

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
Cast Iron			Class 150			
3	X	3	3.96	3.32	2.5	2.39
4	X	3	4.80	4.10	2.5	2.28
6	X	3	6.90	6.14	2.5	2.15
8	X	3	9.05	8.23	2.5	2.10
10	X	3	11.10	10.22	2.5	2.10
12	X	3	13.20	12.24	2.5	2.11
14	X	3	15.30	14.34	2.5	2.09
16	X	3	17.40	16.32	2.5	2.14
18	X	3	19.50	18.42	2.5	2.13
20	X	3	21.60	20.46	2.5	2.15
24	X	3	25.80	24.54	2.5	2.19
30	X	3	32.00	30.42	2.5	2.34
36	X	3	38.30	36.56	2.5	2.41
4	X	4	4.80	4.10	3.5	2.83
6	X	4	6.90	6.14	3.5	2.43
8	X	4	9.05	8.23	3.5	2.30
10	X	4	11.10	10.22	3.5	2.25
12	X	4	13.20	12.24	3.5	2.24
14	X	4	15.30	14.34	3.5	2.20
16	X	4	17.40	16.32	3.5	2.23
18	X	4	19.50	18.42	3.5	2.21
20	X	4	21.60	20.46	3.5	2.22
24	X	4	25.80	24.54	3.5	2.26
30	X	4	32.00	30.42	3.5	2.39
36	X	4	38.30	36.56	3.5	2.45
6	X	6	6.90	6.14	5.5	3.59
8	X	6	9.05	8.23	5.5	2.96
10	X	6	11.10	10.22	5.5	2.74
12	X	6	13.20	12.24	5.5	2.63
14	X	6	15.30	14.34	5.5	2.53
16	X	6	17.40	16.32	5.5	2.52
18	X	6	19.50	18.42	5.5	2.46
20	X	6	21.60	20.46	5.5	2.45
24	X	6	25.80	24.54	5.5	2.44
30	X	6	32.00	30.42	5.5	2.54
36	X	6	38.30	36.56	5.5	2.58
8	X	8	9.05	8.23	7.5	4.33
10	X	8	11.10	10.22	7.5	3.58
12	X	8	13.20	12.24	7.5	3.26
14	X	8	15.30	14.34	7.5	3.04
16	X	8	17.40	16.32	7.5	2.95
18	X	8	19.50	18.42	7.5	2.84
20	X	8	21.60	20.46	7.5	2.78
24	X	8	25.80	24.54	7.5	2.72
30	X	8	32.00	30.42	7.5	2.76
36	X	8	38.30	36.56	7.5	2.76
10	X	10	11.10	10.22	9.5	5.17
12	X	10	13.20	12.24	9.5	4.24
14	X	10	15.30	14.34	9.5	3.78
16	X	10	17.40	16.32	9.5	3.57
18	X	10	19.50	18.42	9.5	3.36
20	X	10	21.60	20.46	9.5	3.24

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
24	X	10	25.80	24.54	9.5	3.09
30	X	10	32.00	30.42	9.5	3.05
36	X	10	38.30	36.56	9.5	3.00
12	X	12	13.20	12.24	11.5	6.00
14	X	12	15.30	14.34	11.5	4.87
16	X	12	17.40	16.32	11.5	4.41
18	X	12	19.50	18.42	11.5	4.06
20	X	12	21.60	20.46	11.5	3.84
24	X	12	25.80	24.54	11.5	3.56
30	X	12	32.00	30.42	11.5	3.42
36	X	12	38.30	36.56	11.5	3.30
Cast Iron - AWWA Class B						
3	X	3	3.96	3.14	2.5	2.53
4	X	3	5.00	4.10	2.5	2.38
6	X	3	7.10	6.14	2.5	2.25
8	X	3	9.05	8.03	2.5	2.21
10	X	3	11.10	9.96	2.5	2.23
12	X	3	13.20	11.96	2.5	2.25
14	X	3	15.30	13.98	2.5	2.27
16	X	3	17.40	16.00	2.5	2.30
18	X	3	19.50	18.00	2.5	2.34
20	X	3	21.60	20.00	2.5	2.38
24	X	3	25.80	24.02	2.5	2.46
30	X	3	32.00	29.94	2.5	2.58
36	X	3	38.30	36.00	2.5	2.69
4	X	4	5.00	4.10	3.5	2.93
6	X	4	7.10	6.14	3.5	2.53
8	X	4	9.05	8.03	3.5	2.41
10	X	4	11.10	9.96	3.5	2.39
12	X	4	13.20	11.96	3.5	2.38
14	X	4	15.30	13.98	3.5	2.38
16	X	4	17.40	16.00	3.5	2.39
18	X	4	19.50	18.00	3.5	2.42
20	X	4	21.60	20.00	3.5	2.45
24	X	4	25.80	24.02	3.5	2.52
30	X	4	32.00	29.94	3.5	2.63
36	X	4	38.30	36.00	3.5	2.74
6	X	6	7.10	6.14	5.5	3.69
8	X	6	9.05	8.03	5.5	3.10
10	X	6	11.10	9.96	5.5	2.90
12	X	6	13.20	11.96	5.5	2.79
14	X	6	15.30	13.98	5.5	2.72
16	X	6	17.40	16.00	5.5	2.69
18	X	6	19.50	18.00	5.5	2.68
20	X	6	21.60	20.00	5.5	2.69
24	X	6	25.80	24.02	5.5	2.71
30	X	6	32.00	29.94	5.5	2.78
36	X	6	38.30	36.00	5.5	2.86
8	X	8	9.05	8.03	7.5	4.59
10	X	8	11.10	9.96	7.5	3.77
12	X	8	13.20	11.96	7.5	3.44
14	X	8	15.30	13.98	7.5	3.25
16	X	8	17.40	16.00	7.5	3.13

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
18	X	8	19.50	18.00	7.5	3.07
20	X	8	21.60	20.00	7.5	3.03
24	X	8	25.80	24.02	7.5	2.99
30	X	8	32.00	29.94	7.5	3.01
36	X	8	38.30	36.00	7.5	3.04
10	X	10	11.10	9.96	9.5	5.55
12	X	10	13.20	11.96	9.5	4.47
14	X	10	15.30	13.98	9.5	4.02
16	X	10	17.40	16.00	9.5	3.76
18	X	10	19.50	18.00	9.5	3.61
20	X	10	21.60	20.00	9.5	3.50
24	X	10	25.80	24.02	9.5	3.37
30	X	10	32.00	29.94	9.5	3.30
36	X	10	38.30	36.00	9.5	3.29
12	X	12	13.20	11.96	11.5	6.46
14	X	12	15.30	13.98	11.5	5.18
16	X	12	17.40	16.00	11.5	4.64
18	X	12	19.50	18.00	11.5	4.33
20	X	12	21.60	20.00	11.5	4.12
24	X	12	25.80	24.02	11.5	3.86
30	X	12	32.00	29.94	11.5	3.68
36	X	12	38.30	36.00	11.5	3.59
Cast Iron - AWWA Class D						
3	X	3	3.96	3.00	2.5	2.65
4	X	3	5.00	3.96	2.5	2.46
6	X	3	7.10	6.00	2.5	2.32
8	X	3	9.30	8.10	2.5	2.30
10	X	3	11.40	10.04	2.5	2.34
12	X	3	13.50	12.00	2.5	2.38
14	X	3	15.65	14.01	2.5	2.43
16	X	3	17.80	16.02	2.5	2.49
18	X	3	19.92	18.00	2.5	2.55
20	X	3	22.06	20.00	2.5	2.61
24	X	3	26.32	24.00	2.5	2.73
30	X	3	32.74	30.00	2.5	2.92
36	X	3	39.16	36.00	2.5	3.12
4	X	4	5.00	3.96	3.5	3.07
6	X	4	7.10	6.00	3.5	2.61
8	X	4	9.30	8.10	3.5	2.50
10	X	4	11.40	10.04	3.5	2.49
12	X	4	13.50	12.00	3.5	2.51
14	X	4	15.65	14.01	3.5	2.54
16	X	4	17.80	16.02	3.5	2.58
18	X	4	19.92	18.00	3.5	2.63
20	X	4	22.06	20.00	3.5	2.68
24	X	4	26.32	24.00	3.5	2.79
30	X	4	32.74	30.00	3.5	2.97
36	X	4	39.16	36.00	3.5	3.17
6	X	6	7.10	6.00	5.5	3.85
8	X	6	9.30	8.10	5.5	3.18
10	X	6	11.40	10.04	5.5	3.00
12	X	6	13.50	12.00	5.5	2.92
14	X	6	15.65	14.01	5.5	2.88

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
16	X	6	17.80	16.02	5.5	2.88
18	X	6	19.92	18.00	5.5	2.89
20	X	6	22.06	20.00	5.5	2.92
24	X	6	26.32	24.00	5.5	2.98
30	X	6	32.74	30.00	5.5	3.12
36	X	6	39.16	36.00	5.5	3.29
8	X	8	9.30	8.10	7.5	4.62
10	X	8	11.40	10.04	7.5	3.86
12	X	8	13.50	12.00	7.5	3.57
14	X	8	15.65	14.01	7.5	3.41
16	X	8	17.80	16.02	7.5	3.32
18	X	8	19.92	18.00	7.5	3.28
20	X	8	22.06	20.00	7.5	3.26
24	X	8	26.32	24.00	7.5	3.26
30	X	8	32.74	30.00	7.5	3.35
36	X	8	39.16	36.00	7.5	3.47
10	X	10	11.40	10.04	9.5	5.58
12	X	10	13.50	12.00	9.5	4.58
14	X	10	15.65	14.01	9.5	4.18
16	X	10	17.80	16.02	9.5	3.95
18	X	10	19.92	18.00	9.5	3.82
20	X	10	22.06	20.00	9.5	3.73
24	X	10	26.32	24.00	9.5	3.64
30	X	10	32.74	30.00	9.5	3.64
36	X	10	39.16	36.00	9.5	3.72
12	X	12	13.50	12.00	11.5	6.54
14	X	12	15.65	14.01	11.5	5.32
16	X	12	17.80	16.02	11.5	4.82
18	X	12	19.92	18.00	11.5	4.54
20	X	12	22.06	20.00	11.5	4.35
24	X	12	26.32	24.00	11.5	4.13
30	X	12	32.74	30.00	11.5	4.02
36	X	12	39.16	36.00	11.5	4.02
Ductile Iron - Class 52						
3	X	3	3.96	3.40	2.5	2.33
4	X	3	4.80	4.22	2.5	2.20
6	X	3	6.90	6.28	2.5	2.07
8	X	3	9.05	8.39	2.5	2.02
10	X	3	11.10	10.40	2.5	2.00
12	X	3	13.20	12.46	2.5	2.00
14	X	3	15.30	14.52	2.5	2.00
16	X	3	17.40	16.60	2.5	1.99
18	X	3	19.50	18.68	2.5	1.99
20	X	3	21.60	20.76	2.5	2.00
24	X	3	25.80	24.92	2.5	2.00
30	X	3	32.00	31.06	2.5	2.02
36	X	3	38.30	37.24	2.5	2.07
4	X	4	4.80	4.22	3.5	2.72
6	X	4	6.90	6.28	3.5	2.34
8	X	4	9.05	8.39	3.5	2.21
10	X	4	11.10	10.40	3.5	2.15
12	X	4	13.20	12.46	3.5	2.12
14	X	4	15.30	14.52	3.5	2.10

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
16	X	4	17.40	16.60	3.5	2.09
18	X	4	19.50	18.68	3.5	2.08
20	X	4	21.60	20.76	3.5	2.07
24	X	4	25.80	24.92	3.5	2.06
30	X	4	32.00	31.06	3.5	2.07
36	X	4	38.30	37.24	3.5	2.11
6	X	6	6.90	6.28	5.5	3.43
8	X	6	9.05	8.39	5.5	2.86
10	X	6	11.10	10.40	5.5	2.64
12	X	6	13.20	12.46	5.5	2.51
14	X	6	15.30	14.52	5.5	2.43
16	X	6	17.40	16.60	5.5	2.37
18	X	6	19.50	18.68	5.5	2.32
20	X	6	21.60	20.76	5.5	2.29
24	X	6	25.80	24.92	5.5	2.25
30	X	6	32.00	31.06	5.5	2.22
36	X	6	38.30	37.24	5.5	2.23
8	X	8	9.05	8.39	7.5	4.14
10	X	8	11.10	10.40	7.5	3.45
12	X	8	13.20	12.46	7.5	3.13
14	X	8	15.30	14.52	7.5	2.93
16	X	8	17.40	16.60	7.5	2.80
18	X	8	19.50	18.68	7.5	2.70
20	X	8	21.60	20.76	7.5	2.62
24	X	8	25.80	24.92	7.5	2.52
30	X	8	32.00	31.06	7.5	2.43
36	X	8	38.30	37.24	7.5	2.41
10	X	10	11.10	10.40	9.5	4.93
12	X	10	13.20	12.46	9.5	4.07
14	X	10	15.30	14.52	9.5	3.66
16	X	10	17.40	16.60	9.5	3.39
18	X	10	19.50	18.68	9.5	3.21
20	X	10	21.60	20.76	9.5	3.07
24	X	10	25.80	24.92	9.5	2.88
30	X	10	32.00	31.06	9.5	2.71
36	X	10	38.30	37.24	9.5	2.65
12	X	12	13.20	12.46	11.5	5.70
14	X	12	15.30	14.52	11.5	4.72
16	X	12	17.40	16.60	11.5	4.21
18	X	12	19.50	18.68	11.5	3.89
20	X	12	21.60	20.76	11.5	3.66
24	X	12	25.80	24.92	11.5	3.35
30	X	12	32.00	31.06	11.5	3.07
36	X	12	38.30	37.24	11.5	2.94

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
Asbestos Cement Class 100						
4	X	3	4.92	4.00	2.5	2.40
6	X	3	7.19	6.00	2.5	2.37
8	X	3	9.39	8.00	2.5	2.40
10	X	3	11.47	10.00	2.5	2.39
12	X	3	13.74	12.00	2.5	2.50
14	X	3	15.51	13.59	2.5	2.58
16	X	3	17.65	15.50	2.5	2.68
18	X	3	20.44	18.00	2.5	2.81
20	X	3	22.68	20.00	2.5	2.92
24	X	3	27.12	24.00	2.5	3.13
30	X	3	33.80	30.00	2.5	3.45
36	X	3	40.46	36.00	2.5	3.77
4	X	4	4.92	4.00	3.5	2.99
6	X	4	7.19	6.00	3.5	2.66
8	X	4	9.39	8.00	3.5	2.60
10	X	4	11.47	10.00	3.5	2.55
12	X	4	13.74	12.00	3.5	2.63
14	X	4	15.51	13.59	3.5	2.69
16	X	4	17.65	15.50	3.5	2.78
18	X	4	20.44	18.00	3.5	2.89
20	X	4	22.68	20.00	3.5	2.99
24	X	4	27.12	24.00	3.5	3.19
30	X	4	33.80	30.00	3.5	3.50
36	X	4	40.46	36.00	3.5	3.82
6	X	6	7.19	6.00	5.5	3.90
8	X	6	9.39	8.00	5.5	3.29
10	X	6	11.47	10.00	5.5	3.06
12	X	6	13.74	12.00	5.5	3.04
14	X	6	15.51	13.59	5.5	3.04
16	X	6	17.65	15.50	5.5	3.08
18	X	6	20.44	18.00	5.5	3.15
20	X	6	22.68	20.00	5.5	3.23
24	X	6	27.12	24.00	5.5	3.38
30	X	6	33.80	30.00	5.5	3.65
36	X	6	40.46	36.00	5.5	3.94
8	X	8	9.39	8.00	7.5	4.80
10	X	8	11.47	10.00	7.5	3.93
12	X	8	13.74	12.00	7.5	3.69
14	X	8	15.51	13.59	7.5	3.59
16	X	8	17.65	15.50	7.5	3.54
18	X	8	20.44	18.00	7.5	3.54
20	X	8	22.68	20.00	7.5	3.57
24	X	8	27.12	24.00	7.5	3.66
30	X	8	33.80	30.00	7.5	3.88
36	X	8	40.46	36.00	7.5	4.12
10	X	10	11.47	10.00	9.5	5.67
12	X	10	13.74	12.00	9.5	4.70
14	X	10	15.51	13.59	9.5	4.40
16	X	10	17.65	15.50	9.5	4.20
18	X	10	20.44	18.00	9.5	4.08
20	X	10	22.68	20.00	9.5	4.04
24	X	10	27.12	24.00	9.5	4.04

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
30	X	10	33.80	30.00	9.5	4.17
36	X	10	40.46	36.00	9.5	4.37
12	X	12	13.74	12.00	11.5	6.66
14	X	12	15.51	13.59	11.5	5.63
16	X	12	17.65	15.50	11.5	5.13
18	X	12	20.44	18.00	11.5	4.80
20	X	12	22.68	20.00	11.5	4.66
24	X	12	27.12	24.00	11.5	4.53
30	X	12	33.80	30.00	11.5	4.55
36	X	12	40.46	36.00	11.5	4.67
Asbestos Cement - Class 150						
4	X	3	5.07	4.00	2.5	2.47
6	X	3	7.17	5.85	2.5	2.44
8	X	3	9.37	7.85	2.5	2.46
10	X	3	11.92	10.00	2.5	2.62
12	X	3	14.18	12.00	2.5	2.72
14	X	3	16.48	14.00	2.5	2.85
16	X	3	18.72	16.00	2.5	2.96
18	X	3	21.30	18.00	2.5	3.24
20	X	3	23.64	20.00	2.5	3.40
24	X	3	28.32	24.00	2.5	3.73
30	X	3	35.42	30.00	2.5	4.26
36	X	3	42.46	36.00	2.5	4.77
4	X	4	5.07	4.00	3.5	3.07
6	X	4	7.17	5.85	3.5	2.74
8	X	4	9.37	7.85	3.5	2.67
10	X	4	11.92	10.00	3.5	2.78
12	X	4	14.18	12.00	3.5	2.85
14	X	4	16.48	14.00	3.5	2.96
16	X	4	18.72	16.00	3.5	3.05
18	X	4	21.30	18.00	3.5	3.32
20	X	4	23.64	20.00	3.5	3.47
24	X	4	28.32	24.00	3.5	3.79
30	X	4	35.42	30.00	3.5	4.31
36	X	4	42.46	36.00	3.5	4.82
6	X	6	7.17	5.85	5.5	4.09
8	X	6	9.37	7.85	5.5	3.38
10	X	6	11.92	10.00	5.5	3.28
12	X	6	14.18	12.00	5.5	3.26
14	X	6	16.48	14.00	5.5	3.30
16	X	6	18.72	16.00	5.5	3.35
18	X	6	21.30	18.00	5.5	3.58
20	X	6	23.64	20.00	5.5	3.71
24	X	6	28.32	24.00	5.5	3.98
30	X	6	35.42	30.00	5.5	4.46
36	X	6	42.46	36.00	5.5	4.94
8	X	8	9.37	7.85	7.5	5.03
10	X	8	11.92	10.00	7.5	4.15
12	X	8	14.18	12.00	7.5	3.91
14	X	8	16.48	14.00	7.5	3.83
16	X	8	18.72	16.00	7.5	3.79
18	X	8	21.30	18.00	7.5	3.97
20	X	8	23.64	20.00	7.5	4.05

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
24	X	8	28.32	24.00	7.5	4.26
30	X	8	35.42	30.00	7.5	4.69
36	X	8	42.46	36.00	7.5	5.12
10	X	10	11.92	10.00	9.5	5.90
12	X	10	14.18	12.00	9.5	4.92
14	X	10	16.48	14.00	9.5	4.60
16	X	10	18.72	16.00	9.5	4.42
18	X	10	21.30	18.00	9.5	4.51
20	X	10	23.64	20.00	9.5	4.52
24	X	10	28.32	24.00	9.5	4.64
30	X	10	35.42	30.00	9.5	4.98
36	X	10	42.46	36.00	9.5	5.37
12	X	12	14.18	12.00	11.5	6.88
14	X	12	16.48	14.00	11.5	5.75
16	X	12	18.72	16.00	11.5	5.30
18	X	12	21.30	18.00	11.5	5.23
20	X	12	23.64	20.00	11.5	5.14
24	X	12	28.32	24.00	11.5	5.13
30	X	12	35.42	30.00	11.5	5.36
36	X	12	42.46	36.00	11.5	5.67
Asbestos Cement - Class 200						
4	X	3	5.33	4.00	2.5	2.60
6	X	3	7.32	5.70	2.5	2.60
8	X	3	9.50	7.60	2.5	2.66
10	X	3	11.92	9.63	2.5	2.81
12	X	3	14.18	11.56	2.5	2.95
14	X	3	16.59	13.59	2.5	3.12
16	X	3	18.90	15.50	2.5	3.30
18	X	3	22.54	18.00	2.5	3.86
20	X	3	25.02	20.00	2.5	4.09
24	X	3	29.98	24.00	2.5	4.56
30	X	3	37.48	30.00	2.5	5.29
36	X	3	44.94	36.00	2.5	6.01
4	X	4	5.33	4.00	3.5	3.20
6	X	4	7.32	5.70	3.5	2.91
8	X	4	9.50	7.60	3.5	2.88
10	X	4	11.92	9.63	3.5	2.97
12	X	4	14.18	11.56	3.5	3.08
14	X	4	16.59	13.59	3.5	3.23
16	X	4	18.90	15.50	3.5	3.40
18	X	4	22.54	18.00	3.5	3.94
20	X	4	25.02	20.00	3.5	4.16
24	X	4	29.98	24.00	3.5	4.62
30	X	4	37.48	30.00	3.5	5.34
36	X	4	44.94	36.00	3.5	6.06
6	X	6	7.32	5.70	5.5	4.41
8	X	6	9.50	7.60	5.5	3.63
10	X	6	11.92	9.63	5.5	3.51
12	X	6	14.18	11.56	5.5	3.51
14	X	6	16.59	13.59	5.5	3.58
16	X	6	18.90	15.50	5.5	3.70
18	X	6	22.54	18.00	5.5	4.20
20	X	6	25.02	20.00	5.5	4.40

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
24	X	6	29.98	24.00	5.5	4.81
30	X	6	37.48	30.00	5.5	5.49
36	X	6	44.94	36.00	5.5	6.18
8	X	8	9.50	7.60	7.5	5.64
10	X	8	11.92	9.63	7.5	4.44
12	X	8	14.18	11.56	7.5	4.19
14	X	8	16.59	13.59	7.5	4.13
16	X	8	18.90	15.50	7.5	4.17
18	X	8	22.54	18.00	7.5	4.59
20	X	8	25.02	20.00	7.5	4.74
24	X	8	29.98	24.00	7.5	5.09
30	X	8	37.48	30.00	7.5	5.72
36	X	8	44.94	36.00	7.5	6.36
10	X	10	11.92	9.63	9.5	6.67
12	X	10	14.18	11.56	9.5	5.30
14	X	10	16.59	13.59	9.5	4.94
16	X	10	18.90	15.50	9.5	4.83
18	X	10	22.54	18.00	9.5	5.13
20	X	10	25.02	20.00	9.5	5.21
24	X	10	29.98	24.00	9.5	5.47
30	X	10	37.48	30.00	9.5	6.01
36	X	10	44.94	36.00	9.5	6.61
12	X	12	14.18	11.56	11.5	8.00
14	X	12	16.59	13.59	11.5	6.17
16	X	12	18.90	15.50	11.5	5.75
18	X	12	22.54	18.00	11.5	5.85
20	X	12	25.02	20.00	11.5	5.83
24	X	12	29.98	24.00	11.5	5.96
30	X	12	37.48	30.00	11.5	6.39
36	X	12	44.94	36.00	11.5	6.91

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
PVC Pipe - Schedule 40						
4	X	3	4.50	4.03	2.5	2.17
6	X	3	6.63	6.07	2.5	2.05
8	X	3	8.63	7.98	2.5	2.02
10	X	3	10.75	10.02	2.5	2.02
12	X	3	12.75	11.94	2.5	2.04
4	X	4	4.50	4.03	3.5	2.76
6	X	4	6.63	6.07	3.5	2.34
8	X	4	8.63	7.98	3.5	2.23
10	X	4	10.75	10.02	3.5	2.18
12	X	4	12.75	11.94	3.5	2.17
6	X	6	6.63	6.07	5.5	3.53
8	X	6	8.63	7.98	5.5	2.92
10	X	6	10.75	10.02	5.5	2.69
12	X	6	12.75	11.94	5.5	2.58
8	X	8	8.63	7.98	7.5	4.45
10	X	8	10.75	10.02	7.5	3.55
12	X	8	12.75	11.94	7.5	3.23
10	X	10	10.75	10.02	9.5	5.28
12	X	10	12.75	11.94	9.5	4.26
12	X	12	12.75	11.94	11.5	6.27
PVC Pipe - Schedule 80						
4	X	3	4.50	3.83	2.5	2.30
6	X	3	6.63	5.76	2.5	2.22
8	X	3	8.63	7.63	2.5	2.21
10	X	3	10.75	9.56	2.5	2.26
12	X	3	12.75	11.38	2.5	2.33
4	X	4	4.50	3.83	3.5	2.98
6	X	4	6.63	5.76	3.5	2.52
8	X	4	8.63	7.63	3.5	2.43
10	X	4	10.75	9.56	3.5	2.42
12	X	4	12.75	11.38	3.5	2.46
6	X	6	6.63	5.76	5.5	3.96
8	X	6	8.63	7.63	5.5	3.17
10	X	6	10.75	9.56	5.5	2.96
12	X	6	12.75	11.38	5.5	2.90
8	X	8	8.63	7.63	7.5	5.13
10	X	8	10.75	9.56	7.5	3.91
12	X	8	12.75	11.38	7.5	3.60
10	X	10	10.75	9.56	9.5	6.32
12	X	10	12.75	11.38	9.5	4.75
12	X	12	12.75	11.38	11.5	--!
PVC Pipe - SDR 21 (200)						
4	X	3	4.50	4.07	2.5	2.14

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
6	X	3	6.63	5.99	2.5	2.09
8	X	3	8.63	7.81	2.5	2.12
10	X	3	10.75	9.73	2.5	2.17
12	X	3	12.75	11.54	2.5	2.24
4	X	4	4.50	4.07	3.5	2.71
6	X	4	6.63	5.99	3.5	2.38
8	X	4	8.63	7.81	3.5	2.32
10	X	4	10.75	9.73	3.5	2.34
12	X	4	12.75	11.54	3.5	2.38
6	X	6	6.63	5.99	5.5	3.62
8	X	6	8.63	7.81	5.5	3.04
10	X	6	10.75	9.73	5.5	2.86
12	X	6	12.75	11.54	5.5	2.80
8	X	8	8.63	7.81	7.5	4.73
10	X	8	10.75	9.73	7.5	3.78
12	X	8	12.75	11.54	7.5	3.49
10	X	10	10.75	9.73	9.5	5.83
12	X	10	12.75	11.54	9.5	4.60
12	X	12	12.75	11.54	11.5	7.41
PVC Pipe - SDR 26 (160)						
4	X	3	4.50	4.15	2.5	2.09
6	X	3	6.63	6.12	2.5	2.02
8	X	3	8.63	7.96	2.5	2.03
10	X	3	10.75	9.92	2.5	2.07
12	X	3	12.75	11.77	2.5	2.12
4	X	4	4.50	4.15	3.5	2.63
6	X	4	6.63	6.12	3.5	2.31
8	X	4	8.63	7.96	3.5	2.24
10	X	4	10.75	9.92	3.5	2.23
12	X	4	12.75	11.77	3.5	2.26
6	X	6	6.63	6.12	5.5	3.48
8	X	6	8.63	7.96	5.5	2.93
10	X	6	10.75	9.92	5.5	2.74
12	X	6	12.75	11.77	5.5	2.67
8	X	8	8.63	7.96	7.5	4.48
10	X	8	10.75	9.92	7.5	3.63
12	X	8	12.75	11.77	7.5	3.34
10	X	10	10.75	9.92	9.5	5.44
12	X	10	12.75	11.77	9.5	4.40
12	X	12	12.75	11.77	11.5	6.62
PVC Pipe - SDR 32.5 (125)						
4	X	3	4.50	4.22	2.5	2.05
6	X	3	6.63	6.22	2.5	1.97
8	X	3	8.63	8.10	2.5	1.96
10	X	3	10.75	10.09	2.5	1.99
12	X	3	12.75	11.97	2.5	2.02

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
4	X	4	4.50	4.22	3.5	2.57
6	X	4	6.63	6.22	3.5	2.24
8	X	4	8.63	8.10	3.5	2.16
10	X	4	10.75	10.09	3.5	2.14
12	X	4	12.75	11.97	3.5	2.15
6	X	6	6.63	6.22	5.5	3.36
8	X	6	8.63	8.10	5.5	2.84
10	X	6	10.75	10.09	5.5	2.65
12	X	6	12.75	11.97	5.5	2.56
8	X	8	8.63	8.10	7.5	4.29
10	X	8	10.75	10.09	7.5	3.50
12	X	8	12.75	11.97	7.5	3.21
10	X	10	10.75	10.09	9.5	5.18
12	X	10	12.75	11.97	9.5	4.24
12	X	12	12.75	11.97	11.5	6.22
PVC Pipe - SDR 41 (100)						
4	X	3	4.50	4.28	2.5	2.01
6	X	3	6.63	6.30	2.5	1.92
8	X	3	8.63	8.21	2.5	1.91
10	X	3	10.75	10.23	2.5	1.92
12	X	3	12.75	12.13	2.5	1.94
4	X	4	4.50	4.28	3.5	2.52
6	X	4	6.63	6.30	3.5	2.19
8	X	4	8.63	8.21	3.5	2.10
10	X	4	10.75	10.23	3.5	2.07
12	X	4	12.75	12.13	3.5	2.07
6	X	6	6.63	6.30	5.5	3.28
8	X	6	8.63	8.21	5.5	2.77
10	X	6	10.75	10.23	5.5	2.56
12	X	6	12.75	12.13	5.5	2.47
8	X	8	8.63	8.21	7.5	4.15
10	X	8	10.75	10.23	7.5	3.40
12	X	8	12.75	12.13	7.5	3.11
10	X	10	10.75	10.23	9.5	4.98
12	X	10	12.75	12.13	9.5	4.11
12	X	12	12.75	12.13	11.5	5.95
PVC Pipe - C900 PC 100						
4	X	3	4.80	4.42	2.5	2.08
6	X	3	6.90	6.35	2.5	2.03
8	X	3	9.05	8.33	2.5	2.05
10	X	3	11.10	10.21	2.5	2.10
12	X	3	13.20	12.14	2.5	2.16
4	X	4	4.80	4.42	3.5	2.55
6	X	4	6.90	6.35	3.5	2.30
8	X	4	9.05	8.33	3.5	2.25

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
10	X	4	11.10	10.21	3.5	2.25
12	X	4	13.20	12.14	3.5	2.29
6	X	6	6.90	6.35	5.5	3.37
8	X	6	9.05	8.33	5.5	2.90
10	X	6	11.10	10.21	5.5	2.75
12	X	6	13.20	12.14	5.5	2.69
8	X	8	9.05	8.33	7.5	4.22
10	X	8	11.10	10.21	7.5	3.58
12	X	8	13.20	12.14	7.5	3.32
10	X	10	11.10	10.21	9.5	5.18
12	X	10	13.20	12.14	9.5	4.32
12	X	12	13.20	12.14	11.5	6.15
PVC Pipe - C900 PC 150						
4	X	3	4.80	4.27	2.5	2.17
6	X	3	6.90	6.13	2.5	2.15
8	X	3	9.05	8.04	2.5	2.20
10	X	3	11.10	9.87	2.5	2.28
12	X	3	13.20	11.73	2.5	2.37
4	X	4	4.80	4.27	3.5	2.68
6	X	4	6.90	6.13	3.5	2.43
8	X	4	9.05	8.04	3.5	2.40
10	X	4	11.10	9.87	3.5	2.44
12	X	4	13.20	11.73	3.5	2.50
6	X	6	6.90	6.13	5.5	3.59
8	X	6	9.05	8.04	5.5	3.09
10	X	6	11.10	9.87	5.5	2.95
12	X	6	13.20	11.73	5.5	2.92
8	X	8	9.05	8.04	7.5	4.57
10	X	8	11.10	9.87	7.5	3.85
12	X	8	13.20	11.73	7.5	3.59
10	X	10	11.10	9.87	9.5	5.72
12	X	10	13.20	11.73	9.5	4.66
12	X	12	13.20	11.73	11.5	6.93
PVC Pipe - C900 PC 200						
4	X	3	4.80	4.11	2.5	2.27
6	X	3	6.90	5.91	2.5	2.27
8	X	3	9.05	7.76	2.5	2.35
10	X	3	11.10	9.51	2.5	2.46
12	X	3	13.20	11.31	2.5	2.58
4	X	4	4.80	4.11	3.5	2.82
6	X	4	6.90	5.91	3.5	2.57
8	X	4	9.05	7.76	3.5	2.56
10	X	4	11.10	9.51	3.5	2.63
12	X	4	13.20	11.31	3.5	2.72
6	X	6	6.90	5.91	5.5	3.86

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
8	X	6	9.05	7.76	5.5	3.29
10	X	6	11.10	9.51	5.5	3.17
12	X	6	13.20	11.31	5.5	3.16
8	X	8	9.05	7.76	7.5	5.03
10	X	8	11.10	9.51	7.5	4.12
12	X	8	13.20	11.31	7.5	3.86
10	X	10	11.10	9.51	9.5	6.79
12	X	10	13.20	11.31	9.5	5.03
12	X	12	13.20	11.31	11.5	--!

PIPE SIZE	BY	CUTTER SIZE	Pipe OD	Pipe ID	ACTUAL CUTTER DIAMETER	ESTIMATED TRAVEL
Steel Pipe - Schedule 40						
4	X	3	4.50	4.03	2.5	2.17
6	X	3	6.63	6.07	2.5	2.05
8	X	3	8.63	7.98	2.5	2.02
10	X	3	10.75	10.02	2.5	2.02
12	X	3	12.75	12.00	2.5	2.01
4	X	4	4.50	4.03	3.5	2.76
6	X	4	6.63	6.07	3.5	2.34
8	X	4	8.63	7.98	3.5	2.23
10	X	4	10.75	10.02	3.5	2.18
12	X	4	12.75	12.00	3.5	2.14
6	X	6	6.63	6.07	5.5	3.53
8	X	6	8.63	7.98	5.5	2.92
10	X	6	10.75	10.02	5.5	2.69
12	X	6	12.75	12.00	5.5	2.54
8	X	8	8.63	7.98	7.5	4.45
10	X	8	10.75	10.02	7.5	3.55
12	X	8	12.75	12.00	7.5	3.19
10	X	10	10.75	10.02	9.5	5.28
12	X	10	12.75	12.00	9.5	4.21
12	X	12	12.75	12.00	11.5	6.16
Steel Pipe - Schedule 80						
4	X	3	4.50	3.83	2.5	2.30
6	X	3	6.63	5.76	2.5	2.22
8	X	3	8.63	7.63	2.5	2.21
10	X	3	10.75	9.56	2.5	2.26
4	X	4	4.50	3.83	3.5	2.98
6	X	4	6.63	5.76	3.5	2.52
8	X	4	8.63	7.63	3.5	2.43
10	X	4	10.75	9.56	3.5	2.43
6	X	6	6.63	5.76	5.5	3.96
8	X	6	8.63	7.63	5.5	3.17
10	X	6	10.75	9.56	5.5	2.96
8	X	8	8.63	7.63	7.5	5.13
10	X	8	10.75	9.56	7.5	3.91
10	X	10	10.75	9.56	9.5	6.33