

Pipe Size Reference - Livestock Water Systems
Plastic Pipe

	Pipe Diameter (
	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Pipe Fitting	PSI Loss per Fitting					
Insert Coupling	0.5	0.1	0	0	0	0
Threaded Adapter	0.5	0.1	0	0	0	0
90° Std Elbow	0.7	0.2	0.1	0	0	0
Std Tee, Flow Through	0.7	0.2	0.1	0	0	0
Std Tee, Turn Flow Through	1.3	0.4	0.1	0.1	0	0
Gate/Ball Valve	0.7	0.3	0.1	0	0	0
Swing Check Valve	1.4	0.5	0.2	0.1	0	0

Max GPM recommended	3	6	10	18	25	41
PSI Loss /100' @ Max GPM	3.7	3.4	2.7	2.1	1.8	1.4
Max GPM based on flow velocity of 4 FPS						

GPM	3	6	7	7	7	7
PSI Loss/100'	3.7	3.4	1.4	0.4	0.2	0.1
PSI Loss/1000'	37.3*	34.2*	14*	3.7	1.7	0.5
GPM				14	14	14
PSI Loss/100'				1.3	0.6	0.2
PSI Loss/1000'				13.3*	6.3	1.9
GPM					21	21
PSI Loss/100'					1.3	0.4
PSI Loss/1000'					13.3*	3.9
GPM						28
PSI Loss/100'						0.7
PSI Loss/1000'						6.7
recommend larger pipe size to reduce pressure loss						

6" well = 1.5 gallons/ft
 30" well = 36 gallons/ft

2.31' fall generates 1 PSI
 1 cubic foot = 7.5 gallons