

ECONODRAIN[®] #12 & PT-2 #12 SYSTEM - HYDRAULIC DATA

Standard Depth & Slope ¹			Radius Bottom Trench (Std.)				Rectangular Trench (Optional Custom)			
EPS Form Number	[Slope [S _i] = 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)
1210	8	8 1/2	1.66	743	22.95	10,302	2.01	900	27.80	12,478
1211	8 1/2	9	1.85	829	25.59	11,484	2.19	985	30.41	13,650
1212	9	9 1/2	2.04	915	28.25	12,681	2.39	1071	33.06	14,836
1213	9 1/2	10	2.23	1003	30.95	13,892	2.58	1157	35.72	16,034
1214	10	10 1/2	2.43	1091	33.67	15,114	2.77	1244	38.42	17,243
1215	10 1/2	11	2.63	1180	36.42	16,347	2.97	1332	41.13	18,461
1216	11	11 1/2	2.83	1269	39.19	17,588	3.17	1421	43.86	19,687
1217	11 1/2	12	3.03	1359	41.97	18,837	3.36	1510	46.61	20,921
1218	12	12 1/2	3.23	1450	44.77	20,094	3.56	1599	49.38	22,162
1219	12 1/2	13	3.43	1541	47.58	21,357	3.76	1689	52.16	23,410
1220	13	13 1/2	3.64	1633	50.41	22,625	3.97	1780	54.95	24,663
1221	13 1/2	14	3.84	1725	53.25	23,899	4.17	1871	57.75	25,922
1222	14	14 1/2	4.05	1817	56.09	25,177	4.37	1962	60.57	27,185
1223	14 1/2	15	4.25	1910	58.95	26,459	4.58	2053	63.39	28,453
1224	15	15 1/2	4.46	2002	61.82	27,746	4.78	2145	66.23	29,725
1225	15 1/2	16	4.67	2095	64.69	29,035	4.98	2237	69.07	31,001
1226	16	16 1/2	4.88	2189	67.57	30,328	5.19	2330	71.92	32,280
1227	16 1/2	17	5.08	2282	70.46	31,624	5.40	2422	74.78	33,563
1228	17	17 1/2	5.29	2376	73.35	32,923	5.60	2515	77.64	34,848
1229	17 1/2	18	5.50	2470	76.25	34,224	5.81	2608	80.51	36,137
1230	18	18 1/2	5.71	2564	79.15	35,527	6.02	2701	83.39	37,428
1231	18 1/2	19	5.92	2658	82.06	36,833	6.23	2794	86.27	38,721
1232	19	19 1/2	6.13	2753	84.98	38,140	6.43	2888	89.16	40,017
1233	19 1/2	20	6.34	2847	87.89	39,449	6.64	2982	92.05	41,315
1234	20	20 1/2	6.55	2942	90.81	40,760	6.85	3075	94.95	42,614
1235	20 1/2	21	6.77	3036	93.74	42,073	7.06	3169	97.85	43,916
1236	21	21 1/2	6.98	3131	96.67	43,387	7.27	3263	100.75	45,220
1237	21 1/2	22	7.19	3226	99.60	44,702	7.48	3358	103.66	46,525
1238	22	22 1/2	7.40	3321	102.53	46,019	7.69	3452	106.57	47,832
1239	22 1/2	23	7.61	3416	105.47	47,337	7.90	3546	109.48	49,140
1240	23	23 1/2	7.82	3511	108.41	48,656	8.11	3641	112.40	50,450
1241	23 1/2	24	8.04	3607	111.35	49,977	8.32	3736	115.32	51,761
1242	24	24 1/2	8.25	3702	114.29	51,298	8.53	3830	118.25	53,073
1243	24 1/2	25	8.46	3798	117.24	52,620	8.74	3925	121.17	54,387
1244	25	25 1/2	8.67	3893	120.19	53,943	8.96	4020	124.10	55,701
1245	25 1/2	26	8.89	3989	123.14	55,267	9.17	4115	127.03	57,017

- 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_i = 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 x (S_s + S_i)^{1/2} where S_s is the site slope and S_i is the trench form slope (ft/ft), (dimensionless).

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