



Dimensions			Drilling Template			Thickness
NPS	OD	ID ‡	# of Holes	BC	Bolt Diam.†	T
4	9.00	4.57	8	7.50	0.625	0.625
5	10.00	5.66	8	8.50	0.750	0.625
6	11.00	6.72	8	9.50	0.750	0.688
8	13.50	8.72	8	11.75	0.750	0.688
10	16.00	10.88	12	14.25	0.875	0.688
12	19.00	12.88	12	17.00	0.875	0.812
14	21.00	14.19	12	18.75	1.000	0.938
16	23.50	16.19	16	21.25	1.000	1.000
18	25.00	18.19	16	22.75	1.125	1.062
20	27.50	20.19	20	25.00	1.125	1.125
22	29.50	22.19	20	27.25	1.250	1.188
24	32.00	24.19	20	29.50	1.250	1.250
26	34.25	-	24	31.75	1.250	1.312
28	36.50	-	28	34.00	1.250	1.312
30	38.75	-	28	36.00	1.250	1.375
32	41.75	-	28	38.50	1.500	1.500
34	43.75	-	32	40.50	1.500	1.500
36	46.00	-	32	42.75	1.500	1.625
38	48.75	-	32	45.25	1.500	1.625
40	50.75	-	36	47.25	1.500	1.625
42	53.00	-	36	49.50	1.500	1.750
44	55.25	-	40	51.75	1.500	1.750
46	57.25	-	40	53.75	1.500	1.750
48	59.50	-	44	56.00	1.500	1.875
50	61.75	-	44	58.25	1.750	2.000
52	64.00	-	44	60.50	1.750	2.000
54	66.25	-	44	62.75	1.750	2.125
60	73.00	-	52	69.25	1.750	2.250
66	80.00	-	52	76.00	1.750	2.500
72	86.50	-	60	82.50	1.750	2.625
78	93.00	-	64	89.00	2.000	2.750
84	99.75	-	64	95.50	2.000	2.875
90	106.50	-	68	102.00	2.250	3.000
96	113.25	-	68	108.50	2.250	3.250
102	120.00	-	72	114.50	2.500	3.250
108	126.75	-	72	120.75	2.500	3.375
114	133.50	-	76	126.75	2.750	3.500
120	140.25	-	76	132.75	2.750	3.500
126	147.00	-	80	139.25	3.000	3.750
132	153.75	-	80	145.75	3.000	3.875
144	167.25	-	84	158.25	3.250	4.125