

ECONODRAIN[®] #8 & PT-2 #8 SYSTEM - HYDRAULIC DATA

Standard Depth & Slope ¹			Radius Bottom Trench (Std.)				Rectangular Trench (Optional Custom)			
EPS Form Number	[Slope [S _t] = 0.5% or 0.005 ft/ft]		Q _{max} ² Flow (cfs)	Q _{max} ² Flow (gpm)	(F _k is not a Flow Rate)		Q _{max} ² Flow (cfs)	Q _{max} ² Flow (gpm)	(F _k is not a Flow Rate)	
	Min. (in)	Max. (in)			F _k ³ (cfs)	F _k ³ (gpm)			F _k ³ (cfs)	F _k ³ (gpm)
0806	6	6 1/2	0.63	281	8.68	3,895	0.74	334	10.32	4,630
0807	6 1/2	7	0.72	325	10.04	4,506	0.84	378	11.66	5,235
0808	7	7 1/2	0.82	370	11.42	5,126	0.94	422	13.03	5,848
0809	7 1/2	8	0.93	415	12.82	5,755	1.04	467	14.41	6,469
0810	8	8 1/2	1.03	461	14.24	6,389	1.14	512	15.81	7,096
0811	8 1/2	9	1.13	507	15.66	7,029	1.24	558	17.22	7,728
0812	9	9 1/2	1.23	554	17.10	7,674	1.35	604	18.64	8,365
0813	9 1/2	10	1.34	601	18.54	8,322	1.45	650	20.07	9,006
0814	10	10 1/2	1.44	648	19.99	8,974	1.55	696	21.50	9,651
0815	10 1/2	11	1.55	695	21.45	9,629	1.66	743	22.94	10,298
0816	11	11 1/2	1.65	742	22.92	10,287	1.76	790	24.39	10,949
0817	11 1/2	12	1.76	790	24.39	10,946	1.87	837	25.85	11,601
0818	12	12 1/2	1.87	838	25.86	11,608	1.97	885	27.31	12,257
0819	12 1/2	13	1.97	886	27.34	12,271	2.08	932	28.77	12,914
0820	13	13 1/2	2.08	934	28.82	12,936	2.18	980	30.24	13,573
0821	13 1/2	14	2.19	982	30.31	13,602	2.29	1027	31.71	14,233
0822	14	14 1/2	2.29	1030	31.79	14,270	2.40	1075	33.19	14,895
0823	14 1/2	15	2.40	1078	33.28	14,939	2.50	1123	34.66	15,559
0824	15	15 1/2	2.51	1126	34.78	15,609	2.61	1171	36.15	16,223
0825	15 1/2	16	2.62	1175	36.27	16,279	2.72	1219	37.63	16,889
0826	16	16 1/2	2.73	1223	37.77	16,951	2.82	1267	39.11	17,556
0827	16 1/2	17	2.83	1272	39.26	17,623	2.93	1315	40.60	18,224
0828	17	17 1/2	2.94	1320	40.76	18,296	3.04	1363	42.09	18,892
0829	17 1/2	18	3.05	1369	42.27	18,970	3.15	1412	43.58	19,562
0830	18	18 1/2	3.16	1418	43.77	19,644	3.25	1460	45.08	20,232
0831	18 1/2	19	3.27	1466	45.27	20,319	3.36	1509	46.57	20,903
0832	19	19 1/2	3.38	1515	46.78	20,994	3.47	1557	48.07	21,575
0833	19 1/2	20	3.48	1564	48.28	21,670	3.58	1606	49.57	22,247
0834	20	20 1/2	3.59	1613	49.79	22,347	3.69	1654	51.07	22,920
0835	20 1/2	21	3.70	1662	51.30	23,023	3.79	1703	52.57	23,593
0836	21	21 1/2	3.81	1710	52.80	23,700	3.90	1751	54.07	24,267
0837	21 1/2	22	3.92	1759	54.31	24,378	4.01	1800	55.57	24,941
0838	22	22 1/2	4.03	1808	55.82	25,056	4.12	1849	57.07	25,616
0839	22 1/2	23	4.14	1857	57.33	25,734	4.23	1897	58.58	26,291
0840	23	23 1/2	4.25	1906	58.85	26,412	4.34	1946	60.08	26,967
0841	23 1/2	24	4.36	1955	60.36	27,091	4.44	1995	61.59	27,643
0842	24	24 1/2	4.47	2004	61.87	27,770	4.55	2044	63.10	28,319
0843	24 1/2	25	4.57	2053	63.38	28,449	4.66	2093	64.60	28,996
0844	25	25 1/2	4.68	2102	64.90	29,128	4.77	2141	66.11	29,673
0845	25 1/2	26	4.79	2151	66.41	29,808	4.88	2190	67.62	30,350

- Standard Depth is measured from the top of the grate rail to the trench invert.
- Q_{max} is based on Manning's Equation n = 0.13 and S_t = 0.5%. The outlet end depth flow area is utilized and the grate area is excluded. The flow values shown do not include site grade slope.
- F_k is used to include site grade slope in trench flow calculations. The equation is: Flow, Q = F_k × (S_s + S_t)^{1/2} where S_s is the site slope and S_t is the trench form slope (ft/ft), (dimensionless).

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