

Bulletin No. CWT-6

**SDR - 26**

Pressure Drop Of Water Per 100 Ft. Of Pipe

September, 2020

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**

**September, 2020**

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.  
 CORPORATE HEADQUARTERS: 600 CROSS POINTE BOULEVARD · EVANSVILLE, IN 47715 · TELEPHONE (812) 428-9300  
 PLANT: 3747 W. BUCKEYE ROAD · PHOENIX, AZ 85009 · TELEPHONE (602) 269-5161

SCH 40 IPS

Pressure Drop Of Water Per 100 Ft. Of Pipe

September, 2020

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														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**

**September, 2020**

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	
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.  
 CORPORATE HEADQUARTERS: 600 CROSS POINTE BOULEVARD · EVANSVILLE, IN 47715 · TELEPHONE (812) 428-9300  
 PLANT: 3747 W. BUCKEYE ROAD · PHOENIX, AZ 85009 · TELEPHONE (602) 269-5161