

ROADWAY DESIGN MANUAL  
TABLES 5 & 6

PART 1

5 - 5

CORRUGATED STEEL PIPE - HEIGHT OF FILL LIMITATIONS

2" x" or 2-2/3" x" Corrugations - Riveted, Welded, or Helical Fabrication

Size	Minimum Fill Over Top of Pipe	0.064" (16 Ga.)		0.079" (14 Ga.)		0.109" (12 Ga.)		0.138" (10 Ga.)		0.168" (8 Ga.)							
		Cir.		Cir.		Cir.	Elong.	Cir.	Elong.	Cir.	Elong.						
Maximum Fill Above Top of Pipe																	
12"	12"	83		90													
15"	12"	67		73		93											
18"	12"	55		67		70											
24"	12"	36		40		47		57									
30"	12"			31		35		40		50							
36"	12"			20		30		35		40							
42"	12"					26	59	29	54	35	58						
48"	12"					24	48	25	50	26	52						
54"	12"					23	45	24	48	25	50						
60"	12"							23	46	23	48						
66"	12"	NOTE: WITH METHOD "B" INSTALLATION FILL HEIGHTS MAY BE INCREASED BY 50% OF TABLE VALUES								20	40	23	46				
72"	12"													18	30	22	40
78"	12"															22	30
84"	12"									22	25						

See Roadway Standards, Std. No. 300.02

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CORRUGATED STEEL PIPE ARCHES - HEIGHT OF FILL LIMITATIONS

PIPE ARCH DIMENSION	MINIMUM COVER BELOW SUBGRADE	MINIMUM THICKNESS (t)	MAXIMUM FILL TOP OF PIPE FOR CORNER BEARING PRESSURE IN TONSSQ. FT.	
			2 Tons	3 Tons
Inches	Inches			
17 X 13	18"	0.064"	16	23
21 X 15	18"	0.064"	15	22
24 X 18	18"	0.064"	13	19
28 X 20	18"	0.064"	12	18
35 X 24	18"	0.079"	11	17
42 X 29	18"	0.079"	10	15
49 X 33	18"	0.109"	10	14
57 X 38	18"	0.109"	10	14
64 X 43	18"	0.109"	10	14
71 X 47	18"	0.138"	10	15
77 X 52	18"	0.168"	10	15
83 X 57	18"	0.168"	9	14

Heavier gages may be used where required for abrasion, corrosion or other factors, but not for additional fill on arches as corner pressures govern amount of fill.

REV. DATE 5/28/93