


INTERNAL DIA. OF PIPE, INCHES	WEIGHT PER LIN. FT. OF PIPE	MIN. WALL THICKNESS OF PIPE INCHES	CLASS I		CLASS II		CLASS III		CLASS IV		CLASS V	
			D - LOAD TO PRODUCE A 0.01 INCH CRACK (LBS./LIN. FT. OF DIA.)		D - LOAD TO PRODUCE ULTIMATE LOAD (LBS./LIN. FT. OF DIA.)		CONCRETE 4000 P.S.I.		CONCRETE 4000 P.S.I.		CONCRETE 6000 P.S.I.	
			800	1000	1350	1500	2000	2000	3000	3000	3000	3750
D			CONCRETE 4000 P.S.I.	CONCRETE 4000 P.S.I.	CONCRETE 4000 P.S.I.	CONCRETE 4000 P.S.I.	CONCRETE 4000 P.S.I.	CONCRETE 4000 P.S.I.	CONCRETE 4000 P.S.I.	CONCRETE 4000 P.S.I.	CONCRETE 4000 P.S.I.	CONCRETE 6000 P.S.I.
			MINIMUM REINFORCEMENT SQUARE INCHES PER LINEAR FOOT OF BARREL		MINIMUM REINFORCEMENT SQUARE INCHES PER LINEAR FOOT OF BARREL		MINIMUM REINFORCEMENT SQUARE INCHES PER LINEAR FOOT OF BARREL		MINIMUM REINFORCEMENT SQUARE INCHES PER LINEAR FOOT OF BARREL		MINIMUM REINFORCEMENT SQUARE INCHES PER LINEAR FOOT OF BARREL	
			INNER CAGE	OUTER CAGE	INNER CAGE	OUTER CAGE	INNER CAGE	OUTER CAGE	INNER CAGE	OUTER CAGE	INNER CAGE	OUTER CAGE
12	92	2	—	0.07 ②	—	0.07 ②	—	0.07	—	—	0.10	—
15	127	2-1/4	—	0.07 ②	—	0.07 ②	—	0.10	—	—	0.14	—
18	168	2-1/2	—	0.07 ②	—	0.07 ②	—	0.14	—	—	0.19	—
21	214	2-3/4	—	0.07 ②	—	0.07 ②	—	0.20	—	—	0.24	—
24	265	3	—	0.07 ②	—	0.07 ②	—	0.27	—	—	0.30	—
27	322	3-1/4	—	0.13	—	0.16	—	0.31	—	—	0.38	0.23
30	384	3-1/2	—	0.14	—	0.18	—	0.35	—	—	0.41	0.25
33	452	3-3/4	—	0.15	—	0.20	—	0.27	0.16	—	0.46	0.28
36	524	4 ③	—	0.12	0.07	0.17 ③	0.10	0.30	0.18	0.16	0.50	0.30
42	685	4-1/2	—	0.15	0.09	0.21	0.13	0.35	0.21	0.30	0.60	0.36
48	867	5	—	0.18	0.11	0.24	0.14	0.42	0.25	0.42	0.73	0.44
54	1070	5-1/2	—	0.22	0.13	0.29	0.17	0.50	0.30	0.50	0.74 ①	0.44
			CONCRETE 5000 PSI									
60	1296	6	0.21	0.25	0.15	0.34	0.20	0.59	0.35	0.81 ①	0.49	
66	1542	6-1/2	0.25	0.31	0.19	0.41	0.25	0.69	0.41	0.88 ①	0.53	
72	1810	7	0.29	0.35	0.21	0.49	0.29	0.79	0.47	0.95 ①	0.57	
78	2098	7-1/2	0.32	0.40	0.24	0.57	0.34	0.70 ①	0.42	1.03 ①	0.62	
84	2410	8	0.37	0.46	0.28	0.64	0.38	0.75 ①	0.45	1.12 ①	0.67	
			CONCRETE 5000 PSI									
90	2740	8-1/2	0.41	0.51	0.31	0.69	0.41	0.82 ①	0.49	1.20 ①	0.72	
96	3090	9	0.46	0.57	0.34	0.76	0.46	0.88 ①	0.53	1.30 ①	0.78	
			CONCRETE 5000 PSI									
102	3470	9-1/2	0.54	0.68	0.41	0.90	0.54	0.94 ①	0.56	1.42 ①	0.85	
108	3860	10	0.61	0.76	0.46	1.08	0.65	1.00 ①	0.60	1.50 ①	0.90	

NOTES:

SEE SHEETS 2 TO 5 FOR ADDITIONAL INFORMATION ON PIPE SECTIONS AND GENERAL NOTES.

STANDARD PLATE 3006, GASKET JOINT R.C. PIPE, MAY BE FURNISHED IN LIEU OF 3000 PIPE, THE GASKET REQUIRED FOR 3006 PIPE WILL NOT BE REQUIRED; HOWEVER, THE APPROPRIATE PROVISIONS OF THE SPECIFICATIONS RELATING TO FILLING THE JOINT SPACE WITH AN APPROVED SEALER OR FULL CIRCUMFERENTIAL WRAP OF GEOTEXTILE MATERIAL SHALL APPLY.

- ① CLASS IV PIPE 78 INCHES OR MORE IN DIAMETER AND CLASS V PIPE 54 INCHES OR MORE IN DIAMETER ARE SPECIAL DESIGNS AND REQUIRE SHEAR STEEL FOR SPECIAL DESIGNS SEE SHEET 4 OF 5.
- ② FOR THESE CLASSES AND SIZES, THE MINIMUM PRACTICAL STEEL REINFORCEMENT IS SPECIFIED, THE ACTUAL ULTIMATE STRENGTH IS GREATER THAN THE MINIMUM STRENGTH SPECIFIED FOR NONREINFORCED PIPE OF EQUIVALENT DIAMETERS IN AASHTO M86.
- ③ AS AN ALTERNATIVE, SINGLE CAGE REINFORCEMENT MAY BE USED, THE REINFORCEMENT AREA IN SQUARE INCHES PER LINEAR FOOT SHALL BE 0.30 FOR WALL B.

APPROVED Aug. 31, 1989

 Director
 Materials, Research and Standards

STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION
 REINFORCED CONCRETE PIPE
 B WALL

SPECIFICATION
 REFERENCE
 2501, 2502, 2503
 REVISED
 4-30-99 A.K.J.

STANDARD
 PLATE
 NO.
 3000L
 1 OF 5