 x IV _{pipework} (m ³)	
IV _{meter} (m ³)	
IV_{total} (m³)	
PV _{pipework} = 1.5 x IV _{pipework} (m ³)	
PV _{fittings} = 0.1 x PV _{pipework} (m ³)	
PV _{meter} = 5 x cyclic volume (m ³)	
PV _{hose} = 1.5 x length x volume per metre (m ³)	
PV_{total} (m³)	

For each **Pipe bore** write down the **Individual leg lengths**. Find the **Total length** of each bore and multiply it by the (**m³ per m**) factor to get the **Installation Volume**. Total these Installation Volumes to find **IV_{pipework}**.

Gas meter IVs and cyclic volumes are typical figures. Consult manufacturer's data for specific meters.