

Bulletin No. CWT-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																					4.26	.29	650
700																					4.58	.33	700
750																					4.91	.38	750
800																					5.24	.43	800
900																					5.89	.53	900
1000																					6.55	.65	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

**CRESLINE - WEST, INC.**  
**GENERAL OFFICE: 955 DIAMOND AVENUE · EVANSVILLE, IN 47711 · TELEPHONE (812) 428-9300**  
**FACTORY: 3747 W. BUCKEYE ROAD · PHOENIX, AZ 85009 · TELEPHONE (602) 269-5161**  
**WAREHOUSE: 1930 W. WHITESBRIDGE ROAD · FRESNO, CA 93706 · TELEPHONE (559) 486-1840**

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.	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															9.45	2.80	4.17	.38	2.46	.11															375										
400															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										

**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

**CRESLINE - WEST, INC.**  
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