



ENLARGED VIEW OF SECTION A-A

PART NO.	NOMINAL			ACTUAL SIZE			PART NO.	NOMINAL			ACTUAL SIZE		
	W	ID	OD	W	ID	OD		W	ID	OD	W	ID	OD
1	1/16	1/8	3/4	.070 ±.003	.114 ±.002		46	3/16	3/4	4-1/8	.290 ±.003	3.722 ±.013	
2	1/16	3/32	9/32	.070 ±.003	.142 ±.003		47	3/16	7/8	4-1/4	.290 ±.003	3.850 ±.013	
3	1/16	3/16	1/2	.070 ±.003	.176 ±.003		48	3/16	1	4-3/8	.290 ±.003	3.975 ±.013	
4	1/16	7/32	11/32	.070 ±.003	.208 ±.003		49	3/16	1-1/8	4-1/2	.290 ±.003	4.100 ±.013	
5	1/16	1/4	3/4	.070 ±.003	.242 ±.003		50	3/16	1-1/4	4-5/8	.290 ±.003	4.225 ±.013	
6	1/16	5/16	7/8	.070 ±.003	.276 ±.003		51	3/16	1-3/8	4-3/4	.290 ±.003	4.350 ±.013	
7	1/16	3/8	1	.070 ±.003	.310 ±.003		52	3/16	1-1/2	4-7/8	.290 ±.003	4.475 ±.013	
8	3/32	1/2	1-1/8	.102 ±.003	.344 ±.003		53	1/4	1-5/8	5-1/8	.275 ±.006	4.600 ±.013	
9	1/2	7/8	1-3/4	.192 ±.003	.478 ±.003		54	1/4	2	5-1/4	.275 ±.006	4.725 ±.013	
10	3/4	1	2	.192 ±.003	.512 ±.003		55	1/4	2-1/4	5-3/4	.275 ±.006	4.850 ±.013	
11	1	1-1/8	2-1/2	.192 ±.003	.546 ±.003		56	1/4	2-1/2	5-7/8	.275 ±.006	4.975 ±.013	
12	1-1/8	1-1/4	3	.192 ±.003	.580 ±.003		57	1/4	2-3/4	6-1/8	.275 ±.006	5.100 ±.013	
13	1-1/4	1-1/2	3-1/8	.192 ±.003	.614 ±.003		58	1/4	2-5/8	6-1/4	.275 ±.006	5.225 ±.013	
14	1-1/2	1-3/4	3-1/2	.192 ±.003	.648 ±.003		59	1/4	2-7/8	6-3/8	.275 ±.006	5.350 ±.013	
15	1-3/4	2	4	.192 ±.003	.682 ±.003		60	1/4	3	6-1/2	.275 ±.006	5.475 ±.013	
16	2	2-1/8	4-1/4	.192 ±.003	.716 ±.003		61	1/4	3-1/8	6-5/8	.275 ±.006	5.600 ±.013	
17	2-1/8	2-1/4	4-3/4	.192 ±.003	.750 ±.003		62	1/4	3-1/4	6-3/4	.275 ±.006	5.725 ±.013	
18	2-1/4	2-3/8	5	.192 ±.003	.784 ±.003		63	1/4	3-3/8	6-7/8	.275 ±.006	5.850 ±.013	
19	2-3/8	2-1/2	5-1/4	.192 ±.003	.818 ±.003		64	1/4	3-5/8	6-1/2	.275 ±.006	5.975 ±.013	
20	2-1/2	2-5/8	5-3/4	.192 ±.003	.852 ±.003		65	1/4	3-7/8	6-3/4	.275 ±.006	6.100 ±.013	
21	2-5/8	3	6	.192 ±.003	.886 ±.003		66	1/4	4	6-1/2	.275 ±.006	6.225 ±.013	
22	3	3-1/8	6-1/4	.192 ±.003	.920 ±.003		67	1/4	4-1/8	6-5/8	.275 ±.006	6.350 ±.013	
23	3-1/8	3-1/4	6-3/4	.192 ±.003	.954 ±.003		68	1/4	4-1/4	6-3/4	.275 ±.006	6.475 ±.013	
24	3-1/4	3-3/8	7	.192 ±.003	.988 ±.003		69	1/4	4-3/8	6-7/8	.275 ±.006	6.600 ±.013	
25	3-3/8	3-1/2	7-1/8	.192 ±.003	1.022 ±.003		70	1/4	4-1/2	6-1/2	.275 ±.006	6.725 ±.013	
26	3-1/2	3-5/8	7-3/4	.192 ±.003	1.056 ±.003		71	1/4	4-5/8	6-3/4	.275 ±.006	6.850 ±.013	
27	3-5/8	4	8	.192 ±.003	1.090 ±.003		72	1/4	4-3/4	6-1/2	.275 ±.006	6.975 ±.013	
28	4	4-1/8	8-1/4	.192 ±.003	1.124 ±.003		73	1/4	4-7/8	6-5/8	.275 ±.006	7.100 ±.013	
29	4-1/8	4-1/4	8-3/8	.192 ±.003	1.158 ±.003		74	1/4	5	6-1/2	.275 ±.006	7.225 ±.013	
30	4-1/4	4-3/8	8-1/2	.192 ±.003	1.192 ±.003		75	1/4	5-1/8	6-3/4	.275 ±.006	7.350 ±.013	
31	4-3/8	4-1/2	8-3/4	.192 ±.003	1.226 ±.003		76	1/4	5-1/4	6-1/2	.275 ±.006	7.475 ±.013	
32	4-1/2	4-5/8	9	.192 ±.003	1.260 ±.003		77	1/4	5-3/8	6-5/8	.275 ±.006	7.600 ±.013	
33	4-5/8	4-3/4	9-1/4	.192 ±.003	1.294 ±.003		78	1/4	5-1/2	6-3/4	.275 ±.006	7.725 ±.013	
34	4-3/4	4-7/8	9-3/8	.192 ±.003	1.328 ±.003		79	1/4	5-5/8	6-1/2	.275 ±.006	7.850 ±.013	
35	4-7/8	5	9-1/2	.192 ±.003	1.362 ±.003		80	1/4	5-7/8	6-5/8	.275 ±.006	7.975 ±.013	
36	5	5-1/8	10	.192 ±.003	1.396 ±.003		81	1/4	6	6-1/2	.275 ±.006	8.100 ±.013	
37	5-1/8	5-1/4	10-1/4	.192 ±.003	1.430 ±.003		82	1/4	6-1/8	6-3/4	.275 ±.006	8.225 ±.013	
38	5-1/4	5-3/8	10-3/8	.192 ±.003	1.464 ±.003		83	1/4	6-1/4	6-1/2	.275 ±.006	8.350 ±.013	
39	5-3/8	5-1/2	10-1/2	.192 ±.003	1.498 ±.003		84	1/4	6-3/8	6-5/8	.275 ±.006	8.475 ±.013	
40	5-1/2	5-5/8	10-3/4	.192 ±.003	1.532 ±.003		85	1/4	6-1/2	6-1/2	.275 ±.006	8.600 ±.013	
41	5-5/8	5-3/4	11	.192 ±.003	1.566 ±.003		86	1/4	6-5/8	6-3/4	.275 ±.006	8.725 ±.013	
42	5-3/4	5-7/8	11-1/4	.192 ±.003	1.600 ±.003		87	1/4	6-3/4	6-1/2	.275 ±.006	8.850 ±.013	
43	5-7/8	6	11-3/8	.192 ±.003	1.634 ±.003		88	1/4	6-7/8	6-5/8	.275 ±.006	8.975 ±.013	
44	6	6-1/8	11-1/2	.192 ±.003	1.668 ±.003		89	1/4	7	6-1/2	.275 ±.006	9.100 ±.013	
45	6-1/8	6-1/4	11-3/4	.192 ±.003	1.702 ±.003		90	1/4	7-1/8	6-3/4	.275 ±.006	9.225 ±.013	
46	6-1/4	6-3/8	12	.192 ±.003	1.736 ±.003		91	1/4	7-1/4	6-1/2	.275 ±.006	9.350 ±.013	
47	6-3/8	6-1/2	12-1/4	.192 ±.003	1.770 ±.003		92	1/4	7-3/8	6-5/8	.275 ±.006	9.475 ±.013	
48	6-1/2	6-5/8	12-3/8	.192 ±.003	1.804 ±.003		93	1/4	7-1/2	6-1/2	.275 ±.006	9.600 ±.013	
49	6-5/8	6-3/4	12-1/2	.192 ±.003	1.838 ±.003		94	1/4	7-5/8	6-3/4	.275 ±.006	9.725 ±.013	
50	6-3/4	6-7/8	13	.192 ±.003	1.872 ±.003		95	1/4	7-3/4	6-1/2	.275 ±.006	9.850 ±.013	
51	6-7/8	7	13-1/4	.192 ±.003	1.906 ±.003		96	1/4	7-7/8	6-5/8	.275 ±.006	9.975 ±.013	
52	7	7-1/8	13-3/8	.192 ±.003	1.940 ±.003		97	1/4	8	6-1/2	.275 ±.006	10.100 ±.013	
53	7-1/8	7-1/4	13-1/2	.192 ±.003	1.974 ±.003		98	1/4	8-1/8	6-3/4	.275 ±.006	10.225 ±.013	
54	7-1/4	7-3/8	14	.192 ±.003	2.008 ±.003		99	1/4	8-1/4	6-1/2	.275 ±.006	10.350 ±.013	
55	7-3/8	7-1/2	14-1/4	.192 ±.003	2.042 ±.003		100	1/4	8-3/8	6-5/8	.275 ±.006	10.475 ±.013	
56	7-1/2	7-5/8	14-3/8	.192 ±.003	2.076 ±.003		101	1/4	8-1/2	6-1/2	.275 ±.006	10.600 ±.013	
57	7-5/8	7-3/4	14-1/2	.192 ±.003	2.110 ±.003		102	1/4	8-5/8	6-3/4	.275 ±.006	10.725 ±.013	
58	7-3/4	7-7/8	15	.192 ±.003	2.144 ±.003		103	1/4	8-3/4	6-1/2	.275 ±.006	10.850 ±.013	
59	7-7/8	8	15-1/4	.192 ±.003	2.178 ±.003		104	1/4	8-7/8	6-5/8	.275 ±.006	10.975 ±.013	
60	8	8-1/8	15-3/8	.192 ±.003	2.212 ±.003		105	1/4	9	6-1/2	.275 ±.006	11.100 ±.013	
61	8-1/8	8-1/4	15-1/2	.192 ±.003	2.246 ±.003		106	1/4	9-1/8	6-3/4	.275 ±.006	11.225 ±.013	
62	8-1/4	8-3/8	16	.192 ±.003	2.280 ±.003		107	1/4	9-1/4	6-1/2	.275 ±.006	11.350 ±.013	
63	8-3/8	8-1/2	16-1/4	.192 ±.003	2.314 ±.003		108	1/4	9-3/8	6-5/8	.275 ±.006	11.475 ±.013	
64	8-1/2	8-5/8	16-3/8	.192 ±.003	2.348 ±.003		109	1/4	9-1/2	6-1/2	.275 ±.006	11.600 ±.013	
65	8-5/8	8-3/4	16-1/2	.192 ±.003	2.382 ±.003		110	1/4	9-5/8	6-3/4	.275 ±.006	11.725 ±.013	
66	8-3/4	8-7/8	17	.192 ±.003	2.416 ±.003		111	1/4	9-3/4	6-1/2	.275 ±.006	11.850 ±.013	
67	8-7/8	9	17-1/4	.192 ±.003	2.450 ±.003		112	1/4	9-7/8	6-5/8	.275 ±.006	11.975 ±.013	
68	9	9-1/8	17-3/8	.192 ±.003	2.484 ±.003		113	1/4	10	6-1/2	.275 ±.006	12.100 ±.013	
69	9-1/8	9-1/4	17-1/2	.192 ±.003	2.518 ±.003		114	1/4	10-1/8	6-3/4	.275 ±.006	12.225 ±.013	
70	9-1/4	9-3/8	18	.192 ±.003	2.552 ±.003		115	1/4	10-1/4	6-1/2	.275 ±.006	12.350 ±.013	
71	9-3/8	9-1/2	18-1/4	.192 ±.003	2.586 ±.003		116	1/4	10-3/8	6-5/8	.275 ±.006	12.475 ±.013	
72	9-1/2	9-5/8	18-3/8	.192 ±.003	2.620 ±.003		117	1/4	10-1/2	6-1/2	.275 ±.006	12.600 ±.013	
73	9-5/8	9-3/4	18-1/2	.192 ±.003	2.654 ±.003		118	1/4	10-5/8	6-3/4	.275 ±.006	12.725 ±.013	
74	9-3/4	9-7/8	19	.192 ±.003	2.688 ±.003		119	1/4	10-3/4	6-1/2	.275 ±.006	12.850 ±.013	
75	9-7/8	10	19-1/4	.192 ±.003	2.722 ±.003		120	1/4	11	6-5/8	.275 ±.006	12.975 ±.013	
76	10	10-1/8	19-3/8	.192 ±.003	2.756 ±.003		121	1/4	11-1/8	6-1/2	.275 ±.006	13.100 ±.013	
77	10-1/8	10-1/4	19-1/2	.192 ±.003	2.790 ±.003		122	1/4	11-1/4	6-3/4	.275 ±.006	13.225 ±.013	
78	10-1/4	10-3/8	20	.192 ±.003	2.824 ±.003		123	1/4	11-3/8	6-1/2	.275 ±.006	13.350 ±.013	
79	10-3/8	10-1/2	20-1/4	.192 ±.003	2.858 ±.003		124	1/4	11-1/2	6-5/8	.275 ±.006	13.475 ±.013	
80	10-1/2	10-5/8	20-3/8	.192 ±.003	2.892 ±.003		125	1/4	11-5/8	6-1/2	.275 ±.006	13.600 ±.013	
81	10-5/8	10-3/4	20-1/2	.192 ±.003	2.926 ±.003		126	1/4	11-3/4	6-3/4	.275 ±.006	13.725 ±.013	
82	10-3/4	10-7/8	21	.192 ±.003	2.960 ±.003		127	1/4	12	6-1/2	.275 ±.006	13.850 ±.013	
83	10-7/8	11	21-1/4	.192 ±.003	2.994 ±.003		128	1/4	12-1/8	6-3/4	.275 ±.006	13.975 ±.013	
84	11	11-1/8	21-3/8	.192 ±.003	3.028 ±.003		129	1/4	12-1/4	6-1/2	.275 ±.006	14.100 ±.013	
85	11-1/8	11-1/4	21-1/2	.192 ±.003	3.062 ±.003		130	1/4	12-3/8	6-5/8	.275 ±.006	14.225 ±.013	
86	11-1/4	11-3/8	22	.192 ±.003	3.096 ±.003		131	1/4	12-1/2	6-1/2	.275 ±.006	14.350 ±.013	
87	11-3/8	11-1/2	22-1/4	.192 ±.003	3.130 ±.003		132	1/4	12-5/8	6-3/4	.275 ±.006	14.475 ±.013	
88	11-1/2	11-5/8	22-3/8	.192 ±.003	3.164 ±.003		133	1/4	12-3/4	6-1/2	.275 ±.006	14.600 ±.013	
89	11-5/8	11-3/4	22-1/2	.192 ±.003	3.198 ±.003		134						