

TABLE NO. 1R ROUND PIPE - SPIRAL RIB STEEL - SPIRAL RIB ALUMINUM
MINIMUM THICKNESS OF STEEL AND ALUMINUM
HEIGHT OF FILL (FEET) ABOVE TOP OF PIPE

PIPE DIAMETER (INCHES)	TYPE	MINIMUM COVER (INCHES)	1 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90	PIPE DIAMETER (INCHES)
12															12
15															15
18	STEEL R	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079		18
	ALUM R	15	.060	.060	.060	.060	.060	.060	.075	.075	.075				
24	STEEL R	24	.064	.064	.064	.064	.064	.064	.064	.064	.079	.09	.09		24
	ALUM R	30	.060	.060	.060	.060	.075	.075	.075	.075	.105	.105			
30	STEEL R	15	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.09		30
	ALUM R	18	.060	.060	.060	.060	.075	.075	.075	.075	.105	.105			
36	STEEL R	24	.064	.064	.064	.064	.064	.064	.064	.064	.079	.09	.09		36
	ALUM R	36	.060	.060	.075	.075	.105	.105	.105	.105	.135	.135			
42	STEEL R	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.09		42
	ALUM R	21	.075	.075	.075	.105	.105	.105	.105	.105	.135	.135			
48	STEEL R	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.09		48
	ALUM R	24	.060	.060	.060	.075	.075	.075	.075	.075	.105	.105			
54	STEEL R	15	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.09		54
	ALUM R	24	.060	.060	.060	.075	.075	.075	.075	.075	.105	.105			
60	STEEL R	15	.079	.079	.079	.079	.079	.079	.079	.079	.079	.09	.09		60
	ALUM R	24	.060	.060	.060	.075	.075	.075	.075	.075	.105	.105			
66	STEEL R	18	.079	.079	.079	.079	.079	.079	.079	.079	.079	.09	.09		66
	ALUM R	24	.060	.060	.060	.075	.075	.075	.075	.075	.105	.105			
72	STEEL R	18	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09		72
	ALUM R	27	.060	.060	.060	.075	.075	.075	.075	.075	.105	.105			
78	STEEL R	21	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09		78
84	STEEL R	21	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09		84
90															90C
96															96
102															102
108															108
114															114
120															120

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R DENOTES SPIRAL RIB PROFILE 3/4" X 3/4" X 7-1/2"

TABLE VALUES FOR ALUMINUM SPIRAL RIB PIPE ARE COMPUTED BASED UPON ALCLAD ALLOY 3004-H32 HAVING MINIMUM YIELD STRENGTH, $f_y=24,000$ PSI. IF ALUMINUM PIPE IS OTHERWISE FURNISHED AS 3004-H32 ($f_y=20,000$ PSI), ALLOWABLE FILL HEIGHTS SHALL BE ADJUSTED AS FOLLOWS:

- A. ALL MINIMUM COVER VALUES SHALL BE INCREASED BY 15 PERCENT. (EXAMPLE: 12 IN. BECOMES 13.8 IN.)
- B. ALL HEIGHT OF FILL VALUES SHALL BE DECREASED BY 15 PERCENT. (EXAMPLE: 35-40 FT. BECOMES 31.7-34.0 FT.)

MINIMUM COVER VALUES APPLY TO HS-20 LIVE LOAD. MINIMUM COVER NEEDED FOR CONSTRUCTION VEHICLES MAY BE GREATER AND IS THE RESPONSIBILITY OF THE CONTRACTOR. TRENCH CONSTRUCTION IS REQUIRED FOR ALL INSTALLATIONS.

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
STANDARD CONCRETE & METAL PIPE CULVERTS SHEET 3 OF 3 (FILL HEIGHTS FOR SPIRAL RIB METAL PIPE & FOR PIPE ARCH)	
NO SCALE	SEPT., 2001
BY: DESIGNED _____ (SUBMITTED) TRACED _____ (STATE ROAD) CHECKED _____ (APPROVED) REVISED _____	NUMBER 1030D

TABLE NO. 2 (PIPE-ARCH)
TABLE SHOWING MINIMUM THICKNESS IN INCHES OF CORRUGATED STEEL AND CORRUGATED ALUMINUM PIPE-ARCH AND MAXIMUM HEIGHTS OF FILL IN FEET ABOVE THE TOP OF THE PIPE-ARCH.

DIAMETER OF PIPE OF EQUAL PERIPHERY (INCHES)	NOM. MIN. SPAN (INCH)	NOM. MIN. RISE (INCH)	MIN. THICKNESS (INCHES)		COR. ALUMINUM	MIN. COVER (INCHES)	MAX. HT. OF FILL (FEET)
			COR. STEEL	COR. ALUMINUM			
15	17	13	.064		.060	18	13
18	21	15	.064		.060	18	15
21	24	18	.064		.060	18	12
24	28	20	.064		.060	18	14
30	35	24	.064		.075	18	10
36	42	29	.064		.075	18	9
42	49	33	.079	.075	.105	18	7
48	46	36	.079	.075	.105	18	12
	57	38	.109	.075	.135	18	7
54	53	41	.109	.075	.135	18	12
	64	43	.135	.075	.164	18	7
60	60	46	.138	.075	.164	18	12
	71	47	.168	.075	.164	18	7
66	77	51	.168	.075	.164	18	15
	83	57	.168	.075	.164	18	8
72	81	59	.168	.075	.164	18	15
78	87	63	.168	.075	.164	18	14
84	95	67	.168	.075	.164	18	12
90	103	71	.168	.075	.164	18	11

NOTE FOR TABLE NO. 2. ALTERNATE SPAN-RISE COMBINATIONS FOR PIPE-ARCHES HAVING EQUAL PERIPHERY TO THAT SHOWN, MAY BE SUBSTITUTED IF LISTED IN AASHTO SPECIFICATION.