



中华人民共和国国家标准

GB/T 3478.6—2008
代替 GB/T 3478.6—1995

圆柱直齿渐开线花键 (米制模数 齿侧配合) 第 6 部分：30° 压力角 M 值和 W 值

Straight cylindrical involute splines—Metric module, side fit—
Part 6: 30° pressure angle M and W values

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前 言

GB/T 3478《圆柱直齿渐开线花键(米制模数 齿侧配合)》分为九个部分:

- 第1部分:总论;
- 第2部分:30°压力角尺寸表;
- 第3部分:37.5°压力角尺寸表;
- 第4部分:45°压力角尺寸表;
- 第5部分:检验;
- 第6部分:30°压力角 M 值和 W 值;
- 第7部分:37.5°压力角 M 值和 W 值;
- 第8部分:45°压力角 M 值和 W 值;
- 第9部分:量棒。

本部分为 GB/T 3478 的第6部分。

本部分参考了 ISO 4156-2:2005《圆柱直齿渐开线花键(米制模数 齿侧配合) 第2部分:尺寸》中有关 30°压力角 M 值和 W 值,是对 GB/T 3478.6—1995《圆柱直齿渐开线花键 30°压力角 M 值和 W 值》的修订。

本部分与 GB/T 3478.6—1995 相比主要差异如下:

- 标准名称由《圆柱直齿渐开线花键 30°压力角 M 值和 W 值》改为《圆柱直齿渐开线花键(米制模数 齿侧配合) 第6部分:30°压力角 M 值和 W 值》;
- 修改了原标准中的错误,并按 GB/T 1.1 做了编辑性的修改。

本部分由全国机器轴与附件标准化技术委员会提出并归口。

本部分起草单位:中机生产力促进中心、哈尔滨东安发动机制造公司、石家庄链轮总厂、中国第二重型机械集团公司、太原重工股份有限公司。

本部分主要起草人:明翠新、常宝印、许文江、谭仁万、王晓凌、邓高见。

本部分所代替标准的历次版本发布情况为:

- GB/T 3478.6—1995。

圆柱直齿渐开线花键 (米制模数 齿侧配合) 第6部分:30°压力角 M 值和 W 值

1 范围

GB/T 3478 的本部分规定了压力角为 30° 的圆柱直齿渐开线花键的 M 值(棒间距 M_{Ri} 、跨棒距 M_{Re})和 W 值(外花键公法线平均长度)的计算公式及极限尺寸表。

本部分适用于按 GB/T 3478.1 设计制造的压力角为 30° 的渐开线花键。

2 规范性引用文件

下列文件中的条款通过 GB/T 3478 的本部分的引用而成为本部分的条款。凡是注日期的引用文件,其随后所有的修改单(不包括勘误的内容)或修订版均不适用于本部分,然而,鼓励根据本部分达成协议的各方研究是否可使用这些文件的最新版本。凡是不注日期的引用文件,其最新版本适用于本部分。

GB/T 321 优先数和优先数系

GB/T 3478.1 圆柱直齿渐开线花键(米制模数 齿侧配合) 第1部分:总论(GB/T 3478.1—2008,ISO 4156-1:2005,MOD)

3 量棒测量尺寸的计算公式

注:允许用相应的钢球代替量棒。

3.1 内花键量棒测量尺寸的计算公式

3.1.1 量棒直径 D_{Ri} 的确定(见图 1)

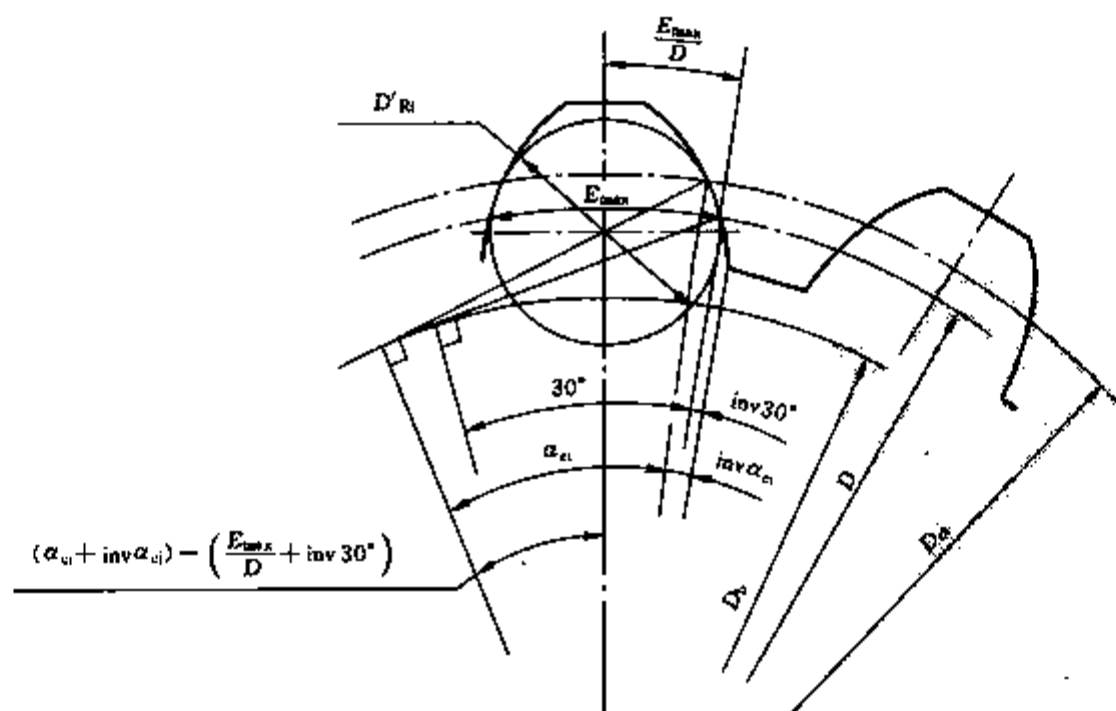


图 1

$$D'_{Ri} = D_b \left[\tan \alpha_{ci} - \tan \left(\alpha_{ci} - \frac{E_{max}}{D} + \text{inv} \alpha_{ci} - \text{inv} 30^\circ \right) \right] \quad (1)$$

式中:

D'_{Ri} ——量棒的计算直径;

α_{ci} ——内花键与量棒接触点上的压力角,以弧度表示, $\alpha_{ci} = \cos^{-1} \frac{D_b}{D_{ci}}$;

D_{ci} ——内花键与量棒接触点处直径:

$$D_{ci} = \frac{D_{ee \max} + D_{ii \min}}{2};$$

$D_{ee \max}$ ——外花键大径最大值;

$D_{ii \min}$ ——内花键小径最小值;

$E_{\max}$ ——实际齿槽宽最大值,表中按公差等级为 7 级取值:

$$\operatorname{inv} \alpha_{ci} = \tan \alpha_{ci} - \alpha_{ci};$$

$$\operatorname{inv} 30^\circ = 0.053\,751\,5.$$

量棒直径 D_{Ri} 按 GB/T 321 中的 R40 选取,若 D'_{Ri} 不为 R40 系列数值时,应选取最接近 D'_{Ri} 较大的值。

3.1.2 棒间距 M_{Ri} 的计算(见图 2)

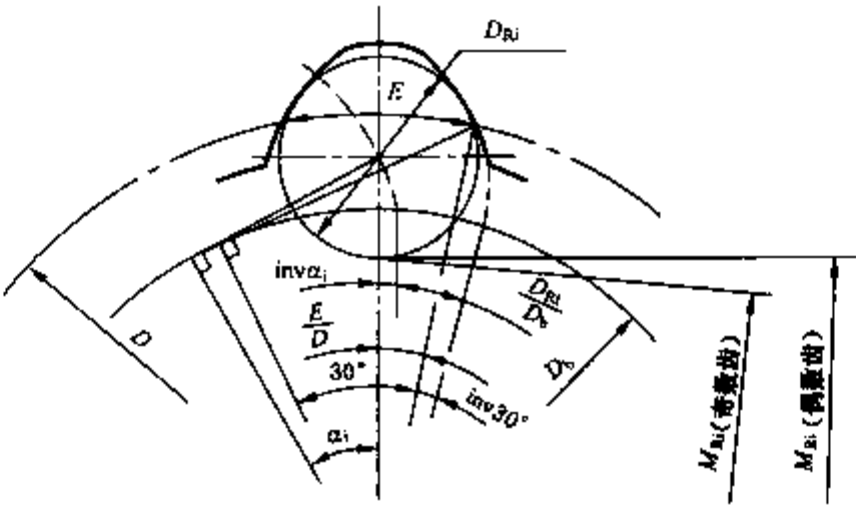


图 2

偶数齿:

$$M_{Ri \max} = \frac{D_b}{\cos \alpha_{ci \max}} - D_{Ri} \quad \dots\dots\dots (2)$$

$$M_{Ri \min} = \frac{D_b}{\cos \alpha_{ci \min}} - D_{Ri} \quad \dots\dots\dots (3)$$

奇数齿:

$$M_{Ri \max} = \frac{D_b}{\cos \alpha_{ci \max}} \times \cos \frac{90^\circ}{z} - D_{Ri} \quad \dots\dots\dots (4)$$

$$M_{Ri \min} = \frac{D_b}{\cos \alpha_{ci \min}} \times \cos \frac{90^\circ}{z} - D_{Ri} \quad \dots\dots\dots (5)$$

式中:

$M_{Ri \max}$ ——内花键棒间距的最大值;

$M_{Ri \min}$ ——内花键棒间距的最小值;

$\alpha_{ci \max}$ ——当 E 为 $E_{\max}$ 时,内花键量棒中心圆上的压力角;

$$\operatorname{inv} \alpha_{ci \max} = \frac{E_{\max}}{D} + \operatorname{inv} 30^\circ - \frac{D_{Ri}}{D_b};$$

$\alpha_{ci \min}$ ——当 E 为 $E_{\min}$ 时,内花键量棒中心圆上的压力角;

$$\text{inv}\alpha_{\text{min}} = \frac{F_{\text{inv}}}{D} + \text{inv}30^\circ - \frac{D_{\text{ke}}}{D_b};$$

D_{ke} ——内花键用量棒直径。

3.2 外花键量棒测量尺寸的计算公式

3.2.1 量棒直径 D_{ke} 的确定 (见图 3)

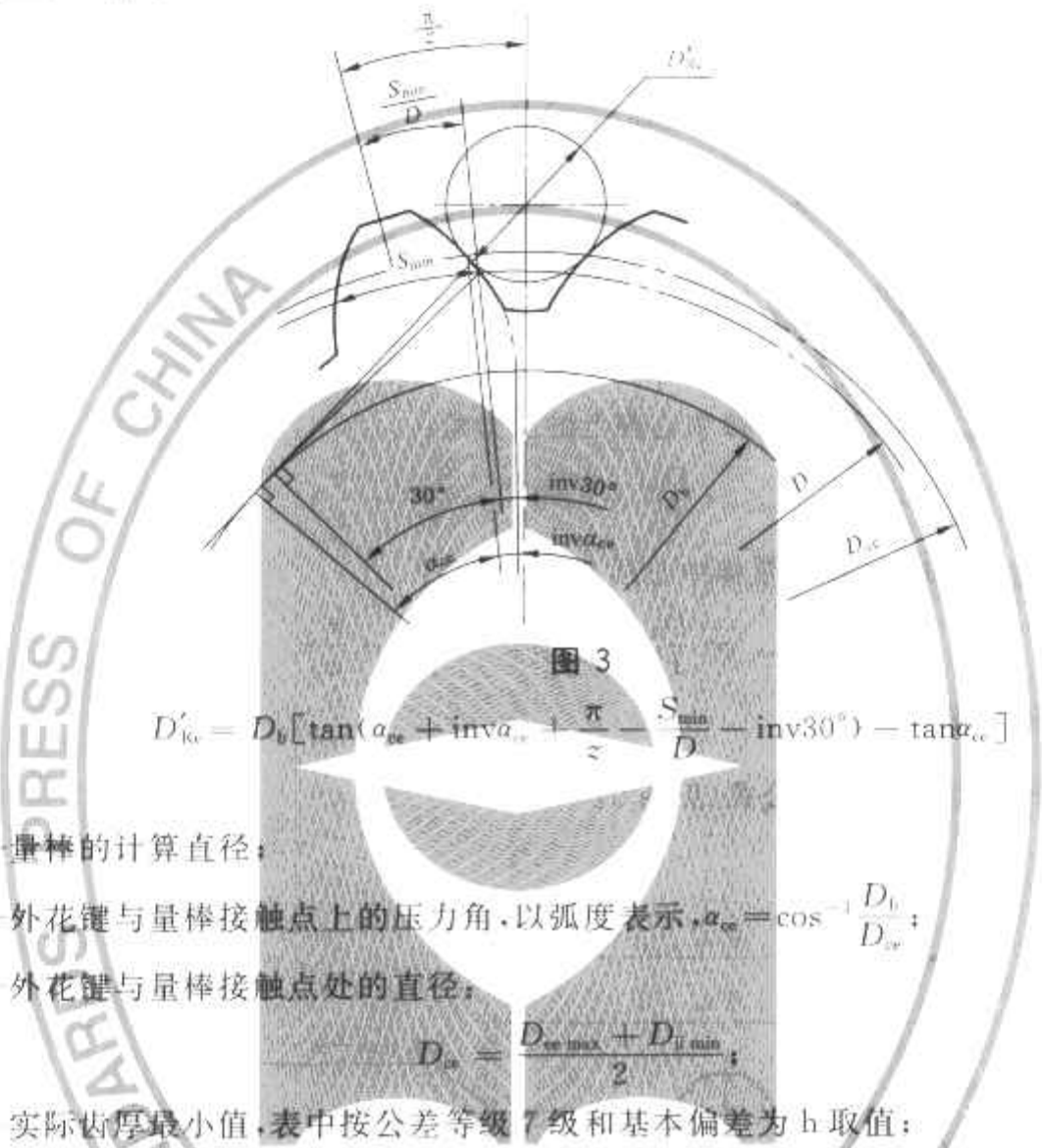


图 3

$$D'_{\text{ke}} = D_b \left[\tan(\alpha_{ce} + \text{inv}\alpha_{ce} + \frac{\pi}{z} - \frac{S_{\text{min}}}{D} - \text{inv}30^\circ) - \tan\alpha_{ce} \right] \dots\dots\dots (6)$$

式中：

D'_{ke} ——量棒的计算直径；

α_{ce} ——外花键与量棒接触点上的压力角，以弧度表示， $\alpha_{ce} = \cos^{-1} \frac{D_b}{D_{ce}}$ ；

D_{ce} ——外花键与量棒接触点处的直径；

$$D_{ce} = \frac{D_{\text{ce max}} + D_{\text{ce min}}}{2};$$

S_{min} ——实际齿厚最小值，表中按公差等级 7 级和基本偏差为 h 取值；

$$\text{inv}\alpha_{ce} = \tan\alpha_{ce} - \alpha_{ce};$$

量棒直径 D_{ke} 按 GB/T 321 中的 R40 选取，若 D'_{ke} 不为 R40 系列数值时，应选取最接近 D'_{ke} 较大的值。

3.2.2 跨棒距 M_{ke} 的计算 (见图 4)

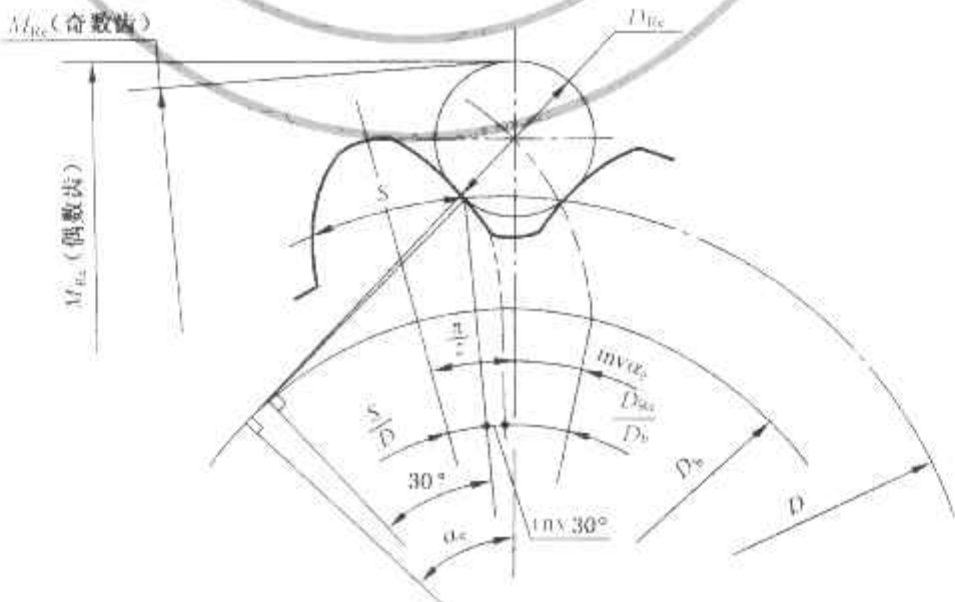


图 4

偶数齿:

$$M_{Re\ min} = \frac{D_b}{\cos\alpha_{e\ min}} + D_{Re} \dots\dots\dots(7)$$

$$M_{Re\ max} = \frac{D_b}{\cos\alpha_{e\ max}} + D_{Re} \dots\dots\dots(8)$$

奇数齿:

$$M_{Re\ min} = \frac{D_b}{\cos\alpha_{e\ min}} \times \cos\frac{90^\circ}{z} + D_{Re} \dots\dots\dots(9)$$

$$M_{Re\ max} = \frac{D_b}{\cos\alpha_{e\ max}} \times \cos\frac{90^\circ}{z} + D_{Re} \dots\dots\dots(10)$$

式中:

$M_{Re\ min}$ ——外花键跨棒距的最小值;

$M_{Re\ max}$ ——外花键跨棒距的最大值;

$\alpha_{e\ min}$ ——当 S 为 S_{min} 时,外花键量棒中心圆上的压力角;

$$\text{inv}\alpha_{e\ min} = \frac{D_{Re}}{D_b} + \text{inv}30^\circ + \frac{S_{min}}{D} - \frac{\pi}{z};$$

$\alpha_{e\ max}$ ——当 S 为 S_{max} 时,外花键量棒中心圆上的压力角;

$$\text{inv}\alpha_{e\ max} = \frac{D_{Re}}{D_b} + \text{inv}30^\circ + \frac{S_{max}}{D} - \frac{\pi}{z};$$

D_{Re} ——外花键用量棒直径。

4 外花键公法线平均长度 W 的计算公式(见图 5)

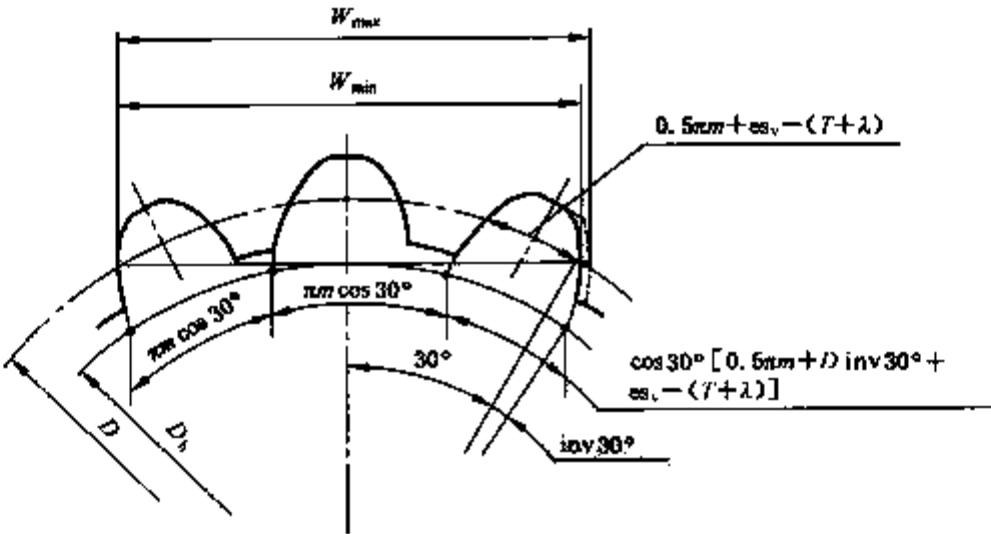


图 5

$$W_{min} = \cos 30^\circ [(K - 0.5)\pi m + D \text{inv} 30^\circ + es_v - (T + \lambda)] \dots\dots\dots(11)$$

$$W_{max} = W_{min} + T \cos 30^\circ \dots\dots\dots(12)$$

式中:

W_{min} ——公法线平均长度最小值;

W_{max} ——公法线平均长度最大值;

K ——跨齿数, $K = z/6 + 0.5$ (取整数);

$(T + \lambda)$ ——总公差;

T ——加工公差；

es_v ——作用齿厚上偏差。

5 量棒测量尺寸

5.1 内花键的量棒测量尺寸

模数为 0.5 mm~10 mm、齿数 10~100、公差等级为 4~7 级、基本偏差为 H 的内花键测量用量棒直径 D_{Ri} 、棒间距的最大值 $M_{Ri \max}$ 和最小值 $M_{Ri \min}$ 见表 1~表 14。

5.2 外花键的量棒测量尺寸

5.2.1 模数为 0.5 mm~10 mm、齿数 10~100、公差等级为 4~7 级、基本偏差为 h 的外花键测量用量棒直径 D_{Re} 、跨棒距的最小值 $M_{Re \min}$ 和最大值 $M_{Re \max}$ 见表 15~表 28。

5.2.2 当外花键的基本偏差不为 h 时，其跨棒距尺寸应按 3.2.2 所列公式进行计算，也可按下式算出差值 ΔM_{Re} 后，对表中的跨棒距数值进行修正。

$$\Delta M_{Re} = K_r \cdot es_v \quad \dots\dots\dots (13)$$

5.3 表 1~表 28 所列的量棒直径 D_{Ri} 和 D_{Re} 是按 3.1.1 和 3.2.1 确定的。必要时，在量棒上制出一个平面，以避免与花键小径接触。

5.4 当实际选用的量棒直径与标准中所列的直径有出入时，其内花键棒间距的最大值 $M_{Ri \max}$ 和最小值 $M_{Ri \min}$ ，外花键跨棒距的最小值 $M_{Re \min}$ 和最大值 $M_{Re \max}$ ，应按实际量棒直径进行计算。

6 公法线平均长度 W 极限值

6.1 模数 0.5 mm~10 mm、齿数 10~100、公差等级为 4~7 级、基本偏差为 h 的外花键公法线平均长度 W 极限值，见表 29~表 42。

6.2 当外花键齿厚的基本偏差不为 h 时，其公法线平均长度的差值 ΔW 按下式计算。

$$\Delta W = es_v \cdot \cos 30^\circ = 0.866es_v \quad \dots\dots\dots (14)$$

表 1 棒间距 M_R
30°内花键 模数 $m=0.5\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=0.785\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_R	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_R							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	0.95	3.537	3.488	3.520	3.418	3.492	3.487	3.438	3.605
11	0.95	3.811	3.831	3.770	3.895	3.826	3.968	3.881	4.069
12	0.95	4.376	4.426	4.396	4.473	4.423	4.537	4.463	4.631
13	0.95	4.865	4.906	4.881	4.948	4.903	5.006	4.938	5.095
14	0.95	5.426	5.464	5.441	5.503	5.462	5.559	5.495	5.646
15	1.00	5.685	5.730	5.703	5.775	5.727	5.838	5.765	5.933
16	1.00	6.245	6.286	6.261	6.328	6.284	6.387	6.319	6.480
17	1.00	6.729	6.766	6.744	6.806	6.765	6.863	6.798	6.952
18	1.00	7.275	7.311	7.289	7.349	7.309	7.404	7.341	7.492
19	1.00	7.755	7.789	7.769	7.826	7.788	7.881	7.819	7.967
20	1.00	8.293	8.327	8.307	8.363	8.326	8.417	8.356	8.502
21	1.00	8.773	8.805	8.786	8.841	8.805	8.894	8.834	8.978
22	1.00	9.306	9.338	9.319	9.374	9.338	9.426	9.367	9.509
23	1.00	9.786	9.818	9.799	9.853	9.817	9.904	9.846	9.987
24	1.00	10.316	10.347	10.329	10.382	10.347	10.433	10.376	10.516
25	1.00	10.797	10.827	10.809	10.862	10.827	10.912	10.856	10.995
26	1.00	11.324	11.354	11.336	11.388	11.354	11.439	11.383	11.521
27	1.00	11.805	11.835	11.818	11.869	11.835	11.919	11.864	12.001
28	1.00	12.330	12.360	12.342	12.394	12.360	12.444	12.388	12.526
29	1.00	12.812	12.842	12.825	12.876	12.842	12.926	12.871	13.007
30	1.00	13.335	13.364	13.347	13.398	13.365	13.448	13.393	13.530
31	1.00	13.818	13.847	13.831	13.881	13.848	13.931	13.876	14.012
32	1.00	14.339	14.368	14.352	14.402	14.369	14.452	14.398	14.534
33	1.00	14.823	14.852	14.836	14.886	14.853	14.935	14.881	15.017
34	1.00	15.343	15.372	15.355	15.405	15.373	15.455	15.401	15.537
35	1.06	15.628	15.658	15.641	15.692	15.659	15.744	15.688	15.828
36	1.06	16.147	16.177	16.160	16.211	16.178	16.263	16.207	16.347
37	1.06	16.633	16.663	16.646	16.697	16.665	16.749	16.694	16.833
38	1.06	17.151	17.181	17.164	17.215	17.183	17.266	17.212	17.351
39	1.06	17.638	17.667	17.651	17.702	17.669	17.753	17.699	17.837
40	1.06	18.155	18.184	18.168	18.219	18.186	18.270	18.216	18.354
41	1.06	18.642	18.671	18.655	18.706	18.674	18.757	18.703	18.841
42	1.06	19.158	19.187	19.171	19.222	19.190	19.279	19.219	19.357
43	1.06	19.646	19.675	19.659	19.709	19.678	19.761	19.707	19.845
44	1.06	20.161	20.190	20.174	20.225	20.193	20.276	20.222	20.360
45	1.06	20.650	20.678	20.663	20.713	20.681	20.764	20.710	20.848
46	1.06	21.164	21.193	21.177	21.227	21.196	21.278	21.225	21.363
47	1.06	21.653	21.681	21.666	21.716	21.684	21.767	21.714	21.851
48	1.06	22.167	22.195	22.180	22.229	22.198	22.281	22.228	22.365
49	1.06	22.656	22.684	22.669	22.718	22.687	22.770	22.717	22.854
50	1.06	23.169	23.197	23.182	23.232	23.201	23.283	23.230	23.368
51	1.06	23.658	23.686	23.671	23.721	23.690	23.772	23.720	23.857
52	1.06	24.171	24.199	24.184	24.234	24.203	24.285	24.233	24.370
53	1.06	24.661	24.689	24.674	24.723	24.693	24.775	24.722	24.860
54	1.06	25.173	25.201	25.186	25.235	25.205	25.287	25.235	25.372
55	1.06	25.663	25.691	25.676	25.725	25.695	25.777	25.725	25.862

表 1 (续) 单位为毫米

齿数 z	量棒直径 D_{W}	E_{min} 和 E_{max} 的棒间距 M_{W}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	1.06	26.175	26.202	26.188	26.237	26.207	26.289	26.237	26.374
57	1.06	26.665	26.693	26.678	26.727	26.697	26.779	26.727	26.865
58	1.06	27.176	27.204	27.190	27.239	27.209	27.291	27.239	27.376
59	1.06	27.667	27.695	27.680	27.729	27.699	27.781	27.729	27.867
60	1.06	28.178	28.205	28.191	28.240	28.210	28.292	28.241	28.378
61	1.06	28.669	28.696	28.682	28.731	28.701	28.783	28.732	28.869
62	1.06	29.179	29.207	29.193	29.242	29.212	29.294	29.242	29.380
63	1.06	29.670	29.698	29.684	29.733	29.703	29.785	29.734	29.871
64	1.06	30.181	30.208	30.194	30.243	30.214	30.295	30.244	30.381
65	1.06	30.672	30.699	30.686	30.734	30.705	30.787	30.735	30.873
66	1.06	31.182	31.209	31.196	31.244	31.215	31.297	31.246	31.383
67	1.06	31.673	31.701	31.687	31.736	31.707	31.788	31.737	31.875
68	1.06	32.183	32.210	32.197	32.245	32.216	32.298	32.247	32.385
69	1.06	32.675	32.702	32.689	32.737	32.708	32.790	32.739	32.877
70	1.06	33.184	33.211	33.198	33.247	33.218	33.299	33.249	33.386
71	1.06	33.676	33.703	33.690	33.739	33.710	33.791	33.741	33.878
72	1.06	34.185	34.212	34.199	34.248	34.219	34.300	34.250	34.388
73	1.06	34.677	34.705	34.692	34.740	34.711	34.793	34.742	34.880
74	1.06	35.186	35.213	35.200	35.249	35.220	35.302	35.251	35.389
75	1.06	35.679	35.706	35.693	35.741	35.713	35.794	35.744	35.882
76	1.06	36.187	36.214	36.201	36.250	36.221	36.303	36.253	36.391
77	1.06	36.680	36.707	36.694	36.742	36.714	36.795	36.745	36.883
78	1.06	37.188	37.215	37.202	37.251	37.222	37.304	37.254	37.392
79	1.06	37.681	37.708	37.695	37.744	37.715	37.797	37.747	37.885
80	1.06	38.189	38.216	38.203	38.252	38.224	38.305	38.255	38.393
81	1.06	38.682	38.709	38.696	38.745	38.717	38.798	38.748	38.886
82	1.06	39.190	39.217	39.204	39.253	39.225	39.306	39.256	39.395
83	1.06	39.683	39.710	39.697	39.746	39.718	39.799	39.750	39.888
84	1.06	40.191	40.218	40.205	40.253	40.226	40.307	40.257	40.396
85	1.06	40.684	40.711	40.698	40.747	40.719	40.800	40.751	40.889
86	1.06	41.191	41.218	41.206	41.254	41.227	41.308	41.259	41.397
87	1.06	41.685	41.712	41.699	41.748	41.720	41.801	41.752	41.891
88	1.06	42.192	42.219	42.207	42.255	42.227	42.309	42.260	42.398
89	1.06	42.686	42.713	42.700	42.749	42.721	42.803	42.753	42.892
90	1.06	43.193	43.220	43.208	43.256	43.228	43.310	43.261	43.399
91	1.06	43.687	43.713	43.701	43.750	43.722	43.804	43.755	43.893
92	1.06	44.194	44.220	44.208	44.257	44.229	44.311	44.262	44.401
93	1.06	44.687	44.714	44.702	44.750	44.723	44.805	44.756	44.895
94	1.06	45.194	45.221	45.209	45.257	45.230	45.312	45.263	45.402
95	1.06	45.688	45.715	45.703	45.751	45.724	45.806	45.757	45.896
96	1.06	46.195	46.222	46.210	46.258	46.231	46.312	46.264	46.403
97	1.06	46.689	46.716	46.704	46.752	46.725	46.807	46.758	46.897
98	1.06	47.196	47.222	47.211	47.259	47.232	47.313	47.265	47.404
99	1.06	47.690	47.716	47.705	47.753	47.726	47.808	47.759	47.898
100	1.06	48.196	48.223	48.211	48.259	48.233	48.314	48.266	48.405

表 2 棒间距 M_R
30°内花键 模数 $m=0.75\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=1.178\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_R	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_R							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	1.40	5.241	5.162	5.218	5.174	5.178	5.284	5.130	5.417
11	1.40	5.791	5.859	5.816	5.919	5.849	5.998	5.897	6.113
12	1.40	6.676	6.728	6.694	6.778	6.720	6.849	6.760	6.956
13	1.40	7.394	7.439	7.410	7.485	7.433	7.550	7.469	7.652
14	1.40	8.230	8.273	8.245	8.316	8.267	8.379	8.301	8.478
15	1.40	8.939	8.980	8.954	9.021	8.974	9.082	9.007	9.178
16	1.40	9.759	9.798	9.773	9.838	9.793	9.898	9.825	9.993
17	1.50	10.081	10.125	10.097	10.172	10.120	10.239	10.157	10.345
18	1.50	10.900	10.943	10.916	10.987	10.938	11.053	10.973	11.156
19	1.50	11.621	11.661	11.636	11.705	11.657	11.768	11.691	11.870
20	1.50	12.428	12.468	12.443	12.510	12.464	12.573	12.497	12.673
21	1.50	13.148	13.187	13.162	13.228	13.183	13.289	13.216	13.388
22	1.50	13.948	13.986	13.963	14.027	13.983	14.088	14.015	14.186
23	1.50	14.668	14.706	14.682	14.746	14.703	14.806	14.735	14.903
24	1.50	15.463	15.500	15.477	15.540	15.497	15.599	15.529	15.696
25	1.50	16.184	16.220	16.198	16.260	16.218	16.319	16.250	16.415
26	1.50	16.975	17.011	16.989	17.050	17.008	17.109	17.040	17.205
27	1.50	17.697	17.732	17.711	17.772	17.731	17.830	17.762	17.925
28	1.50	18.484	18.519	18.498	18.558	18.518	18.617	18.549	18.712
29	1.50	19.208	19.243	19.222	19.281	19.241	19.339	19.272	19.434
30	1.50	19.992	20.026	20.006	20.065	20.025	20.123	20.056	20.218
31	1.50	20.717	20.751	20.731	20.790	20.750	20.847	20.781	20.942
32	1.50	21.498	21.533	21.512	21.571	21.532	21.629	21.563	21.724
33	1.50	22.224	22.258	22.238	22.297	22.258	22.354	22.289	22.449
34	1.50	23.004	23.038	23.018	23.076	23.038	23.134	23.069	23.229
35	1.50	23.731	23.765	23.745	23.803	23.765	23.861	23.796	23.955
36	1.50	24.509	24.542	24.523	24.581	24.543	24.638	24.574	24.733
37	1.50	25.237	25.270	25.251	25.309	25.271	25.366	25.302	25.461
38	1.50	26.013	26.046	26.027	26.085	26.047	26.142	26.078	26.237
39	1.50	26.742	26.775	26.756	26.814	26.776	26.871	26.807	26.966
40	1.50	27.517	27.550	27.531	27.589	27.551	27.646	27.582	27.741
41	1.50	28.247	28.280	28.261	28.318	28.281	28.376	28.312	28.471
42	1.50	29.020	29.053	29.035	29.092	29.055	29.149	29.086	29.244
43	1.50	29.751	29.784	29.765	29.822	29.785	29.880	29.817	29.975
44	1.50	30.523	30.556	30.538	30.595	30.558	30.652	30.590	30.748
45	1.50	31.255	31.287	31.269	31.326	31.289	31.384	31.321	31.479
46	1.50	32.026	32.059	32.041	32.097	32.061	32.155	32.093	32.251
47	1.50	32.758	32.791	32.773	32.829	32.793	32.887	32.825	32.983
48	1.50	33.529	33.561	33.543	33.600	33.564	33.658	33.596	33.754
49	1.50	34.262	34.294	34.276	34.333	34.297	34.391	34.329	34.486
50	1.50	35.031	35.063	35.046	35.102	35.066	35.160	35.098	35.256
51	1.50	35.764	35.797	35.779	35.835	35.800	35.894	35.832	35.990
52	1.50	36.533	36.565	36.548	36.604	36.569	36.662	36.601	36.759
53	1.50	37.267	37.299	37.282	37.338	37.303	37.396	37.335	37.493
54	1.50	38.035	38.067	38.050	38.106	38.071	38.165	38.104	38.261
55	1.50	38.770	38.802	38.785	38.841	38.805	38.899	38.838	38.996

表 2 (续)

单位为毫米

齿数 z	量棒直径 D_{Wi}	E_{min} 和 E_{max} 的棒间距 M_{Di}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	1.50	39.537	39.569	39.552	39.608	39.573	39.667	39.606	39.764
57	1.50	40.272	40.304	40.287	40.343	40.308	40.402	40.341	40.499
58	1.50	41.039	41.070	41.054	41.110	41.075	41.168	41.108	41.266
59	1.50	41.774	41.806	41.789	41.845	41.811	41.904	41.844	42.001
60	1.50	42.540	42.572	42.556	42.611	42.577	42.670	42.610	42.768
61	1.50	43.276	43.308	43.292	43.347	43.313	43.406	43.346	43.504
62	1.50	44.042	44.073	44.057	44.113	44.079	44.172	44.112	44.270
63	1.50	44.778	44.810	44.794	44.849	44.815	44.908	44.849	45.006
64	1.50	45.543	45.575	45.559	45.614	45.580	45.674	45.614	45.772
65	1.50	46.280	46.311	46.296	46.351	46.317	46.410	46.351	46.509
66	1.50	47.045	47.076	47.060	47.116	47.082	47.175	47.116	47.274
67	1.50	47.782	47.813	47.797	47.853	47.819	47.912	47.853	48.011
68	1.50	48.546	48.577	48.562	48.617	48.583	48.677	48.618	48.776
69	1.50	49.284	49.315	49.299	49.355	49.321	49.414	49.355	49.513
70	1.60	49.733	49.765	49.749	49.806	49.772	49.866	49.807	49.967
71	1.60	50.472	50.503	50.488	50.544	50.510	50.604	50.545	50.705
72	1.60	51.235	51.266	51.251	51.307	51.274	51.368	51.309	51.469
73	1.60	51.973	52.005	51.990	52.046	52.012	52.106	52.047	52.207
74	1.60	52.737	52.768	52.753	52.809	52.775	52.870	52.811	52.971
75	1.60	53.475	53.507	53.491	53.547	53.514	53.608	53.549	53.710
76	1.60	54.238	54.269	54.254	54.310	54.277	54.371	54.312	54.473
77	1.60	54.977	55.008	54.993	55.049	55.016	55.110	55.052	55.212
78	1.60	55.739	55.771	55.756	55.812	55.779	55.873	55.814	55.975
79	1.60	56.479	56.510	56.495	56.551	56.518	56.612	56.554	56.714
80	1.60	57.241	57.272	57.257	57.313	57.280	57.374	57.316	57.476
81	1.60	57.980	58.011	57.997	58.052	58.020	58.114	58.056	58.216
82	1.60	58.742	58.773	58.759	58.814	58.782	58.876	58.818	58.978
83	1.60	59.482	59.513	59.498	59.554	59.522	59.616	59.558	59.718
84	1.60	60.243	60.274	60.260	60.315	60.283	60.377	60.319	60.480
85	1.60	60.983	61.014	61.000	61.055	61.023	61.117	61.060	61.220
86	1.60	61.744	61.775	61.761	61.817	61.785	61.879	61.821	61.982
87	1.60	62.485	62.515	62.501	62.557	62.525	62.619	62.561	62.722
88	1.60	63.246	63.276	63.262	63.318	63.286	63.380	63.323	63.483
89	1.60	63.986	64.017	64.003	64.058	64.026	64.120	64.063	64.224
90	1.60	64.747	64.777	64.764	64.819	64.787	64.881	64.824	64.985
91	1.60	65.487	65.518	65.504	65.559	65.528	65.622	65.565	65.725
92	1.60	66.248	66.278	66.265	66.320	66.289	66.382	66.326	66.486
93	1.60	66.988	67.019	67.005	67.061	67.029	67.123	67.067	67.227
94	1.60	67.749	67.779	67.766	67.821	67.790	67.884	67.827	67.988
95	1.60	68.490	68.520	68.507	68.562	68.531	68.625	68.568	68.729
96	1.60	69.250	69.280	69.267	69.322	69.291	69.385	69.328	69.489
97	1.60	69.991	70.021	70.008	70.063	70.032	70.126	70.070	70.230
98	1.60	70.751	70.781	70.768	70.823	70.792	70.886	70.830	70.991
99	1.60	71.492	71.522	71.509	71.564	71.534	71.627	71.571	71.732
100	1.60	72.251	72.282	72.269	72.324	72.293	72.387	72.331	72.492

表 3 棒间距 M_R
30°内花键 模数 $m=1\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=1.571\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_R	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_R							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	1.80	7.098	7.163	7.120	7.222	7.149	7.304	7.195	7.426
11	1.80	8.052	8.104	8.069	8.155	8.094	8.228	8.132	8.341
12	1.80	9.185	9.233	9.201	9.281	9.224	9.350	9.260	9.459
13	1.90	9.700	9.757	9.719	9.813	9.746	9.892	9.789	10.015
14	1.90	10.826	10.878	10.844	10.930	10.869	11.004	10.908	11.121
15	1.90	11.780	11.828	11.796	11.876	11.819	11.947	11.856	12.059
16	1.90	12.877	12.922	12.892	12.969	12.915	13.038	12.950	13.149
17	1.90	13.826	13.870	13.841	13.916	13.863	13.982	13.898	14.090
18	1.90	14.907	14.950	14.922	14.995	14.944	15.061	14.978	15.168
19	1.90	15.858	15.900	15.873	15.944	15.894	16.008	15.927	16.114
20	1.90	16.929	16.970	16.943	17.013	16.964	17.077	16.997	17.182
21	1.90	17.882	17.922	17.896	17.965	17.917	18.028	17.950	18.132
22	1.90	18.944	18.984	18.959	19.027	18.980	19.090	19.012	19.194
23	1.90	19.900	19.939	19.914	19.981	19.935	20.044	19.967	20.147
24	1.90	20.957	20.996	20.971	21.038	20.992	21.100	21.024	21.203
25	1.90	21.915	21.953	21.929	21.995	21.950	22.057	21.982	22.160
26	1.90	22.966	23.005	22.981	23.047	23.001	23.109	23.034	23.211
27	1.90	23.927	23.965	23.941	24.006	23.962	24.068	23.994	24.170
28	1.90	24.975	25.012	24.989	25.054	25.009	25.116	25.042	25.218
29	1.90	25.937	25.975	25.952	26.016	25.972	26.078	26.005	26.180
30	1.90	26.981	27.019	26.996	27.060	27.016	27.122	27.049	27.224
31	2.00	27.615	27.653	27.630	27.696	27.651	27.760	27.685	27.865
32	2.00	28.657	28.695	28.672	28.738	28.693	28.802	28.727	28.907
33	2.00	29.625	29.663	29.640	29.706	29.662	29.769	29.695	29.874
34	2.00	30.665	30.702	30.680	30.745	30.701	30.809	30.735	30.914
35	2.00	31.634	31.671	31.649	31.714	31.671	31.778	31.704	31.882
36	2.00	32.671	32.708	32.686	32.751	32.708	32.814	32.742	32.919
37	2.00	33.642	33.679	33.657	33.721	33.679	33.785	33.713	33.890
38	2.00	34.677	34.714	34.692	34.756	34.714	34.820	34.748	34.925
39	2.00	35.649	35.685	35.664	35.728	35.686	35.792	35.720	35.897
40	2.00	36.682	36.718	36.697	36.761	36.719	36.825	36.753	36.930
41	2.00	37.655	37.691	37.670	37.734	37.692	37.798	37.726	37.903
42	2.00	38.686	38.723	38.702	38.766	38.724	38.829	38.758	38.934
43	2.00	39.661	39.697	39.676	39.739	39.698	39.803	39.733	39.909
44	2.00	40.690	40.726	40.706	40.769	40.728	40.833	40.763	40.939
45	2.00	41.666	41.702	41.681	41.744	41.703	41.808	41.738	41.914
46	2.00	42.694	42.730	42.710	42.773	42.732	42.837	42.767	42.942
47	2.00	43.670	43.706	43.686	43.749	43.708	43.813	43.743	43.919
48	2.00	44.697	44.733	44.713	44.776	44.736	44.840	44.771	44.946
49	2.00	45.674	45.710	45.690	45.753	45.713	45.817	45.748	45.923
50	2.00	46.700	46.736	46.717	46.779	46.739	46.843	46.774	46.950
51	2.00	47.678	47.714	47.694	47.757	47.717	47.821	47.752	47.928
52	2.00	48.703	48.739	48.719	48.782	48.742	48.846	48.778	48.953
53	2.00	49.682	49.717	49.698	49.760	49.721	49.825	49.757	49.932
54	2.00	50.706	50.741	50.722	50.784	50.745	50.849	50.781	50.956
55	2.00	51.685	51.720	51.702	51.764	51.725	51.828	51.760	51.935

表 3 (续) 单位为毫米

齿数 z	量棒直径 D_R	E_{min} 和 E_{max} 的棒间距 M_R							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	2.00	52.708	52.743	52.725	52.787	52.748	52.851	52.784	52.959
57	2.00	53.688	53.723	53.705	53.767	53.728	53.831	53.764	53.939
58	2.00	54.711	54.745	54.727	54.789	54.750	54.854	54.787	54.962
59	2.00	55.691	55.726	55.708	55.770	55.731	55.835	55.768	55.942
60	2.00	56.713	56.747	56.729	56.791	56.753	56.856	56.789	56.964
61	2.00	57.694	57.729	57.711	57.772	57.734	57.837	57.771	57.946
62	2.00	58.715	58.749	58.732	58.793	58.755	58.858	58.792	58.967
63	2.00	59.697	59.731	59.713	59.775	59.737	59.840	59.774	59.949
64	2.00	60.717	60.751	60.734	60.795	60.757	60.860	60.794	60.969
65	2.00	61.699	61.733	61.716	61.777	61.740	61.843	61.777	61.952
66	2.00	62.718	62.753	62.736	62.797	62.759	62.862	62.797	62.972
67	2.00	63.701	63.735	63.718	63.779	63.742	63.845	63.780	63.955
68	2.00	64.720	64.754	64.737	64.798	64.761	64.864	64.799	64.974
69	2.00	65.703	65.737	65.721	65.782	65.745	65.848	65.782	65.957
70	2.00	66.722	66.756	66.739	66.800	66.763	66.866	66.801	66.976
71	2.00	67.705	67.739	67.723	67.784	67.747	67.850	67.785	67.960
72	2.00	68.723	68.757	68.741	68.802	68.765	68.868	68.803	68.978
73	2.00	69.707	69.741	69.725	69.786	69.749	69.852	69.788	69.962
74	2.00	70.725	70.759	70.742	70.803	70.767	70.870	70.805	70.980
75	2.00	71.709	71.743	71.727	71.788	71.752	71.854	71.790	71.965
76	2.00	72.726	72.760	72.744	72.804	72.769	72.871	72.807	72.982
77	2.00	73.711	73.745	73.729	73.789	73.754	73.856	73.792	73.967
78	2.00	74.727	74.761	74.745	74.806	74.770	74.873	74.809	74.984
79	2.00	75.713	75.746	75.731	75.791	75.756	75.858	75.795	75.969
80	2.00	76.729	76.762	76.747	76.807	76.772	76.874	76.811	76.986
81	2.00	77.714	77.748	77.732	77.793	77.758	77.860	77.797	77.972
82	2.00	78.730	78.763	78.748	78.808	78.773	78.876	78.813	78.988
83	2.00	79.716	79.749	79.734	79.794	79.759	79.862	79.799	79.974
84	2.00	80.731	80.764	80.749	80.809	80.775	80.877	80.814	80.989
85	2.00	81.717	81.751	81.735	81.796	81.761	81.863	81.801	81.976
86	2.00	82.732	82.765	82.750	82.811	82.776	82.878	82.816	82.991
87	2.00	83.719	83.752	83.737	83.797	83.763	83.865	83.803	83.978
88	2.00	84.733	84.766	84.752	84.812	84.778	84.880	84.818	84.993
89	2.00	85.720	85.753	85.739	85.799	85.765	85.867	85.805	85.980
90	2.00	86.734	86.767	86.753	86.813	86.779	86.881	86.819	86.994
91	2.00	87.721	87.754	87.740	87.800	87.766	87.868	87.807	87.982
92	2.00	88.735	88.768	88.754	88.814	88.780	88.882	88.821	88.996
93	2.00	89.723	89.756	89.741	89.801	89.768	89.870	89.808	89.984
94	2.00	90.736	90.769	90.755	90.815	90.781	90.884	90.822	90.998
95	2.00	91.724	91.757	91.743	91.803	91.769	91.871	91.810	91.985
96	2.00	92.737	92.770	92.756	92.816	92.783	92.885	92.824	92.999
97	2.00	93.725	93.758	93.744	93.804	93.771	93.873	93.812	93.987
98	2.00	94.738	94.771	94.757	94.817	94.784	94.886	94.825	95.001
99	2.00	95.726	95.759	95.745	95.805	95.772	95.874	95.813	95.989
100	2.00	96.739	96.771	96.758	96.818	96.785	96.887	96.826	97.002

表 4 棒间距 M_{Ri}
30°内花键 模数 $m=1.25\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=1.963\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_{Ri}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Ri}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	2.24	8.916	8.984	8.938	9.047	8.968	9.135	9.015	9.268
11	2.24	10.101	10.158	10.119	10.212	10.145	10.290	10.185	10.413
12	2.24	11.516	11.568	11.532	11.619	11.556	11.693	11.594	11.811
13	2.24	12.682	12.731	12.698	12.779	12.720	12.850	12.756	12.964
14	2.36	13.589	13.645	13.608	13.699	13.633	13.779	13.674	13.906
15	2.36	14.778	14.829	14.795	14.881	14.819	14.957	14.857	15.078
16	2.36	16.147	16.196	16.164	16.247	16.187	16.320	16.224	16.440
17	2.36	17.333	17.380	17.349	17.429	17.372	17.500	17.408	17.617
18	2.36	18.683	18.729	18.699	18.777	18.722	18.848	18.757	18.963
19	2.36	19.870	19.915	19.886	19.962	19.908	20.032	19.943	20.146
20	2.36	21.208	21.252	21.224	21.299	21.246	21.368	21.281	21.481
21	2.36	22.399	22.442	22.414	22.488	22.436	22.556	22.470	22.668
22	2.36	23.727	23.770	23.742	23.815	23.764	23.884	23.798	23.995
23	2.36	24.921	24.963	24.936	25.008	24.958	25.076	24.992	25.187
24	2.36	26.241	26.283	26.256	26.328	26.278	26.396	26.313	26.507
25	2.36	27.438	27.480	27.454	27.525	27.475	27.592	27.510	27.702
26	2.36	28.753	28.794	28.768	28.839	28.790	28.906	28.824	29.016
27	2.36	29.953	29.994	29.968	30.039	29.990	30.105	30.024	30.215
28	2.36	31.262	31.303	31.278	31.348	31.300	31.415	31.334	31.525
29	2.36	32.465	32.506	32.481	32.550	32.503	32.617	32.537	32.727
30	2.36	33.770	33.810	33.786	33.855	33.808	33.922	33.842	34.032
31	2.36	34.976	35.016	34.991	35.060	35.013	35.127	35.048	35.237
32	2.36	36.277	36.317	36.293	36.362	36.315	36.428	36.350	36.539
33	2.36	37.485	37.524	37.501	37.569	37.523	37.636	37.558	37.746
34	2.50	38.325	38.365	38.341	38.412	38.364	38.480	38.400	38.594
35	2.50	39.537	39.577	39.553	39.623	39.576	39.692	39.612	39.805
36	2.50	40.833	40.873	40.849	40.919	40.872	40.988	40.909	41.102
37	2.50	42.046	42.086	42.063	42.132	42.086	42.201	42.122	42.315
38	2.50	43.340	43.380	43.357	43.426	43.380	43.495	43.416	43.608
39	2.50	44.555	44.595	44.572	44.641	44.595	44.709	44.631	44.823
40	2.50	45.846	45.886	45.863	45.932	45.886	46.001	45.923	46.115
41	2.50	47.063	47.102	47.079	47.148	47.103	47.217	47.140	47.331
42	2.50	48.352	48.391	48.369	48.437	48.392	48.506	48.429	48.620
43	2.50	49.570	49.609	49.587	49.655	49.610	49.724	49.647	49.838
44	2.50	50.857	50.896	50.874	50.942	50.898	51.011	50.935	51.125
45	2.50	52.076	52.115	52.093	52.161	52.117	52.230	52.154	52.344
46	2.50	53.362	53.400	53.379	53.446	53.403	53.516	53.440	53.630
47	2.50	54.582	54.620	54.599	54.667	54.623	54.736	54.660	54.850
48	2.50	55.866	55.904	55.883	55.950	55.907	56.020	55.945	56.135
49	2.50	57.087	57.125	57.104	57.172	57.129	57.241	57.166	57.356
50	2.50	58.370	58.408	58.387	58.454	58.411	58.524	58.449	58.639
51	2.50	59.592	59.630	59.609	59.676	59.634	59.746	59.672	59.861
52	2.50	60.873	60.911	60.891	60.958	60.915	61.027	60.953	61.143
53	2.50	62.096	62.134	62.114	62.181	62.139	62.250	62.177	62.366
54	2.50	63.376	63.414	63.394	63.461	63.419	63.531	63.457	63.646
55	2.50	64.600	64.638	64.618	64.685	64.643	64.755	64.682	64.871

表 4 (续)

单位为毫米

齿数 z	量棒直径 D_{Ri}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Ri}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	2.50	65.879	65.917	65.897	65.964	65.922	66.034	65.961	66.150
57	2.50	67.104	67.142	67.122	67.189	67.147	67.259	67.186	67.375
58	2.50	68.382	68.420	68.400	68.466	68.425	68.537	68.464	68.653
59	2.50	69.608	69.645	69.626	69.692	69.651	69.763	69.690	69.879
60	2.50	70.885	70.922	70.903	70.969	70.928	71.040	70.968	71.156
61	2.50	72.111	72.148	72.129	72.196	72.155	72.266	72.194	72.383
62	2.50	73.387	73.424	73.405	73.472	73.431	73.542	73.471	73.659
63	2.50	74.614	74.651	74.633	74.699	74.658	74.769	74.698	74.887
64	2.50	75.890	75.926	75.908	75.974	75.934	76.045	75.974	76.162
65	2.50	77.117	77.154	77.136	77.202	77.162	77.273	77.202	77.390
66	2.50	78.392	78.428	78.410	78.476	78.436	78.547	78.476	78.665
67	2.50	79.620	79.657	79.639	79.704	79.665	79.776	79.705	79.894
68	2.50	80.894	80.930	80.912	80.978	80.939	81.049	80.979	81.168
69	2.50	82.123	82.159	82.142	82.207	82.168	82.279	82.209	82.397
70	2.50	83.396	83.432	83.415	83.480	83.441	83.552	83.482	83.670
71	2.50	84.625	84.662	84.644	84.710	84.671	84.781	84.712	84.900
72	2.50	85.898	85.934	85.917	85.982	85.943	86.054	85.984	86.173
73	2.50	87.128	87.164	87.147	87.212	87.173	87.284	87.215	87.403
74	2.50	88.399	88.436	88.418	88.484	88.445	88.556	88.487	88.675
75	2.50	89.630	89.666	89.649	89.714	89.676	89.786	89.718	89.906
76	2.50	90.901	90.937	90.920	90.985	90.947	91.058	90.989	91.178
77	2.50	92.132	92.168	92.151	92.216	92.179	92.289	92.220	92.409
78	2.50	93.403	93.439	93.422	93.487	93.449	93.559	93.491	93.680
79	2.50	94.634	94.670	94.654	94.719	94.681	94.791	94.723	94.912
80	2.50	95.904	95.940	95.924	95.989	95.951	96.061	95.993	96.182
81	2.50	97.136	97.172	97.156	97.221	97.183	97.293	97.226	97.414
82	2.50	98.406	98.441	98.425	98.490	98.453	98.563	98.496	98.684
83	2.50	99.638	99.674	99.658	99.722	99.685	99.795	99.728	99.917
84	2.50	100.907	100.943	100.927	100.991	100.955	101.065	100.998	101.186
85	2.50	102.140	102.175	102.160	102.224	102.188	102.298	102.231	102.419
86	2.50	103.408	103.444	103.428	103.493	103.456	103.566	103.500	103.688
87	2.50	104.642	104.677	104.662	104.726	104.690	104.800	104.733	104.922
88	2.50	105.910	105.945	105.930	105.994	105.958	106.068	106.001	106.190
89	2.50	107.143	107.179	107.163	107.228	107.192	107.301	107.235	107.424
90	2.50	108.411	108.446	108.431	108.496	108.460	108.569	108.503	108.692
91	2.50	109.645	109.680	109.665	109.729	109.694	109.803	109.738	109.926
92	2.50	110.912	110.947	110.933	110.997	110.961	111.071	111.005	111.194
93	2.50	112.146	112.181	112.167	112.231	112.196	112.305	112.240	112.428
94	2.50	113.413	113.448	113.434	113.498	113.463	113.572	113.507	113.696
95	2.50	114.648	114.683	114.668	114.733	114.697	114.807	114.742	114.931
96	2.50	115.914	115.949	115.935	115.999	115.964	116.074	116.009	116.197
97	2.50	117.149	117.184	117.170	117.234	117.199	117.309	117.244	117.433
98	2.50	118.415	118.450	118.436	118.500	118.466	118.575	118.510	118.699
99	2.50	119.651	119.685	119.672	119.735	119.701	119.810	119.745	119.935
100	2.50	120.917	120.951	120.937	121.001	120.967	121.076	121.012	121.201

表 5 棒间距 M_{Rl}
30°内花键 模数 $m = 1.5 \text{ mm}$ 作用齿槽宽最小值 $E_{\min} = 2.356 \text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_{Rl}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Rl}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	2.65	10.877	10.941	10.896	11.002	10.925	11.089	10.969	11.224
11	2.65	12.276	12.332	12.293	12.387	12.318	12.467	12.358	12.593
12	2.65	13.964	14.017	13.981	14.069	14.005	14.146	14.042	14.269
13	2.80	14.760	14.821	14.779	14.881	14.807	14.967	14.850	15.104
14	2.80	16.434	16.491	16.452	16.547	16.478	16.630	16.519	16.762
15	2.80	17.854	17.907	17.871	17.961	17.896	18.039	17.935	18.167
16	2.80	19.493	19.545	19.510	19.597	19.534	19.674	19.573	19.799
17	2.80	20.912	20.962	20.929	21.013	20.952	21.088	20.990	21.210
18	2.80	22.531	22.579	22.547	22.630	22.571	22.704	22.608	22.825
19	2.80	23.953	24.001	23.970	24.050	23.993	24.123	24.029	24.243
20	2.80	25.557	25.604	25.574	25.653	25.597	25.726	25.633	25.845
21	2.80	26.984	27.030	27.000	27.079	27.023	27.151	27.059	27.269
22	2.80	28.577	28.623	28.593	28.671	28.616	28.743	28.652	28.861
23	2.80	30.009	30.053	30.025	30.101	30.048	30.173	30.083	30.290
24	2.80	31.593	31.637	31.609	31.685	31.632	31.756	31.668	31.873
25	2.80	33.028	33.072	33.045	33.120	33.067	33.191	33.103	33.308
26	2.80	34.605	34.649	34.621	34.696	34.644	34.767	34.680	34.884
27	2.80	36.045	36.088	36.061	36.135	36.084	36.206	36.120	36.323
28	2.80	37.616	37.659	37.632	37.706	37.655	37.777	37.691	37.894
29	2.80	39.059	39.101	39.075	39.149	39.098	39.219	39.134	39.336
30	2.80	40.624	40.667	40.641	40.714	40.664	40.785	40.700	40.902
31	2.80	42.071	42.113	42.087	42.160	42.110	42.231	42.147	42.347
32	3.00	42.974	43.017	42.991	43.067	43.015	43.140	43.053	43.262
33	3.00	44.426	44.469	44.443	44.518	44.467	44.592	44.505	44.713
34	3.00	45.985	46.028	46.002	46.077	46.027	46.151	46.065	46.272
35	3.00	47.439	47.482	47.456	47.531	47.481	47.604	47.519	47.726
36	3.00	48.995	49.037	49.012	49.086	49.037	49.160	49.075	49.281
37	3.00	50.451	50.493	50.468	50.542	50.493	50.616	50.531	50.737
38	3.00	52.003	52.045	52.021	52.094	52.045	52.168	52.084	52.289
39	3.00	53.461	53.503	53.479	53.552	53.504	53.626	53.542	53.747
40	3.00	55.011	55.052	55.028	55.102	55.053	55.175	55.092	55.296
41	3.00	56.470	56.512	56.488	56.561	56.513	56.635	56.552	56.756
42	3.00	58.017	58.059	58.035	58.108	58.060	58.181	58.100	58.303
43	3.00	59.479	59.520	59.497	59.569	59.522	59.643	59.561	59.764
44	3.00	61.023	61.065	61.041	61.114	61.067	61.187	61.106	61.309
45	3.00	62.486	62.527	62.504	62.577	62.530	62.650	62.569	62.772
46	3.00	64.029	64.070	64.047	64.119	64.073	64.193	64.112	64.315
47	3.00	65.493	65.534	65.511	65.583	65.537	65.657	65.577	65.779
48	3.00	67.034	67.074	67.052	67.124	67.078	67.198	67.118	67.320
49	3.00	68.499	68.540	68.518	68.589	68.544	68.663	68.584	68.786
50	3.00	70.038	70.079	70.057	70.128	70.083	70.202	70.123	70.325
51	3.00	71.505	71.545	71.524	71.595	71.550	71.669	71.590	71.792
52	3.00	73.043	73.083	73.061	73.132	73.087	73.207	73.128	73.330
53	3.00	74.510	74.550	74.529	74.600	74.556	74.674	74.596	74.798
54	3.00	76.046	76.086	76.065	76.136	76.092	76.211	76.133	76.334
55	3.00	77.515	77.555	77.534	77.605	77.561	77.680	77.602	77.803

表 5 (续)

单位为毫米

齿数 z	量棒直径 D_K	$F_{\min}$ 和 $F_{\max}$ 的棒间距 M_R							
		1H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	3.00	79.050	79.090	79.069	79.140	79.096	79.214	79.137	79.338
57	3.00	80.520	80.560	80.539	80.610	80.566	80.684	80.607	80.808
58	3.00	82.053	82.093	82.072	82.143	82.099	82.218	82.141	82.342
59	3.00	83.524	83.564	83.543	83.614	83.571	83.689	83.612	83.813
60	3.00	85.056	85.096	85.076	85.146	85.103	85.221	85.145	85.346
61	3.00	86.528	86.567	86.548	86.618	86.575	86.693	86.617	86.818
62	3.00	88.059	88.099	88.079	88.149	88.106	88.224	88.149	88.349
63	3.00	89.532	89.571	89.552	89.621	89.579	89.697	89.622	89.822
64	3.00	91.062	91.101	91.082	91.152	91.109	91.227	91.152	91.353
65	3.00	92.535	92.574	92.555	92.625	92.583	92.701	92.626	92.826
66	3.00	94.065	94.103	94.084	94.154	94.112	94.230	94.155	94.356
67	3.00	95.539	95.578	95.559	95.628	95.587	95.704	95.630	95.830
68	3.00	97.067	97.106	97.087	97.157	97.115	97.233	97.159	97.359
69	3.00	98.542	98.581	98.562	98.631	98.590	98.708	98.634	98.834
70	3.00	100.069	100.108	100.090	100.159	100.118	100.235	100.162	100.362
71	3.00	101.545	101.583	101.565	101.634	101.594	101.711	101.637	101.838
72	3.00	103.072	103.110	103.092	103.161	103.121	103.238	103.165	103.365
73	3.00	104.548	104.586	104.568	104.637	104.597	104.714	104.641	104.841
74	3.00	106.074	106.112	106.094	106.163	106.123	106.240	106.167	106.368
75	3.00	107.550	107.589	107.571	107.640	107.600	107.717	107.644	107.845
76	3.00	109.076	109.114	109.096	109.165	109.125	109.242	109.170	109.370
77	3.00	110.553	110.591	110.574	110.642	110.603	110.720	110.648	110.848
78	3.00	112.078	112.115	112.098	112.167	112.128	112.244	112.173	112.373
79	3.00	113.555	113.593	113.576	113.645	113.606	113.722	113.651	113.851
80	3.00	115.079	115.117	115.100	115.169	115.130	115.246	115.175	115.375
81	3.00	116.558	116.595	116.579	116.647	116.608	116.725	116.654	116.854
82	3.00	118.081	118.119	118.102	118.171	118.132	118.248	118.178	118.378
83	3.00	119.560	119.598	119.581	119.650	119.611	119.727	119.657	119.857
84	3.00	121.083	121.120	121.104	121.172	121.134	121.250	121.180	121.380
85	3.00	122.562	122.600	122.583	122.652	122.614	122.730	122.660	122.860
86	3.00	124.084	124.122	124.106	124.174	124.136	124.252	124.182	124.382
87	3.00	125.564	125.601	125.586	125.654	125.616	125.732	125.662	125.862
88	3.00	127.086	127.123	127.107	127.176	127.138	127.254	127.184	127.385
89	3.00	128.566	128.603	128.588	128.656	128.618	128.734	128.665	128.865
90	3.00	130.087	130.124	130.109	130.177	130.140	130.256	130.187	130.387
91	3.00	131.568	131.605	131.590	131.658	131.621	131.737	131.668	131.868
92	3.00	133.089	133.126	133.111	133.178	133.141	133.257	133.189	133.389
93	3.00	134.570	134.607	134.592	134.660	134.623	134.739	134.670	134.870
94	3.00	136.090	136.127	136.112	136.180	136.143	136.259	136.191	136.391
95	3.00	137.571	137.608	137.594	137.661	137.625	137.741	137.673	137.873
96	3.00	139.091	139.128	139.114	139.181	139.145	139.261	139.193	139.393
97	3.00	140.573	140.610	140.596	140.663	140.627	140.743	140.675	140.875
98	3.00	142.093	142.129	142.115	142.183	142.147	142.262	142.195	142.395
99	3.00	143.575	143.611	143.597	143.665	143.629	143.745	143.677	143.877
100	3.00	145.094	145.130	145.116	145.184	145.148	145.264	145.197	145.397

表 6 棒间距 M_R
30°内花键 模数 $m=1.75\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=2.749\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_R	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_R							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	3.15	12.393	12.477	12.419	12.554	12.455	12.659	12.510	12.820
11	3.15	14.068	14.135	14.089	14.198	14.118	14.290	14.163	14.434
12	3.15	16.054	16.114	16.073	16.173	16.099	16.259	16.141	16.397
13	3.15	17.691	17.747	17.709	17.802	17.734	17.884	17.773	18.016
14	3.15	19.624	19.677	19.641	19.731	19.665	19.811	19.704	19.940
15	3.15	21.262	21.314	21.279	21.366	21.303	21.444	21.341	21.570
16	3.15	23.165	23.216	23.182	23.268	23.206	23.344	23.243	23.469
17	3.15	24.811	24.860	24.827	24.911	24.851	24.986	24.888	25.109
18	3.35	25.977	26.030	25.995	26.086	26.020	26.168	26.061	26.301
19	3.35	27.643	27.695	27.660	27.749	27.686	27.829	27.725	27.960
20	3.35	29.518	29.569	29.535	29.622	29.560	29.702	29.600	29.832
21	3.35	31.187	31.237	31.204	31.290	31.229	31.368	31.268	31.497
22	3.35	33.048	33.097	33.065	33.149	33.090	33.227	33.129	33.355
23	3.35	34.721	34.770	34.739	34.821	34.763	34.899	34.802	35.026
24	3.35	36.571	36.619	36.588	36.671	36.613	36.747	36.652	36.874
25	3.35	38.248	38.296	38.266	38.347	38.290	38.423	38.329	38.550
26	3.35	40.089	40.136	40.107	40.188	40.131	40.264	40.170	40.390
27	3.35	41.771	41.817	41.788	41.868	41.813	41.944	41.851	42.070
28	3.35	43.605	43.651	43.622	43.702	43.647	43.778	43.685	43.903
29	3.35	45.290	45.335	45.307	45.386	45.332	45.462	45.371	45.587
30	3.35	47.117	47.163	47.135	47.213	47.160	47.289	47.198	47.414
31	3.35	48.806	48.851	48.823	48.901	48.848	48.977	48.887	49.102
32	3.35	50.628	50.673	50.646	50.723	50.671	50.799	50.710	50.924
33	3.35	52.320	52.364	52.337	52.415	52.363	52.490	52.402	52.615
34	3.35	54.137	54.182	54.155	54.232	54.180	54.308	54.220	54.433
35	3.35	55.832	55.876	55.850	55.926	55.875	56.002	55.914	56.127
36	3.35	57.645	57.689	57.663	57.740	57.689	57.816	57.728	57.941
37	3.35	59.342	59.386	59.361	59.437	59.386	59.513	59.426	59.638
38	3.35	61.152	61.196	61.171	61.247	61.196	61.323	61.236	61.448
39	3.35	62.852	62.895	62.870	62.946	62.896	63.022	62.936	63.148
40	3.35	64.659	64.702	64.677	64.753	64.703	64.829	64.743	64.955
41	3.35	66.361	66.404	66.379	66.454	66.405	66.530	66.446	66.657
42	3.35	68.165	68.207	68.183	68.258	68.209	68.335	68.250	68.461
43	3.35	69.868	69.911	69.887	69.962	69.913	70.038	69.954	70.165
44	3.35	71.670	71.712	71.688	71.763	71.715	71.840	71.756	71.966
45	3.35	73.375	73.418	73.394	73.469	73.421	73.545	73.462	73.672
46	3.35	75.174	75.217	75.193	75.268	75.220	75.345	75.261	75.472
47	3.35	76.882	76.924	76.901	76.975	76.928	77.052	76.969	77.179
48	3.35	78.679	78.721	78.698	78.772	78.725	78.849	78.767	78.976
49	3.35	80.388	80.430	80.407	80.481	80.434	80.558	80.476	80.686
50	3.35	82.183	82.224	82.202	82.276	82.229	82.353	82.271	82.481
51	3.35	83.893	83.935	83.913	83.986	83.940	84.064	83.982	84.192
52	3.35	85.686	85.728	85.706	85.780	85.733	85.857	85.776	85.985
53	3.35	87.398	87.440	87.418	87.491	87.445	87.569	87.488	87.697
54	3.35	89.190	89.231	89.209	89.283	89.237	89.360	89.280	89.489
55	3.35	90.903	90.944	90.923	90.996	90.951	91.074	90.994	91.203

表 6 (续)

单位为毫米

齿数 z	量棒直径 D_W	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_W							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	3.35	92.693	92.734	92.713	92.786	92.741	92.864	92.784	92.993
57	3.35	94.407	94.448	94.427	94.500	94.455	94.578	94.499	94.708
58	3.35	96.196	96.237	96.216	96.289	96.244	96.367	96.288	96.497
59	3.35	97.911	97.952	97.931	98.004	97.960	98.083	98.004	98.213
60	3.35	99.698	99.739	99.719	99.792	99.747	99.870	99.791	100.000
61	3.35	101.415	101.456	101.435	101.508	101.464	101.587	101.508	101.717
62	3.35	103.201	103.242	103.222	103.294	103.250	103.373	103.295	103.504
63	3.35	104.919	104.959	104.939	105.012	104.968	105.091	105.013	105.222
64	3.35	106.703	106.744	106.724	106.797	106.753	106.876	106.798	107.007
65	3.35	108.422	108.462	108.443	108.515	108.472	108.594	108.517	108.726
66	3.35	110.206	110.246	110.227	110.299	110.256	110.378	110.301	110.510
67	3.35	111.925	111.965	111.946	112.018	111.976	112.098	112.021	112.230
68	3.35	113.708	113.748	113.729	113.801	113.759	113.881	113.804	114.013
69	3.35	115.428	115.468	115.449	115.521	115.479	115.601	115.525	115.734
70	3.35	117.210	117.250	117.231	117.303	117.261	117.383	117.307	117.516
71	3.35	118.931	118.971	118.952	119.024	118.982	119.104	119.029	119.237
72	3.35	120.712	120.752	120.733	120.805	120.764	120.885	120.810	121.019
73	3.35	122.434	122.473	122.455	122.527	122.486	122.607	122.532	122.741
74	3.35	124.214	124.253	124.236	124.307	124.266	124.388	124.313	124.521
75	3.35	125.936	125.976	125.958	126.030	125.989	126.110	126.036	126.244
76	3.35	127.716	127.755	127.737	127.809	127.768	127.890	127.815	128.024
77	3.35	129.439	129.478	129.461	129.532	129.492	129.613	129.539	129.747
78	3.35	131.217	131.257	131.239	131.311	131.270	131.392	131.318	131.526
79	3.55	132.321	132.360	132.343	132.415	132.375	132.497	132.423	132.633
80	3.55	134.099	134.138	134.121	134.193	134.153	134.275	134.201	134.412
81	3.55	135.824	135.863	135.846	135.918	135.878	136.000	135.926	136.137
82	3.55	137.601	137.640	137.624	137.695	137.655	137.778	137.704	137.915
83	3.55	139.326	139.366	139.349	139.421	139.381	139.503	139.430	139.640
84	3.55	141.103	141.142	141.126	141.197	141.158	141.280	141.207	141.417
85	3.55	142.829	142.868	142.852	142.923	142.884	143.006	142.933	143.144
86	3.55	144.605	144.644	144.628	144.699	144.660	144.782	144.709	144.920
87	3.55	146.331	146.371	146.354	146.426	146.387	146.509	146.436	146.647
88	3.55	148.107	148.146	148.130	148.201	148.162	148.284	148.212	148.423
89	3.55	149.834	149.873	149.857	149.928	149.890	150.012	149.939	150.150
90	3.55	151.609	151.647	151.632	151.703	151.665	151.787	151.715	151.925
91	3.55	153.336	153.375	153.359	153.431	153.392	153.514	153.443	153.653
92	3.55	155.110	155.149	155.134	155.205	155.167	155.289	155.217	155.428
93	3.55	156.838	156.877	156.862	156.933	156.895	157.017	156.945	157.156
94	3.55	158.612	158.651	158.636	158.707	158.669	158.791	158.720	158.930
95	3.55	160.340	160.379	160.364	160.435	160.397	160.519	160.448	160.659
96	3.55	162.114	162.152	162.137	162.208	162.171	162.292	162.222	162.432
97	3.55	163.842	163.881	163.866	163.937	163.900	164.021	163.951	164.162
98	3.55	165.615	165.654	165.639	165.710	165.673	165.794	165.724	165.935
99	3.55	167.344	167.383	167.368	167.439	167.402	167.524	167.454	167.664
100	3.55	169.117	169.155	169.141	169.211	169.175	169.296	169.226	169.437

表 7 棒间距 M_{Ri}
30°内花键 模数 $m=2\text{ mm}$ 作用齿槽宽最小值 $E_{v\min}=3.142\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_{Ri}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Ri}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	3.55	14.413	14.489	14.436	14.559	14.468	14.660	14.518	14.818
11	3.55	16.289	16.354	16.309	16.416	16.337	16.507	16.381	16.652
12	3.55	18.545	18.605	18.563	18.664	18.590	18.750	18.631	18.890
13	3.55	20.405	20.462	20.423	20.518	20.448	20.601	20.488	20.735
14	3.55	22.609	22.663	22.626	22.718	22.651	22.800	22.690	22.932
15	3.55	24.476	24.529	24.493	24.583	24.518	24.662	24.556	24.791
16	3.75	25.919	25.977	25.938	26.035	25.965	26.122	26.007	26.263
17	3.75	27.813	27.868	27.831	27.925	27.858	28.010	27.899	28.147
18	3.75	29.972	30.026	29.991	30.082	30.016	30.166	30.057	30.302
19	3.75	31.870	31.923	31.888	31.978	31.914	32.060	31.954	32.194
20	3.75	34.010	34.062	34.028	34.116	34.053	34.197	34.093	34.330
21	3.75	35.913	35.964	35.931	36.018	35.956	36.098	35.996	36.230
22	3.75	38.038	38.088	38.055	38.141	38.081	38.221	38.120	38.353
23	3.75	39.947	39.996	39.965	40.050	39.990	40.129	40.029	40.260
24	3.75	42.059	42.108	42.077	42.161	42.102	42.241	42.142	42.371
25	3.75	43.974	44.022	43.992	44.075	44.017	44.154	44.057	44.284
26	3.75	46.077	46.125	46.095	46.178	46.120	46.256	46.160	46.386
27	3.75	47.996	48.044	48.014	48.097	48.040	48.175	48.080	48.305
28	3.75	50.091	50.138	50.109	50.191	50.135	50.269	50.174	50.399
29	3.75	52.015	52.062	52.033	52.115	52.059	52.193	52.099	52.323
30	3.75	54.103	54.150	54.121	54.202	54.147	54.281	54.187	54.410
31	3.75	56.032	56.078	56.050	56.130	56.076	56.209	56.116	56.338
32	3.75	58.113	58.160	58.132	58.212	58.158	58.291	58.198	58.420
33	3.75	60.046	60.092	60.064	60.144	60.090	60.222	60.131	60.352
34	3.75	62.122	62.168	62.141	62.221	62.167	62.299	62.208	62.429
35	3.75	64.058	64.103	64.077	64.156	64.103	64.234	64.144	64.365
36	3.75	66.130	66.175	66.149	66.228	66.175	66.307	66.217	66.437
37	3.75	68.069	68.114	68.088	68.167	68.114	68.245	68.156	68.376
38	3.75	70.137	70.182	70.156	70.235	70.183	70.314	70.224	70.444
39	3.75	72.079	72.123	72.098	72.176	72.125	72.255	72.166	72.386
40	3.75	74.143	74.188	74.162	74.241	74.189	74.320	74.231	74.451
41	3.75	76.087	76.132	76.107	76.185	76.134	76.264	76.176	76.395
42	3.75	78.149	78.193	78.168	78.246	78.196	78.325	78.236	78.457
43	3.75	80.095	80.140	80.115	80.193	80.142	80.272	80.185	80.403
44	3.75	82.154	82.198	82.173	82.251	82.201	82.331	82.244	82.462
45	3.75	84.103	84.146	84.122	84.200	84.150	84.279	84.193	84.411
46	3.75	86.158	86.202	86.178	86.255	86.206	86.335	86.249	86.468
47	3.75	88.109	88.153	88.129	88.206	88.157	88.286	88.201	88.419
48	4.00	89.369	89.414	89.390	89.468	89.419	89.550	89.463	89.686
49	4.00	91.323	91.368	91.344	91.422	91.373	91.504	91.418	91.640
50	4.00	93.375	93.419	93.396	93.474	93.425	93.556	93.470	93.692
51	4.00	95.331	95.375	95.352	95.430	95.381	95.512	95.426	95.648
52	4.00	97.381	97.425	97.402	97.480	97.431	97.562	97.476	97.698
53	4.00	99.338	99.382	99.359	99.437	99.389	99.519	99.434	99.656
54	4.00	101.386	101.430	101.407	101.485	101.437	101.567	101.482	101.704
55	4.00	103.345	103.388	103.366	103.443	103.396	103.526	103.441	103.663

表 7 (续) 单位为毫米

内数 z	量棒直径 D_k	E_{min} 和 E_{max} 的棒间距 M_k							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	4.00	105.391	105.434	105.412	105.489	105.442	105.572	105.488	105.709
57	4.00	107.351	107.394	107.372	107.449	107.402	107.532	107.448	107.669
58	4.00	109.395	109.438	109.417	109.493	109.447	109.576	109.493	109.714
59	4.00	111.356	111.399	111.378	111.455	111.408	111.538	111.455	111.675
60	4.00	113.399	113.442	113.421	113.498	113.451	113.581	113.498	113.719
61	4.00	115.381	115.404	115.388	115.460	115.414	115.543	115.461	115.681
62	4.00	117.403	117.446	117.425	117.501	117.456	117.585	117.503	117.723
63	4.00	119.366	119.409	119.388	119.465	119.419	119.548	119.467	119.687
64	4.00	121.407	121.449	121.429	121.505	121.460	121.589	121.507	121.728
65	4.00	123.371	123.413	123.393	123.469	123.424	123.553	123.472	123.692
66	4.00	125.440	125.452	125.432	125.508	125.464	125.592	125.512	125.732
67	4.00	127.375	127.418	127.398	127.474	127.429	127.558	127.478	127.697
68	4.00	129.413	129.455	129.436	129.513	129.467	129.596	129.516	129.736
69	4.00	131.380	131.421	131.402	131.478	131.434	131.562	131.483	131.702
70	4.00	133.416	133.458	133.439	133.514	133.471	133.599	133.520	133.739
71	4.00	135.383	135.425	135.406	135.482	135.438	135.566	135.487	135.707
72	4.00	137.419	137.461	137.442	137.517	137.474	137.602	137.523	137.743
73	4.00	139.387	139.429	139.410	139.485	139.442	139.570	139.492	139.711
74	4.00	141.422	141.463	141.445	141.520	141.477	141.605	141.527	141.746
75	4.00	143.391	143.432	143.414	143.489	143.446	143.574	143.496	143.716
76	4.00	145.424	145.465	145.447	145.522	145.480	145.608	145.530	145.750
77	4.00	147.394	147.435	147.417	147.492	147.450	147.578	147.500	147.720
78	4.00	149.427	149.468	149.450	149.525	149.483	149.611	149.534	149.753
79	4.00	151.397	151.438	151.421	151.495	151.454	151.581	151.504	151.724
80	4.00	153.429	153.470	153.453	153.527	153.486	153.613	153.537	153.756
81	4.00	155.400	155.441	155.424	155.498	155.457	155.584	155.508	155.727
82	4.00	157.431	157.472	157.455	157.530	157.489	157.616	157.540	157.759
83	4.00	159.403	159.444	159.427	159.501	159.461	159.588	159.512	159.731
84	4.00	161.433	161.474	161.457	161.532	161.491	161.618	161.543	161.762
85	4.00	163.406	163.446	163.430	163.504	163.464	163.591	163.516	163.735
86	4.00	165.435	165.476	165.460	165.534	165.494	165.621	165.546	165.765
87	4.00	167.408	167.449	167.433	167.507	167.467	167.594	167.519	167.738
88	4.00	169.437	169.478	169.462	169.536	169.496	169.623	169.548	169.767
89	4.00	171.411	171.451	171.436	171.509	171.470	171.597	171.523	171.741
90	4.00	173.439	173.479	173.464	173.538	173.498	173.625	173.551	173.770
91	4.00	175.413	175.454	175.438	175.512	175.473	175.599	175.526	175.745
92	4.00	177.441	177.481	177.466	177.540	177.501	177.627	177.554	177.773
93	4.00	179.416	179.456	179.441	179.514	179.476	179.602	179.529	179.748
94	4.00	181.443	181.483	181.468	181.541	181.503	181.629	181.556	181.775
95	4.00	183.418	183.458	183.443	183.517	183.478	183.605	183.532	183.751
96	4.00	185.445	185.484	185.470	185.543	185.505	185.631	185.559	185.778
97	4.00	187.420	187.460	187.446	187.519	187.481	187.607	187.535	187.754
98	4.00	189.446	189.486	189.472	189.545	189.507	189.633	189.561	189.780
99	4.00	191.422	191.462	191.448	191.521	191.483	191.610	191.538	191.757
100	4.00	193.448	193.487	193.473	193.546	193.509	193.635	193.564	193.783

表 8 棒间距 M_{Ri}
30°内花键 模数 $m=2.5\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=3.927\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_{M1}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Ri}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	4.50	17.687	17.784	17.717	17.874	17.758	17.998	17.821	18.189
11	4.50	20.083	20.160	20.107	20.233	20.139	20.339	20.191	20.507
12	4.50	22.921	22.990	22.943	23.058	22.973	23.156	23.020	23.315
13	4.50	25.261	25.325	25.281	25.388	25.309	25.481	25.354	25.632
14	4.50	28.022	28.083	28.042	28.145	28.069	28.236	28.113	28.384
15	4.50	30.364	30.422	30.383	30.482	30.410	30.570	30.452	30.714
16	4.50	33.082	33.140	33.101	33.198	33.128	33.285	33.170	33.428
17	4.50	35.434	35.489	35.452	35.547	35.478	35.632	35.520	35.773
18	4.50	38.123	38.178	38.142	38.235	38.168	38.320	38.209	38.460
19	4.50	40.485	40.539	40.503	40.595	40.530	40.679	40.571	40.818
20	4.50	43.153	43.206	43.171	43.262	43.198	43.346	43.239	43.485
21	4.50	45.525	45.577	45.543	45.633	45.569	45.716	45.610	45.854
22	4.75	47.324	47.379	47.344	47.438	47.372	47.526	47.415	47.670
23	4.75	49.713	49.767	49.733	49.826	49.761	49.913	49.804	50.056
24	4.75	52.355	52.409	52.375	52.467	52.403	52.553	52.446	52.697
25	4.75	54.750	54.803	54.770	54.861	54.798	54.947	54.841	55.090
26	4.75	57.380	57.432	57.399	57.490	57.427	57.576	57.471	57.718
27	4.75	59.781	59.833	59.801	59.890	59.829	59.976	59.872	60.118
28	4.75	62.400	62.451	62.420	62.509	62.448	62.594	62.492	62.736
29	4.75	64.807	64.858	64.826	64.915	64.855	65.000	64.898	65.142
30	4.75	67.417	67.467	67.437	67.525	67.465	67.610	67.509	67.752
31	4.75	69.828	69.879	69.849	69.936	69.877	70.021	69.921	70.163
32	4.75	72.431	72.481	72.451	72.538	72.480	72.624	72.524	72.765
33	4.75	74.847	74.897	74.868	74.954	74.896	75.039	74.941	75.181
34	4.75	77.444	77.493	77.464	77.550	77.493	77.636	77.537	77.777
35	4.75	79.864	79.913	79.884	79.970	79.913	80.056	79.958	80.197
36	4.75	82.454	82.503	82.475	82.561	82.504	82.646	82.549	82.788
37	4.75	84.879	84.927	84.899	84.984	84.928	85.070	84.974	85.212
38	4.75	87.464	87.512	87.485	87.570	87.514	87.655	87.560	87.798
39	4.75	89.892	89.940	89.912	89.997	89.942	90.083	89.988	90.225
40	4.75	92.473	92.520	92.494	92.578	92.523	92.664	92.569	92.806
41	4.75	94.903	94.951	94.924	95.008	94.954	95.094	95.000	95.237
42	4.75	97.480	97.528	97.501	97.585	97.531	97.671	97.578	97.814
43	4.75	99.914	99.961	99.935	100.019	99.965	100.105	100.012	100.248
44	4.75	102.487	102.534	102.509	102.592	102.539	102.678	102.586	102.822
45	4.75	104.923	104.970	104.945	105.028	104.975	105.115	105.023	105.258
46	4.75	107.493	107.540	107.515	107.598	107.546	107.685	107.593	107.829
47	4.75	109.932	109.979	109.954	110.037	109.985	110.124	110.032	110.268
48	4.75	112.499	112.546	112.521	112.604	112.552	112.691	112.600	112.835
49	4.75	114.940	114.987	114.962	115.045	114.993	115.132	115.042	115.276
50	4.75	117.504	117.551	117.527	117.609	117.558	117.696	117.606	117.841
51	4.75	119.948	119.994	119.970	120.052	120.001	120.139	120.050	120.286
52	4.75	122.509	122.555	122.532	122.614	122.563	122.701	122.612	122.847
53	4.75	124.954	125.000	124.977	125.059	125.009	125.147	125.058	125.292
54	4.75	127.514	127.559	127.536	127.618	127.568	127.706	127.618	127.852
55	4.75	129.961	130.006	129.984	130.065	130.016	130.153	130.065	130.299

表 8 (续)

单位为毫米

齿数 z	量棒直径 D_R	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_R							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	4.75	132.518	132.563	132.541	132.622	132.573	132.710	132.623	132.857
57	4.75	134.967	135.012	134.990	135.071	135.022	135.159	135.072	135.306
58	4.75	137.522	137.567	137.545	137.626	137.578	137.715	137.628	137.862
59	4.75	139.972	140.017	139.996	140.077	140.028	140.165	140.079	140.313
60	4.75	142.525	142.570	142.549	142.630	142.582	142.719	142.633	142.866
61	4.75	144.977	145.022	145.001	145.082	145.034	145.171	145.085	145.319
62	4.75	147.529	147.574	147.552	147.633	147.586	147.722	147.637	147.871
63	4.75	149.982	150.027	150.006	150.087	150.040	150.176	150.091	150.324
64	4.75	152.532	152.577	152.556	152.636	152.590	152.726	152.641	152.875
65	4.75	154.987	155.031	155.011	155.091	155.045	155.181	155.097	155.330
66	4.75	157.535	157.579	157.559	157.639	157.593	157.729	157.645	157.879
67	4.75	159.991	160.035	160.015	160.096	160.050	160.186	160.102	160.335
68	4.75	162.538	162.582	162.562	162.642	162.597	162.732	162.649	162.882
69	4.75	164.995	165.039	165.020	165.100	165.054	165.190	165.107	165.340
70	4.75	167.541	167.585	167.565	167.645	167.600	167.736	167.653	167.886
71	4.75	169.999	170.043	170.024	170.104	170.059	170.194	170.112	170.345
72	4.75	172.543	172.587	172.568	172.648	172.603	172.739	172.657	172.890
73	4.75	175.003	175.046	175.028	175.107	175.063	175.198	175.117	175.350
74	4.75	177.546	177.589	177.571	177.650	177.606	177.741	177.660	177.893
75	4.75	180.006	180.050	180.032	180.111	180.067	180.202	180.121	180.354
76	4.75	182.548	182.591	182.573	182.653	182.609	182.744	182.663	182.896
77	4.75	185.010	185.053	185.035	185.114	185.071	185.206	185.126	185.358
78	4.75	187.550	187.593	187.576	187.655	187.612	187.747	187.667	187.900
79	4.75	190.013	190.056	190.039	190.117	190.075	190.209	190.130	190.362
80	4.75	192.552	192.595	192.578	192.657	192.614	192.749	192.670	192.903
81	4.75	195.016	195.059	195.042	195.120	195.078	195.213	195.134	195.366
82	4.75	197.554	197.597	197.580	197.659	197.617	197.752	197.673	197.906
83	4.75	200.019	200.062	200.045	200.123	200.082	200.216	200.138	200.370
84	4.75	202.556	202.599	202.583	202.661	202.620	202.754	202.676	202.909
85	4.75	205.022	205.064	205.048	205.126	205.085	205.219	205.142	205.374
86	4.75	207.558	207.601	207.585	207.663	207.622	207.756	207.679	207.911
87	4.75	210.024	210.067	210.051	210.129	210.088	210.222	210.145	210.378
88	4.75	212.560	212.603	212.587	212.665	212.624	212.759	212.682	212.914
89	4.75	215.027	215.069	215.054	215.132	215.091	215.225	215.149	215.381
90	4.75	217.562	217.604	217.589	217.667	217.627	217.761	217.684	217.917
91	4.75	220.029	220.071	220.056	220.134	220.094	220.228	220.152	220.385
92	4.75	222.564	222.606	222.591	222.669	222.629	222.763	222.687	222.919
93	4.75	225.032	225.074	225.059	225.137	225.097	225.231	225.155	225.388
94	4.75	227.565	227.607	227.593	227.670	227.631	227.765	227.690	227.922
95	4.75	230.034	230.076	230.061	230.139	230.100	230.234	230.159	230.391
96	4.75	232.567	232.609	232.594	232.672	232.633	232.767	232.692	232.925
97	4.75	235.036	235.078	235.064	235.141	235.103	235.236	235.162	235.394
98	4.75	237.568	237.610	237.596	237.673	237.635	237.769	237.695	237.927
99	4.75	240.038	240.080	240.066	240.143	240.105	240.239	240.165	240.397
100	4.75	242.570	242.611	242.598	242.675	242.637	242.771	242.697	242.929

表 9 棒间距 M_{Ri}
30°内花键 模数 $m=3\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=4.712\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_{Ri}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Ri}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	5.30	21.720	21.804	21.745	21.884	21.781	22.000	21.837	22.183
11	5.30	24.523	24.596	24.545	24.667	24.577	24.771	24.626	24.938
12	5.30	27.901	27.969	27.922	28.037	27.952	28.136	27.999	28.297
13	5.30	30.688	30.752	30.708	30.816	30.737	30.911	30.782	31.066
14	5.30	33.991	34.054	34.011	34.116	34.040	34.210	34.084	34.362
15	5.30	36.790	36.851	36.810	36.912	36.838	37.003	36.881	37.152
16	5.30	40.048	40.107	40.067	40.167	40.095	40.258	40.138	40.406
17	5.60	41.798	41.861	41.819	41.926	41.849	42.022	41.896	42.181
18	5.60	45.035	45.097	45.056	45.161	45.086	45.256	45.133	45.413
19	5.60	47.881	47.941	47.901	48.004	47.931	48.098	47.977	48.252
20	5.60	51.089	51.148	51.109	51.210	51.139	51.303	51.185	51.457
21	5.60	53.943	54.001	53.964	54.063	53.993	54.155	54.039	54.307
22	5.60	57.129	57.186	57.149	57.247	57.179	57.339	57.224	57.491
23	5.60	59.992	60.048	60.012	60.109	60.042	60.200	60.087	60.351
24	5.60	63.160	63.215	63.180	63.276	63.210	63.367	63.256	63.518
25	5.60	66.031	66.086	66.052	66.147	66.081	66.238	66.127	66.387
26	5.60	69.185	69.239	69.206	69.300	69.235	69.391	69.281	69.541
27	5.60	72.064	72.118	72.085	72.178	72.115	72.269	72.161	72.418
28	5.60	75.205	75.259	75.226	75.320	75.256	75.410	75.303	75.559
29	5.60	78.092	78.145	78.113	78.205	78.143	78.295	78.189	78.445
30	5.60	81.223	81.276	81.244	81.336	81.274	81.426	81.321	81.576
31	5.60	84.115	84.168	84.137	84.228	84.167	84.318	84.214	84.467
32	5.60	87.238	87.290	87.259	87.350	87.290	87.440	87.337	87.590
33	5.60	90.136	90.188	90.157	90.248	90.188	90.338	90.235	90.488
34	5.60	93.250	93.302	93.272	93.362	93.303	93.453	93.351	93.603
35	5.60	96.154	96.205	96.175	96.265	96.206	96.356	96.254	96.506
36	5.60	99.262	99.313	99.284	99.373	99.315	99.464	99.363	99.614
37	5.60	102.170	102.220	102.192	102.281	102.223	102.371	102.271	102.522
38	5.60	105.272	105.322	105.294	105.383	105.325	105.474	105.374	105.624
39	5.60	108.184	108.234	108.206	108.295	108.238	108.386	108.287	108.536
40	5.60	111.280	111.331	111.303	111.391	111.335	111.482	111.384	111.634
41	5.60	114.197	114.246	114.219	114.307	114.251	114.398	114.301	114.550
42	5.60	117.288	117.338	117.311	117.399	117.343	117.490	117.393	117.642
43	5.60	120.208	120.258	120.231	120.319	120.263	120.410	120.313	120.562
44	5.60	123.296	123.345	123.319	123.406	123.351	123.498	123.401	123.650
45	5.60	126.219	126.268	126.242	126.329	126.275	126.421	126.325	126.573
46	5.60	129.302	129.351	129.325	129.413	129.358	129.505	129.409	129.657
47	5.60	132.228	132.277	132.252	132.339	132.285	132.431	132.336	132.584
48	5.60	135.308	135.357	135.332	135.418	135.365	135.511	135.416	135.664
49	5.60	138.237	138.286	138.261	138.347	138.294	138.440	138.346	138.593
50	5.60	141.314	141.362	141.338	141.424	141.371	141.517	141.423	141.670
51	5.60	144.245	144.293	144.269	144.355	144.303	144.448	144.355	144.602
52	5.60	147.319	147.367	147.343	147.429	147.377	147.522	147.429	147.676
53	5.60	150.253	150.301	150.277	150.363	150.311	150.456	150.364	150.611
54	5.60	153.323	153.371	153.348	153.434	153.382	153.527	153.435	153.682
55	5.60	156.260	156.307	156.284	156.370	156.319	156.463	156.372	156.619

表 9 (续)

单位为毫米

齿数 z	量棒直径 D_R	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_R							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	5.60	159.328	159.375	159.353	159.438	159.387	159.532	159.441	159.687
57	5.60	162.266	162.314	162.291	162.376	162.326	162.470	162.380	162.626
58	5.60	165.332	165.379	165.357	165.442	165.392	165.536	165.446	165.693
59	5.60	168.272	168.319	168.297	168.382	168.333	168.477	168.387	168.633
60	5.60	171.336	171.383	171.361	171.446	171.397	171.540	171.451	171.697
61	5.60	174.278	174.325	174.303	174.388	174.339	174.483	174.394	174.640
62	5.60	177.339	177.386	177.365	177.450	177.401	177.544	177.456	177.702
63	5.60	180.288	180.330	180.309	180.393	180.345	180.488	180.401	180.646
64	6.00	182.094	182.141	182.120	182.206	182.157	182.302	182.214	182.463
65	6.00	185.041	185.088	185.067	185.152	185.104	185.249	185.161	185.410
66	6.00	188.099	188.146	188.125	188.211	188.163	188.308	188.220	188.469
67	6.00	191.047	191.094	191.074	191.159	191.111	191.256	191.168	191.418
68	6.00	194.103	194.150	194.130	194.215	194.168	194.313	194.225	194.475
69	6.00	197.053	197.100	197.080	197.165	197.118	197.262	197.176	197.425
70	6.00	200.108	200.154	200.135	200.220	200.173	200.317	200.231	200.480
71	6.00	203.059	203.105	203.086	203.171	203.124	203.268	203.182	203.431
72	6.00	206.112	206.158	206.139	206.224	206.178	206.322	206.236	206.485
73	6.00	209.064	209.110	209.092	209.176	209.130	209.274	209.189	209.437
74	6.00	212.116	212.162	212.143	212.228	212.182	212.326	212.241	212.490
75	6.00	215.069	215.115	215.097	215.181	215.136	215.280	215.195	215.443
76	6.00	218.120	218.166	218.147	218.231	218.186	218.330	218.246	218.494
77	6.00	221.074	221.120	221.102	221.186	221.141	221.285	221.201	221.449
78	6.00	224.123	224.169	224.151	224.235	224.191	224.334	224.251	224.499
79	6.00	227.079	227.124	227.107	227.191	227.146	227.290	227.207	227.455
80	6.00	230.127	230.172	230.155	230.238	230.195	230.338	230.255	230.503
81	6.00	233.083	233.129	233.112	233.195	233.152	233.295	233.212	233.460
82	6.00	236.130	236.175	236.158	236.242	236.198	236.341	236.259	236.507
83	6.00	239.088	239.133	239.116	239.199	239.156	239.299	239.218	239.465
84	6.00	242.133	242.178	242.162	242.245	242.202	242.345	242.264	242.511
85	6.00	245.092	245.136	245.120	245.203	245.161	245.304	245.223	245.470
86	6.00	248.136	248.181	248.165	248.248	248.206	248.348	248.268	248.515
87	6.00	251.095	251.140	251.124	251.207	251.165	251.308	251.228	251.475
88	6.00	254.139	254.183	254.168	254.251	254.209	254.351	254.272	254.519
89	6.00	257.099	257.144	257.128	257.211	257.170	257.312	257.232	257.480
90	6.00	260.141	260.186	260.171	260.253	260.212	260.354	260.275	260.523
91	6.00	263.103	263.147	263.132	263.215	263.174	263.316	263.237	263.484
92	6.00	266.144	266.188	266.174	266.256	266.215	266.357	266.279	266.526
93	6.00	269.106	269.150	269.136	269.218	269.178	269.320	269.241	269.489
94	6.00	272.147	272.191	272.176	272.259	272.219	272.360	272.282	272.530
95	6.00	275.109	275.153	275.139	275.221	275.182	275.323	275.246	275.493
96	6.00	278.149	278.193	278.179	278.261	278.221	278.363	278.286	278.533
97	6.00	281.113	281.156	281.143	281.225	281.185	281.327	281.250	281.497
98	6.00	284.151	284.195	284.182	284.263	284.224	284.366	284.289	284.536
99	6.00	287.116	287.159	287.146	287.228	287.189	287.330	287.254	287.501
100	6.00	290.154	290.197	290.184	290.266	290.227	290.368	290.293	290.540

表 10 棒间距 M_{Rl}
30°内花键 模数 $m=4\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=6.283\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_{Rl}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Rl}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	7.10	28.790	28.887	28.819	28.980	28.862	29.115	28.927	29.327
11	7.10	32.548	32.630	32.573	32.711	32.609	32.829	32.666	33.020
12	7.10	37.060	37.136	37.084	37.212	37.118	37.324	37.172	37.507
13	7.10	40.782	40.854	40.805	40.926	40.838	41.033	40.889	41.207
14	7.10	45.190	45.259	45.213	45.329	45.245	45.434	45.295	45.605
15	7.10	48.926	48.992	48.948	49.061	48.979	49.162	49.029	49.330
16	7.10	53.270	53.335	53.292	53.403	53.324	53.504	53.373	53.670
17	7.10	57.026	57.089	57.047	57.156	57.078	57.255	57.127	57.418
18	7.10	61.326	61.388	61.347	61.454	61.379	61.553	61.427	61.716
19	7.10	65.100	65.161	65.122	65.227	65.153	65.325	65.201	65.486
20	7.10	69.366	69.427	69.388	69.492	69.419	69.590	69.468	69.752
21	7.50	71.799	71.862	71.822	71.931	71.855	72.034	71.907	72.203
22	7.50	76.047	76.110	76.071	76.178	76.104	76.281	76.155	76.450
23	7.50	79.866	79.928	79.889	79.996	79.923	80.097	79.974	80.265
24	7.50	84.091	84.152	84.114	84.219	84.147	84.321	84.199	84.488
25	7.50	87.920	87.980	87.944	88.048	87.977	88.148	88.029	88.315
26	7.50	92.125	92.185	92.149	92.252	92.183	92.353	92.234	92.520
27	7.50	95.965	96.024	95.989	96.091	96.022	96.191	96.074	96.358
28	7.50	100.154	100.213	100.178	100.280	100.212	100.380	100.264	100.546
29	7.50	104.003	104.061	104.027	104.128	104.061	104.228	104.113	104.394
30	7.50	108.178	108.236	108.202	108.303	108.236	108.403	108.289	108.569
31	7.50	112.035	112.092	112.059	112.159	112.093	112.259	112.146	112.425
32	7.50	116.198	116.255	116.223	116.322	116.257	116.422	116.311	116.589
33	7.50	120.063	120.119	120.087	120.186	120.122	120.286	120.176	120.453
34	7.50	124.216	124.272	124.241	124.339	124.276	124.440	124.329	124.606
35	7.50	128.087	128.143	128.112	128.210	128.147	128.310	128.201	128.477
36	7.50	132.231	132.287	132.256	132.354	132.292	132.455	132.346	132.622
37	7.50	136.109	136.164	136.134	136.231	136.170	136.332	136.224	136.499
38	7.50	140.245	140.300	140.270	140.367	140.306	140.468	140.361	140.635
39	7.50	144.128	144.183	144.154	144.250	144.190	144.351	144.245	144.518
40	7.50	148.257	148.312	148.283	148.379	148.319	148.480	148.375	148.648
41	7.50	152.146	152.200	152.171	152.267	152.208	152.368	152.264	152.536
42	7.50	156.268	156.322	156.294	156.390	156.331	156.491	156.387	156.659
43	7.50	160.161	160.215	160.187	160.283	160.224	160.384	160.281	160.553
44	7.50	164.278	164.331	164.304	164.399	164.341	164.501	164.398	164.670
45	7.50	168.175	168.229	168.202	168.297	168.239	168.398	168.296	168.568
46	7.50	172.287	172.340	172.313	172.408	172.351	172.510	172.408	172.680
47	7.50	176.188	176.241	176.215	176.309	176.253	176.412	176.311	176.581
48	7.50	180.295	180.348	180.322	180.416	180.360	180.518	180.418	180.689
49	7.50	184.200	184.253	184.227	184.321	184.265	184.424	184.324	184.594
50	7.50	188.302	188.355	188.330	188.423	188.368	188.526	188.427	188.697
51	7.50	192.211	192.263	192.238	192.332	192.277	192.435	192.336	192.606
52	7.50	196.309	196.361	196.337	196.430	196.376	196.533	196.435	196.705
53	7.50	200.221	200.273	200.249	200.342	200.288	200.445	200.348	200.617
54	7.50	204.316	204.367	204.343	204.436	204.383	204.540	204.443	204.712
55	7.50	208.231	208.282	208.259	208.351	208.298	208.455	208.359	208.628

表 10 (续)

单位为毫米

齿数 z	量棒直径 D_R	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_R							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	7.50	212.322	212.373	212.350	212.442	212.390	212.546	212.450	212.719
57	7.50	216.239	216.291	216.268	216.360	216.308	216.464	216.369	216.638
58	7.50	220.327	220.378	220.356	220.448	220.396	220.552	220.457	220.726
59	7.50	224.248	224.298	224.276	224.368	224.317	224.473	224.378	224.647
60	7.50	228.332	228.383	228.361	228.453	228.402	228.558	228.464	228.732
61	7.50	232.255	232.306	232.284	232.376	232.325	232.481	232.388	232.656
62	7.50	236.337	236.388	236.366	236.458	236.407	236.563	236.470	236.738
63	7.50	240.262	240.313	240.292	240.383	240.333	240.489	240.396	240.664
64	7.50	244.342	244.392	244.371	244.462	244.413	244.568	244.476	244.744
65	7.50	248.269	248.319	248.299	248.390	248.341	248.496	248.404	248.672
66	7.50	252.346	252.396	252.376	252.467	252.418	252.573	252.482	252.750
67	7.50	256.276	256.325	256.305	256.396	256.348	256.503	256.412	256.680
68	7.50	260.350	260.400	260.380	260.471	260.423	260.577	260.487	260.755
69	7.50	264.282	264.331	264.312	264.402	264.354	264.509	264.419	264.687
70	7.50	268.354	268.403	268.384	268.475	268.427	268.582	268.492	268.760
71	7.50	272.287	272.336	272.318	272.408	272.361	272.515	272.426	272.694
72	7.50	276.358	276.407	276.388	276.478	276.432	276.586	276.497	276.765
73	7.50	280.293	280.342	280.323	280.413	280.367	280.521	280.433	280.700
74	7.50	284.361	284.410	284.392	284.482	284.436	284.590	284.502	284.769
75	7.50	288.298	288.347	288.329	288.419	288.373	288.527	288.440	288.707
76	7.50	292.364	292.413	292.396	292.485	292.440	292.594	292.507	292.774
77	7.50	296.303	296.351	296.334	296.424	296.378	296.532	296.446	296.713
78	7.50	300.368	300.416	300.399	300.488	300.444	300.597	300.511	300.778
79	7.50	304.307	304.356	304.339	304.428	304.384	304.537	304.452	304.719
80	7.50	308.371	308.419	308.402	308.492	308.447	308.601	308.516	308.783
81	7.50	312.312	312.360	312.344	312.433	312.389	312.542	312.458	312.724
82	7.50	316.373	316.421	316.406	316.495	316.451	316.604	316.520	316.787
83	7.50	320.316	320.364	320.348	320.437	320.394	320.547	320.463	320.730
84	7.50	324.376	324.424	324.409	324.497	324.454	324.607	324.524	324.791
85	7.50	328.320	328.368	328.353	328.441	328.399	328.552	328.469	328.735
86	7.50	332.379	332.426	332.412	332.500	332.458	332.611	332.528	332.794
87	7.50	336.324	336.371	336.357	336.445	336.403	336.556	336.474	336.740
88	7.50	340.382	340.429	340.414	340.503	340.461	340.614	340.532	340.798
89	7.50	344.328	344.375	344.361	344.449	344.408	344.560	344.479	344.745
90	7.50	348.384	348.431	348.417	348.505	348.464	348.617	348.536	348.802
91	7.50	352.332	352.378	352.365	352.453	352.412	352.564	352.484	352.750
92	7.50	356.386	356.433	356.420	356.508	356.467	356.619	356.539	356.805
93	7.50	360.335	360.382	360.369	360.456	360.416	360.568	360.489	360.755
94	7.50	364.389	364.435	364.422	364.510	364.470	364.622	364.543	364.809
95	7.50	368.338	368.385	368.372	368.460	368.420	368.572	368.493	368.759
96	7.50	372.391	372.437	372.425	372.512	372.473	372.625	372.546	372.812
97	7.50	376.342	376.388	376.376	376.463	376.424	376.576	376.498	376.764
98	7.50	380.393	380.439	380.427	380.515	380.476	380.628	380.550	380.816
99	7.50	384.345	384.391	384.379	384.466	384.428	384.579	384.502	384.768
100	7.50	388.395	388.441	388.430	388.517	388.479	388.630	388.553	388.819

表 11 棒间距 M_{Ri}
30°内花键 模数 $m=5\text{ mm}$ 作用齿槽宽最小值 $E_{v,\min}=7.854\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_R	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Ri}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	8.50	37.586	37.667	37.611	37.746	37.647	37.863	37.703	38.053
11	8.50	42.150	42.225	42.173	42.299	42.207	42.410	42.260	42.591
12	9.00	45.810	45.897	45.838	45.984	45.878	46.112	45.940	46.320
13	9.00	50.491	50.571	50.517	50.652	50.555	50.773	50.614	50.969
14	9.00	56.015	56.091	56.040	56.170	56.077	56.287	56.134	56.478
15	9.00	60.698	60.771	60.723	60.847	60.759	60.961	60.815	61.147
16	9.00	66.136	66.208	66.161	66.282	66.196	66.394	66.252	66.578
17	9.00	70.839	70.908	70.863	70.981	70.898	71.091	70.953	71.272
18	9.00	76.218	76.286	76.243	76.359	76.278	76.468	76.332	76.648
19	9.00	80.942	81.008	80.966	81.080	81.001	81.188	81.055	81.366
20	9.00	86.278	86.343	86.302	86.415	86.337	86.522	86.392	86.700
21	9.00	91.021	91.086	91.046	91.157	91.081	91.264	91.135	91.440
22	9.00	96.323	96.387	96.348	96.458	96.383	96.565	96.438	96.741
23	9.00	101.085	101.148	101.109	101.219	101.145	101.325	101.200	101.500
24	9.00	106.359	106.422	106.384	106.493	106.419	106.599	106.475	106.774
25	9.00	111.137	111.199	111.162	111.270	111.198	111.375	111.253	111.550
26	9.00	116.388	116.450	116.413	116.521	116.449	116.626	116.505	116.802
27	9.00	121.180	121.241	121.206	121.312	121.242	121.418	121.298	121.593
28	9.00	126.413	126.473	126.438	126.544	126.475	126.650	126.531	126.826
29	9.00	131.217	131.278	131.243	131.348	131.280	131.454	131.336	131.630
30	9.00	136.433	136.493	136.459	136.564	136.496	136.670	136.553	136.846
31	9.50	139.627	139.688	139.654	139.761	139.692	139.870	139.751	140.051
32	9.50	144.832	144.893	144.859	144.966	144.898	145.075	144.957	145.257
33	9.50	149.664	149.725	149.691	149.798	149.730	149.907	149.790	150.088
34	9.50	154.857	154.917	154.884	154.990	154.923	155.099	154.983	155.281
35	9.50	159.697	159.757	159.725	159.830	159.764	159.939	159.824	160.121
36	9.50	164.878	164.937	164.906	165.010	164.945	165.120	165.006	165.302
37	9.50	169.726	169.785	169.754	169.858	169.794	169.968	169.854	170.150
38	9.50	174.897	174.955	174.925	175.029	174.965	175.138	175.026	175.321
39	9.50	179.752	179.810	179.780	179.883	179.820	179.993	179.882	180.176
40	9.50	184.914	184.972	184.942	185.045	184.982	185.155	185.044	185.338
41	9.50	189.775	189.833	189.803	189.906	189.844	190.016	189.906	190.199
42	9.50	194.928	194.986	194.957	195.060	194.998	195.170	195.061	195.353
43	9.50	199.796	199.853	199.825	199.927	199.865	200.037	199.929	200.221
44	9.50	204.942	204.999	204.971	205.073	205.012	205.183	205.076	205.367
45	9.50	209.814	209.871	209.844	209.945	209.885	210.056	209.949	210.240
46	9.50	214.954	215.011	214.984	215.085	215.025	215.196	215.090	215.380
47	9.50	219.832	219.888	219.861	219.962	219.903	220.073	219.968	220.258
48	9.50	224.965	225.021	224.995	225.096	225.037	225.207	225.102	225.392
49	9.50	229.847	229.903	229.877	229.978	229.920	230.089	229.985	230.275
50	9.50	234.975	235.031	235.006	235.106	235.049	235.218	235.114	235.404
51	9.50	239.862	239.917	239.892	239.992	239.935	240.104	240.001	240.290
52	9.50	244.985	245.040	245.015	245.115	245.059	245.227	245.125	245.414
53	9.50	249.875	249.930	249.906	250.005	249.950	250.118	250.016	250.305
54	9.50	254.993	255.048	255.024	255.123	255.068	255.236	255.135	255.424
55	9.50	259.888	259.942	259.919	260.018	259.963	260.131	260.030	260.318

表 11 (续)

单位为毫米

齿数 z	量棒直径 D_{M}	E_{min} 和 E_{max} 的棒间距 M_{E}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	9.50	265.001	265.056	265.033	265.131	265.077	265.245	265.145	265.433
57	9.50	269.899	269.953	269.931	270.029	269.973	270.142	270.043	270.331
58	9.50	275.009	275.063	275.041	275.139	275.086	275.253	275.154	275.442
59	9.50	279.910	279.964	279.942	280.040	279.987	280.154	280.056	280.343
60	9.50	285.016	285.070	285.048	285.146	285.093	285.260	285.163	285.450
61	9.50	289.920	289.973	289.952	290.050	289.998	290.164	290.067	290.354
62	9.50	295.022	295.076	295.055	295.152	295.101	295.267	295.171	295.458
63	9.50	299.929	299.982	299.962	300.059	300.008	300.174	300.078	300.365
64	9.50	305.029	305.082	305.061	305.158	305.108	305.273	305.178	305.465
65	9.50	309.938	309.991	309.971	310.068	310.018	310.183	310.089	310.375
66	9.50	315.034	315.087	315.067	315.164	315.114	315.280	315.186	315.472
67	9.50	319.947	319.999	319.980	320.076	320.027	320.192	320.099	320.385
68	9.50	325.040	325.092	325.073	325.170	325.121	325.286	325.193	325.479
69	9.50	329.954	330.007	329.988	330.084	330.036	330.200	330.108	330.394
70	9.50	335.045	335.097	335.079	335.175	335.127	335.291	335.199	335.485
71	9.50	339.962	340.014	339.996	340.092	340.044	340.208	340.117	340.403
72	9.50	345.050	345.102	345.084	345.180	345.132	345.297	345.206	345.491
73	9.50	349.969	350.021	350.003	350.099	350.052	350.216	350.126	350.411
74	9.50	355.054	355.106	355.089	355.184	355.138	355.302	355.212	355.497
75	9.50	359.976	360.027	360.010	360.105	360.059	360.223	360.134	360.419
76	9.50	365.059	365.110	365.094	365.189	365.143	365.307	365.218	365.503
77	9.50	369.982	370.033	370.017	370.112	370.066	370.230	370.142	370.427
78	9.50	375.063	375.114	375.098	375.193	375.148	375.311	375.224	375.509
79	9.50	379.988	380.039	380.023	380.118	380.073	380.237	380.149	380.434
80	9.50	385.067	385.118	385.103	385.197	385.153	385.316	385.229	385.514
81	9.50	390.994	390.044	390.029	390.124	390.080	390.243	390.157	390.441
82	9.50	395.071	395.121	395.107	395.201	395.157	395.320	395.234	395.519
83	9.50	399.990	400.050	400.035	400.129	400.086	400.249	400.164	400.448
84	9.50	405.073	405.125	405.111	405.205	405.162	405.325	405.240	405.524
85	9.50	410.055	410.055	410.041	410.135	410.092	410.255	410.170	410.455
86	9.50	415.078	415.128	415.115	415.208	415.166	415.329	415.245	415.529
87	9.50	420.010	420.060	420.046	420.140	420.098	420.260	420.177	420.461
88	9.50	425.081	425.131	425.118	425.212	425.170	425.332	425.249	425.534
89	9.50	430.015	430.064	430.052	430.145	430.104	430.266	430.183	430.467
90	9.50	435.085	435.134	435.122	435.215	435.174	435.336	435.254	435.538
91	9.50	440.019	440.069	440.057	440.150	440.109	440.271	440.189	440.473
92	9.50	445.088	445.137	445.125	445.218	445.178	445.340	445.259	445.543
93	9.50	450.024	450.073	450.061	450.154	450.115	450.276	450.195	450.479
94	9.50	455.091	455.140	455.129	455.221	455.182	455.343	455.263	455.547
95	9.50	460.028	460.077	460.066	460.159	460.120	460.281	460.201	460.485
96	9.50	465.094	465.142	465.132	465.224	465.186	465.347	465.267	465.551
97	9.50	470.032	470.081	470.070	470.163	470.125	470.286	470.207	470.490
98	9.50	475.097	475.145	475.135	475.227	475.189	475.350	475.272	475.555
99	9.50	480.036	480.085	480.075	480.167	480.129	480.290	480.212	480.496
100	9.50	485.099	485.147	485.138	485.230	485.193	485.353	485.276	485.559

表 12 棒间距 M_{Ri}
30°内花键 模数 $m=6\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=9.425\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_{Ri}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Ri}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	10.60	43.402	43.509	43.436	43.613	43.484	43.765	43.559	44.009
11	10.60	49.013	49.104	49.042	49.196	49.085	49.331	49.151	49.550
12	10.60	55.770	55.855	55.798	55.942	55.839	56.070	55.902	56.280
13	10.60	61.346	61.425	61.372	61.508	61.411	61.630	61.471	61.830
14	10.60	67.953	68.030	67.979	68.110	68.018	68.230	68.077	68.427
15	10.60	73.552	73.626	73.578	73.704	73.615	73.821	73.674	74.014
16	10.60	80.066	80.139	80.092	80.216	80.130	80.332	80.188	80.523
17	10.60	85.696	85.767	85.722	85.843	85.759	85.957	85.817	86.145
18	10.60	92.144	92.214	92.170	92.290	92.208	92.404	92.265	92.592
19	10.60	97.804	97.872	97.829	97.947	97.867	98.060	97.924	98.246
20	10.60	104.202	104.270	104.228	104.345	104.265	104.457	104.324	104.644
21	10.60	109.888	109.955	109.914	110.029	109.951	110.141	110.009	110.326
22	11.20	114.227	114.296	114.254	114.375	114.294	114.493	114.356	114.687
23	11.20	119.953	120.022	119.981	120.100	120.021	120.216	120.082	120.410
24	11.20	126.289	126.357	126.317	126.435	126.357	126.551	126.418	126.744
25	11.20	132.032	132.099	132.060	132.176	132.100	132.292	132.162	132.485
26	11.20	138.339	138.405	138.367	138.483	138.407	138.599	138.469	138.791
27	11.20	144.097	144.163	144.125	144.240	144.166	144.355	144.228	144.547
28	11.20	150.380	150.445	150.408	150.522	150.449	150.638	150.512	150.830
29	11.20	156.152	156.216	156.180	156.294	156.221	156.409	156.284	156.600
30	11.20	162.414	162.478	162.443	162.555	162.484	162.671	162.547	162.863
31	11.20	168.199	168.262	168.228	168.339	168.269	168.455	168.333	168.646
32	11.20	174.443	174.507	174.473	174.584	174.514	174.699	174.578	174.891
33	11.20	180.240	180.302	180.269	180.379	180.311	180.495	180.375	180.687
34	11.20	186.469	186.531	186.498	186.608	186.540	186.724	186.605	186.916
35	11.20	192.275	192.337	192.305	192.414	192.347	192.530	192.412	192.722
36	11.20	198.491	198.553	198.521	198.630	198.563	198.746	198.629	198.939
37	11.20	204.307	204.368	204.337	204.445	204.380	204.561	204.445	204.754
38	11.20	210.510	210.571	210.541	210.649	210.584	210.765	210.650	210.959
39	11.20	216.335	216.395	216.365	216.473	216.409	216.589	216.475	216.783
40	11.20	222.528	222.588	222.558	222.666	222.602	222.783	222.669	222.977
41	11.20	228.360	228.420	228.391	228.498	228.435	228.614	228.502	228.809
42	11.20	234.543	234.603	234.574	234.681	234.619	234.798	234.687	234.993
43	11.20	240.382	240.442	240.414	240.520	240.458	240.637	240.527	240.832
44	11.20	246.557	246.616	246.589	246.695	246.634	246.812	246.703	247.008
45	11.20	252.403	252.462	252.435	252.541	252.480	252.658	252.549	252.854
46	11.20	258.570	258.629	258.602	258.707	258.647	258.825	258.717	259.022
47	11.20	264.422	264.480	264.454	264.559	264.500	264.677	264.570	264.874
48	11.20	270.582	270.640	270.614	270.719	270.660	270.837	270.731	271.034
49	11.20	276.439	276.497	276.472	276.576	276.518	276.695	276.589	276.892
50	11.20	282.592	282.650	282.625	282.729	282.672	282.848	282.743	283.046
51	11.20	288.455	288.513	288.488	288.592	288.535	288.711	288.607	288.909
52	11.20	294.602	294.659	294.635	294.739	294.682	294.859	294.755	295.057
53	11.20	300.470	300.527	300.503	300.607	300.551	300.726	300.623	300.925
54	11.20	306.611	306.668	306.645	306.748	306.693	306.868	306.765	307.068
55	11.20	312.483	312.540	312.517	312.620	312.565	312.740	312.639	312.940

表 12 (续)

单位为毫米

齿数 z	量棒直径 D_{RL}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_R							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	11.20	318.620	318.676	318.654	318.756	318.702	318.877	318.776	319.078
57	11.20	324.496	324.552	324.530	324.633	324.579	324.754	324.653	324.955
58	11.20	330.627	330.683	330.662	330.764	330.711	330.885	330.785	331.087
59	11.20	336.508	336.564	336.542	336.645	336.592	336.766	336.667	336.968
60	11.20	342.635	342.690	342.670	342.772	342.719	342.893	342.794	343.095
61	11.20	348.519	348.574	348.554	348.656	348.604	348.778	348.680	348.980
62	11.20	354.642	354.697	354.677	354.778	354.727	354.901	354.803	355.104
63	11.20	360.529	360.584	360.565	360.666	360.615	360.788	360.692	360.992
64	11.20	366.648	366.703	366.684	366.785	366.734	366.908	366.811	367.112
65	11.20	372.539	372.594	372.575	372.676	372.626	372.799	372.703	373.003
66	11.20	378.654	378.709	378.690	378.791	378.741	378.914	378.819	379.119
67	11.20	384.548	384.603	384.584	384.685	384.636	384.809	384.714	385.014
68	11.20	390.660	390.714	390.696	390.797	390.748	390.920	390.827	391.126
69	11.20	396.557	396.611	396.593	396.694	396.646	396.818	396.725	397.024
70	11.20	402.665	402.719	402.702	402.802	402.754	402.926	402.834	403.133
71	11.20	408.565	408.619	408.602	408.702	408.655	408.827	408.735	409.034
72	11.20	414.670	414.724	414.708	414.807	414.760	414.932	414.841	415.140
73	11.20	420.573	420.626	420.610	420.710	420.663	420.835	420.744	421.043
74	11.20	426.675	426.729	426.713	426.812	426.766	426.938	426.847	427.146
75	11.20	432.580	432.634	432.618	432.717	432.672	432.843	432.753	433.052
76	11.20	438.680	438.733	438.718	438.817	438.772	438.943	438.854	439.153
77	11.20	444.587	444.640	444.625	444.724	444.680	444.851	444.762	445.061
78	11.20	450.684	450.737	450.723	450.822	450.777	450.948	450.860	451.158
79	11.20	456.594	456.647	456.633	456.731	456.687	456.858	456.770	457.069
80	11.20	462.689	462.741	462.727	462.826	462.782	462.953	462.866	463.164
81	11.20	468.601	468.653	468.639	468.738	468.695	468.865	468.778	469.077
82	11.20	474.693	474.745	474.732	474.830	474.787	474.958	474.871	475.170
83	11.20	480.607	480.659	480.646	480.744	480.702	480.872	480.786	481.084
84	11.20	486.697	486.749	486.736	486.835	486.792	486.964	486.877	487.178
85	11.20	492.613	492.665	492.652	492.751	492.708	492.880	492.794	493.095
86	11.20	498.700	498.753	498.740	498.839	498.797	498.968	498.882	499.184
87	11.20	504.618	504.670	504.658	504.757	504.715	504.887	504.801	505.102
88	11.20	510.704	510.756	510.744	510.843	510.801	510.973	510.888	511.189
89	11.20	516.623	516.676	516.664	516.763	516.721	516.893	516.808	517.110
90	11.20	522.707	522.760	522.748	522.847	522.805	522.977	522.893	523.195
91	11.20	528.629	528.681	528.669	528.768	528.727	528.899	528.815	529.117
92	11.20	534.711	534.763	534.752	534.850	534.810	534.982	534.898	535.200
93	11.20	540.634	540.686	540.675	540.773	540.733	540.905	540.821	541.124
94	11.20	546.714	546.766	546.755	546.854	546.814	546.986	546.902	547.206
95	11.20	552.638	552.690	552.680	552.779	552.739	552.911	552.828	553.131
96	11.20	558.717	558.769	558.759	558.857	558.818	558.990	558.907	559.211
97	11.20	564.643	564.695	564.685	564.784	564.744	564.917	564.834	565.138
98	11.20	570.720	570.772	570.762	570.861	570.821	570.994	570.912	571.216
99	11.20	576.647	576.699	576.689	576.788	576.749	576.922	576.840	577.145
100	11.20	582.723	582.775	582.765	582.864	582.825	582.998	582.916	583.221

表 13 棒间距 M_{Hi}
30°内花键 模数 $m=8\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=12.566\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_{Hi}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Hi}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	14.00	58.461	58.568	58.496	58.677	58.549	58.836	58.629	59.095
11	14.00	65.881	65.976	65.913	66.074	65.961	66.218	66.034	66.454
12	14.00	74.865	74.955	74.896	75.048	74.942	75.186	75.012	75.413
13	14.00	82.277	82.362	82.307	82.450	82.351	82.583	82.419	82.801
14	14.00	91.076	91.158	91.106	91.245	91.149	91.375	91.216	91.591
15	14.00	98.529	98.608	98.558	98.694	98.601	98.821	98.667	99.031
16	14.00	107.209	107.287	107.238	107.371	107.281	107.498	107.347	107.707
17	14.00	114.708	114.783	114.737	114.867	114.779	114.992	114.845	115.198
18	14.00	123.302	123.376	123.331	123.460	123.374	123.584	123.440	123.790
19	14.00	130.842	130.915	130.871	130.998	130.914	131.121	130.980	131.326
20	15.00	135.949	136.028	135.981	136.117	136.028	136.250	136.099	136.470
21	15.00	143.564	143.641	143.596	143.729	143.642	143.861	143.714	144.079
22	15.00	152.061	152.137	152.093	152.224	152.139	152.355	152.211	152.572
23	15.00	159.699	159.773	159.731	159.860	159.777	159.990	159.848	160.205
24	15.00	168.148	168.221	168.180	168.308	168.226	168.438	168.298	168.653
25	15.00	175.807	175.879	175.839	175.966	175.886	176.095	175.957	176.309
26	15.00	184.217	184.289	184.249	184.375	184.296	184.504	184.368	184.718
27	15.00	191.896	191.967	191.929	192.053	191.976	192.181	192.048	192.395
28	15.00	200.274	200.344	200.307	200.430	200.354	200.559	200.426	200.772
29	15.00	207.971	208.041	208.004	208.127	208.052	208.255	208.124	208.468
30	15.00	216.322	216.391	216.355	216.476	216.402	216.605	216.476	216.818
31	15.00	224.035	224.104	224.069	224.189	224.117	224.318	224.190	224.531
32	15.00	232.362	232.430	232.396	232.516	232.444	232.644	232.518	232.858
33	15.00	240.091	240.158	240.125	240.244	240.173	240.372	240.248	240.586
34	15.00	248.397	248.464	248.431	248.550	248.480	248.679	248.555	248.893
35	15.00	256.139	256.206	256.174	256.292	256.223	256.421	256.298	256.635
36	15.00	264.427	264.493	264.462	264.580	264.511	264.709	264.587	264.923
37	15.00	272.182	272.248	272.217	272.334	272.267	272.463	272.343	272.678
38	15.00	280.454	280.519	280.489	280.606	280.539	280.735	280.616	280.950
39	15.00	288.220	288.285	288.255	288.372	288.306	288.501	288.383	288.716
40	15.00	296.478	296.543	296.513	296.629	296.564	296.759	296.642	296.975
41	15.00	304.254	304.319	304.290	304.405	304.341	304.535	304.419	304.751
42	15.00	312.499	312.563	312.535	312.650	312.587	312.780	312.665	312.997
43	15.00	320.285	320.349	320.321	320.436	320.373	320.566	320.452	320.783
44	15.00	328.518	328.582	328.555	328.669	328.607	328.800	328.687	329.017
45	15.00	336.313	336.376	336.350	336.464	336.402	336.595	336.482	336.812
46	15.00	344.536	344.598	344.570	344.686	344.626	344.818	344.706	345.036
47	15.00	352.339	352.401	352.376	352.489	352.429	352.620	352.510	352.839
48	15.00	360.552	360.614	360.589	360.702	360.643	360.834	360.724	361.053
49	15.00	368.362	368.424	368.400	368.512	368.453	368.644	368.536	368.864
50	15.00	376.566	376.628	376.604	376.716	376.658	376.849	376.741	377.069
51	15.00	384.383	384.445	384.421	384.533	384.476	384.666	384.559	384.887
52	15.00	392.580	392.641	392.618	392.729	392.673	392.862	392.756	393.084
53	15.00	400.403	400.464	400.440	400.553	400.497	400.686	400.581	400.908
54	15.00	408.592	408.652	408.631	408.742	408.686	408.875	408.771	409.098
55	15.00	416.422	416.482	416.461	416.571	416.517	416.705	416.602	416.928

表 13 (续)

单位为毫米

齿数 z	量棒直径 D_W	E_{min} 和 E_{max} 的棒间距 M_W							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	15.00	424.603	424.663	424.643	424.753	424.699	424.887	424.784	425.111
57	15.00	432.439	432.499	432.478	432.588	432.535	432.723	432.621	432.947
58	15.00	440.614	440.674	440.654	440.764	440.711	440.899	440.797	441.123
59	15.00	448.455	448.514	448.495	448.604	448.552	448.739	448.639	448.964
60	15.00	456.624	456.683	456.664	456.774	456.722	456.909	456.809	457.135
61	15.00	464.470	464.529	464.510	464.619	464.568	464.755	464.656	464.981
62	15.00	472.633	472.692	472.674	472.783	472.732	472.919	472.821	473.146
63	15.00	480.481	480.543	480.524	480.634	480.583	480.771	480.672	480.999
64	15.00	488.642	488.701	488.683	488.793	488.742	488.930	488.831	489.159
65	15.00	496.497	496.556	496.538	496.648	496.597	496.786	496.687	497.015
66	15.00	504.650	504.709	504.692	504.801	504.751	504.940	504.842	505.170
67	15.00	512.509	512.568	512.551	512.660	512.611	512.799	512.702	513.030
68	15.00	520.658	520.717	520.700	520.809	520.760	520.949	520.852	521.180
69	15.00	528.521	528.579	528.563	528.672	528.623	528.812	528.715	529.044
70	15.00	536.665	536.724	536.708	536.817	536.768	536.957	536.861	537.190
71	15.00	544.532	544.590	544.574	544.684	544.636	544.824	544.728	545.058
72	15.00	552.672	552.731	552.715	552.825	552.777	552.965	552.870	553.200
73	15.00	560.542	560.601	560.585	560.695	560.647	560.836	560.741	561.071
74	15.00	568.679	568.737	568.722	568.832	568.784	568.973	568.878	569.209
75	15.00	576.552	576.610	576.596	576.705	576.658	576.847	576.753	577.084
76	15.00	584.685	584.743	584.729	584.838	584.791	584.981	584.887	585.218
77	15.00	592.561	592.620	592.606	592.715	592.669	592.858	592.764	593.096
78	15.00	600.691	600.749	600.735	600.845	600.799	600.988	600.895	601.227
79	15.00	608.570	608.629	608.615	608.725	608.679	608.868	608.775	609.108
80	15.00	616.696	616.755	616.741	616.851	616.805	616.995	616.902	617.235
81	15.00	624.579	624.637	624.624	624.734	624.688	624.878	624.786	625.119
82	15.00	632.702	632.760	632.747	632.857	632.812	633.002	632.910	633.244
83	15.00	640.587	640.645	640.632	640.742	640.697	640.888	640.796	641.130
84	15.00	648.707	648.765	648.753	648.863	648.818	649.009	648.917	649.252
85	15.00	656.305	656.653	656.641	656.751	656.706	656.897	656.806	657.141
86	15.00	664.712	664.770	664.758	664.868	664.824	665.015	664.924	665.260
87	15.00	672.602	672.660	672.649	672.759	672.715	672.906	672.815	673.152
88	15.00	680.717	680.775	680.763	680.874	680.830	681.021	680.931	681.268
89	15.00	688.610	688.668	688.656	688.767	688.723	688.915	688.824	689.162
90	15.00	696.721	696.780	696.768	696.879	696.835	697.028	696.937	697.275
91	15.00	704.616	704.675	704.664	704.774	704.731	704.923	704.833	705.172
92	15.00	712.726	712.784	712.773	712.884	712.841	713.033	712.943	713.283
93	15.00	720.623	720.681	720.671	720.781	720.739	720.931	720.842	721.181
94	15.00	728.730	728.788	728.778	728.889	728.846	729.039	728.950	729.290
95	15.00	736.629	736.688	736.677	736.788	736.746	736.939	736.850	737.191
96	15.00	744.734	744.792	744.782	744.893	744.851	745.045	744.956	745.297
97	15.00	752.635	752.694	752.684	752.795	752.753	752.947	752.858	753.200
98	15.00	760.738	760.796	760.787	760.898	760.856	761.050	760.961	761.304
99	15.00	768.641	768.700	768.690	768.802	768.760	768.955	768.866	769.209
100	15.00	776.742	776.800	776.791	776.903	776.861	777.056	776.967	777.311

表 14 棒间距 M_{Ri}
30°内花键 模数 $m=10\text{ mm}$ 作用齿槽宽最小值 $E_{\min}=15.708\text{ mm}$ 单位为毫米

齿数 z	量棒直径 D_{Ri}	$E_{\min}$ 和 $E_{\max}$ 的棒间距 M_{Ri}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
10	17.00	75.139	75.237	75.173	75.338	75.223	75.489	75.302	75.736
11	17.00	84.268	84.358	84.300	84.454	84.348	84.596	84.423	84.830
12	17.00	95.433	95.520	95.465	95.614	95.512	95.753	95.585	95.983
13	18.00	100.946	101.043	100.983	101.147	101.036	101.302	101.118	101.557
14	18.00	111.995	112.087	112.030	112.188	112.082	112.338	112.162	112.585
15	18.00	121.362	121.450	121.397	121.548	121.447	121.693	121.526	121.933
16	18.00	132.238	132.324	132.273	132.420	132.323	132.563	132.401	132.800
17	18.00	141.644	141.727	141.677	141.821	141.727	141.961	141.804	142.194
18	18.00	152.402	152.484	152.436	152.577	152.486	152.717	152.563	152.948
19	18.00	161.850	161.929	161.884	162.022	161.933	162.160	162.009	162.388
20	18.00	172.521	172.600	172.555	172.692	172.605	172.829	172.682	173.058
21	18.00	182.008	182.086	182.043	182.177	182.092	182.314	182.169	182.540
22	18.00	192.612	192.688	192.646	192.779	192.696	192.916	192.773	193.142
23	18.00	202.135	202.211	202.170	202.301	202.220	202.437	202.297	202.663
24	18.00	212.683	212.758	212.718	212.849	212.769	212.985	212.846	213.211
25	18.00	222.239	222.313	222.274	222.403	222.324	222.539	222.402	222.764
26	18.00	232.741	232.815	232.777	232.905	232.828	233.041	232.906	233.267
27	18.00	242.325	242.398	242.361	242.488	242.412	242.624	242.491	242.849
28	18.00	252.790	252.862	252.825	252.952	252.877	253.088	252.957	253.314
29	18.00	262.399	262.470	262.435	262.561	262.487	262.697	262.567	262.923
30	18.00	272.830	272.901	272.867	272.992	272.919	273.128	273.000	273.355
31	18.00	282.462	282.533	282.499	282.624	282.552	282.760	282.633	282.986
32	18.00	292.865	292.935	292.902	293.026	292.955	293.163	293.037	293.390
33	18.00	302.518	302.587	302.555	302.678	302.608	302.815	302.690	303.042
34	18.00	312.896	312.965	312.933	313.056	312.987	313.193	313.070	313.421
35	18.00	322.566	322.635	322.604	322.726	322.658	322.863	322.741	323.091
36	18.00	332.922	332.990	332.960	333.082	333.015	333.220	333.099	333.449
37	18.00	342.609	342.677	342.647	342.769	342.703	342.907	342.787	343.136
38	18.00	352.946	353.013	352.984	353.106	353.040	353.244	353.125	353.474
39	18.00	362.648	362.715	362.686	362.807	362.742	362.945	362.828	363.176
40	18.00	372.967	373.034	373.006	373.126	373.062	373.265	373.149	373.496
41	18.00	382.682	382.749	382.722	382.841	382.779	382.981	382.865	383.212
42	19.00	389.817	389.884	389.857	389.979	389.916	390.121	390.005	390.358
43	19.00	399.551	399.618	399.592	399.713	399.650	399.855	399.740	400.092
44	19.00	409.843	409.910	409.884	410.005	409.943	410.148	410.034	410.386
45	19.00	419.588	419.654	419.629	419.750	419.689	419.893	419.780	420.131
46	19.00	429.867	429.933	429.909	430.029	429.969	430.172	430.060	430.411
47	19.00	439.622	439.688	439.664	439.783	439.724	439.927	439.816	440.166
48	19.00	449.889	449.954	449.931	450.050	449.992	450.194	450.084	450.434
49	19.00	459.653	459.718	459.695	459.814	459.756	459.959	459.849	460.199
50	19.00	469.909	469.974	469.951	470.070	470.013	470.215	470.107	470.455
51	19.00	479.682	479.747	479.724	479.844	479.786	479.989	479.880	480.232
52	19.00	489.927	489.992	489.970	490.090	490.033	490.236	490.127	490.479
53	19.00	499.708	499.773	499.751	499.870	499.814	500.017	499.909	500.261
54	19.00	509.944	510.009	509.988	510.107	510.051	510.254	510.147	510.498
55	19.00	519.732	519.797	519.776	519.895	519.839	520.042	519.936	520.288

表 14 (续)

单位为毫米

齿数 z	量棒直径 D_{Ri}	E_{min} 和 E_{max} 的棒间距 M_{Ri}							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	19.00	529.960	530.024	530.004	530.123	530.068	530.271	530.165	530.517
57	19.00	539.755	539.819	539.799	539.918	539.863	540.066	539.961	540.313
58	19.00	549.974	550.038	550.019	550.138	550.083	550.287	550.181	550.534
59	19.00	559.776	559.840	559.821	559.939	559.886	560.089	559.984	560.337
60	19.00	569.988	570.052	570.033	570.152	570.098	570.301	570.197	570.551
61	19.00	579.795	579.859	579.841	579.960	579.907	580.110	580.006	580.360
62	19.00	590.000	590.064	590.046	590.165	590.112	590.316	590.212	590.567
63	19.00	599.814	599.878	599.860	599.979	599.926	600.130	600.027	600.382
64	19.00	610.012	610.076	610.058	610.177	610.125	610.329	610.227	610.582
65	19.00	619.831	619.895	619.878	619.996	619.945	620.149	620.047	620.402
66	19.00	630.023	630.087	630.070	630.189	630.137	630.342	630.240	630.596
67	19.00	639.847	639.911	639.894	640.013	639.962	640.167	640.065	640.422
68	19.00	650.033	650.097	650.081	650.200	650.149	650.354	650.253	650.610
69	19.00	659.863	659.926	659.910	660.029	659.979	660.184	660.083	660.441
70	19.00	670.043	670.107	670.091	670.210	670.160	670.365	670.265	670.624
71	19.00	679.877	679.941	679.925	680.044	679.995	680.200	680.100	680.459
72	19.00	690.053	690.116	690.101	690.220	690.171	690.377	690.277	690.636
73	19.00	699.891	699.954	699.939	700.059	700.009	700.215	700.116	700.475
74	19.00	710.062	710.125	710.110	710.230	710.181	710.387	710.288	710.649
75	19.00	719.904	719.967	719.953	720.072	720.024	720.230	720.131	720.493
76	19.00	730.070	730.134	730.119	730.239	730.191	730.397	730.299	730.661
77	19.00	739.916	739.980	739.966	740.086	740.037	740.244	740.146	740.509
78	19.00	750.078	750.142	750.128	750.248	750.200	750.407	750.309	750.673
79	19.00	759.928	759.991	759.978	760.098	760.050	760.258	760.160	760.524
80	19.00	770.085	770.149	770.136	770.256	770.209	770.417	770.319	770.684
81	19.00	779.939	780.003	779.990	780.110	780.063	780.271	780.173	780.539
82	19.00	790.093	790.157	790.144	790.264	790.217	790.426	790.328	790.695
83	19.00	799.950	800.013	800.001	800.122	800.074	800.284	800.186	800.554
84	19.00	810.100	810.164	810.151	810.272	810.225	810.435	810.337	810.706
85	19.00	819.960	820.024	820.011	820.133	820.086	820.296	820.199	820.568
86	19.00	830.106	830.170	830.158	830.280	830.233	830.444	830.346	830.716
87	19.00	839.969	840.034	840.022	840.143	840.097	840.308	840.210	840.581
88	19.00	850.113	850.177	850.165	850.287	850.240	850.452	850.355	850.727
89	19.00	859.979	860.043	860.031	860.153	860.107	860.319	860.222	860.595
90	19.00	870.119	870.183	870.172	870.294	870.248	870.460	870.363	870.737
91	19.00	879.988	880.052	880.041	880.163	880.117	880.330	880.233	880.608
92	19.00	890.125	890.189	890.178	890.301	890.255	890.468	890.371	890.747
93	19.00	899.996	900.061	900.050	900.173	900.127	900.341	900.244	900.620
94	19.00	910.130	910.195	910.184	910.307	910.262	910.476	910.379	910.756
95	19.00	920.005	920.069	920.059	920.182	920.137	920.351	920.254	920.632
96	19.00	930.136	930.201	930.190	930.314	930.268	930.483	930.387	930.766
97	19.00	940.013	940.077	940.067	940.191	940.146	940.361	940.264	940.644
98	19.00	950.141	950.206	950.196	950.320	950.275	950.491	950.394	950.775
99	19.00	960.020	960.085	960.075	960.200	960.154	960.371	960.274	960.656
100	19.00	970.146	970.211	970.201	970.326	970.281	970.498	970.401	970.784

表 15 跨棒距 M_{Rc}
30°外花键 模数 $m=0.5\text{ mm}$ 作用齿厚最大值 $S_{\max}=0.785\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{Rc}	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_{Rc}								变换 系数 K_s
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	1.25	7.161	7.178	7.142	7.172	7.114	7.162	7.067	7.147	1.297 0
11	1.25	7.605	7.622	7.586	7.616	7.558	7.606	7.510	7.591	1.303 1
12	1.25	8.179	8.197	8.159	8.190	8.130	8.180	8.080	8.164	1.334 3
13	1.18	8.455	8.473	8.435	8.466	8.404	8.456	8.353	8.439	1.371 3
14	1.18	9.014	9.033	8.993	9.026	8.962	9.015	8.909	8.998	1.396 1
15	1.18	9.473	9.493	9.452	9.485	9.421	9.474	9.367	9.457	1.401 8
16	1.18	10.024	10.043	10.002	10.036	9.970	10.025	9.915	10.007	1.421 9
17	1.18	10.488	10.508	10.466	10.500	10.434	10.489	10.378	10.471	1.427 3
18	1.18	11.032	11.052	11.010	11.044	10.976	11.033	10.920	11.014	1.444 1
19	1.12	11.341	11.361	11.318	11.353	11.284	11.341	11.226	11.323	1.476 4
20	1.12	11.879	11.899	11.855	11.891	11.820	11.879	11.762	11.860	1.490 2
21	1.12	12.349	12.370	12.326	12.362	12.291	12.350	12.231	12.330	1.494 3
22	1.12	12.883	12.904	12.859	12.896	12.824	12.884	12.764	12.864	1.506 1
23	1.12	13.357	13.378	13.333	13.369	13.297	13.357	13.236	13.337	1.509 8
24	1.12	13.887	13.909	13.863	13.900	13.826	13.887	13.765	13.867	1.520 1
25	1.12	14.363	14.384	14.338	14.375	14.302	14.363	14.240	14.343	1.523 5
26	1.12	14.891	14.912	14.866	14.903	14.829	14.891	14.766	14.870	1.532 5
27	1.12	15.368	15.390	15.343	15.381	15.306	15.368	15.243	15.347	1.535 5
28	1.12	15.894	15.916	15.869	15.907	15.831	15.894	15.767	15.873	1.543 5
29	1.12	16.373	16.395	16.348	16.386	16.309	16.372	16.245	16.351	1.546 3
30	1.12	16.897	16.919	16.871	16.909	16.832	16.896	16.768	16.875	1.553 4
31	1.12	17.377	17.399	17.351	17.390	17.312	17.376	17.247	17.355	1.556 0
32	1.12	17.899	17.921	17.873	17.912	17.834	17.898	17.768	17.876	1.562 3
33	1.12	18.380	18.403	18.354	18.393	18.315	18.380	18.249	18.358	1.564 7
34	1.12	18.901	18.923	18.875	18.914	18.835	18.900	18.769	18.878	1.570 4
35	1.12	19.384	19.406	19.357	19.396	19.317	19.382	19.250	19.360	1.572 6
36	1.12	19.903	19.926	19.876	19.916	19.836	19.902	19.769	19.879	1.577 8
37	1.12	20.387	20.409	20.360	20.399	20.319	20.385	20.252	20.362	1.579 8
38	1.12	20.905	20.927	20.878	20.917	20.837	20.903	20.769	20.880	1.584 5
39	1.12	21.389	21.412	21.362	21.402	21.321	21.387	21.252	21.364	1.586 4
40	1.12	21.906	21.929	21.879	21.919	21.838	21.904	21.769	21.881	1.590 7
41	1.12	22.391	22.414	22.364	22.404	22.323	22.389	22.253	22.366	1.592 5
42	1.12	22.908	22.931	22.880	22.920	22.838	22.906	22.769	22.882	1.596 5
43	1.12	23.393	23.416	23.366	23.406	23.324	23.391	23.254	23.368	1.598 1
44	1.12	23.909	23.932	23.881	23.922	23.839	23.907	23.768	23.883	1.601 7
45	1.12	24.395	24.418	24.367	24.408	24.325	24.393	24.254	24.369	1.603 3
46	1.12	24.910	24.933	24.882	24.923	24.839	24.908	24.768	24.884	1.606 6
47	1.12	25.397	25.420	25.369	25.410	25.326	25.394	25.255	25.370	1.608 1
48	1.12	25.911	25.934	25.883	25.924	25.840	25.908	25.768	25.884	1.611 2
49	1.12	26.399	26.422	26.370	26.411	26.327	26.396	26.256	26.371	1.612 5
50	1.12	26.912	26.936	26.883	26.925	26.840	26.909	26.768	26.885	1.615 4
51	1.12	27.400	27.424	27.371	27.413	27.328	27.397	27.256	27.372	1.616 7
52	1.12	27.913	27.936	27.884	27.925	27.840	27.910	27.767	27.885	1.619 4
53	1.12	28.402	28.425	28.372	28.414	28.329	28.398	28.256	28.373	1.620 6
54	1.12	28.914	28.937	28.885	28.926	28.841	28.910	28.767	28.885	1.623 1
55	1.12	29.403	29.426	29.373	29.415	29.329	29.399	29.256	29.374	1.624 2

表 15 (续)

单位为毫米

齿数 z	量棒 直径 D_R	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_R								变换 系数 K_r
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	1.12	29.915	29.938	29.885	29.927	29.841	29.911	29.766	29.885	1.626 6
57	1.12	30.404	30.427	30.374	30.416	30.330	30.400	30.255	30.374	1.627 6
58	1.12	30.915	30.939	30.886	30.928	30.841	30.911	30.766	30.886	1.629 9
59	1.12	31.405	31.429	31.375	31.417	31.330	31.401	31.255	31.375	1.630 9
60	1.12	31.916	31.940	31.886	31.928	31.841	31.912	31.766	31.886	1.632 9
61	1.12	32.406	32.430	32.376	32.418	32.331	32.402	32.255	32.375	1.633 9
62	1.12	32.917	32.940	32.886	32.929	32.841	32.912	32.765	32.886	1.635 9
63	1.12	33.407	33.431	33.377	33.419	33.331	33.402	33.253	33.376	1.636 7
64	1.12	33.917	33.941	33.887	33.929	33.841	33.912	33.765	33.886	1.638 6
65	1.12	34.408	34.431	34.377	34.420	34.331	34.403	34.255	34.376	1.639 4
66	1.12	34.918	34.941	34.887	34.930	34.841	34.913	34.764	34.886	1.641 2
67	1.12	35.408	35.432	35.378	35.420	35.332	35.403	35.254	35.377	1.642 0
68	1.12	35.918	35.942	35.887	35.930	35.841	35.913	35.764	35.886	1.643 7
69	1.12	36.409	36.433	36.378	36.421	36.332	36.404	36.254	36.377	1.644 4
70	1.12	36.919	36.942	36.888	36.930	36.841	36.913	36.763	36.886	1.646 0
71	1.12	37.410	37.434	37.379	37.422	37.332	37.404	37.254	37.377	1.646 7
72	1.12	37.919	37.943	37.888	37.931	37.841	37.913	37.762	37.886	1.648 2
73	1.12	38.411	38.435	38.379	38.422	38.332	38.405	38.254	38.377	1.648 9
74	1.12	38.919	38.943	38.888	38.931	38.841	38.913	38.762	38.886	1.650 4
75	1.12	39.411	39.435	39.380	39.423	39.332	39.405	39.253	39.377	1.651 0
76	1.12	39.920	39.944	39.888	39.931	39.841	39.914	39.761	39.886	1.652 4
77	1.12	40.412	40.436	40.380	40.423	40.333	40.405	40.253	40.377	1.653 0
78	1.12	40.920	40.944	40.888	40.931	40.841	40.914	40.761	40.886	1.654 3
79	1.12	41.412	41.436	41.380	41.424	41.333	41.406	41.253	41.378	1.654 9
80	1.12	41.920	41.944	41.888	41.932	41.841	41.914	41.760	41.885	1.656 1
81	1.12	42.413	42.437	42.381	42.424	42.333	42.406	42.252	42.378	1.656 7
82	1.12	42.921	42.945	42.889	42.932	42.840	42.914	42.760	42.885	1.657 9
83	1.12	43.413	43.437	43.381	43.424	43.333	43.406	43.252	43.378	1.658 4
84	1.12	43.921	43.945	43.889	43.932	43.840	43.914	43.759	43.885	1.659 6
85	1.12	44.414	44.438	44.381	44.425	44.333	44.406	44.251	44.378	1.660 1
86	1.12	44.921	44.945	44.889	44.932	44.840	44.914	44.758	44.885	1.661 2
87	1.12	45.414	45.438	45.382	45.425	45.333	45.407	45.251	45.378	1.661 7
88	1.12	45.921	45.946	45.889	45.932	45.840	45.914	45.758	45.885	1.662 7
89	1.12	46.415	46.439	46.382	46.425	46.333	46.407	46.251	46.378	1.663 2
90	1.12	46.922	46.946	46.889	46.932	46.840	46.914	46.757	46.884	1.664 2
91	1.12	47.415	47.439	47.382	47.426	47.333	47.407	47.250	47.377	1.664 7
92	1.12	47.922	47.946	47.889	47.933	47.840	47.914	47.757	47.884	1.665 6
93	1.12	48.415	48.439	48.382	48.426	48.333	48.407	48.250	48.377	1.666 1
94	1.12	48.922	48.946	48.889	48.933	48.839	48.914	48.756	48.884	1.667 0
95	1.12	49.416	49.440	49.382	49.426	49.333	49.407	49.249	49.377	1.667 4
96	1.12	49.922	49.946	49.889	49.933	49.839	49.914	49.756	49.884	1.668 3
97	1.12	50.416	50.440	50.383	50.426	50.333	50.407	50.249	50.377	1.668 7
98	1.12	50.922	50.947	50.889	50.933	50.839	50.914	50.755	50.883	1.669 5
99	1.12	51.416	51.440	51.383	51.427	51.332	51.407	51.248	51.377	1.670 0
100	1.12	51.923	51.947	51.889	51.933	51.839	51.914	51.754	51.883	1.670 8

表 16 跨棒距 M_{Re}
30°外花键 模数 $m=0.75\text{ mm}$ 作用齿厚最大值 $S_{v\max}=1.178\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_{Re}								变换 系数 K_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	1.80	10.566	10.587	10.545	10.580	10.512	10.570	10.457	10.553	1.309 8
11	1.80	11.232	11.253	11.210	11.246	11.177	11.236	11.122	11.219	1.315 8
12	1.80	12.091	12.113	12.068	12.105	12.034	12.094	11.977	12.077	1.346 9
13	1.80	12.771	12.792	12.747	12.785	12.713	12.774	12.655	12.756	1.353 1
14	1.70	13.352	13.375	13.328	13.367	13.292	13.355	13.231	13.337	1.408 5
15	1.70	14.041	14.064	14.016	14.056	13.980	14.044	13.918	14.025	1.413 9
16	1.70	14.865	14.888	14.840	14.880	14.802	14.868	14.739	14.849	1.433 8
17	1.70	15.561	15.585	15.536	15.576	15.498	15.564	15.434	15.545	1.438 9
18	1.70	16.376	16.400	16.350	16.391	16.311	16.379	16.246	16.359	1.455 5
19	1.70	17.078	17.102	17.052	17.093	17.013	17.080	16.947	17.060	1.460 2
20	1.70	17.885	17.909	17.859	17.900	17.819	17.887	17.752	17.867	1.474 2
21	1.70	18.592	18.616	18.565	18.607	18.525	18.594	18.457	18.573	1.478 5
22	1.70	19.393	19.417	19.366	19.408	19.325	19.395	19.257	19.374	1.490 6
23	1.70	20.103	20.128	20.076	20.119	20.035	20.105	19.966	20.084	1.494 5
24	1.60	20.627	20.652	20.598	20.642	20.556	20.628	20.485	20.606	1.534 2
25	1.60	21.340	21.365	21.311	21.356	21.269	21.342	21.197	21.319	1.537 2
26	1.60	22.131	22.157	22.102	22.147	22.059	22.133	21.987	22.110	1.545 9
27	1.60	22.847	22.873	22.818	22.863	22.775	22.848	22.702	22.825	1.548 7
28	1.60	23.635	23.661	23.606	23.651	23.562	23.636	23.488	23.613	1.556 4
29	1.60	24.353	24.379	24.324	24.369	24.280	24.354	24.205	24.331	1.558 9
30	1.60	25.138	25.164	25.108	25.154	25.064	25.139	24.989	25.115	1.565 7
31	1.60	25.859	25.885	25.829	25.874	25.784	25.859	25.708	25.835	1.568 0
32	1.60	26.641	26.667	26.611	26.657	26.566	26.642	26.490	26.618	1.574 2
33	1.60	27.363	27.390	27.333	27.379	27.287	27.364	27.211	27.339	1.576 3
34	1.60	28.144	28.170	28.113	28.159	28.067	28.144	27.990	28.119	1.581 8
35	1.60	28.867	28.894	28.837	28.883	28.791	28.867	28.713	28.843	1.583 7
36	1.60	29.646	29.673	29.615	29.662	29.569	29.646	29.491	29.621	1.588 7
37	1.60	30.371	30.398	30.340	30.387	30.293	30.371	30.215	30.346	1.590 5
38	1.60	31.148	31.175	31.117	31.164	31.070	31.148	30.991	31.122	1.595 1
39	1.60	31.875	31.901	31.843	31.890	31.796	31.874	31.717	31.848	1.596 7
40	1.60	32.650	32.677	32.618	32.666	32.571	32.649	32.491	32.624	1.600 9
41	1.60	33.378	33.405	33.346	33.393	33.298	33.377	33.218	33.351	1.602 4
42	1.60	34.152	34.179	34.120	34.167	34.072	34.151	33.991	34.125	1.606 2
43	1.60	34.880	34.907	34.848	34.896	34.800	34.879	34.719	34.853	1.607 7
44	1.60	35.653	35.681	35.621	35.669	35.572	35.652	35.491	35.625	1.611 2
45	1.60	36.383	36.410	36.350	36.398	36.302	36.381	36.220	36.355	1.612 5
46	1.60	37.155	37.182	37.122	37.170	37.073	37.153	36.991	37.126	1.615 8
47	1.60	37.885	37.912	37.852	37.900	37.803	37.883	37.721	37.856	1.617 0
48	1.60	38.656	38.683	38.623	38.671	38.574	38.654	38.491	38.627	1.620 0
49	1.60	39.387	39.415	39.354	39.402	39.304	39.385	39.221	39.358	1.621 2
50	1.60	40.157	40.185	40.124	40.172	40.074	40.155	39.990	40.127	1.624 0
51	1.60	40.889	40.917	40.856	40.904	40.806	40.887	40.722	40.859	1.625 1
52	1.60	41.658	41.686	41.625	41.673	41.574	41.656	41.490	41.628	1.627 7
53	1.60	42.391	42.418	42.357	42.406	42.307	42.388	42.222	42.360	1.628 7
54	1.60	43.159	43.187	43.126	43.174	43.075	43.156	42.990	43.128	1.631 1
55	1.60	43.893	43.920	43.858	43.907	43.808	43.889	43.722	43.861	1.632 1

表 16 (续)

单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_{Re}								变换 系数 K_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	1.60	44.660	44.688	44.626	44.675	44.575	44.657	44.489	44.628	1.634 4
57	1.60	45.394	45.422	45.360	45.409	45.309	45.390	45.222	45.362	1.635 3
58	1.60	46.161	46.189	46.127	46.176	46.075	46.157	45.989	46.128	1.637 4
59	1.60	46.896	46.923	46.861	46.910	46.809	46.892	46.723	46.862	1.638 3
60	1.60	47.662	47.690	47.627	47.676	47.575	47.658	47.488	47.629	1.640 3
61	1.60	48.397	48.424	48.362	48.411	48.310	48.392	48.223	48.363	1.641 1
62	1.60	49.163	49.190	49.128	49.177	49.075	49.158	48.988	49.129	1.643 0
63	1.60	49.898	49.926	49.863	49.912	49.811	49.893	49.723	49.864	1.643 8
64	1.60	50.663	50.691	50.628	50.678	50.576	50.659	50.487	50.629	1.645 5
65	1.60	51.399	51.427	51.364	51.413	51.311	51.394	51.222	51.364	1.646 3
66	1.60	52.164	52.192	52.129	52.178	52.076	52.159	51.987	52.129	1.648 0
67	1.60	52.900	52.928	52.865	52.914	52.812	52.895	52.722	52.865	1.648 7
68	1.60	53.665	53.692	53.629	53.679	53.576	53.659	53.486	53.629	1.650 2
69	1.60	54.401	54.429	54.366	54.415	54.312	54.396	54.222	54.365	1.650 9
70	1.60	55.165	55.193	55.129	55.179	55.076	55.159	54.986	55.129	1.652 4
71	1.60	55.902	55.930	55.866	55.916	55.812	55.896	55.722	55.865	1.653 1
72	1.60	56.666	56.693	56.630	56.679	56.576	56.659	56.485	56.628	1.654 5
73	1.60	57.403	57.431	57.367	57.417	57.313	57.397	57.222	57.365	1.655 1
74	1.60	58.166	58.194	58.130	58.180	58.075	58.160	57.984	58.128	1.656 4
75	1.60	58.904	58.932	58.868	58.917	58.813	58.897	58.722	58.866	1.657 0
76	1.60	59.667	59.694	59.630	59.680	59.575	59.660	59.484	59.628	1.658 3
77	1.60	60.405	60.432	60.368	60.418	60.313	60.398	60.221	60.366	1.658 9
78	1.60	61.167	61.195	61.130	61.180	61.075	61.160	60.983	61.128	1.660 1
79	1.60	61.905	61.933	61.869	61.918	61.813	61.898	61.721	61.866	1.660 6
80	1.60	62.667	62.695	62.631	62.680	62.575	62.660	62.482	62.628	1.661 8
81	1.60	63.406	63.434	63.369	63.419	63.313	63.398	63.221	63.366	1.662 3
82	1.60	64.168	64.196	64.131	64.181	64.075	64.160	63.982	64.128	1.663 4
83	1.60	64.907	64.934	64.869	64.919	64.814	64.899	64.720	64.866	1.663 9
84	1.60	65.668	65.696	65.631	65.681	65.575	65.660	65.481	65.627	1.665 0
85	1.60	66.407	66.435	66.370	66.420	66.314	66.399	66.220	66.366	1.665 4
86	1.60	67.168	67.196	67.131	67.181	67.075	67.160	66.981	67.127	1.666 5
87	1.60	67.908	67.935	67.870	67.920	67.814	67.899	67.719	67.866	1.666 9
88	1.60	68.669	68.696	68.631	68.681	68.574	68.660	68.480	68.627	1.667 9
89	1.60	69.408	69.436	69.371	69.421	69.314	69.399	69.219	69.366	1.668 3
90	1.60	70.169	70.197	70.131	70.181	70.074	70.160	69.979	70.126	1.669 2
91	1.60	70.909	70.936	70.871	70.921	70.814	70.900	70.719	70.866	1.669 7
92	1.60	71.669	71.697	71.631	71.681	71.574	71.660	71.479	71.626	1.670 6
93	1.60	72.409	72.437	72.371	72.421	72.314	72.400	72.218	72.366	1.671 0
94	1.60	73.169	73.197	73.131	73.181	73.074	73.160	72.978	73.126	1.671 8
95	1.60	73.910	73.937	73.871	73.921	73.814	73.900	73.718	73.866	1.672 2
96	1.60	74.670	74.697	74.631	74.681	74.574	74.660	74.477	74.625	1.673 0
97	1.60	75.410	75.438	75.372	75.422	75.314	75.400	75.217	75.366	1.673 4
98	1.60	76.170	76.198	76.131	76.181	76.073	76.160	75.977	76.125	1.674 2
99	1.60	76.911	76.938	76.872	76.922	76.814	76.900	76.717	76.865	1.674 6
100	1.60	77.670	77.698	77.631	77.681	77.573	77.659	77.476	77.625	1.675 3

表 17 跨棒距 M_{Re}
30°外花键 模数 $m=1\text{ mm}$ 作用齿厚最大值 $S_{\text{max}}=1.571\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{Re}	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_{Re}								变换 系数 K_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	2.36	13.997	14.021	13.973	14.013	13.937	14.002	13.877	13.985	1.313 8
11	2.36	14.885	14.909	14.861	14.901	14.824	14.890	14.763	14.872	1.319 6
12	2.36	16.028	16.053	16.003	16.045	15.965	16.033	15.902	16.015	1.350 7
13	2.24	16.627	16.652	16.601	16.644	16.562	16.632	16.497	16.613	1.384 8
14	2.24	17.743	17.768	17.716	17.760	17.676	17.747	17.609	17.727	1.409 3
15	2.24	18.661	18.687	18.634	18.678	18.593	18.666	18.525	18.645	1.414 7
16	2.24	19.760	19.786	19.732	19.777	19.690	19.764	19.621	19.743	1.434 6
17	2.24	20.688	20.714	20.660	20.705	20.618	20.692	20.548	20.671	1.439 6
18	2.24	21.774	21.800	21.745	21.791	21.702	21.778	21.631	21.756	1.456 1
19	2.24	22.710	22.736	22.681	22.727	22.638	22.713	22.565	22.692	1.460 8
20	2.24	23.785	23.813	23.756	23.803	23.712	23.789	23.639	23.767	1.474 8
21	2.12	24.403	24.431	24.373	24.421	24.328	24.407	24.253	24.384	1.506 6
22	2.12	25.470	25.498	25.439	25.488	25.393	25.473	25.317	25.450	1.518 2
23	2.12	26.416	26.445	26.386	26.434	26.340	26.420	26.262	26.396	1.521 5
24	2.12	27.476	27.505	27.445	27.494	27.399	27.479	27.320	27.455	1.531 5
25	2.12	28.427	28.456	28.396	28.445	28.349	28.430	28.270	28.406	1.534 6
26	2.12	29.482	29.511	29.451	29.500	29.403	29.485	29.323	29.460	1.543 3
27	2.12	30.437	30.466	30.405	30.455	30.357	30.439	30.277	30.414	1.546 1
28	2.12	31.487	31.516	31.455	31.505	31.407	31.489	31.326	31.464	1.553 8
29	2.12	32.445	32.474	32.413	32.463	32.364	32.447	32.282	32.422	1.556 4
30	2.12	33.492	33.521	33.459	33.510	33.410	33.493	33.327	33.468	1.563 2
31	2.12	34.452	34.481	34.419	34.470	34.370	34.454	34.287	34.428	1.565 6
32	2.12	35.496	35.525	35.463	35.513	35.413	35.497	35.329	35.471	1.571 7
33	2.12	36.459	36.488	36.425	36.476	36.375	36.460	36.291	36.433	1.573 8
34	2.12	37.499	37.529	37.466	37.517	37.415	37.500	37.330	37.474	1.579 4
35	2.12	38.464	38.494	38.430	38.482	38.380	38.465	38.294	38.438	1.581 3
36	2.12	39.503	39.532	39.468	39.520	39.417	39.503	39.331	39.476	1.586 3
37	2.12	40.469	40.499	40.435	40.487	40.384	40.470	40.297	40.442	1.588 2
38	2.12	41.505	41.535	41.471	41.523	41.419	41.505	41.332	41.478	1.592 7
39	2.12	42.474	42.504	42.439	42.491	42.387	42.474	42.300	42.446	1.594 4
40	2.12	43.508	43.538	43.473	43.525	43.421	43.507	43.333	43.480	1.598 6
41	2.12	44.478	44.508	44.443	44.495	44.390	44.477	44.302	44.449	1.600 2
42	2.12	45.510	45.540	45.475	45.527	45.422	45.509	45.333	45.481	1.604 0
43	2.12	46.482	46.512	46.446	46.499	46.393	46.481	46.304	46.452	1.605 4
44	2.12	47.512	47.542	47.477	47.529	47.423	47.511	47.333	47.482	1.609 0
45	2.12	48.485	48.515	48.449	48.502	48.395	48.484	48.305	48.455	1.610 3
46	2.12	49.514	49.544	49.478	49.531	49.424	49.513	49.334	49.483	1.613 6
47	2.12	50.488	50.518	50.452	50.505	50.398	50.486	50.307	50.457	1.614 9
48	2.12	51.516	51.546	51.480	51.533	51.425	51.514	51.334	51.484	1.617 9
49	2.12	52.491	52.521	52.455	52.508	52.400	52.489	52.308	52.459	1.619 1
50	2.12	53.518	53.548	53.481	53.534	53.428	53.515	53.334	53.485	1.621 9
51	2.12	54.494	54.524	54.457	54.510	54.401	54.491	54.309	54.461	1.623 0
52	2.12	55.519	55.550	55.482	55.536	55.427	55.516	55.333	55.486	1.625 6
53	2.12	56.496	56.526	56.459	56.512	56.403	56.493	56.310	56.462	1.626 6
54	2.12	57.521	57.551	57.483	57.537	57.427	57.517	57.333	57.486	1.629 1
55	2.12	58.498	58.529	58.461	58.515	58.405	58.496	58.310	58.464	1.630 1

表 17 (续)

单位为毫米

齿数 z	量棒 直径 D_{Kc}	S_{min} 和 S_{max} 的跨棒距 M_{Kc}								变换 系数 K_c
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	2.12	59.522	59.552	59.484	59.538	59.428	59.518	59.333	59.487	1.632 4
57	2.12	60.500	60.531	60.463	60.516	60.406	60.496	60.311	60.465	1.633 3
58	2.12	61.523	61.554	61.485	61.539	61.428	61.519	61.333	61.487	1.635 4
59	2.12	62.502	62.533	62.464	62.518	62.407	62.498	62.311	62.466	1.636 3
60	2.12	63.524	63.555	63.486	63.540	63.429	63.520	63.333	63.488	1.638 3
61	2.12	64.504	64.534	64.466	64.520	64.408	64.499	64.312	64.467	1.639 2
62	2.12	65.525	65.556	65.487	65.541	65.429	65.520	65.332	65.488	1.641 1
63	2.12	66.506	66.536	66.467	66.521	66.409	66.500	66.312	66.468	1.641 9
64	2.12	67.528	67.557	67.488	67.542	67.429	67.521	67.332	67.488	1.643 6
65	2.12	68.507	68.538	68.468	68.523	68.410	68.502	68.312	68.469	1.644 4
66	2.12	69.527	69.558	69.488	69.542	69.429	69.521	69.331	69.488	1.646 1
67	2.12	70.509	70.539	70.470	70.524	70.411	70.503	70.312	70.469	1.646 8
68	2.12	71.528	71.558	71.489	71.543	71.430	71.522	71.331	71.488	1.648 4
69	2.12	72.510	72.541	72.471	72.525	72.411	72.504	72.312	72.470	1.649 1
70	2.12	73.529	73.559	73.489	73.544	73.430	73.522	73.330	73.488	1.650 6
71	2.12	74.511	74.542	74.472	74.526	74.412	74.504	74.312	74.471	1.651 3
72	2.12	75.529	75.560	75.490	75.544	75.430	75.522	75.330	75.488	1.652 7
73	2.12	76.513	76.543	76.473	76.527	76.413	76.505	76.312	76.471	1.653 3
74	2.12	77.530	77.561	77.490	77.545	77.430	77.523	77.329	77.488	1.654 7
75	2.12	78.514	78.544	78.474	78.528	78.413	78.506	78.312	78.471	1.655 3
76	2.12	79.531	79.561	79.490	79.545	79.430	79.523	79.329	79.488	1.656 6
77	2.12	80.515	80.545	80.474	80.529	80.414	80.507	80.312	80.472	1.657 1
78	2.12	81.534	81.562	81.491	81.546	81.430	81.523	81.328	81.488	1.658 4
79	2.12	82.516	82.546	82.475	82.530	82.414	82.507	82.312	82.472	1.658 9
80	2.12	83.583	83.562	83.491	83.546	83.430	83.523	83.328	83.488	1.660 1
81	2.12	84.517	84.547	84.476	84.531	84.414	84.508	84.312	84.472	1.660 6
82	2.12	85.532	85.563	85.491	85.546	85.430	85.523	85.327	85.488	1.661 7
83	2.12	86.518	86.548	86.476	86.531	86.415	86.508	86.312	86.472	1.662 2
84	2.12	87.533	87.563	87.492	87.547	87.430	87.523	87.326	87.487	1.663 3
85	2.12	88.518	88.549	88.477	88.532	88.415	88.509	88.311	88.473	1.663 8
86	2.12	89.533	89.564	89.492	89.547	89.430	89.523	89.326	89.487	1.664 8
87	2.12	90.519	90.549	90.478	90.533	90.415	90.509	90.311	90.473	1.665 3
88	2.12	91.534	91.564	91.492	91.547	91.430	91.524	91.325	91.487	1.666 3
89	2.12	92.520	92.550	92.478	92.533	92.416	92.509	92.311	92.473	1.666 7
90	2.12	93.534	93.564	93.492	93.547	93.430	93.524	93.325	93.487	1.667 6
91	2.12	94.521	94.551	94.479	94.534	94.416	94.510	94.311	94.473	1.668 1
92	2.12	95.535	95.565	95.493	95.548	95.429	95.524	95.324	95.486	1.669 0
93	2.12	96.521	96.552	96.479	96.534	96.416	96.510	96.310	96.473	1.669 4
94	2.12	97.535	97.565	97.493	97.548	97.429	97.524	97.323	97.486	1.670 3
95	2.12	98.522	98.552	98.480	98.535	98.416	98.510	98.310	98.473	1.670 6
96	2.12	99.535	99.565	99.493	99.548	99.429	99.524	99.323	99.486	1.671 5
97	2.12	100.523	100.553	100.480	100.535	100.416	100.511	100.309	100.473	1.671 9
98	2.12	101.536	101.566	101.493	101.548	101.429	101.523	101.322	101.485	1.672 7
99	2.12	102.523	102.553	102.480	102.536	102.416	102.511	102.309	102.473	1.673 0
100	2.12	103.536	103.566	103.493	103.548	103.429	103.523	103.321	103.485	1.673 8

表 18 跨棒距 M_{R}
30°外花键 模数 $m = 1.25 \text{ mm}$ 作用齿厚最大值 $S_{\text{max}} = 1.963 \text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_R	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_R								变换 系数 K
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	3.00	17.628	17.654	17.602	17.646	17.564	17.634	17.499	17.616	1.301 8
11	3.00	18.738	18.764	18.712	18.756	18.673	18.744	18.607	18.725	1.307 7
12	3.00	20.169	20.196	20.143	20.188	20.102	20.175	20.034	20.156	1.338 8
13	2.80	20.791	20.819	20.763	20.810	20.721	20.797	20.651	20.777	1.381 1
14	2.80	22.186	22.214	22.157	22.205	22.114	22.192	22.042	22.171	1.405 6
15	2.80	23.334	23.362	23.305	23.353	23.261	23.340	23.188	23.318	1.411 0
16	2.80	24.707	24.736	24.678	24.726	24.633	24.713	24.558	24.691	1.430 9
17	2.80	25.868	25.896	25.838	25.887	25.792	25.873	25.717	25.851	1.436 0
18	2.80	27.225	27.254	27.194	27.244	27.148	27.230	27.071	27.207	1.452 5
19	2.65	27.993	28.023	27.962	28.013	27.914	27.998	27.835	27.975	1.485 5
20	2.65	29.336	29.366	29.304	29.355	29.256	29.340	29.175	29.316	1.499 1
21	2.65	30.513	30.543	30.481	30.532	30.432	30.517	30.350	30.493	1.502 8
22	2.65	31.846	31.876	31.813	31.865	31.764	31.850	31.681	31.825	1.514 4
23	2.65	33.029	33.060	32.996	33.049	32.946	33.033	32.863	33.008	1.517 8
24	2.65	34.354	34.385	34.321	34.374	34.271	34.358	34.186	34.333	1.527 8
25	2.65	35.543	35.574	35.509	35.563	35.459	35.546	35.374	35.521	1.530 9
26	2.65	36.862	36.893	36.828	36.881	36.776	36.865	36.691	36.839	1.539 7
27	2.65	38.055	38.086	38.021	38.075	37.969	38.058	37.883	38.032	1.542 6
28	2.65	39.368	39.400	39.334	39.388	39.281	39.371	39.194	39.344	1.550 3
29	2.65	40.566	40.597	40.531	40.585	40.478	40.568	40.390	40.541	1.552 9
30	2.65	41.874	41.906	41.839	41.893	41.786	41.876	41.697	41.849	1.559 8
31	2.65	43.075	43.106	43.039	43.094	42.986	43.077	42.897	43.049	1.562 2
32	2.65	44.379	44.411	44.343	44.398	44.290	44.381	44.199	44.353	1.568 4
33	2.65	45.583	45.614	45.547	45.602	45.493	45.584	45.402	45.556	1.570 6
34	2.65	46.884	46.916	46.847	46.903	46.793	46.885	46.702	46.856	1.576 1
35	2.65	48.090	48.122	48.054	48.109	47.999	48.091	47.907	48.062	1.578 2
36	2.65	49.388	49.420	49.351	49.407	49.296	49.388	49.203	49.360	1.583 2
37	2.65	50.597	50.628	50.560	50.615	50.504	50.597	50.411	50.568	1.585 1
38	2.65	51.892	51.924	51.854	51.910	51.798	51.892	51.705	51.862	1.589 7
39	2.65	53.102	53.134	53.065	53.121	53.009	53.102	52.914	53.072	1.591 4
40	2.65	54.395	54.427	54.357	54.413	54.301	54.394	54.206	54.364	1.595 6
41	2.65	55.608	55.640	55.570	55.626	55.513	55.607	55.418	55.577	1.597 2
42	2.65	56.898	56.930	56.860	56.916	56.803	56.897	56.707	56.867	1.601 1
43	2.65	58.112	58.145	58.074	58.131	58.017	58.111	57.920	58.080	1.602 6
44	2.65	59.401	59.433	59.362	59.419	59.304	59.399	59.208	59.368	1.606 1
45	2.65	60.617	60.649	60.578	60.635	60.520	60.615	60.423	60.584	1.607 5
46	2.65	61.903	61.936	61.864	61.921	61.806	61.901	61.708	61.870	1.610 8
47	2.65	63.121	63.153	63.082	63.139	63.023	63.118	62.926	63.087	1.612 1
48	2.65	64.406	64.438	64.366	64.423	64.307	64.403	64.209	64.371	1.615 1
49	2.65	65.624	65.657	65.585	65.642	65.526	65.622	65.427	65.589	1.616 4
50	2.65	66.908	66.940	66.868	66.925	66.809	66.905	66.709	66.872	1.619 2
51	2.65	68.128	68.160	68.088	68.145	68.028	68.124	67.928	68.092	1.620 4
52	2.65	69.410	69.442	69.370	69.427	69.310	69.406	69.209	69.373	1.623 0
53	2.65	70.631	70.663	70.591	70.648	70.530	70.627	70.429	70.594	1.624 1
54	2.65	71.912	71.944	71.871	71.929	71.811	71.908	71.709	71.874	1.626 5
55	2.65	73.134	73.166	73.093	73.151	73.032	73.129	72.931	73.096	1.627 6

表 18 (续)

单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_{Re}								变换 系数 K_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	2.65	74.413	74.446	74.373	74.430	74.311	74.409	74.209	74.375	1.629 9
57	2.65	75.636	75.669	75.595	75.653	75.534	75.632	75.432	75.598	1.630 8
58	2.65	76.915	76.947	76.874	76.932	76.812	76.910	76.709	76.876	1.633 0
59	2.65	78.139	78.171	78.098	78.156	78.036	78.134	77.933	78.099	1.633 9
60	2.65	79.416	79.449	79.375	79.433	79.313	79.411	79.209	79.376	1.635 9
61	2.65	80.641	80.674	80.600	80.658	80.537	80.635	80.433	80.601	1.636 8
62	2.65	81.918	81.950	81.876	81.934	81.814	81.912	81.709	81.877	1.638 7
63	2.65	83.143	83.176	83.101	83.160	83.039	83.137	82.934	83.102	1.639 5
64	2.65	84.419	84.451	84.377	84.435	84.314	84.412	84.209	84.377	1.641 3
65	2.65	85.645	85.678	85.603	85.661	85.540	85.639	85.435	85.603	1.642 1
66	2.65	86.920	86.953	86.878	86.936	86.814	86.913	86.709	86.877	1.643 8
67	2.65	88.147	88.180	88.105	88.163	88.041	88.140	87.935	88.104	1.644 6
68	2.65	89.421	89.454	89.379	89.437	89.315	89.414	89.208	89.378	1.646 2
69	2.65	90.649	90.681	90.606	90.665	90.542	90.641	90.435	90.605	1.646 9
70	2.65	91.922	91.955	91.879	91.938	91.815	91.914	91.708	91.878	1.648 4
71	2.65	93.150	93.183	93.108	93.166	93.043	93.142	92.936	93.106	1.649 1
72	2.65	94.423	94.456	94.380	94.439	94.316	94.415	94.208	94.378	1.650 5
73	2.65	95.652	95.685	95.609	95.667	95.544	95.644	95.436	95.606	1.651 2
74	2.65	96.924	96.956	96.881	96.939	96.816	96.915	96.707	96.878	1.652 6
75	2.65	98.153	98.186	98.110	98.169	98.045	98.145	97.936	98.107	1.653 2
76	2.65	99.425	99.457	99.381	99.440	99.316	99.416	99.207	99.378	1.654 5
77	2.65	100.655	100.687	100.611	100.670	100.546	100.645	100.436	100.608	1.655 1
78	2.65	101.926	101.958	101.882	101.941	101.816	101.916	101.706	101.878	1.656 3
79	2.65	103.156	103.189	103.112	103.171	103.046	103.146	102.936	103.108	1.656 9
80	2.65	104.426	104.459	104.382	104.441	104.316	104.416	104.206	104.378	1.658 1
81	2.65	105.657	105.690	105.613	105.672	105.547	105.647	105.436	105.609	1.658 6
82	2.65	106.927	106.960	106.883	106.942	106.816	106.917	106.705	106.878	1.659 8
83	2.65	108.159	108.191	108.114	108.173	108.048	108.148	107.936	108.109	1.660 3
84	2.65	109.428	109.460	109.383	109.442	109.316	109.417	109.205	109.378	1.661 4
85	2.65	110.660	110.692	110.615	110.674	110.548	110.648	110.436	110.609	1.661 8
86	2.65	111.928	111.961	111.884	111.943	111.816	111.917	111.704	111.878	1.662 9
87	2.65	113.161	113.193	113.116	113.175	113.048	113.149	112.936	113.109	1.663 4
88	2.65	114.429	114.461	114.384	114.443	114.316	114.417	114.204	114.377	1.664 4
89	2.65	115.662	115.694	115.617	115.675	115.549	115.650	115.436	115.610	1.664 8
90	2.65	116.930	116.962	116.884	116.943	116.816	116.917	116.703	116.877	1.665 8
91	2.65	118.163	118.195	118.117	118.176	118.049	118.150	117.936	118.110	1.666 2
92	2.65	119.430	119.462	119.385	119.444	119.316	119.417	119.202	119.377	1.667 1
93	2.65	120.663	120.696	120.618	120.677	120.550	120.651	120.435	120.610	1.667 6
94	2.65	121.931	121.963	121.885	121.944	121.816	121.917	121.702	121.877	1.668 4
95	2.65	123.164	123.197	123.119	123.178	123.050	123.151	122.935	123.110	1.668 8
96	2.65	124.431	124.463	124.385	124.444	124.316	124.417	124.201	124.376	1.669 7
97	2.65	125.665	125.697	125.619	125.678	125.550	125.651	125.435	125.610	1.670 1
98	2.65	126.931	126.964	126.885	126.944	126.816	126.917	126.701	126.876	1.670 9
99	2.65	128.166	128.198	128.120	128.179	128.050	128.152	127.935	128.110	1.671 3
100	2.65	129.432	129.464	129.386	129.445	129.316	129.417	129.200	129.376	1.672 1

表 19 跨棒距 M_{Rc}
30°外花键 模数 $m=1.5\text{ mm}$ 作用齿厚最大值 $S_{\text{max}}=2.356\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_{Re}								变换 系数 K_c
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	3.55	21.035	21.062	21.007	21.054	20.966	21.042	20.897	21.023	1.306 7
11	3.55	22.367	22.395	22.339	22.386	22.297	22.374	22.227	22.354	1.312 6
12	3.35	23.572	23.601	23.543	23.592	23.499	23.579	23.426	23.558	1.374 5
13	3.35	24.930	24.960	24.901	24.950	24.856	24.937	24.781	24.916	1.380 1
14	3.35	26.604	26.634	26.573	26.624	26.527	26.610	26.450	26.588	1.404 6
15	3.35	27.981	28.011	27.950	28.002	27.904	27.988	27.826	27.965	1.410 0
16	3.35	29.629	29.660	29.598	29.650	29.550	29.635	29.470	29.612	1.429 9
17	3.35	31.022	31.052	30.990	31.042	30.942	31.028	30.861	31.004	1.435 0
18	3.35	32.650	32.682	32.618	32.671	32.569	32.656	32.487	32.632	1.451 5
19	3.15	33.518	33.550	33.485	33.539	33.434	33.524	33.349	33.499	1.487 6
20	3.15	35.129	35.161	35.095	35.150	35.043	35.134	34.957	35.109	1.501 2
21	3.15	36.541	36.573	36.507	36.562	36.455	36.546	36.368	36.521	1.504 8
22	3.15	38.140	38.173	38.105	38.161	38.053	38.145	37.965	38.119	1.516 4
23	3.15	39.561	39.593	39.525	39.581	39.472	39.565	39.384	39.538	1.519 7
24	3.15	41.150	41.183	41.115	41.171	41.061	41.154	40.971	41.128	1.529 8
25	3.15	42.577	42.610	42.541	42.598	42.487	42.581	42.396	42.554	1.532 8
26	3.15	44.159	44.192	44.123	44.180	44.068	44.162	43.976	44.135	1.541 5
27	3.15	45.591	45.624	45.554	45.612	45.499	45.594	45.407	45.566	1.544 3
28	3.15	47.167	47.200	47.130	47.187	47.074	47.169	46.981	47.141	1.552 1
29	3.15	48.603	48.637	48.566	48.624	48.510	48.606	48.416	48.577	1.554 6
30	3.15	50.173	50.207	50.136	50.194	50.079	50.176	49.985	50.147	1.561 5
31	3.15	51.614	51.648	51.576	51.635	51.519	51.616	51.424	51.587	1.563 8
32	3.15	53.179	53.213	53.141	53.200	53.084	53.181	52.988	53.151	1.569 9
33	3.15	54.624	54.657	54.585	54.644	54.527	54.625	54.431	54.595	1.572 1
34	3.15	56.185	56.218	56.146	56.205	56.088	56.186	55.990	56.156	1.577 6
35	3.15	57.632	57.666	57.593	57.652	57.535	57.633	57.437	57.603	1.579 6
36	3.15	59.189	59.223	59.150	59.209	59.091	59.190	58.993	59.159	1.584 6
37	3.15	60.640	60.674	60.600	60.660	60.541	60.640	60.442	60.609	1.586 5
38	3.15	62.194	62.228	62.154	62.214	62.094	62.194	61.994	62.162	1.591 0
39	3.15	63.647	63.681	63.607	63.666	63.547	63.646	63.446	63.615	1.592 7
40	3.15	65.198	65.232	65.157	65.217	65.097	65.197	64.996	65.165	1.596 9
41	3.15	66.653	66.687	66.612	66.672	66.552	66.652	66.450	66.620	1.598 5
42	3.15	68.201	68.235	68.160	68.221	68.099	68.200	67.997	68.167	1.602 3
43	3.15	69.658	69.693	69.618	69.678	69.556	69.657	69.454	69.624	1.603 8
44	3.15	71.204	71.239	71.163	71.224	71.102	71.202	70.998	71.170	1.607 3
45	3.15	72.663	72.698	72.622	72.683	72.560	72.661	72.457	72.628	1.608 7
46	3.15	74.207	74.242	74.166	74.226	74.103	74.205	73.999	74.171	1.611 9
47	3.15	75.668	75.702	75.626	75.687	75.564	75.665	75.459	75.632	1.613 2
48	3.15	77.210	77.244	77.168	77.229	77.105	77.207	77.000	77.173	1.616 2
49	3.15	78.672	78.707	78.630	78.691	78.567	78.669	78.462	78.635	1.617 5
50	3.15	80.212	80.247	80.170	80.231	80.107	80.209	80.001	80.174	1.620 3
51	3.15	81.676	81.711	81.634	81.695	81.570	81.673	81.464	81.638	1.621 4
52	3.15	83.215	83.249	83.172	83.233	83.108	83.211	83.001	83.176	1.624 0
53	3.15	84.680	84.714	84.637	84.698	84.573	84.676	84.465	84.640	1.625 1
54	3.15	86.217	86.251	86.174	86.235	86.109	86.212	86.001	86.177	1.627 5
55	3.15	87.683	87.718	87.640	87.701	87.575	87.678	87.467	87.643	1.628 5

表 19 (续) 单位为毫米

齿数 z	量棒 直径 D_k	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_k								变换 系数 K_v
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	3.15	89.219	89.253	89.176	89.237	89.110	89.214	89.002	89.178	1.630 8
57	3.00	90.255	90.289	90.211	90.273	90.145	90.249	90.035	90.213	1.645 5
58	3.00	91.788	91.823	91.744	91.806	91.678	91.783	91.568	91.746	1.647 5
59	3.00	93.257	93.292	93.213	93.275	93.146	93.251	93.035	93.214	1.648 2
60	3.00	94.790	94.824	94.745	94.807	94.678	94.783	94.567	94.746	1.650 1
61	3.00	96.259	96.294	96.215	96.277	96.148	96.253	96.036	96.215	1.650 8
62	3.00	97.791	97.825	97.746	97.808	97.679	97.784	97.567	97.746	1.652 5
63	3.00	99.261	99.296	99.216	99.279	99.149	99.254	99.036	99.216	1.653 2
64	3.00	100.792	100.826	100.747	100.809	100.679	100.784	100.566	100.746	1.654 8
65	3.00	102.263	102.298	102.218	102.280	102.150	102.255	102.037	102.217	1.655 4
66	3.00	103.793	103.827	103.747	103.810	103.679	103.785	103.566	103.746	1.657 0
67	3.00	105.265	105.300	105.219	105.282	105.151	105.257	105.037	105.218	1.657 5
68	3.00	106.793	106.828	106.748	106.810	106.679	106.785	106.565	106.746	1.659 0
69	3.00	108.267	108.301	108.221	108.283	108.152	108.258	108.037	108.219	1.659 6
70	3.00	109.794	109.829	109.748	109.811	109.679	109.785	109.564	109.746	1.661 0
71	3.00	111.268	111.303	111.222	111.285	111.153	111.259	111.038	111.219	1.661 5
72	3.00	112.795	112.830	112.749	112.811	112.680	112.786	112.564	112.746	1.662 8
73	3.00	114.270	114.304	114.223	114.286	114.154	114.260	114.038	114.220	1.663 3
74	3.00	115.796	115.830	115.749	115.812	115.680	115.786	115.563	115.746	1.664 6
75	3.00	117.271	117.306	117.224	117.287	117.154	117.261	117.038	117.220	1.665 0
76	3.00	118.796	118.831	118.750	118.812	118.680	118.786	118.562	118.745	1.666 2
77	3.00	120.272	120.307	120.225	120.288	120.155	120.262	120.038	120.221	1.666 7
78	3.00	121.797	121.832	121.750	121.813	121.679	121.786	121.562	121.745	1.667 8
79	3.00	123.274	123.308	123.226	123.289	123.156	123.262	123.037	123.221	1.668 3
80	3.00	124.798	124.832	124.750	124.813	124.679	124.786	124.561	124.745	1.669 3
81	3.00	126.275	126.309	126.227	126.290	126.156	126.263	126.037	126.221	1.669 8
82	3.00	127.798	127.833	127.751	127.813	127.679	127.786	127.560	127.744	1.670 8
83	3.00	129.276	129.310	129.228	129.291	129.157	129.263	129.037	129.222	1.671 2
84	3.00	130.799	130.833	130.751	130.814	130.679	130.786	130.559	130.744	1.672 2
85	3.00	132.277	132.311	132.229	132.292	132.157	132.264	132.037	132.222	1.672 6
86	3.00	133.799	133.833	133.751	133.814	133.679	133.786	133.559	133.744	1.673 5
87	3.00	135.278	135.312	135.230	135.292	135.157	135.264	135.037	135.222	1.673 9
88	3.00	136.800	136.834	136.751	136.814	136.679	136.786	136.558	136.743	1.674 8
89	3.00	138.279	138.313	138.230	138.293	138.158	138.265	138.036	138.222	1.675 1
90	3.00	139.800	139.834	139.751	139.814	139.679	139.786	139.557	139.743	1.676 0
91	3.00	141.280	141.314	141.231	141.294	141.158	141.265	141.036	141.222	1.676 3
92	3.00	142.800	142.835	142.752	142.814	142.678	142.786	142.556	142.742	1.677 1
93	3.00	144.280	144.315	144.232	144.294	144.158	144.266	144.036	144.222	1.677 5
94	3.00	145.801	145.835	145.752	145.814	145.678	145.786	145.555	145.742	1.678 3
95	3.00	147.281	147.315	147.232	147.295	147.158	147.266	147.035	147.222	1.678 6
96	3.00	148.801	148.835	148.752	148.815	148.678	148.786	148.555	148.741	1.679 4
97	3.00	150.282	150.316	150.233	150.295	150.159	150.266	150.035	150.222	1.679 7
98	3.00	151.801	151.835	151.752	151.815	151.678	151.785	151.554	151.741	1.680 4
99	3.00	153.283	153.317	153.233	153.296	153.159	153.266	153.035	153.221	1.680 7
100	3.00	154.802	154.836	154.752	154.815	154.677	154.785	154.553	154.740	1.681 4

表 20 跨棒距 M_{K_1}
30°外花键 模数 $m = 1.75 \text{ mm}$ 作用齿厚最大值 $S_{\max} = 2.749 \text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{K_1}	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_{K_1}								变换 系数 K_1
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	4.25	24.815	24.844	24.787	24.835	24.744	24.823	24.672	24.803	1.292 1
11	4.00	25.744	25.774	25.715	25.765	25.670	25.752	25.595	25.731	1.328 9
12	4.00	27.741	27.772	27.711	27.763	27.665	27.749	27.587	27.727	1.360 0
13	4.00	29.327	29.357	29.295	29.348	29.249	29.334	29.170	29.312	1.365 8
14	4.00	31.281	31.313	31.250	31.303	31.201	31.289	31.121	31.266	1.390 4
15	3.75	32.236	32.268	32.202	32.257	32.153	32.243	32.069	32.219	1.430 2
16	3.75	34.155	34.187	34.121	34.177	34.070	34.161	33.985	34.137	1.449 9
17	3.75	35.778	35.811	35.744	35.800	35.693	35.785	35.607	35.760	1.454 5
18	3.75	37.676	37.709	37.641	37.698	37.588	37.682	37.501	37.656	1.470 8
19	3.75	39.313	39.346	39.278	39.335	39.225	39.319	39.136	39.293	1.475 1
20	3.75	41.193	41.227	41.157	41.215	41.104	41.199	41.014	41.173	1.488 8
21	3.75	42.841	42.875	42.805	42.863	42.751	42.847	42.660	42.820	1.492 7
22	3.75	44.708	44.742	44.672	44.730	44.617	44.713	44.525	44.686	1.504 5
23	3.75	46.365	46.400	46.328	46.387	46.273	46.370	46.180	46.343	1.508 1
24	3.75	48.221	48.256	48.184	48.243	48.128	48.225	48.034	48.198	1.518 3
25	3.75	49.886	49.920	49.848	49.908	49.792	49.890	49.697	49.862	1.521 5
26	3.75	51.733	51.767	51.694	51.754	51.637	51.736	51.541	51.707	1.530 5
27	3.75	53.404	53.438	53.365	53.425	53.307	53.407	53.211	53.378	1.533 5
28	3.75	55.242	55.277	55.204	55.264	55.145	55.245	55.048	55.216	1.541 3
29	3.55	56.363	56.398	56.323	56.384	56.263	56.365	56.164	56.335	1.567 8
30	3.55	58.193	58.229	58.153	58.215	58.093	58.196	57.993	58.165	1.574 4
31	3.55	59.874	59.909	59.834	59.896	59.773	59.876	59.672	59.845	1.576 5
32	3.55	61.699	61.735	61.658	61.721	61.597	61.701	61.495	61.669	1.582 4
33	3.55	63.384	63.420	63.343	63.405	63.282	63.385	63.179	63.354	1.584 3
34	3.55	65.204	65.240	65.163	65.226	65.101	65.205	64.998	65.173	1.589 7
35	3.55	66.893	66.929	66.851	66.914	66.789	66.893	66.685	66.861	1.591 4
36	3.55	68.709	68.745	68.667	68.730	68.605	68.709	68.500	68.677	1.596 2
37	3.55	70.401	70.437	70.359	70.422	70.296	70.401	70.191	70.368	1.597 9
38	3.55	72.213	72.249	72.171	72.234	72.107	72.213	72.001	72.179	1.602 2
39	3.55	73.908	73.944	73.865	73.929	73.802	73.907	73.695	73.874	1.603 7
40	3.55	75.717	75.753	75.674	75.738	75.610	75.716	75.503	75.682	1.607 7
41	3.55	77.414	77.450	77.371	77.435	77.307	77.413	77.199	77.379	1.609 1
42	3.55	79.220	79.256	79.177	79.241	79.112	79.219	79.004	79.184	1.612 8
43	3.55	80.920	80.956	80.877	80.940	80.812	80.918	80.703	80.883	1.614 1
44	3.55	82.723	82.759	82.680	82.744	82.614	82.721	82.505	82.686	1.617 5
45	3.55	84.425	84.462	84.382	84.446	84.316	84.423	84.206	84.388	1.618 7
46	3.55	86.226	86.262	86.182	86.246	86.116	86.223	86.005	86.188	1.621 8
47	3.55	87.930	87.967	87.886	87.950	87.820	87.927	87.709	87.891	1.622 9
48	3.55	89.729	89.765	89.684	89.748	89.617	89.725	89.506	89.689	1.625 8
49	3.55	91.435	91.471	91.390	91.454	91.323	91.431	91.211	91.395	1.626 9
50	3.55	93.231	93.267	93.186	93.251	93.119	93.227	93.006	93.190	1.629 5
51	3.55	94.939	94.975	94.894	94.958	94.826	94.934	94.713	94.897	1.630 5
52	3.55	96.733	96.770	96.688	96.753	96.620	96.729	96.507	96.691	1.633 0
53	3.55	98.443	98.479	98.397	98.462	98.329	98.438	98.215	98.400	1.634 0
54	3.55	100.235	100.272	100.190	100.254	100.121	100.230	100.007	100.192	1.636 3
55	3.55	101.946	101.982	101.900	101.965	101.832	101.940	101.717	101.902	1.637 2

表 20 (续)

单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_{Re}								变换 系数 K_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	3.55	103.737	103.773	103.691	103.756	103.622	103.731	103.507	103.693	1.639 3
57	3.55	105.449	105.486	105.403	105.468	105.334	105.443	105.218	105.405	1.640 2
58	3.55	107.239	107.275	107.193	107.257	107.123	107.232	107.007	107.194	1.642 2
59	3.55	108.952	108.989	108.906	108.971	108.836	108.945	108.719	108.906	1.643 0
60	3.55	110.741	110.777	110.694	110.759	110.624	110.733	110.507	110.694	1.644 9
61	3.55	112.455	112.491	112.408	112.473	112.338	112.448	112.220	112.408	1.645 7
62	3.55	114.242	114.278	114.195	114.260	114.124	114.234	114.006	114.194	1.647 5
63	3.55	115.958	115.994	115.911	115.976	115.840	115.950	115.721	115.910	1.648 2
64	3.55	117.743	117.780	117.696	117.761	117.625	117.735	117.506	117.695	1.649 9
65	3.55	119.460	119.496	119.413	119.478	119.341	119.452	119.222	119.411	1.650 5
66	3.55	121.245	121.281	121.197	121.262	121.125	121.236	121.006	121.195	1.652 1
67	3.55	122.963	122.999	122.915	122.980	122.843	122.953	122.723	122.912	1.652 8
68	3.55	124.746	124.782	124.698	124.763	124.626	124.736	124.505	124.695	1.654 3
69	3.55	126.465	126.501	126.416	126.482	126.344	126.455	126.223	126.413	1.654 9
70	3.55	128.247	128.283	128.199	128.264	128.126	128.237	128.005	128.195	1.656 3
71	3.55	129.967	130.003	129.918	129.983	129.845	129.956	129.724	129.914	1.656 9
72	3.55	131.748	131.784	131.699	131.765	131.626	131.737	131.504	131.695	1.658 3
73	3.55	133.469	133.505	133.420	133.485	133.347	133.458	133.224	133.415	1.658 8
74	3.55	135.249	135.285	135.200	135.265	135.127	135.238	135.004	135.195	1.660 1
75	3.55	136.970	137.006	136.921	136.987	136.848	136.959	136.725	136.916	1.660 6
76	3.55	138.750	138.786	138.701	138.766	138.627	138.738	138.503	138.695	1.661 9
77	3.55	140.472	140.508	140.423	140.488	140.349	140.460	140.225	140.417	1.662 4
78	3.55	142.251	142.287	142.201	142.267	142.127	142.238	142.003	142.195	1.663 6
79	3.55	143.974	144.009	143.924	143.989	143.849	143.961	143.725	143.917	1.664 0
80	3.55	145.752	145.788	145.702	145.767	145.627	145.739	145.502	145.695	1.665 2
81	3.55	147.475	147.511	147.425	147.490	147.350	147.462	147.225	147.418	1.665 6
82	3.55	149.252	149.288	149.202	149.268	149.127	149.239	149.002	149.195	1.666 7
83	3.55	150.976	151.012	150.926	150.992	150.851	150.963	150.725	150.918	1.667 1
84	3.55	152.753	152.789	152.703	152.768	152.627	152.739	152.501	152.694	1.668 1
85	3.55	154.478	154.514	154.427	154.493	154.352	154.463	154.225	154.418	1.668 6
86	3.55	156.254	156.290	156.203	156.269	156.127	156.239	156.000	156.194	1.669 5
87	3.55	157.979	158.015	157.928	157.994	157.852	157.964	157.725	157.919	1.670 0
88	3.55	159.755	159.790	159.704	159.769	159.627	159.739	159.500	159.694	1.670 9
89	3.55	161.480	161.516	161.429	161.495	161.353	161.465	161.225	161.419	1.671 3
90	3.55	163.255	163.291	163.204	163.269	163.127	163.239	162.999	163.193	1.672 2
91	3.55	164.981	165.017	164.930	164.995	164.853	164.965	164.725	164.919	1.672 5
92	3.55	166.756	166.791	166.704	166.770	166.627	166.739	166.498	166.693	1.673 4
93	3.55	168.482	168.518	168.431	168.496	168.354	168.466	168.225	168.419	1.673 8
94	3.55	170.256	170.292	170.205	170.270	170.127	170.239	169.998	170.193	1.674 6
95	3.55	171.983	172.019	171.932	171.997	171.854	171.966	171.724	171.919	1.674 9
96	3.55	173.757	173.792	173.705	173.770	173.627	173.739	173.497	173.692	1.675 7
97	3.55	175.484	175.520	175.432	175.498	175.354	175.467	175.224	175.419	1.676 1
98	3.55	177.257	177.293	177.205	177.270	177.127	177.239	176.996	177.192	1.676 8
99	3.55	178.985	179.021	178.933	178.998	178.855	178.967	178.724	178.919	1.677 1
100	3.55	180.758	180.793	180.705	180.771	180.627	180.739	180.495	180.691	1.677 9

表 21 跨棒距 M_{Rz}
30°外花键 模数 $m=2\text{ mm}$ 作用齿厚最大值 $S_{\max}=3.142\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{R0}	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_{Rz}								变换 系数 K_z
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	4.75	28.099	28.129	28.068	28.120	28.023	28.107	27.947	28.086	1.301 9
11	4.50	29.246	29.278	29.215	29.268	29.168	29.255	29.090	29.233	1.335 8
12	4.50	31.527	31.559	31.494	31.549	31.446	31.535	31.365	31.512	1.366 9
13	4.50	33.338	33.370	33.305	33.360	33.256	33.345	33.173	33.322	1.372 6
14	4.50	35.570	35.603	35.536	35.593	35.486	35.578	35.401	35.554	1.397 1
15	4.50	37.407	37.441	37.373	37.430	37.322	37.415	37.237	37.390	1.402 7
16	4.25	38.944	38.979	38.909	38.967	38.855	38.951	38.766	38.926	1.452 8
17	4.25	40.800	40.834	40.764	40.823	40.710	40.807	40.620	40.781	1.457 3
18	4.25	42.968	43.002	42.931	42.991	42.876	42.974	42.784	42.948	1.473 6
19	4.25	44.839	44.874	44.802	44.862	44.746	44.845	44.653	44.818	1.477 8
20	4.25	46.987	47.022	46.950	47.010	46.893	46.993	46.799	46.965	1.491 4
21	4.25	48.871	48.906	48.833	48.894	48.776	48.876	48.681	48.848	1.495 3
22	4.25	51.004	51.039	50.965	51.027	50.908	51.009	50.811	50.981	1.507 0
23	4.25	52.898	52.933	52.859	52.920	52.801	52.902	52.703	52.874	1.510 5
24	4.25	55.018	55.054	54.979	55.041	54.920	55.022	54.821	54.993	1.520 7
25	4.25	56.920	56.957	56.881	56.943	56.822	56.924	56.722	56.895	1.523 9
26	4.25	59.031	59.067	58.991	59.053	58.931	59.034	58.830	59.004	1.532 8
27	4.25	60.940	60.977	60.900	60.963	60.839	60.944	60.738	60.913	1.535 7
28	4.25	63.042	63.078	63.001	63.064	62.940	63.045	62.838	63.014	1.543 6
29	4.25	64.957	64.994	64.916	64.980	64.855	64.960	64.752	64.929	1.546 3
30	4.25	67.051	67.088	67.010	67.074	66.948	67.054	66.844	67.022	1.553 2
31	4.25	68.973	69.009	68.931	68.995	68.868	68.974	68.764	68.943	1.555 7
32	4.25	71.060	71.097	71.018	71.082	70.955	71.061	70.849	71.029	1.562 0
33	4.25	72.986	73.023	72.944	73.008	72.880	72.987	72.774	72.954	1.564 3
34	4.25	75.068	75.105	75.025	75.090	74.961	75.068	74.854	75.035	1.569 9
35	4.00	76.294	76.331	76.251	76.316	76.185	76.294	76.076	76.261	1.595 6
36	4.00	78.369	78.407	78.325	78.391	78.260	78.369	78.150	78.335	1.600 3
37	4.00	80.303	80.340	80.259	80.325	80.193	80.302	80.082	80.268	1.601 9
38	4.00	82.374	82.411	82.329	82.395	82.263	82.373	82.151	82.338	1.606 2
39	4.00	84.311	84.348	84.266	84.332	84.199	84.309	84.087	84.274	1.607 6
40	4.00	86.378	86.415	86.333	86.399	86.265	86.376	86.153	86.341	1.611 5
41	4.00	88.318	88.355	88.273	88.339	88.205	88.316	88.092	88.280	1.612 8
42	4.00	90.381	90.419	90.336	90.403	90.268	90.379	90.154	90.343	1.616 4
43	4.00	92.324	92.362	92.278	92.345	92.210	92.322	92.096	92.285	1.617 7
44	4.00	94.385	94.422	94.339	94.406	94.270	94.382	94.155	94.345	1.621 0
45	4.00	96.330	96.368	96.284	96.351	96.215	96.327	96.099	96.290	1.622 2
46	4.00	98.388	98.425	98.341	98.408	98.272	98.384	98.156	98.347	1.625 2
47	4.00	100.335	100.373	100.289	100.356	100.219	100.331	100.102	100.294	1.626 3
48	4.00	102.390	102.428	102.344	102.411	102.274	102.386	102.158	102.348	1.629 1
49	4.00	104.340	104.378	104.293	104.360	104.223	104.335	104.105	104.297	1.630 1
50	4.00	106.393	106.431	106.346	106.413	106.275	106.388	106.157	106.349	1.632 7
51	4.00	108.345	108.382	108.297	108.364	108.226	108.339	108.108	108.300	1.633 7
52	4.00	110.395	110.433	110.348	110.415	110.276	110.390	110.157	110.350	1.636 1
53	4.00	112.349	112.386	112.301	112.368	112.229	112.343	112.110	112.303	1.637 0
54	4.00	114.397	114.435	114.349	114.417	114.277	114.391	114.157	114.351	1.639 3
55	4.00	116.353	116.390	116.304	116.372	116.232	116.346	116.112	116.306	1.640 1

表 21 (续)

单位为毫米

齿数 z	量棒 直径 D_k	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_k								变换 系数 K_v
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	4.00	118.399	118.437	118.351	118.419	118.278	118.392	118.157	118.352	1.642 3
57	4.00	120.356	120.394	120.308	120.375	120.235	120.349	120.113	120.308	1.643 1
58	4.00	122.401	122.439	122.352	122.420	122.279	122.394	122.157	122.353	1.645 1
59	4.00	124.359	124.397	124.311	124.378	124.237	124.351	124.113	124.310	1.645 8
60	4.00	126.403	126.441	126.354	126.421	126.280	126.395	126.157	126.353	1.647 7
61	4.00	128.362	128.400	128.313	128.381	128.239	128.354	128.116	128.312	1.648 4
62	4.00	130.404	130.442	130.355	130.423	130.281	130.396	130.157	130.354	1.650 2
63	4.00	132.365	132.403	132.316	132.383	132.241	132.356	132.117	132.314	1.650 8
64	4.00	134.406	134.444	134.356	134.424	134.281	134.396	134.157	134.354	1.652 5
65	4.00	136.368	136.406	136.318	136.386	136.243	136.358	136.118	136.315	1.653 1
66	4.00	138.407	138.445	138.357	138.425	138.282	138.397	138.156	138.354	1.654 7
67	4.00	140.370	140.408	140.320	140.388	140.245	140.360	140.119	140.317	1.655 3
68	4.00	142.409	142.446	142.358	142.426	142.282	142.398	142.156	142.354	1.656 8
69	4.00	144.373	144.410	144.322	144.390	144.246	144.362	144.119	144.318	1.657 4
70	4.00	146.410	146.447	146.359	146.427	146.283	146.398	146.156	146.351	1.658 8
71	4.00	148.375	148.412	148.324	148.392	148.248	148.363	148.120	148.319	1.659 3
72	4.00	150.411	150.448	150.360	150.428	150.283	150.399	150.155	150.354	1.660 7
73	4.00	152.377	152.414	152.326	152.394	152.249	152.365	152.120	152.320	1.661 2
74	4.00	154.412	154.449	154.361	154.429	154.283	154.399	154.155	154.354	1.662 5
75	4.00	156.379	156.416	156.327	156.395	156.250	156.366	156.121	156.321	1.663 0
76	4.00	158.413	158.450	158.361	158.429	158.284	158.400	158.154	158.354	1.664 2
77	4.00	160.381	160.418	160.329	160.397	160.251	160.367	160.121	160.322	1.664 6
78	4.00	162.414	162.451	162.362	162.430	162.284	162.400	162.153	162.354	1.665 8
79	4.00	164.383	164.420	164.330	164.398	164.252	164.368	164.121	164.322	1.666 2
80	4.00	166.415	166.452	166.362	166.430	166.284	166.400	166.153	166.354	1.667 3
81	4.00	168.384	168.421	168.332	168.400	168.253	168.369	168.122	168.323	1.667 8
82	4.00	170.416	170.453	170.363	170.431	170.284	170.400	170.152	170.353	1.668 8
83	4.00	172.386	172.423	172.333	172.401	172.254	172.370	172.122	172.323	1.669 2
84	4.00	174.416	174.453	174.363	174.431	174.284	174.400	174.151	174.353	1.670 2
85	4.00	176.387	176.424	176.334	176.402	176.255	176.371	176.122	176.324	1.670 6
86	4.00	178.417	178.454	178.364	178.432	178.284	178.401	178.151	178.353	1.671 6
87	4.00	180.389	180.426	180.335	180.403	180.255	180.372	180.122	180.324	1.672 0
88	4.00	182.418	182.455	182.364	182.432	182.284	182.401	182.150	182.352	1.672 9
89	4.00	184.390	184.427	184.336	184.404	184.256	184.373	184.122	184.324	1.673 3
90	4.00	186.418	186.455	186.365	186.433	186.284	186.401	186.149	186.352	1.674 1
91	4.00	188.391	188.428	188.337	188.405	188.256	188.373	188.122	188.324	1.674 5
92	4.00	190.419	190.456	190.365	190.433	190.284	190.401	190.149	190.352	1.675 3
93	4.00	192.392	192.429	192.338	192.406	192.257	192.374	192.121	192.325	1.675 7
94	4.00	194.419	194.456	194.365	194.433	194.284	194.401	194.148	194.351	1.676 5
95	4.00	196.393	196.430	196.339	196.407	196.257	196.374	196.121	196.325	1.676 8
96	4.00	198.420	198.457	198.365	198.433	198.284	198.401	198.147	198.351	1.677 6
97	4.00	200.394	200.431	200.340	200.408	200.258	200.375	200.121	200.325	1.677 9
98	4.00	202.420	202.457	202.366	202.434	202.283	202.401	202.146	202.350	1.678 6
99	4.00	204.395	204.432	204.341	204.408	204.258	204.375	204.121	204.325	1.678 9
100	4.00	206.421	206.457	206.366	206.434	206.283	206.401	206.145	206.350	1.679 7

表 22 跨棒距 M_{Re}
30°外花键 模数 $m=2.5\text{ mm}$ 作用齿厚最大值 $S_{\text{max}}=3.927\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{Re}	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_{Re}								变换 系数 K_s
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	6.00	35.287	35.320	35.255	35.310	35.206	35.296	35.125	35.274	1.294 7
11	5.60	36.504	36.538	36.470	36.528	36.419	36.513	36.334	36.489	1.335 9
12	5.60	39.353	39.388	39.318	39.377	39.266	39.362	39.178	39.338	1.367 0
13	5.60	41.617	41.652	41.582	41.641	41.529	41.626	41.440	41.601	1.372 7
14	5.60	44.407	44.443	44.371	44.432	44.316	44.415	44.225	44.390	1.397 2
15	5.30	45.917	45.953	45.879	45.941	45.823	45.925	45.729	45.898	1.431 9
16	5.30	48.657	48.694	48.619	48.682	48.561	48.665	48.465	48.637	1.451 6
17	5.30	50.977	51.014	50.938	51.001	50.880	50.984	50.782	50.956	1.456 1
18	5.30	53.686	53.724	53.647	53.711	53.587	53.693	53.488	53.665	1.472 4
19	5.30	56.025	56.063	55.985	56.050	55.925	56.031	55.825	56.003	1.476 6
20	5.30	58.711	58.749	58.670	58.736	58.609	58.717	58.508	58.687	1.490 3
21	5.30	61.065	61.103	61.024	61.090	60.963	61.071	60.860	61.041	1.494 1
22	5.30	63.732	63.770	63.690	63.756	63.628	63.737	63.524	63.706	1.505 8
23	5.30	66.099	66.137	66.057	66.123	65.994	66.104	65.889	66.073	1.509 4
24	5.30	68.750	68.788	68.707	68.774	68.644	68.754	68.537	68.722	1.519 5
25	5.30	71.127	71.166	71.085	71.152	71.021	71.131	70.913	71.099	1.522 7
26	5.30	73.765	73.804	73.722	73.789	73.657	73.769	73.549	73.736	1.531 6
27	5.30	76.152	76.191	76.109	76.176	76.043	76.155	75.934	76.122	1.534 6
28	5.30	78.779	78.818	78.735	78.803	78.669	78.782	78.559	78.748	1.542 4
29	5.30	81.174	81.213	81.130	81.198	81.063	81.176	80.952	81.142	1.545 2
30	5.00	82.953	82.993	82.907	82.977	82.839	82.955	82.725	82.920	1.576 7
31	5.00	85.354	85.393	85.308	85.378	85.239	85.355	85.125	85.320	1.578 8
32	5.00	87.961	88.001	87.915	87.985	87.845	87.962	87.730	87.926	1.584 6
33	5.00	90.367	90.407	90.321	90.391	90.252	90.368	90.135	90.332	1.586 5
34	5.00	92.968	93.008	92.921	92.991	92.851	92.968	92.734	92.931	1.591 8
35	5.00	95.380	95.420	95.333	95.403	95.262	95.379	95.145	95.343	1.593 5
36	5.00	97.974	98.014	97.927	97.997	97.856	97.973	97.737	97.936	1.598 2
37	5.00	100.391	100.431	100.343	100.414	100.272	100.390	100.153	100.352	1.599 8
38	5.00	102.980	103.020	102.932	103.003	102.860	102.978	102.740	102.940	1.604 1
39	5.00	105.401	105.441	105.353	105.423	105.280	105.399	105.160	105.360	1.605 6
40	5.00	107.985	108.025	107.936	108.007	107.864	107.982	107.742	107.944	1.609 6
41	5.00	110.410	110.450	110.361	110.432	110.288	110.407	110.166	110.368	1.610 9
42	5.00	112.989	113.030	112.940	113.012	112.867	112.986	112.744	112.947	1.614 5
43	5.00	115.418	115.458	115.369	115.440	115.295	115.414	115.171	115.374	1.615 8
44	5.00	117.994	118.034	117.944	118.016	117.870	117.990	117.746	117.949	1.619 1
45	5.00	120.425	120.466	120.376	120.447	120.301	120.421	120.176	120.380	1.620 3
46	5.00	122.997	123.038	122.948	123.019	122.872	122.993	122.747	122.952	1.623 4
47	5.00	125.432	125.472	125.382	125.453	125.306	125.427	125.181	125.386	1.624 5
48	5.00	128.001	128.041	127.951	128.022	127.875	127.996	127.748	127.954	1.627 3
49	5.00	130.438	130.479	130.388	130.459	130.312	130.432	130.184	130.390	1.628 4
50	5.00	133.004	133.045	132.953	133.025	132.877	132.998	132.749	132.956	1.631 0
51	5.00	135.444	135.484	135.393	135.465	135.316	135.437	135.188	135.395	1.632 0
52	5.00	138.007	138.048	137.956	138.028	137.879	138.000	137.750	137.957	1.634 4
53	5.00	140.449	140.489	140.398	140.470	140.320	140.442	140.191	140.398	1.635 3
54	5.00	143.010	143.050	142.958	143.030	142.881	143.002	142.751	142.959	1.637 6
55	5.00	145.454	145.494	145.402	145.474	145.324	145.446	145.194	145.402	1.638 5

表 22 (续)

单位为毫米

齿数 z	量棒 直径 D_{Rc}	S_{min} 和 S_{max} 的跨棒距 M_{Rc}								变换 系数 K
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	5.00	148.013	148.053	147.960	148.033	147.882	148.004	147.751	147.960	1.640 6
57	5.00	150.459	150.499	150.406	150.478	150.328	150.450	150.196	150.405	1.641 5
58	5.00	153.015	153.055	152.962	153.035	152.883	153.006	152.751	152.961	1.643 5
59	5.00	155.463	155.503	155.410	155.482	155.331	155.453	155.198	155.408	1.644 2
60	5.00	158.017	158.057	157.964	158.037	157.885	158.007	157.752	157.962	1.646 1
61	5.00	160.467	160.507	160.414	160.486	160.334	160.456	160.200	160.411	1.646 9
62	5.00	163.019	163.059	162.966	163.038	162.886	163.008	162.752	162.962	1.648 6
63	5.00	165.470	165.510	165.417	165.489	165.336	165.459	165.202	165.413	1.649 3
64	5.00	168.021	168.061	167.967	168.040	167.887	168.010	167.752	167.963	1.651 0
65	5.00	170.474	170.514	170.420	170.492	170.339	170.462	170.204	170.415	1.651 7
66	5.00	173.023	173.063	172.969	173.041	172.888	173.011	172.752	172.963	1.653 2
67	5.00	175.477	175.517	175.423	175.495	175.341	175.464	175.205	175.417	1.653 9
68	5.00	178.025	178.065	177.970	178.043	177.888	178.012	177.752	177.964	1.655 4
69	5.00	180.480	180.520	180.425	180.498	180.343	180.466	180.206	180.419	1.655 9
70	5.00	183.026	183.066	182.971	183.044	182.889	183.012	182.751	182.964	1.657 4
71	5.00	185.483	185.523	185.428	185.500	185.345	185.469	185.207	185.420	1.657 9
72	5.00	188.028	188.068	187.973	188.045	187.890	188.013	187.751	187.964	1.659 3
73	5.00	190.486	190.525	190.430	190.503	190.347	190.471	190.208	190.421	1.659 8
74	5.00	193.029	193.069	192.974	193.046	192.890	193.014	192.751	192.964	1.661 1
75	5.00	195.488	195.528	195.432	195.505	195.349	195.472	195.209	195.423	1.661 6
76	5.00	198.031	198.070	197.975	198.047	197.891	198.014	197.750	197.964	1.662 8
77	5.00	200.490	200.530	200.434	200.507	200.350	200.474	200.210	200.424	1.663 3
78	5.00	203.032	203.071	202.975	203.048	202.891	203.015	202.750	202.964	1.664 5
79	5.00	205.493	205.532	205.436	205.509	205.352	205.476	205.210	205.425	1.664 9
80	5.00	208.033	208.072	207.976	208.049	207.891	208.015	207.749	207.964	1.666 0
81	5.00	210.495	210.534	210.438	210.510	210.353	210.477	210.211	210.426	1.666 5
82	5.00	213.034	213.073	212.977	213.049	212.892	213.016	212.749	212.964	1.667 5
83	5.00	215.497	215.536	215.440	215.512	215.354	215.478	215.211	215.426	1.668 0
84	5.00	218.035	218.074	217.978	218.050	217.892	218.016	217.748	217.964	1.669 0
85	5.00	220.499	220.538	220.441	220.514	220.355	220.479	220.211	220.427	1.669 4
86	5.00	223.036	223.075	222.978	223.051	222.892	223.016	222.748	222.964	1.670 3
87	5.00	225.500	225.540	225.443	225.515	225.356	225.481	225.212	225.428	1.670 7
88	5.00	228.037	228.076	227.979	228.051	227.892	228.017	227.747	227.964	1.671 7
89	5.00	230.502	230.541	230.444	230.516	230.357	230.482	230.212	230.428	1.672 0
90	5.00	233.038	233.077	232.980	233.052	232.892	233.017	232.747	232.963	1.672 9
91	5.00	235.504	235.543	235.445	235.518	235.358	235.483	235.212	235.429	1.673 3
92	5.00	238.038	238.077	237.980	238.052	237.892	238.017	237.746	237.963	1.674 1
93	5.00	240.505	240.544	240.447	240.519	240.359	240.483	240.212	240.429	1.674 5
94	5.00	243.039	243.078	242.981	243.053	242.892	243.017	242.745	242.963	1.675 3
95	5.00	245.507	245.546	245.448	245.520	245.359	245.484	245.212	245.429	1.675 6
96	5.00	248.040	248.079	247.981	248.053	247.892	248.017	247.744	247.962	1.676 4
97	5.00	250.508	250.547	250.449	250.521	250.360	250.485	250.212	250.430	1.676 8
98	5.00	253.041	253.079	252.981	253.054	252.892	253.017	252.744	252.962	1.677 5
99	5.00	255.509	255.548	255.450	255.522	255.361	255.486	255.212	255.430	1.677 8
100	5.00	258.041	258.080	257.982	258.054	257.892	258.017	257.743	257.961	1.678 5

表 23 跨棒距 M_R
30°外花键 模数 $m=3\text{ mm}$ 作用齿厚最大值 $S_{\max}=4.712\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_R	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_R								变换 系数 K_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	7.10	42.103	42.138	42.069	42.128	42.017	42.113	41.930	42.089	1.300 3
11	6.70	43.761	43.798	43.726	43.787	43.672	43.771	43.581	43.746	1.335 9
12	6.70	47.181	47.218	47.143	47.206	47.088	47.190	46.994	47.164	1.367 0
13	6.70	49.897	49.934	49.859	49.923	49.803	49.906	49.708	49.880	1.372 7
14	6.70	53.245	53.283	53.206	53.271	53.148	53.253	53.051	53.226	1.397 2
15	6.70	56.001	56.039	55.961	56.026	55.903	56.009	55.804	55.981	1.402 7
16	6.30	58.237	58.277	58.196	58.264	58.135	58.245	58.032	58.216	1.454 9
17	6.30	61.020	61.060	60.979	61.047	60.917	61.028	60.813	60.998	1.459 4
18	6.30	64.271	64.311	64.229	64.297	64.166	64.278	64.060	64.247	1.475 6
19	6.30	67.077	67.117	67.035	67.104	66.971	67.084	66.864	67.053	1.479 7
20	6.30	70.299	70.340	70.256	70.326	70.191	70.305	70.083	70.274	1.493 3
21	6.30	73.124	73.165	73.081	73.151	73.015	73.130	72.906	73.098	1.497 1
22	6.30	76.323	76.364	76.279	76.350	76.213	76.329	76.102	76.296	1.508 8
23	6.30	79.164	79.205	79.119	79.190	79.052	79.169	78.940	79.135	1.512 2
24	6.30	82.344	82.385	82.299	82.370	82.231	82.348	82.118	82.314	1.522 3
25	6.30	85.198	85.239	85.152	85.223	85.084	85.201	84.969	85.167	1.525 5
26	6.30	88.362	88.404	88.316	88.388	88.247	88.366	88.131	88.331	1.534 3
27	6.00	90.394	90.436	90.347	90.419	90.276	90.396	90.158	90.361	1.558 9
28	6.00	93.543	93.585	93.495	93.568	93.424	93.545	93.304	93.508	1.566 3
29	6.00	96.415	96.457	96.368	96.441	96.296	96.417	96.176	96.380	1.568 6
30	6.00	99.553	99.596	99.505	99.579	99.433	99.555	99.311	99.517	1.575 1
31	6.00	102.434	102.477	102.386	102.460	102.313	102.435	102.191	102.397	1.577 2
32	6.00	105.563	105.605	105.514	105.588	105.440	105.563	105.317	105.525	1.583 1
33	6.00	108.451	108.494	108.402	108.476	108.328	108.451	108.204	108.412	1.584 9
34	6.00	111.572	111.614	111.522	111.596	111.447	111.571	111.323	111.532	1.590 2
35	6.00	114.466	114.509	114.416	114.491	114.341	114.465	114.216	114.426	1.592 0
36	6.00	117.579	117.622	117.529	117.603	117.453	117.578	117.327	117.538	1.596 8
37	6.00	120.480	120.522	120.429	120.504	120.353	120.477	120.226	120.437	1.598 4
38	6.00	123.586	123.629	123.535	123.610	123.459	123.584	123.331	123.543	1.602 7
39	6.00	126.492	126.534	126.440	126.515	126.363	126.489	126.235	126.447	1.604 2
40	6.00	129.592	129.635	129.541	129.616	129.463	129.589	129.334	129.547	1.608 2
41	6.00	132.503	132.545	132.451	132.526	132.373	132.498	132.243	132.456	1.609 5
42	6.00	135.598	135.641	135.546	135.621	135.468	135.594	135.337	135.551	1.613 2
43	6.00	138.512	138.555	138.460	138.535	138.381	138.507	138.250	138.465	1.614 5
44	6.00	141.603	141.646	141.551	141.626	141.471	141.598	141.339	141.555	1.617 8
45	6.00	144.521	144.564	144.468	144.544	144.389	144.516	144.256	144.472	1.619 0
46	6.00	147.608	147.651	147.555	147.630	147.475	147.602	147.341	147.558	1.622 1
47	6.00	150.530	150.572	150.476	150.552	150.396	150.523	150.262	150.478	1.623 2
48	6.00	153.613	153.655	153.559	153.634	153.478	153.605	153.343	153.561	1.626 1
49	6.00	156.537	156.580	156.483	156.559	156.402	156.530	156.267	156.484	1.627 1
50	6.00	159.617	159.659	159.562	159.638	159.481	159.608	159.345	159.563	1.629 8
51	6.00	162.544	162.586	162.490	162.565	162.408	162.536	162.271	162.490	1.630 8
52	6.00	165.620	165.663	165.565	165.641	165.483	165.611	165.346	165.565	1.633 2
53	6.00	168.551	168.593	168.496	168.571	168.413	168.541	168.275	168.495	1.634 2
54	6.00	171.624	171.666	171.568	171.644	171.486	171.614	171.347	171.567	1.636 5
55	6.00	174.557	174.599	174.501	174.577	174.418	174.546	174.279	174.499	1.637 3

表 23 (续) 单位为毫米

齿数 z	量棒 直径 D_k	S_{min} 和 S_{max} 的跨棒距 M_k								变换 系数 K
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	6.00	177.627	177.669	177.571	177.647	177.488	177.616	177.348	177.568	1.639 5
57	6.00	180.562	180.604	180.506	180.582	180.432	180.551	180.282	180.503	1.640 3
58	6.00	183.630	183.672	183.574	183.650	183.489	183.618	183.349	183.570	1.642 3
59	6.00	186.567	186.609	186.511	186.587	186.426	186.555	186.285	186.507	1.643 1
60	6.00	189.633	189.675	189.576	189.652	189.491	189.620	189.349	189.571	1.645 0
61	6.00	192.572	192.614	192.515	192.591	192.430	192.559	192.288	192.510	1.645 8
62	6.00	195.635	195.677	195.578	195.654	195.493	195.622	195.350	195.572	1.647 5
63	6.00	198.576	198.618	198.519	198.595	198.433	198.563	198.290	198.513	1.648 2
64	6.00	201.637	201.679	201.580	201.656	201.494	201.623	201.350	201.573	1.649 9
65	6.00	204.581	204.623	204.523	204.599	204.437	204.566	204.292	204.516	1.650 6
66	6.00	207.640	207.682	207.582	207.658	207.495	207.625	207.350	207.574	1.652 2
67	6.00	210.585	210.626	210.527	210.603	210.439	210.569	210.294	210.518	1.652 8
68	6.00	213.642	213.684	213.584	213.660	213.496	213.626	213.350	213.574	1.654 3
69	6.00	216.588	216.630	216.530	216.606	216.442	216.572	216.296	216.520	1.654 9
70	6.00	219.644	219.685	219.585	219.661	219.497	219.627	219.350	219.575	1.656 4
71	6.00	222.592	222.633	222.533	222.609	222.445	222.575	222.297	222.522	1.656 9
72	6.00	225.646	225.687	225.587	225.663	225.498	225.628	225.350	225.575	1.658 3
73	6.00	228.595	228.637	228.536	228.612	228.447	228.577	228.299	228.524	1.658 8
74	6.00	231.647	231.689	231.588	231.664	231.499	231.629	231.350	231.576	1.660 1
75	6.00	234.598	234.640	234.538	234.615	234.449	234.579	234.300	234.526	1.660 6
76	6.00	237.649	237.690	237.589	237.665	237.500	237.630	237.350	237.576	1.661 9
77	6.00	240.601	240.642	240.541	240.617	240.451	240.582	240.301	240.527	1.662 4
78	6.00	243.650	243.692	243.590	243.667	243.500	243.631	243.350	243.576	1.663 5
79	6.00	246.604	246.645	246.543	246.619	246.453	246.584	246.302	246.529	1.664 0
80	6.00	249.652	249.693	249.591	249.668	249.501	249.631	249.349	249.576	1.665 1
81	6.00	252.606	252.647	252.544	252.622	252.455	252.585	252.303	252.530	1.665 6
82	6.00	255.658	255.699	255.592	255.669	255.501	255.632	255.349	255.576	1.666 6
83	6.00	258.609	258.650	258.548	258.624	258.456	258.587	258.304	258.531	1.667 1
84	6.00	261.655	261.696	261.593	261.669	261.502	261.633	261.349	261.576	1.668 1
85	6.00	264.611	264.652	264.550	264.626	264.458	264.589	264.304	264.532	1.668 5
86	6.00	267.656	267.697	267.594	267.670	267.502	267.633	267.348	267.576	1.669 5
87	6.00	270.613	270.654	270.552	270.628	270.459	270.590	270.305	270.533	1.669 9
88	6.00	273.657	273.698	273.595	273.671	273.502	273.633	273.348	273.576	1.670 8
89	6.00	276.615	276.656	276.553	276.629	276.460	276.591	276.305	276.534	1.671 2
90	6.00	279.658	279.699	279.596	279.672	279.503	279.634	279.347	279.576	1.672 1
91	6.00	282.617	282.658	282.555	282.631	282.462	282.593	282.306	282.534	1.672 4
92	6.00	285.659	285.700	285.597	285.672	285.503	285.634	285.346	285.575	1.673 3
93	6.00	288.619	288.660	288.557	288.632	288.463	288.594	288.306	288.535	1.673 7
94	6.00	291.860	291.701	291.597	291.673	291.503	291.634	291.346	291.575	1.674 5
95	6.00	294.621	294.662	294.558	294.634	294.464	294.595	294.306	294.535	1.674 8
96	6.00	297.661	297.701	297.598	297.674	297.503	297.634	297.345	297.575	1.675 6
97	6.00	300.623	300.663	300.559	300.635	300.465	300.596	300.306	300.536	1.675 9
98	6.00	303.662	303.702	303.598	303.674	303.503	303.635	303.345	303.574	1.676 7
99	6.00	306.624	306.665	306.561	306.637	306.465	306.597	306.306	306.536	1.677 0
100	6.00	309.663	309.703	309.599	309.675	309.503	309.635	309.344	309.574	1.677 7

表 24 跨棒距 M_{Re}
30°外花键 模数 $m=4\text{ mm}$ 作用齿厚最大值 $S_{v\max}=6.283\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_{Re}								变换 系数 K_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	9.50	56.234	56.272	56.196	56.261	56.138	56.244	56.043	56.218	1.296 7
11	9.00	58.531	58.571	58.491	58.559	58.432	58.541	58.333	58.513	1.329 9
12	9.00	63.093	63.133	63.052	63.120	62.990	63.102	62.888	63.074	1.360 9
13	9.00	66.715	66.756	66.674	66.743	66.612	66.724	66.508	66.695	1.366 7
14	8.50	69.874	69.916	69.830	69.902	69.765	69.883	69.656	69.852	1.421 6
15	8.50	73.546	73.588	73.502	73.574	73.436	73.554	73.326	73.523	1.426 5
16	8.50	77.932	77.975	77.887	77.960	77.819	77.939	77.706	77.907	1.446 2
17	8.50	81.643	81.686	81.598	81.672	81.530	81.650	81.416	81.617	1.450 8
18	8.50	85.980	86.023	85.933	86.008	85.864	85.986	85.748	85.952	1.467 1
19	8.50	89.722	89.766	89.675	89.750	89.605	89.728	89.488	89.694	1.471 4
20	8.50	94.020	94.064	93.972	94.048	93.901	94.025	93.782	93.990	1.485 2
21	8.50	97.787	97.831	97.739	97.815	97.667	97.792	97.547	97.756	1.489 1
22	8.50	102.054	102.098	102.006	102.082	101.932	102.058	101.810	102.022	1.500 9
23	8.50	105.842	105.886	105.793	105.870	105.719	105.846	105.596	105.809	1.504 5
24	8.00	108.706	108.751	108.655	108.734	108.579	108.709	108.452	108.671	1.543 0
25	8.00	112.509	112.555	112.458	112.537	112.381	112.512	112.253	112.473	1.545 7
26	8.00	116.725	116.771	116.673	116.753	116.596	116.727	116.466	116.687	1.554 2
27	8.00	120.543	120.588	120.491	120.570	120.413	120.544	120.282	120.504	1.556 7
28	8.00	124.742	124.787	124.689	124.769	124.610	124.742	124.478	124.701	1.564 1
29	8.00	128.572	128.618	128.519	128.599	128.440	128.572	128.307	128.531	1.566 4
30	8.00	132.756	132.802	132.703	132.783	132.623	132.756	132.489	132.714	1.573 0
31	8.00	136.598	136.644	136.544	136.624	136.463	136.597	136.329	136.554	1.575 1
32	8.00	140.769	140.815	140.715	140.796	140.634	140.768	140.498	140.725	1.581 0
33	8.00	144.620	144.666	144.566	144.646	144.484	144.618	144.347	144.575	1.582 9
34	8.00	148.781	148.827	148.726	148.807	148.644	148.778	148.506	148.734	1.588 2
35	8.00	152.641	152.686	152.585	152.666	152.502	152.637	152.364	152.593	1.590 0
36	8.00	156.791	156.837	156.736	156.817	156.652	156.788	156.513	156.742	1.594 8
37	8.00	160.659	160.705	160.603	160.684	160.519	160.654	160.378	160.609	1.596 4
38	8.00	164.801	164.847	164.745	164.826	164.660	164.796	164.518	164.750	1.600 8
39	8.00	168.675	168.721	168.618	168.700	168.533	168.669	168.391	168.623	1.602 3
40	8.00	172.809	172.855	172.752	172.834	172.667	172.803	172.524	172.756	1.606 3
41	8.00	176.690	176.735	176.632	176.714	176.546	176.683	176.402	176.635	1.607 7
42	8.00	180.817	180.863	180.760	180.841	180.673	180.810	180.528	180.762	1.611 4
43	8.00	184.703	184.749	184.645	184.727	184.558	184.695	184.413	184.647	1.612 7
44	8.00	188.824	188.870	188.766	188.848	188.678	188.816	188.532	188.767	1.616 0
45	8.00	192.715	192.761	192.657	192.738	192.569	192.706	192.422	192.657	1.617 2
46	8.00	196.831	196.877	196.772	196.854	196.683	196.821	196.536	196.772	1.620 4
47	8.00	200.726	200.772	200.667	200.749	200.578	200.716	200.430	200.666	1.621 5
48	8.00	204.837	204.883	204.777	204.859	204.688	204.826	204.539	204.776	1.624 4
49	8.00	208.737	208.782	208.677	208.759	208.587	208.725	208.437	208.674	1.625 4
50	8.00	212.842	212.888	212.782	212.864	212.692	212.831	212.542	212.779	1.628 1
51	8.00	216.746	216.792	216.686	216.768	216.595	216.734	216.444	216.682	1.629 1
52	8.00	220.848	220.893	220.787	220.869	220.696	220.835	220.544	220.782	1.631 6
53	8.00	224.755	224.800	224.694	224.776	224.602	224.742	224.450	224.689	1.632 6
54	8.00	228.852	228.898	228.791	228.873	228.699	228.839	228.546	228.785	1.634 9
55	8.00	232.763	232.808	232.701	232.784	232.609	232.749	232.455	232.695	1.635 8

表 24 (续)

单位为毫米

齿数 z	量棒 直径 D_{Kv}	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_{Fe}								变换 系数 K_v
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	8.00	236.857	236.902	236.795	236.877	236.702	236.842	236.548	236.788	1.637 9
57	8.00	240.770	240.816	240.708	240.791	240.615	240.755	240.460	240.701	1.638 8
58	8.00	244.861	244.906	244.799	244.881	244.705	244.845	244.549	244.790	1.640 8
59	8.00	248.777	248.823	248.715	248.797	248.621	248.761	248.465	248.706	1.641 6
60	8.00	252.865	252.910	252.802	252.884	252.708	252.848	252.551	252.792	1.643 5
61	8.00	256.784	256.829	256.721	256.803	256.627	256.767	256.469	256.711	1.644 3
62	8.00	260.868	260.913	260.805	260.887	260.710	260.850	260.552	260.794	1.646 1
63	8.00	264.790	264.835	264.727	264.809	264.631	264.772	264.473	264.715	1.646 8
64	8.00	268.871	268.917	268.808	268.890	268.712	268.853	268.553	268.795	1.648 5
65	8.00	272.796	272.841	272.732	272.814	272.636	272.776	272.476	272.719	1.649 2
66	8.00	276.875	276.920	276.810	276.893	276.714	276.855	276.554	276.797	1.650 8
67	8.00	280.801	280.846	280.737	280.819	280.640	280.781	280.479	280.722	1.651 4
68	8.00	284.877	284.922	284.813	284.895	284.716	284.857	284.554	284.798	1.652 9
69	8.00	288.806	288.851	288.741	288.824	288.644	288.785	288.482	288.726	1.653 6
70	8.00	292.880	292.925	292.815	292.897	292.718	292.858	292.555	292.799	1.655 0
71	8.00	296.811	296.856	296.746	296.828	296.648	296.789	296.484	296.729	1.655 6
72	8.00	300.883	300.927	300.817	300.900	300.719	300.860	300.555	300.800	1.657 0
73	8.00	304.815	304.860	304.750	304.832	304.651	304.792	304.487	304.732	1.657 5
74	8.00	308.885	308.930	308.819	308.902	308.720	308.862	308.556	308.801	1.658 8
75	8.00	312.819	312.864	312.753	312.836	312.654	312.795	312.489	312.734	1.659 3
76	8.00	316.887	316.932	316.821	316.903	316.722	316.863	316.556	316.801	1.660 6
77	8.00	320.823	320.868	320.757	320.839	320.657	320.798	320.491	320.737	1.661 1
78	8.00	324.890	324.934	324.823	324.905	324.723	324.864	324.556	324.802	1.662 3
79	8.00	328.827	328.871	328.760	328.842	328.660	328.801	328.492	328.739	1.662 7
80	8.00	332.892	332.936	332.825	332.907	332.724	332.865	332.556	332.802	1.663 9
81	8.00	336.831	336.875	336.764	336.846	336.663	336.804	336.494	336.741	1.664 3
82	8.00	340.894	340.938	340.826	340.908	340.725	340.866	340.556	340.803	1.665 4
83	8.00	344.834	344.878	344.766	344.848	344.665	344.806	344.495	344.742	1.665 8
84	8.00	348.895	348.939	348.828	348.909	348.726	348.867	348.556	348.803	1.666 9
85	8.00	352.837	352.881	352.769	352.851	352.667	352.809	352.497	352.744	1.667 3
86	8.00	356.897	356.941	356.829	356.911	356.726	356.868	356.555	356.803	1.668 3
87	8.00	360.840	360.884	360.772	360.854	360.669	360.811	360.498	360.746	1.668 7
88	8.00	364.899	364.942	364.830	364.912	364.727	364.869	364.555	364.803	1.669 6
89	8.00	368.843	368.887	368.774	368.856	368.671	368.813	368.499	368.747	1.670 0
90	8.00	372.900	372.944	372.831	372.913	372.728	372.869	372.555	372.803	1.670 9
91	8.00	376.846	376.890	376.777	376.859	376.673	376.815	376.500	376.748	1.671 3
92	8.00	380.902	380.945	380.832	380.914	380.728	380.870	380.554	380.803	1.672 2
93	8.00	384.849	384.892	384.779	384.861	384.675	384.816	384.501	384.749	1.672 5
94	8.00	388.903	388.946	388.833	388.915	388.729	388.870	388.554	388.803	1.673 4
95	8.00	392.851	392.894	392.781	392.863	392.676	392.818	392.501	392.750	1.673 7
96	8.00	396.904	396.948	396.834	396.916	396.729	396.871	396.554	396.803	1.674 5
97	8.00	400.854	400.897	400.783	400.865	400.678	400.820	400.502	400.751	1.674 8
98	8.00	404.906	404.949	404.835	404.917	404.729	404.871	404.553	404.802	1.675 6
99	8.00	408.856	408.899	408.785	408.867	408.679	408.821	408.502	408.752	1.675 9
100	8.00	412.907	412.950	412.836	412.917	412.730	412.872	412.553	412.802	1.676 7

表 25 跨棒距 M_R
30°外花键 模数 $m=5\text{ mm}$ 作用齿厚最大值 $S_{\max}=7.854\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_R	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_R								变换 系数 K_f
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	11.80	70.116	70.158	70.075	70.145	70.013	70.127	69.910	70.098	1.298 6
11	14.20	73.049	73.091	73.006	73.078	72.942	73.059	72.835	73.028	1.330 9
12	11.20	78.749	78.792	78.705	78.779	78.639	78.759	78.528	78.727	1.361 9
13	11.20	83.277	83.321	83.233	83.307	83.165	83.286	83.053	83.254	1.367 6
14	10.60	87.289	87.334	87.242	87.319	87.171	87.297	87.054	87.263	1.421 3
15	10.60	91.879	91.924	91.831	91.909	91.760	91.887	91.641	91.852	1.426 3
16	10.60	97.361	97.407	97.312	97.391	97.239	97.368	97.117	97.332	1.445 9
17	10.60	102.000	102.046	101.951	102.030	101.877	102.007	101.754	101.970	1.450 6
18	10.60	107.420	107.467	107.370	107.450	107.295	107.426	107.170	107.389	1.466 8
19	10.60	112.099	112.145	112.048	112.128	111.972	112.104	111.845	112.066	1.471 1
20	10.60	117.471	117.517	117.419	117.500	117.342	117.475	117.213	117.436	1.484 9
21	10.60	122.180	122.227	122.128	122.209	122.050	122.184	121.920	122.144	1.488 8
22	10.60	127.513	127.561	127.461	127.542	127.382	127.516	127.250	127.476	1.500 6
23	10.00	130.602	130.650	130.548	130.631	130.466	130.604	130.331	130.562	1.531 7
24	10.00	135.897	135.945	135.842	135.926	135.760	135.898	135.623	135.856	1.541 5
25	10.00	140.651	140.699	140.596	140.680	140.513	140.652	140.375	140.609	1.544 2
26	10.00	145.921	145.969	145.865	145.949	145.781	145.921	145.641	145.877	1.552 7
27	10.00	150.693	150.742	150.637	150.722	150.553	150.693	150.412	150.648	1.555 2
28	10.00	155.942	155.990	155.885	155.970	155.800	155.941	155.657	155.896	1.562 7
29	10.00	160.730	160.779	160.673	160.758	160.587	160.728	160.444	160.683	1.565 0
30	10.00	165.960	166.009	165.903	165.988	165.816	165.958	165.671	165.912	1.571 6
31	10.00	170.762	170.811	170.704	170.790	170.617	170.759	170.471	170.712	1.573 7
32	10.00	175.977	176.026	175.918	176.004	175.830	175.973	175.683	175.926	1.579 6
33	10.00	180.791	180.839	180.732	180.818	180.643	180.786	180.495	180.738	1.581 6
34	10.00	185.992	186.040	185.932	186.018	185.843	185.987	185.694	185.938	1.586 9
35	10.00	190.816	190.865	190.756	190.842	190.667	190.810	190.517	190.761	1.588 7
36	10.00	196.005	196.054	195.945	196.031	195.854	195.998	195.703	195.949	1.593 5
37	10.00	200.839	200.888	200.778	200.865	200.687	200.832	200.536	200.781	1.595 2
38	10.00	206.017	206.066	205.956	206.042	205.864	206.009	205.711	205.958	1.599 5
39	10.00	210.859	210.908	210.798	210.885	210.706	210.851	210.552	210.800	1.601 1
40	10.00	216.028	216.076	215.966	216.053	215.873	216.019	215.719	215.967	1.605 1
41	10.00	220.878	220.927	220.816	220.903	220.723	220.868	220.567	220.816	1.606 5
42	10.00	226.038	226.086	225.975	226.062	225.881	226.027	225.725	225.974	1.610 2
43	10.00	230.895	230.943	230.832	230.919	230.738	230.884	230.581	230.830	1.611 5
44	10.00	236.047	236.095	235.984	236.070	235.889	236.035	235.730	235.981	1.614 9
45	10.00	240.910	240.959	240.847	240.934	240.751	240.898	240.593	240.843	1.616 1
46	10.00	246.055	246.104	245.991	246.078	245.895	246.042	245.735	245.987	1.619 2
47	10.00	250.924	250.973	250.860	250.947	250.764	250.911	250.603	250.855	1.620 4
48	10.00	256.063	256.111	255.998	256.085	255.901	256.048	255.740	255.992	1.623 3
49	10.00	260.937	260.986	260.873	260.960	260.775	260.923	260.613	260.866	1.624 4
50	10.00	266.070	266.118	266.005	266.092	265.907	266.054	265.744	265.997	1.627 0
51	10.00	270.949	270.997	270.884	270.971	270.786	270.933	270.622	270.876	1.628 1
52	10.00	276.076	276.124	276.011	276.098	275.912	276.060	275.747	276.002	1.630 6
53	10.00	280.960	281.008	280.894	280.981	280.795	280.943	280.630	280.885	1.631 5
54	10.00	286.082	286.130	286.016	286.103	285.916	286.065	285.750	286.006	1.633 8
55	10.00	290.971	291.019	290.904	290.991	290.804	290.952	290.637	290.893	1.634 7

表 25 (续)

单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_R								变换 系数 K
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	10.00	296.088	296.136	296.021	296.108	295.921	296.069	295.753	296.009	1.636 9
57	10.00	300.980	301.028	300.913	301.000	300.812	300.961	300.644	300.900	1.637 8
58	10.00	306.093	306.141	306.026	306.113	305.925	306.073	305.756	306.012	1.639 8
59	10.00	310.989	311.037	310.921	311.008	310.820	310.968	310.650	310.907	1.640 6
60	10.00	316.098	316.146	316.030	316.117	315.928	316.077	315.758	316.015	1.642 6
61	10.00	320.997	321.045	320.929	321.016	320.827	320.975	320.656	320.913	1.643 3
62	10.00	326.103	326.150	326.034	326.121	325.931	326.080	325.760	326.018	1.645 1
63	10.00	331.005	331.052	330.936	331.023	330.833	330.982	330.661	330.919	1.645 9
64	10.00	336.107	336.154	336.038	336.125	335.934	336.083	335.761	336.020	1.647 6
65	10.00	341.012	341.060	340.943	341.030	340.839	340.988	340.666	340.924	1.648 3
66	10.00	346.111	346.158	346.041	346.128	345.937	346.086	345.763	346.022	1.649 9
67	10.00	351.019	351.066	350.949	351.036	350.845	350.994	350.670	350.929	1.650 5
68	10.00	356.115	356.162	356.045	356.132	355.939	356.089	355.764	356.024	1.652 1
69	10.00	361.025	361.073	360.955	361.042	360.850	360.999	360.674	360.933	1.652 7
70	10.00	366.118	366.165	366.048	366.135	365.942	366.091	365.765	366.025	1.654 1
71	10.00	371.031	371.078	370.961	371.048	370.854	371.004	370.677	370.938	1.654 7
72	10.00	376.121	376.168	376.050	376.137	375.944	376.093	375.766	376.027	1.656 1
73	10.00	381.037	381.084	380.966	381.053	380.859	381.009	380.681	380.941	1.656 6
74	10.00	386.123	386.171	386.053	386.140	385.946	386.096	385.767	386.028	1.658 0
75	10.00	391.042	391.089	390.971	391.058	390.863	391.013	390.684	390.945	1.658 5
76	10.00	396.127	396.174	396.056	396.142	395.948	396.097	395.767	396.029	1.659 7
77	10.00	401.048	401.094	400.975	401.062	400.867	401.017	400.686	400.948	1.660 2
78	10.00	406.130	406.177	406.058	406.145	405.949	406.099	405.768	406.030	1.661 4
79	10.00	411.052	411.099	410.980	411.066	410.871	411.021	410.689	410.951	1.661 9
80	10.00	416.133	416.179	416.060	416.147	415.951	416.101	415.768	416.031	1.663 1
81	10.00	421.057	421.103	420.984	421.071	420.874	421.024	420.691	420.954	1.663 5
82	10.00	426.135	426.182	426.062	426.149	425.952	426.102	425.769	426.031	1.664 6
83	10.00	431.061	431.107	430.988	431.074	430.877	431.027	430.693	430.956	1.665 1
84	10.00	436.138	436.184	436.064	436.151	435.953	436.103	435.769	436.032	1.666 1
85	10.00	441.065	441.111	440.991	441.078	440.880	441.030	440.695	440.958	1.666 5
86	10.00	446.140	446.186	446.066	446.152	445.955	446.105	445.769	446.032	1.667 5
87	10.00	451.069	451.115	450.995	451.081	450.883	451.033	450.697	450.961	1.667 9
88	10.00	456.142	456.188	456.068	456.154	455.956	456.106	455.769	456.033	1.668 9
89	10.00	461.073	461.119	460.998	461.084	460.886	461.036	460.699	460.962	1.669 3
90	10.00	466.144	466.190	466.069	466.156	465.957	466.107	465.769	466.033	1.670 2
91	10.00	471.076	471.122	471.001	471.088	470.888	471.039	470.700	470.964	1.670 6
92	10.00	476.146	476.192	476.071	476.157	475.957	476.108	475.769	476.033	1.671 4
93	10.00	481.080	481.125	481.004	481.090	480.891	481.041	480.701	480.966	1.671 8
94	10.00	486.148	486.193	486.072	486.158	485.958	486.109	485.768	486.033	1.672 6
95	10.00	491.083	491.128	491.007	491.093	490.893	491.043	490.703	490.967	1.673 0
96	10.00	496.150	496.195	496.073	496.159	495.959	496.109	495.768	496.033	1.673 8
97	10.00	501.086	501.131	501.010	501.096	500.895	501.045	500.704	500.969	1.674 1
98	10.00	506.151	506.196	506.075	506.161	505.960	506.110	505.768	506.033	1.674 9
99	10.00	511.089	511.134	511.012	511.098	510.897	511.047	510.705	510.970	1.675 2
100	10.00	516.153	516.198	516.076	516.162	515.960	516.111	515.767	516.033	1.676 0

表 26 跨棒距 M_{Rc}
30°外花键 模数 $m=6\text{ mm}$ 作用齿厚最大值 $S_{\text{max}}=9.425\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_{Re}								变换 系数 K_r
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	14.00	83.750	83.793	83.705	83.780	83.639	83.760	83.529	83.728	1.303 4
11	13.20	87.060	87.105	87.014	87.090	86.945	87.069	86.830	87.036	1.339 4
12	13.20	93.892	93.938	93.845	93.923	93.774	93.901	93.655	93.867	1.370 4
13	13.20	99.324	99.371	99.276	99.355	99.204	99.333	99.084	99.298	1.376 0
14	13.20	106.015	106.062	105.966	106.046	105.892	106.023	105.768	105.987	1.400 4
15	12.50	109.684	109.732	109.633	109.715	109.556	109.691	109.429	109.653	1.434 6
16	12.50	116.257	116.306	116.205	116.289	116.127	116.264	115.997	116.225	1.454 1
17	12.50	121.824	121.872	121.771	121.855	121.692	121.829	121.560	121.789	1.458 6
18	12.50	128.324	128.373	128.270	128.355	128.190	128.328	128.055	128.288	1.474 7
19	12.50	133.937	133.986	133.883	133.967	133.801	133.941	133.665	133.899	1.478 8
20	12.50	140.380	140.429	140.325	140.410	140.242	140.383	140.104	140.340	1.492 4
21	12.50	146.030	146.080	145.974	146.060	145.891	146.032	145.752	145.989	1.496 2
22	12.50	152.427	152.477	152.371	152.457	152.286	152.429	152.145	152.385	1.507 8
23	12.50	158.108	158.158	158.052	158.138	157.966	158.109	157.824	158.064	1.511 3
24	12.50	164.468	164.519	164.411	164.498	164.324	164.469	164.180	164.423	1.521 4
25	12.50	170.175	170.225	170.117	170.205	170.030	170.175	169.884	170.128	1.524 5
26	12.50	176.504	176.555	176.446	176.533	176.357	176.503	176.210	176.456	1.533 4
27	12.50	182.233	182.283	182.174	182.262	182.085	182.231	181.936	182.183	1.536 3
28	11.80	186.583	186.634	186.522	186.612	186.431	186.580	186.278	186.530	1.569 0
29	11.80	192.328	192.379	192.267	192.357	192.175	192.324	192.021	192.274	1.571 1
30	11.80	198.603	198.654	198.541	198.631	198.448	198.598	198.294	198.548	1.577 7
31	11.80	204.365	204.416	204.303	204.393	204.209	204.360	204.053	204.308	1.579 6
32	11.80	210.621	210.672	210.558	210.649	210.464	210.615	210.307	210.563	1.585 5
33	11.80	216.398	216.449	216.334	216.425	216.240	216.391	216.081	216.338	1.587 3
34	11.80	222.637	222.689	222.574	222.664	222.478	222.630	222.319	222.576	1.592 5
35	11.80	228.427	228.478	228.362	228.453	228.266	228.418	228.106	228.364	1.594 2
36	11.80	234.652	234.703	234.587	234.678	234.491	234.643	234.329	234.588	1.598 9
37	11.80	240.452	240.504	240.388	240.479	240.290	240.443	240.128	240.387	1.600 5
38	11.80	246.665	246.716	246.600	246.691	246.502	246.654	246.338	246.599	1.604 8
39	11.80	252.476	252.527	252.410	252.501	252.311	252.465	252.147	252.408	1.606 2
40	11.80	258.677	258.728	258.611	258.702	258.512	258.665	258.346	258.608	1.610 1
41	11.80	264.497	264.548	264.430	264.522	264.331	264.484	264.164	264.427	1.611 4
42	11.80	270.688	270.739	270.621	270.712	270.520	270.674	270.353	270.616	1.615 0
43	11.80	276.516	276.567	276.449	276.540	276.348	276.502	276.179	276.443	1.616 3
44	11.80	282.698	282.749	282.630	282.722	282.528	282.683	282.359	282.623	1.619 6
45	11.80	288.534	288.585	288.466	288.557	288.364	288.518	288.193	288.458	1.620 7
46	11.80	294.707	294.758	294.638	294.730	294.536	294.690	294.365	294.630	1.623 8
47	11.80	300.550	300.600	300.481	300.573	300.378	300.533	300.206	300.472	1.624 9
48	11.80	306.715	306.766	306.646	306.738	306.542	306.697	306.369	306.636	1.627 7
49	11.80	312.564	312.615	312.495	312.587	312.391	312.546	312.217	312.484	1.628 7
50	11.80	318.723	318.773	318.653	318.745	318.548	318.704	318.374	318.641	1.631 3
51	11.80	324.578	324.629	324.508	324.600	324.403	324.558	324.227	324.495	1.632 3
52	11.80	330.730	330.780	330.660	330.751	330.554	330.710	330.378	330.646	1.634 7
53	11.80	336.591	336.641	336.520	336.612	336.414	336.570	336.237	336.505	1.635 6
54	11.80	342.737	342.787	342.666	342.757	342.559	342.715	342.381	342.650	1.637 9
55	11.80	348.602	348.653	348.531	348.623	348.424	348.580	348.245	348.515	1.638 7

表 26 (续)

单位为毫米

齿数 z	量棒 直径 D_{We}	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_{Re}								变换 系数 K
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	11.80	354.743	354.793	354.671	354.763	354.563	354.720	354.384	354.654	1.640 9
57	11.80	360.613	360.663	360.541	360.633	360.433	360.589	360.253	360.523	1.641 7
58	11.80	366.748	366.798	366.676	366.768	366.568	366.724	366.387	366.657	1.643 7
59	11.80	372.623	372.673	372.551	372.642	372.442	372.598	372.260	372.531	1.644 4
60	11.80	378.754	378.804	378.681	378.772	378.572	378.728	378.389	378.660	1.646 3
61	11.80	384.633	384.682	384.559	384.651	384.450	384.606	384.267	384.538	1.647 0
62	11.80	390.759	390.808	390.685	390.777	390.575	390.732	390.391	390.663	1.648 8
63	11.80	396.641	396.691	396.568	396.659	396.457	396.614	396.273	396.545	1.649 5
64	11.80	402.763	402.813	402.689	402.781	402.578	402.735	402.393	402.665	1.651 1
65	11.80	408.650	408.699	408.575	408.667	408.464	408.621	408.278	408.551	1.651 8
66	11.80	414.768	414.817	414.693	414.785	414.581	414.738	414.395	414.667	1.653 3
67	11.80	420.657	420.707	420.583	420.674	420.470	420.627	420.283	420.556	1.653 9
68	11.80	426.772	426.821	426.697	426.788	426.584	426.741	426.396	426.669	1.655 4
69	11.80	432.665	432.714	432.589	432.681	432.476	432.633	432.288	432.561	1.656 0
70	11.80	438.776	438.825	438.700	438.791	438.586	438.744	438.397	438.671	1.657 4
71	11.80	444.671	444.720	444.596	444.687	444.482	444.639	444.292	444.566	1.658 0
72	11.80	450.779	450.828	450.703	450.794	450.589	450.746	450.398	450.673	1.659 3
73	11.80	456.678	456.727	456.601	456.693	456.487	456.644	456.296	456.570	1.659 8
74	11.80	462.783	462.831	462.706	462.797	462.591	462.748	462.399	462.674	1.661 1
75	11.80	468.684	468.733	468.607	468.698	468.492	468.649	468.299	468.574	1.661 6
76	11.80	474.786	474.834	474.709	474.800	474.593	474.750	474.400	474.675	1.662 8
77	11.80	480.690	480.738	480.612	480.703	480.496	480.654	480.302	480.578	1.663 3
78	11.80	486.789	486.837	486.711	486.802	486.595	486.752	486.400	486.676	1.664 5
79	11.80	492.695	492.744	492.617	492.708	492.500	492.658	492.305	492.581	1.664 9
80	11.80	498.792	498.840	498.714	498.804	498.596	498.754	498.401	498.677	1.666 0
81	11.80	504.700	504.749	504.622	504.713	504.504	504.662	504.308	504.584	1.666 5
82	11.80	510.794	510.843	510.716	510.807	510.598	510.755	510.401	510.677	1.667 5
83	11.80	516.705	516.753	516.626	516.717	516.508	516.666	516.311	516.587	1.667 9
84	11.80	522.796	522.845	522.717	522.808	522.597	522.757	522.398	522.678	1.669 0
85	11.80	528.709	528.758	528.629	528.721	528.510	528.669	528.310	528.590	1.669 4
86	11.80	534.799	534.847	534.719	534.810	534.598	534.758	534.398	534.678	1.670 3
87	11.80	540.713	540.762	540.633	540.725	540.513	540.672	540.312	540.592	1.670 7
88	11.80	546.801	546.849	546.720	546.812	546.599	546.759	546.397	546.679	1.671 6
89	11.80	552.717	552.766	552.637	552.729	552.515	552.675	552.313	552.595	1.672 0
90	11.80	558.803	558.851	558.722	558.814	558.600	558.760	558.397	558.679	1.672 9
91	11.80	564.721	564.770	564.640	564.732	564.518	564.678	564.314	564.597	1.673 2
92	11.80	570.805	570.853	570.723	570.815	570.600	570.761	570.396	570.679	1.674 1
93	11.80	576.725	576.774	576.643	576.735	576.520	576.681	576.315	576.599	1.674 4
94	11.80	582.806	582.855	582.724	582.817	582.601	582.762	582.395	582.679	1.675 3
95	11.80	588.728	588.777	588.646	588.738	588.522	588.683	588.316	588.600	1.675 6
96	11.80	594.808	594.857	594.725	594.818	594.601	594.763	594.394	594.679	1.676 4
97	11.80	600.732	600.780	600.649	600.741	600.524	600.686	600.316	600.602	1.676 7
98	11.80	606.810	606.858	606.726	606.819	606.602	606.763	606.393	606.679	1.677 4
99	11.80	612.735	612.783	612.651	612.744	612.526	612.688	612.317	612.603	1.677 8
100	11.80	618.811	618.860	618.727	618.820	618.602	618.764	618.392	618.679	1.678 5

表 27 跨棒距 M_{Re}
30°外花键 模数 $m=8\text{ mm}$ 作用齿厚最大值 $S_{\max}=12.566\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_{Re}								变换 系数 K_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	18.00	110.010	110.058	109.961	110.042	109.887	110.019	109.763	109.982	1.320 7
11	18.00	117.110	117.158	117.060	117.142	116.985	117.118	116.859	117.081	1.326 3
12	18.00	126.235	126.284	126.183	126.267	126.105	126.242	125.975	126.203	1.357 3
13	17.00	130.896	130.946	130.842	130.928	130.761	130.902	130.627	130.861	1.393 1
14	17.00	139.800	139.852	139.745	139.833	139.662	139.806	139.524	139.764	1.417 4
15	17.00	147.145	147.197	147.089	147.178	147.005	147.150	146.865	147.107	1.422 5
16	17.00	155.918	155.970	155.861	155.950	155.775	155.922	155.632	155.877	1.442 1
17	17.00	163.342	163.394	163.284	163.374	163.197	163.344	163.052	163.299	1.446 8
18	17.00	172.015	172.068	171.956	172.047	171.868	172.017	171.720	171.970	1.463 2
19	17.00	179.501	179.553	179.441	179.532	179.352	179.502	179.203	179.454	1.467 5
20	17.00	188.097	188.150	188.037	188.129	187.946	188.097	187.794	188.049	1.481 3
21	16.00	192.907	192.961	192.844	192.938	192.751	192.906	192.595	192.856	1.514 8
22	16.00	201.428	201.482	201.365	201.459	201.270	201.426	201.111	201.375	1.526 1
23	16.00	209.000	209.055	208.937	209.031	208.841	208.997	208.681	208.945	1.529 2
24	16.00	217.473	217.528	217.408	217.504	217.311	217.469	217.150	217.416	1.538 9
25	16.00	225.080	225.134	225.015	225.110	224.917	225.075	224.754	225.021	1.541 7
26	16.00	233.512	233.567	233.446	233.542	233.347	233.506	233.182	233.452	1.550 2
27	16.00	241.148	241.203	241.082	241.178	240.982	241.142	240.816	241.086	1.552 8
28	16.00	249.546	249.601	249.479	249.576	249.379	249.539	249.211	249.482	1.560 3
29	16.00	257.208	257.262	257.140	257.237	257.039	257.199	256.870	257.142	1.562 6
30	16.00	265.577	265.631	265.509	265.605	265.406	265.567	265.235	265.509	1.569 3
31	16.00	273.260	273.315	273.191	273.288	273.088	273.250	272.916	273.191	1.571 4
32	16.00	281.604	281.658	281.534	281.631	281.430	281.593	281.257	281.533	1.577 4
33	16.00	289.306	289.361	289.236	289.334	289.132	289.294	288.957	289.234	1.579 3
34	16.00	297.628	297.683	297.558	297.655	297.452	297.615	297.276	297.554	1.584 7
35	16.00	305.347	305.402	305.277	305.374	305.170	305.333	304.993	305.272	1.586 5
36	16.00	313.650	313.704	313.578	313.676	313.471	313.635	313.293	313.572	1.591 4
37	16.00	321.384	321.439	321.313	321.410	321.205	321.369	321.025	321.305	1.593 0
38	16.00	329.669	329.724	329.597	329.695	329.489	329.653	329.308	329.589	1.597 5
39	16.00	337.418	337.472	337.345	337.443	337.236	337.400	337.054	337.335	1.599 0
40	16.00	345.687	345.742	345.614	345.712	345.504	345.669	345.321	345.603	1.603 0
41	16.00	353.448	353.502	353.374	353.472	353.264	353.429	353.080	353.362	1.604 5
42	16.00	361.703	361.758	361.629	361.727	361.518	361.683	361.333	361.616	1.608 2
43	16.00	369.475	369.529	369.401	369.498	369.289	369.454	369.103	369.387	1.609 5
44	16.00	377.718	377.773	377.643	377.741	377.531	377.697	377.344	377.628	1.612 9
45	16.00	385.500	385.554	385.425	385.523	385.312	385.478	385.128	385.409	1.614 2
46	16.00	393.732	393.786	393.656	393.754	393.543	393.709	393.353	393.639	1.617 3
47	16.00	401.523	401.577	401.447	401.545	401.333	401.499	401.142	401.429	1.618 5
48	16.00	409.745	409.799	409.668	409.766	409.553	409.720	409.362	409.649	1.621 4
49	16.00	417.544	417.598	417.467	417.565	417.352	417.518	417.160	417.447	1.622 5
50	16.00	425.756	425.810	425.679	425.777	425.563	425.730	425.370	425.657	1.625 2
51	16.00	433.564	433.617	433.486	433.584	433.370	433.536	433.175	433.463	1.626 3
52	16.00	441.767	441.821	441.689	441.787	441.572	441.739	441.377	441.665	1.628 8
53	16.00	449.582	449.635	449.503	449.601	449.386	449.553	449.190	449.479	1.628 8
54	16.00	457.777	457.831	457.698	457.796	457.580	457.747	457.383	457.673	1.632 1
55	16.00	465.598	465.652	465.519	465.617	465.401	465.568	465.203	465.492	1.633 0

表 27 (续)

单位为毫米

齿数 z	量棒 直径 D_k	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_R								变换 系数 K
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	16.00	473.786	473.840	473.707	473.805	473.588	473.755	473.389	473.679	1.635 2
57	16.00	481.614	481.667	481.534	481.632	481.414	481.582	481.215	481.505	1.636 1
58	16.00	489.795	489.848	489.715	489.813	489.595	489.762	489.394	489.685	1.638 2
59	16.00	497.628	497.681	497.548	497.646	497.427	497.595	497.226	497.517	1.639 0
60	16.00	505.803	505.856	505.722	505.820	505.601	505.769	505.399	505.690	1.640 9
61	16.00	513.642	513.695	513.561	513.659	513.439	513.607	513.236	513.528	1.641 7
62	16.00	521.811	521.864	521.729	521.827	521.607	521.775	521.403	521.695	1.643 5
63	16.00	529.454	529.707	529.572	529.671	529.449	529.618	529.243	529.538	1.644 3
64	16.00	537.817	537.870	537.735	537.833	537.611	537.780	537.404	537.700	1.646 0
65	16.00	545.666	545.719	545.583	545.682	545.458	545.628	545.251	545.547	1.646 7
66	16.00	553.824	553.877	553.740	553.839	553.615	553.786	553.407	553.704	1.648 4
67	16.00	561.677	561.730	561.593	561.692	561.467	561.638	561.258	561.556	1.649 0
68	16.00	569.830	569.883	569.746	569.845	569.619	569.790	569.409	569.708	1.650 6
69	16.00	577.687	577.740	577.603	577.702	577.476	577.647	577.265	577.564	1.651 2
70	16.00	585.836	585.889	585.751	585.850	585.623	585.795	585.411	585.711	1.652 7
71	16.00	593.697	593.750	593.612	593.711	593.484	593.656	593.271	593.571	1.653 3
72	16.00	601.841	601.894	601.755	601.853	601.627	601.799	601.413	601.714	1.654 7
73	16.00	609.706	609.759	609.620	609.720	609.491	609.664	609.276	609.578	1.655 3
74	16.00	617.846	617.899	617.760	617.860	617.630	617.803	617.414	617.717	1.656 6
75	16.00	625.715	625.768	625.628	625.728	625.498	625.671	625.281	625.584	1.657 1
76	16.00	633.851	633.904	633.764	633.864	633.633	633.806	633.415	633.719	1.658 4
77	16.00	641.723	641.776	641.635	641.736	641.504	641.678	641.285	641.590	1.658 9
78	16.00	649.855	649.909	649.767	649.868	649.636	649.810	649.416	649.721	1.660 1
79	16.00	657.730	657.784	657.642	657.743	657.510	657.684	657.289	657.596	1.660 6
80	16.00	665.859	665.913	665.771	665.872	665.638	665.813	665.416	665.723	1.661 8
81	16.00	673.738	673.791	673.649	673.750	673.515	673.691	673.293	673.601	1.662 3
82	16.00	681.863	681.917	681.774	681.875	681.640	681.816	681.417	681.725	1.663 3
83	16.00	689.744	689.798	689.655	689.756	689.520	689.696	689.296	689.605	1.663 8
84	16.00	697.867	697.921	697.777	697.879	697.642	697.818	697.417	697.727	1.664 9
85	16.00	705.731	705.785	705.661	705.762	705.525	705.702	705.299	705.610	1.665 3
86	16.00	713.871	713.924	713.780	713.882	713.644	713.821	713.417	713.728	1.666 3
87	16.00	721.757	721.811	721.666	721.768	721.530	721.707	721.302	721.614	1.666 7
88	16.00	729.874	729.928	729.782	729.885	729.645	729.823	729.417	729.730	1.667 7
89	16.00	737.763	737.817	737.671	737.774	737.534	737.712	737.304	737.618	1.668 1
90	16.00	745.877	745.931	745.785	745.887	745.647	745.825	745.416	745.731	1.669 0
91	16.00	753.769	753.823	753.676	753.779	753.537	753.716	753.306	753.621	1.669 4
92	16.00	761.880	761.934	761.787	761.890	761.648	761.827	761.416	761.732	1.670 3
93	16.00	769.774	769.828	769.681	769.784	769.541	769.720	769.308	769.625	1.670 7
94	16.00	777.883	777.937	777.789	777.892	777.649	777.829	777.415	777.733	1.671 5
95	16.00	785.779	785.833	785.685	785.788	785.544	785.725	785.309	785.628	1.671 9
96	16.00	793.885	793.940	793.791	793.895	793.650	793.831	793.414	793.733	1.672 7
97	16.00	801.784	801.838	801.689	801.793	801.547	801.728	801.310	801.631	1.673 1
98	16.00	809.888	809.942	809.793	809.897	809.651	809.832	809.413	809.734	1.673 8
99	16.00	817.788	817.843	817.693	817.797	817.550	817.732	817.311	817.633	1.674 2
100	16.00	825.890	825.945	825.795	825.899	825.651	825.834	825.412	825.734	1.674 9

表 28 跨棒距 M_{Re}
30°外花键 模数 $m=10\text{ mm}$ 作用齿厚最大值 $S_{v\max}=15.708\text{ mm}$ 单位为毫米

齿数 z	量棒 直径 D_{Re}	S_{min} 和 S_{max} 的跨棒距 M_{Re}								变换 系数 K_v
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	22.40	137.275	137.326	137.221	137.308	137.141	137.281	137.007	137.240	1.322 2
11	22.40	146.149	146.200	146.095	146.182	146.013	146.155	145.877	146.113	1.327 7
12	22.40	157.552	157.604	157.496	157.585	157.411	157.557	157.271	157.513	1.358 7
13	21.20	163.505	163.558	163.446	163.538	163.359	163.508	163.214	163.463	1.393 4
14	21.20	174.635	174.689	174.575	174.668	174.485	174.637	174.336	174.590	1.417 7
15	21.20	183.815	183.870	183.755	183.848	183.664	183.817	183.513	183.768	1.422 7
16	21.20	194.780	194.835	194.718	194.813	194.626	194.781	194.471	194.731	1.442 4
17	21.20	204.060	204.115	203.997	204.093	203.904	204.060	203.747	204.009	1.447 1
18	21.20	214.901	214.957	214.837	214.934	214.742	214.900	214.582	214.847	1.463 4
19	21.20	224.258	224.314	224.194	224.290	224.097	224.256	223.936	224.202	1.467 8
20	20.00	231.737	231.794	231.670	231.769	231.570	231.733	231.402	231.677	1.510 5
21	20.00	241.151	241.208	241.083	241.183	240.982	241.146	240.813	241.089	1.513 8
22	20.00	251.803	251.860	251.734	251.834	251.631	251.797	251.460	251.739	1.525 1
23	20.00	261.268	261.325	261.199	261.299	261.095	261.261	260.923	261.202	1.528 2
24	20.00	271.859	271.917	271.789	271.890	271.684	271.851	271.509	271.791	1.538 0
25	20.00	281.368	281.425	281.297	281.398	281.192	281.359	281.015	281.298	1.540 8
26	20.00	291.908	291.966	291.837	291.938	291.730	291.898	291.551	291.836	1.549 3
27	20.00	301.454	301.511	301.382	301.483	301.274	301.442	301.094	301.380	1.551 9
28	20.00	311.952	312.009	311.879	311.981	311.770	311.939	311.588	311.876	1.559 4
29	20.00	321.528	321.586	321.455	321.557	321.345	321.515	321.162	321.450	1.561 7
30	20.00	331.990	332.047	331.916	332.018	331.805	331.975	331.620	331.910	1.568 4
31	20.00	341.594	341.651	341.520	341.622	341.408	341.578	341.221	341.512	1.570 6
32	20.00	352.024	352.081	351.949	352.051	351.836	352.007	351.648	351.940	1.576 5
33	20.00	361.652	361.709	361.576	361.679	361.463	361.634	361.274	361.566	1.578 5
34	20.00	372.054	372.112	371.978	372.081	371.864	372.036	371.673	371.967	1.583 9
35	20.00	381.704	381.761	381.627	381.730	381.512	381.684	381.320	381.614	1.585 7
36	20.00	392.082	392.139	392.004	392.107	391.888	392.061	391.695	391.990	1.590 6
37	20.00	401.750	401.807	401.672	401.775	401.555	401.728	401.361	401.657	1.592 3
38	20.00	412.106	412.164	412.028	412.131	411.910	412.084	411.714	412.011	1.596 7
39	20.00	421.792	421.849	421.713	421.816	421.595	421.768	421.397	421.695	1.598 2
40	20.00	432.129	432.186	432.050	432.153	431.930	432.104	431.732	432.030	1.602 3
41	20.00	441.830	441.887	441.750	441.853	441.630	441.804	441.430	441.729	1.603 7
42	20.00	452.149	452.206	452.069	452.172	451.949	452.123	451.747	452.047	1.607 5
43	20.00	461.864	461.921	461.783	461.886	461.662	461.836	461.460	461.760	1.608 8
44	20.00	472.168	472.225	472.087	472.190	471.965	472.140	471.761	472.063	1.612 2
45	20.00	481.896	481.952	481.814	481.917	481.691	481.866	481.487	481.788	1.613 5
46	20.00	492.186	492.242	492.103	492.207	491.980	492.155	491.774	492.077	1.616 6
47	20.00	501.924	501.981	501.842	501.945	501.718	501.893	501.511	501.814	1.617 8
48	20.00	512.202	512.258	512.118	512.222	511.994	512.169	511.786	512.089	1.620 7
49	20.00	521.951	522.007	521.868	521.971	521.742	521.918	521.533	521.837	1.621 9
50	20.00	532.216	532.273	532.132	532.235	532.006	532.182	531.796	532.101	1.624 6
51	20.00	541.975	542.032	541.890	541.994	541.763	541.940	541.551	541.858	1.625 6
52	20.00	552.229	552.286	552.144	552.248	552.016	552.194	551.802	552.111	1.628 2
53	20.00	561.997	562.054	561.912	562.016	561.783	561.961	561.568	561.878	1.629 1
54	20.00	572.242	572.298	572.155	572.260	572.025	572.205	571.810	572.120	1.631 5
55	20.00	582.018	582.075	581.932	582.036	581.801	581.981	581.584	581.896	1.632 4

表 28 (续)

单位为毫米

齿数 z	量棒 直径 D_{Rz}	$S_{\min}$ 和 $S_{\max}$ 的跨棒距 M_{Rz}								变换 系数 K_z
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	20.00	592.253	592.310	592.166	592.271	592.035	592.215	591.817	592.129	1.634 7
57	20.00	602.038	602.094	601.950	602.055	601.818	601.998	601.599	601.912	1.635 5
58	20.00	612.264	612.321	612.176	612.281	612.044	612.224	611.823	612.137	1.637 6
59	20.00	622.056	622.113	621.967	622.073	621.834	622.015	621.612	621.927	1.638 4
60	20.00	632.274	632.331	632.185	632.291	632.051	632.233	631.828	632.144	1.640 4
61	20.00	642.072	642.129	641.983	642.089	641.849	642.030	641.624	641.941	1.641 2
62	20.00	652.283	652.340	652.193	652.299	652.058	652.240	651.833	652.151	1.643 0
63	19.00	659.186	659.244	659.095	659.202	658.958	659.142	658.730	659.051	1.656 7
64	19.00	669.388	669.446	669.296	669.404	669.159	669.344	668.930	669.252	1.658 3
65	19.00	679.198	679.256	679.106	679.214	678.968	679.153	678.737	679.060	1.658 8
66	19.00	689.394	689.451	689.301	689.409	689.162	689.348	688.931	689.255	1.660 3
67	19.00	699.209	699.267	699.116	699.224	698.977	699.163	698.744	699.069	1.660 8
68	19.00	709.399	709.457	709.305	709.414	709.165	709.352	708.931	709.257	1.662 2
69	19.00	719.220	719.278	719.126	719.234	718.985	719.172	718.750	719.077	1.662 7
70	19.00	729.404	729.462	729.309	729.418	729.168	729.355	728.932	729.259	1.664 1
71	19.00	739.230	739.288	739.135	739.244	738.993	739.180	738.755	739.084	1.664 6
72	19.00	749.408	749.466	749.313	749.422	749.170	749.358	748.932	749.261	1.665 8
73	19.00	759.239	759.297	759.143	759.253	759.000	759.188	758.760	759.091	1.666 3
74	19.00	769.412	769.471	769.316	769.426	769.172	769.361	768.931	769.263	1.667 5
75	19.00	779.248	779.306	779.151	779.261	779.006	779.196	778.764	779.097	1.667 9
76	19.00	789.416	789.475	789.319	789.429	789.174	789.364	788.931	789.265	1.669 1
77	19.00	799.256	799.314	799.158	799.269	799.012	799.203	798.768	799.103	1.669 5
78	19.00	809.420	809.479	809.322	809.433	809.175	809.366	808.930	809.266	1.670 6
79	19.00	819.264	819.322	819.165	819.276	819.018	819.209	818.771	819.108	1.671 0
80	19.00	829.424	829.482	829.325	829.436	829.176	829.369	828.929	829.267	1.672 0
81	19.00	839.271	839.330	839.172	839.283	839.023	839.216	838.774	839.113	1.672 4
82	19.00	849.427	849.486	849.327	849.439	849.177	849.371	848.928	849.268	1.673 4
83	19.00	859.278	859.337	859.178	859.290	859.027	859.221	858.777	859.118	1.673 7
84	19.00	869.430	869.489	869.329	869.441	869.178	869.373	868.926	869.269	1.674 7
85	19.00	879.284	879.344	879.183	879.296	879.032	879.227	878.779	879.122	1.675 0
86	19.00	889.433	889.492	889.331	889.444	889.179	889.374	888.925	889.269	1.676 0
87	19.00	899.290	899.350	899.189	899.302	899.036	899.232	898.781	899.126	1.676 3
88	19.00	909.435	909.495	909.333	909.446	909.179	909.376	908.923	909.270	1.677 2
89	19.00	919.296	919.356	919.193	919.307	919.039	919.237	918.782	919.130	1.677 5
90	19.00	929.438	929.498	929.334	929.448	929.180	929.377	928.921	929.270	1.678 3
91	19.00	939.302	939.362	939.198	939.312	939.043	939.241	938.783	939.133	1.678 6
92	19.00	949.440	949.500	949.336	949.450	949.180	949.379	948.919	949.270	1.679 4
93	19.00	959.307	959.367	959.202	959.317	959.046	959.245	958.784	959.136	1.679 7
94	19.00	969.442	969.503	969.337	969.452	969.180	969.380	968.917	969.270	1.680 5
95	19.00	979.312	979.372	979.207	979.322	979.048	979.249	978.785	979.139	1.680 8
96	19.00	989.444	989.505	989.338	989.454	989.179	989.381	988.915	989.270	1.681 5
97	19.00	999.317	999.377	999.210	999.326	999.051	999.253	998.785	999.141	1.681 8
98	19.00	1 009.446	1 009.507	1 009.339	1 009.456	1 009.179	1 009.382	1 008.912	1 009.270	1.682 5
99	19.00	1 019.321	1 019.382	1 019.214	1 019.331	1 019.053	1 019.256	1 018.785	1 019.144	1.682 8
100	19.00	1 029.448	1 029.509	1 029.340	1 029.457	1 029.179	1 029.383	1 028.910	1 029.270	1.683 4

表 29 公法线平均长度 W
30°外花键 模数 $m=0.5\text{ mm}$ 作用齿厚最大值 $S_{\max}=0.785\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	2.252	2.264	2.239	2.259	2.220	2.253	2.189	2.243	2
11	2.275	2.287	2.262	2.283	2.243	2.276	2.211	2.265	2
12	3.659	3.671	3.646	3.666	3.626	3.659	3.594	3.649	3
13	3.682	3.694	3.669	3.689	3.649	3.682	3.617	3.672	3
14	3.705	3.717	3.692	3.712	3.672	3.706	3.639	3.695	3
15	3.728	3.740	3.715	3.735	3.695	3.729	3.662	3.718	3
16	3.751	3.763	3.738	3.758	3.718	3.752	3.684	3.741	3
17	3.774	3.786	3.761	3.781	3.740	3.775	3.707	3.763	3
18	5.158	5.170	5.144	5.165	5.124	5.158	5.090	5.147	4
19	5.181	5.193	5.167	5.188	5.147	5.181	5.112	5.170	4
20	5.204	5.216	5.190	5.211	5.170	5.204	5.135	5.193	4
21	5.227	5.239	5.213	5.234	5.192	5.227	5.158	5.216	4
22	5.250	5.262	5.236	5.257	5.215	5.250	5.181	5.239	4
23	5.273	5.286	5.259	5.281	5.238	5.273	5.203	5.262	4
24	6.657	6.669	6.643	6.664	6.622	6.657	6.586	6.645	5
25	6.680	6.692	6.666	6.687	6.645	6.680	6.609	6.668	5
26	6.703	6.715	6.689	6.710	6.668	6.703	6.632	6.691	5
27	6.726	6.739	6.712	6.733	6.691	6.726	6.655	6.714	5
28	6.749	6.762	6.735	6.757	6.713	6.749	6.678	6.737	5
29	6.773	6.785	6.758	6.780	6.736	6.772	6.700	6.760	5
30	8.156	8.169	8.142	8.163	8.120	8.156	8.084	8.144	6
31	8.179	8.192	8.165	8.186	8.143	8.179	8.106	8.167	6
32	8.202	8.215	8.188	8.210	8.166	8.202	8.129	8.190	6
33	8.226	8.238	8.211	8.233	8.189	8.225	8.152	8.213	6
34	8.249	8.261	8.234	8.256	8.212	8.248	8.175	8.236	6
35	8.272	8.284	8.257	8.279	8.235	8.271	8.198	8.259	6
36	9.655	9.668	9.641	9.662	9.618	9.655	9.581	9.642	7
37	9.679	9.691	9.664	9.686	9.641	9.678	9.604	9.665	7
38	9.702	9.714	9.687	9.709	9.664	9.701	9.627	9.688	7
39	9.725	9.738	9.710	9.732	9.687	9.724	9.650	9.711	7
40	9.748	9.761	9.733	9.755	9.710	9.747	9.673	9.734	7
41	9.771	9.784	9.756	9.778	9.733	9.770	9.696	9.757	7
42	11.155	11.167	11.140	11.162	11.117	11.154	11.079	11.141	8
43	11.178	11.191	11.163	11.185	11.140	11.177	11.102	11.164	8
44	11.201	11.214	11.186	11.208	11.163	11.200	11.125	11.187	8
45	11.224	11.237	11.209	11.231	11.186	11.223	11.148	11.210	8
46	11.248	11.260	11.232	11.254	11.209	11.246	11.171	11.233	8
47	11.271	11.283	11.255	11.278	11.232	11.269	11.193	11.256	8
48	12.654	12.667	12.639	12.661	12.616	12.653	12.577	12.640	9
49	12.678	12.690	12.662	12.684	12.639	12.676	12.600	12.663	9
50	12.701	12.713	12.685	12.707	12.662	12.699	12.623	12.686	9
51	12.724	12.737	12.708	12.731	12.685	12.722	12.646	12.709	9
52	12.747	12.760	12.731	12.754	12.708	12.745	12.669	12.732	9
53	12.770	12.783	12.755	12.777	12.731	12.768	12.692	12.755	9
54	14.154	14.167	14.138	14.160	14.114	14.152	14.075	14.138	10
55	14.177	14.190	14.161	14.184	14.137	14.175	14.098	14.161	10

表 29 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	14.200	14.213	14.184	14.207	14.161	14.198	14.121	14.185	10
57	14.223	14.236	14.208	14.230	14.184	14.221	14.144	14.208	10
58	14.247	14.259	14.231	14.253	14.207	14.244	14.167	14.231	10
59	14.270	14.283	14.254	14.276	14.230	14.268	14.190	14.254	10
60	15.653	15.666	15.637	15.660	15.613	15.651	15.573	15.637	11
61	15.677	15.689	15.661	15.683	15.636	15.674	15.596	15.660	11
62	15.700	15.713	15.684	15.706	15.659	15.697	15.619	15.683	11
63	15.723	15.736	15.707	15.729	15.683	15.721	15.642	15.706	11
64	15.746	15.759	15.730	15.753	15.706	15.744	15.665	15.730	11
65	15.769	15.782	15.753	15.776	15.729	15.767	15.688	15.753	11
66	17.153	17.166	17.137	17.159	17.112	17.150	17.071	17.136	12
67	17.176	17.189	17.160	17.183	17.135	17.173	17.094	17.159	12
68	17.199	17.212	17.183	17.206	17.158	17.197	17.117	17.182	12
69	17.223	17.235	17.206	17.229	17.182	17.220	17.140	17.205	12
70	17.246	17.259	17.229	17.252	17.205	17.243	17.163	17.228	12
71	17.269	17.282	17.253	17.275	17.228	17.266	17.187	17.252	12
72	18.653	18.666	18.636	18.659	18.611	18.650	18.570	18.635	13
73	18.676	18.689	18.659	18.682	18.634	18.673	18.593	18.658	13
74	18.699	18.712	18.682	18.705	18.657	18.696	18.616	18.681	13
75	18.722	18.735	18.706	18.728	18.681	18.719	18.639	18.704	13
76	18.745	18.758	18.729	18.752	18.704	18.742	18.662	18.727	13
77	18.769	18.781	18.752	18.775	18.727	18.765	18.685	18.751	13
78	20.153	20.165	20.135	20.158	20.110	20.149	20.068	20.134	14
79	20.175	20.188	20.159	20.181	20.133	20.172	20.091	20.157	14
80	20.199	20.211	20.182	20.205	20.157	20.195	20.114	20.180	14
81	20.222	20.235	20.205	20.228	20.180	20.218	20.137	20.203	14
82	20.245	20.258	20.228	20.251	20.203	20.241	20.161	20.226	14
83	20.268	20.281	20.251	20.274	20.226	20.265	20.184	20.250	14
84	21.652	21.665	21.635	21.658	21.609	21.648	21.567	21.633	15
85	21.675	21.688	21.658	21.681	21.633	21.671	21.590	21.656	15
86	21.698	21.711	21.681	21.704	21.656	21.694	21.613	21.679	15
87	21.722	21.734	21.704	21.727	21.679	21.718	21.636	21.702	15
88	21.745	21.757	21.728	21.750	21.702	21.741	21.659	21.725	15
89	21.768	21.781	21.751	21.774	21.725	21.764	21.682	21.749	15
90	23.152	23.164	23.134	23.157	23.109	23.147	23.066	23.132	16
91	23.175	23.187	23.158	23.180	23.132	23.171	23.089	23.155	16
92	23.198	23.211	23.181	23.204	23.155	23.194	23.112	23.178	16
93	23.221	23.234	23.204	23.227	23.178	23.217	23.135	23.201	16
94	23.244	23.257	23.227	23.250	23.201	23.240	23.158	23.224	16
95	23.268	23.280	23.250	23.273	23.224	23.263	23.181	23.248	16
96	24.651	24.664	24.634	24.657	24.608	24.647	24.564	24.631	17
97	24.674	24.687	24.657	24.680	24.631	24.670	24.587	24.654	17
98	24.698	24.710	24.680	24.703	24.654	24.693	24.610	24.677	17
99	24.721	24.734	24.703	24.726	24.677	24.716	24.633	24.700	17
100	24.744	24.757	24.727	24.750	24.700	24.739	24.657	24.724	17

表 30 公法线平均长度 W
30°外花键 模数 $m=0.75\text{ mm}$ 作用齿厚最大值 $S_{\max}=1.178\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	3.386	3.400	3.371	3.395	3.349	3.388	3.313	3.377	2
11	3.420	3.435	3.406	3.430	3.384	3.423	3.347	3.411	2
12	5.496	5.510	5.481	5.505	5.459	5.498	5.422	5.486	3
13	5.530	5.545	5.515	5.540	5.493	5.532	5.456	5.521	3
14	5.565	5.579	5.550	5.574	5.527	5.567	5.490	5.555	3
15	5.600	5.614	5.584	5.609	5.562	5.602	5.524	5.590	3
16	5.634	5.649	5.619	5.644	5.596	5.636	5.558	5.624	3
17	5.669	5.684	5.654	5.678	5.631	5.671	5.592	5.659	3
18	7.744	7.759	7.729	7.754	7.706	7.746	7.667	7.734	4
19	7.779	7.794	7.763	7.788	7.740	7.781	7.701	7.768	4
20	7.814	7.828	7.798	7.823	7.774	7.815	7.735	7.803	4
21	7.849	7.863	7.833	7.858	7.809	7.850	7.769	7.838	4
22	7.883	7.898	7.867	7.892	7.844	7.885	7.804	7.872	4
23	7.918	7.933	7.902	7.927	7.878	7.919	7.838	7.907	4
24	9.993	10.008	9.977	10.002	9.953	9.994	9.913	9.982	5
25	10.028	10.043	10.012	10.037	9.988	10.029	9.947	10.016	5
26	10.063	10.078	10.047	10.072	10.022	10.064	9.981	10.051	5
27	10.098	10.112	10.081	10.107	10.057	10.098	10.016	10.085	5
28	10.132	10.147	10.116	10.141	10.091	10.133	10.050	10.120	5
29	10.167	10.182	10.151	10.176	10.126	10.168	10.085	10.155	5
30	12.243	12.257	12.226	12.251	12.201	12.243	12.160	12.230	6
31	12.277	12.292	12.261	12.286	12.236	12.278	12.194	12.264	6
32	12.312	12.327	12.295	12.321	12.270	12.312	12.228	12.299	6
33	12.347	12.362	12.330	12.356	12.305	12.347	12.263	12.334	6
34	12.382	12.396	12.365	12.390	12.339	12.382	12.297	12.368	6
35	12.417	12.431	12.400	12.425	12.374	12.417	12.332	12.403	6
36	14.492	14.507	14.475	14.500	14.449	14.492	14.407	14.478	7
37	14.527	14.541	14.510	14.535	14.484	14.526	14.441	14.513	7
38	14.561	14.576	14.544	14.570	14.518	14.561	14.476	14.547	7
39	14.596	14.611	14.579	14.605	14.553	14.596	14.510	14.582	7
40	14.631	14.646	14.614	14.639	14.588	14.631	14.544	14.616	7
41	14.666	14.681	14.648	14.674	14.622	14.665	14.579	14.651	7
42	16.741	16.756	16.724	16.750	16.698	16.741	16.654	16.726	8
43	16.776	16.791	16.758	16.784	16.732	16.775	16.688	16.761	8
44	16.811	16.826	16.793	16.819	16.767	16.810	16.723	16.796	8
45	16.846	16.860	16.828	16.854	16.802	16.845	16.757	16.830	8
46	16.880	16.895	16.863	16.889	16.836	16.879	16.792	16.865	8
47	16.915	16.930	16.898	16.923	16.871	16.914	16.827	16.899	8
48	18.991	19.005	18.973	18.999	18.946	18.989	18.902	18.975	9
49	19.025	19.040	19.008	19.033	18.981	19.024	18.936	19.009	9
50	19.060	19.075	19.042	19.068	19.015	19.059	18.971	19.044	9
51	19.095	19.110	19.077	19.103	19.050	19.094	19.005	19.079	9
52	19.130	19.145	19.112	19.138	19.085	19.128	19.040	19.113	9
53	19.165	19.179	19.147	19.173	19.119	19.163	19.074	19.148	9
54	21.240	21.255	21.222	21.248	21.195	21.238	21.149	21.223	10
55	21.275	21.290	21.257	21.283	21.229	21.273	21.184	21.258	10

表 30 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	21.310	21.324	21.291	21.317	21.264	21.308	21.218	21.292	10
57	21.345	21.359	21.326	21.352	21.299	21.342	21.253	21.327	10
58	21.379	21.394	21.361	21.387	21.333	21.377	21.288	21.362	10
59	21.414	21.429	21.396	21.422	21.368	21.412	21.322	21.396	10
60	23.490	23.504	23.471	23.497	23.443	23.487	23.397	23.472	11
61	23.524	23.539	23.506	23.532	23.478	23.522	23.432	23.506	11
62	23.559	23.574	23.541	23.567	23.513	23.557	23.466	23.541	11
63	23.594	23.609	23.575	23.602	23.548	23.591	23.501	23.576	11
64	23.629	23.644	23.610	23.636	23.582	23.626	23.536	23.610	11
65	23.664	23.678	23.645	23.671	23.617	23.661	23.570	23.645	11
66	25.739	25.754	25.720	25.746	25.692	25.736	25.645	25.720	12
67	25.774	25.789	25.755	25.781	25.727	25.771	25.680	25.755	12
68	25.809	25.823	25.790	25.816	25.762	25.806	25.715	25.790	12
69	25.844	25.858	25.825	25.851	25.796	25.840	25.749	25.824	12
70	25.878	25.893	25.859	25.886	25.831	25.875	25.784	25.859	12
71	25.913	25.928	25.894	25.920	25.866	25.910	25.818	25.894	12
72	27.989	28.003	27.970	27.996	27.941	27.985	27.894	27.969	13
73	28.023	28.038	28.004	28.031	27.976	28.020	27.928	28.004	13
74	28.058	28.073	28.039	28.065	28.011	28.055	27.963	28.038	13
75	28.093	28.108	28.074	28.100	28.045	28.090	27.997	28.073	13
76	28.128	28.143	28.109	28.135	28.080	28.124	28.032	28.108	13
77	28.163	28.177	28.144	28.170	28.115	28.159	28.067	28.142	13
78	30.238	30.253	30.219	30.245	30.190	30.234	30.142	30.218	14
79	30.273	30.288	30.254	30.280	30.225	30.269	30.176	30.252	14
80	30.308	30.322	30.288	30.315	30.259	30.304	30.211	30.287	14
81	30.343	30.357	30.323	30.349	30.294	30.339	30.246	30.322	14
82	30.378	30.392	30.358	30.384	30.329	30.373	30.280	30.356	14
83	30.412	30.427	30.393	30.419	30.364	30.408	30.315	30.391	14
84	32.488	32.502	32.468	32.494	32.439	32.483	32.390	32.466	15
85	32.523	32.537	32.503	32.529	32.474	32.518	32.425	32.501	15
86	32.557	32.572	32.538	32.564	32.508	32.553	32.459	32.536	15
87	32.592	32.607	32.573	32.599	32.543	32.588	32.494	32.570	15
88	32.627	32.642	32.607	32.634	32.578	32.623	32.529	32.605	15
89	32.662	32.676	32.642	32.668	32.613	32.657	32.563	32.640	15
90	34.737	34.752	34.718	34.744	34.688	34.733	34.639	34.715	16
91	34.772	34.787	34.752	34.779	34.723	34.767	34.673	34.750	16
92	34.807	34.822	34.787	34.813	34.757	34.802	34.708	34.785	16
93	34.842	34.856	34.822	34.848	34.792	34.837	34.742	34.819	16
94	34.877	34.891	34.857	34.883	34.827	34.872	34.777	34.854	16
95	34.912	34.926	34.892	34.918	34.862	34.906	34.812	34.889	16
96	36.987	37.001	36.967	36.993	36.937	36.982	36.887	36.964	17
97	37.022	37.036	37.002	37.028	36.972	37.016	36.922	36.999	17
98	37.057	37.071	37.037	37.063	37.006	37.051	36.956	37.033	17
99	37.091	37.106	37.071	37.098	37.041	37.086	36.991	37.068	17
100	37.126	37.141	37.106	37.132	37.076	37.121	37.026	37.103	17

表 31 公法线平均长度 W
30°外花键 模数 $m=1\text{ mm}$ 作用齿厚最大值 $S_{\text{max}}=1.571\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	4.520	4.536	4.504	4.531	4.480	4.523	4.440	4.511	2
11	4.566	4.582	4.550	4.577	4.526	4.569	4.485	4.557	2
12	7.333	7.349	7.317	7.344	7.292	7.336	7.252	7.324	3
13	7.379	7.395	7.363	7.390	7.338	7.383	7.297	7.370	3
14	7.426	7.442	7.409	7.436	7.384	7.429	7.343	7.416	3
15	7.472	7.488	7.455	7.483	7.430	7.475	7.388	7.462	3
16	7.518	7.535	7.502	7.529	7.476	7.521	7.434	7.508	3
17	7.565	7.581	7.548	7.575	7.522	7.567	7.480	7.555	3
18	10.332	10.348	10.315	10.342	10.289	10.334	10.246	10.321	4
19	10.378	10.394	10.361	10.389	10.335	10.380	10.292	10.367	4
20	10.425	10.441	10.407	10.435	10.381	10.427	10.338	10.414	4
21	10.471	10.487	10.453	10.481	10.427	10.473	10.384	10.460	4
22	10.517	10.534	10.500	10.528	10.473	10.519	10.429	10.506	4
23	10.564	10.580	10.546	10.574	10.519	10.565	10.475	10.552	4
24	13.331	13.347	13.313	13.341	13.286	13.332	13.242	13.319	5
25	13.377	13.393	13.359	13.387	13.332	13.379	13.288	13.365	5
26	13.424	13.440	13.406	13.434	13.379	13.425	13.334	13.411	5
27	13.470	13.486	13.452	13.480	13.425	13.471	13.380	13.457	5
28	13.516	13.533	13.498	13.526	13.471	13.517	13.426	13.503	5
29	13.563	13.579	13.544	13.573	13.517	13.564	13.472	13.550	5
30	16.330	16.346	16.312	16.340	16.284	16.331	16.238	16.316	6
31	16.376	16.393	16.358	16.386	16.330	16.377	16.284	16.363	6
32	16.423	16.439	16.404	16.432	16.376	16.423	16.330	16.409	6
33	16.469	16.485	16.450	16.479	16.423	16.470	16.376	16.455	6
34	16.515	16.532	16.497	16.525	16.469	16.516	16.422	16.501	6
35	16.562	16.578	16.543	16.572	16.515	16.562	16.468	16.547	6
36	19.329	19.345	19.310	19.339	19.282	19.329	19.235	19.314	7
37	19.375	19.392	19.357	19.385	19.328	19.376	19.281	19.361	7
38	19.422	19.438	19.403	19.431	19.374	19.422	19.327	19.407	7
39	19.468	19.485	19.449	19.478	19.421	19.468	19.373	19.453	7
40	19.515	19.531	19.496	19.524	19.467	19.514	19.419	19.499	7
41	19.561	19.577	19.542	19.571	19.513	19.561	19.465	19.545	7
42	22.328	22.345	22.309	22.338	22.280	22.328	22.232	22.312	8
43	22.375	22.391	22.355	22.384	22.326	22.374	22.278	22.359	8
44	22.421	22.437	22.402	22.430	22.373	22.420	22.324	22.405	8
45	22.468	22.484	22.448	22.477	22.419	22.467	22.370	22.451	8
46	22.514	22.530	22.495	22.523	22.465	22.513	22.416	22.497	8
47	22.560	22.577	22.541	22.570	22.512	22.559	22.463	22.543	8
48	25.328	25.344	25.308	25.337	25.279	25.326	25.229	25.310	9
49	25.374	25.390	25.354	25.383	25.325	25.373	25.276	25.357	9
50	25.421	25.437	25.401	25.429	25.371	25.419	25.322	25.403	9
51	25.467	25.483	25.447	25.476	25.417	25.465	25.368	25.449	9
52	25.513	25.530	25.494	25.522	25.464	25.512	25.414	25.495	9
53	25.560	25.576	25.540	25.569	25.510	25.558	25.460	25.542	9
54	28.327	28.343	28.307	28.336	28.277	28.325	28.227	28.309	10
55	28.373	28.390	28.353	28.382	28.323	28.371	28.273	28.355	10

表 31 (续)

单位为毫米

齿数 z	S_{min} 和 S_{max} 的公法线平均长度 W								跨齿数 K
	$1h$		$5h$		$6h$		$7h$		
	min	max	min	max	min	max	min	max	
56	28.420	28.436	28.400	28.429	28.379	28.418	28.319	28.401	10
57	28.466	28.483	28.446	28.475	28.416	28.464	28.365	28.447	10
58	28.513	28.529	28.493	28.521	28.462	28.510	28.412	28.494	10
59	28.559	28.575	28.539	28.568	28.509	28.557	28.458	28.540	10
60	31.326	31.343	31.306	31.335	31.276	31.324	31.225	31.307	11
61	31.373	31.389	31.352	31.381	31.322	31.370	31.271	31.353	11
62	31.419	31.436	31.399	31.428	31.368	31.417	31.317	31.399	11
63	31.466	31.482	31.445	31.474	31.414	31.463	31.363	31.446	11
64	31.512	31.528	31.492	31.520	31.461	31.509	31.409	31.492	11
65	31.559	31.575	31.538	31.567	31.507	31.556	31.456	31.538	11
66	34.326	34.342	34.305	34.334	34.274	34.323	34.222	34.305	12
67	34.372	34.388	34.352	34.380	34.321	34.369	34.269	34.351	12
68	34.419	34.435	34.398	34.427	34.367	34.415	34.315	34.398	12
69	34.465	34.481	34.444	34.473	34.413	34.462	34.361	34.444	12
70	34.512	34.528	34.491	34.520	34.460	34.508	34.407	34.490	12
71	34.558	34.574	34.537	34.566	34.506	34.555	34.453	34.537	12
72	37.325	37.341	37.304	37.333	37.273	37.322	37.220	37.304	13
73	37.372	37.388	37.351	37.380	37.319	37.368	37.267	37.350	13
74	37.418	37.434	37.397	37.426	37.366	37.414	37.313	37.396	13
75	37.465	37.481	37.444	37.472	37.412	37.461	37.359	37.442	13
76	37.511	37.527	37.490	37.519	37.458	37.507	37.405	37.489	13
77	37.558	37.574	37.536	37.565	37.505	37.553	37.452	37.535	13
78	40.325	40.341	40.304	40.332	40.272	40.320	40.218	40.302	14
79	40.371	40.387	40.350	40.379	40.318	40.367	40.265	40.348	14
80	40.418	40.434	40.396	40.425	40.364	40.413	40.311	40.395	14
81	40.464	40.480	40.443	40.472	40.411	40.460	40.357	40.441	14
82	40.511	40.527	40.489	40.518	40.457	40.506	40.403	40.487	14
83	40.557	40.573	40.536	40.565	40.503	40.552	40.450	40.534	14
84	43.324	43.340	43.303	43.332	43.270	43.319	43.217	43.301	15
85	43.371	43.387	43.349	43.378	43.317	43.366	43.263	43.347	15
86	43.417	43.433	43.396	43.424	43.363	43.412	43.309	43.393	15
87	43.464	43.480	43.442	43.471	43.410	43.459	43.355	43.439	15
88	43.510	43.526	43.489	43.517	43.456	43.505	43.402	43.486	15
89	43.557	43.573	43.535	43.564	43.502	43.551	43.448	43.532	15
90	46.324	46.340	46.302	46.331	46.269	46.318	46.215	46.299	16
91	46.370	46.386	46.349	46.377	46.316	46.365	46.261	46.345	16
92	46.417	46.433	46.395	46.424	46.362	46.411	46.307	46.392	16
93	46.463	46.479	46.441	46.470	46.408	46.458	46.354	46.438	16
94	46.510	46.526	46.488	46.517	46.455	46.504	46.400	46.484	16
95	46.556	46.572	46.534	46.563	46.501	46.550	46.446	46.531	16
96	49.324	49.339	49.301	49.330	49.268	49.317	49.213	49.298	17
97	49.370	49.386	49.348	49.377	49.315	49.364	49.259	49.344	17
98	49.416	49.432	49.394	49.423	49.361	49.410	49.306	49.390	17
99	49.463	49.479	49.441	49.469	49.407	49.457	49.352	49.437	17
100	49.509	49.525	49.487	49.516	49.454	49.503	49.398	49.483	17

表 32 公法线平均长度 W
30°外花键 模数 $m = 1.25 \text{ mm}$ 作用齿厚最大值 $S_{\text{max}} = 1.963 \text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	5.654	5.672	5.637	5.666	5.611	5.659	5.568	5.646	2
11	5.712	5.730	5.695	5.724	5.669	5.716	5.625	5.704	2
12	9.171	9.188	9.154	9.183	9.127	9.175	9.083	9.162	3
13	9.229	9.246	9.211	9.241	9.185	9.233	9.140	9.220	3
14	9.287	9.304	9.269	9.299	9.242	9.291	9.197	9.277	3
15	9.345	9.362	9.327	9.357	9.300	9.348	9.255	9.335	3
16	9.403	9.420	9.385	9.415	9.357	9.406	9.312	9.393	3
17	9.461	9.478	9.442	9.472	9.415	9.464	9.369	9.450	3
18	12.920	12.937	12.901	12.931	12.874	12.923	12.827	12.909	4
19	12.978	12.995	12.959	12.989	12.931	12.980	12.885	12.967	4
20	13.036	13.053	13.017	13.047	12.989	13.038	12.942	13.024	4
21	13.094	13.111	13.075	13.105	13.047	13.096	12.999	13.082	4
22	13.152	13.169	13.133	13.163	13.104	13.154	13.057	13.140	4
23	13.210	13.227	13.191	13.221	13.162	13.212	13.114	13.197	4
24	16.668	16.686	16.649	16.680	16.621	16.671	16.573	16.656	5
25	16.727	16.744	16.707	16.738	16.678	16.728	16.630	16.714	5
26	16.785	16.802	16.765	16.796	16.736	16.786	16.688	16.772	5
27	16.843	16.860	16.823	16.854	16.794	16.844	16.745	16.829	5
28	16.901	16.918	16.881	16.912	16.852	16.902	16.803	16.887	5
29	16.959	16.976	16.939	16.969	16.909	16.960	16.860	16.945	5
30	20.417	20.435	20.398	20.428	20.368	20.419	20.319	20.403	6
31	20.476	20.493	20.456	20.486	20.426	20.477	20.376	20.461	6
32	20.534	20.551	20.514	20.544	20.484	20.534	20.434	20.519	6
33	20.592	20.609	20.572	20.602	20.542	20.592	20.491	20.577	6
34	20.650	20.667	20.630	20.660	20.599	20.650	20.549	20.635	6
35	20.708	20.725	20.687	20.718	20.657	20.708	20.607	20.692	6
36	24.167	24.184	24.146	24.177	24.116	24.167	24.065	24.151	7
37	24.225	24.242	24.204	24.235	24.174	24.225	24.123	24.209	7
38	24.283	24.300	24.262	24.293	24.232	24.283	24.180	24.267	7
39	24.341	24.358	24.320	24.351	24.289	24.341	24.238	24.324	7
40	24.399	24.416	24.378	24.409	24.347	24.399	24.296	24.382	7
41	24.457	24.474	24.436	24.467	24.405	24.456	24.353	24.440	7
42	27.916	27.933	27.895	27.926	27.864	27.915	27.812	27.899	8
43	27.974	27.991	27.953	27.984	27.922	27.973	27.870	27.957	8
44	28.032	28.049	28.011	28.042	27.980	28.031	27.927	28.014	8
45	28.090	28.108	28.069	28.100	28.038	28.089	27.985	28.072	8
46	28.148	28.166	28.127	28.158	28.095	28.147	28.043	28.130	8
47	28.206	28.224	28.185	28.216	28.153	28.205	28.100	28.188	8
48	31.665	31.683	31.644	31.675	31.612	31.664	31.559	31.647	9
49	31.723	31.741	31.702	31.733	31.670	31.722	31.617	31.704	9
50	31.781	31.799	31.760	31.791	31.728	31.780	31.675	31.762	9
51	31.839	31.857	31.818	31.849	31.786	31.838	31.732	31.820	9
52	31.897	31.915	31.876	31.907	31.844	31.896	31.790	31.878	9
53	31.955	31.973	31.934	31.965	31.902	31.953	31.848	31.936	9
54	35.414	35.432	35.393	35.424	35.360	35.412	35.306	35.394	10
55	35.473	35.490	35.451	35.482	35.418	35.470	35.364	35.452	10

表 32 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	35.531	35.548	35.509	35.540	35.476	35.528	35.422	35.510	10
57	35.589	35.606	35.567	35.598	35.534	35.586	35.480	35.568	10
58	35.647	35.664	35.625	35.656	35.592	35.644	35.537	35.626	10
59	35.705	35.722	35.683	35.714	35.650	35.702	35.595	35.684	10
60	39.164	39.181	39.142	39.173	39.109	39.161	39.054	39.143	11
61	39.222	39.239	39.200	39.231	39.167	39.219	39.112	39.200	11
62	39.280	39.297	39.258	39.289	39.225	39.277	39.169	39.258	11
63	39.338	39.355	39.316	39.347	39.283	39.335	39.227	39.316	11
64	39.396	39.413	39.374	39.405	39.341	39.393	39.285	39.374	11
65	39.454	39.472	39.432	39.463	39.399	39.451	39.343	39.432	11
66	42.913	42.930	42.891	42.922	42.857	42.910	42.801	42.891	12
67	42.971	42.989	42.949	42.980	42.915	42.968	42.859	42.949	12
68	43.029	43.047	43.007	43.038	42.973	43.026	42.917	43.006	12
69	43.087	43.105	43.065	43.096	43.031	43.083	42.975	43.064	12
70	43.146	43.163	43.123	43.154	43.089	43.141	43.033	43.122	12
71	43.204	43.221	43.181	43.212	43.147	43.199	43.091	43.180	12
72	46.663	46.680	46.640	46.671	46.606	46.658	46.549	46.639	13
73	46.721	46.738	46.698	46.729	46.664	46.716	46.607	46.697	13
74	46.779	46.796	46.756	46.787	46.722	46.774	46.665	46.755	13
75	46.837	46.854	46.814	46.845	46.780	46.832	46.723	46.813	13
76	46.895	46.912	46.872	46.903	46.838	46.890	46.781	46.870	13
77	46.953	46.970	46.930	46.961	46.896	46.948	46.838	46.928	13
78	50.412	50.429	50.389	50.420	50.355	50.407	50.297	50.387	14
79	50.470	50.487	50.447	50.478	50.413	50.465	50.355	50.445	14
80	50.528	50.545	50.505	50.536	50.471	50.523	50.413	50.503	14
81	50.586	50.603	50.563	50.594	50.529	50.581	50.471	50.561	14
82	50.645	50.662	50.621	50.652	50.586	50.639	50.528	50.619	14
83	50.703	50.720	50.679	50.710	50.644	50.697	50.586	50.677	14
84	54.162	54.179	54.138	54.169	54.103	54.156	54.045	54.135	15
85	54.220	54.237	54.196	54.227	54.161	54.214	54.103	54.193	15
86	54.278	54.295	54.254	54.285	54.219	54.272	54.161	54.251	15
87	54.336	54.353	54.312	54.343	54.277	54.330	54.219	54.309	15
88	54.394	54.411	54.371	54.401	54.335	54.388	54.276	54.367	15
89	54.452	54.469	54.429	54.459	54.393	54.446	54.334	54.425	15
90	57.911	57.928	57.887	57.918	57.852	57.905	57.793	57.884	16
91	57.969	57.986	57.946	57.976	57.910	57.963	57.851	57.942	16
92	58.027	58.044	58.004	58.034	57.968	58.021	57.909	58.000	16
93	58.085	58.102	58.062	58.092	58.026	58.079	57.967	58.058	16
94	58.144	58.160	58.120	58.151	58.084	58.137	58.025	58.115	16
95	58.202	58.218	58.178	58.209	58.142	58.195	58.082	58.173	16
96	61.661	61.677	61.637	61.667	61.601	61.654	61.541	61.632	17
97	61.719	61.736	61.695	61.726	61.659	61.712	61.599	61.690	17
98	61.777	61.794	61.753	61.784	61.717	61.770	61.657	61.748	17
99	61.835	61.852	61.811	61.842	61.775	61.828	61.715	61.806	17
100	61.893	61.910	61.869	61.900	61.833	61.886	61.773	61.864	17

表 33 公法线平均长度 W
30°外花键 模数 $m = 1.5 \text{ mm}$ 作用齿厚最大值 $S_{\text{max}} = 2.356 \text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	6.789	6.808	6.771	6.802	6.743	6.794	6.698	6.781	2
11	6.859	6.877	6.840	6.872	6.812	6.863	6.766	6.850	2
12	11.009	11.028	10.991	11.022	10.963	11.014	10.916	11.000	3
13	11.079	11.098	11.060	11.092	11.032	11.083	10.984	11.070	3
14	11.148	11.167	11.129	11.161	11.101	11.153	11.053	11.139	3
15	11.218	11.237	11.199	11.231	11.170	11.222	11.122	11.208	3
16	11.288	11.306	11.268	11.300	11.239	11.291	11.191	11.277	3
17	11.357	11.376	11.338	11.370	11.308	11.361	11.260	11.346	3
18	15.508	15.527	15.488	15.520	15.459	15.511	15.410	15.497	4
19	15.577	15.596	15.558	15.590	15.528	15.581	15.479	15.566	4
20	15.647	15.666	15.627	15.659	15.597	15.650	15.547	15.635	4
21	15.717	15.735	15.697	15.729	15.667	15.719	15.616	15.705	4
22	15.786	15.805	15.766	15.798	15.736	15.789	15.685	15.774	4
23	15.856	15.875	15.836	15.868	15.805	15.858	15.754	15.843	4
24	20.007	20.025	19.986	20.019	19.956	20.009	19.905	19.994	5
25	20.076	20.095	20.056	20.088	20.025	20.078	19.974	20.063	5
26	20.146	20.165	20.125	20.158	20.094	20.148	20.043	20.132	5
27	20.215	20.234	20.195	20.227	20.164	20.217	20.112	20.202	5
28	20.285	20.304	20.264	20.297	20.233	20.287	20.181	20.271	5
29	20.355	20.374	20.334	20.366	20.302	20.356	20.250	20.340	5
30	24.505	24.524	24.484	24.517	24.453	24.507	24.400	24.491	6
31	24.575	24.594	24.554	24.587	24.522	24.576	24.469	24.560	6
32	24.645	24.664	24.624	24.656	24.592	24.646	24.539	24.629	6
33	24.714	24.733	24.693	24.726	24.661	24.715	24.608	24.699	6
34	24.784	24.803	24.763	24.795	24.731	24.785	24.677	24.768	6
35	24.854	24.873	24.832	24.865	24.800	24.854	24.746	24.837	6
36	29.005	29.023	28.983	29.016	28.951	29.005	28.897	28.988	7
37	29.074	29.093	29.053	29.085	29.020	29.074	28.966	29.057	7
38	29.144	29.163	29.122	29.155	29.089	29.144	29.035	29.127	7
39	29.214	29.232	29.192	29.224	29.159	29.213	29.104	29.196	7
40	29.283	29.302	29.261	29.294	29.228	29.283	29.174	29.266	7
41	29.353	29.372	29.331	29.364	29.298	29.352	29.243	29.335	7
42	33.504	33.522	33.482	33.514	33.448	33.503	33.393	33.485	8
43	33.573	33.592	33.551	33.584	33.518	33.573	33.462	33.555	8
44	33.643	33.662	33.621	33.654	33.587	33.642	33.532	33.624	8
45	33.713	33.731	33.690	33.723	33.657	33.712	33.601	33.694	8
46	33.782	33.801	33.760	33.793	33.726	33.781	33.670	33.763	8
47	33.852	33.871	33.830	33.862	33.796	33.851	33.740	33.832	8
48	38.003	38.021	37.980	38.013	37.946	38.001	37.890	37.983	9
49	38.073	38.091	38.050	38.083	38.016	38.071	37.959	38.052	9
50	38.142	38.161	38.120	38.152	38.085	38.140	38.029	38.122	9
51	38.212	38.230	38.189	38.222	38.155	38.210	38.098	38.191	9
52	38.282	38.300	38.259	38.292	38.225	38.280	38.167	38.261	9
53	38.351	38.370	38.328	38.361	38.294	38.349	38.237	38.330	9
54	42.502	42.521	42.479	42.512	42.445	42.500	42.387	42.481	10
55	42.572	42.590	42.549	42.582	42.514	42.569	42.456	42.550	10

表 33 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	42.642	42.660	42.618	42.651	42.584	42.639	42.526	42.620	10
57	42.711	42.730	42.688	42.721	42.653	42.708	42.595	42.689	10
58	42.781	42.799	42.758	42.790	42.723	42.778	42.665	42.759	10
59	42.851	42.869	42.827	42.860	42.792	42.848	42.734	42.828	10
60	47.001	47.020	46.978	47.011	46.943	46.998	46.884	46.979	11
61	47.071	47.090	47.048	47.080	47.042	47.068	46.954	47.048	11
62	47.141	47.159	47.117	47.150	47.082	47.137	47.023	47.117	11
63	47.211	47.229	47.187	47.220	47.152	47.207	47.093	47.187	11
64	47.280	47.299	47.257	47.289	47.221	47.276	47.162	47.256	11
65	47.350	47.368	47.326	47.359	47.291	47.346	47.231	47.326	11
66	51.501	51.519	51.477	51.510	51.441	51.497	51.382	51.476	12
67	51.571	51.589	51.547	51.579	51.511	51.566	51.451	51.546	12
68	51.640	51.658	51.616	51.649	51.580	51.636	51.521	51.615	12
69	51.710	51.728	51.686	51.719	51.650	51.705	51.590	51.685	12
70	51.780	51.798	51.756	51.788	51.720	51.775	51.659	51.754	12
71	51.849	51.868	51.825	51.858	51.789	51.845	51.729	51.824	12
72	56.000	56.018	55.976	56.009	55.940	55.995	55.879	55.974	13
73	56.070	56.088	56.046	56.078	56.009	56.065	55.949	56.044	13
74	56.140	56.158	56.115	56.148	56.079	56.134	56.018	56.113	13
75	56.209	56.227	56.185	56.218	56.149	56.204	56.088	56.183	13
76	56.279	56.297	56.255	56.287	56.218	56.274	56.157	56.252	13
77	56.349	56.367	56.324	56.357	56.288	56.343	56.227	56.322	13
78	60.500	60.518	60.475	60.508	60.438	60.494	60.377	60.473	14
79	60.569	60.587	60.545	60.577	60.508	60.563	60.447	60.542	14
80	60.639	60.657	60.614	60.647	60.578	60.633	60.516	60.612	14
81	60.709	60.727	60.684	60.717	60.647	60.703	60.585	60.681	14
82	60.779	60.797	60.754	60.786	60.717	60.772	60.655	60.751	14
83	60.848	60.866	60.824	60.856	60.786	60.842	60.724	60.820	14
84	64.999	65.017	64.974	65.007	64.937	64.993	64.875	64.971	15
85	65.069	65.087	65.044	65.077	65.007	65.062	64.944	65.040	15
86	65.139	65.156	65.114	65.146	65.076	65.132	65.014	65.110	15
87	65.208	65.226	65.183	65.216	65.146	65.201	65.083	65.179	15
88	65.278	65.296	65.253	65.286	65.215	65.271	65.153	65.249	15
89	65.348	65.366	65.323	65.355	65.285	65.341	65.222	65.318	15
90	69.499	69.516	69.473	69.506	69.436	69.491	69.373	69.469	16
91	69.568	69.586	69.543	69.576	69.505	69.561	69.442	69.538	16
92	69.638	69.656	69.613	69.645	69.575	69.631	69.512	69.608	16
93	69.708	69.726	69.682	69.715	69.644	69.700	69.581	69.677	16
94	69.778	69.795	69.752	69.785	69.714	69.770	69.651	69.747	16
95	69.847	69.865	69.822	69.854	69.784	69.839	69.720	69.816	16
96	73.998	74.016	73.973	74.005	73.934	73.990	73.871	73.967	17
97	74.068	74.085	74.042	74.075	74.004	74.060	73.940	74.037	17
98	74.138	74.155	74.112	74.144	74.074	74.129	74.010	74.106	17
99	74.207	74.225	74.182	74.214	74.143	74.199	74.079	74.176	17
100	74.277	74.295	74.251	74.284	74.213	74.269	74.149	74.245	17

表 34 公法线平均长度 W
30°外花键 模数 $m=1.75\text{ mm}$ 作用齿厚最大值 $S_{\max}=2.749\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	7.924	7.944	7.905	7.938	7.876	7.930	7.828	7.916	2
11	8.005	8.025	7.986	8.019	7.957	8.010	7.908	7.997	2
12	12.848	12.867	12.828	12.861	12.798	12.853	12.749	12.839	3
13	12.929	12.949	12.909	12.942	12.879	12.934	12.829	12.919	3
14	13.010	13.030	12.990	13.024	12.960	13.015	12.910	13.000	3
15	13.091	13.111	13.071	13.105	13.041	13.096	12.990	13.081	3
16	13.172	13.192	13.152	13.186	13.121	13.177	13.071	13.162	3
17	13.254	13.273	13.233	13.267	13.202	13.258	13.151	13.243	3
18	18.096	18.116	18.075	18.109	18.044	18.100	17.993	18.085	4
19	18.177	18.197	18.157	18.190	18.125	18.181	18.073	18.166	4
20	18.259	18.278	18.238	18.272	18.206	18.262	18.154	18.246	4
21	18.340	18.360	18.319	18.353	18.287	18.343	18.234	18.327	4
22	18.421	18.441	18.400	18.434	18.368	18.424	18.315	18.408	4
23	18.502	18.522	18.481	18.515	18.449	18.505	18.395	18.489	4
24	23.345	23.365	23.323	23.357	23.291	23.347	23.237	23.331	5
25	23.426	23.446	23.404	23.439	23.372	23.428	23.318	23.412	5
26	23.507	23.527	23.486	23.520	23.453	23.509	23.399	23.493	5
27	23.589	23.608	23.567	23.601	23.534	23.590	23.479	23.574	5
28	23.670	23.690	23.648	23.682	23.615	23.672	23.560	23.655	5
29	23.751	23.771	23.729	23.763	23.696	23.753	23.641	23.736	5
30	28.594	28.613	28.571	28.606	28.538	28.595	28.483	28.578	6
31	28.675	28.695	28.653	28.687	28.619	28.676	28.564	28.659	6
32	28.756	28.776	28.734	28.768	28.700	28.757	28.644	28.740	6
33	28.838	28.857	28.815	28.849	28.781	28.838	28.725	28.821	6
34	28.919	28.939	28.896	28.931	28.862	28.919	28.806	28.902	6
35	29.000	29.020	28.977	29.012	28.943	29.000	28.887	28.983	6
36	33.843	33.862	33.820	33.854	33.786	33.843	33.729	33.825	7
37	33.924	33.944	33.901	33.935	33.867	33.924	33.810	33.906	7
38	34.005	34.025	33.982	34.017	33.948	34.005	33.890	33.987	7
39	34.087	34.106	34.064	34.098	34.029	34.086	33.971	34.068	7
40	34.168	34.187	34.145	34.179	34.110	34.167	34.052	34.149	7
41	34.249	34.269	34.226	34.260	34.191	34.248	34.133	34.230	7
42	39.092	39.111	39.068	39.103	39.033	39.091	38.975	39.072	8
43	39.173	39.193	39.150	39.184	39.115	39.172	39.056	39.153	8
44	39.254	39.274	39.231	39.265	39.196	39.253	39.137	39.234	8
45	39.336	39.355	39.312	39.347	39.277	39.334	39.218	39.315	8
46	39.417	39.437	39.393	39.428	39.358	39.415	39.299	39.396	8
47	39.498	39.518	39.475	39.509	39.439	39.497	39.380	39.477	8
48	44.341	44.360	44.317	44.351	44.281	44.339	44.222	44.320	9
49	44.422	44.442	44.398	44.433	44.363	44.420	44.303	44.401	9
50	44.504	44.523	44.480	44.514	44.444	44.501	44.384	44.482	9
51	44.585	44.604	44.561	44.595	44.525	44.583	44.465	44.563	9
52	44.666	44.686	44.642	44.677	44.606	44.664	44.546	44.644	9
53	44.748	44.767	44.723	44.758	44.687	44.745	44.627	44.725	9
54	49.590	49.609	49.566	49.600	49.529	49.587	49.469	49.567	10
55	49.671	49.691	49.647	49.682	49.611	49.668	49.550	49.648	10

表 34 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	49.753	49.772	49.728	49.763	49.692	49.750	49.631	49.729	10
57	49.834	49.853	49.810	49.844	49.773	49.831	49.712	49.810	10
58	49.916	49.935	49.891	49.925	49.854	49.912	49.793	49.891	10
59	49.997	50.016	49.972	50.007	49.935	49.993	49.874	49.973	10
60	54.839	54.859	54.815	54.849	54.778	54.836	54.716	54.815	11
61	54.921	54.940	54.896	54.930	54.859	54.917	54.797	54.896	11
62	55.002	55.021	54.977	55.012	54.940	54.998	54.878	54.977	11
63	55.083	55.103	55.059	55.093	55.021	55.079	54.959	55.058	11
64	55.165	55.184	55.140	55.174	55.102	55.160	55.040	55.139	11
65	55.246	55.265	55.221	55.255	55.184	55.242	55.121	55.220	11
66	60.089	60.108	60.064	60.098	60.026	60.084	59.963	60.063	12
67	60.170	60.189	60.145	60.179	60.107	60.165	60.044	60.144	12
68	60.251	60.270	60.226	60.260	60.188	60.246	60.125	60.225	12
69	60.333	60.352	60.307	60.342	60.269	60.328	60.206	60.306	12
70	60.414	60.433	60.389	60.423	60.351	60.409	60.287	60.387	12
71	60.496	60.514	60.470	60.504	60.432	60.490	60.368	60.468	12
72	65.338	65.357	65.313	65.347	65.274	65.332	65.211	65.310	13
73	65.419	65.438	65.394	65.428	65.356	65.414	65.292	65.391	13
74	65.501	65.520	65.475	65.509	65.437	65.495	65.373	65.473	13
75	65.582	65.601	65.556	65.591	65.518	65.576	65.454	65.554	13
76	65.664	65.682	65.638	65.672	65.599	65.657	65.535	65.635	13
77	65.745	65.764	65.719	65.753	65.680	65.739	65.616	65.716	13
78	70.587	70.606	70.562	70.596	70.523	70.581	70.458	70.558	14
79	70.669	70.688	70.643	70.677	70.604	70.662	70.539	70.639	14
80	70.750	70.769	70.724	70.758	70.685	70.743	70.620	70.720	14
81	70.832	70.850	70.805	70.840	70.766	70.825	70.701	70.802	14
82	70.913	70.932	70.887	70.921	70.848	70.906	70.782	70.883	14
83	70.994	71.013	70.968	71.002	70.929	70.987	70.863	70.964	14
84	75.837	75.856	75.811	75.845	75.771	75.830	75.706	75.806	15
85	75.918	75.937	75.892	75.926	75.853	75.911	75.787	75.887	15
86	76.000	76.018	75.973	76.007	75.934	75.992	75.868	75.968	15
87	76.081	76.100	76.055	76.089	76.015	76.073	75.949	76.050	15
88	76.162	76.181	76.136	76.170	76.096	76.154	76.030	76.131	15
89	76.244	76.262	76.217	76.251	76.177	76.235	76.111	76.212	15
90	81.086	81.105	81.060	81.094	81.020	81.078	80.953	81.054	16
91	81.168	81.186	81.141	81.175	81.101	81.159	81.035	81.135	16
92	81.249	81.268	81.222	81.256	81.182	81.241	81.116	81.217	16
93	81.330	81.349	81.304	81.338	81.264	81.322	81.197	81.298	16
94	81.412	81.430	81.385	81.419	81.345	81.403	81.278	81.379	16
95	81.493	81.512	81.466	81.500	81.426	81.484	81.359	81.460	16
96	86.336	86.354	86.309	86.343	86.268	86.327	86.201	86.302	17
97	86.417	86.436	86.390	86.424	86.350	86.408	86.282	86.383	17
98	86.499	86.517	86.471	86.505	86.431	86.489	86.363	86.465	17
99	86.580	86.598	86.553	86.587	86.512	86.571	86.445	86.546	17
100	86.661	86.680	86.634	86.668	86.593	86.652	86.526	86.627	17

表 35 公法线平均长度 W
30°外花键 模数 $m=2\text{ mm}$ 作用齿厚最大值 $S_{\max}=3.142\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	9.059	9.080	9.039	9.074	9.009	9.065	8.958	9.051	2
11	9.152	9.173	9.132	9.167	9.101	9.158	9.050	9.143	2
12	14.686	14.707	14.666	14.701	14.635	14.692	14.583	14.677	3
13	14.779	14.800	14.758	14.793	14.727	14.784	14.675	14.769	3
14	14.872	14.893	14.851	14.886	14.819	14.877	14.767	14.862	3
15	14.965	14.985	14.944	14.979	14.912	14.969	14.859	14.954	3
16	15.058	15.078	15.036	15.071	15.004	15.062	14.951	15.047	3
17	15.150	15.171	15.129	15.164	15.097	15.154	15.043	15.139	3
18	20.685	20.705	20.663	20.698	20.630	20.688	20.576	20.673	4
19	20.777	20.798	20.756	20.791	20.723	20.781	20.668	20.765	4
20	20.870	20.891	20.848	20.884	20.815	20.874	20.761	20.858	4
21	20.963	20.984	20.941	20.977	20.908	20.966	20.853	20.950	4
22	21.056	21.077	21.034	21.069	21.000	21.059	20.945	21.043	4
23	21.149	21.170	21.127	21.162	21.093	21.152	21.037	21.135	4
24	26.683	26.704	26.661	26.696	26.627	26.686	26.571	26.669	5
25	26.776	26.797	26.753	26.789	26.720	26.778	26.663	26.761	5
26	26.869	26.890	26.846	26.882	26.812	26.871	26.755	26.854	5
27	26.962	26.983	26.939	26.975	26.905	26.964	26.848	26.946	5
28	27.055	27.075	27.032	27.068	26.997	27.056	26.940	27.039	5
29	27.148	27.168	27.125	27.160	27.090	27.149	27.032	27.132	5
30	32.682	32.703	32.659	32.695	32.624	32.683	32.566	32.666	6
31	32.775	32.796	32.752	32.787	32.717	32.776	32.658	32.758	6
32	32.868	32.888	32.844	32.880	32.809	32.869	32.751	32.851	6
33	32.961	32.981	32.937	32.973	32.902	32.961	32.843	32.943	6
34	33.054	33.074	33.030	33.066	32.995	33.054	32.935	33.036	6
35	33.147	33.167	33.123	33.159	33.087	33.147	33.028	33.128	6
36	38.681	38.701	38.657	38.693	38.621	38.681	38.562	38.662	7
37	38.774	38.794	38.750	38.786	38.714	38.774	38.654	38.755	7
38	38.867	38.887	38.843	38.879	38.807	38.866	38.747	38.848	7
39	38.960	38.980	38.936	38.972	38.899	38.959	38.839	38.940	7
40	39.053	39.073	39.028	39.064	38.992	39.052	38.932	39.033	7
41	39.146	39.166	39.121	39.157	39.085	39.145	39.024	39.125	7
42	44.680	44.700	44.656	44.691	44.619	44.679	44.558	44.659	8
43	44.773	44.793	44.748	44.784	44.712	44.772	44.650	44.752	8
44	44.866	44.886	44.841	44.877	44.804	44.864	44.743	44.845	8
45	44.959	44.979	44.934	44.970	44.897	44.957	44.835	44.937	8
46	45.052	45.072	45.027	45.063	44.990	45.050	44.928	45.030	8
47	45.145	45.165	45.120	45.156	45.083	45.143	45.020	45.122	8
48	50.679	50.699	50.654	50.690	50.617	50.677	50.554	50.657	9
49	50.772	50.792	50.747	50.783	50.709	50.770	50.647	50.749	9
50	50.865	50.885	50.840	50.876	50.802	50.862	50.739	50.842	9
51	50.958	50.978	50.933	50.969	50.895	50.955	50.832	50.934	9
52	51.051	51.071	51.026	51.062	50.988	51.048	50.925	51.027	9
53	51.144	51.164	51.119	51.154	51.081	51.141	51.017	51.120	9
54	56.678	56.698	56.653	56.689	56.615	56.675	56.551	56.654	10
55	56.771	56.791	56.746	56.782	56.707	56.768	56.644	56.747	10

表 35 (续) 单位为毫米

齿数 z	S _{min} 和 S _{max} 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	56.864	56.884	56.839	56.874	56.800	56.861	56.736	56.839	10
57	56.957	56.977	56.932	56.967	56.893	56.953	56.829	56.932	10
58	57.050	57.070	57.024	57.060	56.986	57.046	56.921	57.025	10
59	57.143	57.163	57.117	57.153	57.079	57.139	57.014	57.117	10
60	62.678	62.697	62.652	62.687	62.613	62.673	62.548	62.651	11
61	62.771	62.790	62.745	62.780	62.706	62.766	62.641	62.744	11
62	62.863	62.883	62.837	62.873	62.798	62.859	62.733	62.837	11
63	62.956	62.976	62.930	62.966	62.891	62.952	62.826	62.929	11
64	63.049	63.069	63.023	63.059	62.984	63.044	62.919	63.022	11
65	63.142	63.162	63.116	63.152	63.077	63.137	63.011	63.116	11
66	68.677	68.697	68.650	68.686	68.611	68.671	68.545	68.649	12
67	68.770	68.790	68.743	68.779	68.704	68.764	68.638	68.742	12
68	68.863	68.883	68.836	68.872	68.797	68.857	68.730	68.834	12
69	68.956	68.975	68.929	68.965	68.889	68.950	68.823	68.927	12
70	69.049	69.068	69.022	69.058	68.982	69.043	68.916	69.020	12
71	69.142	69.161	69.115	69.151	69.075	69.136	69.008	69.112	12
72	74.676	74.696	74.649	74.685	74.609	74.670	74.542	74.647	13
73	74.769	74.789	74.742	74.778	74.702	74.763	74.635	74.739	13
74	74.862	74.882	74.835	74.871	74.795	74.855	74.728	74.832	13
75	74.955	74.975	74.928	74.964	74.888	74.948	74.820	74.925	13
76	75.048	75.068	75.021	75.057	74.981	75.041	74.913	75.017	13
77	75.141	75.161	75.114	75.150	75.073	75.134	75.006	75.110	13
78	80.675	80.695	80.648	80.684	80.608	80.668	80.540	80.644	14
79	80.768	80.788	80.741	80.777	80.700	80.761	80.632	80.737	14
80	80.861	80.881	80.834	80.870	80.793	80.854	80.725	80.830	14
81	80.954	80.974	80.927	80.963	80.886	80.947	80.818	80.922	14
82	81.047	81.067	81.020	81.056	80.979	81.040	80.911	81.015	14
83	81.140	81.160	81.113	81.148	81.072	81.132	81.003	81.108	14
84	86.675	86.694	86.647	86.683	86.606	86.667	86.537	86.642	15
85	86.768	86.787	86.740	86.776	86.699	86.760	86.630	86.735	15
86	86.861	86.880	86.833	86.869	86.792	86.852	86.723	86.828	15
87	86.954	86.973	86.926	86.962	86.885	86.945	86.815	86.920	15
88	87.047	87.066	87.019	87.054	86.977	87.038	86.908	87.013	15
89	87.140	87.159	87.112	87.147	87.070	87.131	87.001	87.106	15
90	92.674	92.693	92.646	92.682	92.605	92.665	92.535	92.640	16
91	92.767	92.786	92.739	92.775	92.697	92.758	92.628	92.733	16
92	92.860	92.879	92.832	92.868	92.790	92.851	92.720	92.825	16
93	92.953	92.972	92.925	92.960	92.883	92.944	92.813	92.918	16
94	93.046	93.065	93.018	93.053	92.976	93.037	92.906	93.011	16
95	93.139	93.158	93.111	93.146	93.069	93.129	92.998	93.104	16
96	98.674	98.693	98.645	98.681	98.603	98.664	98.533	98.638	17
97	98.767	98.786	98.738	98.774	98.696	98.757	98.625	98.731	17
98	98.860	98.879	98.831	98.867	98.789	98.849	98.718	98.823	17
99	98.953	98.972	98.924	98.959	98.882	98.942	98.811	98.916	17
100	99.046	99.065	99.017	99.052	98.975	99.035	98.903	99.009	17

表 36 公法线平均长度 W
30°外花键 模数 $m=2.5\text{ mm}$ 作用齿厚最大值 $S_{\text{max}}=3.927\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	11.330	11.352	11.308	11.346	11.276	11.336	11.221	11.321	2
11	11.446	11.468	11.424	11.462	11.391	11.452	11.336	11.437	2
12	18.364	18.386	18.342	18.379	18.308	18.369	18.253	18.354	3
13	18.480	18.502	18.457	18.495	18.424	18.485	18.368	18.469	3
14	18.596	18.618	18.573	18.611	18.539	18.601	18.483	18.585	3
15	18.712	18.734	18.689	18.727	18.655	18.717	18.598	18.701	3
16	18.828	18.850	18.805	18.843	18.770	18.833	18.713	18.816	3
17	18.944	18.966	18.921	18.959	18.886	18.948	18.828	18.932	3
18	25.862	25.884	25.839	25.877	25.803	25.866	25.745	25.849	4
19	25.978	26.000	25.954	25.993	25.919	25.982	25.860	25.965	4
20	26.094	26.116	26.070	26.109	26.035	26.098	25.976	26.080	4
21	26.210	26.233	26.186	26.225	26.151	26.214	26.091	26.196	4
22	26.326	26.349	26.302	26.341	26.266	26.329	26.206	26.312	4
23	26.443	26.465	26.418	26.457	26.382	26.445	26.322	26.427	4
24	33.360	33.383	33.336	33.374	33.300	33.363	33.239	33.345	5
25	33.477	33.499	33.452	33.491	33.415	33.479	33.354	33.460	5
26	33.593	33.615	33.568	33.607	33.531	33.595	33.470	33.576	5
27	33.709	33.731	33.684	33.723	33.647	33.711	33.585	33.692	5
28	33.825	33.847	33.800	33.839	33.763	33.827	33.701	33.808	5
29	33.941	33.963	33.916	33.955	33.879	33.942	33.816	33.923	5
30	40.859	40.881	40.834	40.872	40.796	40.860	40.734	40.841	6
31	40.975	40.997	40.950	40.989	40.912	40.976	40.849	40.957	6
32	41.091	41.113	41.066	41.105	41.028	41.092	40.965	41.072	6
33	41.208	41.230	41.182	41.221	41.144	41.208	41.081	41.188	6
34	41.324	41.346	41.298	41.337	41.260	41.324	41.196	41.304	6
35	41.440	41.462	41.414	41.453	41.376	41.440	41.312	41.420	6
36	48.358	48.380	48.332	48.371	48.294	48.358	48.229	48.337	7
37	48.474	48.496	48.448	48.487	48.409	48.474	48.345	48.453	7
38	48.590	48.612	48.564	48.603	48.525	48.589	48.460	48.569	7
39	48.707	48.728	48.680	48.719	48.641	48.705	48.576	48.685	7
40	48.823	48.845	48.797	48.835	48.757	48.821	48.692	48.800	7
41	48.939	48.961	48.913	48.951	48.873	48.937	48.807	48.916	7
42	55.857	55.879	55.830	55.869	55.791	55.855	55.725	55.834	8
43	55.973	55.995	55.947	55.985	55.907	55.971	55.841	55.950	8
44	56.089	56.111	56.063	56.101	56.023	56.087	55.956	56.066	8
45	56.206	56.227	56.179	56.217	56.139	56.203	56.072	56.181	8
46	56.322	56.343	56.295	56.333	56.255	56.319	56.188	56.297	8
47	56.438	56.460	56.411	56.449	56.371	56.435	56.304	56.413	8
48	63.356	63.377	63.329	63.367	63.288	63.353	63.221	63.331	9
49	63.472	63.494	63.445	63.483	63.404	63.469	63.337	63.447	9
50	63.588	63.610	63.561	63.600	63.520	63.585	63.453	63.562	9
51	63.705	63.726	63.677	63.716	63.636	63.701	63.568	63.678	9
52	63.821	63.842	63.793	63.832	63.752	63.817	63.684	63.794	9
53	63.937	63.958	63.910	63.948	63.868	63.933	63.800	63.910	9
54	70.855	70.876	70.828	70.866	70.786	70.851	70.717	70.828	10
55	70.971	70.993	70.944	70.982	70.902	70.967	70.833	70.944	10

表 36 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	71.087	71.109	71.060	71.098	71.018	71.083	70.949	71.059	10
57	71.204	71.225	71.176	71.214	71.134	71.199	71.065	71.175	10
58	71.320	71.341	71.292	71.330	71.250	71.315	71.181	71.291	10
59	71.436	71.457	71.408	71.446	71.366	71.431	71.297	71.407	10
60	78.354	78.375	78.326	78.364	78.284	78.349	78.214	78.325	11
61	78.470	78.492	78.442	78.480	78.400	78.465	78.330	78.441	11
62	78.587	78.608	78.558	78.597	78.516	78.581	78.446	78.557	11
63	78.703	78.724	78.675	78.713	78.632	78.697	78.562	78.673	11
64	78.819	78.840	78.791	78.829	78.748	78.813	78.677	78.788	11
65	78.935	78.956	78.907	78.945	78.864	78.929	78.793	78.904	11
66	85.853	85.874	85.825	85.863	85.782	85.847	85.711	85.822	12
67	85.970	85.991	85.941	85.979	85.898	85.963	85.827	85.938	12
68	86.086	86.107	86.057	86.095	86.014	86.079	85.943	86.054	12
69	86.202	86.223	86.173	86.211	86.130	86.195	86.059	86.170	12
70	86.318	86.339	86.290	86.328	86.246	86.311	86.174	86.286	12
71	86.435	86.456	86.406	86.444	86.362	86.427	86.290	86.402	12
72	93.353	93.373	93.324	93.362	93.280	93.345	93.208	93.319	13
73	93.469	93.490	93.440	93.478	93.396	93.461	93.324	93.435	13
74	93.585	93.606	93.556	93.594	93.512	93.577	93.440	93.551	13
75	93.701	93.722	93.672	93.710	93.628	93.693	93.556	93.667	13
76	93.818	93.838	93.788	93.826	93.745	93.809	93.671	93.783	13
77	93.934	93.955	93.905	93.942	93.861	93.925	93.787	93.899	13
78	100.852	100.873	100.823	100.860	100.778	100.843	100.705	100.817	14
79	100.968	100.989	100.939	100.977	100.895	100.959	100.821	100.933	14
80	101.084	101.105	101.055	101.093	101.011	101.075	100.937	101.049	14
81	101.201	101.221	101.171	101.209	101.127	101.191	101.053	101.165	14
82	101.317	101.337	101.287	101.325	101.243	101.307	101.169	101.281	14
83	101.433	101.454	101.403	101.441	101.359	101.424	101.285	101.397	14
84	108.351	108.372	108.321	108.359	108.277	108.341	108.202	108.314	15
85	108.467	108.488	108.438	108.475	108.393	108.457	108.318	108.430	15
86	108.584	108.604	108.554	108.591	108.509	108.574	108.434	108.546	15
87	108.700	108.720	108.670	108.708	108.625	108.690	108.550	108.662	15
88	108.816	108.837	108.786	108.824	108.741	108.806	108.666	108.778	15
89	108.933	108.953	108.902	108.940	108.857	108.922	108.782	108.894	15
90	115.851	115.871	115.820	115.858	115.775	115.840	115.700	115.812	16
91	115.967	115.987	115.937	115.974	115.891	115.956	115.816	115.928	16
92	116.083	116.103	116.053	116.090	116.007	116.072	115.931	116.044	16
93	116.199	116.220	116.169	116.206	116.123	116.188	116.047	116.160	16
94	116.316	116.336	116.285	116.323	116.239	116.304	116.163	116.276	16
95	116.432	116.452	116.401	116.439	116.356	116.420	116.279	116.392	16
96	123.350	123.370	123.319	123.357	123.273	123.338	123.197	123.310	17
97	123.466	123.486	123.436	123.473	123.390	123.454	123.313	123.426	17
98	123.582	123.603	123.552	123.589	123.506	123.570	123.429	123.542	17
99	123.699	123.719	123.668	123.705	123.622	123.686	123.545	123.658	17
100	123.815	123.835	123.784	123.821	123.738	123.802	123.661	123.774	17

表 37 公法线平均长度 W
30°外花键 模数 $m=3\text{ mm}$ 作用齿厚最大值 $S_{\max}=4.712\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	13.601	13.625	13.578	13.618	13.543	13.608	13.485	13.592	2
11	13.740	13.764	13.717	13.757	13.682	13.747	13.623	13.730	2
12	22.042	22.065	22.018	22.058	21.982	22.048	21.923	22.031	3
13	22.181	22.205	22.157	22.197	22.121	22.187	22.061	22.170	3
14	22.320	22.344	22.296	22.336	22.260	22.326	22.200	22.308	3
15	22.459	22.483	22.435	22.475	22.399	22.465	22.338	22.447	3
16	22.599	22.622	22.574	22.615	22.538	22.604	22.476	22.586	3
17	22.738	22.762	22.713	22.754	22.676	22.743	22.615	22.725	3
18	31.040	31.063	31.015	31.055	30.977	31.044	30.915	31.026	4
19	31.179	31.203	31.154	31.194	31.116	31.183	31.054	31.164	4
20	31.318	31.342	31.293	31.334	31.255	31.322	31.192	31.303	4
21	31.458	31.481	31.432	31.473	31.394	31.461	31.331	31.442	4
22	31.957	31.621	31.572	31.612	31.533	31.600	31.469	31.581	4
23	31.736	31.760	31.711	31.751	31.672	31.739	31.608	31.720	4
24	40.038	40.061	40.012	40.053	39.973	40.040	39.909	40.021	5
25	40.177	40.201	40.151	40.192	40.112	40.179	40.047	40.160	5
26	40.317	40.340	40.291	40.331	40.251	40.319	40.186	40.299	5
27	40.456	40.480	40.430	40.471	40.390	40.458	40.325	40.438	5
28	40.596	40.619	40.569	40.610	40.530	40.597	40.463	40.577	5
29	40.735	40.758	40.708	40.749	40.669	40.736	40.602	40.716	5
30	49.037	49.060	49.010	49.051	48.970	49.037	48.903	49.017	6
31	49.176	49.199	49.149	49.190	49.109	49.176	49.042	49.156	6
32	49.315	49.339	49.288	49.329	49.248	49.316	49.181	49.295	6
33	49.455	49.478	49.428	49.468	49.387	49.455	49.319	49.434	6
34	49.594	49.617	49.567	49.608	49.526	49.594	49.458	49.572	6
35	49.734	49.757	49.706	49.747	49.665	49.733	49.597	49.711	6
36	58.035	58.058	58.008	58.048	57.967	58.034	57.898	58.013	7
37	58.175	58.198	58.147	58.188	58.106	58.174	58.037	58.152	7
38	58.314	58.337	58.287	58.327	58.245	58.313	58.176	58.291	7
39	58.454	58.477	58.426	58.466	58.384	58.452	58.315	58.430	7
40	58.593	58.616	58.565	58.606	58.523	58.591	58.454	58.569	7
41	58.733	58.756	58.705	58.745	58.663	58.730	58.593	58.708	7
42	67.034	67.057	67.006	67.047	66.964	67.032	66.894	67.009	8
43	67.174	67.197	67.145	67.186	67.103	67.171	67.032	67.148	8
44	67.313	67.336	67.285	67.325	67.242	67.310	67.171	67.287	8
45	67.453	67.475	67.424	67.465	67.381	67.449	67.310	67.426	8
46	67.592	67.615	67.564	67.604	67.521	67.589	67.449	67.565	8
47	67.732	67.754	67.703	67.743	67.660	67.728	67.588	67.704	8
48	76.033	76.056	76.004	76.045	75.961	76.029	75.889	76.005	9
49	76.173	76.195	76.144	76.184	76.100	76.169	76.028	76.144	9
50	76.312	76.335	76.283	76.324	76.240	76.308	76.167	76.284	9
51	76.452	76.474	76.423	76.463	76.379	76.447	76.306	76.423	9
52	76.591	76.614	76.562	76.602	76.518	76.586	76.445	76.562	9
53	76.731	76.753	76.701	76.742	76.657	76.725	76.584	76.701	9
54	85.032	85.055	85.003	85.043	84.959	85.027	84.885	85.002	10
55	85.172	85.194	85.142	85.183	85.098	85.166	85.024	85.141	10

表 37 (续)

单位为毫米

齿数 z	S_{min} 和 S_{max} 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	85.311	85.334	85.282	85.322	85.237	85.305	85.164	85.280	10
57	85.451	85.473	85.421	85.461	85.377	85.445	85.303	85.419	10
58	85.590	85.612	85.560	85.601	85.516	85.584	85.442	85.558	10
59	85.730	85.752	85.700	85.740	85.655	85.723	85.581	85.698	10
60	94.031	94.054	94.001	94.042	93.957	94.025	93.882	93.999	11
61	94.171	94.193	94.141	94.181	94.096	94.164	94.021	94.138	11
62	94.310	94.332	94.280	94.320	94.235	94.303	94.160	94.277	11
63	94.450	94.472	94.420	94.460	94.374	94.443	94.299	94.416	11
64	94.589	94.611	94.559	94.599	94.514	94.582	94.438	94.555	11
65	94.729	94.751	94.698	94.739	94.653	94.721	94.577	94.694	11
66	103.030	103.052	103.000	103.040	102.954	103.023	102.878	102.996	12
67	103.170	103.192	103.139	103.179	103.094	103.162	103.017	103.135	12
68	103.309	103.331	103.279	103.319	103.233	103.301	103.157	103.274	12
69	103.449	103.471	103.418	103.458	103.372	103.440	103.296	103.413	12
70	103.588	103.610	103.558	103.598	103.512	103.580	103.435	103.552	12
71	103.728	103.750	103.697	103.737	103.651	103.719	103.574	103.692	12
72	112.030	112.051	111.999	112.039	111.953	112.020	111.875	111.993	13
73	112.169	112.191	112.138	112.178	112.092	112.160	112.014	112.132	13
74	112.309	112.330	112.278	112.317	112.231	112.299	112.153	112.271	13
75	112.448	112.470	112.417	112.457	112.370	112.438	112.292	112.410	13
76	112.588	112.609	112.556	112.596	112.510	112.578	112.432	112.549	13
77	112.727	112.749	112.696	112.736	112.649	112.717	112.571	112.689	13
78	121.029	121.050	120.997	121.037	120.950	121.018	120.872	120.990	14
79	121.168	121.190	121.137	121.177	121.090	121.158	121.011	121.129	14
80	121.308	121.329	121.276	121.316	121.229	121.297	121.150	121.268	14
81	121.447	121.469	121.416	121.455	121.368	121.436	121.289	121.408	14
82	121.587	121.608	121.555	121.595	121.508	121.576	121.428	121.547	14
83	121.726	121.748	121.695	121.734	121.647	121.715	121.568	121.686	14
84	130.028	130.049	129.996	130.036	129.948	130.017	129.869	129.987	15
85	130.168	130.189	130.136	130.175	130.088	130.156	130.008	130.126	15
86	130.307	130.328	130.275	130.315	130.227	130.295	130.147	130.266	15
87	130.447	130.468	130.415	130.454	130.366	130.435	130.286	130.405	15
88	130.586	130.607	130.554	130.593	130.506	130.574	130.426	130.544	15
89	130.726	130.747	130.693	130.733	130.645	130.713	130.565	130.683	15
90	139.027	139.048	138.995	139.034	138.947	139.015	138.866	138.985	16
91	139.167	139.188	139.134	139.174	139.086	139.154	139.005	139.124	16
92	139.306	139.327	139.274	139.313	139.225	139.293	139.144	139.263	16
93	139.446	139.467	139.413	139.453	139.365	139.433	139.284	139.402	16
94	139.585	139.606	139.553	139.592	139.504	139.572	139.423	139.541	16
95	139.725	139.746	139.692	139.732	139.643	139.711	139.562	139.681	16
96	148.027	148.048	147.994	148.033	147.945	148.013	147.863	147.982	17
97	148.166	148.187	148.133	148.173	148.084	148.152	148.002	148.121	17
98	148.306	148.327	148.273	148.312	148.224	148.292	148.142	148.260	17
99	148.445	148.466	148.412	148.452	148.363	148.431	148.281	148.400	17
100	148.585	148.606	148.552	148.591	148.502	148.570	148.420	148.539	17

表 38 公法线平均长度 W
30°外花键 模数 $m=4\text{ mm}$ 作用齿厚最大值 $S_{\text{max}}=6.283\text{ mm}$ 单位为毫米

齿数 z	S_{min} 和 S_{max} 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	18.144	18.169	18.118	18.162	18.080	18.151	18.016	18.133	2
11	18.329	18.355	18.303	18.347	18.265	18.336	18.200	18.318	2
12	29.398	29.424	29.372	29.416	29.333	29.404	29.267	29.386	3
13	29.584	29.610	29.557	29.601	29.518	29.589	29.452	29.571	3
14	29.769	29.795	29.743	29.787	29.703	29.775	29.636	29.756	3
15	29.955	29.981	29.928	29.973	29.888	29.960	29.821	29.941	3
16	30.141	30.167	30.114	30.158	30.073	30.146	30.006	30.126	3
17	30.327	30.353	30.300	30.344	30.259	30.331	30.191	30.311	3
18	41.396	41.421	41.368	41.412	41.327	41.400	41.258	41.379	4
19	41.581	41.607	41.554	41.598	41.512	41.585	41.443	41.565	4
20	41.767	41.793	41.740	41.784	41.698	41.771	41.628	41.750	4
21	41.953	41.979	41.925	41.970	41.883	41.956	41.813	41.935	4
22	42.139	42.165	42.111	42.155	42.069	42.142	41.998	42.120	4
23	42.325	42.351	42.297	42.341	42.254	42.327	42.183	42.306	4
24	53.394	53.419	53.365	53.410	53.322	53.396	53.251	53.374	5
25	53.580	53.605	53.551	53.595	53.508	53.581	53.436	53.559	5
26	53.766	53.791	53.737	53.781	53.693	53.767	53.621	53.744	5
27	53.952	53.977	53.923	53.967	53.879	53.952	53.806	53.930	5
28	54.138	54.163	54.108	54.153	54.064	54.138	53.991	54.115	5
29	54.323	54.349	54.294	54.338	54.250	54.324	54.177	54.301	5
30	65.392	65.418	65.363	65.407	65.318	65.392	65.245	65.369	6
31	65.578	65.603	65.548	65.593	65.504	65.578	65.430	65.554	6
32	65.764	65.789	65.734	65.779	65.690	65.763	65.615	65.740	6
33	65.950	65.975	65.920	65.964	65.875	65.949	65.800	65.925	6
34	66.136	66.161	66.106	66.150	66.061	66.135	65.986	66.110	6
35	66.322	66.347	66.292	66.336	66.246	66.320	66.171	66.296	6
36	77.391	77.416	77.360	77.405	77.315	77.389	77.239	77.364	7
37	77.577	77.602	77.546	77.590	77.501	77.574	77.424	77.550	7
38	77.763	77.788	77.732	77.776	77.686	77.760	77.610	77.735	7
39	77.949	77.974	77.918	77.962	77.872	77.946	77.795	77.920	7
40	78.135	78.160	78.104	78.148	78.058	78.131	77.980	78.106	7
41	78.321	78.346	78.290	78.334	78.243	78.317	78.166	78.291	7
42	89.390	89.414	89.358	89.402	89.312	89.386	89.234	89.359	8
43	89.576	89.600	89.544	89.588	89.497	89.571	89.419	89.545	8
44	89.762	89.786	89.730	89.774	89.683	89.757	89.605	89.731	8
45	89.948	89.972	89.916	89.960	89.869	89.943	89.790	89.916	8
46	90.134	90.158	90.102	90.146	90.054	90.128	89.975	90.102	8
47	90.320	90.344	90.288	90.332	90.240	90.314	90.161	90.287	8
48	101.388	101.413	101.356	101.400	101.309	101.383	101.229	101.356	9
49	101.574	101.599	101.542	101.586	101.494	101.568	101.415	101.541	9
50	101.760	101.785	101.728	101.772	101.680	101.754	101.600	101.727	9
51	101.946	101.971	101.914	101.958	101.866	101.940	101.785	101.912	9
52	102.132	102.157	102.100	102.144	102.052	102.126	101.971	102.098	9
53	102.318	102.343	102.286	102.330	102.237	102.311	102.156	102.283	9
54	113.387	113.411	113.355	113.398	113.306	113.380	113.225	113.352	10
55	113.573	113.597	113.541	113.584	113.492	113.566	113.410	113.537	10

表 38 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	113.759	113.783	113.727	113.770	113.677	113.751	113.596	113.723	10
57	113.945	113.969	113.912	113.956	113.863	113.937	113.781	113.908	10
58	114.131	114.155	114.098	114.142	114.049	114.123	113.967	114.094	10
59	114.317	114.341	114.284	114.328	114.235	114.309	114.152	114.280	10
60	125.386	125.410	125.353	125.397	125.303	125.377	125.221	125.348	11
61	125.572	125.596	125.539	125.582	125.489	125.563	125.406	125.533	11
62	125.758	125.782	125.725	125.768	125.675	125.749	125.592	125.719	11
63	125.944	125.968	125.911	125.954	125.861	125.935	125.777	125.905	11
64	126.130	126.154	126.097	126.140	126.046	126.120	125.963	126.090	11
65	126.316	126.340	126.283	126.326	126.232	126.306	126.148	126.276	11
66	137.385	137.409	137.351	137.395	137.301	137.375	137.217	137.344	12
67	137.571	137.595	137.537	137.581	137.487	137.561	137.402	137.530	12
68	137.757	137.781	137.723	137.767	137.672	137.746	137.588	137.716	12
69	137.943	137.967	137.909	137.953	137.858	137.932	137.773	137.901	12
70	138.129	138.153	138.095	138.138	138.044	138.118	137.959	138.087	12
71	138.315	138.339	138.281	138.324	138.230	138.304	138.144	138.272	12
72	149.384	149.408	149.350	149.393	149.299	149.372	149.213	149.341	13
73	149.570	149.594	149.536	149.579	149.484	149.558	149.398	149.526	13
74	149.756	149.780	149.722	149.765	149.670	149.744	149.584	149.712	13
75	149.942	149.966	149.908	149.951	149.856	149.930	149.770	149.898	13
76	150.128	150.152	150.094	150.137	150.042	150.116	149.955	150.083	13
77	150.315	150.338	150.280	150.323	150.228	150.301	150.141	150.269	13
78	161.383	161.407	161.349	161.391	161.296	161.370	161.209	161.338	14
79	161.569	161.593	161.534	161.577	161.482	161.556	161.395	161.523	14
80	161.755	161.779	161.720	161.763	161.668	161.742	161.580	161.709	14
81	161.942	161.965	161.906	161.949	161.854	161.928	161.766	161.894	14
82	162.128	162.151	162.092	162.135	162.040	162.113	161.952	162.080	14
83	162.314	162.337	162.278	162.321	162.225	162.299	162.137	162.266	14
84	173.382	173.405	173.347	173.390	173.294	173.368	173.206	173.334	15
85	173.569	173.591	173.533	173.576	173.480	173.554	173.391	173.520	15
86	173.755	173.777	173.719	173.762	173.666	173.739	173.577	173.706	15
87	173.941	173.963	173.905	173.948	173.852	173.925	173.763	173.891	15
88	174.127	174.149	174.091	174.134	174.038	174.111	173.948	174.077	15
89	174.313	174.335	174.277	174.320	174.223	174.297	174.134	174.263	15
90	185.382	185.404	185.346	185.388	185.292	185.366	185.202	185.331	16
91	185.568	185.590	185.532	185.574	185.478	185.551	185.388	185.517	16
92	185.754	185.776	185.718	185.760	185.664	185.737	185.574	185.703	16
93	185.940	185.962	185.904	185.946	185.850	185.923	185.759	185.888	16
94	186.126	186.148	186.090	186.132	186.035	186.109	185.945	186.074	16
95	186.312	186.334	186.276	186.318	186.221	186.295	186.131	186.260	16
96	197.381	197.403	197.344	197.387	197.290	197.363	197.199	197.328	17
97	197.567	197.589	197.530	197.573	197.476	197.549	197.385	197.514	17
98	197.753	197.775	197.716	197.759	197.662	197.735	197.570	197.700	17
99	197.939	197.961	197.902	197.945	197.848	197.921	197.756	197.885	17
100	198.125	198.147	198.088	198.131	198.033	198.107	197.942	198.071	17

表 39 公法线平均长度 W
30°外花键 模数 $m=5\text{ mm}$ 作用齿厚最大值 $S_{v\max}=7.854\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	22.687	22.714	22.659	22.706	22.618	22.694	22.549	22.674	2
11	22.919	22.947	22.891	22.938	22.849	22.926	22.779	22.906	2
12	36.755	36.782	36.727	36.774	36.684	36.761	36.614	36.741	3
13	36.987	37.015	36.959	37.006	36.916	36.993	36.845	36.972	3
14	37.219	37.247	37.191	37.238	37.148	37.225	37.076	37.204	3
15	37.452	37.479	37.423	37.470	37.379	37.456	37.307	37.435	3
16	37.684	37.712	37.655	37.702	37.611	37.688	37.538	37.667	3
17	37.916	37.944	37.887	37.934	37.843	37.920	37.769	37.898	3
18	51.752	51.780	51.723	51.770	51.678	51.756	51.604	51.734	4
19	51.985	52.012	51.955	52.002	51.910	51.988	51.835	51.965	4
20	52.217	52.245	52.187	52.234	52.142	52.220	52.067	52.197	4
21	52.449	52.477	52.419	52.467	52.374	52.452	52.298	52.429	4
22	52.682	52.709	52.651	52.699	52.606	52.684	52.529	52.660	4
23	52.914	52.942	52.884	52.931	52.838	52.916	52.761	52.892	4
24	66.750	66.778	66.719	66.767	66.673	66.751	66.596	66.727	5
25	66.983	67.010	66.952	66.999	66.905	66.983	66.827	66.959	5
26	67.215	67.242	67.184	67.231	67.137	67.215	67.059	67.191	5
27	67.448	67.475	67.416	67.464	67.369	67.447	67.291	67.423	5
28	67.680	67.707	67.649	67.696	67.601	67.680	67.522	67.654	5
29	67.913	67.940	67.881	67.928	67.833	67.912	67.754	67.886	5
30	81.749	81.775	81.717	81.764	81.669	81.747	81.589	81.722	6
31	81.981	82.008	81.949	81.996	81.901	81.979	81.821	81.953	6
32	82.214	82.240	82.181	82.228	82.133	82.211	82.052	82.185	6
33	82.446	82.473	82.414	82.461	82.365	82.444	82.284	82.417	6
34	82.678	82.705	82.646	82.693	82.597	82.676	82.516	82.649	6
35	82.911	82.938	82.878	82.925	82.829	82.908	82.747	82.881	6
36	96.747	96.774	96.714	96.761	96.665	96.743	96.583	96.716	7
37	96.979	97.006	96.946	96.994	96.897	96.976	96.814	96.948	7
38	97.212	97.238	97.179	97.226	97.129	97.208	97.046	97.180	7
39	97.445	97.471	97.411	97.458	97.361	97.440	97.278	97.412	7
40	97.677	97.703	97.644	97.691	97.593	97.672	97.510	97.644	7
41	97.910	97.936	97.876	97.923	97.826	97.904	97.742	97.876	7
42	111.746	111.772	111.712	111.759	111.661	111.740	111.577	111.711	8
43	111.978	112.004	111.944	111.991	111.893	111.972	111.809	111.943	8
44	112.211	112.237	112.177	112.223	112.126	112.204	112.041	112.175	8
45	112.443	112.469	112.409	112.456	112.358	112.437	112.273	112.407	8
46	112.676	112.702	112.641	112.688	112.590	112.669	112.505	112.639	8
47	112.908	112.934	112.874	112.921	112.822	112.901	112.736	112.871	8
48	126.744	126.770	126.710	126.756	126.658	126.737	126.572	126.707	9
49	126.977	127.003	126.942	126.989	126.890	126.969	126.804	126.939	9
50	127.209	127.235	127.175	127.221	127.122	127.201	127.036	127.171	9
51	127.442	127.468	127.407	127.454	127.355	127.433	127.268	127.403	9
52	127.674	127.700	127.639	127.686	127.587	127.666	127.499	127.635	9
53	127.907	127.933	127.872	127.918	127.819	127.898	127.731	127.867	9
54	141.743	141.769	141.708	141.754	141.655	141.734	141.567	141.702	10
55	141.976	142.001	141.940	141.987	141.887	141.966	141.799	141.934	10

表 39 (续)

单位为毫米

齿数 z	S_{min} 和 S_{max} 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	142.208	142.234	142.173	142.219	142.119	142.198	142.031	142.166	10
57	142.441	142.466	142.405	142.451	142.352	142.430	142.263	142.398	10
58	142.673	142.699	142.638	142.684	142.584	142.663	142.495	142.630	10
59	142.906	142.931	142.870	142.916	142.816	142.895	142.727	142.862	10
60	156.742	156.767	156.706	156.752	156.652	156.731	156.562	156.698	11
61	156.974	156.999	156.938	156.984	156.884	156.963	156.794	156.930	11
62	157.207	157.232	157.171	157.217	157.117	157.195	157.026	157.162	11
63	157.440	157.465	157.403	157.449	157.349	157.427	157.258	157.394	11
64	157.672	157.697	157.636	157.682	157.581	157.660	157.490	157.626	11
65	157.905	157.930	157.868	157.914	157.814	157.893	157.722	157.858	11
66	171.741	171.766	171.704	171.750	171.649	171.728	171.558	171.694	12
67	171.973	171.998	171.937	171.982	171.882	171.960	171.790	171.926	12
68	172.206	172.231	172.169	172.215	172.114	172.192	172.022	172.158	12
69	172.438	172.463	172.402	172.447	172.346	172.425	172.254	172.390	12
70	172.671	172.696	172.634	172.680	172.579	172.657	172.486	172.622	12
71	172.904	172.928	172.867	172.912	172.811	172.889	172.718	172.854	12
72	186.740	186.764	186.703	186.748	186.647	186.725	186.554	186.690	13
73	186.972	186.997	186.935	186.981	186.879	186.957	186.786	186.922	13
74	187.205	187.229	187.167	187.213	187.111	187.190	187.018	187.154	13
75	187.437	187.462	187.400	187.446	187.344	187.422	187.250	187.386	13
76	187.670	187.694	187.632	187.678	187.576	187.654	187.482	187.618	13
77	187.903	187.927	187.865	187.910	187.808	187.887	187.714	187.851	13
78	201.739	201.763	201.701	201.746	201.644	201.722	201.550	201.686	14
79	201.971	201.996	201.933	201.979	201.877	201.955	201.782	201.918	14
80	202.204	202.228	202.166	202.211	202.109	202.187	202.014	202.151	14
81	202.436	202.461	202.398	202.444	202.341	202.419	202.246	202.383	14
82	202.669	202.693	202.631	202.676	202.574	202.652	202.478	202.615	14
83	202.902	202.926	202.863	202.909	202.806	202.884	202.710	202.847	14
84	216.738	216.762	216.699	216.744	216.642	216.720	216.546	216.683	15
85	216.970	216.994	216.932	216.977	216.874	216.952	216.778	216.915	15
86	217.203	217.227	217.164	217.209	217.106	217.185	217.010	217.147	15
87	217.436	217.459	217.397	217.442	217.339	217.417	217.242	217.379	15
88	217.668	217.692	217.629	217.674	217.571	217.649	217.474	217.611	15
89	217.901	217.925	217.862	217.907	217.804	217.882	217.706	217.843	15
90	231.737	231.761	231.698	231.743	231.639	231.717	231.542	231.679	16
91	231.969	231.993	231.930	231.975	231.872	231.950	231.774	231.911	16
92	232.202	232.226	232.163	232.208	232.104	232.182	232.006	232.143	16
93	232.435	232.458	232.395	232.440	232.337	232.414	232.238	232.376	16
94	232.667	232.691	232.628	232.673	232.569	232.647	232.471	232.608	16
95	232.900	232.923	232.860	232.905	232.801	232.879	232.703	232.840	16
96	246.736	246.759	246.696	246.741	246.637	246.715	246.538	246.676	17
97	246.968	246.992	246.929	246.974	246.870	246.947	246.771	246.908	17
98	247.201	247.224	247.161	247.206	247.102	247.180	247.003	247.140	17
99	247.434	247.457	247.394	247.438	247.334	247.412	247.235	247.372	17
100	247.666	247.690	247.626	247.671	247.567	247.644	247.467	247.604	17

表 40 公法线平均长度 W
30°外花键 模数 $m=6\text{ mm}$ 作用齿厚最大值 $S_{\text{max}}=9.425\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	27.230	27.260	27.201	27.250	27.157	27.237	27.083	27.216	2
11	27.509	27.538	27.479	27.529	27.435	27.515	27.360	27.494	2
12	44.112	44.141	44.082	44.132	44.037	44.118	43.962	44.096	3
13	44.391	44.420	44.361	44.410	44.315	44.396	44.239	44.374	3
14	44.670	44.699	44.639	44.689	44.593	44.674	44.517	44.652	3
15	44.949	44.978	44.918	44.968	44.871	44.953	44.794	44.930	3
16	45.227	45.257	45.196	45.246	45.150	45.231	45.072	45.208	3
17	45.506	45.535	45.475	45.525	45.428	45.510	45.349	45.486	3
18	62.109	62.138	62.078	62.128	62.030	62.112	61.951	62.088	4
19	62.388	62.417	62.356	62.406	62.309	62.391	62.229	62.366	4
20	62.667	62.696	62.635	62.685	62.587	62.669	62.507	62.644	4
21	62.946	62.975	62.914	62.964	62.865	62.948	62.785	62.922	4
22	63.225	63.254	63.193	63.242	63.144	63.226	63.063	63.201	4
23	63.504	63.533	63.471	63.521	63.422	63.505	63.340	63.479	4
24	80.107	80.136	80.074	80.124	80.025	80.107	79.943	80.081	5
25	80.386	80.415	80.353	80.403	80.303	80.386	80.221	80.359	5
26	80.665	80.694	80.632	80.682	80.582	80.664	80.499	80.638	5
27	80.944	80.973	80.911	80.960	80.860	80.943	80.777	80.916	5
28	81.223	81.252	81.189	81.239	81.139	81.221	81.055	81.194	5
29	81.502	81.530	81.468	81.518	81.417	81.500	81.333	81.472	5
30	98.105	98.134	98.071	98.121	98.020	98.103	97.935	98.075	6
31	98.384	98.413	98.350	98.400	98.299	98.381	98.213	98.353	6
32	98.663	98.691	98.629	98.679	98.577	98.660	98.491	98.631	6
33	98.942	98.970	98.908	98.957	98.856	98.939	98.770	98.910	6
34	99.221	99.249	99.187	99.236	99.135	99.217	99.048	99.188	6
35	99.500	99.528	99.466	99.515	99.413	99.496	99.326	99.466	6
36	116.104	116.132	116.069	116.118	116.016	116.099	115.928	116.069	7
37	116.383	116.410	116.347	116.397	116.295	116.377	116.207	116.347	7
38	116.662	116.689	116.626	116.676	116.573	116.656	116.485	116.626	7
39	116.941	116.968	116.905	116.955	116.852	116.935	116.763	116.904	7
40	117.220	117.247	117.184	117.233	117.131	117.213	117.041	117.183	7
41	117.499	117.526	117.463	117.512	117.409	117.492	117.320	117.461	7
42	134.102	134.130	134.066	134.115	134.012	134.095	133.922	134.064	8
43	134.381	134.409	134.345	134.394	134.291	134.374	134.200	134.342	8
44	134.660	134.688	134.624	134.673	134.570	134.652	134.479	134.620	8
45	134.939	134.967	134.903	134.952	134.848	134.931	134.757	134.899	8
46	135.218	135.246	135.182	135.231	135.127	135.210	135.036	135.177	8
47	135.497	135.525	135.461	135.510	135.406	135.488	135.314	135.456	8
48	152.101	152.128	152.064	152.113	152.009	152.091	151.916	152.058	9
49	152.380	152.407	152.343	152.392	152.287	152.370	152.195	152.337	9
50	152.659	152.686	152.622	152.670	152.566	152.649	152.473	152.615	9
51	152.938	152.965	152.901	152.949	152.845	152.927	152.752	152.894	9
52	153.217	153.244	153.180	153.228	153.124	153.206	153.030	153.172	9
53	153.496	153.523	153.459	153.507	153.402	153.485	153.308	153.451	9
54	170.099	170.126	170.062	170.110	170.005	170.088	169.911	170.053	10
55	170.378	170.405	170.341	170.389	170.284	170.367	170.190	170.332	10

表 40 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	170.658	170.684	170.620	170.668	170.563	170.645	170.468	170.611	10
57	170.937	170.963	170.899	170.947	170.842	170.924	170.746	170.889	10
58	171.216	171.242	171.178	171.226	171.120	171.203	171.025	171.168	10
59	171.495	171.521	171.457	171.505	171.399	171.482	171.303	171.446	10
60	188.098	188.124	188.060	188.108	188.002	188.085	187.906	188.049	11
61	188.377	188.403	188.339	188.387	188.281	188.363	188.185	188.327	11
62	188.656	188.682	188.618	188.666	188.560	188.642	188.463	188.606	11
63	188.935	188.962	188.897	188.945	188.838	188.921	188.741	188.884	11
64	189.214	189.241	189.176	189.224	189.117	189.200	189.020	189.163	11
65	189.494	189.520	189.455	189.503	189.396	189.478	189.299	189.442	11
66	206.097	206.123	206.058	206.106	205.999	206.081	205.901	206.044	12
67	206.376	206.402	206.337	206.385	206.278	206.360	206.180	206.323	12
68	206.655	206.681	206.616	206.664	206.557	206.639	206.458	206.601	12
69	206.934	206.960	206.895	206.943	206.835	206.918	206.737	206.880	12
70	207.213	207.239	207.174	207.222	207.114	207.197	207.015	207.159	12
71	207.492	207.518	207.453	207.500	207.393	207.475	207.294	207.437	12
72	224.096	224.121	224.056	224.104	223.996	224.078	223.897	224.040	13
73	224.375	224.400	224.335	224.383	224.275	224.357	224.175	224.319	13
74	224.654	224.679	224.614	224.662	224.554	224.636	224.454	224.597	13
75	224.933	224.959	224.893	224.940	224.833	224.915	224.732	224.876	13
76	225.212	225.238	225.172	225.219	225.112	225.194	225.011	225.154	13
77	225.491	225.517	225.451	225.498	225.390	225.472	225.289	225.433	13
78	242.095	242.120	242.054	242.102	241.993	242.075	241.892	242.036	14
79	242.374	242.399	242.333	242.381	242.272	242.354	242.171	242.314	14
80	242.653	242.678	242.612	242.659	242.551	242.633	242.449	242.593	14
81	242.932	242.957	242.891	242.938	242.830	242.912	242.728	242.872	14
82	243.211	243.236	243.170	243.217	243.109	243.191	243.007	243.150	14
83	243.490	243.515	243.449	243.496	243.388	243.470	243.285	243.429	14
84	260.093	260.119	260.052	260.100	259.990	260.073	259.887	260.032	15
85	260.372	260.398	260.331	260.379	260.269	260.351	260.165	260.310	15
86	260.651	260.677	260.610	260.658	260.547	260.630	260.444	260.589	15
87	260.930	260.956	260.889	260.937	260.826	260.909	260.722	260.868	15
88	261.210	261.235	261.168	261.215	261.105	261.188	261.000	261.146	15
89	261.489	261.514	261.447	261.494	261.384	261.467	261.279	261.425	15
90	278.092	278.117	278.050	278.098	277.987	278.070	277.882	278.028	16
91	278.371	278.396	278.329	278.377	278.266	278.349	278.160	278.306	16
92	278.650	278.675	278.608	278.656	278.544	278.628	278.439	278.585	16
93	278.929	278.954	278.887	278.935	278.823	278.906	278.717	278.864	16
94	279.208	279.233	279.166	279.214	279.102	279.185	278.995	279.142	16
95	279.487	279.513	279.445	279.493	279.381	279.464	279.274	279.421	16
96	296.091	296.116	296.048	296.096	295.984	296.067	295.877	296.024	17
97	296.370	296.395	296.327	296.375	296.262	296.345	296.155	296.303	17
98	296.649	296.674	296.606	296.654	296.541	296.625	296.434	296.581	17
99	296.928	296.953	296.885	296.933	296.820	296.904	296.712	296.860	17
100	297.207	297.232	297.164	297.212	297.099	297.183	296.990	297.139	17

表 41 公法线平均长度 W
30°外花键 模数 $m=8\text{ mm}$ 作用齿厚最大值 $S_{\max}=12.566\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	36.318	36.350	36.286	36.340	36.237	36.324	36.156	36.300	2
11	36.690	36.722	36.657	36.711	36.608	36.695	36.526	36.671	2
12	58.827	58.859	58.794	58.848	58.745	58.832	58.662	58.807	3
13	59.199	59.231	59.166	59.220	59.116	59.203	59.032	59.178	3
14	59.571	59.603	59.537	59.591	59.487	59.575	59.402	59.549	3
15	59.943	59.975	59.909	59.963	59.858	59.946	59.772	59.920	3
16	60.315	60.346	60.281	60.335	60.229	60.317	60.143	60.290	3
17	60.687	60.718	60.652	60.706	60.600	60.689	60.513	60.661	3
18	82.825	82.856	82.790	82.844	82.737	82.826	82.650	82.798	4
19	83.196	83.228	83.161	83.215	83.108	83.197	83.020	83.169	4
20	83.568	83.600	83.533	83.587	83.480	83.568	83.391	83.540	4
21	83.940	83.971	83.905	83.959	83.851	83.940	83.762	83.911	4
22	84.312	84.343	84.276	84.330	84.222	84.311	84.133	84.282	4
23	84.684	84.715	84.648	84.702	84.594	84.683	84.503	84.653	4
24	106.822	106.853	106.786	106.839	106.731	106.820	106.640	106.790	5
25	107.194	107.225	107.157	107.211	107.102	107.191	107.011	107.161	5
26	107.566	107.597	107.529	107.583	107.474	107.563	107.382	107.532	5
27	107.938	107.969	107.901	107.955	107.845	107.934	107.753	107.903	5
28	108.310	108.341	108.273	108.326	108.217	108.306	108.124	108.275	5
29	108.682	108.713	108.645	108.698	108.588	108.678	108.495	108.646	5
30	130.820	130.850	130.782	130.836	130.726	130.815	130.631	130.782	6
31	131.192	131.222	131.154	131.207	131.097	131.186	131.002	131.154	6
32	131.564	131.594	131.526	131.579	131.469	131.558	131.373	131.525	6
33	131.936	131.966	131.898	131.951	131.840	131.929	131.744	131.896	6
34	132.308	132.338	132.270	132.323	132.212	132.301	132.116	132.267	6
35	132.680	132.710	132.642	132.695	132.584	132.673	132.487	132.639	6
36	154.818	154.848	154.779	154.832	154.721	154.810	154.623	154.776	7
37	155.190	155.220	155.151	155.204	155.092	155.182	154.995	155.147	7
38	155.562	155.592	155.523	155.576	155.464	155.553	155.366	155.518	7
39	155.934	155.964	155.895	155.948	155.836	155.925	155.737	155.890	7
40	156.306	156.336	156.267	156.320	156.207	156.296	156.108	156.261	7
41	156.678	156.708	156.639	156.692	156.579	156.668	156.480	156.632	7
42	178.816	178.846	178.776	178.829	178.716	178.805	178.616	178.769	8
43	179.188	179.218	179.148	179.201	179.088	179.177	178.988	179.141	8
44	179.560	179.590	179.520	179.573	179.460	179.549	179.359	179.512	8
45	179.933	179.962	179.892	179.945	179.831	179.920	179.730	179.883	8
46	180.305	180.334	180.264	180.317	180.203	180.292	180.102	180.255	8
47	180.677	180.706	180.636	180.689	180.575	180.664	180.473	180.626	8
48	202.815	202.843	202.774	202.826	202.712	202.801	202.610	202.763	9
49	203.187	203.215	203.146	203.198	203.084	203.173	202.981	203.135	9
50	203.559	203.588	203.518	203.570	203.456	203.545	203.353	203.506	9
51	203.931	203.960	203.890	203.942	203.827	203.916	203.724	203.877	9
52	204.303	204.332	204.262	204.314	204.199	204.288	204.095	204.249	9
53	204.675	204.704	204.634	204.686	204.571	204.660	204.467	204.620	9
54	226.813	226.841	226.771	226.823	226.708	226.797	226.604	226.757	10
55	227.185	227.213	227.143	227.195	227.080	227.169	226.975	227.129	10

表 41 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	227.557	227.586	227.515	227.567	227.452	227.541	227.346	227.500	10
57	227.929	227.958	227.887	227.939	227.824	227.912	227.718	227.872	10
58	228.302	228.330	228.259	228.311	228.195	228.281	228.089	228.243	10
59	228.674	228.702	228.631	228.683	228.567	228.656	228.461	228.615	10
60	250.812	250.840	250.769	250.821	250.705	250.793	250.598	250.752	11
61	251.184	251.212	251.141	251.192	251.076	251.165	250.969	251.123	11
62	251.556	251.584	251.513	251.564	251.448	251.537	251.341	251.495	11
63	251.928	251.956	251.884	251.936	251.819	251.909	251.711	251.866	11
64	252.300	252.328	252.256	252.308	252.191	252.280	252.082	252.238	11
65	252.672	252.700	252.628	252.680	252.563	252.652	252.453	252.609	11
66	274.810	274.838	274.766	274.818	274.700	274.790	274.590	274.747	12
67	275.182	275.210	275.138	275.190	275.072	275.161	274.962	275.118	12
68	275.554	275.582	275.510	275.562	275.443	275.533	275.333	275.490	12
69	275.926	275.954	275.882	275.934	275.815	275.905	275.704	275.861	12
70	276.298	276.326	276.254	276.306	276.187	276.277	276.075	276.233	12
71	276.670	276.698	276.626	276.678	276.559	276.649	276.447	276.604	12
72	298.868	298.896	298.763	298.815	298.696	298.786	298.584	298.741	13
73	299.180	299.208	299.135	299.187	299.068	299.158	298.955	299.113	13
74	299.552	299.580	299.507	299.559	299.439	299.530	299.326	299.485	13
75	299.924	299.952	299.879	299.931	299.811	299.902	299.698	299.856	13
76	300.297	300.324	300.251	300.303	300.183	300.273	300.069	300.228	13
77	300.669	300.697	300.623	300.675	300.554	300.645	300.440	300.599	13
78	322.806	322.834	322.760	322.813	322.692	322.783	322.577	322.736	14
79	323.178	323.206	323.132	323.185	323.063	323.154	322.948	323.108	14
80	323.551	323.579	323.504	323.557	323.435	323.526	323.320	323.480	14
81	323.923	323.951	323.876	323.929	323.807	323.898	323.691	323.851	14
82	324.295	324.323	324.248	324.301	324.179	324.270	324.062	324.223	14
83	324.667	324.695	324.620	324.673	324.550	324.642	324.435	324.594	14
84	346.805	346.833	346.758	346.811	346.688	346.779	346.570	346.732	15
85	347.177	347.205	347.130	347.183	347.059	347.151	346.942	347.103	15
86	347.549	347.577	347.502	347.555	347.431	347.523	347.313	347.475	15
87	347.921	347.949	347.874	347.927	347.803	347.895	347.684	347.847	15
88	348.293	348.321	348.246	348.299	348.174	348.267	348.056	348.218	15
89	348.665	348.693	348.618	348.671	348.546	348.639	348.427	348.590	15
90	370.803	370.831	370.755	370.808	370.683	370.776	370.564	370.727	16
91	371.175	371.203	371.127	371.180	371.055	371.148	370.935	371.099	16
92	371.547	371.575	371.499	371.552	371.427	371.520	371.306	371.470	16
93	371.919	371.947	371.871	371.925	371.798	371.892	371.678	371.842	16
94	372.292	372.320	372.243	372.297	372.170	372.264	372.049	372.214	16
95	372.664	372.692	372.615	372.669	372.542	372.635	372.420	372.585	16
96	394.801	394.829	394.752	394.806	394.679	394.773	394.557	394.722	17
97	395.173	395.202	395.124	395.178	395.051	395.145	394.928	395.094	17
98	395.546	395.574	395.496	395.550	395.423	395.517	395.300	395.466	17
99	395.918	395.946	395.868	395.922	395.794	395.889	395.671	395.837	17
100	396.290	396.318	396.240	396.294	396.166	396.260	396.042	396.209	17

表 42 公法线平均长度 W
30°外花键 模数 $m = 10\text{ mm}$ 作用齿厚最大值 $S_{\text{max}} = 15.708\text{ mm}$ 单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
10	45.407	45.441	45.372	45.429	45.319	45.412	45.232	45.384	2
11	45.872	45.905	45.836	45.893	45.783	45.876	45.694	45.848	2
12	73.544	73.577	73.508	73.565	73.454	73.547	73.364	73.519	3
13	74.009	74.042	73.972	74.030	73.918	74.011	73.827	73.982	3
14	74.474	74.507	74.437	74.494	74.382	74.475	74.291	74.446	3
15	74.938	74.972	74.902	74.959	74.846	74.940	74.754	74.910	3
16	75.403	75.437	75.366	75.423	75.310	75.404	75.217	75.374	3
17	75.868	75.902	75.831	75.888	75.775	75.868	75.681	75.838	3
18	103.540	103.573	103.503	103.560	103.446	103.540	103.351	103.508	4
19	104.005	104.038	103.967	104.024	103.910	104.004	103.815	103.972	4
20	104.470	104.503	104.432	104.489	104.374	104.468	104.278	104.436	4
21	104.936	104.968	104.897	104.954	104.839	104.933	104.742	104.900	4
22	105.401	105.433	105.362	105.419	105.303	105.397	105.206	105.364	4
23	105.866	105.898	105.826	105.883	105.768	105.862	105.670	105.828	4
24	133.538	133.570	133.498	133.555	133.439	133.533	133.340	133.499	5
25	134.003	134.035	133.963	134.020	133.903	133.998	133.804	133.963	5
26	134.468	134.500	134.428	134.485	134.368	134.462	134.268	134.427	5
27	134.933	134.965	134.893	134.949	134.832	134.927	134.732	134.892	5
28	135.398	135.430	135.358	135.414	135.297	135.391	135.196	135.356	5
29	135.863	135.895	135.823	135.879	135.761	135.856	135.660	135.820	5
30	163.535	163.567	163.494	163.551	163.433	163.527	163.331	163.491	6
31	164.000	164.032	163.959	164.016	163.898	163.992	163.795	163.955	6
32	164.466	164.497	164.424	164.481	164.362	164.456	164.259	164.419	6
33	164.931	164.962	164.889	164.945	164.827	164.921	164.723	164.884	6
34	165.396	165.427	165.354	165.410	165.291	165.386	165.187	165.348	6
35	165.861	165.892	165.819	165.875	165.756	165.850	165.651	165.812	6
36	193.533	193.564	193.491	193.547	193.428	193.522	193.322	193.483	7
37	193.998	194.030	193.956	194.012	193.892	193.986	193.786	193.948	7
38	194.463	194.495	194.421	194.477	194.357	194.451	194.250	194.412	7
39	194.929	194.960	194.886	194.942	194.822	194.916	194.715	194.876	7
40	195.394	195.425	195.351	195.407	195.286	195.380	195.179	195.340	7
41	195.859	195.890	195.816	195.872	195.751	195.845	195.643	195.805	7
42	223.531	223.562	223.488	223.543	223.423	223.517	223.314	223.476	8
43	223.996	224.027	223.953	224.008	223.887	223.981	223.778	223.940	8
44	224.462	224.492	224.418	224.473	224.352	224.446	224.243	224.405	8
45	224.927	224.957	224.883	224.938	224.817	224.911	224.707	224.869	8
46	225.392	225.422	225.348	225.403	225.282	225.376	225.171	225.333	8
47	225.857	225.887	225.813	225.868	225.746	225.840	225.636	225.798	8
48	253.529	253.560	253.485	253.540	253.418	253.512	253.307	253.469	9
49	253.995	254.025	253.950	254.005	253.883	253.977	253.771	253.934	9
50	254.460	254.490	254.415	254.470	254.348	254.441	254.236	254.398	9
51	254.925	254.955	254.879	254.935	254.811	254.906	254.698	254.862	9
52	255.390	255.420	255.344	255.400	255.276	255.371	255.163	255.327	9
53	255.855	255.885	255.809	255.865	255.741	255.836	255.627	255.791	9
54	283.527	283.557	283.481	283.537	283.412	283.507	283.298	283.463	10
55	283.992	284.022	283.946	284.002	283.877	283.972	283.762	283.927	10

表 42 (续)

单位为毫米

齿数 z	$S_{\min}$ 和 $S_{\max}$ 的公法线平均长度 W								跨齿数 K
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	284.457	284.488	284.411	284.467	284.342	284.437	284.226	284.391	10
57	284.923	284.953	284.876	284.932	284.806	284.902	284.690	284.856	10
58	285.388	285.418	285.341	285.397	285.271	285.366	285.154	285.320	10
59	285.853	285.883	285.806	285.862	285.736	285.831	285.618	285.785	10
60	313.525	313.555	313.478	313.534	313.407	313.503	313.289	313.456	11
61	313.990	314.020	313.943	313.999	313.872	313.968	313.754	313.921	11
62	314.455	314.485	314.408	314.464	314.336	314.433	314.218	314.385	11
63	314.920	314.951	314.873	314.929	314.801	314.897	314.682	314.850	11
64	315.386	315.416	315.338	315.394	315.266	315.362	315.146	315.314	11
65	315.851	315.881	315.803	315.859	315.730	315.827	315.610	315.779	11
66	343.523	343.553	343.475	343.531	343.402	343.499	343.281	343.450	12
67	343.988	344.018	343.939	343.996	343.867	343.964	343.745	343.915	12
68	344.453	344.483	344.404	344.461	344.331	344.428	344.209	344.379	12
69	344.918	344.949	344.869	344.926	344.796	344.893	344.673	344.844	12
70	345.384	345.414	345.334	345.391	345.261	345.358	345.138	345.308	12
71	345.849	345.879	345.799	345.856	345.725	345.823	345.602	345.773	12
72	373.521	373.551	373.471	373.528	373.397	373.495	373.273	373.444	13
73	373.986	374.016	373.936	373.993	373.861	373.960	373.737	373.909	13
74	374.451	374.481	374.401	374.458	374.326	374.425	374.201	374.373	13
75	374.916	374.947	374.866	374.923	374.791	374.889	374.665	374.838	13
76	375.381	375.412	375.331	375.388	375.255	375.354	375.129	375.303	13
77	375.847	375.877	375.796	375.853	375.720	375.819	375.593	375.767	13
78	403.519	403.549	403.468	403.525	403.392	403.491	403.264	403.439	14
79	403.984	404.014	403.933	403.990	403.856	403.956	403.729	403.903	14
80	404.449	404.480	404.398	404.455	404.321	404.421	404.193	404.368	14
81	404.914	404.945	404.863	404.920	404.786	404.886	404.657	404.832	14
82	405.379	405.410	405.328	405.386	405.250	405.350	405.121	405.297	14
83	405.845	405.875	405.793	405.851	405.715	405.815	405.585	405.762	14
84	433.517	433.547	433.465	433.523	433.386	433.487	433.256	433.433	15
85	433.982	434.013	433.929	433.988	433.851	433.952	433.720	433.898	15
86	434.447	434.478	434.394	434.453	434.316	434.417	434.184	434.362	15
87	434.912	434.943	434.859	434.918	434.780	434.882	434.649	434.827	15
88	435.377	435.408	435.324	435.383	435.245	435.347	435.113	435.292	15
89	435.842	435.873	435.789	435.848	435.710	435.812	435.577	435.756	15
90	463.515	463.546	463.461	463.520	463.381	463.483	463.248	463.428	16
91	463.980	464.011	463.926	463.985	463.846	463.948	463.712	463.893	16
92	464.445	464.476	464.391	464.450	464.310	464.413	464.176	464.357	16
93	464.910	464.941	464.856	464.915	464.775	464.878	464.640	464.822	16
94	465.375	465.406	465.321	465.380	465.240	465.343	465.104	465.286	16
95	465.840	465.872	465.786	465.846	465.704	465.808	465.568	465.751	16
96	493.512	493.544	493.458	493.518	493.376	493.480	493.240	493.423	17
97	493.978	494.009	493.923	493.983	493.841	493.945	493.704	493.887	17
98	494.443	494.474	494.388	494.448	494.305	494.410	494.168	494.352	17
99	494.908	494.939	494.853	494.913	494.770	494.875	494.632	494.817	17
100	495.373	495.405	495.318	495.378	495.235	495.340	495.096	495.281	17