



**PRESSURE CHARTS
FOR CRESLINE PIPES**

Bulletin No. CNWT-6

SDR - 26

Pressure Drop Of Water Per 100 Ft. Of Pipe

May, 2002

SIZE	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		2 1/2"		3"		4"		6"		8"		SIZE
GALLONS PER MINUTE	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	GALLONS PER MINUTE
1	.79	.21	.47	.06	.29	.02																	1
2	1.57	.76	.94	.22	.57	.06																	2
3	2.36	1.61	1.42	.46	.86	.14	.52	.04															3
4	3.15	2.74	1.89	.79	1.14	.23	.69	.07	.54	.04													4
5	3.94	4.14	2.36	1.19	1.43	.35	.87	.10	.67	.05													5
6	4.73	5.80	2.83	1.67	1.72	.49	1.04	.14	.80	.08													6
8	6.30	9.87	3.78	2.84	2.29	.84	1.39	.24	1.06	.13	.68	.04											8
10	7.88	14.91	4.72	4.29	2.86	1.27	1.74	.37	1.33	.20	.85	.07	.58	.03									10
15			7.08	9.08	4.29	2.68	2.61	.78	2.00	.41	1.27	.14	.87	.05									15
20			9.44	15.46	5.72	4.57	3.49	1.33	2.66	.70	1.70	.24	1.16	.09	.78	.04							20
25					7.15	6.90	4.35	2.01	3.33	1.06	2.12	.36	1.45	.14	.97	.05							25
30					8.58	9.67	5.22	2.81	4.00	1.49	2.55	.50	1.74	.20	1.17	.08							30
35							6.10	3.74	4.66	1.98	2.98	.67	2.03	.27	1.35	.10							35
40							6.95	4.79	5.33	2.54	3.40	.86	2.32	.34	1.56	.13	.94	.04					40
45									6.00	3.16	3.84	1.06	2.61	.42	1.75	.16	1.06	.05					45
50									6.66	3.84	4.25	1.29	2.90	.51	1.95	.19	1.18	.06					50
60									8.00	5.38	5.10	1.81	3.48	.72	2.33	.27	1.41	.08					60
70									9.32	7.15	5.95	2.41	4.06	.96	2.72	.36	1.65	.11					70
80											6.80	3.08	4.64	1.23	3.11	.46	1.88	.14					80
90											7.65	3.84	5.22	1.53	3.50	.58	2.12	.17					90
100											8.50	4.66	5.80	1.85	3.89	.70	2.35	.20	1.09	.03			100
125											10.60	7.04	7.25	2.80	4.86	1.06	2.94	.31	1.36	.05			125
150													8.00	3.93	5.81	1.48	3.53	.43	1.64	.07			150
175													10.15	5.22	6.81	1.97	4.11	.58	1.91	.09			175
200															7.78	2.60	4.70	.76	2.18	.12			200
225															8.75	3.17	5.29	.92	2.45	.14			225
250															9.73	3.81	5.88	1.12	2.73	.17			250
275															10.70	4.55	6.46	1.33	3.00	.20			275
300																	7.05	1.56	3.27	.24	1.96	.07	300
325																	7.64	1.81	3.54	.28	2.12	.08	325
350																	8.23	2.08	3.82	.32	2.29	.09	350
375																	8.81	2.36	4.09	.36	2.46	.11	375
400																	9.40	2.66	4.36	.41	2.62	.12	400
425																	9.99	2.98	4.63	.46	2.77	.13	425
450																	10.58	3.31	4.91	.51	2.95	.15	450
475																			5.18	.56	3.09	.16	475
500																			5.45	.62	3.27	.18	500
550																			6.00	.73	3.60	.21	550
600																			6.54	.86	3.93	.25	600
650																							650
700																							700
750																							750
800																							800
900																							900
1000																							1000

Note: All pressure drops calculated using the Williams and Hazen formula with: C=150

Recommended operating conditions shown above heavy line in charts.

SDR - 21

Pressure Drop Of Water Per 100 Ft. Of Pipe

May, 2002

SIZE	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		2 1/2"		3"		4"		6"		8"		SIZE	
GALLONS PER MINUTE	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	GALLONS PER MINUTE	
1	.79	.21	.47	.06	.29	.02																	1	
2	1.57	.76	.94	.22	.57	.06																	2	
3	2.36	1.61	1.42	.46	.86	.14	.54	.04															3	
4	3.15	2.74	1.89	.79	1.14	.23	.73	.08	.55	.04													4	
5	3.94	4.14	2.36	1.19	1.43	.35	.91	.12	.69	.06													5	
6	4.73	5.80	2.83	1.67	1.72	.49	1.09	.16	.83	.08													6	
8	6.30	9.87	3.78	2.84	2.29	.84	1.45	.28	1.10	.14	.71	.05											8	
10	7.88	14.91	4.72	4.29	2.86	1.27	1.81	.42	1.38	.21	.89	.07	.60	.03									10	
15			7.08	9.08	4.29	2.68	2.72	.89	2.07	.45	1.33	.15	.90	.06									15	
20			9.44	15.46	5.72	4.57	3.63	1.51	2.76	.77	1.77	.26	1.20	.10	.84	.04							20	
25					7.15	6.90	4.54	2.28	3.45	1.16	2.21	.39	1.50	.15	1.05	.06							25	
30					8.58	9.67	5.45	3.20	4.15	1.62	2.65	.54	1.81	.22	1.26	.09							30	
35							6.35	4.25	4.83	2.16	3.10	.72	2.10	.29	1.49	.11							35	
40							7.26	5.45	5.52	2.76	3.54	.92	2.41	.37	1.68	.15	.98	.04					40	
45							8.17	6.77	6.20	3.43	3.98	1.14	2.71	.45	1.90	.18	1.10	.05					45	
50							9.08	8.23	6.90	4.17	4.42	1.39	3.01	.56	2.11	.22	1.23	.06					50	
60							10.89	11.53	8.29	5.84	5.30	1.95	3.61	.80	2.39	.31	1.48	.09					60	
70											6.19	2.59	4.21	1.04	2.96	.41	1.72	.12					70	
80											6.77	3.32	4.82	1.32	3.38	.53	1.97	.15					80	
90											7.10	4.12	5.42	1.64	3.80	.66	2.22	.19					90	
100											7.95	5.01	6.02	2.00	4.21	.81	2.46	.23	1.14	.04			100	
125													7.50	3.00	5.27	1.21	3.08	.35	1.43	.05			125	
150													9.03	4.24	6.33	1.70	3.69	.49	1.71	.07			150	
175													10.05	5.64	7.37	2.23	4.30	.65	1.99	.09			175	
200															8.42	2.90	4.92	.83	2.28	.13			200	
225															9.48	3.58	5.54	1.03	2.57	.15			225	
250															10.60	4.36	6.15	1.25	2.85	.19			250	
275															11.60	5.21	6.78	1.50	3.27	.22			275	
300																7.38	1.76	3.42	.28	2.04	.08		300	
325																8.00	2.04	3.71	.31	2.21	.09		325	
350																8.60	2.34	3.99	.36	2.38	.10		350	
375																9.22	2.66	4.28	.41	2.54	.12		375	
400																9.86	2.98	4.56	.46	2.72	.13		400	
425																10.45	3.35	4.86	.51	2.89	.15		425	
450																11.10	3.73	5.14	.57	3.06	.16		450	
475																	5.42	.63	3.23	.18			475	
500																	5.71	.69	3.40	.20			500	
550																	6.28	.82	3.74	.24			550	
600																					4.08	.28		600
650																					4.42	.32		650
700																					4.76	.37		700
750																					5.10	.42		750
800																					5.44	.48		800
900																					6.12	.59		900
1000																					6.79	.72		1000

SCH 40 IPS

Pressure Drop Of Water Per 100 Ft. Of Pipe

May, 2002

SIZE	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		2 1/2"		3"		4"		6"		8"		SIZE
GALLONS PER MINUTE	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	GALLONS PER MINUTE
1	1.05	.43	.60	.11	.37	.03																	1
2	2.11	1.55	1.20	.39	.74	.12	.43	.03															2
3	3.17	3.27	1.80	.83	1.11	.26	.64	.07	.47	.03													3
4	4.22	5.57	2.41	1.42	1.48	.44	.86	.11	.63	.05													4
5	5.28	8.42	3.01	2.15	1.86	.66	1.07	.17	.79	.08													5
6	6.33	11.81	3.61	3.01	2.23	.93	1.29	.24	.95	.11	.57	.03											6
8	8.44	20.10	4.81	5.12	2.97	1.58	1.72	.42	1.26	.20	.76	.06	.54	.02									8
10	10.55	30.37	6.02	7.73	3.71	2.39	2.15	.63	1.58	.30	.96	.09	.67	.04									10
15			9.02	16.37	5.57	5.06	3.22	1.33	2.36	.63	1.43	.19	1.01	.08	.65	.03							15
20					7.42	8.61	4.29	2.27	3.15	1.07	1.91	.32	1.34	.13	.87	.05							20
25					9.28	13.01	5.36	3.42	3.94	1.63	2.39	.48	1.67	.20	1.08	.07							25
30					11.14	18.22	6.43	4.80	4.73	2.27	2.87	.67	2.01	.28	1.30	.10							30
35							7.51	6.38	5.52	3.01	3.35	.89	2.35	.38	1.52	.13	.88	.03					35
40							8.58	8.17	6.30	3.86	3.82	1.14	2.64	.48	1.73	.17	1.01	.04					40
45							9.65	10.16	7.09	4.80	4.30	1.42	3.01	.60	1.95	.21	1.13	.05					45
50							10.72	12.35	7.88	5.83	4.78	1.73	3.35	.73	2.17	.25	1.26	.07					50
60							9.46	8.17	5.74	2.42	4.02	1.02	2.60	.35	1.51	.09							60
70							11.03	10.87	6.69	3.22	4.69	1.36	3.04	.47	1.76	.12							70
80									7.65	4.13	5.36	1.74	3.47	.60	2.02	.16							80
90									8.60	5.13	6.03	2.16	3.91	.75	2.27	.20							90
100									9.56	6.23	6.70	2.63	4.34	.91	2.52	.24	1.11	.03					100
125									11.95	9.42	8.38	3.97	5.42	1.38	3.15	.37	1.39	.05					125
150												10.05	5.56	6.51	1.93	3.78	.51	1.67	.07				150
175													7.59	2.57	4.41	.68	1.94	.09					175
200													8.68	3.40	5.04	.90	2.22	.12					200
225													9.76	4.09	5.67	1.09	2.50	.15					225
250													10.85	4.97	6.30	1.32	2.78	.18					250
275															6.93	1.58	3.05	.21					275
300															7.56	1.85	3.33	.25	1.96	.07			300
325															8.19	2.15	3.61	.29	2.12	.08			325
350															8.82	2.47	3.89	.34	2.29	.09			350
375		10"		12"											9.45	2.80	4.17	.38	2.46	.11			375
400	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.											10.08	3.16	4.44	.43	2.62	.12			400
425																	4.72	.48	2.77	.13			425
450	1.85	.05															5.00	.53	2.95	.15			450
475																	5.28	.59	3.09	.16			475
500	2.05	.06															5.55	.65	3.27	.18			500
550	2.26	.07															6.11	.78	3.60	.21			550
600	2.46	.08															6.67	.91	3.93	.25			600
650	2.67	.10															7.22	1.06	4.26	.29			650
700	2.87	.11															7.78	1.21	4.58	.33			700
750	3.08	.12	2.17	.05													8.33	1.38	4.91	.38			750
800	3.29	.14	2.31	.06													8.89	1.58	5.24	.43			800
900	3.70	.17	2.60	.07															5.89	.53			900
1000	4.11	.21	2.89	.09															6.55	.65			1000
1100	4.52	.25	3.18	.11																			1100
1200	4.93	.30	3.47	.13																			1200
1300	5.34	.34	3.76	.15																			1300
1400	5.75	.39	4.05	.17																			1400
1500	6.16	.45	4.34	.19																			1500
1750	7.19	.60	5.35	.25																			1750
2000	8.21	.76	5.78	.32																			2000
2250			6.51	.40																			2250
2500			7.23	.49																			2500

Note: This chart is also valid for:

CRESLINE HD Form No. CNWPE-3

SCH 80 IPS

Pressure Drop Of Water Per 100 Ft. Of Pipe

May, 2002

SIZE	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		2 1/2"		3"		4"		6"		8"		SIZE	
GALLONS PER MINUTE	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	VELOCITY FEET PER SECOND	PRESSURE DROP POUNDS PER SQ. IN.	GALLONS PER MINUTE	
1	1.37	.81	.74	.18	.45	.05																	1	
2	2.74	2.92	1.48	.65	.89	.19	.50	.05															2	
3	4.11	6.18	2.23	1.39	1.34	.40	.75	.10	.54	.04													3	
4	5.48	10.52	2.97	2.36	1.78	.69	1.00	.17	.73	.08													4	
5	6.85	15.89	3.71	3.57	2.23	1.04	1.25	.25	.91	.12													5	
6	8.22	22.27	4.45	5.01	2.68	1.45	1.50	.35	1.09	.16	.65	.05											6	
8	10.96	37.92	5.93	8.52	3.57	2.47	2.00	.60	1.45	.28	.87	.08	.61	.03									8	
10			7.42	12.88	4.46	3.73	2.50	.91	1.81	.42	1.09	.12	.75	.05									10	
15			11.13	27.27	6.69	7.91	3.75	1.93	2.72	.89	1.63	.25	1.13	.10	.73	.04							15	
20					8.92	13.46	5.00	3.29	3.63	1.51	2.17	.43	1.51	.18	.97	.06							20	
25					11.15	20.34	6.25	4.97	4.54	2.28	2.72	.65	1.89	.27	1.21	.09							25	
30							7.50	6.97	5.45	3.20	3.26	.92	2.27	.38	1.46	.13							30	
35							8.75	9.27	6.35	4.25	3.80	1.22	2.65	.51	1.70	.17	.98	.04					35	
40							10.00	11.87	7.26	5.45	4.35	1.56	3.03	.65	1.94	.22	1.12	.06					40	
45									8.17	6.77	4.89	1.94	3.41	.81	2.19	.27	1.25	.07					45	
50									9.08	8.23	5.43	2.36	3.78	.98	2.43	.33	1.39	.09					50	
60									10.89	11.53	6.52	3.31	4.54	1.37	2.91	.47	1.67	.12					60	
70									7.61	4.40	5.30	1.83	3.40	.62	1.95	.16							70	
80									8.69	5.63	6.06	2.34	3.89	.79	2.23	.21							80	
90									9.78	7.00	6.81	2.91	4.37	.99	2.51	.26							90	
100									10.87	8.51	7.57	3.53	4.86	1.20	2.79	.31	1.23	.04					100	
125											9.46	5.34	6.07	1.81	3.49	.47	1.54	.06					125	
150											11.35	7.43	7.29	2.54	4.19	.66	1.85	.09					150	
175													8.50	3.38	4.88	.88	2.15	.12					175	
200													9.71	4.47	5.58	1.16	2.46	.16					200	
225													10.93	5.38	6.28	1.40	2.77	.19					225	
250															6.98	1.70	3.08	.23					250	
275															7.67	2.03	3.38	.28					275	
300															8.37	2.38	3.69	.32	2.14	.09			300	
325															9.07	2.76	4.00	.38	2.32	.10			325	
350															9.77	3.16	4.31	.43	2.50	.12			350	
375															10.46	3.59	4.61	.49	2.68	.13			375	
400																	4.92	.55	2.86	.15			400	
425																	5.23	.62	3.04	.17			425	
450																	5.54	.69	3.21	.18			450	
475																	5.85	.76	3.39	.20			475	
500																	6.15	.83	3.57	.22			500	
550																	6.77	1.00	3.93	.27			550	
600																	7.38	1.17	4.28	.31			600	
650																	8.00	1.36	4.64	.37			650	
700																	8.61	1.56	5.00	.42			700	
750																	9.23	1.77	5.36	.48			750	
800																	9.85	2.03	5.71	.54			800	
900																				6.43	.67			900
1000																				7.14	.81			1000