

**ECONODRAIN DG-4
HYDRAULIC DATA**

Standard Depth & Slope ¹			
EPS Form Number	[Slope [S _t] = 0.5% or 0.005 ft/ft]		
	Min. (in)		Max. (in)
DG404.750	4 3/8		4 3/4
DG405.125	4 3/4		5 1/8
DG405.500	5 1/8		5 1/2
DG405.875	5 1/2		5 7/8
DG406.250	5 7/8		6 1/4
DG406.625	6 1/4		6 5/8
DG407.000	6 5/8		7
DG407.375	7		7 3/8
DG407.750	7 3/8		7 3/4
DG408.125	7 3/4		8 1/8
DG408.500	8 1/8		8 1/2
DG408.875	8 1/2		8 7/8
DG409.250	8 7/8		9 1/4
DG409.625	9 1/4		9 5/8
DG410.000	9 5/8		10
DG410.375	10		10 3/8
DG410.750	10 3/8		10 3/4
DG411.125	10 3/4		11 1/8
DG411.500	11 1/8		11 1/2

Radius Bottom Trench (Std.)					
Q _{max} ²		Q _{max} ²	(F _k is not a Flow Rate)		
Flow		Flow	F _k ³		F _k ³
(cfs)		(gpm)	(cfs)		(gpm)
(F _k is not a Flow Rate)					
0.19		87	2.69		1,209
0.22		98	3.03		1,362
0.24		109	3.38		1,517
0.27		121	3.73		1,672
0.29		132	4.07		1,828
0.32		143	4.42		1,985
0.34		155	4.77		2,142
0.37		166	5.12		2,300
0.40		177	5.48		2,458
0.42		189	5.83		2,617
0.45		200	6.18		2,775
0.47		212	6.54		2,935
0.50		223	6.89		3,094
0.52		235	7.25		3,253
0.55		246	7.60		3,413
0.57		258	7.96		3,573
0.60		269	8.32		3,733
0.63		281	8.67		3,893
0.65		292	9.03		4,053

Rectangular Trench (Optional Custom)					
Q _{max} ²		Q _{max} ²	(F _k is not a Flow Rate)		
Flow		Flow	F _k ³		F _k ³
(cfs)		(gpm)	(cfs)		(gpm)
(F _k is not a Flow Rate)					
0.21		95	2.94		1,317
0.24		106	3.27		1,469
0.26		117	3.61		1,622
0.29		128	3.96		1,776
0.31		139	4.30		1,930
0.34		151	4.65		2,086
0.36		162	4.99		2,242
0.39		173	5.34		2,398
0.41		184	5.69		2,555
0.44		196	6.04		2,712
0.46		207	6.39		2,870
0.49		219	6.75		3,028
0.51		230	7.10		3,186
0.54		241	7.45		3,345
0.56		253	7.81		3,504
0.59		264	8.16		3,663
0.61		276	8.52		3,822
0.64		287	8.87		3,981
0.67		299	9.23		4,141

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DG411.875	11 1/2		11 7/8
DG412.250	11 7/8		12 1/4
DG412.625	12 1/4		12 5/8
DG413.000	12 5/8		13
DG413.375	13		13 3/8
DG413.750	13 3/8		13 3/4
DG414.125	13 3/4		14 1/8
DG414.500	14 1/8		14 1/2
DG414.875	14 1/2		14 7/8
DG415.250	14 7/8		15 1/4
DG415.625	15 1/4		15 5/8
DG416.000	15 5/8		16
DG416.375	16		16 3/8
DG416.750	16 3/8		16 3/4
DG417.125	16 3/4		17 1/8
DG417.500	17 1/8		17 1/2
DG417.875	17 1/2		17 7/8
DG418.250	17 7/8		18 1/4
DG418.625	18 1/4		18 5/8
DG419.000	18 5/8		19
DG419.375	19		19 3/8
DG419.750	19 3/8		19 3/4
DG420.125	19 3/4		20 1/8
DG420.500	20 1/8		20 1/2

0.68		304		9.39		4,213
0.70		316		9.74		4,373
0.73		327		10.10		4,534
0.75		339		10.46		4,694
0.78		350		10.82		4,855
0.81		362		11.18		5,016
0.83		374		11.53		5,176
0.86		385		11.89		5,337
0.88		397		12.25		5,498
0.91		408		12.61		5,659
0.94		420		12.97		5,820
0.96		432		13.33		5,981
0.99		443		13.68		6,142
1.01		455		14.04		6,303
1.04		467		14.40		6,464
1.07		478		14.76		6,625
1.09		490		15.12		6,786
1.12		501		15.48		6,947
1.14		513		15.84		7,109
1.17		525		16.20		7,270
1.19		536		16.56		7,431
1.22		548		16.92		7,592
1.25		560		17.28		7,754
1.27		571		17.63		7,915

0.69		310		9.58		4,300
0.72		322		9.94		4,460
0.74		333		10.29		4,620
0.77		345		10.65		4,780
0.79		357		11.01		4,940
0.82		368		11.36		5,100
0.85		380		11.72		5,260
0.87		391		12.08		5,421
0.90		403		12.43		5,581
0.92		414		12.79		5,741
0.95		426		13.15		5,902
0.97		438		13.51		6,062
1.00		449		13.87		6,223
1.03		461		14.22		6,384
1.05		472		14.58		6,545
1.08		484		14.94		6,705
1.10		496		15.30		6,866
1.13		507		15.66		7,027
1.16		519		16.01		7,188
1.18		530		16.37		7,349
1.21		542		16.73		7,510
1.23		554		17.09		7,671
1.26		565		17.45		7,832
1.29		577		17.81		7,993

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DG420.875	20 1/2	20 7/8	1.30	583	17.99	8,076	1.31	588	18.17	8,154
DG421.250	20 7/8	21 1/4	1.32	595	18.35	8,238	1.34	600	18.53	8,315
DG421.625	21 1/4	21 5/8	1.35	606	18.71	8,399	1.36	612	18.88	8,476
DG422.000	21 5/8	22	1.38	618	19.07	8,560	1.39	623	19.24	8,637
DG422.375	22	22 3/8	1.40	629	19.43	8,722	1.41	635	19.60	8,798
DG422.750	22 3/8	22 3/4	1.43	641	19.79	8,883	1.44	647	19.96	8,960
DG423.125	22 3/4	23 1/8	1.45	653	20.15	9,045	1.47	658	20.32	9,121
DG423.500	23 1/8	23 1/2	1.48	664	20.51	9,206	1.49	670	20.68	9,282
DG423.875	23 1/2	23 7/8	1.51	676	20.87	9,368	1.52	682	21.04	9,443
DG424.250	23 7/8	24 1/4	1.53	688	21.23	9,529	1.54	693	21.40	9,605
DG424.625	24 1/4	24 5/8	1.56	699	21.59	9,691	1.57	705	21.76	9,766
DG425.000	24 5/8	25	1.58	711	21.95	9,852	1.60	716	22.12	9,927
DG425.375	25	25 3/8	1.61	723	22.31	10,014	1.62	728	22.48	10,088
DG425.750	25 3/8	25 3/4	1.64	734	22.67	10,175	1.65	740	22.84	10,250

¹ Standard Depth is measured from the top of the grate rail to the trench invert.

² Q_{max} is based on Manning's Equation with $n = 0.013$ 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.

³ F_k is used to include site grade slope in trench flow calculations. The equation is : Flow, $Q = F_k \times (S_s + S_t)^{1/2}$ where S_s is the site slope and S_t