

How To Size Pipe for Solar Water Pumping

Water Pip Sizing Chart

Friction Loss in Plastic Pipe with Standard Inside Diameter (SIDR)

This chart applies only to: PVC pipe, Schedule 40 (160PSI) and to PE (polyethylene) pipe with SIDR designation (most common 100PSI black pipe)

Head loss in vertical feet per hundred feet of pipe or vertical meters per hundred meters of pipe

		Nominal Pipe Diameter (in) / Actual Inside Diameter (in)										
FLOW RATE		1/2*	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6
GPM	LPM	0.662	0.82	1.05	1.38	1.61	2.07	2.47	3.07	4.03	5.05	6.06
1	3.8	1.13	0.14	0.05	0.02							
2	7.6	4.16	0.35	0.14	0.05	0.02						
3	11	8.55	2.19	0.32	0.09	0.05						
4	15	14.8	3.70	0.76	0.19	0.07						
5	19	22.2	5.78	0.81	0.25	0.12	0.04					
6	23	31.0	7.85	1.00	0.35	0.18	0.07	0.02				
7	27		10.6	1.52	0.46	0.23	0.08	0.03				
8	30		13.4	1.94	0.58	0.30	0.09	0.05				
9	34		16.9	2.43	0.72	0.37	0.12	0.06				
10	36		20.3	2.93	0.88	0.46	0.16	0.07	0.02			
11	42		24.3	3.51	1.04	0.53	0.18	0.08	0.03			
12	46		28.6	4.11	1.22	0.65	0.21	0.09	0.04			
14	53			5.47	1.64	0.85	0.28	0.12	0.05			
16	61			7.02	2.10	1.09	0.37	0.14	0.06			
18	68			8.73	2.61	1.34	0.46	0.16	0.07			
20	76			10.6	3.16	1.64	0.55	0.21	0.08	0.02		
22	83			13.3	3.79	1.96	0.67	0.25	0.09	0.03		
24	91			14.9	4.44	2.31	0.79	0.30	0.11	0.04		
26	99				5.15	2.66	0.90	0.35	0.14	0.05		
28	106				5.91	3.05	1.04	0.42	0.16	0.05		

