



**CAST-IN-PLACE HW FOR CORRUGATED METAL PIPE & PLASTIC PIPE (English)**

CIRCULAR					PIPE ARCH					PIPE ARCH					
D	#	T	CONC.	SPAN	RISE	#	H	T	CONC.	SPAN	RISE	#	H	T	CONC.
12"	2'-0"	3'-0"	12"	0.21	17'	13'	3'-0"	3'-0"	0.31	41'	33'	13'-0"	5'-5"	15'	2.14
15"	2'-6"	3'-6"	12"	0.27	17'	13'	3'-0"	3'-0"	0.31	41'	33'	13'-0"	5'-5"	17'	2.50
18"	3'-0"	3'-3"	12"	0.33	21'	15'	3'-6"	3'-0"	0.35	55'	37'	14'-0"	5'-9"	20'	3.14
21"	3'-6"	3'-4"	12"	0.39	24'	18'	4'-0"	3'-0"	0.43	63'	37'	15'-0"	5'-9"	22'	3.54
24"	4'-0"	3'-6"	12"	0.46	28'	20'	4'-6"	3'-3"	0.48	68'	37'	15'-0"	6'-1"	24'	3.88
27"	4'-6"	3'-9"	12"	0.53	32'	24'	5'-0"	3'-0"	0.56	75'	37'	16'-0"	6'-1"	26'	4.28
30"	5'-0"	3'-9"	12"	0.60	36'	28'	5'-6"	3'-0"	0.61	81'	37'	16'-0"	6'-5"	28'	5.01
33"	5'-6"	3'-10"	12"	0.68	40'	32'	6'-0"	3'-0"	0.68	87'	37'	16'-0"	6'-7"	30'	5.45
36"	6'-0"	4'-0"	12"	0.76	44'	36'	6'-6"	3'-0"	0.76	93'	37'	16'-0"	6'-7"	32'	6.31
39"	6'-6"	4'-2"	12"	0.84	48'	40'	7'-0"	3'-0"	0.84	99'	37'	16'-0"	6'-7"	34'	7.14
42"	7'-0"	4'-3"	12"	0.92	52'	44'	7'-6"	3'-0"	0.92	105'	37'	16'-0"	6'-7"	36'	8.01
45"	7'-6"	4'-5"	12"	1.00	56'	48'	8'-0"	3'-0"	1.00	111'	37'	16'-0"	6'-7"	38'	8.92
48"	8'-0"	4'-6"	12"	1.08	60'	52'	8'-6"	3'-0"	1.08	117'	37'	16'-0"	6'-7"	40'	9.86
51"	8'-6"	4'-8"	12"	1.17	64'	56'	9'-0"	3'-0"	1.17	123'	37'	16'-0"	6'-7"	42'	10.83
54"	9'-0"	4'-9"	12"	1.25	68'	60'	9'-6"	3'-0"	1.25	129'	37'	16'-0"	6'-7"	44'	11.83
57"	9'-6"	5'-1"	12"	1.34	72'	64'	10'-0"	3'-0"	1.34	135'	37'	16'-0"	6'-7"	46'	12.84
60"	10'-0"	5'-2"	12"	1.43	76'	68'	10'-6"	3'-0"	1.43	141'	37'	16'-0"	6'-7"	48'	13.88
63"	10'-6"	5'-4"	12"	1.52	80'	72'	11'-0"	3'-0"	1.52	147'	37'	16'-0"	6'-7"	50'	14.94
66"	11'-0"	5'-5"	12"	1.61	84'	76'	11'-6"	3'-0"	1.61	153'	37'	16'-0"	6'-7"	52'	16.02
69"	11'-6"	5'-7"	12"	1.70	88'	80'	12'-0"	3'-0"	1.70	159'	37'	16'-0"	6'-7"	54'	17.14
72"	12'-0"	5'-8"	12"	1.79	92'	84'	12'-6"	3'-0"	1.79	165'	37'	16'-0"	6'-7"	56'	18.28
75"	12'-6"	5'-10"	12"	1.89	96'	88'	13'-0"	3'-0"	1.89	171'	37'	16'-0"	6'-7"	58'	19.44
78"	13'-0"	6'-0"	12"	1.99	100'	92'	13'-6"	3'-0"	1.99	177'	37'	16'-0"	6'-7"	60'	20.62
81"	13'-6"	6'-2"	12"	2.09	104'	96'	14'-0"	3'-0"	2.09	183'	37'	16'-0"	6'-7"	62'	21.83
84"	14'-0"	6'-3"	12"	2.19	108'	100'	14'-6"	3'-0"	2.19	189'	37'	16'-0"	6'-7"	64'	23.07
87"	14'-6"	6'-5"	12"	2.30	112'	104'	15'-0"	3'-0"	2.30	195'	37'	16'-0"	6'-7"	66'	24.34
90"	15'-0"	6'-6"	12"	2.40	116'	108'	15'-6"	3'-0"	2.40	201'	37'	16'-0"	6'-7"	68'	25.64
93"	15'-6"	6'-8"	12"	2.51	120'	112'	16'-0"	3'-0"	2.51	207'	37'	16'-0"	6'-7"	70'	26.97
96"	16'-0"	6'-9"	12"	2.62	124'	116'	16'-6"	3'-0"	2.62	213'	37'	16'-0"	6'-7"	72'	28.33
99"	16'-6"	7'-0"	12"	2.73	128'	120'	17'-0"	3'-0"	2.73	219'	37'	16'-0"	6'-7"	74'	29.72
102"	17'-0"	7'-1"	12"	2.84	132'	124'	17'-6"	3'-0"	2.84	225'	37'	16'-0"	6'-7"	76'	31.14
105"	17'-6"	7'-3"	12"	2.95	136'	128'	18'-0"	3'-0"	2.95	231'	37'	16'-0"	6'-7"	78'	32.58
108"	18'-0"	7'-4"	12"	3.07	140'	132'	18'-6"	3'-0"	3.07	237'	37'	16'-0"	6'-7"	80'	34.05
111"	18'-6"	7'-6"	12"	3.19	144'	136'	19'-0"	3'-0"	3.19	243'	37'	16'-0"	6'-7"	82'	35.54
114"	19'-0"	7'-7"	12"	3.31	148'	140'	19'-6"	3'-0"	3.31	249'	37'	16'-0"	6'-7"	84'	37.06
117"	19'-6"	7'-9"	12"	3.44	152'	144'	20'-0"	3'-0"	3.44	255'	37'	16'-0"	6'-7"	86'	38.60
120"	20'-0"	7'-10"	12"	3.57	156'	148'	20'-6"	3'-0"	3.57	261'	37'	16'-0"	6'-7"	88'	40.17
123"	20'-6"	8'-0"	12"	3.70	160'	152'	21'-0"	3'-0"	3.70	267'	37'	16'-0"	6'-7"	90'	41.76
126"	21'-0"	8'-1"	12"	3.84	164'	156'	21'-6"	3'-0"	3.84	273'	37'	16'-0"	6'-7"	92'	43.38
129"	21'-6"	8'-3"	12"	3.98	168'	160'	22'-0"	3'-0"	3.98	279'	37'	16'-0"	6'-7"	94'	45.02
132"	22'-0"	8'-4"	12"	4.12	172'	164'	22'-6"	3'-0"	4.12	285'	37'	16'-0"	6'-7"	96'	46.69
135"	22'-6"	8'-6"	12"	4.27	176'	168'	23'-0"	3'-0"	4.27	291'	37'	16'-0"	6'-7"	98'	48.38
138"	23'-0"	8'-7"	12"	4.42	180'	172'	23'-6"	3'-0"	4.42	297'	37'	16'-0"	6'-7"	100'	50.09
141"	23'-6"	8'-9"	12"	4.57	184'	176'	24'-0"	3'-0"	4.57	303'	37'	16'-0"	6'-7"	102'	51.82
144"	24'-0"	9'-0"	12"	4.72	188'	180'	24'-6"	3'-0"	4.72	309'	37'	16'-0"	6'-7"	104'	53.57
147"	24'-6"	9'-2"	12"	4.88	192'	184'	25'-0"	3'-0"	4.88	315'	37'	16'-0"	6'-7"	106'	55.34
150"	25'-0"	9'-3"	12"	5.04	196'	188'	25'-6"	3'-0"	5.04	321'	37'	16'-0"	6'-7"	108'	57.14
153"	25'-6"	9'-5"	12"	5.20	200'	192'	26'-0"	3'-0"	5.20	327'	37'	16'-0"	6'-7"	110'	58.96
156"	26'-0"	9'-6"	12"	5.37	204'	196'	26'-6"	3'-0"	5.37	333'	37'	16'-0"	6'-7"	112'	60.81
159"	26'-6"	9'-8"	12"	5.54	208'	200'	27'-0"	3'-0"	5.54	339'	37'	16'-0"	6'-7"	114'	62.68
162"	27'-0"	10'-0"	12"	5.71	212'	204'	27'-6"	3'-0"	5.71	345'	37'	16'-0"	6'-7"	116'	64.57
165"	27'-6"	10'-2"	12"	5.89	216'	208'	28'-0"	3'-0"	5.89	351'	37'	16'-0"	6'-7"	118'	66.49
168"	28'-0"	10'-3"	12"	6.07	220'	212'	28'-6"	3'-0"	6.07	357'	37'	16'-0"	6'-7"	120'	68.43
171"	28'-6"	10'-5"	12"	6.25	224'	216'	29'-0"	3'-0"	6.25	363'	37'	16'-0"	6'-7"	122'	70.39
174"	29'-0"	10'-6"	12"	6.44	228'	220'	29'-6"	3'-0"	6.44	369'	37'	16'-0"	6'-7"	124'	72.38
177"	29'-6"	10'-8"	12"	6.63	232'	224'	30'-0"	3'-0"	6.63	375'	37'	16'-0"	6'-7"	126'	74.39
180"	30'-0"	10'-9"	12"	6.83	236'	228'	30'-6"	3'-0"	6.83	381'	37'	16'-0"	6'-7"	128'	76.43
183"	30'-6"	11'-0"	12"	7.03	240'	232'	31'-0"	3'-0"	7.03	387'	37'	16'-0"	6'-7"	130'	78.49
186"	31'-0"	11'-1"	12"	7.23	244'	236'	31'-6"	3'-0"	7.23	393'	37'	16'-0"	6'-7"	132'	80.58
189"	31'-6"	11'-3"	12"	7.43	248'	240'	32'-0"	3'-0"	7.43	399'	37'	16'-0"	6'-7"	134'	82.68
192"	32'-0"	11'-4"	12"	7.64	252'	244'	32'-6"	3'-0"	7.64	405'	37'	16'-0"	6'-7"	136'	84.81
195"	32'-6"	11'-6"	12"	7.85	256'	248'	33'-0"	3'-0"	7.85	411'	37'	16'-0"	6'-7"	138'	86.96
198"	33'-0"	11'-7"	12"	8.07	260'	252'	33'-6"	3'-0"	8.07	417'	37'	16'-0"	6'-7"	140'	89.14
201"	33'-6"	11'-9"	12"	8.29	264'	256'	34'-0"	3'-0"	8.29	423'	37'	16'-0"	6'-7"	142'	91.34
204"	34'-0"	11'-10"	12"	8.51	268'	260'	34'-6"	3'-0"	8.51	429'	37'	16'-0"	6'-7"	144'	93.57
207"	34'-6"	12'-0"	12"	8.74	272'	264'	35'-0"	3'-0"	8.74	435'	37'	16'-0"	6'-7"	146'	95.82
210"	35'-0"	12'-1"	12"	8.97	276'	268'	35'-6"	3'-0"	8.97	441'	37'	16'-0"	6'-7"	148'	98.09
213"	35'-6"	12'-3"	12"	9.21	280'	272'	36'-0"	3'-0"	9.21	447'	37'	16'-0"	6'-7"	150'	100.39
216"	36'-0"	12'-4"	12"	9.45	284'	276'	36'-6"	3'-0"	9.45	453'	37'	16'-0"	6'-7"	152'	102.71
219"	36'-6"	12'-6"	12"	9.69	288'	280'	37'-0"	3'-0"	9.69	459'	37'	16'-0"	6'-7"	154'	105.06
222"	37'-0"	12'-7"	12"	9.94	292'	284'	37'-6"	3'-0"	9.94	465'	37'	16'-0"	6'-7"	156'	107.43
225"	37'-6"	12'-9"	12"	10.19	296'	288'	38'-0"	3'-0"	10.19	471'	37'	16'-0"	6'-7"	158'	109.83
228"	38'-0"	12'-10"	12"	10.45	300'	292'	38'-6"	3'-0"	10.45	477'	37'	16'-0"	6'-7"	160'	112.25
231"	38'-6"	12'-11"	12"	10.71	304'	296'	39'-0"	3'-0"	10.71	483'	37'	16'-0"	6'-7"	162'	114.69
234"	39'-0"	13'-0"	12"	10.98	308'	300'	39'-6"	3'-0"	10.98	489'	37'	16'-0"	6'-7"	164'	117.16
237"	39'-6"	13'-1"	12"	11.25	312'	304'	40'-0"	3'-0"	11.25	495'	37'	16'-0"	6'-7"	166'	119.65
240"	40'-0"	13'-2"	12"	11.53	316'	308'	40'-6"								