



Irrigation & Waterworks

Irrigation Conversion Chart

Quantities are for maximum discharge

Dia.	GPM	CFS	Miners Inches	Joints / Qt. of Solvent
1/2"	1.945	0.005	0.172	400
3/4"	4.375	0.01	0.391	350
1"	7.781	0.018	0.688	240
1-1/4"	12.156	0.027	1.078	180
1-1/2"	17.5	0.039	1.563	120
2"	31.125	0.07	2.75	90
2.5"	48.625	0.108	4.313	60
3"	70	0.156	6.25	42
4"	124.5	0.278	11	30
6"	280	0.624	25	16
8"	498	1.11	44	9
10"	778	1.73	69	6
12"	1120	2.5	100	5
14"	1524	3.4	136	4
15"	1750	3.9	156	4
16"	1992	4.45	176	4
18"	2520	5.6	224	3
20"	3111	6.9	276	3
21"	3430	7.64	305	3
24"	4480	9.98	399	2

Siphon Tube Discharge in GPM

Tube Size (Diameter)

Head	1"	1-1/4"	1-1/2"	2"	3"
2"	5	8	12	20	45
3"	6	10	14	24	55
4"	7	11.5	16	28	65
5"	8	13	18	32	74
6"	9	14	20	36	81
7"	10	15.25	22	40	87
8"	10.75	16.5	24	43	93
9"	11.25	17.5	25.5	45	99
10"	11.75	18.5	27	47	105
11"	12.5	19.5	28	49	110
12"	12.75	20	29	51	114

1 CFS	=	448.8 GPM	The Irrigator's Formula QT = DA Q = Flow Rate in CFS T = Time in Hours D = Depth applied in inches A = Area in acres Adjust to determine factors
1 CFS	=	40 Miners Inches	
1 CF	=	7.48 Gallons	
CFS x time in (hrs)	=	Acre Inches	
1 CFS for 1 hour	=	1 Acre Foot	
1 Acre foot	=	325,872 Gallons	
1 Acre foot	=	43560 cubic feet	

Acre in Feet Applied

	Time (HR)	1	2	3	4	5	10	24	48
V O L U M E (CFS)	1	0.1	0.2	0.3	0.3	0.4	0.8	2	4
	2	0.2	0.3	0.5	0.7	0.8	1.7	4	8
	3	0.3	0.5	0.8	1	1.3	2.5	6	12
	4	0.3	0.7	1	1.3	1.7	3.3	8	16
	5	0.4	0.8	1.3	1.7	2.1	4.2	10	20
	10	0.8	1.7	2.5	3.3	4.2	8.3	20	40
15	1.3	2.5	3.8	5	6.3	12.5	30	60	