



中华人民共和国国家标准

GB/T 3478.8—2008
代替 GB/T 3478.8—1995



圆柱直齿渐开线花键 (米制模数 齿侧配合) 第 8 部分：45°压力角 M 值和 W 值

Straight cylindrical involute splines—Metric module, side fit—
Part 8: 45° pressure angle M and W values

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中华人民共和国质量监督检验检疫总局
中国国家标准化管理委员会

发布

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8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 45°压力角 M 值和 W 值,是对 GB/T 3478.8—1995《圆柱直齿渐开线花键 45°压力角 M 值和 W 值》的修订。

本部分与 GB/T 3478.8—1995 相比主要差异如下:

- 标准名称由《圆柱直齿渐开线花键 45°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8部分:45°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 3478.8—1995。

圆柱直齿渐开线花键
(米制模数 齿侧配合)
第 8 部分:45°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 45°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 45°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 内花键齿形为渐开线时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)

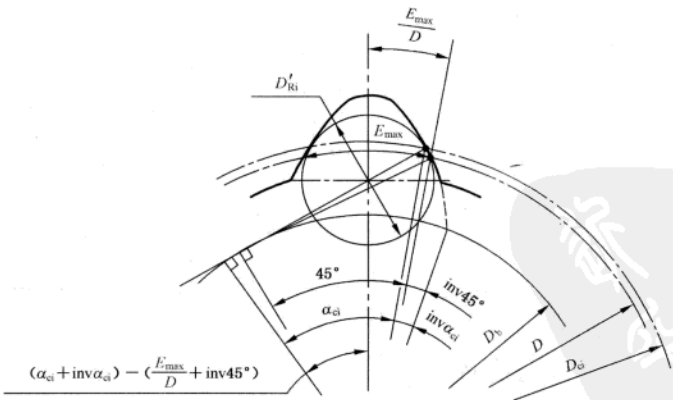


图 1

$$D'_{Ri} = D_b [\tan \alpha_{ci} - \tan(\alpha_{ci} - \frac{E_{max}}{D} + inv \alpha_{ci} - inv 45^\circ)] \dots\dots\dots (1)$$

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；

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

$$inv 45^\circ = 0.214\ 601\ 8。$$

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)

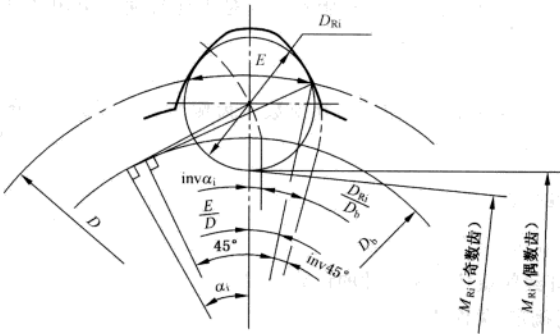


图 2

偶数齿：

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

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

奇数齿：

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

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

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；

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

$$inv \alpha_{i\ max} = \frac{E_{max}}{D} + inv 45^\circ - \frac{D_{Ri}}{D_b} ;$$

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

$$\operatorname{inv}\alpha_{i\min} = \frac{E_{\min}}{D} + \operatorname{inv}45^\circ - \frac{D_{Ri}}{D_b};$$

D_{Ri} ——内花键用量棒直径。

3.2 内花键齿形为直线时量棒测量尺寸的计算公式

3.2.1 量棒直径 D_{Ri} 的确定 (见图 3)

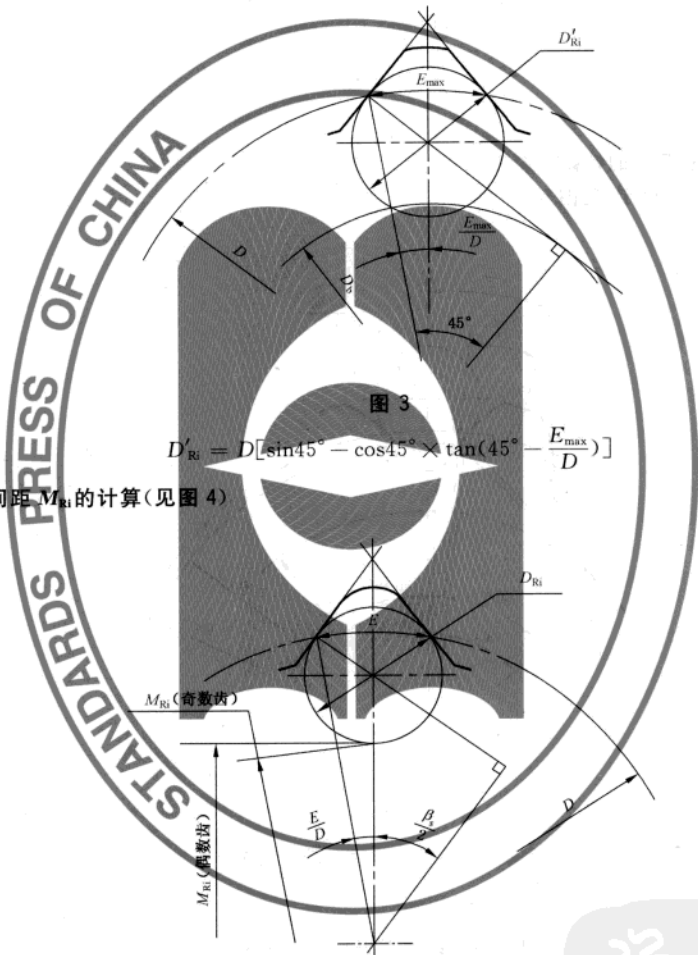


图 3

$$D'_{Ri} = D \left[\sin 45^\circ - \cos 45^\circ \times \tan \left(45^\circ - \frac{E_{\max}}{D} \right) \right] \dots\dots\dots (6)$$

3.2.2 棒间距 M_{Ri} 的计算 (见图 4)

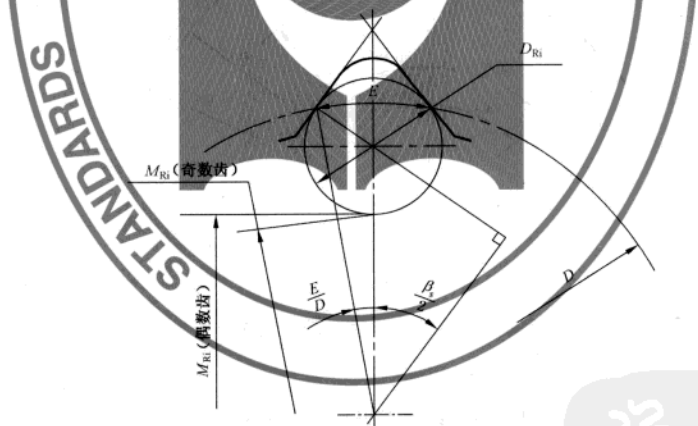


图 4

偶数齿:

$$M_{Ri\max} = \frac{D \sin \left(\frac{\beta_s}{2} + \frac{E_{\max}}{D} \right) - D_{Ri}}{\sin \frac{\beta_s}{2}} - D_{Ri} \dots\dots\dots (7)$$

$$M_{Ri\min} = \frac{D \sin \left(\frac{\beta_s}{2} + \frac{E_{\min}}{D} \right) - D_{Ri}}{\sin \frac{\beta_s}{2}} - D_{Ri} \dots\dots\dots (8)$$

奇数齿:

$$M_{Ri \max} = \frac{D \sin(\frac{\beta_s}{2} + \frac{E_{\max}}{D}) - D_{Ri}}{\sin \frac{\beta_s}{2}} \times \cos \frac{90^\circ}{z} - D_{Ri} \dots\dots\dots (9)$$

$$M_{Ri \min} = \frac{D \sin(\frac{\beta_s}{2} + \frac{E_{\min}}{D}) - D_{Ri}}{\sin \frac{\beta_s}{2}} \times \cos \frac{90^\circ}{z} - D_{Ri} \dots\dots\dots (10)$$

式中:

β_s 为齿槽角, $\beta_s = 90^\circ - \frac{180^\circ}{z}$ 。

3.3 外花键量棒测量尺寸的计算公式

3.3.1 量棒直径 D_{Re} 的确定 (见图 5)

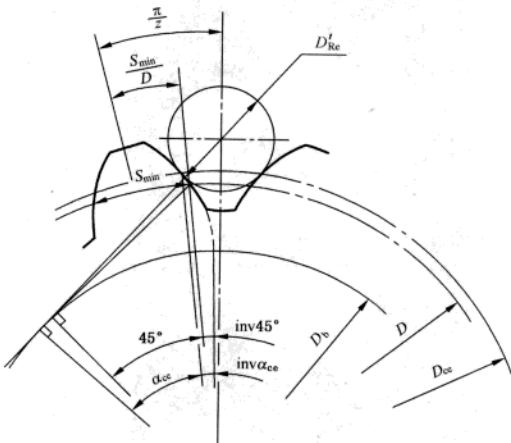


图 5

$$D'_{Re} = D_b [\tan(\alpha_{ce} + \text{inv} \alpha_{ce} + \frac{\pi}{z} - \frac{S_{\min}}{D} - \text{inv} 45^\circ) - \tan \alpha_{ce}] \dots\dots\dots (11)$$

式中:

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:

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

$S_{\min}$ ——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_{Re} 按 GB/T 321 中的 R40 选取,若 D'_{Re} 不为 R40 系列数值时,应选取最接近 D'_{Re} 较大的值。

3.3.2 跨棒距 M_{Re} 的计算(见图 6)

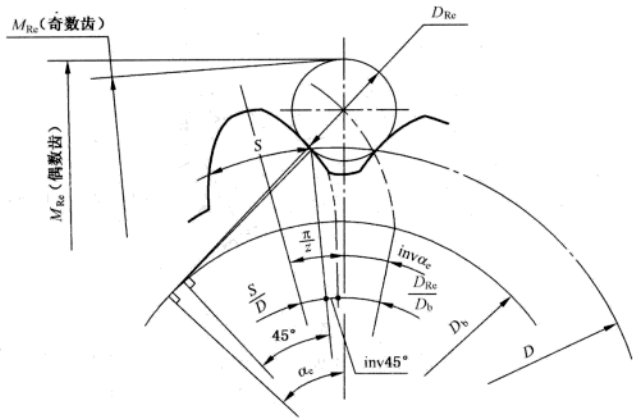


图 6

偶数齿:

$$M_{Re \min} = \frac{D_b}{\cos \alpha_{e \min}} + D_{Re} \quad \dots\dots\dots (12)$$

$$M_{Re \max} = \frac{D_b}{\cos \alpha_{e \max}} + D_{Re} \quad \dots\dots\dots (13)$$

奇数齿:

$$M_{Re \min} = \frac{D_b}{\cos \alpha_{e \min}} \times \cos \frac{90^\circ}{z} + D_{Re} \quad \dots\dots\dots (14)$$

$$M_{Re \max} = \frac{D_b}{\cos \alpha_{e \max}} \times \cos \frac{90^\circ}{z} + D_{Re} \quad \dots\dots\dots (15)$$

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;

$$\text{inv} \alpha_{e \min} = \frac{D_{Re}}{D_b} + \text{inv} 45^\circ + \frac{S_{\min}}{D} - \frac{\pi}{z};$$

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

$$\text{inv} \alpha_{e \max} = \frac{D_{Re}}{D_b} + \text{inv} 45^\circ + \frac{S_{\max}}{D} - \frac{\pi}{z};$$

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 7)

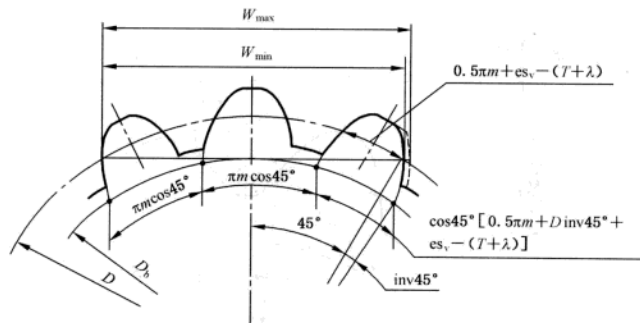


图 7

$$W_{\min} = \cos 45^\circ [(K - 0.5)\pi m + D \operatorname{inv} 45^\circ + es_v - (T + \lambda)] \quad \cdots \cdots (16)$$
$$W_{\max} = W_{\min} + T \cos 45^\circ = W_{\min} + 0.707 T \quad \cdots \cdots (17)$$

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, $K = 0.25z + 0.5$ (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 内花键齿形为渐开线的量棒测量尺寸如下:

模数为 0.25 mm~2.5 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 9。

5.2 内花键齿形为直线的测量用量棒直径 D_{Ri} 、棒间距的最大值 $M_{Ri \max}$ 和最小值 $M_{Ri \min}$, 见表 10~表 18。

5.3 外花键的量棒测量尺寸如下:

5.3.1 模数为 0.25 mm~2.5 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 19~表 27。

5.3.2 当外花键的基本偏差不为 h 时, 其跨棒距尺寸应按 3.3.2 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。

$$\Delta M_{Re} = K_e \cdot es_v \quad \cdots \cdots (18)$$

式中:

K_e ——变换系数, 见表 19~表 27。

5.4 表 1~表 27 所列的量棒直径 D_{Ri} 和 D_{Re} 是按 3.1.1 和 3.2.1 和 3.3.1 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。

5.5 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 0.25 mm~2.5 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 28~表 36。

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。

$$\Delta W = es_v \cdot \cos 45^\circ = 0.707 es_v \quad \cdots \cdots (19)$$

表 1 棒间距 M_{Ri}

45°内花键 模数 $m=0.25\text{ mm}$ 作用齿槽宽最小值 $E_{v\text{ min}}=0.393\text{ mm}$ 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	0.60	1.376	1.391	1.383	1.408	1.393	1.434	1.410	1.474
11	0.60	1.617	1.631	1.624	1.647	1.633	1.670	1.649	1.708
12	0.60	1.900	1.913	1.906	1.928	1.915	1.951	1.930	1.988
13	0.60	2.137	2.149	2.143	2.164	2.152	2.186	2.166	2.222
14	0.60	2.412	2.425	2.418	2.439	2.427	2.461	2.441	2.497
15	0.60	2.649	2.661	2.654	2.675	2.663	2.697	2.677	2.732
16	0.60	2.920	2.932	2.926	2.946	2.934	2.968	2.948	3.003
17	0.63	3.077	3.089	3.083	3.103	3.091	3.125	3.105	3.161
18	0.63	3.346	3.358	3.352	3.372	3.360	3.394	3.374	3.430
19	0.63	3.584	3.596	3.590	3.610	3.598	3.632	3.612	3.667
20	0.63	3.851	3.863	3.857	3.877	3.865	3.899	3.879	3.934
21	0.63	4.090	4.102	4.096	4.116	4.104	4.137	4.117	4.172
22	0.63	4.366	4.367	4.361	4.381	4.369	4.402	4.382	4.437
23	0.63	4.594	4.606	4.600	4.620	4.608	4.641	4.622	4.677
24	0.63	4.858	4.870	4.864	4.884	4.872	4.905	4.885	4.940
25	0.63	5.098	5.110	5.104	5.124	5.112	5.145	5.125	5.180
26	0.63	5.361	5.372	5.366	5.386	5.375	5.408	5.388	5.443
27	0.67	5.499	5.510	5.504	5.525	5.513	5.546	5.526	5.582
28	0.67	5.760	5.772	5.766	5.787	5.775	5.808	5.788	5.844
29	0.67	6.002	6.013	6.008	6.028	6.016	6.050	6.030	6.085
30	0.67	6.263	6.274	6.269	6.289	6.277	6.311	6.291	6.346
31	0.67	6.505	6.516	6.510	6.531	6.519	6.552	6.532	6.588
32	0.67	6.765	6.776	6.771	6.791	6.779	6.813	6.793	6.849
33	0.67	7.007	7.018	7.013	7.033	7.021	7.055	7.035	7.091
34	0.67	7.266	7.278	7.272	7.293	7.281	7.314	7.294	7.350
35	0.67	7.508	7.520	7.515	7.535	7.523	7.557	7.537	7.593
36	0.67	7.768	7.779	7.774	7.794	7.782	7.816	7.796	7.852
37	0.67	8.011	8.022	8.017	8.037	8.025	8.059	8.039	8.095
38	0.67	8.269	8.281	8.275	8.295	8.284	8.317	8.297	8.354
39	0.67	8.512	8.524	8.518	8.539	8.527	8.560	8.540	8.597
40	0.67	8.770	8.782	8.776	8.797	8.785	8.819	8.799	8.855
41	0.67	9.014	9.025	9.020	9.040	9.028	9.062	9.042	9.099
42	0.67	9.271	9.283	9.277	9.298	9.286	9.320	9.300	9.356
43	0.67	9.515	9.527	9.521	9.541	9.530	9.564	9.543	9.600
44	0.67	9.772	9.784	9.778	9.799	9.787	9.821	9.801	9.858
45	0.67	10.016	10.028	10.022	10.043	10.031	10.065	10.045	10.102
46	0.67	10.273	10.285	10.279	10.300	10.288	10.322	10.302	10.359
47	0.67	10.517	10.529	10.523	10.544	10.532	10.566	10.546	10.603
48	0.67	10.774	10.786	10.780	10.801	10.789	10.823	10.803	10.860
49	0.67	11.018	11.030	11.025	11.045	11.033	11.067	11.047	11.104
50	0.67	11.275	11.286	11.281	11.301	11.290	11.324	11.304	11.361
51	0.67	11.519	11.531	11.526	11.546	11.534	11.568	11.548	11.606
52	0.67	11.776	11.787	11.782	11.802	11.790	11.825	11.804	11.862
53	0.67	12.020	12.032	12.026	12.047	12.035	12.069	12.049	12.107
54	0.67	12.276	12.288	12.282	12.303	12.291	12.325	12.305	12.363
55	0.67	12.521	12.533	12.527	12.548	12.536	12.570	12.550	12.608

表 1 (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	0.67	12.777	12.788	12.783	12.803	12.792	12.826	12.806	12.864
57	0.67	13.022	13.033	13.028	13.049	13.037	13.071	13.051	13.109
58	0.67	13.277	13.289	13.284	13.304	13.292	13.327	13.307	13.365
59	0.67	13.523	13.534	13.529	13.549	13.538	13.572	13.552	13.610
60	0.71	13.679	13.690	13.685	13.706	13.694	13.729	13.708	13.767
61	0.71	13.924	13.936	13.931	13.951	13.939	13.974	13.954	14.012
62	0.71	14.179	14.191	14.186	14.206	14.195	14.229	14.209	14.268
63	0.71	14.425	14.437	14.431	14.452	14.440	14.475	14.455	14.513
64	0.71	14.680	14.692	14.686	14.707	14.695	14.730	14.710	14.768
65	0.71	14.926	14.937	14.932	14.953	14.941	14.976	14.956	15.014
66	0.71	15.180	15.192	15.187	15.208	15.196	15.231	15.210	15.269
67	0.71	15.426	15.438	15.433	15.453	15.442	15.477	15.456	15.515
68	0.71	15.681	15.693	15.687	15.708	15.696	15.731	15.711	15.770
69	0.71	15.927	15.938	15.933	15.954	15.942	15.977	15.957	16.016
70	0.71	16.181	16.193	16.188	16.209	16.197	16.232	16.212	16.271
71	0.71	16.427	16.439	16.434	16.455	16.443	16.478	16.458	16.517
72	0.71	16.682	16.693	16.688	16.709	16.698	16.733	16.712	16.771
73	0.71	16.928	16.940	16.934	16.955	16.944	16.979	16.958	17.018
74	0.71	17.182	17.194	17.189	17.210	17.198	17.233	17.213	17.272
75	0.71	17.428	17.440	17.435	17.456	17.444	17.479	17.459	17.519
76	0.71	17.683	17.694	17.689	17.710	17.698	17.734	17.713	17.773
77	0.71	17.929	17.941	17.936	17.956	17.945	17.980	17.960	18.019
78	0.71	18.183	18.195	18.190	18.210	18.199	18.234	18.214	18.274
79	0.71	18.429	18.441	18.436	18.457	18.445	18.481	18.460	18.520
80	0.71	18.683	18.695	18.690	18.711	18.699	18.735	18.714	18.774
81	0.71	18.930	18.941	18.937	18.957	18.946	18.981	18.961	19.021
82	0.71	19.184	19.195	19.190	19.211	19.200	19.235	19.215	19.275
83	0.71	19.430	19.442	19.437	19.458	19.446	19.482	19.461	19.521
84	0.71	19.684	19.696	19.691	19.712	19.700	19.736	19.715	19.775
85	0.71	19.931	19.942	19.937	19.958	19.947	19.982	19.962	20.022
86	0.71	20.184	20.196	20.191	20.212	20.201	20.236	20.216	20.276
87	0.71	20.431	20.443	20.438	20.459	20.447	20.483	20.463	20.523
88	0.71	20.685	20.696	20.691	20.712	20.701	20.736	20.716	20.777
89	0.71	20.931	20.943	20.938	20.959	20.948	20.983	20.963	21.023
90	0.71	21.185	21.197	21.192	21.213	21.201	21.237	21.217	21.277
91	0.71	21.432	21.443	21.439	21.460	21.448	21.484	21.464	21.524
92	0.71	21.685	21.697	21.692	21.713	21.702	21.737	21.717	21.778
93	0.71	21.932	21.944	21.939	21.960	21.949	21.984	21.964	22.025
94	0.71	22.186	22.197	22.192	22.213	22.202	22.238	22.218	22.278
95	0.71	22.433	22.444	22.439	22.460	22.449	22.485	22.465	22.525
96	0.71	22.686	22.697	22.693	22.714	22.702	22.738	22.718	22.779
97	0.71	22.933	22.944	22.940	22.961	22.950	22.985	22.965	23.026
98	0.71	23.186	23.198	23.193	23.214	23.203	23.238	23.218	23.279
99	0.71	23.433	23.445	23.440	23.461	23.450	23.486	23.465	23.526
100	0.71	23.686	23.698	23.693	23.714	23.703	23.739	23.719	23.780

表2 棒间距 M_{Ri} 45°内花键 模数 $m=0.5\text{ mm}$ 作用齿槽宽最小值 $E_{v\min}=0.785\text{ mm}$ 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	1.12	2.986	3.004	2.993	3.024	3.003	3.054	3.020	3.102
11	1.12	3.456	3.473	3.462	3.492	3.472	3.520	3.488	3.566
12	1.12	4.015	4.032	4.021	4.050	4.031	4.078	4.046	4.123
13	1.12	4.483	4.499	4.489	4.518	4.498	4.544	4.513	4.589
14	1.12	5.031	5.048	5.038	5.066	5.047	5.092	5.062	5.137
15	1.12	5.501	5.517	5.507	5.535	5.516	5.561	5.531	5.605
16	1.18	5.883	5.900	5.889	5.918	5.899	5.945	5.914	5.989
17	1.18	6.356	6.372	6.363	6.390	6.372	6.417	6.387	6.461
18	1.18	6.893	6.909	6.900	6.927	6.909	6.954	6.924	6.998
19	1.18	7.368	7.384	7.374	7.402	7.383	7.428	7.398	7.472
20	1.18	7.901	7.917	7.907	7.934	7.916	7.961	7.931	8.005
21	1.18	8.377	8.393	8.383	8.410	8.392	8.437	8.407	8.481
22	1.18	8.906	8.922	8.913	8.940	8.922	8.967	8.937	9.011
23	1.18	9.384	9.400	9.391	9.418	9.400	9.444	9.414	9.488
24	1.18	9.911	9.927	9.917	9.944	9.927	9.971	9.941	10.015
25	1.18	10.390	10.406	10.397	10.423	10.406	10.450	10.421	10.494
26	1.18	10.915	10.930	10.921	10.948	10.931	10.975	10.945	11.019
27	1.25	11.217	11.233	11.224	11.251	11.233	11.278	11.248	11.323
28	1.25	11.741	11.756	11.747	11.774	11.756	11.801	11.772	11.846
29	1.25	12.223	12.238	12.229	12.256	12.239	12.283	12.254	12.328
30	1.25	12.744	12.760	12.751	12.778	12.760	12.805	12.775	12.850
31	1.25	13.227	13.242	13.234	13.261	13.243	13.288	13.258	13.333
32	1.25	13.747	13.763	13.754	13.781	13.763	13.808	13.778	13.853
33	1.25	14.231	14.246	14.237	14.264	14.247	14.292	14.262	14.337
34	1.25	14.750	14.765	14.756	14.783	14.766	14.811	14.781	14.856
35	1.25	15.234	15.250	15.241	15.268	15.250	15.295	15.266	15.340
36	1.25	15.752	15.767	15.759	15.786	15.768	15.813	15.784	15.858
37	1.25	16.237	16.253	16.244	16.271	16.253	16.298	16.269	16.344
38	1.25	16.754	16.769	16.761	16.788	16.770	16.815	16.786	16.861
39	1.25	17.240	17.255	17.247	17.274	17.256	17.301	17.272	17.347
40	1.25	17.756	17.771	17.762	17.789	17.772	17.817	17.788	17.863
41	1.25	18.242	18.258	18.249	18.276	18.259	18.304	18.274	18.350
42	1.25	18.757	18.773	18.764	18.791	18.774	18.819	18.790	18.865
43	1.25	19.244	19.260	19.251	19.278	19.261	19.306	19.277	19.352
44	1.25	19.759	19.774	19.766	19.793	19.776	19.820	19.791	19.867
45	1.25	20.246	20.262	20.253	20.280	20.263	20.308	20.279	20.354
46	1.25	20.760	20.775	20.767	20.794	20.777	20.822	20.793	20.868
47	1.25	21.248	21.263	21.255	21.282	21.265	21.310	21.281	21.357
48	1.25	21.761	21.777	21.768	21.795	21.778	21.823	21.794	21.870
49	1.25	22.250	22.265	22.257	22.284	22.267	22.312	22.283	22.359
50	1.25	22.762	22.778	22.770	22.797	22.780	22.825	22.796	22.872
51	1.25	23.251	23.267	23.259	23.285	23.269	23.314	23.285	23.361
52	1.25	23.763	23.779	23.771	23.798	23.781	23.826	23.797	23.873
53	1.25	24.253	24.268	24.260	24.287	24.270	24.315	24.287	24.362
54	1.25	24.764	24.780	24.772	24.799	24.782	24.827	24.798	24.874
55	1.25	25.254	25.269	25.261	25.288	25.272	25.317	25.288	25.364

表 2 (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	1.25	25.765	25.781	25.773	25.800	25.783	25.828	25.799	25.876
57	1.25	26.255	26.271	26.263	26.290	26.273	26.318	26.290	26.366
58	1.25	26.766	26.781	26.774	26.801	26.784	26.829	26.801	26.877
59	1.25	27.257	27.272	27.264	27.291	27.274	27.320	27.291	27.367
60	1.25	27.767	27.782	27.774	27.801	27.785	27.830	27.802	27.878
61	1.25	28.258	28.273	28.265	28.292	28.276	28.321	28.292	28.369
62	1.25	28.768	28.783	28.775	28.802	28.786	28.831	28.803	28.879
63	1.25	29.259	29.274	29.266	29.293	29.277	29.322	29.294	29.370
64	1.25	29.768	29.784	29.776	29.803	29.787	29.832	29.804	29.880
65	1.25	30.260	30.275	30.267	30.294	30.278	30.323	30.295	30.372
66	1.32	30.597	30.612	30.604	30.631	30.615	30.661	30.632	30.709
67	1.32	31.088	31.103	31.096	31.123	31.107	31.152	31.124	31.201
68	1.32	31.597	31.613	31.605	31.632	31.616	31.662	31.633	31.710
69	1.32	32.089	32.104	32.097	32.124	32.108	32.153	32.125	32.202
70	1.32	32.598	32.613	32.606	32.633	32.617	32.662	32.634	32.712
71	1.32	33.090	33.105	33.098	33.125	33.109	33.154	33.126	33.204
72	1.32	33.599	33.614	33.607	33.634	33.618	33.663	33.635	33.713
73	1.32	34.091	34.106	34.099	34.126	34.110	34.156	34.127	34.205
74	1.32	34.600	34.615	34.607	34.634	34.618	34.664	34.636	34.714
75	1.32	35.092	35.107	35.100	35.127	35.111	35.157	35.128	35.206
76	1.32	35.600	35.615	35.608	35.635	35.619	35.665	35.637	35.714
77	1.32	36.093	36.108	36.101	36.128	36.112	36.157	36.129	36.207
78	1.32	36.601	36.616	36.609	36.636	36.620	36.666	36.638	36.715
79	1.32	37.093	37.109	37.101	37.128	37.113	37.158	37.130	37.208
80	1.32	37.601	37.616	37.609	37.636	37.621	37.666	37.638	37.716
81	1.32	38.094	38.109	38.102	38.129	38.114	38.159	38.131	38.209
82	1.32	38.602	38.617	38.610	38.637	38.621	38.667	38.639	38.717
83	1.32	39.095	39.110	39.103	39.130	39.114	39.160	39.132	39.210
84	1.32	39.602	39.617	39.610	39.638	39.622	39.668	39.640	39.718
85	1.32	40.096	40.111	40.104	40.131	40.115	40.161	40.133	40.211
86	1.32	40.603	40.618	40.611	40.638	40.623	40.668	40.641	40.719
87	1.32	41.096	41.111	41.104	41.131	41.116	41.162	41.134	41.212
88	1.32	41.603	41.618	41.612	41.639	41.623	41.669	41.641	41.720
89	1.32	42.097	42.112	42.105	42.132	42.117	42.163	42.135	42.213
90	1.32	42.604	42.619	42.612	42.639	42.624	42.670	42.642	42.720
91	1.32	43.097	43.112	43.106	43.133	43.117	43.163	43.136	43.214
92	1.32	43.604	43.619	43.613	43.640	43.624	43.670	43.643	43.721
93	1.32	44.098	44.113	44.106	44.133	44.118	44.164	44.136	44.215
94	1.32	44.605	44.620	44.613	44.640	44.625	44.671	44.643	44.722
95	1.32	45.099	45.114	45.107	45.134	45.119	45.165	45.137	45.216
96	1.32	45.605	45.620	45.614	45.641	45.625	45.671	45.644	45.723
97	1.32	46.099	46.114	46.108	46.135	46.119	46.165	46.138	46.217
98	1.32	46.605	46.620	46.614	46.641	46.626	46.672	46.644	46.723
99	1.32	47.100	47.115	47.108	47.135	47.120	47.166	47.139	47.218
100	1.32	47.606	47.621	47.614	47.641	47.626	47.672	47.645	47.724

表 3 棒间距 M_{Ri} 45°内花键 模数 $m=0.75\text{ mm}$ 作用齿槽宽最小值 $E_{v\min}=1.178\text{ mm}$ 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	1.60	4.705	4.726	4.712	4.748	4.722	4.780	4.739	4.833
11	1.60	5.401	5.421	5.408	5.442	5.418	5.473	5.434	5.524
12	1.60	6.236	6.256	6.243	6.276	6.253	6.307	6.269	6.358
13	1.70	6.664	6.684	6.671	6.705	6.681	6.736	6.697	6.788
14	1.70	7.487	7.507	7.494	7.528	7.504	7.559	7.521	7.610
15	1.70	8.192	8.212	8.199	8.232	8.209	8.263	8.225	8.313
16	1.70	9.005	9.024	9.012	9.044	9.022	9.075	9.038	9.126
17	1.70	9.713	9.732	9.719	9.752	9.729	9.782	9.745	9.832
18	1.70	10.517	10.536	10.524	10.556	10.534	10.587	10.550	10.637
19	1.70	11.228	11.246	11.235	11.267	11.244	11.297	11.260	11.347
20	1.70	12.026	12.045	12.033	12.065	12.043	12.095	12.059	12.146
21	1.70	12.740	12.758	12.747	12.778	12.756	12.808	12.772	12.858
22	1.70	13.534	13.552	13.541	13.572	13.550	13.602	13.566	13.653
23	1.80	13.994	14.013	14.001	14.033	14.011	14.064	14.027	14.114
24	1.80	14.784	14.803	14.791	14.823	14.802	14.854	14.818	14.905
25	1.80	15.503	15.522	15.511	15.542	15.521	15.573	15.537	15.624
26	1.80	16.291	16.309	16.298	16.329	16.308	16.360	16.324	16.411
27	1.80	17.011	17.030	17.019	17.050	17.029	17.081	17.045	17.132
28	1.80	17.796	17.814	17.803	17.835	17.813	17.865	17.829	17.916
29	1.80	18.518	18.536	18.525	18.557	18.536	18.588	18.552	18.639
30	1.80	19.300	19.318	19.307	19.339	19.318	19.370	19.334	19.421
31	1.80	20.024	20.042	20.031	20.063	20.042	20.094	20.058	20.145
32	1.80	20.804	20.822	20.811	20.843	20.822	20.874	20.838	20.925
33	1.80	21.529	21.547	21.536	21.568	21.547	21.599	21.563	21.650
34	1.80	22.307	22.325	22.314	22.346	22.325	22.377	22.342	22.429
35	1.80	23.033	23.051	23.041	23.072	23.051	23.103	23.068	23.155
36	1.80	23.810	23.828	23.817	23.849	23.828	23.880	23.845	23.932
37	1.80	24.537	24.555	24.545	24.576	24.556	24.608	24.573	24.660
38	1.80	25.312	25.330	25.320	25.351	25.331	25.383	25.348	25.435
39	1.80	26.041	26.059	26.049	26.080	26.059	26.111	26.076	26.164
40	1.80	26.815	26.833	26.822	26.854	26.833	26.885	26.850	26.938
41	1.80	27.544	27.562	27.552	27.583	27.563	27.615	27.580	27.667
42	1.80	28.317	28.335	28.325	28.356	28.335	28.387	28.353	28.440
43	1.80	29.047	29.065	29.055	29.086	29.066	29.118	29.083	29.171
44	1.80	29.819	29.837	29.826	29.858	29.838	29.890	29.855	29.942
45	1.80	30.550	30.568	30.558	30.589	30.569	30.621	30.586	30.674
46	1.80	31.320	31.338	31.328	31.360	31.339	31.391	31.357	31.445
47	1.80	32.052	32.070	32.060	32.091	32.071	32.123	32.089	32.177
48	1.80	32.822	32.840	32.830	32.861	32.841	32.893	32.859	32.947
49	1.80	33.555	33.572	33.563	33.594	33.574	33.626	33.592	33.679
50	1.80	34.323	34.341	34.331	34.363	34.343	34.395	34.361	34.449
51	1.80	35.057	35.074	35.065	35.096	35.076	35.128	35.094	35.182
52	1.80	35.825	35.842	35.833	35.864	35.844	35.896	35.862	35.950
53	1.80	36.559	36.576	36.567	36.598	36.578	36.630	36.596	36.684
54	1.90	37.079	37.097	37.087	37.118	37.099	37.151	37.117	37.206
55	1.90	37.813	37.831	37.822	37.853	37.833	37.886	37.852	37.940

表 3 (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	1.90	38.580	38.598	38.589	38.620	38.600	38.653	38.619	38.707
57	1.90	39.315	39.333	39.324	39.355	39.335	39.388	39.354	39.443
58	1.90	40.082	40.099	40.090	40.121	40.102	40.154	40.120	40.209
59	1.90	40.817	40.835	40.826	40.857	40.837	40.890	40.856	40.945
60	1.90	41.583	41.600	41.591	41.623	41.603	41.656	41.622	41.711
61	1.90	42.319	42.336	42.327	42.358	42.339	42.392	42.358	42.447
62	1.90	43.084	43.102	43.093	43.124	43.104	43.157	43.123	43.212
63	1.90	43.820	43.838	43.829	43.860	43.841	43.893	43.860	43.949
64	1.90	44.585	44.603	44.594	44.625	44.606	44.658	44.625	44.714
65	1.90	45.322	45.339	45.330	45.362	45.343	45.395	45.362	45.451
66	1.90	46.086	46.104	46.095	46.126	46.107	46.159	46.126	46.215
67	1.90	46.823	46.841	46.832	46.863	46.844	46.897	46.863	46.952
68	1.90	47.587	47.605	47.596	47.627	47.608	47.661	47.627	47.717
69	1.90	48.324	48.342	48.333	48.364	48.346	48.398	48.365	48.454
70	1.90	49.088	49.105	49.097	49.128	49.109	49.162	49.128	49.218
71	1.90	49.826	49.843	49.835	49.866	49.847	49.900	49.866	49.956
72	1.90	50.589	50.606	50.598	50.629	50.610	50.663	50.630	50.719
73	1.90	51.327	51.344	51.336	51.367	51.348	51.401	51.368	51.457
74	1.90	52.090	52.107	52.099	52.130	52.111	52.164	52.131	52.220
75	1.90	52.828	52.845	52.837	52.868	52.850	52.902	52.869	52.959
76	1.90	53.590	53.608	53.599	53.631	53.612	53.665	53.632	53.722
77	1.90	54.329	54.346	54.338	54.369	54.351	54.403	54.371	54.460
78	1.90	55.091	55.109	55.100	55.131	55.113	55.166	55.133	55.223
79	1.90	55.830	55.847	55.839	55.870	55.852	55.905	55.872	55.962
80	1.90	56.592	56.609	56.601	56.632	56.614	56.667	56.634	56.724
81	1.90	57.331	57.348	57.340	57.371	57.353	57.406	57.373	57.463
82	1.90	58.093	58.110	58.102	58.133	58.115	58.167	58.135	58.225
83	1.90	58.832	58.849	58.841	58.872	58.854	58.907	58.874	58.965
84	1.90	59.593	59.611	59.603	59.634	59.616	59.668	59.636	59.726
85	1.90	60.333	60.350	60.342	60.373	60.355	60.408	60.376	60.466
86	1.90	61.094	61.111	61.103	61.134	61.116	61.169	61.137	61.227
87	1.90	61.834	61.851	61.843	61.874	61.856	61.909	61.877	61.967
88	1.90	62.595	62.612	62.604	62.635	62.617	62.670	62.638	62.728
89	1.90	63.335	63.352	63.344	63.375	63.357	63.410	63.378	63.468
90	1.90	64.095	64.112	64.105	64.136	64.118	64.171	64.139	64.229
91	1.90	64.835	64.853	64.845	64.876	64.858	64.911	64.879	64.969
92	1.90	65.596	65.613	65.605	65.636	65.619	65.671	65.639	65.730
93	1.90	66.336	66.353	66.346	66.377	66.359	66.412	66.380	66.471
94	1.90	67.096	67.113	67.106	67.137	67.119	67.172	67.140	67.231
95	1.90	67.837	67.854	67.847	67.878	67.860	67.913	67.881	67.972
96	1.90	68.597	68.614	68.606	68.637	68.620	68.673	68.641	68.732
97	1.90	69.338	69.355	69.347	69.378	69.361	69.414	69.382	69.473
98	1.90	70.097	70.114	70.107	70.138	70.121	70.173	70.142	70.233
99	1.90	70.838	70.855	70.848	70.879	70.862	70.915	70.883	70.974
100	1.90	71.598	71.615	71.608	71.639	71.621	71.674	71.643	71.733

表 4 棒间距 M_{Ri}
45°内花键 模数 $m=1\text{ mm}$ 作用齿槽宽最小值 $E_{v\text{ min}}=1.571\text{ mm}$ 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	2.12	6.307	6.331	6.315	6.354	6.326	6.390	6.343	6.448
11	2.12	7.234	7.256	7.241	7.279	7.252	7.313	7.269	7.369
12	2.12	8.347	8.369	8.354	8.392	8.365	8.425	8.382	8.481
13	2.12	9.276	9.298	9.284	9.320	9.294	9.353	9.310	9.408
14	2.24	10.051	10.073	10.059	10.096	10.069	10.130	10.086	10.186
15	2.24	10.990	11.012	10.998	11.034	11.008	11.068	11.025	11.123
16	2.24	12.073	12.094	12.080	12.117	12.091	12.150	12.108	12.206
17	2.24	13.016	13.037	13.023	13.059	13.034	13.093	13.050	13.148
18	2.24	14.088	14.109	14.096	14.132	14.106	14.165	14.123	14.220
19	2.24	15.035	15.056	15.043	15.078	15.053	15.111	15.070	15.166
20	2.24	16.100	16.121	16.107	16.143	16.118	16.176	16.135	16.231
21	2.24	17.051	17.071	17.058	17.093	17.069	17.127	17.086	17.182
22	2.24	18.109	18.130	18.117	18.152	18.127	18.185	18.144	18.240
23	2.24	19.063	19.084	19.071	19.106	19.081	19.139	19.098	19.194
24	2.36	19.811	19.832	19.819	19.854	19.829	19.888	19.847	19.944
25	2.36	20.769	20.790	20.777	20.812	20.788	20.846	20.805	20.902
26	2.36	21.819	21.839	21.826	21.862	21.837	21.895	21.855	21.951
27	2.36	22.779	22.800	22.787	22.822	22.798	22.856	22.815	22.912
28	2.36	23.825	23.845	23.833	23.868	23.844	23.902	23.861	23.958
29	2.36	24.788	24.808	24.796	24.831	24.807	24.864	24.824	24.921
30	2.36	25.830	25.850	25.838	25.873	25.849	25.907	25.867	25.964
31	2.36	26.795	26.815	26.803	26.838	26.814	26.872	26.832	26.929
32	2.36	27.835	27.855	27.843	27.878	27.854	27.912	27.872	27.969
33	2.36	28.802	28.822	28.810	28.844	28.821	28.879	28.839	28.935
34	2.36	29.839	29.859	29.847	29.882	29.858	29.916	29.876	29.973
35	2.36	30.807	30.827	30.815	30.850	30.827	30.884	30.845	30.942
36	2.36	31.843	31.862	31.851	31.885	31.862	31.920	31.880	31.977
37	2.36	32.812	32.832	32.821	32.855	32.832	32.890	32.850	32.947
38	2.36	33.846	33.866	33.854	33.889	33.866	33.923	33.884	33.981
39	2.36	34.817	34.837	34.825	34.860	34.837	34.894	34.855	34.952
40	2.36	35.849	35.868	35.857	35.891	35.869	35.926	35.887	35.984
41	2.36	36.821	36.841	36.829	36.864	36.841	36.899	36.860	36.957
42	2.36	37.851	37.871	37.860	37.894	37.871	37.929	37.890	37.987
43	2.36	38.825	38.844	38.833	38.868	38.845	38.903	38.864	38.961
44	2.36	39.853	39.873	39.862	39.896	39.874	39.931	39.893	39.990
45	2.36	40.828	40.848	40.837	40.871	40.849	40.906	40.868	40.965
46	2.36	41.856	41.875	41.864	41.899	41.876	41.934	41.895	41.992
47	2.36	42.831	42.851	42.840	42.874	42.852	42.910	42.871	42.968
48	2.36	43.857	43.877	43.866	43.901	43.878	43.936	43.898	43.995
49	2.36	44.834	44.854	44.843	44.877	44.855	44.913	44.875	44.972
50	2.36	45.859	45.879	45.868	45.902	45.880	45.938	45.900	45.997
51	2.36	46.837	46.856	46.846	46.880	46.858	46.916	46.878	46.975
52	2.36	47.861	47.880	47.870	47.904	47.882	47.940	47.902	47.999
53	2.36	48.839	48.859	48.848	48.882	48.861	48.918	48.880	48.978
54	2.36	49.862	49.882	49.871	49.906	49.884	49.942	49.904	50.001
55	2.36	50.841	50.861	50.851	50.885	50.863	50.921	50.883	50.981

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	51.519	51.538	51.528	51.562	51.540	51.598	51.561	51.659
57	2.50	52.498	52.518	52.508	52.542	52.521	52.578	52.541	52.639
58	2.50	53.520	53.540	53.529	53.564	53.542	53.600	53.563	53.661
59	2.50	54.501	54.520	54.510	54.544	54.523	54.581	54.543	54.641
60	2.50	55.522	55.541	55.531	55.565	55.544	55.602	55.564	55.663
61	2.50	56.503	56.522	56.512	56.547	56.525	56.583	56.546	56.644
62	2.50	57.523	57.542	57.532	57.567	57.546	57.604	57.566	57.665
63	2.50	58.505	58.524	58.514	58.549	58.527	58.585	58.548	58.646
64	2.50	59.524	59.544	59.534	59.568	59.547	59.605	59.568	59.666
65	2.50	60.507	60.526	60.516	60.551	60.530	60.587	60.550	60.649
66	2.50	61.526	61.545	61.535	61.570	61.549	61.607	61.570	61.668
67	2.50	62.508	62.528	62.518	62.552	62.532	62.589	62.553	62.651
68	2.50	63.527	63.546	63.537	63.571	63.550	63.608	63.571	63.670
69	2.50	64.510	64.529	64.520	64.554	64.533	64.591	64.555	64.653
70	2.50	65.528	65.547	65.538	65.572	65.551	65.609	65.573	65.671
71	2.50	66.512	66.531	66.521	66.556	66.535	66.593	66.556	66.655
72	2.50	67.529	67.548	67.539	67.573	67.553	67.611	67.574	67.673
73	2.50	68.513	68.532	68.523	68.557	68.537	68.595	68.558	68.657
74	2.50	69.530	69.549	69.540	69.574	69.554	69.612	69.575	69.674
75	2.50	70.515	70.534	70.525	70.559	70.539	70.596	70.560	70.659
76	2.50	71.531	71.550	71.541	71.575	71.555	71.613	71.577	71.676
77	2.50	72.516	72.535	72.526	72.560	72.540	72.598	72.562	72.661
78	2.50	73.532	73.551	73.542	73.576	73.556	73.614	73.578	73.677
79	2.50	74.517	74.536	74.527	74.562	74.542	74.599	74.564	74.663
80	2.50	75.533	75.552	75.543	75.577	75.557	75.615	75.579	75.678
81	2.50	76.519	76.537	76.529	76.563	76.543	76.601	76.565	76.664
82	2.50	77.534	77.553	77.544	77.578	77.558	77.616	77.581	77.680
83	2.50	78.520	78.539	78.530	78.564	78.544	78.602	78.567	78.666
84	2.50	79.535	79.554	79.545	79.579	79.559	79.617	79.582	79.681
85	2.50	80.521	80.540	80.531	80.565	80.546	80.604	80.568	80.667
86	2.50	81.535	81.554	81.546	81.580	81.560	81.618	81.583	81.682
87	2.50	82.522	82.541	82.532	82.566	82.547	82.605	82.570	82.669
88	2.50	83.536	83.555	83.547	83.581	83.561	83.619	83.584	83.683
89	2.50	84.523	84.542	84.534	84.568	84.548	84.606	84.571	84.670
90	2.50	85.537	85.556	85.548	85.581	85.562	85.620	85.585	85.685
91	2.50	86.524	86.543	86.535	86.569	86.549	86.607	86.572	86.672
92	2.50	87.538	87.556	87.548	87.582	87.563	87.621	87.586	87.686
93	2.50	88.525	88.544	88.536	88.570	88.551	88.608	88.574	88.673
94	2.50	89.538	89.557	89.549	89.583	89.564	89.622	89.587	89.687
95	2.50	90.526	90.545	90.537	90.571	90.552	90.610	90.575	90.675
96	2.50	91.539	91.558	91.550	91.584	91.565	91.623	91.588	91.688
97	2.50	92.527	92.545	92.538	92.572	92.553	92.611	92.576	92.676
98	2.50	93.540	93.558	93.550	93.584	93.566	93.624	93.589	93.689
99	2.50	94.528	94.546	94.539	94.572	94.554	94.612	94.577	94.677
100	2.50	95.540	95.559	95.551	95.585	95.566	95.624	95.590	95.690

表 5 棒间距 M_{Ri} 45°内花键 模数 $m = 1.25 \text{ mm}$ 作用齿槽宽最小值 $E_{v, \min} = 1.963 \text{ mm}$ 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	2.65	7.881	7.906	7.889	7.932	7.900	7.970	7.919	8.033
11	2.65	9.039	9.064	9.047	9.088	9.058	9.125	9.076	9.186
12	2.65	10.431	10.455	10.438	10.479	10.449	10.516	10.467	10.576
13	2.65	11.593	11.616	11.600	11.640	11.611	11.676	11.629	11.735
14	2.65	12.961	12.984	12.968	13.008	12.979	13.043	12.997	13.103
15	2.80	13.735	13.758	13.743	13.783	13.754	13.819	13.771	13.879
16	2.80	15.088	15.112	15.096	15.136	15.107	15.172	15.125	15.232
17	2.80	16.267	16.290	16.275	16.314	16.286	16.350	16.304	16.409
18	2.80	17.608	17.630	17.615	17.654	17.627	17.690	17.644	17.750
19	2.80	18.791	18.814	18.799	18.838	18.810	18.874	18.828	18.933
20	2.80	20.122	20.145	20.130	20.169	20.141	20.204	20.159	20.264
21	2.80	21.310	21.333	21.318	21.357	21.330	21.392	21.347	21.452
22	2.80	22.633	22.656	22.641	22.680	22.653	22.715	22.671	22.775
23	2.80	23.826	23.848	23.834	23.872	23.845	23.908	23.863	23.967
24	2.80	25.142	25.165	25.151	25.189	25.162	25.225	25.180	25.284
25	2.80	26.339	26.361	26.347	26.385	26.358	26.421	26.377	26.480
26	2.80	27.650	27.672	27.658	27.696	27.670	27.732	27.688	27.792
27	2.80	28.850	28.871	28.858	28.895	28.869	28.932	28.888	28.992
28	3.00	29.652	29.674	29.660	29.698	29.672	29.735	29.691	29.796
29	3.00	30.856	30.877	30.864	30.902	30.876	30.939	30.895	31.000
30	3.00	32.159	32.181	32.167	32.205	32.179	32.242	32.198	32.303
31	3.00	33.365	33.387	33.374	33.412	33.386	33.448	33.405	33.510
32	3.00	34.665	34.687	34.673	34.711	34.686	34.748	34.705	34.810
33	3.00	35.874	35.895	35.882	35.920	35.894	35.957	35.914	36.018
34	3.00	37.170	37.192	37.179	37.217	37.191	37.254	37.211	37.315
35	3.00	38.381	38.403	38.390	38.427	38.402	38.464	38.421	38.526
36	3.00	39.675	39.697	39.684	39.721	39.696	39.759	39.716	39.821
37	3.00	40.888	40.909	40.896	40.934	40.909	40.971	40.929	41.033
38	3.00	42.175	42.201	42.188	42.226	42.201	42.263	42.220	42.325
39	3.00	43.394	43.415	43.402	43.440	43.415	43.477	43.435	43.540
40	3.00	44.683	44.704	44.692	44.729	44.705	44.767	44.725	44.830
41	3.00	45.899	45.920	45.908	45.945	45.921	45.983	45.941	46.045
42	3.00	47.186	47.208	47.195	47.233	47.208	47.271	47.228	47.333
43	3.00	48.404	48.425	48.413	48.450	48.426	48.488	48.446	48.551
44	3.00	49.689	49.711	49.699	49.736	49.712	49.774	49.732	49.837
45	3.00	50.908	50.929	50.917	50.955	50.930	50.992	50.951	51.056
46	3.00	52.192	52.213	52.202	52.239	52.215	52.277	52.235	52.340
47	3.00	53.412	53.433	53.421	53.459	53.435	53.497	53.455	53.560
48	3.00	54.695	54.716	54.704	54.741	54.717	54.780	54.738	54.843
49	3.00	55.916	55.937	55.925	55.962	55.939	56.001	55.959	56.064
50	3.00	57.197	57.218	57.207	57.244	57.220	57.282	57.241	57.346
51	3.00	58.419	58.440	58.429	58.466	58.442	58.504	58.463	58.568
52	3.00	59.699	59.720	59.709	59.746	59.723	59.785	59.744	59.849
53	3.00	60.922	60.943	60.932	60.969	60.946	61.008	60.967	61.072
54	3.00	62.201	62.222	62.211	62.248	62.225	62.287	62.246	62.351
55	3.00	63.425	63.446	63.435	63.472	63.449	63.511	63.470	63.576

表 5 (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	3.00	64.703	64.724	64.713	64.750	64.727	64.789	64.748	64.854
57	3.00	65.928	65.949	65.938	65.975	65.952	66.014	65.973	66.079
58	3.00	67.205	67.226	67.215	67.252	67.229	67.291	67.251	67.356
59	3.00	68.430	68.451	68.440	68.477	68.455	68.517	68.476	68.582
60	3.00	69.707	69.727	69.717	69.754	69.731	69.793	69.753	69.858
61	3.00	70.933	70.954	70.943	70.980	70.957	71.019	70.979	71.085
62	3.00	72.208	72.229	72.218	72.255	72.233	72.295	72.255	72.360
63	3.00	73.435	73.456	73.445	73.482	73.460	73.522	73.482	73.588
64	3.00	74.710	74.730	74.720	74.757	74.734	74.796	74.757	74.862
65	3.00	75.937	75.958	75.948	75.984	75.962	76.024	75.984	76.090
66	3.00	77.211	77.232	77.221	77.258	77.236	77.298	77.258	77.364
67	3.00	78.439	78.460	78.450	78.486	78.464	78.526	78.487	78.593
68	3.00	79.712	79.733	79.723	79.759	79.737	79.799	79.760	79.866
69	3.00	80.941	80.962	80.952	80.988	80.966	81.028	80.989	81.095
70	3.00	82.214	82.234	82.224	82.261	82.239	82.301	82.262	82.368
71	3.00	83.443	83.463	83.454	83.490	83.468	83.530	83.491	83.597
72	3.00	84.715	84.735	84.725	84.762	84.740	84.802	84.763	84.869
73	3.00	85.945	85.965	85.955	85.992	85.970	86.032	85.993	86.100
74	3.00	87.216	87.236	87.227	87.263	87.242	87.304	87.265	87.371
75	3.00	88.446	88.467	88.457	88.494	88.472	88.534	88.495	88.602
76	3.00	89.717	89.737	89.728	89.764	89.743	89.805	89.766	89.873
77	3.00	90.948	90.968	90.959	90.995	90.974	91.036	90.997	91.104
78	3.00	92.218	92.238	92.229	92.265	92.244	92.306	92.268	92.374
79	3.00	93.449	93.469	93.460	93.497	93.476	93.538	93.499	93.606
80	3.00	94.719	94.739	94.730	94.766	94.745	94.807	94.769	94.876
81	3.00	95.951	95.971	95.962	95.998	95.977	96.039	96.001	96.108
82	3.00	97.220	97.240	97.231	97.267	97.246	97.308	97.270	97.377
83	3.00	98.452	98.472	98.463	98.500	98.479	98.541	98.503	98.609
84	3.00	99.721	99.741	99.732	99.768	99.748	99.810	99.772	99.878
85	3.00	100.953	100.973	100.965	101.001	100.980	101.042	101.005	101.111
86	3.00	102.222	102.242	102.233	102.269	102.249	102.311	102.273	102.380
87	3.00	103.455	103.475	103.466	103.502	103.482	103.544	103.506	103.613
88	3.00	104.722	104.742	104.734	104.770	104.750	104.812	104.774	104.881
89	3.00	105.956	105.976	105.967	106.004	105.983	106.045	106.008	106.115
90	3.00	107.223	107.243	107.235	107.271	107.251	107.313	107.275	107.382
91	3.00	108.457	108.477	108.468	108.505	108.485	108.547	108.509	108.616
92	3.00	109.724	109.744	109.735	109.772	109.752	109.814	109.776	109.883
93	3.00	110.958	110.978	110.970	111.006	110.986	111.048	111.011	111.118
94	3.00	112.225	112.244	112.236	112.273	112.253	112.315	112.278	112.385
95	3.00	113.459	113.479	113.471	113.507	113.487	113.549	113.512	113.619
96	3.00	114.725	114.745	114.737	114.773	114.753	114.815	114.779	114.886
97	3.00	115.960	115.980	115.972	116.008	115.988	116.050	116.014	116.121
98	3.00	117.226	117.246	117.238	117.274	117.254	117.316	117.280	117.387
99	3.00	118.461	118.481	118.473	118.509	118.490	118.551	118.515	118.622
100	3.00	119.727	119.746	119.739	119.775	119.755	119.817	119.781	119.888

表 6 棒间距 M_{Ri} 45°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_{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	3.15	9.539	9.567	9.547	9.594	9.559	9.634	9.579	9.701
11	3.15	10.927	10.953	10.935	10.979	10.946	11.018	10.965	11.082
12	3.15	12.596	12.621	12.604	12.647	12.615	12.686	12.634	12.750
13	3.15	13.988	14.013	13.996	14.039	14.008	14.077	14.026	14.139
14	3.15	15.629	15.654	15.637	15.680	15.649	15.717	15.667	15.780
15	3.35	16.506	16.531	16.514	16.557	16.526	16.595	16.544	16.659
16	3.35	18.130	18.155	18.138	18.180	18.150	18.219	18.168	18.283
17	3.35	19.544	19.569	19.552	19.594	19.564	19.632	19.582	19.696
18	3.35	21.153	21.177	21.161	21.203	21.173	21.241	21.191	21.304
19	3.35	22.573	22.597	22.581	22.622	22.593	22.660	22.612	22.724
20	3.35	24.170	24.194	24.178	24.219	24.190	24.257	24.209	24.321
21	3.35	25.596	25.619	25.604	25.645	25.616	25.683	25.635	25.746
22	3.35	27.183	27.207	27.192	27.232	27.204	27.270	27.222	27.334
23	3.35	28.614	28.638	28.623	28.663	28.635	28.701	28.654	28.765
24	3.35	30.194	30.217	30.202	30.243	30.215	30.281	30.234	30.345
25	3.35	31.629	31.653	31.638	31.678	31.650	31.716	31.669	31.780
26	3.35	33.203	33.226	33.211	33.252	33.224	33.290	33.243	33.354
27	3.35	34.642	34.665	34.651	34.691	34.663	34.729	34.683	34.793
28	3.35	36.210	36.233	36.219	36.259	36.231	36.298	36.251	36.362
29	3.35	37.653	37.676	37.662	37.702	37.674	37.741	37.694	37.805
30	3.55	38.714	38.737	38.723	38.763	38.736	38.802	38.756	38.867
31	3.55	40.161	40.185	40.170	40.211	40.183	40.250	40.203	40.315
32	3.55	41.721	41.744	41.730	41.770	41.743	41.809	41.763	41.875
33	3.55	43.171	43.194	43.180	43.220	43.193	43.260	43.213	43.325
34	3.55	44.727	44.750	44.736	44.776	44.749	44.816	44.770	44.881
35	3.55	46.180	46.203	46.189	46.229	46.202	46.268	46.223	46.334
36	3.55	47.732	47.755	47.742	47.782	47.755	47.821	47.776	47.887
37	3.55	49.187	49.210	49.197	49.236	49.210	49.276	49.231	49.342
38	3.55	50.737	50.760	50.747	50.786	50.760	50.826	50.781	50.892
39	3.55	52.194	52.217	52.204	52.243	52.217	52.283	52.238	52.349
40	3.55	53.741	53.764	53.751	53.791	53.764	53.831	53.786	53.897
41	3.55	55.200	55.223	55.210	55.249	55.223	55.289	55.245	55.356
42	3.55	56.745	56.768	56.755	56.795	56.769	56.835	56.790	56.901
43	3.55	58.206	58.228	58.215	58.255	58.229	58.295	58.251	58.362
44	3.55	59.749	59.771	59.758	59.798	59.772	59.838	59.794	59.905
45	3.55	61.211	61.233	61.221	61.260	61.235	61.301	61.256	61.368
46	3.55	62.752	62.774	62.762	62.801	62.776	62.842	62.798	62.909
47	3.55	64.215	64.238	64.225	64.265	64.239	64.305	64.261	64.373
48	3.55	65.755	65.777	65.765	65.804	65.779	65.845	65.801	65.913
49	3.55	67.220	67.242	67.230	67.269	67.244	67.310	67.266	67.378
50	3.55	68.757	68.780	68.768	68.807	68.782	68.848	68.804	68.916
51	3.55	70.224	70.246	70.234	70.273	70.248	70.314	70.271	70.382
52	3.55	71.760	71.782	71.770	71.809	71.785	71.850	71.807	71.919
53	3.55	73.227	73.249	73.238	73.277	73.252	73.318	73.275	73.387
54	3.55	74.762	74.784	74.772	74.812	74.787	74.853	74.810	74.922
55	3.55	76.231	76.253	76.241	76.280	76.256	76.322	76.279	76.390

表 6 (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	3.55	77.764	77.786	77.775	77.814	77.790	77.855	77.812	77.924
57	3.55	79.234	79.256	79.244	79.283	79.259	79.325	79.282	79.394
58	3.55	80.766	80.788	80.777	80.816	80.792	80.858	80.815	80.927
59	3.55	82.237	82.259	82.247	82.286	82.262	82.328	82.286	82.398
60	3.55	83.768	83.790	83.779	83.818	83.794	83.860	83.817	83.929
61	3.55	85.239	85.261	85.250	85.289	85.265	85.331	85.289	85.401
62	3.55	86.770	86.792	86.781	86.820	86.796	86.862	86.820	86.932
63	3.55	88.242	88.264	88.253	88.292	88.268	88.334	88.292	88.404
64	3.55	89.771	89.793	89.782	89.821	89.798	89.864	89.822	89.934
65	3.55	91.245	91.266	91.256	91.294	91.271	91.337	91.295	91.407
66	3.55	92.773	92.795	92.784	92.823	92.800	92.865	92.824	92.936
67	3.55	94.247	94.268	94.258	94.297	94.274	94.339	94.298	94.410
68	3.55	95.774	95.796	95.786	95.824	95.801	95.867	95.826	95.938
69	3.55	97.249	97.271	97.260	97.299	97.276	97.342	97.300	97.413
70	3.55	98.776	98.797	98.787	98.826	98.803	98.869	98.827	98.940
71	3.55	100.251	100.273	100.262	100.301	100.278	100.344	100.303	100.415
72	3.55	101.777	101.799	101.789	101.827	101.805	101.870	101.829	101.942
73	3.55	103.253	103.275	103.265	103.303	103.281	103.346	103.305	103.418
74	3.55	104.778	104.800	104.790	104.829	104.806	104.872	104.831	104.944
75	3.55	106.255	106.276	106.266	106.305	106.283	106.348	106.308	106.420
76	3.55	107.780	107.801	107.791	107.830	107.808	107.873	107.833	107.945
77	3.55	109.257	109.278	109.268	109.307	109.285	109.350	109.310	109.423
78	3.55	110.781	110.802	110.792	110.831	110.809	110.875	110.834	110.947
79	3.55	112.258	112.280	112.270	112.309	112.287	112.352	112.312	112.425
80	3.55	113.782	113.803	113.794	113.832	113.810	113.876	113.836	113.949
81	3.55	115.260	115.281	115.272	115.310	115.289	115.354	115.314	115.427
82	3.55	116.783	116.804	116.795	116.833	116.812	116.877	116.837	116.950
83	3.55	118.262	118.283	118.274	118.312	118.290	118.356	118.316	118.429
84	3.55	119.784	119.805	119.796	119.834	119.813	119.878	119.839	119.952
85	3.55	121.263	121.284	121.275	121.314	121.292	121.358	121.318	121.431
86	3.55	122.785	122.806	122.797	122.835	122.814	122.880	122.840	122.953
87	3.55	124.265	124.286	124.277	124.315	124.294	124.359	124.320	124.433
88	3.55	125.786	125.807	125.798	125.836	125.815	125.881	125.841	125.955
89	3.55	127.266	127.287	127.278	127.316	127.295	127.361	127.322	127.435
90	3.55	128.787	128.808	128.799	128.837	128.816	128.882	128.843	128.956
91	3.55	130.267	130.288	130.280	130.318	130.297	130.362	130.323	130.437
92	3.55	131.788	131.808	131.800	131.838	131.817	131.883	131.844	131.957
93	3.55	133.268	133.289	133.281	133.319	133.298	133.364	133.325	133.438
94	3.55	134.788	134.809	134.801	134.839	134.818	134.884	134.845	134.959
95	3.55	136.270	136.291	136.282	136.320	136.300	136.365	136.327	136.440
96	3.55	137.789	137.810	137.802	137.840	137.819	137.885	137.847	137.960
97	3.55	139.271	139.292	139.284	139.322	139.301	139.367	139.328	139.442
98	3.55	140.790	140.811	140.803	140.841	140.820	140.886	140.848	140.961
99	3.55	142.272	142.293	142.285	142.323	142.303	142.368	142.330	142.443
100	3.55	143.791	143.811	143.804	143.842	143.821	143.887	143.849	143.962

表 7 棒间距 M_{Ri} 45°内花键 模数 $m = 1.75 \text{ mm}$ 作用齿槽宽最小值 $E_{v \min} = 2.749 \text{ mm}$ 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	11.476	11.504	11.484	11.532	11.496	11.573	11.516	11.641
11	3.55	13.084	13.111	13.093	13.138	13.104	13.178	13.123	13.244
12	3.75	14.489	14.517	14.498	14.545	14.510	14.586	14.530	14.654
13	3.75	16.118	16.145	16.127	16.172	16.139	16.212	16.158	16.279
14	3.75	18.034	18.061	18.043	18.088	18.055	18.128	18.074	18.195
15	3.75	19.671	19.697	19.680	19.724	19.692	19.764	19.711	19.830
16	3.75	21.564	21.590	21.572	21.616	21.584	21.656	21.604	21.723
17	3.75	23.210	23.235	23.218	23.262	23.230	23.301	23.250	23.367
18	3.75	25.035	25.111	25.094	25.137	25.106	25.177	25.125	25.243
19	4.00	26.096	26.122	26.105	26.149	26.117	26.189	26.137	26.256
20	4.00	27.960	27.985	27.969	28.012	27.981	28.053	28.001	28.120
21	4.00	29.525	29.650	29.634	29.677	29.646	29.717	29.666	29.784
22	4.00	31.477	31.502	31.486	31.529	31.499	31.570	31.519	31.637
23	4.00	33.148	33.173	33.157	33.200	33.169	33.240	33.190	33.307
24	4.00	34.991	35.016	35.000	35.043	35.013	35.084	35.033	35.151
25	4.00	36.667	36.692	36.676	36.719	36.689	36.759	36.709	36.826
26	4.00	38.503	38.527	38.512	38.554	38.525	38.595	38.545	38.663
27	4.00	40.183	40.207	40.192	40.234	40.205	40.275	40.226	40.343
28	4.00	42.012	42.037	42.022	42.064	42.035	42.105	42.055	42.173
29	4.00	43.696	43.721	43.706	43.748	43.719	43.789	43.740	43.857
30	4.00	45.520	45.545	45.530	45.572	45.543	45.613	45.564	45.681
31	4.00	47.208	47.232	47.218	47.260	47.231	47.301	47.252	47.369
32	4.00	49.027	49.052	49.037	49.079	49.050	49.120	49.072	49.189
33	4.00	50.719	50.743	50.728	50.770	50.742	50.811	50.763	50.880
34	4.00	52.534	52.558	52.543	52.585	52.557	52.626	52.578	52.695
35	4.00	54.223	54.252	54.237	54.279	54.251	54.321	54.273	54.389
36	4.00	56.039	56.063	56.049	56.091	56.063	56.132	56.084	56.201
37	4.00	57.756	57.760	57.746	57.787	57.760	57.829	57.781	57.898
38	4.00	59.544	59.568	59.554	59.595	59.568	59.637	59.590	59.707
39	4.00	61.243	61.267	61.253	61.295	61.267	61.336	61.289	61.406
40	4.00	63.048	63.072	63.058	63.100	63.072	63.142	63.095	63.212
41	4.00	64.749	64.773	64.760	64.801	64.774	64.843	64.796	64.913
42	4.00	66.552	66.575	66.562	66.604	66.577	66.646	66.599	66.716
43	4.00	68.255	68.279	68.266	68.307	68.280	68.349	68.303	68.420
44	4.00	70.055	70.079	70.066	70.107	70.080	70.150	70.103	70.220
45	4.00	71.761	71.784	71.771	71.813	71.786	71.855	71.809	71.926
46	4.00	73.559	73.582	73.569	73.610	73.584	73.653	73.607	73.724
47	4.00	75.266	75.289	75.276	75.318	75.291	75.360	75.314	75.431
48	4.00	77.062	77.085	77.072	77.113	77.087	77.156	77.110	77.228
49	4.00	78.770	78.794	78.781	78.822	78.796	78.865	78.819	78.937
50	4.25	79.947	79.970	79.957	79.999	79.973	80.042	79.996	80.114
51	4.25	81.657	81.681	81.668	81.710	81.684	81.753	81.707	81.825
52	4.25	83.450	83.473	83.461	83.502	83.476	83.545	83.500	83.618
53	4.25	85.162	85.185	85.173	85.214	85.188	85.258	85.212	85.330
54	4.25	86.953	86.976	86.964	87.005	86.979	87.049	87.003	87.121
55	4.25	88.666	88.689	88.677	88.718	88.693	88.762	88.717	88.835

表 7 (续) 单位为毫米

齿数 <i>z</i>	量棒 直径 <i>D_{Ri}</i>	<i>E_{min}</i> 和 <i>E_{max}</i> 的棒间距 <i>M_{Ri}</i>							
		4H		5H		6H		7H	
		min	max	min	max	min	max	min	max
56	4.25	90.455	90.478	90.466	90.508	90.482	90.551	90.507	90.624
57	4.25	92.170	92.193	92.181	92.222	92.197	92.266	92.221	92.339
58	4.25	93.958	93.981	93.969	94.010	93.985	94.054	94.010	94.128
59	4.25	95.674	95.697	95.685	95.726	95.701	95.770	95.726	95.844
60	4.25	97.460	97.483	97.472	97.513	97.488	97.557	97.512	97.631
61	4.25	99.177	99.200	99.188	99.229	99.205	99.274	99.229	99.348
62	4.25	100.962	100.985	100.974	101.015	100.990	101.059	101.015	101.133
63	4.25	102.680	102.703	102.692	102.733	102.708	102.777	102.733	102.851
64	4.25	104.464	104.487	104.476	104.517	104.492	104.562	104.518	104.636
65	4.25	106.183	106.206	106.195	106.236	106.211	106.280	106.237	106.355
66	4.25	107.966	107.989	107.978	108.019	107.995	108.064	108.020	108.138
67	4.25	109.686	109.709	109.698	109.739	109.714	109.783	109.740	109.858
68	4.25	111.468	111.491	111.480	111.521	111.497	111.566	111.523	111.641
69	4.25	113.189	113.211	113.201	113.241	113.217	113.286	113.243	113.362
70	4.25	114.970	114.992	114.982	115.023	114.999	115.068	115.025	115.143
71	4.25	116.691	116.714	116.703	116.744	116.720	116.789	116.746	116.865
72	4.25	118.472	118.494	118.484	118.524	118.501	118.570	118.527	118.645
73	4.25	120.194	120.216	120.206	120.246	120.223	120.292	120.249	120.368
74	4.25	121.973	121.996	121.985	122.026	122.003	122.072	122.029	122.148
75	4.25	123.696	123.718	123.708	123.749	123.725	123.794	123.752	123.870
76	4.25	125.475	125.497	125.487	125.528	125.504	125.573	125.531	125.650
77	4.25	127.198	127.220	127.210	127.251	127.228	127.297	127.255	127.373
78	4.25	128.976	128.998	128.989	129.029	129.006	129.075	129.033	129.152
79	4.25	130.700	130.722	130.713	130.753	130.730	130.799	130.757	130.876
80	4.25	132.477	132.500	132.490	132.530	132.508	132.577	132.535	132.653
81	4.25	134.202	134.224	134.215	134.255	134.232	134.301	134.260	134.378
82	4.25	135.979	136.001	135.991	136.032	136.009	136.078	136.037	136.155
83	4.25	137.704	137.726	137.717	137.757	137.735	137.803	137.762	137.881
84	4.25	139.480	139.502	139.493	139.533	139.511	139.580	139.538	139.657
85	4.25	141.206	141.228	141.219	141.259	141.237	141.305	141.264	141.383
86	4.25	142.981	143.003	142.994	143.034	143.012	143.081	143.040	143.159
87	4.25	144.708	144.729	144.720	144.761	144.739	144.807	144.767	144.885
88	4.25	146.482	146.504	146.495	146.536	146.514	146.582	146.542	146.660
89	4.25	148.209	148.231	148.222	148.262	148.241	148.309	148.269	148.387
90	4.25	149.983	150.005	149.997	150.037	150.015	150.084	150.043	150.162
91	4.25	151.711	151.733	151.724	151.764	151.742	151.811	151.771	151.890
92	4.25	153.485	153.506	153.498	153.538	153.516	153.585	153.545	153.664
93	4.25	155.212	155.234	155.226	155.266	155.244	155.313	155.273	155.392
94	4.25	156.986	157.007	156.999	157.039	157.018	157.086	157.046	157.165
95	4.25	158.714	158.736	158.727	158.767	158.746	158.815	158.775	158.894
96	4.25	160.487	160.508	160.500	160.540	160.519	160.587	160.548	160.667
97	4.25	162.215	162.237	162.229	162.269	162.248	162.316	162.277	162.396
98	4.25	163.988	164.009	164.001	164.041	164.020	164.089	164.049	164.168
99	4.25	165.717	165.738	165.730	165.770	165.749	165.818	165.778	165.897
100	4.25	167.488	167.510	167.502	167.542	167.521	167.590	167.550	167.670

表 8 棒间距 M_{Ri} 45°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	4.00	13.271	13.300	13.279	13.328	13.292	13.371	13.312	13.442
11	4.25	14.428	14.457	14.437	14.486	14.449	14.529	14.470	14.601
12	4.25	16.655	16.683	16.663	16.712	16.676	16.755	16.696	16.826
13	4.25	18.514	18.542	18.523	18.570	18.536	18.612	18.555	18.682
14	4.25	20.703	20.731	20.712	20.759	20.724	20.801	20.744	20.871
15	4.25	22.573	22.600	22.582	22.628	22.594	22.669	22.614	22.739
16	4.25	24.736	24.763	24.744	24.790	24.757	24.832	24.777	24.901
17	4.25	26.616	26.643	26.625	26.670	26.637	26.712	26.657	26.780
18	4.50	28.113	28.140	28.122	28.168	28.135	28.210	28.155	28.280
19	4.50	30.007	30.034	30.016	30.062	30.029	30.104	30.050	30.174
20	4.50	32.136	32.163	32.146	32.191	32.159	32.233	32.179	32.303
21	4.50	34.038	34.064	34.047	34.092	34.060	34.134	34.081	34.204
22	4.50	36.155	36.181	36.164	36.209	36.177	36.251	36.198	36.322
23	4.50	38.063	38.089	38.072	38.117	38.086	38.159	38.107	38.229
24	4.50	40.170	40.196	40.179	40.224	40.192	40.266	40.213	40.336
25	4.50	42.084	42.110	42.093	42.138	42.107	42.180	42.128	42.250
26	4.50	44.182	44.207	44.191	44.236	44.205	44.278	44.226	44.349
27	4.50	46.101	46.127	46.111	46.155	46.125	46.198	46.146	46.268
28	4.50	48.192	48.217	48.202	48.246	48.215	48.288	48.237	48.359
29	4.50	50.116	50.142	50.126	50.170	50.140	50.213	50.161	50.284
30	4.50	52.201	52.226	52.210	52.254	52.224	52.297	52.246	52.368
31	4.50	54.129	54.154	54.139	54.183	54.153	54.226	54.175	54.297
32	4.50	56.208	56.233	56.218	56.262	56.232	56.305	56.254	56.376
33	4.50	58.140	58.165	58.150	58.194	58.165	58.237	58.187	58.309
34	4.50	60.215	60.240	60.225	60.268	60.239	60.312	60.261	60.384
35	4.50	62.150	62.175	62.161	62.204	62.175	62.247	62.198	62.319
36	4.50	64.220	64.245	64.231	64.274	64.245	64.318	64.268	64.390
37	4.50	66.159	66.184	66.170	66.213	66.184	66.257	66.207	66.329
38	4.50	68.225	68.250	68.236	68.279	68.251	68.323	68.274	68.396
39	4.50	70.167	70.192	70.178	70.221	70.193	70.265	70.216	70.338
40	4.75	71.609	71.634	71.620	71.663	71.635	71.707	71.658	71.781
41	4.75	73.554	73.579	73.565	73.608	73.580	73.652	73.603	73.726
42	4.75	75.614	75.639	75.625	75.668	75.640	75.713	75.664	75.786
43	4.75	77.561	77.586	77.572	77.616	77.588	77.660	77.611	77.734
44	4.75	79.619	79.643	79.630	79.673	79.645	79.718	79.669	79.792
45	4.75	81.568	81.593	81.579	81.622	81.595	81.667	81.619	81.741
46	4.75	83.623	83.647	83.634	83.677	83.650	83.722	83.674	83.797
47	4.75	85.574	85.599	85.586	85.629	85.601	85.674	85.626	85.748
48	4.75	87.627	87.651	87.638	87.681	87.654	87.726	87.678	87.801
49	4.75	89.580	89.604	89.591	89.634	89.607	89.680	89.632	89.755
50	4.75	91.630	91.655	91.642	91.685	91.658	91.730	91.682	91.805
51	4.75	93.585	93.609	93.597	93.640	93.613	93.685	93.638	93.760
52	4.75	95.634	95.658	95.645	95.688	95.661	95.733	95.686	95.809
53	4.75	97.590	97.614	97.602	97.645	97.618	97.690	97.643	97.766
54	4.75	99.637	99.661	99.648	99.691	99.665	99.737	99.690	99.813
55	4.75	101.595	101.619	101.606	101.649	101.623	101.695	101.648	101.771

表 8 (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	4.75	103.639	103.663	103.651	103.694	103.668	103.740	103.693	103.816
57	4.75	105.599	105.623	105.611	105.653	105.627	105.699	105.653	105.776
58	4.75	107.642	107.666	107.654	107.697	107.671	107.743	107.697	107.819
59	4.75	109.603	109.627	109.615	109.657	109.632	109.704	109.658	109.780
60	4.75	111.644	111.668	111.657	111.699	111.673	111.745	111.700	111.823
61	4.75	113.606	113.630	113.619	113.661	113.636	113.707	113.662	113.785
62	4.75	115.647	115.671	115.659	115.702	115.676	115.748	115.702	115.826
63	4.75	117.610	117.634	117.622	117.665	117.639	117.711	117.666	117.789
64	4.75	119.649	119.673	119.661	119.704	119.679	119.750	119.705	119.828
65	4.75	121.613	121.637	121.625	121.668	121.643	121.715	121.670	121.793
66	4.75	123.651	123.675	123.663	123.706	123.681	123.753	123.708	123.831
67	4.75	125.616	125.640	125.629	125.671	125.646	125.718	125.673	125.796
68	4.75	127.653	127.676	127.666	127.708	127.683	127.755	127.710	127.833
69	4.75	129.619	129.642	129.632	129.674	129.649	129.721	129.677	129.800
70	4.75	131.655	131.678	131.667	131.710	131.685	131.757	131.713	131.836
71	4.75	133.622	133.645	133.635	133.677	133.652	133.724	133.680	133.803
72	4.75	135.657	135.680	135.669	135.712	135.687	135.759	135.715	135.838
73	4.75	137.624	137.648	137.637	137.679	137.655	137.727	137.683	137.806
74	4.75	139.658	139.681	139.671	139.713	139.689	139.761	139.717	139.841
75	4.75	141.627	141.650	141.640	141.682	141.658	141.730	141.686	141.809
76	4.75	143.660	143.683	143.673	143.715	143.691	143.763	143.719	143.843
77	4.75	145.629	145.652	145.642	145.684	145.661	145.732	145.689	145.812
78	4.75	147.661	147.684	147.674	147.716	147.693	147.765	147.721	147.845
79	4.75	149.631	149.654	149.645	149.687	149.663	149.735	149.692	149.815
80	4.75	151.663	151.686	151.676	151.718	151.695	151.766	151.723	151.847
81	4.75	153.634	153.657	153.647	153.689	153.666	153.737	153.694	153.818
82	4.75	155.664	155.687	155.677	155.719	155.696	155.768	155.725	155.849
83	4.75	157.636	157.659	157.649	157.691	157.668	157.740	157.697	157.821
84	4.75	159.665	159.688	159.679	159.721	159.698	159.769	159.727	159.851
85	4.75	161.638	161.660	161.651	161.693	161.670	161.742	161.699	161.823
86	4.75	163.667	163.689	163.680	163.722	163.699	163.771	163.729	163.852
87	4.75	165.640	165.662	165.653	165.695	165.672	165.744	165.702	165.826
88	4.75	167.668	167.691	167.682	167.723	167.701	167.772	167.730	167.854
89	4.75	169.641	169.664	169.655	169.697	169.674	169.746	169.704	169.828
90	4.75	171.669	171.692	171.683	171.725	171.702	171.774	171.732	171.856
91	4.75	173.643	173.666	173.657	173.699	173.676	173.748	173.706	173.830
92	4.75	175.670	175.693	175.684	175.726	175.704	175.775	175.734	175.858
93	4.75	177.645	177.667	177.659	177.700	177.678	177.750	177.709	177.832
94	4.75	179.671	179.694	179.685	179.727	179.705	179.776	179.735	179.859
95	4.75	181.646	181.669	181.660	181.702	181.680	181.752	181.711	181.834
96	4.75	183.672	183.695	183.687	183.728	183.706	183.778	183.737	183.861
97	4.75	185.648	185.670	185.662	185.704	185.682	185.753	185.713	185.837
98	4.75	187.673	187.696	187.688	187.729	187.708	187.779	187.738	187.862
99	4.75	189.649	189.672	189.664	189.705	189.684	189.755	189.715	189.839
100	4.75	191.674	191.697	191.689	191.730	191.709	191.780	191.740	191.864

表9 棒间距 M_{Ri} 45°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_{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	5.00	16.585	16.617	16.594	16.647	16.608	16.694	16.629	16.770
11	5.30	18.066	18.097	18.075	18.128	18.089	18.175	18.110	18.253
12	5.30	20.849	20.880	20.858	20.911	20.872	20.957	20.893	21.034
13	5.30	23.173	23.203	23.182	23.233	23.196	23.279	23.217	23.354
14	5.30	25.909	25.938	25.918	25.969	25.932	26.014	25.953	26.089
15	5.30	28.246	28.275	28.255	28.305	28.268	28.350	28.290	28.424
16	5.30	30.949	30.978	30.958	31.008	30.972	31.053	30.993	31.127
17	5.30	33.299	33.327	33.308	33.357	33.322	33.402	33.343	33.476
18	5.30	35.978	36.006	35.987	36.036	36.001	36.081	36.022	36.155
19	5.60	37.570	37.599	37.580	37.629	37.594	37.674	37.616	37.750
20	5.60	40.231	40.260	40.241	40.290	40.255	40.336	40.278	40.411
21	5.60	42.608	42.636	42.618	42.667	42.632	42.712	42.654	42.787
22	5.60	45.254	45.282	45.264	45.312	45.278	45.358	45.301	45.434
23	5.60	47.639	47.667	47.649	47.697	47.663	47.743	47.686	47.818
24	5.60	50.272	50.300	50.282	50.330	50.297	50.376	50.319	50.452
25	5.60	52.664	52.692	52.675	52.723	52.689	52.768	52.712	52.844
26	5.60	55.287	55.314	55.297	55.345	55.312	55.391	55.335	55.467
27	5.60	57.686	57.713	57.696	57.744	57.711	57.790	57.734	57.866
28	5.60	60.299	60.327	60.310	60.357	60.325	60.403	60.348	60.480
29	5.60	62.704	62.732	62.715	62.762	62.730	62.808	62.753	62.885
30	5.60	65.310	65.337	65.320	65.368	65.336	65.414	65.359	65.491
31	5.60	67.720	67.747	67.731	67.778	67.746	67.824	67.770	67.901
32	5.60	70.319	70.346	70.330	70.377	70.345	70.423	70.369	70.501
33	5.60	72.734	72.761	72.745	72.792	72.761	72.839	72.785	72.916
34	5.60	75.327	75.354	75.338	75.385	75.354	75.431	75.378	75.509
35	5.60	77.745	77.773	77.758	77.804	77.773	77.851	77.798	77.929
36	5.60	80.334	80.361	80.345	80.392	80.361	80.439	80.386	80.517
37	5.60	82.757	82.784	82.769	82.815	82.785	82.862	82.809	82.940
38	5.60	85.340	85.367	85.352	85.398	85.368	85.445	85.393	85.524
39	5.60	87.767	87.794	87.779	87.825	87.795	87.872	87.820	87.951
40	5.60	90.346	90.372	90.357	90.404	90.374	90.451	90.399	90.530
41	5.60	92.776	92.802	92.788	92.834	92.804	92.881	92.830	92.961
42	5.60	95.351	95.377	95.362	95.409	95.379	95.456	95.405	95.536
43	6.00	96.793	96.819	96.805	96.851	96.821	96.899	96.847	96.979
44	6.00	99.364	99.391	99.376	99.423	99.393	99.471	99.419	99.551
45	6.00	101.801	101.828	101.813	101.860	101.830	101.908	101.857	101.989
46	6.00	104.370	104.396	104.382	104.428	104.399	104.477	104.425	104.557
47	6.00	106.809	106.835	106.821	106.868	106.839	106.916	106.865	106.997
48	6.00	109.375	109.401	109.387	109.433	109.404	109.482	109.431	109.563
49	6.00	111.816	111.842	111.829	111.875	111.846	111.924	111.873	112.005
50	6.00	114.379	114.405	114.392	114.438	114.409	114.487	114.436	114.568
51	6.00	116.823	116.849	116.836	116.882	116.853	116.931	116.881	117.012
52	6.00	119.384	119.409	119.396	119.442	119.414	119.491	119.441	119.573
53	6.00	121.829	121.855	121.842	121.888	121.860	121.937	121.887	122.019
54	6.00	124.387	124.413	124.400	124.446	124.418	124.495	124.446	124.578
55	6.00	126.835	126.861	126.848	126.894	126.866	126.943	126.894	127.026

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	6.00	129.391	129.417	129.404	129.450	129.422	129.499	129.450	129.582
57	6.00	131.840	131.866	131.853	131.899	131.872	131.949	131.900	132.032
58	6.00	134.394	134.420	134.407	134.453	134.426	134.503	134.454	134.586
59	6.00	136.845	136.871	136.858	136.904	136.877	136.954	136.905	137.037
60	6.00	139.398	139.423	139.411	139.456	139.429	139.506	139.458	139.590
61	6.00	141.850	141.875	141.863	141.909	141.882	141.959	141.911	142.043
62	6.00	144.400	144.426	144.414	144.459	144.433	144.510	144.462	144.594
63	6.00	146.854	146.880	146.868	146.913	146.887	146.964	146.916	147.048
64	6.00	149.403	149.428	149.417	149.462	149.436	149.513	149.465	149.597
65	6.00	151.858	151.884	151.872	151.917	151.891	151.968	151.920	152.052
66	6.00	154.406	154.431	154.420	154.465	154.439	154.516	154.468	154.600
67	6.00	156.862	156.887	156.876	156.921	156.895	156.972	156.925	157.057
68	6.00	159.408	159.433	159.422	159.467	159.442	159.518	159.471	159.603
69	6.00	161.866	161.891	161.880	161.925	161.899	161.976	161.929	162.061
70	6.00	164.411	164.436	164.425	164.470	164.444	164.521	164.474	164.606
71	6.00	166.869	166.894	166.883	166.929	166.903	166.980	166.933	167.065
72	6.00	169.413	169.438	169.427	169.472	169.447	169.523	169.477	169.609
73	6.00	171.873	171.897	171.887	171.932	171.907	171.983	171.937	172.069
74	6.00	174.415	174.440	174.429	174.474	174.449	174.526	174.480	174.612
75	6.00	176.876	176.900	176.890	176.935	176.910	176.987	176.941	177.073
76	6.00	179.417	179.442	179.431	179.476	179.452	179.528	179.482	179.615
77	6.00	181.879	181.903	181.893	181.938	181.914	181.990	181.945	182.077
78	6.00	184.419	184.443	184.433	184.478	184.454	184.530	184.485	184.617
79	6.00	186.882	186.906	186.896	186.941	186.917	186.993	186.948	187.080
80	6.00	189.421	189.445	189.435	189.480	189.456	189.532	189.487	189.620
81	6.00	191.884	191.909	191.899	191.944	191.920	191.996	191.951	192.084
82	6.00	194.422	194.447	194.437	194.482	194.458	194.534	194.490	194.622
83	6.00	196.887	196.911	196.902	196.946	196.923	196.999	196.954	197.087
84	6.00	199.424	199.448	199.439	199.484	199.460	199.536	199.492	199.624
85	6.00	201.889	201.914	201.904	201.949	201.925	202.002	201.958	202.090
86	6.00	204.426	204.450	204.441	204.485	204.462	204.538	204.494	204.626
87	6.00	206.892	206.916	206.907	206.951	206.928	207.004	206.960	207.093
88	6.00	209.427	209.451	209.442	209.487	209.464	209.540	209.496	209.629
89	6.00	211.894	211.918	211.909	211.954	211.931	212.007	211.963	212.096
90	6.00	214.429	214.453	214.444	214.488	214.466	214.542	214.498	214.631
91	6.00	216.896	216.920	216.912	216.956	216.933	217.009	216.966	217.098
92	6.00	219.430	219.454	219.446	219.490	219.467	219.543	219.500	219.633
93	6.00	221.898	221.922	221.914	221.958	221.936	222.012	221.969	222.101
94	6.00	224.432	224.455	224.447	224.491	224.469	224.545	224.502	224.635
95	6.00	226.900	226.924	226.916	226.960	226.938	227.014	226.971	227.104
96	6.00	229.433	229.457	229.448	229.493	229.471	229.547	229.504	229.637
97	6.00	231.902	231.926	231.918	231.962	231.940	232.016	231.974	232.106
98	6.00	234.434	234.458	234.450	234.494	234.472	234.548	234.506	234.638
99	6.00	236.904	236.928	236.920	236.964	236.942	237.018	236.976	237.109
100	6.00	239.435	239.459	239.451	239.495	239.474	239.550	239.508	239.640

表 10 棒间距 M_{Ri} 45°直线内花键 模数 $m=0.25\text{ mm}$ 作用齿槽宽最小值 $E_{v,\min}=0.393\text{ mm}$ 单位为毫米

齿数 z	齿槽角 β	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	72.00	0.60	1.398	1.410	1.404	1.424	1.412	1.444	1.425	1.478
11	73.64	0.60	1.632	1.644	1.638	1.657	1.646	1.677	1.659	1.711
12	75.00	0.60	1.911	1.922	1.916	1.935	1.924	1.956	1.937	1.989
13	76.15	0.60	2.145	2.156	2.150	2.169	2.158	2.190	2.171	2.223
14	77.14	0.60	2.418	2.430	2.424	2.443	2.432	2.464	2.445	2.497
15	78.00	0.60	2.654	2.665	2.659	2.678	2.667	2.698	2.680	2.732
16	78.75	0.67	2.744	2.755	2.749	2.769	2.757	2.789	2.770	2.822
17	79.41	0.67	2.981	2.992	2.987	3.006	2.994	3.026	3.007	3.059
18	80.00	0.67	3.249	3.261	3.255	3.274	3.263	3.294	3.276	3.328
19	80.53	0.67	3.488	3.499	3.493	3.512	3.501	3.532	3.514	3.566
20	81.00	0.67	3.754	3.765	3.759	3.779	3.767	3.799	3.780	3.833
21	81.43	0.67	3.993	4.004	3.998	4.017	4.006	4.038	4.019	4.071
22	81.82	0.67	4.257	4.269	4.263	4.282	4.271	4.303	4.284	4.337
23	82.17	0.67	4.497	4.508	4.502	4.522	4.510	4.542	4.523	4.576
24	82.50	0.67	4.760	4.771	4.766	4.785	4.774	4.806	4.787	4.840
25	82.80	0.67	5.000	5.011	5.006	5.025	5.014	5.046	5.027	5.080
26	83.08	0.67	5.263	5.274	5.268	5.288	5.276	5.308	5.289	5.343
27	83.33	0.67	5.503	5.514	5.509	5.528	5.517	5.549	5.530	5.583
28	83.57	0.67	5.765	5.776	5.770	5.790	5.778	5.811	5.791	5.845
29	83.79	0.67	6.006	6.017	6.011	6.031	6.019	6.052	6.032	6.086
30	84.00	0.67	6.266	6.278	6.272	6.292	6.280	6.312	6.293	6.347
31	84.19	0.67	6.508	6.519	6.514	6.533	6.522	6.554	6.535	6.589
32	84.38	0.67	6.768	6.779	6.774	6.793	6.782	6.814	6.795	6.849
33	84.55	0.67	7.010	7.021	7.016	7.035	7.024	7.056	7.037	7.091
34	84.71	0.67	7.269	7.281	7.275	7.295	7.283	7.316	7.296	7.351
35	84.86	0.67	7.512	7.523	7.517	7.537	7.526	7.558	7.539	7.593
36	85.00	0.67	7.771	7.782	7.776	7.796	7.784	7.817	7.798	7.852
37	85.14	0.67	8.013	8.025	8.019	8.039	8.027	8.060	8.040	8.095
38	85.26	0.67	8.272	8.283	8.277	8.297	8.286	8.318	8.299	8.354
39	85.38	0.67	8.515	8.526	8.520	8.540	8.529	8.562	8.542	8.597
40	85.50	0.67	8.773	8.784	8.778	8.798	8.787	8.820	8.800	8.855
41	85.61	0.67	9.016	9.027	9.022	9.042	9.030	9.063	9.043	9.099
42	85.71	0.67	9.273	9.285	9.279	9.299	9.288	9.321	9.301	9.357
43	85.81	0.67	9.517	9.528	9.523	9.543	9.531	9.564	9.545	9.600
44	85.91	0.67	9.774	9.786	9.780	9.800	9.789	9.822	9.802	9.858
45	86.00	0.67	10.018	10.029	10.024	10.044	10.032	10.066	10.046	10.102
46	86.09	0.67	10.275	10.286	10.281	10.301	10.289	10.323	10.303	10.359
47	86.17	0.67	10.519	10.530	10.525	10.545	10.534	10.567	10.547	10.603
48	86.25	0.67	10.776	10.787	10.782	10.802	10.790	10.824	10.804	10.860
49	86.33	0.67	11.020	11.031	11.026	11.046	11.035	11.068	11.048	11.104
50	86.40	0.67	11.276	11.288	11.282	11.302	11.291	11.324	11.305	11.361
51	86.47	0.67	11.521	11.532	11.527	11.547	11.535	11.569	11.549	11.606
52	86.54	0.67	11.777	11.788	11.783	11.803	11.792	11.825	11.805	11.862
53	86.60	0.67	12.022	12.033	12.028	12.048	12.036	12.070	12.050	12.107
54	86.67	0.67	12.278	12.289	12.284	12.304	12.292	12.326	12.306	12.363
55	86.73	0.67	12.522	12.534	12.528	12.549	12.537	12.571	12.551	12.608

表 10 (续)

单位为毫米

齿数 z	齿槽角 β	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	86.79	0.67	12.778	12.789	12.784	12.804	12.793	12.827	12.807	12.864
57	86.84	0.67	13.023	13.034	13.029	13.049	13.038	13.072	13.052	13.109
58	86.90	0.67	13.279	13.290	13.285	13.305	13.293	13.327	13.307	13.365
59	86.95	0.71	13.426	13.437	13.432	13.452	13.441	13.474	13.455	13.512
60	87.00	0.71	13.681	13.692	13.687	13.707	13.696	13.730	13.710	13.767
61	87.05	0.71	13.926	13.938	13.932	13.953	13.941	13.975	13.955	14.013
62	87.10	0.71	14.181	14.193	14.188	14.208	14.196	14.230	14.211	14.268
63	87.14	0.71	14.427	14.438	14.433	14.453	14.442	14.476	14.456	14.514
64	87.19	0.71	14.682	14.693	14.688	14.708	14.697	14.731	14.711	14.769
65	87.23	0.71	14.927	14.939	14.934	14.954	14.943	14.977	14.957	15.015
66	87.27	0.71	15.182	15.194	15.189	15.209	15.197	15.232	15.212	15.270
67	87.31	0.71	15.428	15.439	15.434	15.455	15.443	15.478	15.458	15.516
68	87.35	0.71	15.683	15.694	15.689	15.709	15.698	15.732	15.712	15.770
69	87.39	0.71	15.929	15.940	15.935	15.955	15.944	15.978	15.958	16.016
70	87.43	0.71	16.183	16.194	16.189	16.210	16.198	16.233	16.213	16.271
71	87.46	0.71	16.429	16.440	16.435	16.456	16.444	16.479	16.459	16.517
72	87.50	0.71	16.683	16.695	16.690	16.710	16.699	16.733	16.713	16.772
73	87.53	0.71	16.930	16.941	16.936	16.956	16.945	16.980	16.960	17.018
74	87.57	0.71	17.184	17.195	17.190	17.211	17.199	17.234	17.214	17.272
75	87.60	0.71	17.430	17.441	17.436	17.457	17.446	17.480	17.460	17.519
76	87.63	0.71	17.684	17.696	17.691	17.711	17.700	17.734	17.714	17.773
77	87.66	0.71	17.930	17.942	17.937	17.957	17.946	17.981	17.961	18.020
78	87.69	0.71	18.184	18.196	18.191	18.212	18.200	18.235	18.215	18.274
79	87.72	0.71	18.431	18.442	18.437	18.458	18.447	18.481	18.461	18.520
80	87.75	0.71	18.685	18.696	18.691	18.712	18.701	18.735	18.715	18.774
81	87.78	0.71	18.931	18.943	18.938	18.958	18.947	18.982	18.962	19.021
82	87.80	0.71	19.185	19.197	19.192	19.212	19.201	19.236	19.216	19.275
83	87.83	0.71	19.432	19.443	19.438	19.459	19.448	19.482	19.462	19.522
84	87.86	0.71	19.685	19.697	19.692	19.713	19.701	19.736	19.716	19.776
85	87.88	0.71	19.932	19.943	19.939	19.959	19.948	19.983	19.963	20.022
86	87.91	0.71	20.186	20.197	20.192	20.213	20.202	20.237	20.217	20.276
87	87.93	0.71	20.432	20.444	20.439	20.460	20.448	20.483	20.463	20.523
88	87.95	0.71	20.686	20.697	20.693	20.713	20.702	20.737	20.717	20.777
89	87.98	0.71	20.933	20.944	20.939	20.960	20.949	20.984	20.964	21.024
90	88.00	0.71	21.186	21.198	21.193	21.214	21.202	21.237	21.218	21.277
91	88.02	0.71	21.433	21.445	21.440	21.460	21.449	21.484	21.464	21.524
92	88.04	0.71	21.686	21.698	21.693	21.714	21.703	21.738	21.718	21.778
93	88.06	0.71	21.933	21.945	21.940	21.961	21.950	21.985	21.965	22.025
94	88.09	0.71	22.187	22.198	22.193	22.214	22.203	22.238	22.218	22.278
95	88.11	0.71	22.434	22.445	22.440	22.461	22.450	22.485	22.465	22.525
96	88.13	0.71	22.687	22.698	22.694	22.715	22.703	22.739	22.719	22.779
97	88.14	0.71	22.934	22.945	22.941	22.962	22.950	22.986	22.966	23.026
98	88.16	0.71	23.187	23.199	23.194	23.215	23.204	23.239	23.219	23.279
99	88.18	0.71	23.434	23.446	23.441	23.462	23.451	23.486	23.466	23.526
100	88.20	0.71	23.687	23.699	23.694	23.715	23.704	23.739	23.719	23.780

表 11 棒间距 M_{Ri} 45°直线内花键 模数 $m=0.5\text{ mm}$ 作用齿槽宽最小值 $E_{v\min}=0.785\text{ mm}$ 单位为毫米

齿数 z	齿槽角 β	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	72.00	1.12	3.003	3.019	3.009	3.036	3.018	3.062	3.032	3.106
11	73.64	1.12	3.466	3.482	3.473	3.500	3.481	3.525	3.496	3.568
12	75.00	1.12	4.022	4.038	4.028	4.056	4.037	4.081	4.052	4.124
13	76.15	1.12	4.488	4.504	4.494	4.521	4.503	4.547	4.517	4.589
14	77.14	1.12	5.038	5.051	5.041	5.068	5.050	5.094	5.064	5.136
15	78.00	1.18	5.349	5.365	5.355	5.382	5.364	5.407	5.378	5.449
16	78.75	1.18	5.890	5.906	5.896	5.923	5.905	5.948	5.919	5.991
17	79.41	1.18	6.362	6.377	6.368	6.394	6.377	6.420	6.391	6.462
18	80.00	1.18	6.898	6.913	6.904	6.931	6.913	6.956	6.927	6.999
19	80.53	1.18	7.372	7.387	7.378	7.404	7.387	7.430	7.401	7.473
20	81.00	1.18	7.904	7.920	7.910	7.937	7.919	7.963	7.933	8.005
21	81.43	1.18	8.380	8.395	8.386	8.413	8.395	8.438	8.409	8.481
22	81.82	1.18	8.909	8.925	8.915	8.942	8.924	8.968	8.939	9.011
23	82.17	1.18	9.387	9.402	9.393	9.419	9.402	9.445	9.416	9.488
24	82.50	1.18	9.913	9.929	9.920	9.946	9.928	9.972	9.943	10.015
25	82.80	1.25	10.217	10.232	10.223	10.249	10.232	10.275	10.246	10.318
26	83.08	1.25	10.741	10.756	10.747	10.774	10.756	10.800	10.771	10.843
27	83.33	1.25	11.222	11.237	11.228	11.254	11.237	11.281	11.252	11.324
28	83.57	1.25	11.744	11.760	11.751	11.777	11.760	11.804	11.775	11.847
29	83.79	1.25	12.226	12.241	12.233	12.259	12.242	12.285	12.256	12.329
30	84.00	1.25	12.747	12.763	12.754	12.780	12.763	12.807	12.778	12.851
31	84.19	1.25	13.230	13.245	13.237	13.263	13.246	13.289	13.261	13.333
32	84.38	1.25	13.750	13.765	13.756	13.783	13.766	13.809	13.781	13.854
33	84.55	1.25	14.234	14.249	14.240	14.267	14.249	14.293	14.264	14.337
34	84.71	1.25	14.752	14.767	14.759	14.785	14.768	14.812	14.783	14.856
35	84.86	1.25	15.237	15.252	15.243	15.270	15.253	15.296	15.268	15.341
36	85.00	1.25	15.754	15.769	15.761	15.787	15.770	15.814	15.785	15.859
37	85.14	1.25	16.239	16.255	16.246	16.272	16.255	16.299	16.271	16.344
38	85.26	1.25	16.756	16.771	16.763	16.789	16.772	16.816	16.787	16.861
39	85.38	1.25	17.242	17.257	17.249	17.275	17.258	17.302	17.273	17.347
40	85.50	1.25	17.758	17.773	17.764	17.791	17.774	17.818	17.789	17.863
41	85.61	1.25	18.244	18.259	18.251	18.277	18.260	18.305	18.276	18.350
42	85.71	1.25	18.759	18.774	18.766	18.792	18.776	18.820	18.791	18.865
43	85.81	1.25	19.246	19.261	19.253	19.279	19.263	19.307	19.278	19.352
44	85.91	1.25	19.760	19.776	19.767	19.794	19.777	19.821	19.793	19.867
45	86.00	1.25	20.248	20.263	20.255	20.281	20.265	20.309	20.280	20.355
46	86.09	1.25	20.762	20.777	20.769	20.795	20.778	20.823	20.794	20.869
47	86.17	1.25	21.250	21.265	21.257	21.283	21.266	21.311	21.282	21.357
48	86.25	1.25	21.763	21.778	21.770	21.796	21.780	21.824	21.795	21.870
49	86.33	1.25	22.251	22.266	22.258	22.285	22.268	22.313	22.284	22.359
50	86.40	1.25	22.764	22.779	22.771	22.797	22.781	22.825	22.797	22.872
51	86.47	1.25	23.253	23.268	23.260	23.286	23.270	23.314	23.286	23.361
52	86.54	1.25	23.765	23.780	23.772	23.799	23.782	23.826	23.798	23.873
53	86.60	1.25	24.254	24.269	24.261	24.288	24.271	24.316	24.287	24.362
54	86.67	1.25	24.766	24.781	24.773	24.799	24.783	24.828	24.799	24.874
55	86.73	1.25	25.255	25.270	25.262	25.289	25.273	25.317	25.289	25.364

表 11 (续)

单位为毫米

齿数 z	齿槽角 β	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	86.79	1.25	25.766	25.782	25.774	25.800	25.784	25.829	25.800	25.876
57	86.84	1.25	26.256	26.271	26.264	26.290	26.274	26.319	26.290	26.366
58	86.90	1.25	26.767	26.782	26.775	26.801	26.785	26.830	26.801	26.877
59	86.95	1.25	27.258	27.273	27.265	27.292	27.275	27.320	27.292	27.367
60	87.00	1.25	27.768	27.783	27.775	27.802	27.786	27.831	27.802	27.878
61	87.05	1.25	28.259	28.274	28.266	28.293	28.276	28.321	28.293	28.369
62	87.10	1.25	28.769	28.784	28.776	28.803	28.787	28.832	28.803	28.879
63	87.14	1.32	29.088	29.103	29.095	29.122	29.106	29.151	29.123	29.199
64	87.19	1.32	29.598	29.613	29.605	29.632	29.616	29.661	29.633	29.709
65	87.23	1.32	30.089	30.104	30.097	30.123	30.107	30.152	30.124	30.200
66	87.27	1.32	30.599	30.614	30.606	30.633	30.617	30.662	30.634	30.710
67	87.31	1.32	31.090	31.105	31.098	31.124	31.108	31.153	31.125	31.201
68	87.35	1.32	31.599	31.614	31.607	31.634	31.618	31.663	31.634	31.711
69	87.39	1.32	32.091	32.106	32.099	32.125	32.109	32.154	32.126	32.203
70	87.43	1.32	32.600	32.615	32.608	32.634	32.618	32.663	32.635	32.712
71	87.46	1.32	33.092	33.107	33.099	33.126	33.110	33.155	33.127	33.204
72	87.50	1.32	33.600	33.615	33.608	33.635	33.619	33.664	33.636	33.713
73	87.53	1.32	34.093	34.108	34.100	34.127	34.111	34.156	34.128	34.205
74	87.57	1.32	34.601	34.616	34.609	34.636	34.620	34.665	34.637	34.714
75	87.60	1.32	35.093	35.108	35.101	35.128	35.112	35.157	35.129	35.206
76	87.63	1.32	35.602	35.617	35.609	35.636	35.620	35.666	35.638	35.715
77	87.66	1.32	36.094	36.109	36.102	36.129	36.113	36.158	36.130	36.207
78	87.69	1.32	36.602	36.617	36.610	36.637	36.621	36.666	36.639	36.716
79	87.72	1.32	37.095	37.110	37.103	37.130	37.114	37.159	37.131	37.209
80	87.75	1.32	37.603	37.618	37.611	37.637	37.622	37.667	37.639	37.717
81	87.78	1.32	38.096	38.110	38.103	38.130	38.115	38.160	38.132	38.210
82	87.80	1.32	38.603	38.618	38.611	38.638	38.622	38.668	38.640	38.717
83	87.83	1.32	39.096	39.111	39.104	39.131	39.115	39.161	39.133	39.211
84	87.86	1.32	39.604	39.619	39.612	39.639	39.623	39.668	39.641	39.718
85	87.88	1.32	40.097	40.112	40.105	40.132	40.116	40.162	40.134	40.212
86	87.91	1.32	40.604	40.619	40.612	40.639	40.624	40.669	40.641	40.719
87	87.93	1.32	41.097	41.112	41.106	41.132	41.117	41.162	41.135	41.213
88	87.95	1.32	41.605	41.619	41.613	41.640	41.624	41.670	41.642	41.720
89	87.98	1.32	42.098	42.113	42.106	42.133	42.118	42.163	42.136	42.214
90	88.00	1.32	42.605	42.620	42.613	42.640	42.625	42.670	42.643	42.721
91	88.02	1.32	43.099	43.113	43.107	43.134	43.118	43.164	43.136	43.214
92	88.04	1.32	43.605	43.620	43.614	43.640	43.625	43.671	43.643	43.721
93	88.06	1.32	44.099	44.114	44.107	44.134	44.119	44.165	44.137	44.215
94	88.09	1.32	44.606	44.621	44.614	44.641	44.626	44.671	44.644	44.722
95	88.11	1.32	45.100	45.114	45.108	45.135	45.120	45.165	45.138	45.216
96	88.13	1.32	45.606	45.621	45.615	45.641	45.626	45.672	45.645	45.723
97	88.14	1.32	46.100	46.115	46.109	46.135	46.120	46.166	46.139	46.217
98	88.16	1.32	46.607	46.621	46.615	46.642	46.627	46.672	46.645	46.724
99	88.18	1.32	47.101	47.115	47.109	47.136	47.121	47.167	47.139	47.218
100	88.20	1.32	47.607	47.622	47.615	47.642	47.627	47.673	47.646	47.724

表 12 棒间距 M_{Ri} 45°直线内花键 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	齿槽角 β	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	72.00	1.60	4.715	4.734	4.721	4.754	4.731	4.784	4.746	4.834
11	73.64	1.60	5.407	5.426	5.413	5.445	5.422	5.475	5.438	5.524
12	75.00	1.70	5.975	5.994	5.982	6.014	5.991	6.044	6.007	6.093
13	76.15	1.70	6.675	6.694	6.682	6.713	6.691	6.743	6.706	6.791
14	77.14	1.70	7.496	7.514	7.502	7.534	7.512	7.564	7.527	7.612
15	78.00	1.70	8.199	8.217	8.206	8.237	8.215	8.266	8.230	8.315
16	78.75	1.70	9.010	9.029	9.017	9.048	9.026	9.078	9.041	9.126
17	79.41	1.70	9.717	9.735	9.723	9.755	9.733	9.784	9.748	9.833
18	80.00	1.70	10.521	10.539	10.527	10.559	10.537	10.588	10.552	10.637
19	80.53	1.70	11.231	11.249	11.237	11.269	11.247	11.298	11.262	11.347
20	81.00	1.70	12.029	12.047	12.036	12.067	12.045	12.096	12.061	12.146
21	81.43	1.80	12.489	12.507	12.496	12.527	12.505	12.556	12.521	12.605
22	81.82	1.80	13.283	13.301	13.290	13.321	13.299	13.350	13.315	13.400
23	82.17	1.80	13.999	14.017	14.006	14.037	14.016	14.067	14.031	14.116
24	82.50	1.80	14.789	14.807	14.796	14.827	14.806	14.857	14.822	14.906
25	82.80	1.80	15.508	15.526	15.515	15.546	15.524	15.575	15.540	15.625
26	83.08	1.80	16.294	16.312	16.301	16.332	16.311	16.362	16.327	16.412
27	83.33	1.80	17.015	17.033	17.022	17.053	17.032	17.083	17.048	17.133
28	83.57	1.80	17.799	17.817	17.806	17.837	17.816	17.867	17.832	17.917
29	83.79	1.80	18.521	18.539	18.528	18.559	18.538	18.589	18.554	18.640
30	84.00	1.80	19.303	19.321	19.310	19.341	19.320	19.371	19.336	19.422
31	84.19	1.80	20.027	20.044	20.034	20.065	20.044	20.095	20.060	20.145
32	84.38	1.80	20.806	20.824	20.813	20.844	20.824	20.875	20.840	20.926
33	84.55	1.80	21.531	21.549	21.539	21.569	21.549	21.600	21.565	21.651
34	84.71	1.80	22.309	22.327	22.316	22.347	22.327	22.378	22.343	22.429
35	84.86	1.80	23.035	23.053	23.043	23.074	23.053	23.104	23.070	23.156
36	85.00	1.80	23.812	23.830	23.819	23.850	23.830	23.881	23.846	23.932
37	85.14	1.80	24.539	24.557	24.547	24.578	24.557	24.608	24.574	24.660
38	85.26	1.80	25.314	25.332	25.322	25.353	25.332	25.384	25.349	25.435
39	85.38	1.80	26.043	26.060	26.050	26.081	26.061	26.112	26.078	26.164
40	85.50	1.80	26.816	26.834	26.824	26.855	26.835	26.886	26.851	26.938
41	85.61	1.80	27.546	27.563	27.553	27.584	27.564	27.615	27.581	27.667
42	85.71	1.80	28.318	28.336	28.326	28.357	28.337	28.388	28.354	28.440
43	85.81	1.80	29.048	29.066	29.056	29.087	29.067	29.118	29.084	29.171
44	85.91	1.80	29.820	29.838	29.828	29.859	29.839	29.890	29.856	29.943
45	86.00	1.80	30.551	30.569	30.559	30.590	30.570	30.621	30.587	30.674
46	86.09	1.80	31.322	31.339	31.329	31.360	31.340	31.392	31.358	31.445
47	86.17	1.80	32.053	32.071	32.061	32.092	32.072	32.124	32.090	32.177
48	86.25	1.80	32.823	32.841	32.831	32.862	32.842	32.894	32.860	32.947
49	86.33	1.80	33.556	33.573	33.563	33.594	33.575	33.626	33.592	33.679
50	86.40	1.80	34.324	34.342	34.332	34.363	34.344	34.395	34.361	34.449
51	86.47	1.80	35.058	35.075	35.066	35.096	35.077	35.129	35.095	35.182
52	86.54	1.90	35.580	35.597	35.588	35.619	35.599	35.651	35.617	35.704
53	86.60	1.90	36.314	36.331	36.322	36.353	36.333	36.385	36.351	36.455
54	86.67	1.90	37.081	37.099	37.089	37.120	37.101	37.152	37.119	37.206
55	86.73	1.90	37.816	37.833	37.824	37.855	37.835	37.887	37.853	37.941

表 12 (续)

单位为毫米

齿数 z	齿槽角 β	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	86.79	1.90	38.582	38.600	38.591	38.622	38.602	38.654	38.620	38.708
57	86.84	1.90	39.317	39.335	39.326	39.357	39.337	39.389	39.355	39.443
58	86.90	1.90	40.084	40.101	40.092	40.123	40.104	40.155	40.122	40.210
59	86.95	1.90	40.819	40.836	40.827	40.858	40.839	40.891	40.857	40.945
60	87.00	1.90	41.585	41.602	41.593	41.624	41.605	41.657	41.623	41.711
61	87.05	1.90	42.321	42.338	42.329	42.360	42.341	42.393	42.359	42.447
62	87.10	1.90	43.086	43.103	43.094	43.125	43.106	43.158	43.125	43.213
63	87.14	1.90	43.822	43.839	43.831	43.861	43.842	43.894	43.861	43.949
64	87.19	1.90	44.587	44.604	44.595	44.626	44.607	44.659	44.626	44.714
65	87.23	1.90	45.323	45.341	45.332	45.363	45.344	45.396	45.363	45.451
66	87.27	1.90	46.088	46.105	46.096	46.127	46.108	46.160	46.127	46.216
67	87.31	1.90	46.825	46.842	46.833	46.864	46.845	46.898	46.864	46.953
68	87.35	1.90	47.589	47.606	47.597	47.628	47.609	47.661	47.628	47.717
69	87.39	1.90	48.326	48.343	48.335	48.366	48.347	48.399	48.366	48.455
70	87.43	1.90	49.089	49.107	49.098	49.129	49.110	49.163	49.130	49.218
71	87.46	1.90	49.827	49.844	49.836	49.867	49.848	49.900	49.867	49.956
72	87.50	1.90	50.590	50.608	50.599	50.630	50.611	50.664	50.631	50.720
73	87.53	1.90	51.328	51.346	51.337	51.368	51.350	51.402	51.369	51.458
74	87.57	1.90	52.091	52.108	52.100	52.131	52.112	52.165	52.132	52.221
75	87.60	1.90	52.829	52.847	52.838	52.869	52.851	52.903	52.870	52.959
76	87.63	1.90	53.592	53.609	53.601	53.632	53.613	53.665	53.633	53.722
77	87.66	1.90	54.330	54.348	54.339	54.370	54.352	54.404	54.372	54.461
78	87.69	1.90	55.092	55.110	55.101	55.132	55.114	55.166	55.134	55.223
79	87.72	1.90	55.831	55.849	55.840	55.871	55.853	55.905	55.873	55.962
80	87.75	1.90	56.593	56.610	56.602	56.633	56.615	56.667	56.635	56.724
81	87.78	1.90	57.332	57.349	57.341	57.372	57.354	57.406	57.374	57.463
82	87.80	1.90	58.094	58.111	58.103	58.134	58.116	58.168	58.136	58.225
83	87.83	1.90	58.833	58.850	58.842	58.873	58.855	58.908	58.875	58.965
84	87.86	1.90	59.594	59.612	59.604	59.634	59.617	59.669	59.637	59.726
85	87.88	1.90	60.334	60.351	60.343	60.374	60.356	60.409	60.376	60.466
86	87.91	1.90	61.095	61.112	61.104	61.135	61.117	61.170	61.138	61.227
87	87.93	1.90	61.835	61.852	61.844	61.875	61.857	61.910	61.878	61.967
88	87.95	1.90	62.596	62.613	62.605	62.636	62.618	62.670	62.638	62.728
89	87.98	1.90	63.336	63.353	63.345	63.376	63.358	63.411	63.379	63.468
90	88.00	1.90	64.096	64.113	64.106	64.136	64.119	64.171	64.139	64.229
91	88.02	1.90	64.836	64.853	64.846	64.877	64.859	64.912	64.880	64.970
92	88.04	1.90	65.597	65.614	65.606	65.637	65.619	65.672	65.640	65.730
93	88.06	1.90	66.337	66.354	66.347	66.378	66.360	66.412	66.381	66.471
94	88.09	1.90	67.097	67.114	67.107	67.138	67.120	67.173	67.141	67.231
95	88.11	1.90	67.838	67.855	67.847	67.878	67.861	67.913	67.882	67.972
96	88.13	1.90	68.598	68.615	68.607	68.638	68.621	68.673	68.642	68.732
97	88.14	1.90	69.339	69.356	69.348	69.379	69.362	69.414	69.383	69.473
98	88.16	1.90	70.098	70.115	70.108	70.139	70.121	70.174	70.142	70.233
99	88.18	1.90	70.839	70.856	70.849	70.880	70.863	70.915	70.884	70.974
100	88.20	1.90	71.599	71.616	71.608	71.639	71.622	71.675	71.643	71.734

表 13 棒间距 M_{Ri}

45°直线内花键 模数 $m = 1 \text{ mm}$ 作用齿槽宽最小值 $E_{v \min} = 1.571 \text{ mm}$ 单位为毫米

齿数 z	齿槽角 β	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	72.00	2.12	6.318	6.340	6.325	6.362	6.335	6.395	6.352	6.450
11	73.64	2.12	7.240	7.262	7.247	7.284	7.257	7.316	7.273	7.370
12	75.00	2.12	8.351	8.373	8.358	8.394	8.368	8.427	8.385	8.481
13	76.15	2.24	8.966	8.987	8.973	9.009	8.983	9.041	8.999	9.095
14	77.14	2.24	10.060	10.081	10.067	10.103	10.077	10.135	10.093	10.189
15	78.00	2.24	10.997	11.018	11.004	11.039	11.014	11.072	11.030	11.125
16	78.75	2.24	12.078	12.099	12.086	12.121	12.096	12.153	12.112	12.207
17	79.41	2.24	13.020	13.041	13.027	13.062	13.038	13.095	13.054	13.148
18	80.00	2.24	14.092	14.113	14.099	14.134	14.109	14.167	14.126	14.221
19	80.53	2.24	15.038	15.059	15.046	15.080	15.056	15.113	15.072	15.167
20	81.00	2.24	16.103	16.123	16.110	16.145	16.120	16.177	16.137	16.231
21	81.43	2.24	17.053	17.073	17.060	17.095	17.070	17.127	17.087	17.182
22	81.82	2.36	17.808	17.828	17.815	17.850	17.825	17.882	17.842	17.937
23	82.17	2.36	18.763	18.783	18.770	18.804	18.780	18.837	18.797	18.892
24	82.50	2.36	19.816	19.836	19.823	19.858	19.834	19.891	19.851	19.945
25	82.80	2.36	20.773	20.794	20.781	20.815	20.792	20.848	20.809	20.903
26	83.08	2.36	21.822	21.842	21.830	21.865	21.841	21.898	21.858	21.953
27	83.33	2.36	22.783	22.803	22.790	22.825	22.801	22.858	22.818	22.913
28	83.57	2.36	23.828	23.848	23.836	23.870	23.847	23.904	23.864	23.959
29	83.79	2.36	24.791	24.811	24.798	24.833	24.809	24.866	24.827	24.922
30	84.00	2.36	25.833	25.853	25.841	25.875	25.852	25.909	25.869	25.964
31	84.19	2.36	26.798	26.818	26.806	26.840	26.817	26.873	26.834	26.929
32	84.38	2.36	27.837	27.857	27.845	27.880	27.856	27.913	27.874	27.969
33	84.55	2.36	28.804	28.824	28.812	28.846	28.823	28.880	28.841	28.936
34	84.71	2.36	29.841	29.861	29.849	29.883	29.860	29.917	29.878	29.973
35	84.86	2.36	30.809	30.829	30.817	30.852	30.829	30.885	30.846	30.942
36	85.00	2.36	31.844	31.864	31.852	31.887	31.864	31.921	31.882	31.977
37	85.14	2.36	32.814	32.834	32.822	32.857	32.834	32.891	32.852	32.947
38	85.26	2.36	33.847	33.867	33.855	33.890	33.867	33.924	33.885	33.981
39	85.38	2.36	34.816	34.838	34.827	34.861	34.838	34.895	34.857	34.952
40	85.50	2.36	35.850	35.870	35.858	35.892	35.870	35.927	35.888	35.984
41	85.61	2.36	36.822	36.842	36.831	36.865	36.842	36.899	36.861	36.957
42	85.71	2.36	37.852	37.872	37.861	37.895	37.873	37.930	37.891	37.987
43	85.81	2.36	38.826	38.846	38.834	38.869	38.846	38.903	38.865	38.961
44	85.91	2.36	39.855	39.874	39.863	39.897	39.875	39.932	39.894	39.990
45	86.00	2.36	40.829	40.849	40.838	40.872	40.850	40.907	40.869	40.965
46	86.09	2.36	41.857	41.876	41.865	41.899	41.877	41.934	41.896	41.992
47	86.17	2.36	42.832	42.852	42.841	42.875	42.853	42.910	42.872	42.968
48	86.25	2.36	43.858	43.878	43.867	43.901	43.879	43.936	43.898	43.995
49	86.33	2.36	44.835	44.854	44.844	44.878	44.856	44.913	44.875	44.972
50	86.40	2.36	45.860	45.880	45.869	45.903	45.881	45.938	45.901	45.997
51	86.47	2.36	46.838	46.857	46.846	46.881	46.859	46.916	46.878	46.975
52	86.54	2.36	47.862	47.881	47.871	47.905	47.883	47.940	47.903	47.999
53	86.60	2.50	48.496	48.515	48.505	48.539	48.517	48.575	48.537	48.634
54	86.67	2.50	49.519	49.539	49.528	49.562	49.541	49.598	49.560	49.657
55	86.73	2.50	50.498	50.518	50.507	50.542	50.520	50.577	50.540	50.637

表 13 (续)

单位为毫米

齿数 z	齿槽角 β	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	86.79	2.50	51.521	51.540	51.530	51.564	51.543	51.600	51.562	51.659
57	86.84	2.50	52.501	52.520	52.510	52.544	52.523	52.580	52.542	52.640
58	86.90	2.50	53.522	53.542	53.531	53.566	53.544	53.602	53.564	53.662
59	86.95	2.50	54.503	54.522	54.512	54.546	54.525	54.582	54.545	54.642
60	87.00	2.50	55.524	55.543	55.533	55.567	55.546	55.603	55.566	55.663
61	87.05	2.50	56.505	56.524	56.514	56.548	56.527	56.584	56.547	56.645
62	87.10	2.50	57.525	57.544	57.534	57.568	57.547	57.605	57.568	57.665
63	87.14	2.50	58.507	58.526	58.516	58.550	58.529	58.587	58.550	58.647
64	87.19	2.50	59.526	59.545	59.536	59.570	59.549	59.606	59.569	59.667
65	87.23	2.50	60.509	60.528	60.518	60.552	60.531	60.589	60.552	60.649
66	87.27	2.50	61.528	61.547	61.537	61.571	61.550	61.608	61.571	61.669
67	87.31	2.50	62.510	62.529	62.520	62.554	62.533	62.590	62.554	62.652
68	87.35	2.50	63.529	63.548	63.538	63.572	63.552	63.609	63.573	63.670
69	87.39	2.50	64.512	64.531	64.521	64.555	64.535	64.592	64.556	64.654
70	87.43	2.50	65.530	65.549	65.539	65.573	65.553	65.610	65.574	65.672
71	87.46	2.50	66.513	66.532	66.523	66.557	66.537	66.594	66.558	66.656
72	87.50	2.50	67.531	67.550	67.540	67.574	67.554	67.612	67.575	67.673
73	87.53	2.50	68.515	68.534	68.525	68.558	68.538	68.596	68.560	68.658
74	87.57	2.50	69.532	69.551	69.541	69.575	69.555	69.613	69.577	69.675
75	87.60	2.50	70.516	70.535	70.526	70.560	70.540	70.597	70.561	70.659
76	87.63	2.50	71.533	71.551	71.543	71.576	71.556	71.614	71.578	71.676
77	87.66	2.50	72.517	72.536	72.527	72.561	72.541	72.599	72.563	72.661
78	87.69	2.50	73.533	73.552	73.543	73.577	73.557	73.615	73.579	73.678
79	87.72	2.50	74.519	74.537	74.529	74.563	74.543	74.600	74.565	74.663
80	87.75	2.50	75.534	75.553	75.544	75.578	75.559	75.616	75.580	75.679
81	87.78	2.50	76.520	76.539	76.530	76.564	76.544	76.602	76.566	76.665
82	87.80	2.50	77.535	77.554	77.545	77.579	77.560	77.617	77.582	77.680
83	87.83	2.50	78.521	78.540	78.531	78.565	78.545	78.603	78.568	78.666
84	87.86	2.50	79.536	79.555	79.546	79.580	79.560	79.618	79.583	79.681
85	87.88	2.50	80.522	80.541	80.532	80.566	80.547	80.604	80.569	80.668
86	87.91	2.50	81.537	81.555	81.547	81.581	81.561	81.619	81.584	81.683
87	87.93	2.50	82.523	82.542	82.534	82.567	82.548	82.606	82.570	82.669
88	87.95	2.50	83.537	83.556	83.548	83.582	83.562	83.620	83.585	83.684
89	87.98	2.50	84.524	84.543	84.535	84.568	84.549	84.607	84.572	84.671
90	88.00	2.50	85.538	85.557	85.549	85.582	85.563	85.621	85.586	85.685
91	88.02	2.50	86.525	86.544	86.536	86.569	86.550	86.608	86.573	86.672
92	88.04	2.50	87.539	87.557	87.549	87.583	87.564	87.622	87.587	87.686
93	88.06	2.50	88.526	88.545	88.537	88.570	88.551	88.609	88.574	88.673
94	88.09	2.50	89.539	89.558	89.550	89.584	89.565	89.623	89.588	89.687
95	88.11	2.50	90.527	90.546	90.538	90.571	90.553	90.610	90.576	90.675
96	88.13	2.50	91.540	91.559	91.551	91.584	91.566	91.623	91.589	91.688
97	88.14	2.50	92.528	92.546	92.539	92.572	92.554	92.611	92.577	92.676
98	88.16	2.50	93.541	93.559	93.551	93.585	93.566	93.624	93.590	93.689
99	88.18	2.50	94.529	94.547	94.540	94.573	94.555	94.612	94.578	94.677
100	88.20	2.50	95.541	95.560	95.552	95.586	95.567	95.625	95.591	95.690

表 14 棒间距 M_R 45°直线内花键 模数 $m = 1.25 \text{ mm}$ 作用齿槽宽最小值 $E_{v \min} = 1.963 \text{ mm}$ 单位为毫米

齿数 z	齿槽角 β	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	72.00	2.65	7.895	7.919	7.902	7.943	7.913	7.979	7.930	8.038
11	73.64	2.65	9.048	9.071	9.055	9.094	9.066	9.130	9.083	9.188
12	75.00	2.65	10.436	10.459	10.444	10.483	10.454	10.518	10.471	10.577
13	76.15	2.65	11.596	11.619	11.604	11.642	11.614	11.677	11.631	11.735
14	77.14	2.80	12.572	12.595	12.580	12.619	12.590	12.654	12.608	12.712
15	78.00	2.80	13.744	13.766	13.751	13.789	13.762	13.824	13.779	13.882
16	78.75	2.80	15.095	15.118	15.103	15.141	15.113	15.176	15.131	15.234
17	79.41	2.80	16.273	16.295	16.280	16.318	16.291	16.353	16.308	16.411
18	80.00	2.80	17.612	17.634	17.620	17.658	17.631	17.693	17.648	17.751
19	80.53	2.80	18.795	18.817	18.803	18.841	18.814	18.876	18.831	18.934
20	81.00	2.80	20.125	20.147	20.133	20.171	20.144	20.206	20.162	20.265
21	81.43	2.80	21.313	21.335	21.321	21.359	21.332	21.394	21.350	21.452
22	81.82	2.80	22.636	22.658	22.644	22.681	22.655	22.717	22.672	22.775
23	82.17	2.80	23.828	23.850	23.836	23.873	23.847	23.909	23.865	23.967
24	82.50	2.80	25.144	25.166	25.152	25.190	25.163	25.225	25.181	25.284
25	82.80	3.00	25.838	25.860	25.846	25.884	25.858	25.919	25.876	25.979
26	83.08	3.00	27.150	27.171	27.158	27.195	27.169	27.231	27.187	27.290
27	83.33	3.00	28.350	28.372	28.359	28.396	28.370	28.432	28.388	28.491
28	83.57	3.00	29.657	29.679	29.665	29.703	29.677	29.739	29.695	29.798
29	83.79	3.00	30.861	30.882	30.869	30.906	30.881	30.942	30.899	31.002
30	84.00	3.00	32.164	32.185	32.172	32.209	32.184	32.245	32.202	32.305
31	84.19	3.00	33.370	33.391	33.378	33.415	33.390	33.451	33.409	33.512
32	84.38	3.00	34.669	34.691	34.678	34.715	34.689	34.751	34.708	34.811
33	84.55	3.00	35.878	35.899	35.886	35.923	35.898	35.960	35.917	36.020
34	84.71	3.00	37.174	37.195	37.183	37.220	37.195	37.256	37.214	37.317
35	84.86	3.00	38.384	38.406	38.393	38.430	38.405	38.467	38.424	38.528
36	85.00	3.00	39.678	39.700	39.687	39.724	39.699	39.761	39.718	39.822
37	85.14	3.00	40.891	40.912	40.899	40.936	40.912	40.973	40.931	41.034
38	85.26	3.00	42.182	42.203	42.191	42.228	42.203	42.265	42.223	42.326
39	85.38	3.00	43.396	43.417	43.405	43.442	43.418	43.479	43.437	43.541
40	85.50	3.00	44.686	44.707	44.695	44.732	44.707	44.769	44.727	44.830
41	85.61	3.00	45.901	45.922	45.910	45.947	45.923	45.984	45.943	46.046
42	85.71	3.00	47.189	47.210	47.198	47.235	47.210	47.272	47.230	47.334
43	85.81	3.00	48.406	48.427	48.415	48.452	48.428	48.489	48.448	48.552
44	85.91	3.00	49.692	49.713	49.701	49.738	49.714	49.775	49.734	49.838
45	86.00	3.00	50.910	50.931	50.919	50.956	50.932	50.994	50.952	51.056
46	86.09	3.00	52.194	52.215	52.203	52.240	52.216	52.278	52.237	52.341
47	86.17	3.00	53.414	53.435	53.423	53.460	53.436	53.498	53.457	53.561
48	86.25	3.00	54.697	54.718	54.706	54.743	54.719	54.781	54.740	54.844
49	86.33	3.00	55.917	55.938	55.927	55.964	55.940	56.002	55.961	56.065
50	86.40	3.00	57.199	57.220	57.208	57.245	57.222	57.283	57.242	57.347
51	86.47	3.00	58.421	58.442	58.430	58.467	58.444	58.505	58.464	58.569
52	86.54	3.00	59.701	59.722	59.710	59.747	59.724	59.786	59.745	59.849
53	86.60	3.00	60.924	60.945	60.933	60.970	60.947	61.009	60.968	61.073
54	86.67	3.00	62.203	62.224	62.212	62.249	62.226	62.288	62.247	62.352
55	86.73	3.00	63.427	63.447	63.436	63.473	63.450	63.512	63.471	63.576

表 14 (续)

单位为毫米

齿数 z	齿槽角 β	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	86.79	3.00	64.705	64.725	64.714	64.751	64.728	64.790	64.749	64.854
57	86.84	3.00	65.929	65.950	65.939	65.976	65.953	66.015	65.974	66.079
58	86.90	3.00	67.206	67.227	67.216	67.253	67.230	67.292	67.252	67.356
59	86.95	3.00	68.432	68.452	68.442	68.478	68.456	68.517	68.477	68.582
60	87.00	3.00	69.708	69.728	69.718	69.754	69.732	69.794	69.754	69.859
61	87.05	3.00	70.934	70.955	70.944	70.981	70.958	71.020	70.980	71.085
62	87.10	3.00	72.209	72.230	72.219	72.256	72.234	72.295	72.256	72.361
63	87.14	3.00	73.436	73.457	73.446	73.483	73.461	73.522	73.483	73.588
64	87.19	3.00	74.711	74.731	74.721	74.757	74.735	74.797	74.757	74.863
65	87.23	3.00	75.938	75.959	75.949	75.985	75.963	76.025	75.985	76.090
66	87.27	3.00	77.212	77.232	77.222	77.259	77.237	77.298	77.259	77.364
67	87.31	3.00	78.440	78.461	78.451	78.487	78.465	78.527	78.488	78.593
68	87.35	3.00	79.713	79.734	79.724	79.760	79.738	79.800	79.761	79.866
69	87.39	3.00	80.942	80.962	80.953	80.989	80.967	81.029	80.990	81.095
70	87.43	3.00	82.214	82.235	82.225	82.261	82.240	82.301	82.262	82.368
71	87.46	3.00	83.444	83.464	83.454	83.491	83.469	83.531	83.492	83.598
72	87.50	3.00	84.716	84.736	84.726	84.763	84.741	84.803	84.764	84.870
73	87.53	3.00	85.946	85.966	85.956	85.993	85.971	86.033	85.994	86.100
74	87.57	3.00	87.217	87.237	87.227	87.264	87.242	87.304	87.265	87.371
75	87.60	3.00	88.447	88.467	88.458	88.494	88.473	88.535	88.496	88.602
76	87.63	3.00	89.718	89.738	89.728	89.765	89.744	89.805	89.767	89.873
77	87.66	3.00	90.949	90.969	90.959	90.996	90.975	91.036	90.998	91.104
78	87.69	3.00	92.219	92.239	92.229	92.266	92.245	92.306	92.268	92.374
79	87.72	3.00	93.450	93.470	93.461	93.497	93.476	93.538	93.500	93.606
80	87.75	3.00	94.720	94.740	94.731	94.767	94.746	94.808	94.770	94.876
81	87.78	3.00	95.951	95.971	95.962	95.999	95.978	96.040	96.002	96.108
82	87.80	3.00	97.220	97.241	97.232	97.268	97.247	97.309	97.271	97.377
83	87.83	3.00	98.453	98.473	98.464	98.500	98.479	98.541	98.503	98.609
84	87.86	3.00	99.721	99.741	99.732	99.769	99.748	99.810	99.772	99.878
85	87.88	3.00	100.954	100.974	100.965	101.001	100.981	101.043	101.005	101.111
86	87.91	3.00	102.222	102.242	102.233	102.270	102.249	102.311	102.273	102.380
87	87.93	3.00	103.455	103.475	103.466	103.503	103.482	103.544	103.507	103.613
88	87.95	3.00	104.723	104.743	104.734	104.770	104.750	104.812	104.775	104.881
89	87.98	3.00	105.956	105.976	105.968	106.004	105.984	106.045	106.008	106.115
90	88.00	3.00	107.224	107.244	107.235	107.271	107.251	107.313	107.276	107.382
91	88.02	3.00	108.458	108.477	108.469	108.505	108.485	108.547	108.510	108.616
92	88.04	3.00	109.724	109.744	109.736	109.772	109.752	109.814	109.777	109.883
93	88.06	3.00	110.959	110.978	110.970	111.006	110.986	111.048	111.011	111.118
94	88.09	3.00	112.225	112.245	112.237	112.273	112.253	112.315	112.278	112.385
95	88.11	3.00	113.460	113.479	113.471	113.507	113.488	113.549	113.513	113.619
96	88.13	3.00	114.726	114.746	114.738	114.774	114.754	114.816	114.779	114.886
97	88.14	3.00	115.961	115.980	115.972	116.008	115.989	116.051	116.014	116.121
98	88.16	3.00	117.227	117.246	117.238	117.274	117.255	117.317	117.280	117.387
99	88.18	3.00	118.462	118.481	118.473	118.509	118.490	118.552	118.515	118.622
100	88.20	3.00	119.727	119.747	119.739	119.775	119.756	119.817	119.781	119.888

表 15 棒间距 M_{Ri} 45°直线内花键 模数 $m=1.5\text{ mm}$ 作用齿槽宽最小值 $E_{v\min}=2.356\text{ mm}$ 单位为毫米

齿数 z	齿槽角 β	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	72.00	3.15	9.553	9.578	9.560	9.604	9.572	9.642	9.590	9.705
11	73.64	3.15	10.935	10.959	10.942	10.984	10.953	11.022	10.971	11.084
12	75.00	3.15	12.600	12.625	12.608	12.650	12.619	12.688	12.637	12.750
13	76.15	3.15	13.991	14.016	13.999	14.041	14.010	14.078	14.028	14.139
14	77.14	3.35	15.110	15.135	15.118	15.160	15.130	15.197	15.147	15.259
15	78.00	3.35	16.516	16.540	16.524	16.565	16.535	16.602	16.553	16.663
16	78.75	3.35	18.138	18.162	18.146	18.187	18.157	18.224	18.175	18.286
17	79.41	3.35	19.550	19.574	19.558	19.599	19.570	19.636	19.588	19.698
18	80.00	3.35	21.158	21.182	21.166	21.206	21.177	21.244	21.196	21.306
19	80.53	3.35	22.577	22.601	22.585	22.626	22.597	22.663	22.615	22.725
20	81.00	3.35	24.173	24.197	24.181	24.222	24.193	24.259	24.212	24.322
21	81.43	3.35	25.599	25.622	25.607	25.647	25.619	25.684	25.637	25.747
22	81.82	3.35	27.186	27.209	27.194	27.234	27.206	27.272	27.224	27.334
23	82.17	3.35	28.616	28.640	28.625	28.665	28.636	28.702	28.655	28.765
24	82.50	3.35	30.196	30.219	30.204	30.244	30.216	30.282	30.235	30.345
25	82.80	3.35	31.631	31.654	31.639	31.679	31.651	31.717	31.670	31.780
26	83.08	3.35	33.204	33.227	33.213	33.253	33.225	33.291	33.244	33.354
27	83.33	3.55	34.143	34.166	34.152	34.191	34.164	34.230	34.183	34.293
28	83.57	3.55	35.711	35.734	35.720	35.760	35.732	35.798	35.752	35.861
29	83.79	3.55	37.155	37.178	37.164	37.204	37.176	37.242	37.196	37.305
30	84.00	3.55	38.718	38.741	38.727	38.767	38.740	38.805	38.759	38.869
31	84.19	3.55	40.166	40.188	40.174	40.214	40.187	40.253	40.207	40.317
32	84.38	3.55	41.725	41.748	41.734	41.773	41.746	41.812	41.766	41.876
33	84.55	3.55	43.175	43.197	43.184	43.223	43.196	43.262	43.216	43.326
34	84.71	3.55	44.730	44.753	44.740	44.779	44.752	44.818	44.773	44.883
35	84.86	3.55	46.183	46.205	46.192	46.231	46.205	46.270	46.225	46.335
36	85.00	3.55	47.735	47.758	47.745	47.784	47.758	47.823	47.778	47.888
37	85.14	3.55	49.190	49.213	49.199	49.239	49.212	49.278	49.233	49.343
38	85.26	3.55	50.740	50.762	50.749	50.789	50.762	50.828	50.783	50.893
39	85.38	3.55	52.197	52.219	52.206	52.245	52.219	52.285	52.240	52.350
40	85.50	3.55	53.744	53.766	53.753	53.793	53.767	53.832	53.788	53.898
41	85.61	3.55	55.202	55.225	55.212	55.251	55.225	55.291	55.246	55.357
42	85.71	3.55	56.747	56.770	56.757	56.796	56.771	56.836	56.792	56.902
43	85.81	3.55	58.208	58.230	58.217	58.257	58.231	58.296	58.252	58.363
44	85.91	3.55	59.751	59.773	59.760	59.800	59.774	59.840	59.795	59.906
45	86.00	3.55	61.213	61.235	61.222	61.262	61.236	61.302	61.258	61.368
46	86.09	3.55	62.754	62.776	62.763	62.803	62.777	62.843	62.799	62.910
47	86.17	3.55	64.217	64.239	64.227	64.266	64.241	64.306	64.263	64.373
48	86.25	3.55	65.756	65.778	65.766	65.805	65.780	65.846	65.802	65.913
49	86.33	3.55	67.221	67.243	67.231	67.270	67.245	67.311	67.267	67.378
50	86.40	3.55	68.759	68.781	68.769	68.808	68.783	68.849	68.805	68.916
51	86.47	3.55	70.225	70.247	70.235	70.274	70.250	70.315	70.272	70.383
52	86.54	3.55	71.761	71.783	71.771	71.810	71.786	71.851	71.808	71.919
53	86.60	3.55	73.229	73.251	73.239	73.278	73.253	73.319	73.276	73.387
54	86.67	3.55	74.763	74.785	74.774	74.813	74.788	74.854	74.811	74.922
55	86.73	3.55	76.232	76.254	76.242	76.281	76.257	76.322	76.280	76.391

表 15 (续)

单位为毫米

齿数 z	齿槽角 β	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	86.79	3.55	77.765	77.787	77.776	77.815	77.791	77.856	77.813	77.925
57	86.84	3.55	79.235	79.257	79.245	79.284	79.260	79.326	79.283	79.394
58	86.90	3.55	80.767	80.789	80.778	80.817	80.793	80.858	80.816	80.927
59	86.95	3.55	82.238	82.260	82.248	82.287	82.263	82.329	82.287	82.398
60	87.00	3.55	83.769	83.791	83.780	83.819	83.795	83.860	83.818	83.930
61	87.05	3.55	85.241	85.262	85.251	85.290	85.266	85.332	85.290	85.401
62	87.10	3.55	86.771	86.792	86.782	86.820	86.797	86.862	86.820	86.932
63	87.14	3.55	88.243	88.265	88.254	88.293	88.269	88.335	88.293	88.404
64	87.19	3.55	89.772	89.794	89.783	89.822	89.799	89.864	89.822	89.934
65	87.23	3.55	91.245	91.267	91.256	91.295	91.272	91.337	91.296	91.407
66	87.27	3.55	92.774	92.795	92.785	92.824	92.800	92.866	92.824	92.936
67	87.31	3.55	94.248	94.269	94.259	94.297	94.274	94.340	94.298	94.410
68	87.35	3.55	95.775	95.797	95.786	95.825	95.802	95.867	95.826	95.938
69	87.39	3.55	97.250	97.271	97.261	97.300	97.277	97.342	97.301	97.413
70	87.43	3.55	98.777	98.798	98.788	98.826	98.804	98.869	98.828	98.940
71	87.46	3.55	100.252	100.273	100.263	100.302	100.279	100.344	100.303	100.415
72	87.50	3.55	101.778	101.799	101.789	101.828	101.805	101.871	101.830	101.942
73	87.53	3.55	103.254	103.275	103.265	103.304	103.281	103.347	103.306	103.418
74	87.57	3.55	104.779	104.800	104.791	104.829	104.807	104.872	104.831	104.944
75	87.60	3.55	106.256	106.277	106.267	106.306	106.283	106.349	106.308	106.420
76	87.63	3.55	107.780	107.802	107.792	107.830	107.808	107.873	107.833	107.945
77	87.66	3.55	109.257	109.279	109.269	109.307	109.285	109.351	109.310	109.423
78	87.69	3.55	110.781	110.803	110.793	110.832	110.809	110.875	110.835	110.947
79	87.72	3.55	112.259	112.280	112.271	112.309	112.287	112.353	112.312	112.425
80	87.75	3.55	113.782	113.804	113.794	113.833	113.811	113.876	113.836	113.949
81	87.78	3.55	115.261	115.282	115.272	115.311	115.289	115.354	115.315	115.427
82	87.80	3.55	116.784	116.805	116.795	116.834	116.812	116.877	116.838	116.950
83	87.83	3.55	118.262	118.283	118.274	118.312	118.291	118.356	118.316	118.429
84	87.86	3.55	119.784	119.806	119.796	119.835	119.813	119.879	119.839	119.952
85	87.88	3.55	121.264	121.285	121.276	121.314	121.292	121.358	121.318	121.431
86	87.91	3.55	122.785	122.806	122.797	122.836	122.814	122.880	122.840	122.953
87	87.93	3.55	124.265	124.286	124.277	124.315	124.294	124.359	124.320	124.433
88	87.95	3.55	125.786	125.807	125.798	125.837	125.816	125.881	125.842	125.954
89	87.98	3.55	127.266	127.287	127.279	127.317	127.296	127.361	127.322	127.435
90	88.00	3.55	128.787	128.808	128.799	128.838	128.817	128.882	128.843	128.956
91	88.02	3.55	130.268	130.289	130.280	130.318	130.297	130.363	130.324	130.437
92	88.04	3.55	131.788	131.809	131.800	131.839	131.818	131.883	131.844	131.957
93	88.06	3.55	133.269	133.290	133.281	133.319	133.299	133.364	133.325	133.438
94	88.09	3.55	134.789	134.810	134.801	134.839	134.819	134.884	134.846	134.959
95	88.11	3.55	136.270	136.291	136.283	136.321	136.300	136.365	136.327	136.440
96	88.13	3.55	137.790	137.810	137.802	137.840	137.820	137.885	137.847	137.960
97	88.14	3.55	139.271	139.292	139.284	139.322	139.302	139.367	139.329	139.442
98	88.16	3.55	140.790	140.811	140.803	140.841	140.821	140.886	140.848	140.961
99	88.18	3.55	142.272	142.293	142.285	142.323	142.303	142.368	142.330	142.443
100	88.20	3.55	143.786	143.807	143.799	143.837	143.817	143.882	143.844	143.957

表 16 棒间距 M_{Ri}
45°直线内花键 模数 $m = 1.75 \text{ mm}$ 作用齿槽宽最小值 $E_{v \min} = 2.749 \text{ mm}$ 单位为毫米

齿数 z	齿槽角 β	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	72.00	3.55	11.480	11.508	11.489	11.534	11.500	11.574	11.519	11.641
11	73.64	3.75	12.556	12.582	12.564	12.609	12.576	12.648	12.594	12.713
12	75.00	3.75	14.500	14.527	14.508	14.553	14.520	14.592	14.539	14.658
13	76.15	3.75	16.126	16.151	16.134	16.178	16.145	16.217	16.164	16.282
14	77.14	3.75	18.039	18.065	18.047	18.091	18.059	18.130	18.078	18.196
15	78.00	3.75	19.675	19.700	19.683	19.726	19.695	19.765	19.714	19.830
16	78.75	3.75	21.566	21.592	21.575	21.618	21.587	21.657	21.606	21.723
17	79.41	4.00	22.572	22.597	22.580	22.623	22.592	22.662	22.611	22.728
18	80.00	4.00	24.448	24.473	24.456	24.499	24.468	24.538	24.487	24.604
19	80.53	4.00	26.105	26.130	26.113	26.156	26.126	26.195	26.145	26.261
20	81.00	4.00	27.967	27.992	27.976	28.019	27.988	28.058	28.007	28.124
21	81.43	4.00	29.631	29.656	29.640	29.682	29.652	29.722	29.672	29.787
22	81.82	4.00	31.483	31.508	31.492	31.534	31.504	31.574	31.524	31.640
23	82.17	4.00	33.153	33.177	33.162	33.204	33.174	33.243	33.194	33.309
24	82.50	4.00	34.996	35.020	35.004	35.047	35.017	35.086	35.037	35.153
25	82.80	4.00	36.671	36.695	36.680	36.722	36.692	36.761	36.712	36.828
26	83.08	4.00	38.506	38.530	38.515	38.557	38.528	38.597	38.548	38.664
27	83.33	4.00	40.186	40.210	40.195	40.237	40.208	40.277	40.228	40.344
28	83.57	4.00	42.015	42.039	42.024	42.066	42.037	42.106	42.058	42.173
29	83.79	4.00	43.699	43.723	43.708	43.750	43.721	43.790	43.742	43.857
30	84.00	4.00	45.523	45.547	45.532	45.574	45.545	45.614	45.566	45.682
31	84.19	4.00	47.210	47.234	47.220	47.261	47.233	47.302	47.254	47.370
32	84.38	4.00	49.029	49.053	49.039	49.080	49.052	49.121	49.073	49.189
33	84.55	4.00	50.720	50.744	50.730	50.771	50.743	50.812	50.764	50.880
34	84.71	4.00	52.535	52.559	52.545	52.586	52.558	52.627	52.580	52.696
35	84.86	4.00	54.229	54.253	54.239	54.280	54.252	54.321	54.274	54.390
36	85.00	4.00	56.040	56.064	56.050	56.092	56.064	56.133	56.085	56.201
37	85.14	4.00	57.737	57.761	57.747	57.788	57.761	57.830	57.782	57.898
38	85.26	4.00	59.545	59.569	59.555	59.596	59.569	59.638	59.591	59.707
39	85.38	4.00	61.244	61.268	61.254	61.295	61.268	61.337	61.290	61.406
40	85.50	4.00	63.049	63.073	63.059	63.100	63.073	63.142	63.095	63.212
41	85.61	4.00	64.751	64.774	64.761	64.802	64.775	64.844	64.797	64.913
42	85.71	4.00	66.553	66.576	66.563	66.604	66.577	66.646	66.600	66.716
43	85.81	4.00	68.256	68.280	68.267	68.308	68.281	68.350	68.303	68.420
44	85.91	4.00	70.056	70.080	70.067	70.108	70.081	70.150	70.104	70.220
45	86.00	4.00	71.762	71.785	71.772	71.813	71.787	71.855	71.809	71.926
46	86.09	4.25	72.943	72.966	72.954	72.995	72.968	73.037	72.991	73.108
47	86.17	4.25	74.651	74.674	74.661	74.702	74.676	74.745	74.699	74.816
48	86.25	4.25	76.447	76.470	76.457	76.498	76.472	76.541	76.495	76.612
49	86.33	4.25	78.156	78.179	78.166	78.207	78.181	78.250	78.205	78.321
50	86.40	4.25	79.950	79.973	79.960	80.001	79.975	80.044	79.999	80.116
51	86.47	4.25	81.660	81.683	81.671	81.712	81.686	81.755	81.710	81.827
52	86.54	4.25	83.453	83.476	83.463	83.504	83.479	83.547	83.502	83.619
53	86.60	4.25	85.165	85.188	85.176	85.216	85.191	85.260	85.215	85.332
54	86.67	4.25	86.955	86.978	86.966	87.007	86.982	87.050	87.006	87.123
55	86.73	4.25	88.669	88.692	88.680	88.721	88.695	88.764	88.719	88.836

表 16 (续) 单位为毫米

齿数 z	齿槽角 β	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	86.79	4.25	90.458	90.481	90.469	90.510	90.485	90.553	90.509	90.626
57	86.84	4.25	92.172	92.195	92.184	92.224	92.199	92.268	92.223	92.341
58	86.90	4.25	93.960	93.983	93.971	94.012	93.987	94.056	94.012	94.129
59	86.95	4.25	95.676	95.699	95.687	95.728	95.703	95.772	95.727	95.845
60	87.00	4.25	97.462	97.485	97.474	97.514	97.490	97.558	97.514	97.632
61	87.05	4.25	99.179	99.202	99.191	99.231	99.207	99.275	99.231	99.349
62	87.10	4.25	100.964	100.987	100.976	101.017	100.992	101.061	101.017	101.134
63	87.14	4.25	102.682	102.705	102.694	102.734	102.710	102.779	102.735	102.852
64	87.19	4.25	104.466	104.489	104.478	104.519	104.494	104.563	104.519	104.637
65	87.23	4.25	106.185	106.208	106.197	106.237	106.213	106.282	106.238	106.356
66	87.27	4.25	107.968	107.991	107.980	108.021	107.996	108.065	108.022	108.139
67	87.31	4.25	109.688	109.710	109.700	109.740	109.716	109.785	109.742	109.859
68	87.35	4.25	111.470	111.492	111.482	111.522	111.498	111.567	111.524	111.642
69	87.39	4.25	113.190	113.213	113.202	113.243	113.219	113.288	113.245	113.362
70	87.43	4.25	114.972	114.994	114.984	115.024	115.000	115.069	115.026	115.144
71	87.46	4.25	116.693	116.715	116.705	116.745	116.722	116.790	116.748	116.865
72	87.50	4.25	118.473	118.496	118.485	118.526	118.502	118.571	118.528	118.646
73	87.53	4.25	120.195	120.217	120.207	120.248	120.224	120.293	120.250	120.368
74	87.57	4.25	121.975	121.997	121.987	122.027	122.004	122.073	122.030	122.148
75	87.60	4.25	123.697	123.720	123.710	123.750	123.727	123.795	123.753	123.871
76	87.63	4.25	125.476	125.498	125.488	125.529	125.506	125.574	125.532	125.650
77	87.66	4.25	127.199	127.222	127.212	127.252	127.229	127.298	127.256	127.374
78	87.69	4.25	128.978	129.000	128.990	129.030	129.007	129.076	129.034	129.152
79	87.72	4.25	130.702	130.724	130.714	130.754	130.731	130.800	130.758	130.876
80	87.75	4.25	132.479	132.501	132.491	132.532	132.509	132.577	132.536	132.654
81	87.78	4.25	134.203	134.225	134.216	134.256	134.234	134.302	134.261	134.379
82	87.80	4.25	135.980	136.002	135.993	136.033	136.010	136.079	136.038	136.156
83	87.83	4.25	137.705	137.727	137.718	137.758	137.736	137.804	137.763	137.881
84	87.86	4.25	139.481	139.503	139.494	139.534	139.512	139.580	139.539	139.658
85	87.88	4.25	141.207	141.229	141.220	141.260	141.238	141.306	141.265	141.383
86	87.91	4.25	142.982	143.004	142.995	143.035	143.013	143.082	143.041	143.159
87	87.93	4.25	144.709	144.731	144.722	144.762	144.740	144.808	144.767	144.886
88	87.95	4.25	146.484	146.505	146.496	146.536	146.515	146.583	146.543	146.661
89	87.98	4.25	148.210	148.232	148.223	148.263	148.242	148.310	148.270	148.388
90	88.00	4.25	149.985	150.006	149.998	150.038	150.016	150.084	150.044	150.162
91	88.02	4.25	151.712	151.734	151.725	151.765	151.743	151.812	151.772	151.890
92	88.04	4.25	153.486	153.507	153.499	153.539	153.517	153.586	153.546	153.664
93	88.06	4.25	155.213	155.235	155.227	155.266	155.245	155.314	155.274	155.392
94	88.09	4.25	156.987	157.008	157.000	157.040	157.019	157.087	157.047	157.166
95	88.11	4.25	158.715	158.736	158.728	158.768	158.747	158.815	158.775	158.894
96	88.13	4.25	160.488	160.509	160.501	160.541	160.520	160.588	160.548	160.667
97	88.14	4.25	162.216	162.238	162.230	162.269	162.248	162.317	162.277	162.396
98	88.16	4.25	163.988	164.010	164.002	164.042	164.021	164.089	164.050	164.168
99	88.18	4.25	165.718	165.739	165.731	165.771	165.750	165.818	165.779	165.898
100	88.20	4.25	167.489	167.511	167.503	167.543	167.522	167.590	167.551	167.670

表 17 棒间距 M_{Ri} 45°直线内花键 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	齿槽角 β	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	72.00	4.25	12.598	12.626	12.606	12.654	12.618	12.696	12.638	12.766
11	73.64	4.25	14.443	14.470	14.451	14.498	14.463	14.539	14.482	14.608
12	75.00	4.25	16.664	16.692	16.673	16.719	16.685	16.761	16.704	16.830
13	76.15	4.25	18.521	18.548	18.529	18.575	18.541	18.616	18.560	18.684
14	77.14	4.25	20.707	20.734	20.716	20.762	20.728	20.803	20.748	20.871
15	78.00	4.25	22.576	22.603	22.585	22.630	22.597	22.671	22.616	22.739
16	78.75	4.50	24.094	24.120	24.102	24.148	24.115	24.189	24.134	24.257
17	79.41	4.50	25.978	26.004	25.986	26.031	25.999	26.072	26.019	26.140
18	80.00	4.50	28.121	28.147	28.130	28.175	28.142	28.216	28.162	28.284
19	80.53	4.50	30.014	30.040	30.023	30.067	30.036	30.109	30.055	30.177
20	81.00	4.50	32.142	32.168	32.151	32.196	32.164	32.237	32.184	32.306
21	81.43	4.50	34.043	34.069	34.052	34.096	34.065	34.138	34.085	34.206
22	81.82	4.50	36.159	36.185	36.168	36.213	36.181	36.254	36.202	36.323
23	82.17	4.50	38.067	38.092	38.076	38.120	38.089	38.162	38.110	38.231
24	82.50	4.50	40.173	40.198	40.182	40.226	40.195	40.268	40.216	40.337
25	82.80	4.50	42.087	42.112	42.096	42.140	42.109	42.182	42.130	42.251
26	83.08	4.50	44.184	44.210	44.194	44.238	44.207	44.280	44.228	44.349
27	83.33	4.50	46.104	46.129	46.113	46.157	46.127	46.199	46.148	46.269
28	83.57	4.50	48.194	48.219	48.204	48.247	48.217	48.289	48.238	48.360
29	83.79	4.50	50.118	50.143	50.128	50.171	50.141	50.214	50.163	50.284
30	84.00	4.50	52.202	52.227	52.212	52.256	52.226	52.298	52.247	52.369
31	84.19	4.50	54.131	54.156	54.140	54.184	54.154	54.226	54.176	54.297
32	84.38	4.50	56.209	56.234	56.219	56.263	56.233	56.306	56.255	56.377
33	84.55	4.50	58.142	58.166	58.152	58.195	58.166	58.238	58.188	58.309
34	84.71	4.50	60.216	60.241	60.226	60.269	60.240	60.312	60.262	60.384
35	84.86	4.50	62.151	62.176	62.162	62.205	62.176	62.248	62.198	62.319
36	85.00	4.50	64.221	64.246	64.231	64.275	64.246	64.318	64.269	64.390
37	85.14	4.75	65.541	65.566	65.551	65.594	65.566	65.638	65.588	65.710
38	85.26	4.75	67.607	67.632	67.617	67.661	67.632	67.704	67.655	67.776
39	85.38	4.75	69.550	69.574	69.560	69.603	69.575	69.647	69.598	69.719
40	85.50	4.75	71.612	71.637	71.623	71.666	71.638	71.710	71.661	71.782
41	85.61	4.75	73.557	73.582	73.568	73.611	73.583	73.655	73.606	73.728
42	85.71	4.75	75.617	75.642	75.628	75.671	75.643	75.715	75.666	75.788
43	85.81	4.75	77.564	77.589	77.575	77.618	77.590	77.662	77.614	77.736
44	85.91	4.75	79.622	79.646	79.632	79.675	79.648	79.720	79.671	79.793
45	86.00	4.75	81.571	81.595	81.582	81.625	81.597	81.669	81.621	81.743
46	86.09	4.75	83.626	83.650	83.636	83.679	83.652	83.724	83.676	83.798
47	86.17	4.75	85.577	85.601	85.588	85.631	85.604	85.675	85.628	85.749
48	86.25	4.75	87.629	87.653	87.640	87.683	87.656	87.728	87.680	87.802
49	86.33	4.75	89.582	89.606	89.594	89.636	89.609	89.681	89.634	89.756
50	86.40	4.75	91.633	91.657	91.644	91.687	91.660	91.731	91.684	91.806
51	86.47	4.75	93.587	93.611	93.599	93.641	93.615	93.686	93.639	93.761
52	86.54	4.75	95.636	95.660	95.647	95.690	95.663	95.735	95.688	95.810
53	86.60	4.75	97.592	97.616	97.604	97.646	97.620	97.691	97.645	97.767
54	86.67	4.75	99.639	99.662	99.650	99.693	99.666	99.738	99.691	99.814
55	86.73	4.75	101.597	101.620	101.608	101.651	101.624	101.696	101.650	101.772

表 17 (续)

单位为毫米

齿数 z	齿槽角 β	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	86.79	4.75	103.641	103.665	103.653	103.695	103.669	103.741	103.695	103.817
57	86.84	4.75	105.601	105.624	105.612	105.655	105.629	105.700	105.654	105.777
58	86.90	4.75	107.644	107.667	107.656	107.698	107.672	107.744	107.698	107.820
59	86.95	4.75	109.604	109.628	109.616	109.659	109.633	109.705	109.659	109.781
60	87.00	4.75	111.646	111.670	111.658	111.700	111.675	111.746	111.701	111.823
61	87.05	4.75	113.608	113.632	113.620	113.662	113.637	113.708	113.663	113.785
62	87.10	4.75	115.648	115.672	115.660	115.703	115.677	115.749	115.704	115.826
63	87.14	4.75	117.611	117.635	117.623	117.666	117.641	117.712	117.667	117.789
64	87.19	4.75	119.650	119.674	119.663	119.705	119.680	119.751	119.706	119.829
65	87.23	4.75	121.614	121.638	121.627	121.669	121.644	121.716	121.671	121.793
66	87.27	4.75	123.652	123.676	123.665	123.707	123.682	123.754	123.709	123.831
67	87.31	4.75	125.617	125.641	125.630	125.672	125.647	125.719	125.674	125.797
68	87.35	4.75	127.654	127.678	127.667	127.709	127.684	127.756	127.711	127.834
69	87.39	4.75	129.620	129.644	129.633	129.675	129.650	129.722	129.678	129.800
70	87.43	4.75	131.656	131.679	131.669	131.711	131.686	131.758	131.714	131.836
71	87.46	4.75	133.623	133.646	133.636	133.678	133.653	133.725	133.681	133.804
72	87.50	4.75	135.658	135.681	135.670	135.712	135.688	135.760	135.716	135.839
73	87.53	4.75	137.626	137.649	137.638	137.680	137.656	137.728	137.684	137.807
74	87.57	4.75	139.659	139.682	139.672	139.714	139.690	139.762	139.718	139.841
75	87.60	4.75	141.628	141.651	141.641	141.683	141.659	141.730	141.687	141.810
76	87.63	4.75	143.661	143.684	143.674	143.716	143.692	143.763	143.720	143.843
77	87.66	4.75	145.630	145.653	145.643	145.685	145.662	145.733	145.690	145.813
78	87.69	4.75	147.662	147.685	147.675	147.717	147.694	147.765	147.722	147.845
79	87.72	4.75	149.632	149.655	149.646	149.687	149.664	149.735	149.692	149.815
80	87.75	4.75	151.664	151.687	151.677	151.719	151.695	151.767	151.724	151.847
81	87.78	4.75	153.635	153.657	153.648	153.690	153.666	153.738	153.695	153.818
82	87.80	4.75	155.665	155.688	155.678	155.720	155.697	155.768	155.726	155.849
83	87.83	4.75	157.637	157.659	157.650	157.692	157.669	157.740	157.698	157.821
84	87.86	4.75	159.666	159.689	159.680	159.721	159.699	159.770	159.728	159.851
85	87.88	4.75	161.638	161.661	161.652	161.694	161.671	161.742	161.700	161.823
86	87.91	4.75	163.667	163.690	163.681	163.723	163.700	163.771	163.729	163.853
87	87.93	4.75	165.640	165.663	165.654	165.695	165.673	165.744	165.702	165.826
88	87.95	4.75	167.669	167.691	167.682	167.724	167.702	167.773	167.731	167.854
89	87.98	4.75	169.642	169.665	169.656	169.697	169.675	169.746	169.705	169.828
90	88.00	4.75	171.670	171.692	171.684	171.725	171.703	171.774	171.733	171.856
91	88.02	4.75	173.644	173.666	173.658	173.699	173.677	173.748	173.707	173.830
92	88.04	4.75	175.671	175.693	175.685	175.726	175.704	175.776	175.734	175.858
93	88.06	4.75	177.645	177.668	177.659	177.701	177.679	177.750	177.709	177.832
94	88.09	4.75	179.672	179.694	179.686	179.727	179.706	179.777	179.736	179.859
95	88.11	4.75	181.647	181.669	181.661	181.702	181.681	181.752	181.711	181.835
96	88.13	4.75	183.673	183.695	183.687	183.728	183.707	183.778	183.737	183.861
97	88.14	4.75	185.648	185.671	185.663	185.704	185.683	185.754	185.713	185.837
98	88.16	4.75	187.674	187.696	187.688	187.729	187.708	187.779	187.739	187.862
99	88.18	4.75	189.650	189.672	189.664	189.706	189.684	189.755	189.715	189.839
100	88.20	4.75	191.675	191.697	191.689	191.730	191.709	191.781	191.740	191.864

表 18 棒间距 M_{Ri}

45°直线内花键 模数 $m=2.5\text{ mm}$ 作用齿槽宽最小值 $E_{v\text{ min}}=3.927\text{ mm}$ 单位为毫米

齿数 z	齿槽角 β	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	72.00	5.30	15.778	15.809	15.787	15.839	15.800	15.884	15.821	15.959
11	73.64	5.30	18.083	18.113	18.092	18.143	18.105	18.187	18.126	18.261
12	75.00	5.30	20.860	20.890	20.869	20.920	20.882	20.964	20.903	21.039
13	76.15	5.30	23.180	23.210	23.189	23.239	23.202	23.283	23.223	23.357
14	77.14	5.30	25.914	25.943	25.923	25.972	25.936	26.017	25.957	26.091
15	78.00	5.30	28.249	28.278	28.258	28.307	28.272	28.351	28.292	28.425
16	78.75	5.30	30.951	30.980	30.960	31.009	30.974	31.054	30.995	31.127
17	79.41	5.60	32.533	32.561	32.542	32.591	32.556	32.635	32.577	32.708
18	80.00	5.60	35.212	35.240	35.221	35.270	35.235	35.314	35.257	35.388
19	80.53	5.60	37.578	37.606	37.587	37.635	37.601	37.680	37.623	37.754
20	81.00	5.60	40.238	40.266	40.248	40.296	40.262	40.340	40.283	40.415
21	81.43	5.60	42.614	42.641	42.623	42.671	42.637	42.716	42.659	42.790
22	81.82	5.60	45.259	45.286	45.269	45.316	45.283	45.361	45.305	45.436
23	82.17	5.60	47.643	47.671	47.653	47.701	47.667	47.745	47.689	47.820
24	82.50	5.60	50.276	50.303	50.286	50.333	50.300	50.378	50.322	50.453
25	82.80	5.60	52.668	52.695	52.678	52.725	52.692	52.770	52.715	52.845
26	83.08	5.60	55.290	55.317	55.300	55.347	55.314	55.392	55.337	55.468
27	83.33	5.60	57.688	57.716	57.699	57.746	57.713	57.791	57.736	57.867
28	83.57	5.60	60.301	60.329	60.312	60.359	60.327	60.404	60.350	60.480
29	83.79	5.60	62.706	62.733	62.717	62.764	62.732	62.809	62.755	62.885
30	84.00	5.60	65.312	65.338	65.322	65.369	65.337	65.415	65.361	65.491
31	84.19	5.60	67.722	67.749	67.733	67.779	67.748	67.825	67.771	67.902
32	84.38	5.60	70.320	70.347	70.331	70.378	70.346	70.424	70.370	70.501
33	84.55	5.60	72.736	72.762	72.746	72.793	72.762	72.839	72.786	72.916
34	84.71	5.60	75.328	75.355	75.339	75.386	75.355	75.432	75.379	75.509
35	84.86	5.60	77.748	77.774	77.759	77.805	77.774	77.852	77.799	77.929
36	85.00	5.60	80.335	80.361	80.346	80.392	80.362	80.439	80.386	80.517
37	85.14	5.60	82.758	82.785	82.770	82.816	82.785	82.863	82.810	82.940
38	85.26	5.60	85.341	85.367	85.352	85.399	85.368	85.446	85.393	85.524
39	85.38	6.00	86.779	86.805	86.790	86.836	86.806	86.883	86.831	86.962
40	85.50	6.00	89.357	89.383	89.369	89.415	89.385	89.462	89.410	89.541
41	85.61	6.00	91.788	91.815	91.800	91.846	91.816	91.893	91.842	91.972
42	85.71	6.00	94.363	94.389	94.375	94.421	94.391	94.469	94.417	94.548
43	85.81	6.00	96.797	96.824	96.809	96.855	96.826	96.903	96.852	96.982
44	85.91	6.00	99.369	99.395	99.381	99.427	99.397	99.474	99.423	99.554
45	86.00	6.00	101.806	101.832	101.818	101.864	101.834	101.911	101.860	101.991
46	86.09	6.00	104.374	104.400	104.386	104.432	104.403	104.480	104.429	104.560
47	86.17	6.00	106.813	106.839	106.825	106.871	106.842	106.919	106.869	106.999
48	86.25	6.00	109.379	109.404	109.391	109.437	109.408	109.485	109.434	109.565
49	86.33	6.00	111.820	111.846	111.832	111.878	111.850	111.927	111.876	112.007
50	86.40	6.00	114.383	114.409	114.395	114.441	114.413	114.489	114.439	114.570
51	86.47	6.00	116.827	116.852	116.839	116.885	116.857	116.933	116.883	117.014
52	86.54	6.00	119.387	119.412	119.399	119.445	119.417	119.494	119.444	119.575
53	86.60	6.00	121.833	121.858	121.845	121.891	121.863	121.940	121.890	122.021
54	86.67	6.00	124.390	124.416	124.403	124.449	124.421	124.498	124.448	124.579
55	86.73	6.00	126.838	126.863	126.851	126.896	126.869	126.945	126.896	127.027

表 18 (续)

单位为毫米

齿数 z	齿槽角 β	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	86.79	6.00	129.394	129.419	129.407	129.452	129.425	129.501	129.453	129.584
57	86.84	6.00	131.843	131.868	131.856	131.901	131.874	131.951	131.902	132.033
58	86.90	6.00	134.397	134.422	134.410	134.455	134.428	134.505	134.456	134.588
59	86.95	6.00	136.848	136.873	136.861	136.906	136.879	136.956	136.908	137.039
60	87.00	6.00	139.400	139.425	139.413	139.458	139.432	139.508	139.460	139.591
61	87.05	6.00	141.852	141.878	141.866	141.911	141.884	141.961	141.913	142.044
62	87.10	6.00	144.403	144.428	144.416	144.461	144.435	144.511	144.464	144.595
63	87.14	6.00	146.857	146.882	146.870	146.915	146.889	146.965	146.918	147.049
64	87.19	6.00	149.406	149.431	149.419	149.464	149.438	149.514	149.467	149.598
65	87.23	6.00	151.861	151.886	151.874	151.919	151.893	151.970	151.922	152.054
66	87.27	6.00	154.408	154.433	154.422	154.467	154.441	154.517	154.470	154.601
67	87.31	6.00	156.864	156.889	156.878	156.923	156.897	156.974	156.927	157.058
68	87.35	6.00	159.410	159.435	159.424	159.469	159.443	159.520	159.473	159.604
69	87.39	6.00	161.868	161.893	161.882	161.927	161.901	161.978	161.931	162.062
70	87.43	6.00	164.413	164.437	164.426	164.471	164.446	164.522	164.476	164.607
71	87.46	6.00	166.871	166.896	166.885	166.930	166.905	166.981	166.935	167.066
72	87.50	6.00	169.415	169.439	169.429	169.474	169.448	169.525	169.479	169.610
73	87.53	6.00	171.875	171.899	171.889	171.933	171.908	171.985	171.939	172.070
74	87.57	6.00	174.417	174.441	174.431	174.476	174.451	174.527	174.481	174.613
75	87.60	6.00	176.878	176.902	176.892	176.936	176.912	176.988	176.942	177.074
76	87.63	6.00	179.419	179.443	179.433	179.478	179.453	179.529	179.484	179.615
77	87.66	6.00	181.881	181.905	181.895	181.939	181.915	181.991	181.946	182.078
78	87.69	6.00	184.421	184.445	184.435	184.479	184.455	184.531	184.486	184.618
79	87.72	6.00	186.883	186.908	186.898	186.942	186.918	186.994	186.949	187.081
80	87.75	6.00	189.422	189.447	189.437	189.481	189.457	189.533	189.489	189.620
81	87.78	6.00	191.886	191.910	191.901	191.945	191.921	191.997	191.953	192.084
82	87.80	6.00	194.424	194.448	194.439	194.483	194.459	194.535	194.491	194.623
83	87.83	6.00	196.888	196.913	196.903	196.948	196.924	197.000	196.956	197.087
84	87.86	6.00	199.426	199.450	199.440	199.485	199.461	199.537	199.493	199.625
85	87.88	6.00	201.891	201.915	201.906	201.950	201.927	202.003	201.959	202.090
86	87.91	6.00	204.427	204.451	204.442	204.486	204.463	204.539	204.495	204.627
87	87.93	6.00	206.893	206.917	206.908	206.952	206.929	207.005	206.962	207.093
88	87.95	6.00	209.429	209.453	209.444	209.488	209.465	209.541	209.497	209.629
89	87.98	6.00	211.895	211.919	211.910	211.955	211.932	212.008	211.964	212.096
90	88.00	6.00	214.430	214.454	214.445	214.489	214.467	214.543	214.499	214.631
91	88.02	6.00	216.897	216.921	216.913	216.957	216.934	217.010	216.967	217.099
92	88.04	6.00	219.431	219.455	219.447	219.491	219.468	219.544	219.501	219.633
93	88.06	6.00	221.900	221.923	221.915	221.959	221.937	222.012	221.970	222.102
94	88.09	6.00	224.433	224.456	224.448	224.492	224.470	224.546	224.503	224.635
95	88.11	6.00	226.901	226.925	226.917	226.961	226.939	227.015	226.972	227.104
96	88.13	6.00	229.434	229.458	229.450	229.493	229.471	229.547	229.505	229.637
97	88.14	6.00	231.903	231.927	231.919	231.963	231.941	232.017	231.975	232.107
98	88.16	6.00	234.435	234.459	234.451	234.495	234.473	234.549	234.507	234.639
99	88.18	6.00	236.905	236.929	236.921	236.965	236.943	237.019	236.977	237.109
100	88.20	6.00	239.436	239.460	239.452	239.496	239.475	239.550	239.508	239.641

表 19 跨棒距 M_{Re} 45°外花键 模数 $m=0.25\text{ mm}$ 作用齿厚最大值 $S_{v\max}=0.393\text{ mm}$

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	0.85	4.066	4.074	4.056	4.070	4.041	4.064	4.016	4.054	0.852 3
11	0.85	4.284	4.293	4.275	4.289	4.260	4.283	4.235	4.273	0.850 9
12	0.85	4.573	4.582	4.563	4.578	4.548	4.572	4.522	4.562	0.866 2
13	0.80	4.687	4.695	4.676	4.691	4.661	4.685	4.635	4.675	0.873 3
14	0.80	4.968	4.976	4.957	4.972	4.941	4.966	4.915	4.956	0.885 1
15	0.80	5.196	5.205	5.185	5.200	5.169	5.194	5.142	5.184	0.885 2
16	0.80	5.472	5.481	5.461	5.477	5.445	5.470	5.418	5.460	0.894 6
17	0.80	5.703	5.712	5.692	5.708	5.676	5.701	5.648	5.691	0.894 9
18	0.80	5.976	5.985	5.965	5.980	5.948	5.974	5.920	5.963	0.902 6
19	0.80	6.209	6.218	6.198	6.213	6.181	6.207	6.153	6.196	0.903 1
20	0.75	6.365	6.374	6.353	6.369	6.336	6.363	6.307	6.352	0.916 5
21	0.75	6.599	6.609	6.588	6.604	6.570	6.597	6.541	6.587	0.916 9
22	0.75	6.867	6.876	6.855	6.872	6.838	6.865	6.808	6.854	0.922 2
23	0.75	7.103	7.112	7.091	7.108	7.073	7.101	7.044	7.090	0.922 6
24	0.75	7.368	7.378	7.357	7.373	7.339	7.367	7.309	7.355	0.927 2
25	0.75	7.606	7.615	7.594	7.611	7.576	7.604	7.546	7.593	0.927 6
26	0.75	7.870	7.880	7.858	7.875	7.840	7.868	7.810	7.857	0.931 6
27	0.75	8.098	8.118	8.096	8.113	8.078	8.106	8.048	8.095	0.932 0
28	0.75	8.371	8.381	8.359	8.376	8.341	8.369	8.310	8.358	0.935 5
29	0.75	8.611	8.620	8.598	8.615	8.580	8.608	8.549	8.597	0.935 9
30	0.75	8.873	8.883	8.860	8.878	8.842	8.870	8.811	8.859	0.938 9
31	0.75	9.112	9.122	9.100	9.117	9.081	9.110	9.050	9.099	0.939 3
32	0.75	9.374	9.384	9.361	9.379	9.342	9.371	9.311	9.360	0.942 1
33	0.75	9.614	9.624	9.602	9.619	9.583	9.612	9.551	9.600	0.942 5
34	0.75	9.875	9.885	9.862	9.880	9.843	9.872	9.811	9.860	0.944 9
35	0.75	10.116	10.126	10.103	10.121	10.084	10.113	10.052	10.101	0.945 3
36	0.75	10.375	10.386	10.363	10.380	10.343	10.373	10.311	10.361	0.947 5
37	0.75	10.617	10.627	10.604	10.622	10.585	10.615	10.552	10.602	0.947 8
38	0.75	10.876	10.886	10.863	10.881	10.844	10.874	10.811	10.862	0.949 8
39	0.75	11.118	11.128	11.105	11.123	11.086	11.116	11.053	11.103	0.950 1
40	0.75	11.377	11.387	11.364	11.382	11.344	11.374	11.311	11.362	0.952 0
41	0.75	11.619	11.629	11.606	11.624	11.586	11.617	11.553	11.604	0.952 3
42	0.75	11.877	11.888	11.864	11.882	11.844	11.875	11.811	11.862	0.953 9
43	0.75	12.120	12.131	12.107	12.125	12.087	12.118	12.054	12.105	0.954 2
44	0.75	12.378	12.388	12.365	12.383	12.345	12.375	12.311	12.363	0.955 7
45	0.75	12.621	12.631	12.608	12.626	12.588	12.618	12.554	12.606	0.956 0
46	0.75	12.879	12.889	12.865	12.883	12.845	12.876	12.811	12.863	0.957 4
47	0.75	13.122	13.132	13.108	13.127	13.088	13.119	13.054	13.106	0.957 7
48	0.75	13.379	13.389	13.365	13.384	13.345	13.376	13.311	13.363	0.959 0
49	0.75	13.623	13.633	13.609	13.628	13.589	13.620	13.555	13.607	0.959 2
50	0.75	13.879	13.890	13.866	13.884	13.845	13.876	13.811	13.864	0.960 4
51	0.75	14.123	14.134	14.110	14.128	14.089	14.120	14.055	14.107	0.960 7
52	0.75	14.380	14.390	14.366	14.385	14.345	14.377	14.311	14.364	0.961 8
53	0.75	14.624	14.634	14.610	14.629	14.589	14.621	14.555	14.608	0.962 0
54	0.75	14.880	14.891	14.866	14.885	14.845	14.877	14.811	14.864	0.963 1
55	0.75	15.124	15.135	15.111	15.129	15.090	15.121	15.055	15.108	0.963 3

表 19 (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_c
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	0.75	15.380	15.391	15.366	15.385	15.346	15.377	15.311	15.364	0.964 2
57	0.75	15.625	15.636	15.611	15.630	15.590	15.622	15.555	15.609	0.964 4
58	0.75	15.881	15.891	15.867	15.886	15.846	15.877	15.810	15.864	0.965 4
59	0.75	16.125	16.136	16.111	16.130	16.090	16.122	16.055	16.109	0.965 6
60	0.75	16.381	16.392	16.367	16.386	16.346	16.378	16.310	16.364	0.966 4
61	0.75	16.626	16.637	16.612	16.631	16.590	16.622	16.555	16.609	0.966 6
62	0.75	16.881	16.892	16.867	16.886	16.846	16.878	16.810	16.864	0.967 4
63	0.75	17.126	17.137	17.112	17.131	17.091	17.123	17.055	17.109	0.967 6
64	0.75	17.381	17.392	17.367	17.386	17.346	17.378	17.310	17.365	0.968 3
65	0.75	17.627	17.637	17.612	17.631	17.591	17.623	17.555	17.610	0.968 5
66	0.75	17.882	17.892	17.867	17.887	17.846	17.878	17.810	17.865	0.969 2
67	0.75	18.127	18.138	18.113	18.132	18.091	18.123	18.055	18.110	0.969 4
68	0.75	18.382	18.393	18.367	18.387	18.346	18.378	18.309	18.365	0.970 0
69	0.75	18.627	18.638	18.613	18.632	18.591	18.624	18.555	18.610	0.970 2
70	0.75	18.882	18.893	18.867	18.887	18.846	18.878	18.809	18.865	0.970 8
71	0.75	19.128	19.138	19.113	19.132	19.091	19.124	19.055	19.110	0.971 0
72	0.75	19.382	19.393	19.368	19.387	19.346	19.378	19.309	19.365	0.971 6
73	0.75	19.628	19.639	19.613	19.633	19.591	19.624	19.555	19.610	0.971 7
74	0.75	19.882	19.893	19.868	19.887	19.846	19.878	19.809	19.865	0.972 3
75	0.75	20.128	20.139	20.113	20.133	20.091	20.124	20.054	20.110	0.972 4
76	0.75	20.383	20.393	20.368	20.387	20.346	20.379	20.309	20.365	0.973 0
77	0.75	20.628	20.639	20.614	20.633	20.591	20.624	20.554	20.610	0.973 1
78	0.75	20.883	20.894	20.868	20.887	20.846	20.879	20.808	20.865	0.973 6
79	0.75	21.129	21.140	21.114	21.133	21.091	21.125	21.054	21.111	0.973 8
80	0.75	21.383	21.394	21.368	21.387	21.345	21.379	21.308	21.365	0.974 2
81	0.75	21.629	21.640	21.614	21.634	21.591	21.625	21.554	21.611	0.974 4
82	0.75	21.883	21.894	21.868	21.888	21.845	21.879	21.808	21.864	0.974 8
83	0.75	22.129	22.140	22.114	22.134	22.092	22.125	22.054	22.111	0.975 0
84	0.75	22.383	22.394	22.368	22.388	22.345	22.379	22.308	22.364	0.975 4
85	0.75	22.629	22.640	22.614	22.634	22.592	22.625	22.554	22.611	0.975 5
86	0.75	22.883	22.894	22.868	22.888	22.845	22.879	22.807	22.864	0.975 9
87	0.75	23.129	23.140	23.114	23.134	23.092	23.125	23.054	23.111	0.976 0
88	0.75	23.383	23.394	23.368	23.388	23.345	23.379	23.307	23.364	0.976 5
89	0.75	23.630	23.641	23.614	23.634	23.592	23.625	23.553	23.611	0.976 6
90	0.75	23.883	23.894	23.868	23.888	23.845	23.879	23.807	23.864	0.977 0
91	0.75	24.130	24.141	24.115	24.134	24.092	24.125	24.053	24.111	0.977 1
92	0.75	24.383	24.394	24.368	24.388	24.345	24.379	24.307	24.364	0.977 4
93	0.75	24.630	24.641	24.615	24.635	24.592	24.625	24.553	24.611	0.977 5
94	0.75	24.883	24.894	24.868	24.888	24.845	24.879	24.806	24.864	0.977 9
95	0.75	25.130	25.141	25.115	25.135	25.092	25.125	25.053	25.111	0.978 0
96	0.75	25.383	25.395	25.368	25.388	25.345	25.379	25.306	25.364	0.978 3
97	0.75	25.630	25.641	25.615	25.635	25.592	25.625	25.553	25.611	0.978 4
98	0.75	25.884	25.895	25.868	25.888	25.845	25.879	25.806	25.864	0.978 8
99	0.75	26.130	26.141	26.115	26.135	26.091	26.126	26.053	26.111	0.978 8
100	0.75	26.384	26.395	26.368	26.388	26.345	26.379	26.306	26.364	0.979 2

表 20 跨棒距 M_{Re} 45°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_{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	1.60	7.923	7.935	7.911	7.930	7.892	7.924	7.860	7.914	0.856 8
11	1.60	8.361	8.373	8.348	8.368	8.330	8.362	8.298	8.351	0.855 3
12	1.60	8.937	8.949	8.924	8.945	8.905	8.938	8.872	8.927	0.870 6
13	1.50	9.163	9.175	9.150	9.170	9.130	9.164	9.097	9.153	0.877 9
14	1.50	9.724	9.736	9.710	9.731	9.690	9.724	9.656	9.713	0.889 7
15	1.50	10.180	10.192	10.166	10.188	10.146	10.181	10.112	10.169	0.889 6
16	1.50	10.731	10.744	10.718	10.739	10.697	10.732	10.662	10.721	0.898 9
17	1.50	11.193	11.206	11.179	11.201	11.158	11.194	11.124	11.182	0.899 1
18	1.50	11.738	11.751	11.724	11.746	11.702	11.738	11.667	11.727	0.906 7
19	1.50	12.204	12.217	12.190	12.212	12.168	12.204	12.133	12.193	0.907 1
20	1.40	12.514	12.527	12.499	12.522	12.478	12.514	12.441	12.502	0.920 7
21	1.40	12.983	12.997	12.969	12.991	12.947	12.984	12.910	12.972	0.920 9
22	1.40	13.518	13.531	13.503	13.526	13.481	13.518	13.444	13.506	0.926 2
23	1.40	13.990	14.003	13.975	13.998	13.953	13.990	13.915	13.978	0.926 5
24	1.40	14.521	14.534	14.506	14.529	14.483	14.521	14.445	14.508	0.930 9
25	1.40	14.995	15.009	14.980	15.003	14.958	14.995	14.920	14.983	0.931 3
26	1.40	15.524	15.537	15.508	15.531	15.485	15.524	15.447	15.511	0.935 1
27	1.40	16.000	16.014	15.985	16.008	15.962	16.000	15.923	15.987	0.935 5
28	1.40	16.526	16.539	16.511	16.534	16.487	16.526	16.448	16.513	0.938 9
29	1.40	17.004	17.018	16.989	17.012	16.965	17.004	16.926	16.991	0.939 2
30	1.40	17.528	17.542	17.512	17.536	17.489	17.528	17.449	17.515	0.942 2
31	1.40	18.008	18.021	17.992	18.015	17.968	18.007	17.929	17.994	0.942 5
32	1.40	18.530	18.544	18.514	18.538	18.490	18.529	18.450	18.516	0.945 2
33	1.40	19.011	19.024	18.995	19.019	18.971	19.010	18.931	18.997	0.945 5
34	1.40	19.532	19.545	19.515	19.539	19.491	19.531	19.451	19.517	0.947 8
35	1.40	20.014	20.027	19.997	20.021	19.973	20.013	19.933	19.999	0.948 1
36	1.40	20.533	20.547	20.517	20.541	20.492	20.532	20.452	20.519	0.950 3
37	1.40	21.016	21.030	21.000	21.024	20.975	21.015	20.934	21.001	0.950 6
38	1.40	21.534	21.548	21.518	21.542	21.493	21.533	21.452	21.520	0.952 5
39	1.40	22.018	22.032	22.002	22.026	21.977	22.017	21.936	22.003	0.952 8
40	1.40	22.536	22.549	22.519	22.543	22.494	22.534	22.452	22.520	0.954 6
41	1.40	23.020	23.034	23.004	23.028	22.979	23.019	22.937	23.005	0.954 8
42	1.40	23.537	23.551	23.520	23.544	23.495	23.535	23.453	23.521	0.956 4
43	1.40	24.022	24.036	24.005	24.030	23.980	24.021	23.938	24.006	0.956 7
44	1.40	24.538	24.552	24.521	24.545	24.495	24.536	24.453	24.522	0.958 1
45	1.40	25.024	25.038	25.007	25.031	24.981	25.022	24.939	25.008	0.958 4
46	1.40	25.538	25.552	25.521	25.546	25.496	25.537	25.453	25.522	0.959 7
47	1.40	26.025	26.039	26.008	26.033	25.982	26.023	25.940	26.009	0.960 0
48	1.40	26.539	26.553	26.522	26.547	26.496	26.538	26.453	26.523	0.961 2
49	1.40	27.026	27.041	27.009	27.034	26.983	27.025	26.940	27.010	0.961 4
50	1.40	27.540	27.554	27.523	27.547	27.497	27.538	27.453	27.523	0.962 6
51	1.40	28.028	28.042	28.010	28.035	27.984	28.026	27.941	28.011	0.962 8
52	1.40	28.541	28.555	28.523	28.548	28.497	28.539	28.453	28.524	0.963 9
53	1.40	29.029	29.043	29.011	29.036	28.985	29.027	28.941	29.012	0.964 1
54	1.40	29.541	29.555	29.524	29.549	29.497	29.539	29.453	29.524	0.965 1
55	1.40	30.030	30.044	30.012	30.037	29.986	30.028	29.942	30.013	0.965 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	1.40	30.542	30.556	30.524	30.549	30.498	30.540	30.453	30.524	0.966 2
57	1.40	31.031	31.045	31.013	31.038	30.987	31.029	30.942	31.013	0.966 4
58	1.40	31.542	31.557	31.525	31.550	31.498	31.540	31.453	31.525	0.967 2
59	1.40	32.032	32.046	32.014	32.039	31.987	32.029	31.942	32.014	0.967 4
60	1.40	32.543	32.557	32.525	32.550	32.498	32.540	32.453	32.525	0.968 2
61	1.40	33.033	33.047	33.015	33.040	32.988	33.030	32.943	33.014	0.968 4
62	1.40	33.543	33.558	33.525	33.551	33.498	33.541	33.453	33.525	0.969 2
63	1.40	34.033	34.048	34.015	34.041	33.988	34.031	33.943	34.015	0.969 3
64	1.40	34.544	34.558	34.526	34.551	34.498	34.541	34.453	34.525	0.970 0
65	1.40	35.034	35.048	35.016	35.041	34.989	35.031	34.943	35.015	0.970 2
66	1.40	35.544	35.558	35.526	35.551	35.499	35.541	35.453	35.525	0.970 9
67	1.40	36.035	36.049	36.017	36.042	35.989	36.032	35.943	36.016	0.971 0
68	1.40	36.545	36.559	36.526	36.552	36.499	36.541	36.453	36.525	0.971 7
69	1.40	37.035	37.050	37.017	37.042	36.989	37.032	36.943	37.016	0.971 8
70	1.40	37.545	37.559	37.526	37.552	37.499	37.542	37.453	37.525	0.972 4
71	1.40	38.036	38.050	38.018	38.043	37.990	38.033	37.944	38.017	0.972 5
72	1.40	38.545	38.559	38.527	38.552	38.499	38.542	38.452	38.525	0.973 1
73	1.40	39.037	39.051	39.018	39.044	38.990	39.033	38.944	39.017	0.973 2
74	1.40	39.546	39.560	39.527	39.552	39.499	39.542	39.452	39.526	0.973 8
75	1.40	40.037	40.051	40.018	40.044	39.990	40.034	39.944	40.017	0.973 9
76	1.40	40.546	40.560	40.527	40.553	40.499	40.542	40.452	40.526	0.974 4
77	1.40	41.038	41.052	41.019	41.044	40.991	41.034	40.944	41.017	0.974 5
78	1.40	41.546	41.560	41.527	41.553	41.499	41.542	41.452	41.526	0.975 0
79	1.40	42.038	42.052	42.019	42.045	41.991	42.034	41.944	42.018	0.975 1
80	1.40	42.546	42.561	42.527	42.553	42.499	42.542	42.452	42.526	0.975 6
81	1.40	43.039	43.053	43.020	43.045	42.991	43.035	42.944	43.018	0.975 7
82	1.40	43.547	43.561	43.528	43.553	43.499	43.542	43.451	43.526	0.976 2
83	1.40	44.039	44.053	44.020	44.046	43.991	44.035	43.944	44.018	0.976 3
84	1.40	44.547	44.561	44.528	44.553	44.499	44.542	44.451	44.525	0.976 7
85	1.40	45.039	45.054	45.020	45.046	44.991	45.035	44.944	45.018	0.976 8
86	1.40	45.547	45.561	45.528	45.553	45.499	45.543	45.451	45.525	0.977 2
87	1.40	46.040	46.054	46.021	46.046	45.992	46.035	45.943	46.018	0.977 3
88	1.40	46.547	46.561	46.528	46.554	46.499	46.543	46.451	46.525	0.977 7
89	1.40	47.040	47.054	47.021	47.047	46.992	47.036	46.943	47.018	0.977 8
90	1.40	47.547	47.562	47.528	47.554	47.499	47.543	47.450	47.525	0.978 2
91	1.40	48.040	48.055	48.021	48.047	47.992	48.036	47.943	48.018	0.978 3
92	1.40	48.547	48.562	48.528	48.554	48.499	48.543	48.450	48.525	0.978 6
93	1.40	49.041	49.055	49.021	49.047	48.992	49.036	48.943	49.018	0.978 7
94	1.40	49.548	49.562	49.528	49.554	49.499	49.543	49.450	49.525	0.979 1
95	1.40	50.041	50.055	50.021	50.047	49.992	50.036	49.943	50.018	0.979 1
96	1.40	50.548	50.562	50.528	50.554	50.499	50.543	50.450	50.525	0.979 5
97	1.40	51.041	51.056	51.022	51.048	50.992	51.036	50.943	51.018	0.979 5
98	1.40	51.548	51.562	51.528	51.554	51.499	51.543	51.449	51.525	0.979 9
99	1.40	52.042	52.056	52.022	52.048	51.992	52.036	51.943	52.018	0.979 9
100	1.40	52.548	52.562	52.528	52.554	52.499	52.543	52.449	52.525	0.980 3

表 21 跨棒距 M_{Re} 45°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	2.36	11.804	11.817	11.789	11.813	11.768	11.806	11.732	11.795	0.857 6
11	2.36	12.461	12.475	12.446	12.470	12.425	12.463	12.388	12.452	0.856 1
12	2.24	13.056	13.071	13.041	13.066	13.019	13.059	12.981	13.047	0.877 7
13	2.24	13.730	13.744	13.715	13.739	13.692	13.732	13.654	13.720	0.877 1
14	2.24	14.571	14.586	14.556	14.580	14.532	14.573	14.494	14.561	0.888 8
15	2.12	14.985	14.999	14.969	14.994	14.945	14.987	14.906	14.974	0.895 2
16	2.12	15.810	15.825	15.794	15.820	15.770	15.812	15.730	15.800	0.904 4
17	2.12	16.503	16.518	16.487	16.513	16.463	16.505	16.423	16.492	0.904 4
18	2.12	17.319	17.334	17.302	17.328	17.278	17.320	17.237	17.308	0.911 9
19	2.12	18.018	18.033	18.001	18.027	17.977	18.019	17.935	18.007	0.912 1
20	2.12	18.826	18.841	18.809	18.835	18.784	18.827	18.742	18.814	0.918 4
21	2.12	19.530	19.545	19.513	19.539	19.488	19.531	19.446	19.518	0.918 7
22	2.12	20.331	20.347	20.314	20.341	20.289	20.333	20.247	20.319	0.923 9
23	2.12	21.040	21.055	21.023	21.049	20.997	21.041	20.954	21.028	0.924 3
24	2.12	21.836	21.852	21.819	21.846	21.793	21.838	21.750	21.824	0.928 8
25	2.00	22.271	22.286	22.253	22.280	22.227	22.272	22.183	22.258	0.934 6
26	2.00	23.062	23.078	23.045	23.072	23.018	23.063	22.974	23.049	0.938 4
27	2.00	23.777	23.793	23.759	23.787	23.733	23.778	23.689	23.764	0.938 6
28	2.00	24.566	24.581	24.548	24.575	24.521	24.566	24.476	24.552	0.941 9
29	2.00	25.283	25.299	25.265	25.292	25.238	25.283	25.193	25.269	0.942 2
30	2.00	26.068	26.084	26.050	26.078	26.023	26.069	25.978	26.054	0.945 1
31	2.00	26.788	26.804	26.770	26.797	26.742	26.788	26.697	26.774	0.945 4
32	2.00	27.571	27.587	27.553	27.580	27.525	27.571	27.479	27.556	0.948 0
33	2.00	28.292	28.308	28.274	28.302	28.246	28.292	28.200	28.278	0.948 2
34	2.00	29.073	29.089	29.054	29.082	29.027	29.073	28.980	29.058	0.950 6
35	2.00	29.796	29.812	29.777	29.805	29.749	29.796	29.703	29.781	0.950 8
36	2.00	30.575	30.591	30.556	30.584	30.528	30.575	30.481	30.560	0.952 9
37	2.00	31.299	31.316	31.281	31.309	31.252	31.299	31.205	31.284	0.953 1
38	2.00	32.077	32.093	32.058	32.086	32.029	32.076	31.982	32.061	0.955 0
39	2.00	32.802	32.819	32.784	32.812	32.755	32.802	32.707	32.787	0.955 2
40	2.00	33.578	33.594	33.559	33.588	33.531	33.578	33.483	33.562	0.957 0
41	2.00	34.305	34.321	34.286	34.315	34.257	34.305	34.209	34.289	0.957 2
42	2.00	35.080	35.096	35.060	35.089	35.031	35.079	34.983	35.063	0.958 7
43	2.00	35.808	35.824	35.788	35.817	35.759	35.807	35.711	35.791	0.958 9
44	2.00	36.581	36.597	36.562	36.590	36.532	36.580	36.484	36.564	0.960 4
45	2.00	37.310	37.326	37.291	37.319	37.261	37.309	37.212	37.293	0.960 6
46	2.00	38.082	38.098	38.063	38.091	38.033	38.081	37.984	38.065	0.961 9
47	2.00	38.812	38.828	38.792	38.821	38.763	38.811	38.714	38.795	0.962 1
48	2.00	39.583	39.600	39.563	39.592	39.534	39.582	39.484	39.566	0.963 3
49	2.00	40.314	40.330	40.294	40.323	40.264	40.313	40.215	40.296	0.963 5
50	2.00	41.084	41.101	41.064	41.093	41.034	41.083	40.985	41.066	0.964 6
51	2.00	41.816	41.832	41.796	41.825	41.766	41.814	41.716	41.798	0.964 8
52	2.00	42.585	42.602	42.565	42.594	42.535	42.583	42.485	42.567	0.965 8
53	2.00	43.317	43.334	43.297	43.326	43.267	43.316	43.217	43.299	0.966 0
54	2.00	44.086	44.102	44.066	44.095	44.035	44.084	43.985	44.067	0.967 0
55	2.00	44.819	44.835	44.799	44.828	44.768	44.817	44.717	44.800	0.967 1

表 21 (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	2.00	45.587	45.603	45.566	45.595	45.536	45.585	45.485	45.568	0.968 0
57	2.00	46.320	46.337	46.300	46.329	46.269	46.318	46.218	46.301	0.968 2
58	2.00	47.087	47.104	47.067	47.096	47.036	47.085	46.985	47.068	0.969 0
59	2.00	47.822	47.838	47.801	47.830	47.770	47.819	47.719	47.802	0.969 2
60	2.00	48.588	48.605	48.567	48.597	48.537	48.586	48.485	48.568	0.970 0
61	2.00	49.323	49.339	49.302	49.331	49.271	49.320	49.219	49.303	0.970 1
62	2.00	50.089	50.105	50.068	50.097	50.037	50.086	49.985	50.068	0.970 9
63	2.00	50.824	50.840	50.803	50.832	50.772	50.821	50.720	50.803	0.971 0
64	2.00	51.589	51.606	51.568	51.598	51.537	51.586	51.485	51.569	0.971 7
65	2.00	52.325	52.341	52.304	52.333	52.273	52.322	52.220	52.304	0.971 8
66	2.00	53.090	53.106	53.069	53.098	53.037	53.087	52.985	53.069	0.972 5
67	2.00	53.826	53.842	53.805	53.834	53.773	53.823	53.720	53.805	0.972 6
68	2.00	54.590	54.607	54.569	54.599	54.538	54.587	54.485	54.569	0.973 2
69	2.00	55.327	55.343	55.306	55.335	55.274	55.323	55.221	55.305	0.973 3
70	2.00	56.091	56.107	56.070	56.099	56.038	56.087	55.985	56.069	0.973 9
71	2.00	56.828	56.844	56.806	56.836	56.774	56.824	56.721	56.806	0.974 0
72	2.00	57.591	57.608	57.570	57.599	57.538	57.588	57.484	57.569	0.974 6
73	2.00	58.328	58.345	58.307	58.336	58.275	58.325	58.221	58.306	0.974 7
74	2.00	59.092	59.108	59.070	59.100	59.038	59.088	58.984	59.069	0.975 2
75	2.00	59.829	59.846	59.808	59.837	59.775	59.825	59.721	59.807	0.975 3
76	2.00	60.592	60.608	60.570	60.600	60.538	60.588	60.484	60.569	0.975 8
77	2.00	61.330	61.346	61.308	61.338	61.276	61.326	61.222	61.307	0.975 9
78	2.00	62.092	62.109	62.071	62.100	62.038	62.088	61.984	62.069	0.976 4
79	2.00	62.831	62.847	62.809	62.838	62.776	62.826	62.722	62.807	0.976 5
80	2.00	63.593	63.609	63.571	63.600	63.538	63.588	63.484	63.569	0.977 0
81	2.00	64.331	64.348	64.309	64.339	64.276	64.327	64.222	64.308	0.977 1
82	2.00	65.093	65.109	65.071	65.101	65.038	65.088	64.983	65.069	0.977 5
83	2.00	65.832	65.848	65.810	65.839	65.777	65.827	65.722	65.808	0.977 6
84	2.00	66.593	66.610	66.571	66.601	66.538	66.588	66.483	66.569	0.978 0
85	2.00	67.332	67.349	67.310	67.340	67.277	67.327	67.222	67.308	0.978 1
86	2.00	68.094	68.110	68.071	68.101	68.038	68.089	67.983	68.069	0.978 5
87	2.00	68.833	68.849	68.811	68.840	68.777	68.828	68.722	68.808	0.978 6
88	2.00	69.594	69.610	69.572	69.601	69.538	69.589	69.483	69.569	0.979 0
89	2.00	70.333	70.350	70.311	70.341	70.278	70.328	70.222	70.308	0.979 0
90	2.00	71.094	71.110	71.072	71.101	71.038	71.089	70.982	71.069	0.979 4
91	2.00	71.834	71.850	71.811	71.841	71.778	71.828	71.722	71.809	0.979 5
92	2.00	72.594	72.611	72.572	72.602	72.538	72.589	72.482	72.569	0.979 8
93	2.00	73.334	73.351	73.312	73.341	73.278	73.329	73.222	73.309	0.979 9
94	2.00	74.095	74.111	74.072	74.102	74.038	74.089	73.982	74.069	0.980 2
95	2.00	74.835	74.851	74.812	74.842	74.778	74.829	74.722	74.809	0.980 3
96	2.00	75.595	75.611	75.572	75.602	75.538	75.589	75.482	75.569	0.980 6
97	2.00	76.335	76.351	76.312	76.342	76.278	76.329	76.222	76.309	0.980 7
98	2.00	77.095	77.111	77.072	77.102	77.038	77.089	76.981	77.069	0.981 0
99	2.00	77.835	77.852	77.813	77.842	77.779	77.829	77.722	77.809	0.981 1
100	2.00	78.595	78.611	78.572	78.602	78.538	78.589	78.481	78.568	0.981 4

表 22 跨棒距 M_{Re}

45°外花键 模数 $m = 1 \text{ mm}$ 作用齿厚最大值 $S_{v \max} = 1.571 \text{ mm}$

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	3.00	15.419	15.435	15.403	15.430	15.379	15.422	15.339	15.411	0.862 8
11	3.00	16.296	16.311	16.280	16.306	16.256	16.299	16.215	16.287	0.861 1
12	3.00	17.444	17.460	17.428	17.455	17.403	17.447	17.362	17.435	0.876 4
13	3.00	18.342	18.358	18.325	18.353	18.300	18.345	18.259	18.333	0.875 8
14	2.80	19.012	19.029	18.995	19.023	18.970	19.015	18.927	19.003	0.895 7
15	2.80	19.925	19.942	19.908	19.936	19.882	19.928	19.839	19.915	0.895 5
16	2.80	21.026	21.043	21.008	21.037	20.982	21.029	20.938	21.015	0.904 7
17	2.80	21.950	21.966	21.932	21.960	21.905	21.952	21.861	21.939	0.904 7
18	2.80	23.037	23.054	23.019	23.048	22.992	23.039	22.947	23.026	0.912 2
19	2.80	23.969	23.986	23.951	23.980	23.924	23.971	23.878	23.958	0.912 4
20	2.80	25.046	25.063	25.028	25.057	25.000	25.048	24.954	25.034	0.918 6
21	2.80	25.985	26.002	25.966	25.996	25.939	25.987	25.892	25.973	0.918 9
22	2.65	26.708	26.725	26.689	26.719	26.660	26.710	26.613	26.695	0.929 6
23	2.65	27.652	27.669	27.633	27.663	27.605	27.654	27.557	27.639	0.929 8
24	2.65	28.713	28.731	28.694	28.724	28.665	28.715	28.617	28.700	0.934 2
25	2.65	29.662	29.680	29.643	29.673	29.614	29.664	29.566	29.649	0.934 4
26	2.65	30.718	30.736	30.699	30.729	30.669	30.720	30.621	30.705	0.938 2
27	2.65	31.671	31.689	31.651	31.682	31.622	31.672	31.573	31.657	0.938 5
28	2.65	32.722	32.740	32.703	32.733	32.673	32.723	32.624	32.708	0.941 8
29	2.65	33.679	33.696	33.659	33.689	33.629	33.680	33.580	33.664	0.942 1
30	2.65	34.726	34.744	34.706	34.737	34.676	34.727	34.626	34.711	0.945 0
31	2.65	35.685	35.703	35.665	35.696	35.635	35.686	35.585	35.670	0.945 3
32	2.65	36.729	36.747	36.709	36.740	36.679	36.730	36.628	36.714	0.947 9
33	2.65	37.691	37.709	37.671	37.702	37.640	37.692	37.589	37.676	0.948 1
34	2.65	38.732	38.750	38.712	38.743	38.681	38.733	38.630	38.716	0.950 4
35	2.65	39.696	39.714	39.676	39.707	39.645	39.696	39.593	39.680	0.950 7
36	2.65	40.735	40.753	40.714	40.745	40.683	40.735	40.631	40.719	0.952 8
37	2.65	41.701	41.719	41.680	41.711	41.649	41.701	41.597	41.684	0.953 0
38	2.65	42.737	42.755	42.716	42.748	42.685	42.737	42.633	42.720	0.954 9
39	2.65	43.705	43.723	43.684	43.715	43.652	43.705	43.600	43.688	0.955 1
40	2.65	44.739	44.757	44.718	44.750	44.686	44.739	44.634	44.722	0.956 8
41	2.65	45.709	45.727	45.687	45.719	45.656	45.708	45.603	45.691	0.957 0
42	2.65	46.741	46.759	46.720	46.751	46.688	46.741	46.635	46.723	0.958 6
43	2.65	47.712	47.730	47.691	47.722	47.659	47.711	47.605	47.694	0.958 8
44	2.65	48.743	48.761	48.721	48.753	48.689	48.742	48.636	48.725	0.960 3
45	2.65	49.715	49.733	49.693	49.725	49.661	49.714	49.607	49.697	0.960 4
46	2.65	50.744	50.762	50.723	50.755	50.690	50.743	50.636	50.726	0.961 8
47	2.65	51.718	51.736	51.696	51.728	51.663	51.717	51.609	51.699	0.962 0
48	2.65	52.746	52.764	52.724	52.756	52.691	52.745	52.637	52.727	0.963 2
49	2.65	53.720	53.738	53.698	53.730	53.666	53.719	53.611	53.701	0.963 3
50	2.65	54.747	54.765	54.725	54.757	54.692	54.746	54.637	54.728	0.964 5
51	2.65	55.723	55.741	55.701	55.733	55.668	55.721	55.612	55.703	0.964 6
52	2.65	56.748	56.767	56.726	56.758	56.693	56.747	56.638	56.728	0.965 7
53	2.65	57.725	57.743	57.703	57.735	57.669	57.723	57.614	57.705	0.965 9
54	2.65	58.750	58.768	58.727	58.759	58.694	58.748	58.638	58.729	0.966 8
55	2.65	59.727	59.745	59.704	59.737	59.671	59.725	59.615	59.706	0.967 0

表 22 (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	60.751	60.769	60.728	60.760	60.694	60.748	60.638	60.730	0.967 9
57	2.65	61.729	61.747	61.706	61.738	61.672	61.726	61.616	61.708	0.968 1
58	2.65	62.752	62.770	62.729	62.761	62.695	62.749	62.638	62.730	0.968 9
59	2.65	63.730	63.749	63.708	63.740	63.674	63.728	63.617	63.709	0.969 0
60	2.65	64.753	64.771	64.730	64.762	64.696	64.750	64.639	64.731	0.969 9
61	2.65	65.732	65.750	65.709	65.741	65.675	65.729	65.618	65.710	0.970 0
62	2.65	66.753	66.771	66.730	66.763	66.696	66.750	66.639	66.731	0.970 7
63	2.65	67.734	67.752	67.711	67.743	67.676	67.730	67.619	67.711	0.970 9
64	2.65	68.754	68.772	68.731	68.763	68.697	68.751	68.639	68.731	0.971 6
65	2.65	69.735	69.753	69.712	69.744	69.677	69.732	69.619	69.712	0.971 7
66	2.65	70.755	70.773	70.732	70.764	70.697	70.751	70.639	70.732	0.972 4
67	2.65	71.736	71.754	71.713	71.745	71.678	71.733	71.620	71.713	0.972 5
68	2.65	72.756	72.774	72.732	72.765	72.697	72.752	72.639	72.732	0.973 1
69	2.65	73.738	73.756	73.714	73.746	73.679	73.734	73.621	73.714	0.973 2
70	2.65	74.756	74.774	74.733	74.765	74.698	74.752	74.639	74.732	0.973 8
71	2.65	75.739	75.757	75.715	75.747	75.680	75.735	75.621	75.714	0.973 9
72	2.65	76.757	76.775	76.733	76.766	76.698	76.753	76.639	76.732	0.974 5
73	2.65	77.740	77.758	77.716	77.748	77.681	77.735	77.621	77.715	0.974 6
74	2.65	78.757	78.775	78.734	78.766	78.698	78.753	78.639	78.733	0.975 1
75	2.65	79.741	79.759	79.717	79.749	79.681	79.736	79.622	79.716	0.975 2
76	2.65	80.758	80.776	80.734	80.767	80.698	80.753	80.639	80.733	0.975 7
77	2.65	81.742	81.760	81.718	81.750	81.682	81.737	81.622	81.716	0.975 8
78	2.65	82.758	82.776	82.734	82.767	82.699	82.754	82.639	82.733	0.976 3
79	2.65	83.743	83.761	83.719	83.751	83.683	83.738	83.622	83.717	0.976 4
80	2.65	84.759	84.777	84.735	84.767	84.699	84.754	84.638	84.733	0.976 9
81	2.65	85.744	85.761	85.719	85.752	85.683	85.738	85.623	85.717	0.976 9
82	2.65	86.759	86.777	86.735	86.768	86.699	86.754	86.638	86.733	0.977 4
83	2.65	87.744	87.762	87.720	87.753	87.684	87.739	87.623	87.718	0.977 5
84	2.65	88.760	88.778	88.735	88.768	88.699	88.754	88.638	88.733	0.977 9
85	2.65	89.745	89.763	89.721	89.753	89.684	89.739	89.623	89.718	0.978 0
86	2.65	90.760	90.778	90.736	90.768	90.699	90.754	90.638	90.733	0.978 4
87	2.65	91.746	91.764	91.721	91.754	91.685	91.740	91.623	91.718	0.978 5
88	2.65	92.761	92.778	92.736	92.768	92.699	92.755	92.638	92.733	0.978 8
89	2.65	93.747	93.764	93.722	93.754	93.685	93.740	93.623	93.719	0.978 9
90	2.65	94.761	94.779	94.736	94.769	94.699	94.755	94.638	94.733	0.979 3
91	2.65	95.747	95.765	95.722	95.755	95.685	95.741	95.624	95.719	0.979 4
92	2.65	96.761	96.779	96.736	96.769	96.699	96.755	96.637	96.733	0.979 7
93	2.65	97.748	97.766	97.723	97.756	97.686	97.741	97.624	97.719	0.979 8
94	2.65	98.762	98.779	98.737	98.769	98.699	98.755	98.637	98.733	0.980 1
95	2.65	99.748	99.766	99.723	99.756	99.686	99.742	99.624	99.719	0.980 2
96	2.65	100.762	100.780	100.737	100.769	100.699	100.755	100.637	100.733	0.980 5
97	2.65	101.749	101.767	101.724	101.756	101.686	101.742	101.624	101.720	0.980 6
98	2.65	102.762	102.780	102.737	102.770	102.699	102.755	102.637	102.733	0.980 9
99	2.65	103.750	103.767	103.724	103.757	103.687	103.742	103.624	103.720	0.980 9
100	2.65	104.762	104.780	104.737	104.770	104.699	104.755	104.636	104.732	0.981 3

表 23 跨棒距 M_{Re} 45°外花键 模数 $m=1.25\text{ mm}$ 作用齿厚最大值 $S_{\max}=1.963\text{ mm}$

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		K_e
		min	max	min	max	min	max	min	max	
10	3.75	19.278	19.296	19.261	19.290	19.236	19.283	19.193	19.270	0.862 3
11	3.75	20.374	20.391	20.357	20.386	20.331	20.378	20.288	20.366	0.860 6
12	3.75	21.810	21.827	21.792	21.822	21.766	21.814	21.721	21.801	0.875 9
13	3.55	22.484	22.502	22.466	22.496	22.439	22.488	22.394	22.475	0.881 9
14	3.55	23.884	23.901	23.865	23.896	23.837	23.887	23.791	23.874	0.893 5
15	3.55	25.024	25.042	25.006	25.036	24.978	25.028	24.931	25.014	0.893 3
16	3.55	26.401	26.419	26.382	26.413	26.354	26.404	26.306	26.391	0.902 6
17	3.55	27.556	27.574	27.537	27.568	27.508	27.559	27.460	27.545	0.902 7
18	3.55	28.915	28.934	28.896	28.927	28.867	28.918	28.818	28.904	0.910 2
19	3.55	30.081	30.099	30.061	30.093	30.032	30.084	29.983	30.069	0.910 4
20	3.55	31.427	31.446	31.408	31.439	31.378	31.430	31.328	31.415	0.916 7
21	3.55	32.601	32.620	32.581	32.613	32.551	32.604	32.502	32.589	0.917 0
22	3.55	33.938	33.956	33.917	33.950	33.887	33.940	33.837	33.925	0.922 3
23	3.55	35.118	35.137	35.098	35.130	35.068	35.121	35.017	35.105	0.922 7
24	3.55	36.446	36.465	36.426	36.458	36.395	36.448	36.344	36.433	0.927 2
25	3.55	37.633	37.652	37.612	37.645	37.581	37.635	37.530	37.619	0.927 6
26	3.55	38.954	38.973	38.933	38.966	38.902	38.956	38.850	38.940	0.931 6
27	3.55	40.145	40.164	40.124	40.157	40.093	40.147	40.041	40.131	0.932 0
28	3.55	41.460	41.479	41.439	41.472	41.408	41.462	41.355	41.446	0.935 4
29	3.55	42.656	42.675	42.635	42.668	42.603	42.657	42.550	42.641	0.935 8
30	3.55	43.966	43.985	43.945	43.978	43.913	43.967	43.859	43.951	0.938 8
31	3.55	45.165	45.185	45.144	45.177	45.112	45.167	45.058	45.150	0.939 2
32	3.55	46.471	46.491	46.450	46.483	46.417	46.472	46.363	46.456	0.941 9
33	3.55	47.674	47.693	47.652	47.685	47.619	47.675	47.565	47.658	0.942 3
34	3.55	48.976	48.995	48.954	48.988	48.921	48.977	48.866	48.960	0.944 7
35	3.55	50.181	50.200	50.159	50.193	50.126	50.182	50.071	50.164	0.945 1
36	3.55	51.480	51.499	51.458	51.492	51.425	51.481	51.369	51.463	0.947 3
37	3.55	52.688	52.707	52.666	52.699	52.632	52.688	52.576	52.670	0.947 6
38	3.55	53.984	54.003	53.962	53.995	53.928	53.984	53.872	53.966	0.949 6
39	3.55	55.194	55.213	55.171	55.205	55.138	55.194	55.081	55.176	0.949 9
40	3.15	55.548	55.567	55.525	55.559	55.491	55.547	55.434	55.529	0.959 8
41	3.15	56.759	56.779	56.736	56.771	56.702	56.759	56.645	56.741	0.960 0
42	3.15	58.050	58.069	58.027	58.061	57.992	58.049	57.935	58.031	0.961 5
43	3.15	59.263	59.283	59.240	59.274	59.205	59.262	59.148	59.244	0.961 7
44	3.15	60.552	60.571	60.528	60.563	60.493	60.551	60.435	60.532	0.963 1
45	3.15	61.767	61.786	61.743	61.778	61.708	61.766	61.650	61.747	0.963 2
46	3.15	63.053	63.073	63.030	63.064	62.995	63.052	62.936	63.033	0.964 5
47	3.15	64.270	64.289	64.246	64.281	64.211	64.269	64.152	64.249	0.964 6
48	3.15	65.555	65.574	65.531	65.566	65.496	65.553	65.437	65.534	0.965 8
49	3.15	66.773	66.792	66.749	66.784	66.714	66.771	66.654	66.752	0.965 9
50	3.15	68.056	68.076	68.032	68.067	67.997	68.054	67.937	68.035	0.967 0
51	3.15	69.276	69.295	69.252	69.286	69.216	69.274	69.156	69.254	0.967 1
52	3.15	70.558	70.577	70.534	70.568	70.498	70.555	70.438	70.536	0.968 2
53	3.15	71.778	71.797	71.754	71.788	71.718	71.776	71.658	71.756	0.968 3
54	3.15	73.059	73.078	73.035	73.069	72.998	73.056	72.938	73.036	0.969 2
55	3.15	74.280	74.300	74.256	74.291	74.220	74.278	74.159	74.258	0.969 3

表 23 (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	3.15	75.560	75.579	75.536	75.570	75.499	75.557	75.438	75.537	0.970 2
57	3.15	76.782	76.802	76.758	76.793	76.721	76.780	76.660	76.759	0.970 3
58	3.15	78.061	78.080	78.036	78.071	78.000	78.058	77.938	78.038	0.971 2
59	3.15	79.284	79.304	79.260	79.294	79.223	79.281	79.162	79.261	0.971 3
60	3.15	80.562	80.581	80.537	80.572	80.500	80.559	80.439	80.538	0.972 0
61	3.15	81.786	81.806	81.762	81.796	81.724	81.783	81.663	81.762	0.972 1
62	3.15	83.063	83.082	83.038	83.073	83.001	83.059	82.939	83.038	0.972 9
63	3.15	84.288	84.307	84.263	84.298	84.226	84.284	84.163	84.263	0.973 0
64	3.15	85.564	85.583	85.539	85.573	85.501	85.560	85.439	85.539	0.973 6
65	3.15	86.790	86.809	86.765	86.799	86.727	86.786	86.664	86.764	0.973 7
66	3.15	88.064	88.084	88.039	88.074	88.002	88.060	87.939	88.039	0.974 4
67	3.15	89.291	89.310	89.266	89.301	89.228	89.287	89.165	89.265	0.974 5
68	3.15	90.565	90.584	90.540	90.575	90.502	90.561	90.439	90.539	0.975 1
69	3.15	91.792	91.812	91.767	91.802	91.729	91.788	91.666	91.766	0.975 2
70	3.15	93.066	93.085	93.040	93.075	93.002	93.061	92.939	93.039	0.975 7
71	3.15	94.294	94.313	94.268	94.303	94.230	94.289	94.166	94.267	0.975 8
72	3.15	95.566	95.586	95.541	95.576	95.503	95.561	95.439	95.540	0.976 4
73	3.15	96.795	96.814	96.769	96.804	96.731	96.790	96.667	96.768	0.976 4
74	3.15	98.067	98.086	98.041	98.076	98.003	98.062	97.939	98.040	0.977 0
75	3.15	99.296	99.315	99.270	99.305	99.232	99.291	99.167	99.269	0.977 0
76	3.15	100.568	100.587	100.542	100.577	100.503	100.562	100.438	100.540	0.977 5
77	3.15	101.797	101.817	101.771	101.806	101.733	101.792	101.668	101.769	0.977 6
78	3.15	103.068	103.087	103.042	103.077	103.003	103.062	102.938	103.040	0.978 1
79	3.15	104.298	104.318	104.272	104.307	104.233	104.292	104.168	104.270	0.978 1
80	3.15	105.569	105.588	105.542	105.577	105.503	105.563	105.438	105.540	0.978 6
81	3.15	106.799	106.819	106.773	106.808	106.734	106.793	106.669	106.770	0.978 7
82	3.15	108.069	108.088	108.043	108.078	108.003	108.063	107.938	108.040	0.979 1
83	3.15	109.300	109.319	109.274	109.309	109.235	109.294	109.169	109.271	0.979 1
84	3.15	110.569	110.589	110.543	110.578	110.504	110.563	110.438	110.540	0.979 5
85	3.15	111.801	111.820	111.775	111.810	111.735	111.794	111.669	111.771	0.979 6
86	3.15	113.070	113.089	113.043	113.078	113.004	113.063	112.937	113.040	0.980 0
87	3.15	114.302	114.321	114.275	114.310	114.236	114.295	114.169	114.272	0.980 1
88	3.15	115.570	115.589	115.544	115.579	115.504	115.563	115.437	115.540	0.980 4
89	3.15	116.803	116.822	116.776	116.811	116.736	116.796	116.669	116.772	0.980 5
90	3.15	118.071	118.090	118.044	118.079	118.004	118.063	117.937	118.040	0.980 8
91	3.15	119.303	119.323	119.277	119.312	119.237	119.296	119.170	119.272	0.980 9
92	3.15	120.571	120.590	120.544	120.579	120.504	120.563	120.437	120.540	0.981 2
93	3.15	121.804	121.823	121.777	121.812	121.737	121.797	121.670	121.773	0.981 3
94	3.15	123.071	123.090	123.044	123.079	123.004	123.064	122.936	123.039	0.981 6
95	3.15	124.305	124.324	124.278	124.313	124.237	124.297	124.170	124.273	0.981 7
96	3.15	125.572	125.591	125.545	125.579	125.504	125.564	125.436	125.539	0.982 0
97	3.15	126.806	126.825	126.778	126.813	126.738	126.797	126.670	126.773	0.982 0
98	3.15	128.072	128.091	128.045	128.080	128.004	128.064	127.936	128.039	0.982 3
99	3.15	129.306	129.325	129.279	129.314	129.238	129.298	129.170	129.273	0.982 4
100	3.15	130.572	130.591	130.545	130.580	130.504	130.564	130.436	130.539	0.982 7

表 24 跨棒距 M_{Re} 45°外花键 模数 $m = 1.5 \text{ mm}$ 作用齿厚最大值 $S_{\max} = 2.356 \text{ mm}$ 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
		4h		5h		6h		7h		系数
		min	max	min	max	min	max	min	max	K_e
10	4.50	23.138	23.156	23.120	23.151	23.092	23.143	23.047	23.130	0.862 0
11	4.50	24.453	24.471	24.435	24.466	24.407	24.458	24.361	24.445	0.860 3
12	4.50	26.176	26.195	26.157	26.189	26.129	26.180	26.081	26.167	0.875 6
13	4.25	26.963	26.982	26.944	26.976	26.915	26.967	26.867	26.953	0.881 8
14	4.25	28.642	28.661	28.622	28.655	28.593	28.646	28.544	28.632	0.893 4
15	4.25	30.011	30.030	29.991	30.024	29.962	30.015	29.912	30.001	0.893 2
16	4.25	31.663	31.682	31.643	31.676	31.612	31.667	31.562	31.652	0.902 5
17	4.25	33.048	33.068	33.028	33.061	32.998	33.052	32.947	33.037	0.902 6
18	4.00	34.108	34.128	34.087	34.121	34.056	34.111	34.004	34.096	0.916 6
19	4.00	35.506	35.526	35.485	35.519	35.454	35.509	35.402	35.494	0.916 7
20	4.00	37.120	37.140	37.099	37.133	37.067	37.123	37.014	37.107	0.922 8
21	4.00	38.528	38.548	38.507	38.541	38.475	38.531	38.422	38.516	0.923 0
22	4.00	40.130	40.150	40.109	40.143	40.076	40.133	40.022	40.117	0.928 2
23	4.00	41.547	41.567	41.525	41.560	41.493	41.550	41.438	41.533	0.928 4
24	4.00	43.139	43.159	43.117	43.152	43.084	43.141	43.029	43.125	0.932 8
25	4.00	44.563	44.583	44.541	44.575	44.507	44.565	44.452	44.548	0.933 1
26	4.00	46.146	46.167	46.124	46.159	46.091	46.149	46.035	46.132	0.936 9
27	4.00	47.576	47.596	47.554	47.589	47.520	47.578	47.464	47.561	0.937 2
28	4.00	49.153	49.173	49.130	49.166	49.097	49.155	49.040	49.138	0.940 5
29	4.00	50.588	50.608	50.565	50.600	50.531	50.589	50.474	50.572	0.940 8
30	4.00	52.159	52.179	52.136	52.171	52.102	52.160	52.044	52.143	0.943 8
31	4.00	53.598	53.618	53.575	53.610	53.540	53.599	53.483	53.581	0.944 0
32	4.00	55.164	55.184	55.141	55.176	55.106	55.165	55.048	55.147	0.946 7
33	4.00	56.607	56.627	56.583	56.619	56.549	56.608	56.490	56.590	0.946 9
34	4.00	58.169	58.189	58.145	58.181	58.110	58.169	58.051	58.151	0.949 3
35	4.00	59.615	59.635	59.591	59.627	59.556	59.615	59.497	59.597	0.949 5
36	4.00	61.173	61.193	61.149	61.185	61.113	61.173	61.054	61.155	0.951 6
37	4.00	62.622	62.642	62.598	62.634	62.562	62.622	62.503	62.603	0.951 9
38	4.00	64.176	64.197	64.153	64.188	64.117	64.176	64.057	64.158	0.953 8
39	3.75	65.041	65.061	65.016	65.053	64.980	65.040	64.920	65.021	0.958 4
40	3.75	66.592	66.612	66.567	66.604	66.531	66.591	66.470	66.572	0.960 1
41	3.75	68.046	68.066	68.021	68.058	67.985	68.045	67.924	68.026	0.960 2
42	3.75	69.594	69.615	69.570	69.606	69.533	69.593	69.471	69.574	0.961 8
43	3.75	71.050	71.071	71.026	71.062	70.989	71.049	70.927	71.030	0.961 9
44	3.75	72.596	72.617	72.572	72.608	72.534	72.595	72.473	72.575	0.963 3
45	3.75	74.054	74.075	74.030	74.066	73.992	74.053	73.930	74.033	0.963 4
46	3.75	75.598	75.619	75.573	75.610	75.536	75.597	75.473	75.577	0.964 7
47	3.75	77.058	77.079	77.033	77.070	76.996	77.057	76.933	77.036	0.964 8
48	3.75	78.600	78.621	78.575	78.611	78.537	78.598	78.474	78.578	0.966 0
49	3.75	80.062	80.082	80.037	80.073	79.999	80.060	79.936	80.039	0.966 1
50	3.75	81.602	81.622	81.576	81.613	81.538	81.600	81.475	81.579	0.967 2
51	3.75	83.065	83.086	83.040	83.076	83.001	83.063	82.938	83.042	0.967 4
52	3.75	84.603	84.624	84.578	84.614	84.540	84.601	84.476	84.580	0.968 4
53	3.75	86.068	86.089	86.042	86.079	86.004	86.065	85.940	86.044	0.968 5
54	3.75	87.605	87.625	87.579	87.616	87.541	87.602	87.476	87.581	0.969 4
55	3.75	89.071	89.091	89.045	89.082	89.006	89.068	88.942	89.046	0.969 5

表 24 (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	3.75	90.606	90.627	90.580	90.617	90.541	90.603	90.477	90.582	0.970 4
57	3.75	92.073	92.094	92.047	92.084	92.008	92.070	91.943	92.048	0.970 5
58	3.75	93.607	93.628	93.581	93.618	93.542	93.604	93.477	93.582	0.971 3
59	3.75	95.076	95.096	95.049	95.086	95.010	95.072	94.945	95.050	0.971 4
60	3.75	96.609	96.629	96.582	96.619	96.543	96.605	96.477	96.583	0.972 2
61	3.75	98.078	98.098	98.051	98.088	98.012	98.074	97.946	98.052	0.972 3
62	3.75	99.610	99.630	99.583	99.620	99.544	99.606	99.477	99.583	0.973 0
63	3.75	101.080	101.100	101.053	101.090	101.014	101.076	100.947	101.053	0.973 1
64	3.75	102.611	102.631	102.584	102.621	102.544	102.606	102.478	102.584	0.973 8
65	3.75	104.082	104.102	104.055	104.092	104.015	104.077	103.948	104.055	0.973 9
66	3.75	105.612	105.632	105.585	105.622	105.545	105.607	105.478	105.584	0.974 5
67	3.75	107.084	107.104	107.057	107.094	107.016	107.079	106.949	107.056	0.974 6
68	3.75	108.612	108.633	108.585	108.622	108.545	108.607	108.478	108.584	0.975 2
69	3.75	110.085	110.106	110.058	110.095	110.018	110.080	109.950	110.057	0.975 3
70	3.75	111.613	111.634	111.586	111.623	111.546	111.608	111.478	111.585	0.975 9
71	3.75	113.087	113.107	113.060	113.097	113.019	113.081	112.951	113.058	0.976 0
72	3.75	114.614	114.634	114.587	114.624	114.546	114.608	114.478	114.585	0.976 5
73	3.75	116.088	116.109	116.061	116.098	116.020	116.083	115.952	116.059	0.976 6
74	3.75	117.615	117.635	117.587	117.624	117.546	117.609	117.478	117.585	0.977 1
75	3.75	119.090	119.110	119.062	119.099	119.021	119.084	118.952	119.060	0.977 2
76	3.75	120.615	120.636	120.588	120.625	120.547	120.609	120.478	120.585	0.977 7
77	3.75	122.091	122.111	122.063	122.100	122.022	122.085	121.953	122.061	0.977 7
78	3.75	123.616	123.636	123.588	123.625	123.547	123.609	123.478	123.585	0.978 2
79	3.75	125.092	125.113	125.065	125.101	125.023	125.086	124.954	125.061	0.978 3
80	3.75	126.617	126.637	126.589	126.626	126.547	126.610	126.477	126.585	0.978 7
81	3.75	128.094	128.114	128.066	128.102	128.024	128.087	127.954	128.062	0.978 8
82	3.75	129.617	129.637	129.589	129.626	129.547	129.610	129.477	129.585	0.979 2
83	3.75	131.095	131.115	131.067	131.103	131.025	131.087	130.955	131.063	0.979 3
84	3.75	132.618	132.638	132.590	132.626	132.547	132.610	132.477	132.586	0.979 7
85	3.75	134.096	134.116	134.068	134.104	134.025	134.088	133.955	134.063	0.979 7
86	3.75	135.618	135.638	135.590	135.627	135.548	135.611	135.477	135.585	0.980 1
87	3.75	137.097	137.117	137.068	137.105	137.026	137.089	136.955	137.064	0.980 2
88	3.75	138.619	138.639	138.590	138.627	138.548	138.611	138.477	138.585	0.980 5
89	3.75	140.098	140.118	140.069	140.106	140.027	140.090	139.956	140.064	0.980 6
90	3.75	141.619	141.639	141.591	141.627	141.548	141.611	141.477	141.585	0.981 0
91	3.75	143.099	143.119	143.070	143.107	143.027	143.090	142.956	143.065	0.981 0
92	3.75	144.620	144.640	144.591	144.628	144.548	144.611	144.476	144.585	0.981 3
93	3.75	146.099	146.119	146.071	146.108	146.028	146.091	145.956	146.065	0.981 4
94	3.75	147.620	147.640	147.591	147.628	147.548	147.611	147.476	147.585	0.981 7
95	3.75	149.100	149.120	149.071	149.108	149.028	149.091	148.956	149.065	0.981 8
96	3.75	150.620	150.640	150.591	150.628	150.548	150.611	150.476	150.585	0.982 1
97	3.75	152.101	152.121	152.072	152.109	152.029	152.092	151.956	152.066	0.982 1
98	3.75	153.621	153.641	153.592	153.628	153.548	153.611	153.476	153.585	0.982 4
99	3.75	155.102	155.122	155.073	155.109	155.029	155.092	154.956	155.066	0.982 5
100	3.75	156.621	156.641	156.592	156.629	156.548	156.611	156.475	156.585	0.982 8

表 25 跨棒距 M_{Re}
45°外花键 模数 $m=1.75\text{ mm}$ 作用齿厚最大值 $S_{v\max}=2.749\text{ mm}$ 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	5.30	27.109	27.128	27.089	27.122	27.061	27.114	27.013	27.100	0.860 5
11	5.30	28.643	28.662	28.623	28.656	28.594	28.648	28.546	28.634	0.858 9
12	5.00	29.982	30.002	29.962	29.996	29.932	29.987	29.882	29.973	0.881 2
13	5.00	31.554	31.574	31.533	31.567	31.503	31.558	31.453	31.544	0.880 5
14	5.00	33.513	33.534	33.493	33.527	33.462	33.518	33.410	33.503	0.892 2
15	4.75	34.545	34.565	34.524	34.559	34.492	34.549	34.440	34.534	0.897 9
16	4.75	36.469	36.490	36.448	36.483	36.416	36.474	36.363	36.458	0.907 0
17	4.75	38.086	38.107	38.064	38.100	38.032	38.090	37.978	38.074	0.907 0
18	4.75	39.987	40.008	39.965	40.001	39.933	39.991	39.878	39.975	0.914 4
19	4.75	41.619	41.640	41.597	41.632	41.564	41.622	41.509	41.606	0.914 6
20	4.75	43.502	43.523	43.480	43.516	43.447	43.506	43.391	43.489	0.920 7
21	4.75	45.176	45.167	45.123	45.159	45.089	45.149	45.033	45.132	0.921 0
22	4.75	47.075	47.036	46.992	47.029	46.958	47.018	46.901	47.001	0.926 2
23	4.50	48.090	48.111	48.067	48.104	48.033	48.093	47.975	48.076	0.931 6
24	4.50	49.946	49.968	49.923	49.960	49.888	49.949	49.830	49.932	0.936 0
25	4.50	51.607	51.629	51.584	51.621	51.549	51.610	51.491	51.592	0.936 1
26	4.50	53.454	53.476	53.431	53.468	53.395	53.456	53.336	53.439	0.939 9
27	4.50	55.122	55.143	55.098	55.135	55.063	55.124	55.004	55.106	0.940 1
28	4.50	56.961	56.983	56.937	56.975	56.901	56.963	56.842	56.945	0.943 4
29	4.50	58.635	58.656	58.611	58.648	58.575	58.636	58.515	58.618	0.943 6
30	4.50	60.467	60.489	60.443	60.480	60.407	60.469	60.346	60.450	0.946 5
31	4.50	62.146	62.167	62.122	62.159	62.085	62.147	62.024	62.128	0.946 7
32	4.50	63.973	63.994	63.948	63.986	63.911	63.974	63.850	63.955	0.949 3
33	4.50	65.686	65.677	65.631	65.669	65.594	65.657	65.533	65.638	0.949 5
34	4.50	67.477	67.499	67.453	67.490	67.415	67.478	67.353	67.459	0.951 8
35	4.50	69.164	69.186	69.140	69.177	69.102	69.165	69.040	69.145	0.952 0
36	4.50	70.932	71.003	70.957	70.994	70.919	70.982	70.856	70.962	0.954 1
37	4.50	72.672	72.694	72.647	72.685	72.609	72.672	72.546	72.652	0.954 3
38	4.50	74.486	74.507	74.460	74.498	74.422	74.485	74.359	74.465	0.956 1
39	4.50	76.179	76.201	76.154	76.192	76.116	76.179	76.052	76.159	0.956 3
40	4.50	77.989	78.011	77.964	78.002	77.925	77.989	77.861	77.968	0.958 0
41	4.50	79.686	79.707	79.660	79.698	79.621	79.685	79.557	79.664	0.958 2
42	4.50	81.492	81.514	81.466	81.505	81.428	81.491	81.363	81.471	0.959 8
43	4.50	83.191	83.213	83.165	83.203	83.126	83.190	83.062	83.169	0.959 9
44	4.50	84.995	85.017	84.969	85.007	84.930	84.994	84.865	84.973	0.961 4
45	4.50	86.696	86.718	86.670	86.708	86.631	86.695	86.566	86.674	0.961 5
46	4.50	88.498	88.519	88.472	88.510	88.432	88.496	88.366	88.475	0.962 8
47	4.50	90.201	90.223	90.175	90.213	90.135	90.199	90.069	90.178	0.963 0
48	4.50	92.000	92.022	91.974	92.012	91.934	91.998	91.868	91.977	0.964 2
49	4.50	93.706	93.727	93.679	93.717	93.639	93.703	93.573	93.682	0.964 4
50	4.50	95.502	95.524	95.476	95.514	95.436	95.500	95.369	95.478	0.965 5
51	4.50	97.210	97.231	97.183	97.221	97.143	97.207	97.076	97.185	0.965 6
52	4.50	99.005	99.026	98.978	99.016	98.937	99.002	98.870	98.980	0.966 7
53	4.50	100.713	100.735	100.686	100.725	100.646	100.710	100.578	100.688	0.966 8
54	4.50	102.506	102.528	102.479	102.518	102.439	102.503	102.371	102.481	0.967 8
55	4.50	104.217	104.238	104.189	104.228	104.149	104.213	104.081	104.191	0.967 9

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_{Re}								变换 系数 K_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
56	4.50	106.008	106.030	105.981	106.019	105.940	106.005	105.872	105.982	0.968 8
57	4.50	107.720	107.741	107.692	107.731	107.651	107.716	107.583	107.693	0.968 9
58	4.50	109.510	109.531	109.482	109.521	109.441	109.506	109.372	109.483	0.969 8
59	4.50	111.223	111.244	111.195	111.234	111.154	111.219	111.085	111.196	0.969 9
60	4.50	113.011	113.033	112.984	113.022	112.942	113.007	112.873	112.984	0.970 7
61	4.50	114.726	114.747	114.698	114.736	114.656	114.721	114.587	114.698	0.970 8
62	4.50	116.513	116.534	116.485	116.523	116.443	116.508	116.373	116.485	0.971 6
63	4.50	118.228	118.250	118.200	118.239	118.158	118.223	118.088	118.200	0.971 7
64	4.50	120.014	120.036	119.986	120.025	119.944	120.009	119.874	119.985	0.972 4
65	4.50	121.731	121.752	121.702	121.741	121.660	121.725	121.590	121.701	0.972 5
66	4.50	123.515	123.537	123.487	123.526	123.445	123.510	123.374	123.486	0.973 1
67	4.50	125.233	125.254	125.205	125.243	125.162	125.227	125.091	125.203	0.973 2
68	4.50	127.017	127.038	126.988	127.027	126.946	127.011	126.875	126.987	0.973 9
69	4.50	128.735	128.756	128.706	128.745	128.664	128.729	128.593	128.705	0.974 0
70	4.50	130.518	130.539	130.489	130.528	130.446	130.512	130.375	130.487	0.974 5
71	4.50	132.237	132.258	132.208	132.247	132.165	132.231	132.094	132.206	0.974 6
72	4.50	134.019	134.040	133.990	134.029	133.947	134.012	133.875	133.987	0.975 2
73	4.50	135.739	135.760	135.710	135.749	135.667	135.732	135.595	135.707	0.975 3
74	4.50	137.520	137.541	137.491	137.529	137.447	137.513	137.375	137.488	0.975 8
75	4.50	139.241	139.262	139.212	139.250	139.168	139.234	139.096	139.209	0.975 9
76	4.50	141.021	141.042	140.992	141.030	140.948	141.014	140.875	140.988	0.976 4
77	4.50	142.742	142.763	142.713	142.752	142.670	142.735	142.597	142.710	0.976 5
78	4.50	144.521	144.543	144.492	144.531	144.448	144.514	144.376	144.488	0.977 0
79	4.50	146.244	146.265	146.215	146.253	146.171	146.236	146.098	146.211	0.977 1
80	4.50	148.022	148.043	147.993	148.031	147.949	148.015	147.876	147.989	0.977 5
81	4.50	149.745	149.766	149.716	149.754	149.672	149.738	149.598	149.712	0.977 6
82	4.50	151.523	151.544	151.494	151.532	151.449	151.515	151.376	151.489	0.978 0
83	4.50	153.247	153.268	153.217	153.256	153.173	153.239	153.099	153.212	0.978 1
84	4.50	155.024	155.045	154.994	155.033	154.950	155.015	154.876	154.989	0.978 5
85	4.50	156.748	156.769	156.718	156.757	156.674	156.740	156.600	156.713	0.978 6
86	4.50	158.524	158.545	158.495	158.533	158.450	158.516	158.376	158.489	0.979 0
87	4.50	160.249	160.270	160.220	160.258	160.175	160.241	160.100	160.214	0.979 0
88	4.50	162.025	162.046	161.995	162.034	161.950	162.016	161.875	161.989	0.979 4
89	4.50	163.751	163.772	163.721	163.759	163.676	163.741	163.601	163.715	0.979 5
90	4.50	165.526	165.547	165.496	165.534	165.451	165.516	165.375	165.489	0.979 9
91	4.50	167.252	167.273	167.222	167.260	167.176	167.242	167.101	167.215	0.979 9
92	4.50	169.026	169.047	168.996	169.035	168.951	169.017	168.875	168.989	0.980 3
93	4.50	170.753	170.774	170.723	170.761	170.677	170.743	170.602	170.716	0.980 3
94	4.50	172.527	172.548	172.497	172.535	172.451	172.517	172.375	172.489	0.980 7
95	4.50	174.254	174.275	174.223	174.262	174.178	174.244	174.102	174.216	0.980 7
96	4.50	176.027	176.048	175.997	176.035	175.951	176.017	175.875	175.989	0.981 0
97	4.50	177.755	177.776	177.724	177.763	177.679	177.745	177.602	177.717	0.981 1
98	4.50	179.528	179.549	179.497	179.536	179.451	179.517	179.375	179.489	0.981 4
99	4.50	181.256	181.277	181.225	181.264	181.179	181.245	181.103	181.217	0.981 5
100	4.50	183.028	183.049	182.998	183.036	182.952	183.018	182.875	182.989	0.981 8

表 26 跨棒距 M_{Re} 45°外花键 模数 $m=2\text{ mm}$ 作用齿厚最大值 $S_{v\max}=3.142\text{ mm}$

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	6.00	30.858	30.878	30.838	30.872	30.807	30.863	30.757	30.849	0.861 5
11	6.00	32.611	32.631	32.591	32.625	32.560	32.616	32.510	32.602	0.859 8
12	6.00	34.909	34.929	34.888	34.923	34.857	34.914	34.804	34.899	0.875 1
13	5.60	35.808	35.829	35.787	35.822	35.755	35.813	35.702	35.798	0.882 7
14	5.60	38.046	38.067	38.024	38.060	37.992	38.051	37.938	38.035	0.894 3
15	5.60	39.871	39.893	39.850	39.886	39.817	39.876	39.762	39.861	0.894 1
16	5.60	42.073	42.095	42.051	42.088	42.018	42.078	41.962	42.062	0.903 3
17	5.30	43.237	43.259	43.214	43.251	43.180	43.241	43.124	43.225	0.909 4
18	5.30	45.409	45.430	45.386	45.423	45.351	45.413	45.294	45.396	0.916 8
19	5.30	47.273	47.295	47.250	47.287	47.215	47.277	47.158	47.260	0.916 9
20	5.30	49.425	49.447	49.401	49.439	49.366	49.428	49.308	49.411	0.923 0
21	5.30	51.303	51.325	51.279	51.317	51.244	51.306	51.185	51.289	0.923 2
22	5.30	53.438	53.460	53.414	53.452	53.379	53.441	53.319	53.424	0.928 3
23	5.30	55.327	55.349	55.303	55.341	55.267	55.330	55.207	55.312	0.928 5
24	5.30	57.450	57.472	57.425	57.464	57.389	57.452	57.329	57.434	0.933 0
25	5.30	59.348	59.370	59.324	59.362	59.287	59.350	59.226	59.332	0.933 2
26	5.30	61.460	61.482	61.435	61.474	61.398	61.462	61.337	61.443	0.937 0
27	5.30	63.366	63.388	63.341	63.380	63.304	63.368	63.242	63.349	0.937 3
28	5.30	65.468	65.491	65.444	65.482	65.406	65.470	65.344	65.451	0.940 7
29	5.30	67.381	67.404	67.356	67.395	67.319	67.383	67.256	67.364	0.940 9
30	5.30	69.476	69.499	69.451	69.490	69.413	69.478	69.350	69.458	0.943 9
31	5.30	71.395	71.417	71.369	71.408	71.331	71.396	71.268	71.376	0.944 1
32	5.00	72.781	72.804	72.755	72.795	72.717	72.782	72.652	72.762	0.951 3
33	5.00	74.704	74.727	74.679	74.718	74.640	74.705	74.575	74.685	0.951 4
34	5.00	76.786	76.809	76.760	76.799	76.721	76.786	76.656	76.766	0.953 7
35	5.00	78.714	78.737	78.688	78.727	78.649	78.714	78.583	78.694	0.953 9
36	5.00	80.790	80.813	80.764	80.804	80.725	80.790	80.659	80.770	0.955 9
37	5.00	82.722	82.745	82.696	82.736	82.656	82.722	82.590	82.702	0.956 1
38	5.00	84.794	84.817	84.768	84.808	84.728	84.794	84.662	84.773	0.957 9
39	5.00	86.730	86.753	86.703	86.743	86.663	86.729	86.597	86.708	0.958 1
40	5.00	88.798	88.821	88.771	88.811	88.731	88.797	88.664	88.776	0.959 7
41	5.00	90.737	90.759	90.710	90.750	90.670	90.736	90.602	90.714	0.959 9
42	5.00	92.801	92.824	92.774	92.814	92.734	92.800	92.666	92.779	0.961 4
43	5.00	94.743	94.766	94.716	94.756	94.675	94.742	94.607	94.720	0.961 6
44	5.00	96.804	96.827	96.777	96.817	96.736	96.803	96.668	96.781	0.963 0
45	5.00	98.749	98.771	98.721	98.761	98.680	98.747	98.612	98.725	0.963 1
46	5.00	100.807	100.830	100.780	100.820	100.738	100.805	100.669	100.783	0.964 4
47	5.00	102.754	102.776	102.726	102.766	102.685	102.752	102.616	102.729	0.964 5
48	5.00	104.810	104.832	104.782	104.822	104.740	104.807	104.671	104.785	0.965 7
49	5.00	106.759	106.781	106.731	106.771	106.689	106.756	106.619	106.733	0.965 8
50	5.00	108.812	108.835	108.784	108.824	108.742	108.809	108.672	108.786	0.966 9
51	5.00	110.763	110.785	110.735	110.775	110.693	110.760	110.622	110.737	0.967 0
52	5.00	112.814	112.837	112.786	112.826	112.744	112.811	112.673	112.788	0.968 1
53	5.00	114.767	114.789	114.739	114.779	114.696	114.764	114.625	114.740	0.968 2
54	5.00	116.816	116.839	116.788	116.828	116.745	116.813	116.674	116.789	0.969 1
55	5.00	118.771	118.793	118.742	118.782	118.699	118.767	118.628	118.743	0.969 2

表 26 (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	5.00	120.818	120.840	120.789	120.829	120.746	120.814	120.675	120.790	0.970 1
57	5.00	122.774	122.797	122.745	122.786	122.702	122.770	122.630	122.746	0.970 2
58	5.00	124.820	124.842	124.791	124.831	124.748	124.815	124.676	124.791	0.971 1
59	5.00	126.777	126.800	126.748	126.789	126.705	126.773	126.633	126.748	0.971 2
60	5.00	128.821	128.844	128.792	128.832	128.749	128.816	128.676	128.792	0.971 9
61	5.00	130.780	130.803	130.751	130.791	130.708	130.775	130.635	130.751	0.972 0
62	5.00	132.823	132.845	132.794	132.834	132.750	132.818	132.677	132.793	0.972 8
63	5.00	134.783	134.806	134.754	134.794	134.710	134.778	134.637	134.753	0.972 9
64	5.00	136.824	136.847	136.795	136.835	136.751	136.819	136.677	136.793	0.973 5
65	5.00	138.786	138.808	138.756	138.796	138.712	138.780	138.638	138.755	0.973 6
66	5.00	140.826	140.848	140.796	140.836	140.752	140.820	140.677	140.794	0.974 3
67	5.00	142.788	142.810	142.759	142.799	142.714	142.782	142.640	142.757	0.974 4
68	5.00	144.827	144.849	144.797	144.837	144.752	144.820	144.678	144.795	0.975 0
69	5.00	146.791	146.813	146.761	146.801	146.716	146.784	146.641	146.758	0.975 1
70	5.00	148.828	148.850	148.798	148.838	148.753	148.821	148.678	148.795	0.975 6
71	5.00	150.793	150.815	150.763	150.803	150.718	150.786	150.643	150.760	0.975 7
72	5.00	152.829	152.851	152.799	152.839	152.754	152.822	152.678	152.796	0.976 3
73	5.00	154.795	154.817	154.765	154.805	154.719	154.787	154.644	154.761	0.976 3
74	5.00	156.830	156.852	156.800	156.840	156.754	156.822	156.678	156.796	0.976 9
75	5.00	158.797	158.819	158.766	158.806	158.721	158.789	158.645	158.762	0.976 9
76	5.00	160.831	160.853	160.800	160.841	160.755	160.823	160.679	160.796	0.977 4
77	5.00	162.799	162.821	162.768	162.808	162.722	162.790	162.646	162.764	0.977 5
78	5.00	164.832	164.854	164.801	164.841	164.755	164.824	164.679	164.797	0.978 0
79	5.00	166.800	166.822	166.770	166.810	166.723	166.792	166.647	166.765	0.978 0
80	5.00	168.833	168.855	168.802	168.842	168.756	168.824	168.679	168.797	0.978 5
81	5.00	170.802	170.824	170.771	170.811	170.725	170.793	170.648	170.766	0.978 6
82	5.00	172.833	172.855	172.802	172.843	172.756	172.825	172.679	172.797	0.979 0
83	5.00	174.803	174.825	174.772	174.812	174.726	174.794	174.648	174.767	0.979 0
84	5.00	176.834	176.856	176.803	176.843	176.756	176.825	176.679	176.797	0.979 4
85	5.00	178.805	178.827	178.774	178.814	178.727	178.795	178.649	178.767	0.979 5
86	5.00	180.835	180.857	180.804	180.844	180.757	180.825	180.679	180.797	0.979 9
87	5.00	182.806	182.828	182.775	182.815	182.728	182.796	182.650	182.768	0.980 0
88	5.00	184.836	184.857	184.804	184.844	184.757	184.826	184.679	184.797	0.980 3
89	5.00	186.808	186.829	186.776	186.816	186.729	186.797	186.650	186.769	0.980 4
90	5.00	188.836	188.858	188.805	188.845	188.757	188.826	188.678	188.797	0.980 7
91	5.00	190.809	190.830	190.777	190.817	190.730	190.798	190.651	190.770	0.980 8
92	5.00	192.837	192.858	192.805	192.845	192.758	192.826	192.678	192.797	0.981 1
93	5.00	194.810	194.832	194.778	194.818	194.731	194.799	194.651	194.770	0.981 2
94	5.00	196.837	196.859	196.806	196.845	196.758	196.826	196.678	196.797	0.981 5
95	5.00	198.811	198.833	198.779	198.819	198.731	198.800	198.652	198.771	0.981 6
96	5.00	200.838	200.859	200.806	200.846	200.758	200.827	200.678	200.797	0.9819
97	5.00	202.812	202.834	202.780	202.820	202.732	202.801	202.652	202.771	0.981 9
98	5.00	204.838	204.860	204.806	204.846	204.758	204.827	204.678	204.797	0.982 2
99	5.00	206.813	206.835	206.781	206.821	206.733	206.802	206.652	206.772	0.982 3
100	5.00	208.839	208.860	208.807	208.846	208.758	208.827	208.678	208.797	0.982 6

表 27 跨棒距 M_{Re}

45°外花键 模数 $m=2.5\text{ mm}$ 作用齿厚最大值 $S_{v\text{ max}}=3.927\text{ mm}$ 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_e
		4h		5h		6h		7h		
		min	max	min	max	min	max	min	max	
10	7.50	38.578	38.600	38.556	38.593	38.524	38.584	38.469	38.569	0.861 2
11	7.50	40.770	40.792	40.748	40.785	40.715	40.776	40.660	40.760	0.859 5
12	7.10	42.746	42.768	42.723	42.761	42.689	42.751	42.632	42.736	0.881 4
13	7.10	44.991	45.013	44.968	45.006	44.934	44.996	44.876	44.980	0.880 7
14	7.10	47.790	47.813	47.766	47.805	47.731	47.795	47.673	47.778	0.892 3
15	6.70	49.166	49.189	49.142	49.181	49.107	49.171	49.047	49.154	0.898 8
16	6.70	51.914	51.938	51.890	51.930	51.854	51.919	51.794	51.902	0.907 9
17	6.70	54.224	54.247	54.199	54.239	54.163	54.228	54.102	54.211	0.907 8
18	6.70	56.939	56.963	56.914	56.955	56.877	56.943	56.816	56.926	0.915 3
19	6.70	59.270	59.293	59.245	59.285	59.208	59.274	59.146	59.256	0.915 4
20	6.70	61.960	61.984	61.935	61.975	61.897	61.964	61.834	61.945	0.921 5
21	6.70	64.308	64.331	64.282	64.323	64.244	64.311	64.181	64.292	0.921 7
22	6.70	66.973	67.001	66.952	66.993	66.913	66.981	66.849	66.962	0.926 9
23	6.70	69.339	69.363	69.313	69.354	69.274	69.342	69.210	69.323	0.927 2
24	6.70	71.993	72.017	71.967	72.008	71.927	71.995	71.862	71.976	0.931 6
25	6.70	74.366	74.390	74.339	74.381	74.300	74.368	74.234	74.348	0.931 9
26	6.30	76.076	76.100	76.049	76.091	76.009	76.078	75.942	76.058	0.941 2
27	6.30	78.458	78.482	78.431	78.473	78.391	78.460	78.324	78.440	0.941 4
28	6.30	81.085	81.109	81.058	81.100	81.017	81.087	80.950	81.066	0.944 6
29	6.30	83.476	83.500	83.449	83.491	83.408	83.477	83.340	83.457	0.944 8
30	6.30	86.093	86.117	86.066	86.108	86.025	86.094	85.956	86.073	0.947 7
31	6.30	88.491	88.516	88.464	88.506	88.423	88.492	88.354	88.471	0.947 9
32	6.30	91.101	91.125	91.073	91.115	91.031	91.101	90.962	91.080	0.950 4
33	6.30	93.505	93.529	93.477	93.519	93.435	93.505	93.366	93.484	0.950 6
34	6.30	96.107	96.131	96.079	96.121	96.037	96.107	95.967	96.085	0.952 9
35	6.30	98.517	98.541	98.489	98.531	98.447	98.517	98.376	98.495	0.953 0
36	6.30	101.113	101.137	101.085	101.127	101.042	101.113	100.971	101.090	0.955 1
37	6.30	103.528	103.552	103.499	103.542	103.457	103.527	103.385	103.505	0.955 3
38	6.30	106.118	106.142	106.090	106.132	106.047	106.117	105.975	106.095	0.957 1
39	6.30	108.538	108.562	108.509	108.551	108.466	108.537	108.394	108.514	0.957 3
40	6.30	111.123	111.147	111.094	111.137	111.051	111.122	110.978	111.098	0.959 0
41	6.30	113.546	113.571	113.517	113.560	113.474	113.545	113.401	113.521	0.959 1
42	6.30	116.127	116.151	116.098	116.141	116.054	116.125	115.981	116.102	0.960 7
43	6.30	118.554	118.579	118.525	118.568	118.481	118.552	118.408	118.529	0.960 8
44	6.30	121.131	121.155	121.102	121.144	121.057	121.129	120.984	121.105	0.962 2
45	6.30	123.562	123.586	123.532	123.575	123.488	123.559	123.413	123.535	0.962 4
46	6.30	126.135	126.159	126.105	126.148	126.060	126.132	125.986	126.108	0.963 7
47	6.30	128.568	128.592	128.538	128.581	128.494	128.565	128.419	128.541	0.963 8
48	6.30	131.138	131.162	131.108	131.151	131.063	131.135	130.988	131.110	0.965 0
49	6.30	133.574	133.598	133.544	133.587	133.499	133.571	133.424	133.546	0.965 2
50	6.30	136.141	136.165	136.111	136.154	136.066	136.137	135.990	136.112	0.966 3
51	6.30	138.580	138.604	138.550	138.592	138.504	138.576	138.428	138.551	0.966 4
52	6.30	141.144	141.168	141.114	141.156	141.068	141.140	140.992	141.114	0.967 4
53	6.30	143.585	143.609	143.555	143.597	143.509	143.581	143.432	143.555	0.967 6
54	6.30	146.147	146.171	146.116	146.159	146.070	146.142	145.993	146.116	0.968 5
55	6.30	148.590	148.614	148.559	148.602	148.513	148.585	148.436	148.559	0.968 6

表 27 (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	6.30	151.149	151.173	151.118	151.161	151.072	151.144	150.994	151.118	0.969 5
57	6.30	153.594	153.618	153.563	153.606	153.517	153.589	153.439	153.563	0.969 6
58	6.30	156.151	156.175	156.120	156.163	156.073	156.146	155.995	156.119	0.970 5
59	6.30	158.598	158.622	158.567	158.610	158.520	158.593	158.442	158.566	0.970 6
60	6.30	161.154	161.177	161.122	161.165	161.075	161.147	160.996	161.121	0.971 4
61	6.30	163.602	163.626	163.571	163.614	163.524	163.596	163.445	163.569	0.971 5
62	6.30	166.155	166.179	166.124	166.167	166.076	166.149	165.997	166.122	0.972 2
63	6.30	168.606	168.630	168.574	168.617	168.527	168.599	168.447	168.572	0.972 3
64	6.30	171.157	171.181	171.125	171.168	171.078	171.150	170.998	171.123	0.973 0
65	6.30	173.609	173.633	173.577	173.620	173.530	173.602	173.450	173.574	0.973 1
66	6.30	176.159	176.183	176.127	176.170	176.079	176.152	175.999	176.124	0.973 8
67	6.30	178.612	178.636	178.580	178.623	178.532	178.605	178.452	178.577	0.973 9
68	6.30	181.161	181.184	181.128	181.171	181.080	181.153	181.000	181.125	0.974 5
69	6.30	183.615	183.639	183.583	183.626	183.535	183.607	183.454	183.579	0.974 6
70	6.30	186.162	186.186	186.130	186.172	186.081	186.154	186.000	186.125	0.975 1
71	6.30	188.618	188.642	188.586	188.628	188.537	188.610	188.456	188.581	0.975 2
72	6.30	191.164	191.187	191.131	191.174	191.082	191.155	191.001	191.126	0.975 8
73	6.30	193.621	193.644	193.588	193.631	193.539	193.612	193.457	193.583	0.975 9
74	6.30	196.165	196.188	196.132	196.175	196.083	196.156	196.001	196.127	0.976 4
75	6.30	198.623	198.647	198.590	198.633	198.541	198.614	198.459	198.585	0.976 5
76	6.30	201.166	201.190	201.133	201.176	201.084	201.157	201.001	201.127	0.977 0
77	6.30	203.626	203.649	203.593	203.635	203.543	203.616	203.460	203.586	0.977 0
78	6.30	206.167	206.191	206.134	206.177	206.084	206.157	206.002	206.128	0.977 5
79	6.30	208.628	208.651	208.595	208.637	208.545	208.618	208.462	208.588	0.977 6
80	6.30	211.168	211.192	211.135	211.178	211.085	211.158	211.002	211.128	0.978 0
81	6.30	213.630	213.653	213.597	213.639	213.547	213.620	213.463	213.589	0.978 1
82	6.30	216.170	216.193	216.136	216.179	216.086	216.159	216.002	216.129	0.978 5
83	6.30	218.632	218.655	218.598	218.641	218.548	218.621	218.464	218.591	0.978 6
84	6.30	221.171	221.194	221.137	221.179	221.086	221.159	221.002	221.129	0.979 0
85	6.30	223.634	223.657	223.600	223.643	223.550	223.623	223.465	223.592	0.979 1
86	6.00	225.456	225.479	225.422	225.465	225.371	225.444	225.286	225.413	0.981 2
87	6.00	227.920	227.943	227.886	227.929	227.835	227.908	227.750	227.877	0.981 2
88	6.00	230.457	230.480	230.423	230.465	230.371	230.445	230.286	230.413	0.981 6
89	6.00	232.922	232.945	232.887	232.930	232.836	232.909	232.751	232.878	0.981 6
90	6.00	235.457	235.480	235.423	235.466	235.372	235.445	235.286	235.413	0.982 0
91	6.00	237.923	237.946	237.889	237.931	237.837	237.911	237.752	237.879	0.982 0
92	6.00	240.458	240.481	240.424	240.466	240.372	240.445	240.286	240.413	0.982 3
93	6.00	242.924	242.947	242.890	242.932	242.838	242.912	242.752	242.880	0.982 4
94	6.00	245.459	245.481	245.424	245.467	245.372	245.445	245.286	245.413	0.982 7
95	6.00	247.926	247.949	247.891	247.934	247.839	247.913	247.753	247.880	0.982 7
96	6.00	250.459	250.482	250.424	250.467	250.372	250.446	250.286	250.413	0.983 0
97	6.00	252.927	252.950	252.892	252.935	252.840	252.913	252.753	252.881	0.983 1
98	6.00	255.460	255.482	255.425	255.467	255.373	255.446	255.285	255.413	0.983 4
99	6.00	257.928	257.951	257.893	257.936	257.841	257.914	257.754	257.882	0.983 4
100	6.00	260.460	260.483	260.425	260.468	260.373	260.446	260.285	260.413	0.983 7

表 28 公法线平均长度 W
 45° 外花键 模数 $m=0.25\text{ mm}$ 作用齿厚最大值 $S_{v\max}=0.393\text{ mm}$ 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	1.754	1.761	1.746	1.758	1.734	1.753	1.713	1.745	3
11	1.792	1.799	1.784	1.795	1.771	1.791	1.750	1.783	3
12	2.385	2.392	2.377	2.389	2.364	2.384	2.343	2.376	4
13	2.423	2.430	2.414	2.426	2.402	2.422	2.381	2.413	4
14	2.461	2.468	2.452	2.464	2.439	2.459	2.418	2.451	4
15	2.499	2.506	2.490	2.502	2.477	2.497	2.456	2.489	4
16	3.092	3.099	3.083	3.095	3.070	3.090	3.048	3.082	5
17	3.130	3.137	3.121	3.133	3.108	3.128	3.086	3.120	5
18	3.167	3.175	3.159	3.171	3.145	3.166	3.124	3.158	5
19	3.205	3.212	3.196	3.209	3.183	3.204	3.161	3.195	5
20	3.798	3.806	3.790	3.802	3.776	3.797	3.754	3.789	6
21	3.836	3.844	3.827	3.840	3.814	3.835	3.792	3.826	6
22	3.874	3.881	3.865	3.878	3.852	3.873	3.829	3.864	6
23	3.912	3.919	3.903	3.916	3.889	3.910	3.867	3.902	6
24	4.505	4.513	4.496	4.509	4.482	4.504	4.460	4.495	7
25	4.543	4.550	4.534	4.547	4.520	4.542	4.497	4.533	7
26	4.581	4.588	4.572	4.585	4.558	4.579	4.535	4.571	7
27	4.619	4.626	4.610	4.622	4.596	4.617	4.573	4.608	7
28	5.212	5.219	5.203	5.216	5.189	5.210	5.166	5.202	8
29	5.250	5.257	5.240	5.254	5.227	5.248	5.203	5.239	8
30	5.288	5.295	5.278	5.291	5.264	5.286	5.241	5.277	8
31	5.326	5.333	5.316	5.329	5.302	5.324	5.279	5.315	8
32	5.919	5.926	5.909	5.923	5.895	5.917	5.872	5.908	9
33	5.957	5.964	5.947	5.960	5.933	5.955	5.909	5.946	9
34	5.995	6.002	5.985	5.998	5.971	5.993	5.947	5.984	9
35	6.032	6.040	6.023	6.036	6.008	6.031	5.985	6.022	9
36	6.626	6.633	6.616	6.629	6.602	6.624	6.578	6.615	10
37	6.663	6.671	6.654	6.667	6.639	6.662	6.615	6.653	10
38	6.701	6.709	6.692	6.705	6.677	6.700	6.653	6.690	10
39	6.739	6.747	6.730	6.743	6.715	6.737	6.691	6.728	10
40	7.332	7.340	7.323	7.336	7.308	7.331	7.284	7.321	11
41	7.370	7.378	7.361	7.374	7.346	7.368	7.321	7.359	11
42	7.408	7.416	7.398	7.412	7.384	7.406	7.359	7.397	11
43	7.446	7.454	7.436	7.450	7.421	7.444	7.397	7.435	11
44	8.039	8.047	8.029	8.043	8.015	8.037	7.990	8.028	12
45	8.077	8.085	8.067	8.081	8.052	8.075	8.028	8.066	12
46	8.115	8.123	8.105	8.119	8.090	8.113	8.065	8.104	12
47	8.153	8.161	8.143	8.157	8.128	8.151	8.103	8.142	12
48	8.746	8.754	8.736	8.750	8.721	8.744	8.696	8.735	13
49	8.784	8.792	8.774	8.788	8.759	8.782	8.734	8.773	13
50	8.822	8.830	8.812	8.826	8.797	8.820	8.772	8.810	13
51	8.860	8.868	8.850	8.864	8.835	8.858	8.809	8.848	13
52	9.453	9.461	9.443	9.457	9.428	9.451	9.402	9.441	14
53	9.491	9.499	9.481	9.495	9.466	9.489	9.440	9.479	14
54	9.529	9.537	9.519	9.533	9.503	9.527	9.478	9.517	14
55	9.567	9.575	9.557	9.570	9.541	9.565	9.516	9.555	14

表 28 (续)

单位为毫米

齿数 <i>z</i>	<i>S_{min}</i> 和 <i>S_{max}</i> 的公法线平均长度 <i>W</i>								跨齿数 <i>K</i>
	4 <i>h</i>		5 <i>h</i>		6 <i>h</i>		7 <i>h</i>		
	min	max	min	max	min	max	min	max	
56	10.160	10.168	10.150	10.164	10.134	10.158	10.109	10.148	15
57	10.198	10.206	10.188	10.202	10.172	10.196	10.147	10.186	15
58	10.236	10.244	10.226	10.239	10.210	10.233	10.184	10.224	15
59	10.274	10.282	10.263	10.277	10.248	10.271	10.222	10.262	15
60	10.867	10.875	10.857	10.871	10.841	10.865	10.815	10.855	16
61	10.905	10.913	10.894	10.908	10.879	10.902	10.853	10.893	16
62	10.943	10.951	10.932	10.946	10.917	10.940	10.891	10.930	16
63	10.981	10.989	10.970	10.984	10.955	10.978	10.928	10.968	16
64	11.574	11.582	11.563	11.577	11.548	11.571	11.522	11.562	17
65	11.612	11.620	11.601	11.615	11.586	11.609	11.559	11.599	17
66	11.650	11.658	11.639	11.653	11.623	11.647	11.597	11.637	17
67	11.688	11.696	11.677	11.691	11.661	11.685	11.635	11.675	17
68	12.281	12.289	12.270	12.284	12.254	12.278	12.228	12.268	18
69	12.319	12.327	12.308	12.322	12.292	12.316	12.266	12.306	18
70	12.357	12.365	12.346	12.360	12.330	12.354	12.304	12.344	18
71	12.395	12.402	12.384	12.398	12.368	12.392	12.341	12.382	18
72	12.988	12.996	12.977	12.991	12.961	12.985	12.934	12.975	19
73	13.026	13.034	13.015	13.029	12.999	13.023	12.972	13.013	19
74	13.064	13.072	13.053	13.067	13.037	13.061	13.010	13.051	19
75	13.101	13.109	13.091	13.105	13.075	13.099	13.048	13.088	19
76	13.695	13.703	13.684	13.698	13.668	13.692	13.641	13.682	20
77	13.733	13.741	13.722	13.736	13.706	13.730	13.679	13.720	20
78	13.771	13.778	13.760	13.774	13.744	13.768	13.716	13.757	20
79	13.808	13.816	13.798	13.812	13.781	13.805	13.754	13.795	20
80	14.402	14.410	14.391	14.405	14.375	14.399	14.347	14.388	21
81	14.440	14.448	14.429	14.443	14.412	14.437	14.385	14.426	21
82	14.477	14.485	14.467	14.481	14.450	14.474	14.423	14.464	21
83	14.515	14.523	14.504	14.519	14.488	14.512	14.461	14.502	21
84	15.109	15.117	15.098	15.112	15.081	15.106	15.054	15.095	22
85	15.147	15.155	15.136	15.150	15.119	15.143	15.092	15.133	22
86	15.184	15.192	15.173	15.188	15.157	15.181	15.129	15.171	22
87	15.222	15.230	15.211	15.226	15.195	15.219	15.167	15.209	22
88	15.816	15.824	15.805	15.819	15.788	15.812	15.760	15.802	23
89	15.854	15.862	15.842	15.857	15.826	15.850	15.798	15.840	23
90	15.891	15.899	15.880	15.895	15.864	15.888	15.836	15.878	23
91	15.929	15.937	15.918	15.933	15.902	15.926	15.874	15.915	23
92	16.523	16.531	16.511	16.526	16.495	16.519	16.467	16.509	24
93	16.560	16.568	16.549	16.564	16.533	16.557	16.505	16.547	24
94	16.598	16.606	16.587	16.602	16.570	16.595	16.543	16.584	24
95	16.636	16.644	16.625	16.640	16.608	16.633	16.580	16.622	24
96	17.230	17.238	17.218	17.233	17.202	17.226	17.174	17.215	25
97	17.267	17.275	17.256	17.271	17.239	17.264	17.211	17.253	25
98	17.305	17.313	17.294	17.309	17.277	17.302	17.249	17.291	25
99	17.343	17.351	17.332	17.346	17.315	17.340	17.287	17.329	25
100	17.937	17.945	17.925	17.940	17.908	17.933	17.880	17.922	26

表 29 公法线平均长度 W 45°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	3.518	3.528	3.508	3.524	3.492	3.519	3.467	3.510	3
11	3.594	3.604	3.584	3.600	3.568	3.595	3.542	3.586	3
12	4.780	4.790	4.770	4.786	4.754	4.781	4.728	4.772	4
13	4.856	4.866	4.845	4.862	4.830	4.857	4.803	4.848	4
14	4.932	4.942	4.921	4.938	4.905	4.932	4.878	4.924	4
15	5.008	5.017	4.997	5.014	4.981	5.008	4.953	4.999	4
16	6.194	6.204	6.183	6.200	6.167	6.195	6.139	6.185	5
17	6.270	6.280	6.259	6.276	6.242	6.270	6.215	6.261	5
18	6.346	6.355	6.334	6.352	6.318	6.346	6.290	6.337	5
19	6.421	6.431	6.410	6.427	6.393	6.422	6.366	6.412	5
20	7.608	7.618	7.597	7.614	7.580	7.608	7.552	7.599	6
21	7.683	7.694	7.672	7.689	7.655	7.684	7.627	7.674	6
22	7.759	7.769	7.748	7.765	7.731	7.759	7.703	7.750	6
23	7.835	7.845	7.824	7.841	7.806	7.835	7.778	7.826	6
24	9.022	9.032	9.010	9.027	8.993	9.022	8.964	9.012	7
25	9.097	9.107	9.086	9.103	9.068	9.097	9.040	9.088	7
26	9.173	9.183	9.161	9.179	9.144	9.173	9.115	9.163	7
27	9.249	9.259	9.237	9.255	9.220	9.249	9.191	9.239	7
28	10.435	10.446	10.424	10.441	10.406	10.435	10.377	10.425	8
29	10.511	10.521	10.499	10.517	10.482	10.511	10.452	10.501	8
30	10.587	10.597	10.575	10.593	10.557	10.587	10.528	10.577	8
31	10.663	10.673	10.651	10.669	10.633	10.662	10.603	10.652	8
32	11.849	11.859	11.837	11.855	11.819	11.849	11.789	11.839	9
33	11.925	11.935	11.913	11.931	11.895	11.925	11.865	11.914	9
34	12.001	12.011	11.989	12.007	11.971	12.000	11.941	11.990	9
35	12.077	12.087	12.064	12.082	12.046	12.076	12.016	12.066	9
36	13.263	13.273	13.251	13.269	13.233	13.262	13.202	13.252	10
37	13.339	13.349	13.327	13.345	13.308	13.338	13.278	13.328	10
38	13.415	13.425	13.402	13.420	13.384	13.414	13.353	13.404	10
39	13.490	13.501	13.478	13.496	13.460	13.490	13.429	13.479	10
40	14.677	14.687	14.665	14.683	14.646	14.676	14.615	14.666	11
41	14.753	14.763	14.740	14.758	14.722	14.752	14.691	14.741	11
42	14.829	14.839	14.816	14.834	14.798	14.828	14.766	14.817	11
43	14.904	14.915	14.892	14.910	14.873	14.903	14.842	14.893	11
44	16.091	16.101	16.078	16.096	16.060	16.090	16.028	16.079	12
45	16.167	16.177	16.154	16.172	16.135	16.166	16.104	16.155	12
46	16.242	16.253	16.230	16.248	16.211	16.241	16.180	16.231	12
47	16.318	16.329	16.306	16.324	16.287	16.317	16.255	16.306	12
48	17.505	17.515	17.492	17.510	17.473	17.504	17.441	17.493	13
49	17.581	17.591	17.568	17.586	17.549	17.579	17.517	17.568	13
50	17.656	17.667	17.644	17.662	17.625	17.655	17.593	17.644	13
51	17.732	17.743	17.719	17.738	17.700	17.731	17.668	17.720	13
52	18.919	18.929	18.906	18.924	18.887	18.917	18.855	18.906	14
53	18.995	19.005	18.982	19.000	18.962	18.993	18.930	18.982	14
54	19.070	19.081	19.057	19.076	19.038	19.069	19.006	19.058	14
55	19.146	19.157	19.133	19.152	19.114	19.145	19.082	19.133	14

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	20.333	20.343	20.320	20.338	20.300	20.331	20.268	20.320	15
57	20.409	20.419	20.396	20.414	20.376	20.407	20.344	20.396	15
58	20.484	20.495	20.471	20.490	20.452	20.483	20.419	20.471	15
59	20.560	20.571	20.547	20.565	20.527	20.558	20.495	20.547	15
60	21.747	21.757	21.734	21.752	21.714	21.745	21.681	21.733	16
61	21.823	21.833	21.809	21.828	21.790	21.821	21.757	21.809	16
62	21.898	21.909	21.885	21.904	21.865	21.896	21.832	21.885	16
63	21.974	21.985	21.961	21.979	21.941	21.972	21.908	21.961	16
64	23.161	23.171	23.147	23.166	23.128	23.159	23.094	23.147	17
65	23.236	23.247	23.223	23.242	23.203	23.234	23.170	23.223	17
66	23.312	23.323	23.299	23.317	23.279	23.310	23.246	23.299	17
67	23.388	23.399	23.375	23.393	23.355	23.386	23.321	23.374	17
68	24.575	24.585	24.561	24.580	24.541	24.572	24.508	24.561	18
69	24.650	24.661	24.637	24.656	24.617	24.648	24.583	24.636	18
70	24.726	24.737	24.713	24.731	24.693	24.724	24.659	24.712	18
71	24.802	24.813	24.789	24.807	24.768	24.800	24.735	24.788	18
72	25.989	25.999	25.975	25.994	25.955	25.986	25.921	25.974	19
73	26.064	26.075	26.051	26.070	26.031	26.062	25.997	26.050	19
74	26.140	26.151	26.127	26.145	26.106	26.138	26.072	26.126	19
75	26.216	26.227	26.203	26.221	26.182	26.213	26.148	26.202	19
76	27.403	27.413	27.389	27.408	27.369	27.400	27.335	27.388	20
77	27.478	27.489	27.465	27.483	27.444	27.476	27.410	27.464	20
78	27.554	27.565	27.541	27.559	27.520	27.552	27.486	27.539	20
79	27.630	27.641	27.616	27.635	27.596	27.627	27.562	27.615	20
80	28.817	28.827	28.803	28.822	28.782	28.814	28.748	28.802	21
81	28.893	28.903	28.879	28.897	28.858	28.890	28.824	28.877	21
82	28.968	28.979	28.955	28.973	28.934	28.965	28.899	28.953	21
83	29.044	29.055	29.030	29.049	29.010	29.041	28.975	29.029	21
84	30.231	30.241	30.217	30.235	30.196	30.228	30.161	30.215	22
85	30.307	30.317	30.293	30.311	30.272	30.303	30.237	30.291	22
86	30.382	30.393	30.368	30.387	30.348	30.379	30.313	30.367	22
87	30.458	30.469	30.444	30.463	30.423	30.455	30.388	30.443	22
88	31.645	31.655	31.631	31.649	31.610	31.641	31.575	31.629	23
89	31.721	31.731	31.707	31.725	31.686	31.717	31.651	31.705	23
90	31.796	31.807	31.782	31.801	31.761	31.793	31.726	31.780	23
91	31.872	31.883	31.858	31.877	31.837	31.869	31.802	31.856	23
92	33.059	33.069	33.045	33.063	33.024	33.055	32.988	33.043	24
93	33.135	33.145	33.120	33.139	33.099	33.131	33.064	33.118	24
94	33.210	33.221	33.196	33.215	33.175	33.207	33.140	33.194	24
95	33.286	33.297	33.272	33.291	33.251	33.283	33.215	33.270	24
96	34.473	34.483	34.459	34.477	34.437	34.469	34.402	34.456	25
97	34.549	34.559	34.534	34.553	34.513	34.545	34.478	34.532	25
98	34.624	34.635	34.610	34.629	34.589	34.621	34.553	34.608	25
99	34.700	34.711	34.686	34.705	34.665	34.696	34.629	34.684	25
100	35.887	35.897	35.873	35.891	35.851	35.883	35.815	35.870	26

表 30 公法线平均长度 W
 45° 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	$S_{\min}$ 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	5.284	5.295	5.272	5.291	5.254	5.285	5.224	5.276	3
11	5.397	5.409	5.385	5.405	5.367	5.399	5.337	5.390	3
12	7.177	7.188	7.165	7.184	7.147	7.179	7.116	7.169	4
13	7.290	7.302	7.278	7.298	7.260	7.292	7.229	7.283	4
14	7.404	7.416	7.392	7.412	7.373	7.406	7.343	7.396	4
15	7.518	7.529	7.505	7.525	7.487	7.519	7.456	7.510	4
16	9.297	9.309	9.285	9.305	9.266	9.299	9.235	9.289	5
17	9.411	9.423	9.399	9.419	9.380	9.413	9.348	9.403	5
18	9.525	9.537	9.512	9.532	9.493	9.526	9.461	9.516	5
19	9.638	9.650	9.626	9.646	9.607	9.640	9.575	9.630	5
20	11.418	11.430	11.405	11.426	11.386	11.419	11.354	11.409	6
21	11.532	11.544	11.519	11.539	11.500	11.533	11.467	11.523	6
22	11.646	11.657	11.633	11.653	11.613	11.647	11.581	11.636	6
23	11.759	11.771	11.746	11.767	11.727	11.760	11.694	11.750	6
24	13.539	13.551	13.526	13.546	13.506	13.540	13.473	13.530	7
25	13.653	13.665	13.639	13.660	13.620	13.654	13.587	13.643	7
26	13.766	13.778	13.753	13.774	13.733	13.767	13.700	13.757	7
27	13.880	13.892	13.867	13.887	13.847	13.881	13.813	13.870	7
28	15.660	15.672	15.646	15.667	15.626	15.660	15.593	15.650	8
29	15.774	15.786	15.760	15.781	15.740	15.774	15.706	15.763	8
30	15.887	15.899	15.874	15.894	15.853	15.888	15.819	15.877	8
31	16.001	16.013	15.987	16.008	15.967	16.001	15.933	15.990	8
32	17.781	17.793	17.767	17.788	17.747	17.781	17.712	17.770	9
33	17.894	17.906	17.881	17.902	17.860	17.895	17.826	17.884	9
34	18.008	18.020	17.994	18.015	17.974	18.008	17.939	17.997	9
35	18.122	18.134	18.108	18.129	18.087	18.122	18.053	18.111	9
36	19.902	19.914	19.888	19.909	19.867	19.902	19.832	19.890	10
37	20.015	20.027	20.001	20.022	19.980	20.015	19.946	20.004	10
38	20.129	20.141	20.115	20.136	20.094	20.129	20.059	20.118	10
39	20.243	20.255	20.229	20.250	20.208	20.243	20.172	20.231	10
40	22.023	22.035	22.009	22.030	21.987	22.022	21.952	22.011	11
41	22.136	22.148	22.122	22.143	22.101	22.136	22.065	22.124	11
42	22.250	22.262	22.236	22.257	22.215	22.250	22.179	22.238	11
43	22.364	22.376	22.350	22.371	22.328	22.363	22.292	22.352	11
44	24.144	24.156	24.129	24.150	24.108	24.143	24.072	24.131	12
45	24.257	24.269	24.243	24.264	24.221	24.257	24.185	24.245	12
46	24.371	24.383	24.357	24.378	24.335	24.370	24.299	24.358	12
47	24.485	24.497	24.470	24.491	24.449	24.484	24.412	24.472	12
48	26.265	26.277	26.250	26.271	26.228	26.264	26.192	26.252	13
49	26.378	26.390	26.364	26.385	26.342	26.377	26.305	26.365	13
50	26.492	26.504	26.477	26.499	26.456	26.491	26.419	26.479	13
51	26.606	26.618	26.591	26.612	26.569	26.605	26.532	26.592	13
52	28.386	28.398	28.371	28.392	28.349	28.384	28.312	28.372	14
53	28.499	28.511	28.485	28.506	28.462	28.498	28.426	28.486	14
54	28.613	28.625	28.598	28.620	28.576	28.612	28.539	28.599	14
55	28.727	28.739	28.712	28.733	28.690	28.725	28.653	28.713	14

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	30.507	30.519	30.492	30.513	30.469	30.505	30.432	30.493	15
57	30.620	30.632	30.605	30.627	30.583	30.619	30.546	30.606	15
58	30.734	30.746	30.719	30.740	30.697	30.732	30.659	30.720	15
59	30.848	30.860	30.833	30.854	30.810	30.846	30.773	30.833	15
60	32.628	32.640	32.613	32.634	32.590	32.626	32.552	32.613	16
61	32.741	32.753	32.726	32.748	32.704	32.740	32.666	32.727	16
62	32.855	32.867	32.840	32.861	32.817	32.853	32.780	32.840	16
63	32.969	32.981	32.954	32.975	32.931	32.967	32.893	32.954	16
64	34.749	34.761	34.734	34.755	34.711	34.747	34.673	34.734	17
65	34.863	34.874	34.847	34.869	34.824	34.860	34.786	34.847	17
66	34.976	34.988	34.961	34.982	34.938	34.974	34.900	34.961	17
67	35.090	35.102	35.075	35.096	35.052	35.088	35.013	35.075	17
68	36.870	36.882	36.854	36.876	36.831	36.867	36.793	36.854	18
69	36.984	36.996	36.968	36.990	36.945	36.981	36.907	36.968	18
70	37.097	37.109	37.082	37.103	37.059	37.095	37.020	37.082	18
71	37.211	37.223	37.196	37.217	37.172	37.208	37.134	37.195	18
72	38.991	39.003	38.975	38.997	38.952	38.988	38.913	38.975	19
73	39.105	39.117	39.089	39.110	39.066	39.102	39.027	39.088	19
74	39.218	39.230	39.203	39.224	39.179	39.216	39.140	39.202	19
75	39.332	39.344	39.317	39.338	39.293	39.329	39.254	39.316	19
76	41.112	41.124	41.096	41.118	41.073	41.109	41.034	41.095	20
77	41.226	41.238	41.210	41.231	41.186	41.223	41.147	41.209	20
78	41.339	41.351	41.324	41.345	41.300	41.336	41.261	41.323	20
79	41.453	41.465	41.437	41.459	41.414	41.450	41.374	41.436	20
80	43.233	43.245	43.217	43.239	43.194	43.230	43.154	43.216	21
81	43.347	43.359	43.331	43.352	43.307	43.344	43.268	43.330	21
82	43.461	43.472	43.445	43.466	43.421	43.457	43.381	43.443	21
83	43.574	43.586	43.558	43.580	43.535	43.571	43.495	43.557	21
84	45.354	45.366	45.338	45.360	45.314	45.351	45.274	45.337	22
85	45.468	45.480	45.452	45.473	45.428	45.464	45.388	45.450	22
86	45.582	45.594	45.566	45.587	45.542	45.578	45.502	45.564	22
87	45.695	45.707	45.679	45.701	45.655	45.692	45.615	45.678	22
88	47.475	47.487	47.459	47.481	47.435	47.472	47.395	47.457	23
89	47.589	47.601	47.573	47.594	47.549	47.585	47.509	47.571	23
90	47.703	47.715	47.687	47.708	47.662	47.699	47.622	47.685	23
91	47.817	47.828	47.800	47.822	47.776	47.813	47.736	47.798	23
92	49.596	49.608	49.580	49.602	49.556	49.592	49.515	49.578	24
93	49.710	49.722	49.694	49.715	49.670	49.706	49.629	49.692	24
94	49.824	49.836	49.808	49.829	49.783	49.820	49.743	49.805	24
95	49.938	49.949	49.921	49.943	49.897	49.933	49.856	49.919	24
96	51.717	51.729	51.701	51.723	51.677	51.713	51.636	51.699	25
97	51.831	51.843	51.815	51.836	51.790	51.827	51.749	51.812	25
98	51.945	51.957	51.929	51.950	51.904	51.941	51.863	51.926	25
99	52.059	52.071	52.042	52.064	52.018	52.054	51.977	52.040	25
100	53.839	53.850	53.822	53.844	53.797	53.834	53.756	53.819	26

表 31 公法线平均长度 W
45°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	7.049	7.062	7.036	7.058	7.017	7.052	6.984	7.042	3
11	7.201	7.214	7.188	7.210	7.168	7.204	7.135	7.194	3
12	9.574	9.587	9.560	9.583	9.540	9.576	9.507	9.566	4
13	9.725	9.738	9.712	9.734	9.692	9.728	9.658	9.718	4
14	9.877	9.890	9.863	9.886	9.843	9.879	9.809	9.869	4
15	10.028	10.042	10.015	10.037	9.994	10.031	9.960	10.021	4
16	12.401	12.416	12.388	12.410	12.367	12.404	12.333	12.393	5
17	12.553	12.568	12.539	12.562	12.518	12.555	12.484	12.545	5
18	12.705	12.718	12.691	12.713	12.670	12.707	12.635	12.696	5
19	12.856	12.869	12.842	12.865	12.821	12.858	12.786	12.847	5
20	15.229	15.242	15.215	15.238	15.194	15.231	15.158	15.220	6
21	15.381	15.394	15.367	15.389	15.345	15.383	15.310	15.372	6
22	15.532	15.546	15.518	15.541	15.497	15.534	15.461	15.523	6
23	15.684	15.697	15.670	15.692	15.648	15.686	15.612	15.674	6
24	18.057	18.070	18.043	18.065	18.021	18.058	17.985	18.047	7
25	18.209	18.222	18.194	18.217	18.172	18.210	18.136	18.199	7
26	18.360	18.374	18.346	18.369	18.324	18.361	18.287	18.350	7
27	18.512	18.525	18.497	18.520	18.475	18.513	18.438	18.502	7
28	20.885	20.898	20.870	20.893	20.848	20.886	20.811	20.874	8
29	21.037	21.050	21.022	21.045	20.999	21.037	20.962	21.026	8
30	21.188	21.202	21.173	21.196	21.151	21.189	21.113	21.177	8
31	21.340	21.353	21.325	21.348	21.302	21.341	21.265	21.329	8
32	23.713	23.726	23.698	23.721	23.675	23.714	23.638	23.702	9
33	23.865	23.878	23.849	23.873	23.827	23.865	23.789	23.853	9
34	24.016	24.030	24.001	24.024	23.978	24.017	23.940	24.005	9
35	24.168	24.181	24.153	24.176	24.130	24.168	24.091	24.156	9
36	26.541	26.554	26.526	26.549	26.503	26.541	26.464	26.529	10
37	26.693	26.706	26.677	26.700	26.654	26.693	26.616	26.680	10
38	26.844	26.858	26.829	26.852	26.806	26.844	26.767	26.832	10
39	26.996	27.009	26.980	27.004	26.957	26.996	26.918	26.983	10
40	29.369	29.382	29.353	29.377	29.330	29.369	29.291	29.356	11
41	29.521	29.534	29.505	29.528	29.481	29.520	29.442	29.508	11
42	29.672	29.686	29.657	29.680	29.633	29.672	29.594	29.659	11
43	29.824	29.837	29.808	29.832	29.785	29.823	29.745	29.811	11
44	32.197	32.210	32.181	32.205	32.157	32.196	32.118	32.184	12
45	32.349	32.362	32.333	32.356	32.309	32.348	32.269	32.335	12
46	32.500	32.514	32.484	32.508	32.461	32.500	32.421	32.487	12
47	32.652	32.665	32.636	32.659	32.612	32.651	32.572	32.638	12
48	35.025	35.038	35.009	35.032	34.985	35.024	34.945	35.011	13
49	35.177	35.190	35.161	35.184	35.137	35.176	35.096	35.163	13
50	35.328	35.342	35.312	35.336	35.288	35.327	35.248	35.314	13
51	35.480	35.493	35.464	35.487	35.440	35.479	35.399	35.466	13
52	37.853	37.866	37.837	37.860	37.813	37.852	37.772	37.838	14
53	38.005	38.018	37.989	38.012	37.964	38.003	37.923	37.990	14
54	38.157	38.170	38.140	38.164	38.116	38.155	38.075	38.141	14
55	38.308	38.321	38.292	38.315	38.267	38.307	38.226	38.293	14

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
	4h		5h		6h		7h		
	min	max	min	max	min	max	min	max	
56	40.681	40.695	40.665	40.688	40.640	40.680	40.599	40.666	15
57	40.833	40.846	40.816	40.840	40.792	40.831	40.751	40.817	15
58	40.985	40.998	40.968	40.992	40.943	40.983	40.902	40.969	15
59	41.136	41.149	41.120	41.143	41.095	41.134	41.053	41.120	15
60	43.509	43.523	43.493	43.516	43.468	43.507	43.426	43.493	16
61	43.661	43.674	43.644	43.668	43.619	43.659	43.578	43.645	16
62	43.813	43.826	43.796	43.820	43.771	43.810	43.729	43.796	16
63	43.964	43.978	43.948	43.971	43.923	43.962	43.881	43.948	16
64	46.338	46.351	46.321	46.344	46.296	46.335	46.254	46.321	17
65	46.489	46.502	46.472	46.496	46.447	46.487	46.405	46.472	17
66	46.641	46.654	46.624	46.647	46.599	46.638	46.556	46.624	17
67	46.793	46.806	46.776	46.799	46.750	46.790	46.708	46.776	17
68	49.166	49.179	49.149	49.172	49.123	49.163	49.081	49.148	18
69	49.317	49.330	49.300	49.324	49.275	49.314	49.232	49.300	18
70	49.469	49.482	49.452	49.475	49.426	49.466	49.384	49.452	18
71	49.621	49.634	49.604	49.627	49.578	49.618	49.535	49.603	18
72	51.994	52.007	51.977	52.000	51.951	51.991	51.908	51.976	19
73	52.145	52.159	52.128	52.152	52.103	52.142	52.060	52.128	19
74	52.297	52.310	52.280	52.303	52.254	52.294	52.211	52.279	19
75	52.449	52.462	52.432	52.455	52.406	52.446	52.363	52.431	19
76	54.822	54.835	54.805	54.828	54.779	54.819	54.735	54.804	20
77	54.974	54.987	54.956	54.980	54.930	54.970	54.887	54.955	20
78	55.125	55.138	55.108	55.131	55.082	55.122	55.038	55.107	20
79	55.277	55.290	55.260	55.283	55.233	55.273	55.190	55.258	20
80	57.650	57.663	57.633	57.656	57.606	57.646	57.563	57.631	21
81	57.802	57.815	57.784	57.808	57.758	57.798	57.714	57.783	21
82	57.953	57.966	57.936	57.959	57.910	57.950	57.866	57.934	21
83	58.105	58.118	58.088	58.111	58.061	58.101	58.017	58.086	21
84	60.478	60.491	60.461	60.484	60.434	60.474	60.390	60.459	22
85	60.630	60.643	60.612	60.636	60.586	60.626	60.542	60.610	22
86	60.782	60.795	60.764	60.787	60.737	60.777	60.693	60.762	22
87	60.933	60.946	60.916	60.939	60.889	60.929	60.845	60.913	22
88	63.306	63.319	63.289	63.312	63.262	63.302	63.218	63.286	23
89	63.458	63.471	63.440	63.464	63.414	63.454	63.369	63.438	23
90	63.610	63.623	63.592	63.616	63.565	63.605	63.521	63.590	23
91	63.762	63.774	63.744	63.767	63.717	63.757	63.672	63.741	23
92	66.135	66.148	66.117	66.140	66.090	66.130	66.045	66.114	24
93	66.286	66.299	66.268	66.292	66.242	66.282	66.197	66.266	24
94	66.438	66.451	66.420	66.444	66.393	66.433	66.348	66.417	24
95	66.590	66.603	66.572	66.595	66.545	66.585	66.500	66.569	24
96	68.963	68.976	68.945	68.968	68.918	68.958	68.873	68.942	25
97	69.115	69.127	69.096	69.120	69.069	69.109	69.024	69.093	25
98	69.266	69.279	69.248	69.272	69.221	69.261	69.176	69.245	25
99	69.418	69.431	69.400	69.423	69.373	69.413	69.327	69.396	25
100	71.791	71.804	71.773	71.796	71.746	71.786	71.700	71.769	26

表 32 公法线平均长度 W
 45° 外花键 模数 $m = 1.25 \text{ mm}$ 作用齿厚最大值 $S_{\max} = 1.963 \text{ mm}$ 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	8.815	8.829	8.801	8.825	8.780	8.819	8.745	8.809	3
11	9.005	9.019	8.991	9.015	8.969	9.008	8.934	8.998	3
12	11.971	11.985	11.957	11.981	11.935	11.974	11.899	11.964	4
13	12.161	12.175	12.146	12.170	12.124	12.164	12.088	12.153	4
14	12.350	12.364	12.335	12.360	12.313	12.353	12.277	12.342	4
15	12.539	12.554	12.525	12.549	12.503	12.542	12.466	12.531	4
16	15.506	15.520	15.491	15.515	15.469	15.508	15.431	15.498	5
17	15.695	15.710	15.680	15.705	15.658	15.698	15.620	15.687	5
18	15.885	15.899	15.870	15.894	15.847	15.887	15.809	15.876	5
19	16.074	16.089	16.059	16.084	16.036	16.077	15.998	16.065	5
20	19.041	19.055	19.025	19.050	19.002	19.043	18.964	19.031	6
21	19.230	19.244	19.215	19.239	19.192	19.232	19.153	19.221	6
22	19.420	19.434	19.404	19.429	19.381	19.422	19.342	19.410	6
23	19.609	19.624	19.594	19.618	19.570	19.611	19.531	19.599	6
24	22.576	22.590	22.560	22.585	22.536	22.577	22.497	22.565	7
25	22.765	22.779	22.749	22.774	22.726	22.767	22.686	22.755	7
26	22.955	22.969	22.939	22.964	22.915	22.956	22.876	22.944	7
27	23.144	23.159	23.128	23.153	23.104	23.145	23.065	23.133	7
28	26.110	26.125	26.095	26.119	26.071	26.112	26.031	26.099	8
29	26.300	26.314	26.284	26.309	26.260	26.301	26.220	26.289	8
30	26.490	26.504	26.473	26.498	26.449	26.491	26.409	26.478	8
31	26.679	26.694	26.663	26.688	26.639	26.680	26.598	26.667	8
32	29.646	29.660	29.629	29.654	29.605	29.646	29.564	29.634	9
33	29.835	29.849	29.819	29.844	29.794	29.836	29.753	29.823	9
34	30.025	30.039	30.008	30.033	29.984	30.025	29.942	30.012	9
35	30.214	30.229	30.198	30.223	30.173	30.215	30.132	30.202	9
36	33.181	33.195	33.164	33.189	33.139	33.181	33.098	33.168	10
37	33.370	33.385	33.354	33.379	33.329	33.370	33.287	33.357	10
38	33.560	33.574	33.543	33.568	33.518	33.560	33.476	33.547	10
39	33.749	33.764	33.733	33.758	33.707	33.749	33.665	33.736	10
40	36.716	36.730	36.699	36.724	36.674	36.715	36.632	36.702	11
41	36.905	36.920	36.888	36.913	36.863	36.905	36.821	36.891	11
42	37.095	37.109	37.078	37.103	37.052	37.094	37.010	37.081	11
43	37.284	37.299	37.267	37.293	37.242	37.284	37.199	37.270	11
44	40.251	40.265	40.234	40.259	40.208	40.250	40.165	40.236	12
45	40.440	40.455	40.423	40.448	40.398	40.440	40.355	40.426	12
46	40.630	40.644	40.613	40.638	40.587	40.629	40.544	40.615	12
47	40.820	40.834	40.802	40.827	40.776	40.819	40.733	40.805	12
48	43.786	43.800	43.769	43.794	43.743	43.785	43.699	43.771	13
49	43.976	43.990	43.958	43.983	43.932	43.974	43.889	43.960	13
50	44.165	44.179	44.148	44.173	44.122	44.164	44.078	44.150	13
51	44.355	44.369	44.337	44.362	44.311	44.353	44.267	44.339	13
52	47.321	47.335	47.304	47.329	47.277	47.320	47.233	47.305	14
53	47.511	47.525	47.493	47.518	47.467	47.509	47.423	47.495	14
54	47.700	47.714	47.683	47.708	47.656	47.699	47.612	47.684	14
55	47.890	47.904	47.872	47.897	47.846	47.888	47.801	47.873	14

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	50.856	50.870	50.839	50.864	50.812	50.854	50.768	50.840	15
57	51.046	51.060	51.028	51.053	51.001	51.044	50.957	51.029	15
58	51.235	51.250	51.218	51.243	51.191	51.233	51.146	51.218	15
59	51.425	51.439	51.407	51.432	51.380	51.423	51.336	51.408	15
60	54.391	54.406	54.373	54.399	54.347	54.389	54.302	54.374	16
61	54.581	54.595	54.563	54.588	54.536	54.579	54.491	54.563	16
62	54.771	54.785	54.753	54.778	54.726	54.768	54.680	54.753	16
63	54.960	54.974	54.942	54.967	54.915	54.958	54.870	54.942	16
64	57.927	57.941	57.909	57.934	57.881	57.924	57.836	57.909	17
65	58.116	58.130	58.098	58.123	58.071	58.113	58.025	58.098	17
66	58.306	58.320	58.288	58.313	58.260	58.303	58.215	58.287	17
67	58.495	58.510	58.477	58.502	58.450	58.492	58.404	58.477	17
68	61.462	61.476	61.444	61.469	61.416	61.459	61.370	61.443	18
69	61.651	61.666	61.633	61.658	61.606	61.648	61.560	61.633	18
70	61.841	61.855	61.823	61.848	61.795	61.838	61.749	61.822	18
71	62.031	62.045	62.012	62.037	61.985	62.027	61.938	62.011	18
72	64.997	65.011	64.979	65.004	64.951	64.994	64.905	64.978	19
73	65.187	65.201	65.168	65.193	65.140	65.183	65.094	65.167	19
74	65.376	65.390	65.358	65.383	65.330	65.373	65.283	65.357	19
75	65.566	65.580	65.547	65.572	65.519	65.562	65.473	65.546	19
76	68.532	68.546	68.514	68.539	68.486	68.528	68.439	68.512	20
77	68.722	68.736	68.703	68.728	68.675	68.718	68.628	68.702	20
78	68.912	68.926	68.893	68.918	68.865	68.907	68.818	68.891	20
79	69.101	69.115	69.082	69.108	69.054	69.097	69.007	69.081	20
80	72.068	72.082	72.049	72.074	72.020	72.063	71.973	72.047	21
81	72.257	72.271	72.238	72.263	72.210	72.253	72.163	72.236	21
82	72.447	72.461	72.428	72.453	72.399	72.442	72.352	72.426	21
83	72.636	72.650	72.617	72.643	72.589	72.632	72.541	72.615	21
84	75.603	75.617	75.584	75.609	75.555	75.598	75.508	75.581	22
85	75.792	75.806	75.773	75.799	75.745	75.788	75.697	75.771	22
86	75.982	75.996	75.963	75.988	75.934	75.977	75.886	75.960	22
87	76.172	76.186	76.153	76.178	76.124	76.167	76.076	76.150	22
88	79.138	79.152	79.119	79.144	79.090	79.133	79.042	79.116	23
89	79.328	79.342	79.308	79.334	79.280	79.323	79.232	79.306	23
90	79.517	79.531	79.498	79.523	79.469	79.512	79.421	79.495	23
91	79.707	79.721	79.688	79.713	79.659	79.702	79.610	79.684	23
92	82.673	82.687	82.654	82.679	82.625	82.668	82.577	82.651	24
93	82.863	82.877	82.844	82.869	82.815	82.857	82.766	82.840	24
94	83.053	83.066	83.033	83.058	83.004	83.047	82.955	83.030	24
95	83.242	83.256	83.223	83.248	83.194	83.237	83.145	83.219	24
96	86.209	86.222	86.189	86.214	86.160	86.203	86.111	86.185	25
97	86.398	86.412	86.379	86.404	86.349	86.392	86.301	86.375	25
98	86.588	86.602	86.568	86.593	86.539	86.582	86.490	86.564	25
99	86.778	86.791	86.758	86.783	86.728	86.771	86.679	86.754	25
100	89.744	89.758	89.724	89.749	89.695	89.738	89.646	89.720	26

表 33 公法线平均长度 W
45°外花键 模数 $m=1.5\text{ mm}$ 作用齿厚最大值 $S_{\max}=2.356\text{ mm}$ 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	10.582	10.597	10.567	10.592	10.544	10.586	10.507	10.575	3
11	10.809	10.824	10.794	10.819	10.771	10.813	10.733	10.802	3
12	14.369	14.384	14.353	14.379	14.330	14.372	14.292	14.361	4
13	14.596	14.611	14.581	14.606	14.557	14.599	14.519	14.588	4
14	14.823	14.839	14.808	14.834	14.784	14.827	14.746	14.815	4
15	15.051	15.066	15.035	15.061	15.012	15.054	14.972	15.043	4
16	18.610	18.626	18.594	18.621	18.571	18.613	18.531	18.602	5
17	18.838	18.853	18.822	18.848	18.798	18.841	18.758	18.829	5
18	19.065	19.080	19.049	19.075	19.025	19.068	18.985	19.056	5
19	19.293	19.308	19.276	19.303	19.252	19.295	19.212	19.283	5
20	22.852	22.867	22.836	22.862	22.812	22.855	22.771	22.843	6
21	23.080	23.095	23.063	23.090	23.039	23.082	22.998	23.070	6
22	23.307	23.322	23.291	23.317	23.266	23.309	23.225	23.297	6
23	23.535	23.550	23.518	23.544	23.493	23.537	23.452	23.524	6
24	27.094	27.109	27.078	27.104	27.053	27.096	27.011	27.084	7
25	27.322	27.337	27.305	27.331	27.280	27.323	27.238	27.311	7
26	27.549	27.564	27.532	27.559	27.507	27.551	27.465	27.538	7
27	27.777	27.792	27.760	27.786	27.734	27.778	27.692	27.765	7
28	31.336	31.352	31.319	31.346	31.294	31.338	31.251	31.325	8
29	31.564	31.579	31.547	31.573	31.521	31.565	31.478	31.552	8
30	31.791	31.806	31.774	31.801	31.748	31.792	31.705	31.779	8
31	32.019	32.034	32.001	32.028	31.976	32.020	31.932	32.006	8
32	35.578	35.594	35.561	35.588	35.535	35.579	35.492	35.566	9
33	35.806	35.821	35.788	35.815	35.762	35.806	35.719	35.793	9
34	36.033	36.049	36.016	36.042	35.990	36.034	35.946	36.020	9
35	36.261	36.276	36.243	36.270	36.217	36.261	36.173	36.247	9
36	39.820	39.836	39.803	39.829	39.776	39.821	39.732	39.807	10
37	40.048	40.063	40.030	40.057	40.004	40.048	39.959	40.034	10
38	40.275	40.291	40.258	40.284	40.231	40.275	40.187	40.261	10
39	40.503	40.518	40.485	40.512	40.458	40.503	40.414	40.489	10
40	44.063	44.078	44.045	44.071	44.018	44.062	43.973	44.048	11
41	44.290	44.305	44.272	44.299	44.245	44.290	44.200	44.275	11
42	44.518	44.533	44.500	44.526	44.472	44.517	44.427	44.503	11
43	44.745	44.760	44.727	44.754	44.700	44.744	44.655	44.730	11
44	48.305	48.320	48.287	48.313	48.259	48.304	48.214	48.289	12
45	48.532	48.547	48.514	48.541	48.487	48.531	48.441	48.517	12
46	48.760	48.775	48.741	48.768	48.714	48.759	48.668	48.744	12
47	48.987	49.002	48.969	48.996	48.941	48.986	48.895	48.971	12
48	52.547	52.562	52.529	52.555	52.501	52.546	52.455	52.531	13
49	52.775	52.790	52.756	52.783	52.728	52.773	52.682	52.758	13
50	53.002	53.017	52.983	53.010	52.956	53.000	52.909	52.985	13
51	53.230	53.245	53.211	53.238	53.183	53.228	53.136	53.213	13
52	56.789	56.804	56.771	56.797	56.743	56.787	56.696	56.772	14
53	57.017	57.032	56.998	57.025	56.970	57.015	56.923	56.999	14
54	57.244	57.259	57.225	57.252	57.197	57.242	57.150	57.227	14
55	57.472	57.487	57.453	57.480	57.425	57.470	57.378	57.454	14

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	61.031	61.047	61.013	61.039	60.984	61.029	60.937	61.014	15
57	61.259	61.274	61.240	61.267	61.212	61.257	61.164	61.241	15
58	61.487	61.502	61.468	61.494	61.439	61.484	61.391	61.468	15
59	61.714	61.729	61.695	61.722	61.666	61.711	61.619	61.696	15
60	65.274	65.289	65.255	65.281	65.226	65.271	65.178	65.255	16
61	65.501	65.516	65.482	65.509	65.453	65.498	65.405	65.482	16
62	65.729	65.744	65.710	65.736	65.681	65.726	65.633	65.710	16
63	65.956	65.971	65.937	65.964	65.908	65.953	65.860	65.937	16
64	69.516	69.531	69.497	69.523	69.468	69.513	69.419	69.497	17
65	69.744	69.758	69.724	69.751	69.695	69.740	69.647	69.724	17
66	69.971	69.986	69.952	69.978	69.923	69.968	69.874	69.951	17
67	70.199	70.214	70.179	70.206	70.150	70.195	70.101	70.179	17
68	73.758	73.773	73.739	73.766	73.710	73.755	73.661	73.738	18
69	73.986	74.001	73.966	73.993	73.937	73.982	73.888	73.965	18
70	74.213	74.228	74.194	74.220	74.164	74.210	74.115	74.193	18
71	74.441	74.456	74.421	74.448	74.392	74.437	74.343	74.420	18
72	78.001	78.015	77.981	78.008	77.951	77.997	77.902	77.980	19
73	78.228	78.243	78.208	78.235	78.179	78.224	78.129	78.207	19
74	78.456	78.471	78.436	78.463	78.406	78.451	78.357	78.434	19
75	78.683	78.698	78.663	78.690	78.634	78.679	78.584	78.662	19
76	82.243	82.258	82.223	82.250	82.193	82.238	82.143	82.221	20
77	82.471	82.485	82.451	82.477	82.421	82.466	82.371	82.449	20
78	82.698	82.713	82.678	82.705	82.648	82.693	82.598	82.676	20
79	82.926	82.940	82.906	82.932	82.875	82.921	82.825	82.903	20
80	86.485	86.500	86.465	86.492	86.435	86.480	86.385	86.463	21
81	86.713	86.728	86.693	86.719	86.662	86.708	86.612	86.690	21
82	86.940	86.955	86.920	86.947	86.890	86.935	86.839	86.918	21
83	87.168	87.183	87.148	87.174	87.117	87.163	87.067	87.145	21
84	90.728	90.742	90.707	90.734	90.677	90.722	90.626	90.704	22
85	90.955	90.970	90.935	90.961	90.904	90.950	90.854	90.932	22
86	91.183	91.197	91.162	91.189	91.132	91.177	91.081	91.159	22
87	91.410	91.425	91.390	91.416	91.359	91.405	91.308	91.387	22
88	94.970	94.985	94.950	94.976	94.919	94.964	94.868	94.946	23
89	95.198	95.212	95.177	95.204	95.146	95.192	95.095	95.173	23
90	95.425	95.440	95.405	95.431	95.374	95.419	95.322	95.401	23
91	95.653	95.667	95.632	95.659	95.601	95.647	95.550	95.628	23
92	99.212	99.227	99.192	99.218	99.161	99.206	99.109	99.188	24
93	99.440	99.454	99.419	99.446	99.388	99.434	99.337	99.415	24
94	99.667	99.682	99.647	99.673	99.616	99.661	99.564	99.642	24
95	99.895	99.909	99.874	99.901	99.843	99.889	99.791	99.870	24
96	103.455	103.469	103.434	103.460	103.403	103.448	103.351	103.429	25
97	103.682	103.697	103.661	103.688	103.630	103.676	103.578	103.657	25
98	103.910	103.924	103.889	103.915	103.858	103.903	103.805	103.884	25
99	104.137	104.152	104.116	104.143	104.085	104.131	104.033	104.112	25
100	107.697	107.711	107.676	107.703	107.645	107.690	107.592	107.671	26

表 34 公法线平均长度 W
 45° 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	12.348	12.364	12.332	12.359	12.309	12.352	12.269	12.341	3
11	12.613	12.629	12.597	12.625	12.574	12.618	12.534	12.606	3
12	16.766	16.782	16.750	16.777	16.726	16.770	16.686	16.759	4
13	17.031	17.048	17.015	17.043	16.991	17.035	16.950	17.024	4
14	17.297	17.313	17.280	17.308	17.256	17.300	17.215	17.289	4
15	17.562	17.578	17.546	17.573	17.521	17.566	17.480	17.554	4
16	21.715	21.731	21.698	21.726	21.673	21.718	21.632	21.706	5
17	21.980	21.996	21.964	21.991	21.938	21.983	21.896	21.971	5
18	22.246	22.262	22.229	22.256	22.203	22.249	22.161	22.236	5
19	22.511	22.527	22.494	22.522	22.469	22.514	22.426	22.501	5
20	26.664	26.680	26.647	26.675	26.621	26.667	26.578	26.654	6
21	26.929	26.945	26.912	26.940	26.886	26.932	26.843	26.919	6
22	27.195	27.211	27.177	27.205	27.151	27.197	27.108	27.184	6
23	27.460	27.476	27.443	27.470	27.416	27.462	27.373	27.449	6
24	31.613	31.629	31.595	31.623	31.569	31.615	31.525	31.602	7
25	31.878	31.895	31.861	31.889	31.834	31.880	31.790	31.867	7
26	32.144	32.160	32.126	32.154	32.099	32.145	32.055	32.132	7
27	32.409	32.425	32.391	32.419	32.365	32.411	32.320	32.397	7
28	36.562	36.578	36.544	36.572	36.517	36.563	36.472	36.550	8
29	36.827	36.844	36.809	36.837	36.782	36.829	36.737	36.815	8
30	37.093	37.109	37.075	37.103	37.048	37.094	37.002	37.080	8
31	37.358	37.374	37.340	37.368	37.313	37.359	37.267	37.345	8
32	41.511	41.527	41.493	41.521	41.466	41.512	41.420	41.498	9
33	41.777	41.793	41.758	41.786	41.731	41.777	41.685	41.763	9
34	42.042	42.058	42.024	42.052	41.996	42.043	41.950	42.028	9
35	42.308	42.324	42.289	42.317	42.261	42.308	42.215	42.293	9
36	46.460	46.477	46.442	46.470	46.414	46.461	46.367	46.446	10
37	46.726	46.742	46.707	46.735	46.679	46.726	46.633	46.711	10
38	46.991	47.007	46.973	47.001	46.944	46.991	46.898	46.976	10
39	47.257	47.273	47.238	47.266	47.210	47.256	47.163	47.242	10
40	51.410	51.426	51.391	51.419	51.362	51.409	51.315	51.394	11
41	51.675	51.691	51.656	51.684	51.628	51.675	51.580	51.659	11
42	51.941	51.957	51.922	51.950	51.893	51.940	51.845	51.925	11
43	52.206	52.222	52.187	52.215	52.158	52.205	52.110	52.190	11
44	56.359	56.375	56.340	56.368	56.311	56.358	56.263	56.343	12
45	56.624	56.640	56.605	56.633	56.576	56.623	56.528	56.608	12
46	56.890	56.906	56.871	56.899	56.842	56.889	56.793	56.873	12
47	57.155	57.171	57.136	57.164	57.107	57.154	57.058	57.138	12
48	61.308	61.324	61.289	61.317	61.260	61.307	61.211	61.291	13
49	61.574	61.590	61.554	61.582	61.525	61.572	61.476	61.556	13
50	61.839	61.855	61.820	61.848	61.790	61.837	61.741	61.821	13
51	62.105	62.120	62.085	62.113	62.056	62.103	62.006	62.087	13
52	66.258	66.273	66.238	66.266	66.208	66.255	66.159	66.239	14
53	66.523	66.539	66.503	66.531	66.474	66.521	66.424	66.505	14
54	66.788	66.804	66.769	66.797	66.739	66.786	66.689	66.770	14
55	67.054	67.070	67.034	67.062	67.004	67.051	66.955	67.035	14

表 34 (续)

单位为毫米

齿数 <i>z</i>	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	71.207	71.223	71.187	71.215	71.157	71.204	71.107	71.188	15
57	71.472	71.488	71.452	71.480	71.422	71.470	71.372	71.453	15
58	71.738	71.754	71.718	71.746	71.688	71.735	71.638	71.718	15
59	72.003	72.019	71.983	72.011	71.953	72.000	71.903	71.983	15
60	76.156	76.172	76.136	76.164	76.106	76.153	76.055	76.136	16
61	76.422	76.437	76.402	76.430	76.371	76.418	76.321	76.401	16
62	76.687	76.703	76.667	76.695	76.636	76.684	76.586	76.667	16
63	76.953	76.968	76.932	76.960	76.902	76.949	76.851	76.932	16
64	81.106	81.121	81.085	81.113	81.055	81.102	81.004	81.085	17
65	81.371	81.387	81.351	81.379	81.320	81.367	81.269	81.350	17
66	81.637	81.652	81.616	81.644	81.585	81.633	81.534	81.615	17
67	81.902	81.918	81.881	81.909	81.851	81.898	81.799	81.880	17
68	86.055	86.071	86.034	86.062	86.003	86.051	85.952	86.033	18
69	86.320	86.336	86.300	86.328	86.269	86.316	86.217	86.298	18
70	86.586	86.601	86.565	86.593	86.534	86.582	86.482	86.564	18
71	86.851	86.867	86.831	86.859	86.799	86.847	86.748	86.829	18
72	91.004	91.020	90.984	91.012	90.952	91.000	90.900	90.982	19
73	91.270	91.285	91.249	91.277	91.218	91.265	91.165	91.247	19
74	91.535	91.551	91.514	91.542	91.483	91.531	91.431	91.512	19
75	91.801	91.816	91.780	91.808	91.748	91.796	91.696	91.778	19
76	95.954	95.969	95.933	95.961	95.901	95.949	95.849	95.930	20
77	96.219	96.235	96.198	96.226	96.167	96.214	96.114	96.196	20
78	96.485	96.500	96.464	96.492	96.432	96.479	96.379	96.461	20
79	96.750	96.766	96.729	96.757	96.697	96.745	96.644	96.726	20
80	100.903	100.919	100.882	100.910	100.850	100.898	100.797	100.879	21
81	101.169	101.184	101.147	101.175	101.116	101.163	101.062	101.144	21
82	101.434	101.449	101.413	101.441	101.381	101.428	101.328	101.410	21
83	101.700	101.715	101.678	101.706	101.646	101.694	101.593	101.675	21
84	105.853	105.868	105.831	105.859	105.799	105.847	105.746	105.828	22
85	106.118	106.133	106.097	106.124	106.064	106.112	106.011	106.093	22
86	106.384	106.399	106.362	106.390	106.330	106.377	106.276	106.358	22
87	106.649	106.664	106.628	106.655	106.595	106.643	106.541	106.623	22
88	110.802	110.817	110.780	110.808	110.748	110.796	110.694	110.776	23
89	111.068	111.083	111.046	111.074	111.013	111.061	110.959	111.042	23
90	111.333	111.348	111.311	111.339	111.279	111.326	111.225	111.307	23
91	111.599	111.614	111.577	111.605	111.544	111.592	111.490	111.572	23
92	115.752	115.767	115.730	115.757	115.697	115.745	115.643	115.725	24
93	116.017	116.032	115.995	116.023	115.962	116.010	115.908	115.990	24
94	116.283	116.298	116.261	116.288	116.228	116.275	116.173	116.256	24
95	116.548	116.563	116.526	116.554	116.493	116.541	116.438	116.521	24
96	120.701	120.716	120.679	120.707	120.646	120.694	120.591	120.674	25
97	120.966	120.981	120.944	120.972	120.911	120.959	120.856	120.939	25
98	121.232	121.247	121.210	121.238	121.177	121.224	121.122	121.204	25
99	121.497	121.512	121.475	121.503	121.442	121.490	121.387	121.470	25
100	125.650	125.665	125.628	125.656	125.595	125.643	125.540	125.622	26

表 35 公法线平均长度 W
45°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	14.115	14.131	14.098	14.126	14.073	14.119	14.032	14.108	3
11	14.418	14.435	14.401	14.430	14.376	14.422	14.334	14.411	3
12	19.164	19.181	19.147	19.176	19.122	19.168	19.080	19.156	4
13	19.467	19.484	19.450	19.479	19.425	19.471	19.382	19.459	4
14	19.770	19.787	19.753	19.782	19.728	19.774	19.685	19.762	4
15	20.074	20.091	20.066	20.085	20.030	20.077	19.987	20.065	4
16	24.820	24.837	24.802	24.831	24.776	24.823	24.733	24.811	5
17	25.123	25.140	25.106	25.134	25.079	25.126	25.035	25.114	5
18	25.426	25.443	25.409	25.438	25.382	25.429	25.338	25.417	5
19	25.730	25.747	25.712	25.741	25.685	25.733	25.641	25.720	5
20	30.476	30.493	30.458	30.487	30.431	30.479	30.386	30.465	6
21	30.779	30.796	30.761	30.790	30.734	30.782	30.689	30.768	6
22	31.082	31.099	31.064	31.093	31.037	31.085	30.992	31.071	6
23	31.386	31.403	31.367	31.397	31.340	31.388	31.294	31.374	6
24	36.132	36.149	36.114	36.143	36.086	36.134	36.040	36.120	7
25	36.435	36.452	36.417	36.446	36.389	36.437	36.343	36.423	7
26	36.739	36.755	36.720	36.749	36.692	36.740	36.646	36.726	7
27	37.042	37.059	37.023	37.052	36.995	37.043	36.949	37.029	7
28	41.788	41.805	41.769	41.799	41.741	41.789	41.694	41.775	8
29	42.091	42.108	42.073	42.102	42.044	42.093	41.997	42.078	8
30	42.395	42.412	42.376	42.405	42.347	42.396	42.300	42.381	8
31	42.698	42.715	42.679	42.708	42.651	42.699	42.603	42.684	8
32	47.444	47.461	47.425	47.454	47.397	47.445	47.349	47.430	9
33	47.748	47.764	47.728	47.758	47.700	47.748	47.652	47.733	9
34	48.051	48.068	48.032	48.061	48.003	48.051	47.955	48.036	9
35	48.354	48.371	48.335	48.364	48.306	48.355	48.257	48.339	9
36	53.101	53.117	53.081	53.110	53.052	53.101	53.003	53.085	10
37	53.404	53.421	53.384	53.414	53.355	53.404	53.306	53.388	10
38	53.707	53.724	53.688	53.717	53.658	53.707	53.609	53.692	10
39	54.011	54.027	54.001	54.020	53.961	54.010	53.912	53.995	10
40	58.757	58.774	58.737	58.766	58.707	58.756	58.658	58.741	11
41	59.060	59.077	59.040	59.070	59.011	59.060	58.961	59.044	11
42	59.364	59.380	59.344	59.373	59.314	59.363	59.264	59.347	11
43	59.667	59.684	59.647	59.676	59.617	59.666	59.567	59.650	11
44	64.413	64.430	64.393	64.423	64.363	64.412	64.313	64.396	12
45	64.717	64.733	64.697	64.726	64.666	64.715	64.616	64.699	12
46	65.020	65.037	65.000	65.029	64.969	65.019	64.919	65.002	12
47	65.323	65.340	65.303	65.332	65.273	65.322	65.222	65.305	12
48	70.070	70.086	70.049	70.079	70.019	70.068	69.968	70.051	13
49	70.373	70.390	70.353	70.382	70.322	70.371	70.271	70.354	13
50	70.676	70.693	70.656	70.685	70.625	70.674	70.574	70.657	13
51	70.980	70.996	70.959	70.989	70.928	70.978	70.877	70.961	13
52	75.726	75.743	75.705	75.735	75.674	75.724	75.623	75.707	14
53	76.029	76.046	76.009	76.038	75.978	76.027	75.926	76.010	14
54	76.333	76.349	76.312	76.341	76.281	76.330	76.229	76.313	14
55	76.636	76.653	76.615	76.645	76.584	76.633	76.532	76.616	14

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	81.383	81.399	81.362	81.391	81.330	81.380	81.278	81.362	15
57	81.686	81.702	81.665	81.694	81.633	81.683	81.581	81.665	15
58	81.989	82.006	81.968	81.997	81.937	81.986	81.884	81.968	15
59	82.293	82.309	82.272	82.301	82.240	82.289	82.187	82.271	15
60	87.039	87.055	87.018	87.047	86.986	87.035	86.933	87.018	16
61	87.342	87.359	87.321	87.350	87.289	87.339	87.236	87.321	16
62	87.646	87.662	87.624	87.654	87.593	87.642	87.539	87.624	16
63	87.949	87.965	87.928	87.957	87.896	87.945	87.843	87.927	16
64	92.695	92.712	92.674	92.703	92.642	92.691	92.588	92.673	17
65	92.999	93.015	92.977	93.006	92.945	92.995	92.892	92.976	17
66	93.302	93.318	93.281	93.310	93.248	93.298	93.195	93.279	17
67	93.606	93.622	93.584	93.613	93.552	93.601	93.498	93.583	17
68	98.352	98.368	98.330	98.359	98.298	98.347	98.244	98.329	18
69	98.655	98.671	98.634	98.663	98.601	98.650	98.547	98.632	18
70	98.959	98.975	98.937	98.966	98.904	98.954	98.850	98.935	18
71	99.262	99.278	99.240	99.269	99.208	99.257	99.153	99.238	18
72	104.008	104.024	103.987	104.016	103.954	104.003	103.899	103.984	19
73	104.312	104.328	104.290	104.319	104.257	104.306	104.202	104.287	19
74	104.615	104.631	104.593	104.622	104.560	104.610	104.505	104.591	19
75	104.919	104.935	104.897	104.926	104.864	104.913	104.809	104.894	19
76	109.665	109.681	109.643	109.672	109.610	109.659	109.555	109.640	20
77	109.968	109.984	109.946	109.975	109.913	109.962	109.858	109.943	20
78	110.272	110.288	110.249	110.278	110.216	110.266	110.161	110.246	20
79	110.575	110.591	110.553	110.582	110.520	110.569	110.464	110.549	20
80	115.321	115.337	115.299	115.328	115.266	115.315	115.210	115.295	21
81	115.625	115.641	115.602	115.631	115.569	115.618	115.513	115.599	21
82	115.928	115.944	115.906	115.935	115.872	115.922	115.816	115.902	21
83	116.232	116.247	116.209	116.238	116.176	116.225	116.119	116.205	21
84	120.978	120.994	120.955	120.984	120.922	120.971	120.866	120.951	22
85	121.281	121.297	121.259	121.288	121.225	121.274	121.169	121.254	22
86	121.585	121.600	121.562	121.591	121.528	121.578	121.472	121.557	22
87	121.888	121.904	121.865	121.894	121.832	121.881	121.775	121.861	22
88	126.634	126.650	126.612	126.641	126.578	126.627	126.521	126.607	23
89	126.938	126.953	126.915	126.944	126.881	126.930	126.824	126.910	23
90	127.241	127.257	127.218	127.247	127.184	127.234	127.127	127.213	23
91	127.545	127.560	127.522	127.551	127.488	127.537	127.431	127.516	23
92	132.291	132.307	132.268	132.297	132.234	132.283	132.177	132.262	24
93	132.594	132.610	132.571	132.600	132.537	132.587	132.480	132.566	24
94	132.898	132.913	132.875	132.904	132.840	132.890	132.783	132.869	24
95	133.201	133.217	133.178	133.207	133.144	133.193	133.086	133.172	24
96	137.947	137.963	137.924	137.953	137.890	137.939	137.832	137.918	25
97	138.251	138.266	138.228	138.256	138.193	138.243	138.135	138.221	25
98	138.554	138.570	138.531	138.560	138.496	138.546	138.439	138.525	25
99	138.858	138.873	138.834	138.863	138.800	138.849	138.742	138.828	25
100	143.604	143.619	143.581	143.609	143.546	143.595	143.488	143.574	26

表 36 公法线平均长度 W
45°外花键 模数 $m=2.5\text{ mm}$ 作用齿厚最大值 $S_{\max}=3.927\text{ mm}$ 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	17.648	17.666	17.630	17.661	17.604	17.653	17.559	17.641	3
11	18.027	18.045	18.009	18.040	17.982	18.032	17.937	18.019	3
12	23.960	23.978	23.942	23.972	23.914	23.964	23.869	23.952	4
13	24.339	24.357	24.320	24.351	24.293	24.343	24.247	24.330	4
14	24.718	24.736	24.699	24.730	24.672	24.722	24.625	24.709	4
15	25.097	25.115	25.078	25.109	25.050	25.101	25.004	25.088	4
16	31.030	31.048	31.011	31.042	30.983	31.033	30.936	31.020	5
17	31.409	31.427	31.390	31.421	31.361	31.412	31.314	31.399	5
18	31.788	31.806	31.769	31.800	31.740	31.791	31.693	31.777	5
19	32.167	32.185	32.148	32.179	32.119	32.170	32.071	32.156	5
20	38.100	38.118	38.081	38.112	38.052	38.103	38.003	38.089	6
21	38.479	38.497	38.460	38.491	38.430	38.482	38.382	38.467	6
22	38.858	38.876	38.839	38.870	38.809	38.861	38.760	38.846	6
23	39.237	39.256	39.218	39.249	39.188	39.240	39.139	39.225	6
24	45.170	45.188	45.150	45.182	45.121	45.172	45.071	45.157	7
25	45.549	45.567	45.529	45.561	45.499	45.551	45.450	45.536	7
26	45.928	45.947	45.908	45.940	45.878	45.930	45.828	45.915	7
27	46.308	46.326	46.288	46.319	46.257	46.309	46.207	46.294	7
28	52.240	52.259	52.220	52.252	52.190	52.242	52.139	52.226	8
29	52.620	52.638	52.599	52.631	52.569	52.621	52.518	52.605	8
30	52.999	53.017	52.978	53.010	52.948	53.000	52.897	52.984	8
31	53.378	53.396	53.357	53.389	53.327	53.379	53.275	53.363	8
32	59.311	59.329	59.290	59.322	59.259	59.311	59.208	59.295	9
33	59.690	59.708	59.669	59.701	59.638	59.690	59.586	59.674	9
34	60.069	60.087	60.048	60.080	60.017	60.069	59.965	60.053	9
35	60.448	60.466	60.428	60.459	60.396	60.448	60.344	60.432	9
36	66.381	66.399	66.360	66.392	66.329	66.381	66.276	66.364	10
37	66.761	66.778	66.739	66.771	66.708	66.760	66.655	66.743	10
38	67.140	67.158	67.119	67.150	67.087	67.139	67.034	67.122	10
39	67.519	67.537	67.498	67.529	67.466	67.518	67.412	67.501	10
40	73.452	73.470	73.430	73.462	73.398	73.451	73.345	73.434	11
41	73.831	73.849	73.810	73.841	73.777	73.830	73.724	73.813	11
42	74.210	74.228	74.189	74.220	74.156	74.209	74.103	74.191	11
43	74.589	74.607	74.568	74.599	74.535	74.588	74.481	74.570	11
44	80.522	80.540	80.501	80.532	80.468	80.521	80.414	80.503	12
45	80.902	80.919	80.880	80.911	80.847	80.900	80.793	80.882	12
46	81.281	81.298	81.259	81.290	81.226	81.279	81.171	81.261	12
47	81.660	81.678	81.638	81.669	81.605	81.658	81.550	81.640	12
48	87.593	87.610	87.571	87.602	87.538	87.590	87.483	87.572	13
49	87.972	87.990	87.950	87.981	87.917	87.969	87.862	87.951	13
50	88.351	88.369	88.329	88.360	88.296	88.349	88.240	88.330	13
51	88.731	88.748	88.708	88.740	88.675	88.728	88.619	88.709	13
52	94.663	94.681	94.641	94.672	94.608	94.660	94.552	94.642	14
53	95.043	95.060	95.020	95.052	94.987	95.039	94.931	95.021	14
54	95.422	95.439	95.399	95.431	95.366	95.418	95.310	95.400	14
55	95.801	95.819	95.779	95.810	95.745	95.798	95.689	95.779	14

表 36 (续)

单位为毫米

齿数 <i>z</i>	<i>S</i> _{min} 和 <i>S</i> _{max} 的公法线平均长度 <i>W</i>								跨齿数 <i>K</i>
	4 <i>h</i>		5 <i>h</i>		6 <i>h</i>		7 <i>h</i>		
	min	max	min	max	min	max	min	max	
56	101.734	101.751	101.711	101.743	101.677	101.730	101.621	101.711	15
57	102.113	102.131	102.091	102.122	102.057	102.109	102.000	102.090	15
58	102.493	102.510	102.470	102.501	102.436	102.488	102.379	102.469	15
59	102.872	102.889	102.849	102.880	102.815	102.867	102.758	102.848	15
60	108.805	108.822	108.782	108.813	108.747	108.800	108.690	108.781	16
61	109.184	109.201	109.161	109.192	109.127	109.179	109.069	109.160	16
62	109.563	109.580	109.540	109.571	109.506	109.558	109.448	109.539	16
63	109.942	109.960	109.919	109.950	109.885	109.937	109.827	109.918	16
64	115.875	115.892	115.852	115.883	115.817	115.870	115.760	115.850	17
65	116.254	116.272	116.231	116.262	116.196	116.249	116.138	116.229	17
66	116.634	116.651	116.610	116.642	116.576	116.628	116.517	116.608	17
67	117.013	117.030	116.990	117.021	116.955	117.007	116.896	116.987	17
68	122.946	122.963	122.922	122.954	122.887	122.940	122.829	122.920	18
69	123.325	123.342	123.302	123.333	123.267	123.319	123.208	123.299	18
70	123.704	123.721	123.681	123.712	123.646	123.698	123.587	123.678	18
71	124.084	124.101	124.060	124.091	124.025	124.078	123.966	124.057	18
72	130.017	130.034	129.993	130.024	129.957	130.010	129.898	129.989	19
73	130.396	130.413	130.372	130.403	130.337	130.389	130.277	130.368	19
74	130.775	130.792	130.751	130.782	130.716	130.768	130.656	130.747	19
75	131.154	131.171	131.131	131.161	131.095	131.148	131.035	131.126	19
76	137.087	137.104	137.063	137.094	137.028	137.080	136.968	137.059	20
77	137.466	137.483	137.443	137.473	137.407	137.459	137.347	137.438	20
78	137.846	137.863	137.822	137.853	137.786	137.839	137.726	137.817	20
79	138.225	138.242	138.201	138.232	138.165	138.218	138.105	138.196	20
80	144.158	144.175	144.134	144.165	144.098	144.150	144.037	144.129	21
81	144.537	144.554	144.513	144.544	144.477	144.530	144.416	144.508	21
82	144.916	144.933	144.892	144.923	144.856	144.909	144.795	144.887	21
83	145.296	145.312	145.271	145.302	145.235	145.288	145.174	145.266	21
84	151.229	151.245	151.204	151.235	151.168	151.221	151.107	151.198	22
85	151.608	151.625	151.583	151.614	151.547	151.600	151.486	151.577	22
86	151.987	152.004	151.963	151.993	151.926	151.979	151.865	151.957	22
87	152.366	152.383	152.342	152.373	152.305	152.358	152.244	152.336	22
88	158.299	158.316	158.275	158.305	158.238	158.291	158.177	158.268	23
89	158.679	158.695	158.654	158.685	158.617	158.670	158.556	158.647	23
90	159.058	159.074	159.033	159.064	158.996	159.049	158.935	159.026	23
91	159.437	159.454	159.412	159.443	159.375	159.428	159.314	159.405	23
92	165.370	165.386	165.345	165.376	165.308	165.361	165.246	165.338	24
93	165.749	165.766	165.724	165.755	165.687	165.740	165.625	165.717	24
94	166.129	166.145	166.104	166.134	166.066	166.119	166.004	166.096	24
95	166.508	166.524	166.483	166.513	166.446	166.498	166.383	166.475	24
96	172.441	172.457	172.416	172.446	172.378	172.431	172.316	172.408	25
97	172.820	172.836	172.795	172.825	172.757	172.810	172.695	172.787	25
98	173.199	173.216	173.174	173.205	173.137	173.189	173.074	173.166	25
99	173.579	173.595	173.553	173.584	173.516	173.568	173.453	173.545	25
100	179.511	179.528	179.486	179.517	179.448	179.501	179.386	179.478	26