

Lathemaster 4 inch Rotary Table and Dividing Plates

1. The following tables were developed for the Lathemaster 4" rotary table and the dividing plates supplied with it
2. The rotary table has a gear ratio of 72:1
3. The plates have hole counts as follows:

Plate 1	16
	17
	19
	20
	23
	25
Plate 2	27
	29
	31
	33
	35
	37
Plate 3	39
	41
	43
	45
	47
49	

Dividing Tables

for the 4" Rotary table and dividing plates sold by Lathemaster
 All possibilities up to 300 divisions which have zero error

Other divisions can be approximated using Table 2, but will have some error

No Div	Whole Turns	No. Holes	Total Holes In Ring
2	36	--	--
3	24	--	--
4	18	--	--
5	14	8	20
6	12	--	--
7	10	10	35
8	9	--	--
9	8	--	--
10	7	9	45
11	6	18	33
12	6	--	--
13	5	21	39
14	5	5	35
15	4	16	20
16	4	8	16
17	4	4	17
18	4	--	--
19	3	15	19
20	3	12	20
21	3	15	35
22	3	9	33
23	3	3	23
24	3	--	--
25	2	22	25
26	2	30	39
27	2	18	27
28	2	20	35
29	2	14	29
30	2	8	20
31	2	10	31
32	2	4	16
33	2	6	33
34	2	2	17
35	2	2	35
36	2	--	--
37	1	35	37
38	1	17	19
39	1	33	39
40	1	16	20
41	1	31	41
42	1	25	35
43	1	29	43

No Div	Whole Turns	No. Holes	Total Holes In Ring
44	1	21	33
45	1	12	20
46	1	13	23
47	1	25	47
48	1	8	16
49	1	23	49
50	1	11	25
51	1	7	17
52	1	15	39
54	1	9	27
56	1	14	49
57	1	5	19
58	1	7	29
60	1	4	20
62	1	5	31
63	1	7	49
64	1	2	16
66	1	3	33
68	1	1	17
69	1	1	23
70	1	1	35
72	1	--	--
74	0	36	37
75	0	24	25
76	0	18	19
78	0	36	39
80	0	18	20
81	0	40	45
82	0	36	41
84	0	30	35
86	0	36	43
87	0	24	29
88	0	27	33
90	0	16	20
92	0	18	23
93	0	24	31
94	0	36	47
96	0	12	16
98	0	36	49
99	0	24	33
100	0	18	25
102	0	12	17

Tables Courtesy of Lathemaster

Dividing Tables

for the 4" Rotary table and dividing plates sold by Lathemaster
 All possibilities up to 300 divisions which have zero error

Other divisions can be approximated using Table 2, but will have some error

No Div	Whole Turns	No. Holes	Total Holes In Ring
104	0	27	39
105	0	24	35
108	0	18	27
111	0	24	37
114	0	12	19
116	0	18	29
117	0	24	39
120	0	12	20
123	0	24	41
124	0	18	31
126	0	20	35
128	0	9	16
129	0	24	43
132	0	18	33
135	0	24	45
136	0	9	17
138	0	12	23
140	0	18	35
141	0	24	47
144	0	8	16
147	0	24	49
148	0	18	37
150	0	12	25
152	0	9	19
153	0	8	17
156	0	18	39
160	0	9	20
162	0	12	27
164	0	18	41
168	0	15	35
171	0	8	19
172	0	18	43
174	0	12	29
180	0	8	20
184	0	9	23
186	0	12	31
188	0	18	47
192	0	6	16
196	0	18	49
198	0	12	33
200	0	9	25

No Div	Whole Turns	No. Holes	Total Holes In Ring
204	0	6	17
207	0	8	23
210	0	12	35
216	0	9	27
222	0	12	37
225	0	8	25
228	0	6	19
232	0	9	29
234	0	12	39
240	0	6	20
243	0	8	27
246	0	12	41
248	0	9	31
252	0	10	35
258	0	12	43
261	0	8	29
264	0	9	33
270	0	12	45
276	0	6	23
279	0	8	31
280	0	9	35
282	0	12	47
288	0	4	16
294	0	12	49
296	0	9	37
297	0	8	33
300	0	6	25

Dividing Tables

for the 4" Rotary table and dividing plates sold by Lathemaster

1. To divide circle into X parts, divide 72 by X
2. The result will be a number in the form A.BBBBBBBBBB
3. For each division turn the rotary table handle A times, and then....
4. Achieve the fractional part (BBBBBBBBBB) by using the table below

Fractions of a circle possible with the dividing plates

Fraction of a Circle	No. Holes	Total Holes In Ring	Fraction of a Circle	No. Holes	Total Holes In Ring
0.0204081633	1	49	0.0857142857	3	35
0.0212765957	1	47	0.0869565217	2	23
0.0222222222	1	45	0.0888888889	4	45
0.0232558140	1	43	0.0909090909	3	33
0.0243902439	1	41	0.0930232558	4	43
0.0256410256	1	39	0.0967741935	3	31
0.0270270270	1	37	0.0975609756	4	41
0.0285714286	1	35	0.1000000000	2	20
0.0303030303	1	33	0.1020408163	5	49
0.0322580645	1	31	0.1025641026	4	39
0.0344827586	1	29	0.1034482759	3	29
0.0370370370	1	27	0.1052631579	2	19
0.0400000000	1	25	0.1063829787	5	47
0.0408163265	2	49	0.1081081081	4	37
0.0425531915	2	47	0.1111111111	3	27
0.0434782609	1	23	0.1111111111	5	45
0.0444444444	2	45	0.1142857143	4	35
0.0465116279	2	43	0.1162790698	5	43
0.0487804878	2	41	0.1176470588	2	17
0.0500000000	1	20	0.1200000000	3	25
0.0512820513	2	39	0.1212121212	4	33
0.0526315789	1	19	0.1219512195	5	41
0.0540540541	2	37	0.1224489796	6	49
0.0571428571	2	35	0.1250000000	2	16
0.0588235294	1	17	0.1276595745	6	47
0.0606060606	2	33	0.1282051282	5	39
0.0612244898	3	49	0.1290322581	4	31
0.0625000000	1	16	0.1304347826	3	23
0.0638297872	3	47	0.1333333333	6	45
0.0645161290	2	31	0.1351351351	5	37
0.0666666667	3	45	0.1379310345	4	29
0.0689655172	2	29	0.1395348837	6	43
0.0697674419	3	43	0.1428571429	5	35
0.0731707317	3	41	0.1428571429	7	49
0.0740740741	2	27	0.1463414634	6	41
0.0769230769	3	39	0.1481481481	4	27
0.0800000000	2	25	0.1489361702	7	47
0.0810810811	3	37	0.1500000000	3	20
0.0816326531	4	49	0.1515151515	5	33
0.0851063830	4	47	0.1538461538	6	39

Tables Courtesy of Lathemaster

Dividing Tables

for the 4" Rotary table and dividing plates sold by Lathemaster

1. To divide circle into X parts, divide 72 by X
2. The result will be a number in the form A.BBBBBBBBBB
3. For each division turn the rotary table handle A times, and then....
4. Achieve the fractional part (BBBBBBBBBB) by using the table below

Fractions of a circle possible with the dividing plates

Fraction of a Circle	No. Holes	Total Holes In Ring
0.1555555556	7	45
0.1578947368	3	19
0.1600000000	4	25
0.1612903226	5	31
0.1621621622	6	37
0.1627906977	7	43
0.1632653061	8	49
0.1702127660	8	47
0.1707317073	7	41
0.1714285714	6	35
0.1724137931	5	29
0.1739130435	4	23
0.1764705882	3	17
0.1777777778	8	45
0.1794871795	7	39
0.1818181818	6	33
0.1836734694	9	49
0.1851851852	5	27
0.1860465116	8	43
0.1875000000	3	16
0.1891891892	7	37
0.1914893617	9	47
0.1935483871	6	31
0.1951219512	8	41
0.2000000000	4	20
0.2000000000	5	25
0.2000000000	7	35
0.2000000000	9	45
0.2040816327	10	49
0.2051282051	8	39
0.2068965517	6	29
0.2093023256	9	43
0.2105263158	4	19
0.2121212121	7	33
0.2127659574	10	47
0.2162162162	8	37
0.2173913043	5	23
0.2195121951	9	41
0.2222222222	6	27
0.2222222222	10	45

Fraction of a Circle	No. Holes	Total Holes In Ring
0.2244897959	11	49
0.2258064516	7	31
0.2285714286	8	35
0.2307692308	9	39
0.2325581395	10	43
0.2340425532	11	47
0.2352941176	4	17
0.2400000000	6	25
0.2413793103	7	29
0.2424242424	8	33
0.2432432432	9	37
0.2439024390	10	41
0.2444444444	11	45
0.2448979592	12	49
0.2500000000	4	16
0.2500000000	5	20
0.2553191489	12	47
0.2558139535	11	43
0.2564102564	10	39
0.2571428571	9	35
0.2580645161	8	31
0.2592592593	7	27
0.2608695652	6	23
0.2631578947	5	19
0.2653061224	13	49
0.2666666667	12	45
0.2682926829	11	41
0.2702702703	10	37
0.2727272727	9	33
0.2758620690	8	29
0.2765957447	13	47
0.2790697674	12	43
0.2800000000	7	25
0.2820512821	11	39
0.2857142857	10	35
0.2857142857	14	49
0.2888888889	13	45
0.2903225806	9	31
0.2926829268	12	41
0.2941176471	5	17

Tables Courtesy of Lathemaster

Dividing Tables

for the 4" Rotary table and dividing plates sold by Lathemaster

1. To divide circle into X parts, divide 72 by X
2. The result will be a number in the form A.BBBBBBBBBB
3. For each division turn the rotary table handle A times, and then....
4. Achieve the fractional part (BBBBBBBBBB) by using the table below

Fractions of a circle possible with the dividing plates

Fraction of a Circle	No. Holes	Total Holes In Ring
0.2962962963	8	27
0.2972972973	11	37
0.2978723404	14	47
0.3000000000	6	20
0.3023255814	13	43
0.3030303030	10	33
0.3043478261	7	23
0.3061224490	15	49
0.3076923077	12	39
0.3103448276	9	29
0.3111111111	14	45
0.3125000000	5	16
0.3142857143	11	35
0.3157894737	6	19
0.3170731707	13	41
0.3191489362	15	47
0.3200000000	8	25
0.3225806452	10	31
0.3243243243	12	37
0.3255813953	14	43
0.3265306122	16	49
0.3333333333	9	27
0.3333333333	11	33
0.3333333333	13	39
0.3333333333	15	45
0.3404255319	16	47
0.3414634146	14	41
0.3428571429	12	35
0.3448275862	10	29
0.3469387755	17	49
0.3478260870	8	23
0.3488372093	15	43
0.3500000000	7	20
0.3513513514	13	37
0.3529411765	6	17
0.3548387097	11	31
0.3555555556	16	45
0.3589743590	14	39
0.3600000000	9	25
0.3617021277	17	47

Fraction of a Circle	No. Holes	Total Holes In Ring
0.3636363636	12	33
0.3658536585	15	41
0.3673469388	18	49
0.3684210526	7	19
0.3703703704	10	27
0.3714285714	13	35
0.3720930233	16	43
0.3750000000	6	16
0.3777777778	17	45
0.3783783784	14	37
0.3793103448	11	29
0.3829787234	18	47
0.3846153846	15	39
0.3870967742	12	31
0.3877551020	19	49
0.3902439024	16	41
0.3913043478	9	23
0.3939393939	13	33
0.3953488372	17	43
0.4000000000	8	20
0.4000000000	10	25
0.4000000000	14	35
0.4000000000	18	45
0.4042553191	19	47
0.4054054054	15	37
0.4074074074	11	27
0.4081632653	20	49
0.4102564103	16	39
0.4117647059	7	17
0.4137931034	12	29
0.4146341463	17	41
0.4186046512	18	43
0.4193548387	13	31
0.4210526316	8	19
0.4222222222	19	45
0.4242424242	14	33
0.4255319149	20	47
0.4285714286	15	35
0.4285714286	21	49
0.4324324324	16	37

Tables Courtesy of Lathemaster

Dividing Tables

for the 4" Rotary table and dividing plates sold by Lathemaster

1. To divide circle into X parts, divide 72 by X
2. The result will be a number in the form A.BBBBBBBBBB
3. For each division turn the rotary table handle A times, and then....
4. Achieve the fractional part (BBBBBBBBBB) by using the table below

Fractions of a circle possible with the dividing plates

Fraction of a Circle	No. Holes	Total Holes In Ring
0.4347826087	10	23
0.4358974359	17	39
0.4375000000	7	16
0.4390243902	18	41
0.4400000000	11	25
0.4418604651	19	43
0.4444444444	12	27
0.4444444444	20	45
0.4468085106	21	47
0.4482758621	13	29
0.4489795918	22	49
0.4500000000	9	20
0.4516129032	14	31
0.4545454545	15	33
0.4571428571	16	35
0.4594594595	17	37
0.4615384615	18	39
0.4634146341	19	41
0.4651162791	20	43
0.4666666667	21	45
0.4680851064	22	47
0.4693877551	23	49
0.4705882353	8	17
0.4736842105	9	19
0.4782608696	11	23
0.4800000000	12	25
0.4814814815	13	27
0.4827586207	14	29
0.4838709677	15	31
0.4848484848	16	33
0.4857142857	17	35
0.4864864865	18	37
0.4871794872	19	39
0.4878048780	20	41
0.4883720930	21	43
0.4888888889	22	45
0.4893617021	23	47
0.4897959184	24	49
0.5000000000	8	16
0.5000000000	10	20

Fraction of a Circle	No. Holes	Total Holes In Ring
0.5102040816	25	49
0.5106382979	24	47
0.5111111111	23	45
0.5116279070	22	43
0.5121951220	21	41
0.5128205128	20	39
0.5135135135	19	37
0.5142857143	18	35
0.5151515152	17	33
0.5161290323	16	31
0.5172413793	15	29
0.5185185185	14	27
0.5200000000	13	25
0.5217391304	12	23
0.5263157895	10	19
0.5294117647	9	17
0.5306122449	26	49
0.5319148936	25	47
0.5333333333	24	45
0.5348837209	23	43
0.5365853659	22	41
0.5384615385	21	39
0.5405405405	20	37
0.5428571429	19	35
0.5454545455	18	33
0.5483870968	17	31
0.5500000000	11	20
0.5510204082	27	49
0.5517241379	16	29
0.5531914894	26	47
0.5555555556	15	27
0.5555555556	25	45
0.5581395349	24	43
0.5600000000	14	25
0.5609756098	23	41
0.5625000000	9	16
0.5641025641	22	39
0.5652173913	13	23
0.5675675676	21	37
0.5714285714	20	35

Tables Courtesy of Lathemaster

Dividing Tables

for the 4" Rotary table and dividing plates sold by Lathemaster

1. To divide circle into X parts, divide 72 by X
2. The result will be a number in the form A.BBBBBBBBBB
3. For each division turn the rotary table handle A times, and then....
4. Achieve the fractional part (BBBBBBBBBB) by using the table below

Fractions of a circle possible with the dividing plates

Fraction of a Circle	No. Holes	Total Holes In Ring
0.5714285714	28	49
0.5744680851	27	47
0.5757575758	19	33
0.5777777778	26	45
0.5789473684	11	19
0.5806451613	18	31
0.5813953488	25	43
0.5853658537	24	41
0.5862068966	17	29
0.5882352941	10	17
0.5897435897	23	39
0.5918367347	29	49
0.5925925926	16	27
0.5945945946	22	37
0.5957446809	28	47
0.6000000000	12	20
0.6000000000	15	25
0.6000000000	21	35
0.6000000000	27	45
0.6046511628	26	43
0.6060606061	20	33
0.6086956522	14	23
0.6097560976	25	41
0.6122448980	30	49
0.6129032258	19	31
0.6153846154	24	39
0.6170212766	29	47
0.6206896552	18	29
0.6216216216	23	37
0.6222222222	28	45
0.6250000000	10	16
0.6279069767	27	43
0.6285714286	22	35
0.6296296296	17	27
0.6315789474	12	19
0.6326530612	31	49
0.6341463415	26	41
0.6363636364	21	33
0.6382978723	30	47
0.6400000000	16	25

Fraction of a Circle	No. Holes	Total Holes In Ring
0.6410256410	25	39
0.6444444444	29	45
0.6451612903	20	31
0.6470588235	11	17
0.6486486486	24	37
0.6500000000	13	20
0.6511627907	28	43
0.6521739130	15	23
0.6530612245	32	49
0.6551724138	19	29
0.6571428571	23	35
0.6585365854	27	41
0.6595744681	31	47
0.6666666667	18	27
0.6666666667	22	33
0.6666666667	26	39
0.6666666667	30	45
0.6734693878	33	49
0.6744186047	29	43
0.6756756757	25	37
0.6774193548	21	31
0.6800000000	17	25
0.6808510638	32	47
0.6829268293	28	41
0.6842105263	13	19
0.6857142857	24	35
0.6875000000	11	16
0.6888888889	31	45
0.6896551724	20	29
0.6923076923	27	39
0.6938775510	34	49
0.6956521739	16	23
0.6969696970	23	33
0.6976744186	30	43
0.7000000000	14	20
0.7021276596	33	47
0.7027027027	26	37
0.7037037037	19	27
0.7058823529	12	17
0.7073170732	29	41

Tables Courtesy of Lathemaster

Dividing Tables

for the 4" Rotary table and dividing plates sold by Lathemaster

1. To divide circle into X parts, divide 72 by X
2. The result will be a number in the form A.BBBBBBBBBB
3. For each division turn the rotary table handle A times, and then....
4. Achieve the fractional part (BBBBBBBBBB) by using the table below

Fractions of a circle possible with the dividing plates

Fraction of a Circle	No. Holes	Total Holes In Ring
0.7096774194	22	31
0.7111111111	32	45
0.7142857143	25	35
0.7142857143	35	49
0.7179487179	28	39
0.7200000000	18	25
0.7209302326	31	43
0.7234042553	34	47
0.7241379310	21	29
0.7272727273	24	33
0.7297297297	27	37
0.7317073171	30	41
0.7333333333	33	45
0.7346938776	36	49
0.7368421053	14	19
0.7391304348	17	23
0.7407407407	20	27
0.7419354839	23	31
0.7428571429	26	35
0.7435897436	29	39
0.7441860465	32	43
0.7446808511	35	47
0.7500000000	12	16
0.7500000000	15	20
0.7551020408	37	49
0.7555555556	34	45
0.7560975610	31	41
0.7567567568	28	37
0.7575757576	25	33
0.7586206897	22	29
0.7600000000	19	25
0.7647058824	13	17
0.7659574468	36	47
0.7674418605	33	43
0.7692307692	30	39
0.7714285714	27	35
0.7741935484	24	31
0.7755102041	38	49
0.7777777778	21	27
0.7777777778	35	45

Fraction of a Circle	No. Holes	Total Holes In Ring
0.7804878049	32	41
0.7826086957	18	23
0.7837837838	29	37
0.7872340426	37	47
0.7878787879	26	33
0.7894736842	15	19
0.7906976744	34	43
0.7931034483	23	29
0.7948717949	31	39
0.7959183673	39	49
0.8000000000	16	20
0.8000000000	20	25
0.8000000000	28	35
0.8000000000	36	45
0.8048780488	33	41
0.8064516129	25	31
0.8085106383	38	47
0.8108108108	30	37
0.8125000000	13	16
0.8139534884	35	43
0.8148148148	22	27
0.8163265306	40	49
0.8181818182	27	33
0.8205128205	32	39
0.8222222222	37	45
0.8235294118	14	17
0.8260869565	19	23
0.8275862069	24	29
0.8285714286	29	35
0.8292682927	34	41
0.8297872340	39	47
0.8367346939	41	49
0.8372093023	36	43
0.8378378378	31	37
0.8387096774	26	31
0.8400000000	21	25
0.8421052632	16	19
0.8444444444	38	45
0.8461538462	33	39
0.8484848485	28	33

Tables Courtesy of Lathemaster

Dividing Tables

for the 4" Rotary table and dividing plates sold by Lathemaster

1. To divide circle into X parts, divide 72 by X
2. The result will be a number in the form A.BBBBBBBBBB
3. For each division turn the rotary table handle A times, and then....
4. Achieve the fractional part (BBBBBBBBBB) by using the table below

Fractions of a circle possible with the dividing plates

Fraction of a Circle	No. Holes	Total Holes In Ring
0.8500000000	17	20
0.8510638298	40	47
0.8518518519	23	27
0.8536585366	35	41
0.8571428571	30	35
0.8571428571	42	49
0.8604651163	37	43
0.8620689655	25	29
0.8648648649	32	37
0.8666666667	39	45
0.8695652174	20	23
0.8709677419	27	31
0.8717948718	34	39
0.8723404255	41	47
0.8750000000	14	16
0.8775510204	43	49
0.8780487805	36	41
0.8787878788	29	33
0.8800000000	22	25
0.8823529412	15	17
0.8837209302	38	43
0.8857142857	31	35
0.8888888889	24	27
0.8888888889	40	45
0.8918918919	33	37
0.8936170213	42	47
0.8947368421	17	19
0.8965517241	26	29
0.8974358974	35	39
0.8979591837	44	49
0.9000000000	18	20
0.9024390244	37	41
0.9032258065	28	31
0.9069767442	39	43
0.9090909091	30	33
0.9111111111	41	45
0.9130434783	21	23
0.9142857143	32	35
0.9148936170	43	47
0.9183673469	45	49

Fraction of a Circle	No. Holes	Total Holes In Ring
0.9189189189	34	37
0.9200000000	23	25
0.9230769231	36	39
0.9259259259	25	27
0.9268292683	38	41
0.9302325581	40	43
0.9310344828	27	29
0.9333333333	42	45
0.9354838710	29	31
0.9361702128	44	47
0.9375000000	15	16
0.9387755102	46	49
0.9393939394	31	33
0.9411764706	16	17
0.9428571429	33	35
0.9459459459	35	37
0.9473684211	18	19
0.9487179487	37	39
0.9500000000	19	20
0.9512195122	39	41
0.9534883721	41	43
0.9555555556	43	45
0.9565217391	22	23
0.9574468085	45	47
0.9591836735	47	49
0.9600000000	24	25
0.9629629630	26	27
0.9655172414	28	29
0.9677419355	30	31
0.9696969697	32	33
0.9714285714	34	35
0.9729729730	36	37
0.9743589744	38	39
0.9756097561	40	41
0.9767441860	42	43
0.9777777778	44	45
0.9787234043	46	47
0.9795918367	48	49

Tables Courtesy of Lathemaster