

PFEIFER INDUSTRIES, LLC.

2180 Corporate Lane, Suite 104 ~ Naperville, IL 60563 USA

Phone (630) 596-9000 Fax (630) 596-9002

E-mail: info@pfeiferindustries.com Web site: www.pfeiferindustries.com

8mm PITCH - POLYCHAIN GT / GT2 / CARBON

Pitch Diameter (PD) Calculation

$$PD = (\text{Pitch} \times \text{Number of Teeth}) / \pi$$

Variables:

Pitch 8 mm
 Number of teeth 22 Teeth
 Pi (π) 3.14159265 Pi

Result:

PD (Pitch Diameter) = 2.206 inches

Outside Diameter (O.D.) Calculation

$$O.D. = [(\text{Pitch} \times \text{Number of Teeth}) / \pi] - (2 \times \text{Distance from belt pitch line to belt tooth bottom})$$

Variables:

Pitch 8 mm
 Number of teeth 22 Teeth
 Pi (π) 3.14159265 Pi
 Distance from belt pitch line to belt tooth bottom 0.0315 inches

Result:

O.D. (Outside Diameter) 2.143 inches

Number of Teeth	Inches (in)		Metric (mm)	
	Pitch Diameter (PD)	Outside Diameter (O.D.)	Pitch Diameter (PD)	Outside Diameter (O.D.)
14	1.404	1.341	35.651	34.05
15	1.504	1.441	38.197	36.60
16	1.604	1.541	40.744	39.14
17	1.704	1.641	43.290	41.69
18	1.805	1.742	45.84	44.24
19	1.905	1.842	48.38	46.78
20	2.005	1.942	50.93	49.33
21	2.105	2.042	53.48	51.88
22	2.206	2.143	56.02	54.42
23	2.306	2.243	58.57	56.97
24	2.406	2.343	61.12	59.52
25	2.506	2.443	63.66	62.06
26	2.607	2.544	66.21	64.61
27	2.707	2.644	68.75	67.15
28	2.807	2.744	71.30	69.70
29	2.907	2.844	73.85	72.25
30	3.008	2.945	76.39	74.79
31	3.108	3.045	78.94	77.34
32	3.208	3.145	81.49	79.89
33	3.308	3.245	84.03	82.43
34	3.409	3.346	86.58	84.98
35	3.509	3.446	89.13	87.53
36	3.609	3.546	91.67	90.07
37	3.709	3.646	94.22	92.62
38	3.810	3.747	96.77	95.17
39	3.910	3.847	99.31	97.71
40	4.010	3.947	101.86	100.26
41	4.110	4.047	104.41	102.81
42	4.211	4.148	106.95	105.35
43	4.311	4.248	109.50	107.90
44	4.411	4.348	112.05	110.44
45	4.511	4.448	114.59	112.99
46	4.612	4.549	117.14	115.54
47	4.712	4.649	119.68	118.08
48	4.812	4.749	122.23	120.63
49	4.912	4.849	124.78	123.18

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50	5.013	4.950	127.32	125.72
51	5.113	5.050	129.87	128.27
52	5.213	5.150	132.42	130.82
53	5.313	5.250	134.96	133.36
54	5.414	5.351	137.51	135.91
55	5.514	5.451	140.06	138.46
56	5.614	5.551	142.60	141.00
57	5.715	5.652	145.15	143.55
58	5.815	5.752	147.70	146.10
59	5.915	5.852	150.24	148.64
60	6.015	5.952	152.79	151.19
61	6.116	6.053	155.34	153.74
62	6.216	6.153	157.88	156.28
63	6.316	6.253	160.43	158.83
64	6.416	6.353	162.97	161.37
65	6.517	6.454	165.52	163.92
66	6.617	6.554	168.07	166.47
67	6.717	6.654	170.61	169.01
68	6.817	6.754	173.16	171.56
69	6.918	6.855	175.71	174.11
70	7.018	6.955	178.25	176.65
71	7.118	7.055	180.80	179.20
72	7.218	7.155	183.35	181.75
73	7.319	7.256	185.89	184.29
74	7.419	7.356	188.44	186.84
75	7.519	7.456	190.99	189.39
76	7.619	7.556	193.53	191.93
77	7.720	7.657	196.08	194.48
78	7.820	7.757	198.63	197.03
79	7.920	7.857	201.17	199.57
80	8.020	7.957	203.72	202.12
81	8.121	8.058	206.26	204.66
82	8.221	8.158	208.81	207.21
83	8.321	8.258	211.36	209.76
84	8.421	8.358	213.90	212.30
85	8.522	8.459	216.45	214.85

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Number of Teeth	Inches (in)		Metric (mm)	
	Pitch Diameter (PD)	Outside Diameter (O.D.)	Pitch Diameter (PD)	Outside Diameter (O.D.)
86	8.622	8.559	219.00	217.40
87	8.722	8.659	221.54	219.94
88	8.822	8.759	224.09	222.49
89	8.923	8.860	226.64	225.04
90	9.023	8.960	229.18	227.58
91	9.123	9.060	231.73	230.13
92	9.223	9.160	234.28	232.68
93	9.324	9.261	236.82	235.22
94	9.424	9.361	239.37	237.77
95	9.524	9.461	241.92	240.32
96	9.624	9.561	244.46	242.86
97	9.725	9.662	247.01	245.41
98	9.825	9.762	249.55	247.95
99	9.925	9.862	252.10	250.50
100	10.025	9.962	254.65	253.05
101	10.126	10.063	257.19	255.59
102	10.226	10.163	259.74	258.14
103	10.326	10.263	262.29	260.69
104	10.426	10.363	264.83	263.23
105	10.527	10.464	267.38	265.78
106	10.627	10.564	269.93	268.33
107	10.727	10.664	272.47	270.87
108	10.828	10.765	275.02	273.42
109	10.928	10.865	277.57	275.97
110	11.028	10.965	280.11	278.51
111	11.128	11.065	282.66	281.06
112	11.229	11.166	285.21	283.61
113	11.329	11.266	287.75	286.15
114	11.429	11.366	290.30	288.70
115	11.529	11.466	292.85	291.24
116	11.630	11.567	295.39	293.79
117	11.730	11.667	297.94	296.34
118	11.830	11.767	300.48	298.88
119	11.930	11.867	303.03	301.43
120	12.031	11.968	305.58	303.98
121	12.131	12.068	308.12	306.52

Number of Teeth	Inches (in)		Metric (mm)	
	Pitch Diameter (PD)	Outside Diameter (O.D.)	Pitch Diameter (PD)	Outside Diameter (O.D.)
122	12.231	12.168	310.67	309.07
123	12.331	12.268	313.22	311.62
124	12.432	12.369	315.76	314.16
125	12.532	12.469	318.31	316.71
126	12.632	12.569	320.86	319.26
127	12.732	12.669	323.40	321.80
128	12.833	12.770	325.95	324.35
129	12.933	12.870	328.50	326.90
130	13.033	12.970	331.04	329.44
131	13.133	13.070	333.59	331.99
132	13.234	13.171	336.14	334.54
133	13.334	13.271	338.68	337.08
134	13.434	13.371	341.23	339.63
135	13.534	13.471	343.77	342.17
136	13.635	13.572	346.32	344.72
137	13.735	13.672	348.87	347.27
138	13.835	13.772	351.41	349.81
139	13.935	13.872	353.96	352.36
140	14.036	13.973	356.51	354.91
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