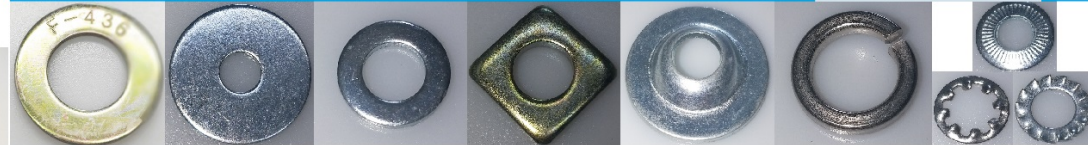


本公司已通过ISO9001质量体系认证

MADE IN CHINA



JiaSheng TengYuan Metal Products CO. LTD.
嘉善腾远金属制品有限公司



Washer manufacturing Factory
TENGYUAN 腾远金属



已通过ISO9001质量体系认证



曹培明 Sam Cao

嘉善腾远金属制品有限公司
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我工厂严格执行ISO9001质量体系要求, 产品95%以上出口欧美, 通过控制冲压毛刺, 缺角率, 材料硬度, 表面, 厚度分类, 光学挑选, 镀层盐雾测试, 加强包装材料等手段, 达到汽车行业500PPM要求。主营: 碳钢, 不锈钢标准件垫圈, 非标定制垫圈, 冲压件, 车加工, 焊接产品; 生产标准: 国标GB, 德标DIN, 国际ISO, 日标JIS, 美标ASME/ANSI/IFI, 英标BS, 欧标EN, 法标NF, 欢迎洽谈合作。

Our factory has passed the ISO9001, More than 95% products export EN and USA, can meet the auto industry 500PPM. Main business: carbon steel, stainless steel standard parts and non-standard washers, stamping parts, turning products, welding products; Production standard: GB, DIN, ISO, JIS, ASME/ANSI/IFI, BS, EN, NF, welcome to discuss cooperation.

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冲压自动化生产线

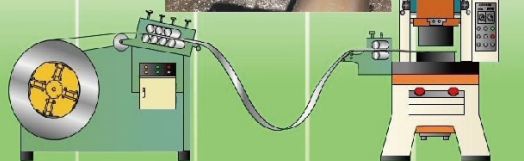
材料架：

承接各种材料冲压件
加工之设备

整平机：

承接各种材料冲压件
加工之设备

冲压加工：



DIN125(GB97.1-2002/ISO7089-2000)

SIZE	ID		OD		T	THICKNESS		WEIGHT KG/1000
	MIN	MAX	MIN	MAX		MIN	MAX	
M1.6	1.7	1.84	3.7	4	0.3	0.25	0.35	0.024
M2	2.2	2.34	4.7	5	0.3	0.25	0.35	0.037
M2.5	2.7	2.84	5.7	6	0.5	0.45	0.55	0.088
M3	3.2	3.38	6.64	7	0.5	0.45	0.55	0.119
M3.5	3.7	3.88	7.64	8	0.5	0.45	0.55	0.155
M4	4.3	4.48	8.64	9	0.8	0.7	0.9	0.308
M5	5.3	5.48	9.64	10	1	0.9	1.1	0.44
M6	6.4	6.62	11.57	12	1.6	1.4	1.8	1.02
M8	8.4	8.62	15.57	16	1.6	1.4	1.8	1.83
M10	10.5	10.77	19.48	20	2	1.8	2.2	3.57
M12	13	13.27	23.48	24	2.5	2.3	2.7	6.27
M14	15	15.27	27.48	28	2.5	2.3	2.7	8.61
M16	17	17.27	29.48	30	3	2.7	3.3	11.29
M18	19	19.33	33.48	34	3	2.7	3.3	14.69
M20	21	21.33	36.38	37	3	2.7	3.3	17.15
M22	23	23.33	38.38	39	3	2.7	3.3	18.33
M24	25	25.33	43.38	44	4	3.7	4.3	32.30
M26	27	27.33	49.38	50	4	3.7	4.3	43.64
M27	28	28.33	49.38	50	4	3.7	4.3	42.28
M28	29	29.33	49.38	50	4	3.7	4.3	40.88
M30	31	31.39	55.28	56	4	3.7	4.3	53.59
M33	34	34.62	58.8	60	5	4.4	5.6	75.28
M36	37	37.62	64.8	66	5	4.4	5.6	92.00
M38	39	39.62	70.8	72.0	6.0	5.4	6.6	135.38
M39	40	40.82	70.8	72.0	6.0	5.4	6.6	132.46
M40	41	41.62	70.8	72.0	6.0	5.4	6.6	129.47
M42	43	43.62	76.8	78.0	7.0	6.0	8	182.61
M45	46	46.62	83.6	85.0	7.0	6.0	8	220.30
M48	50	50.62	90.6	92.0	8.0	7.0	9	293.91
M50	52	52.74	90.6	92.0	8.0	7.0	9	283.85
M52	54	54.74	96.6	98.0	8.0	7.0	9	329.58
M55	57	57.74	103.6	105.0	9.0	8.0	10	431.10
M56	58	58.74	103.6	105.0	9.0	8.0	10	424.73
M58	60	60.74	108.6	110.0	9.0	8.0	10	471.24
M60	62	62.74	108.6	110.0	9.0	8.0	10	457.71
M64	66	66.74	113.6	115.0	9.0	8.0	10	491.70
M160	165	166	248.15	250.0	18.0	16.88	19.2	3910.00

DIN9021(GB96.1-2002/ISO7093)

SIZE	ID		OD		T	THICKNESS		WEIGHT KG/1000
	MIN	MAX	MIN	MAX		MIN	MAX	
M2.5	2.7	2.84	7.64	8.0	0.8	0.7	0.9	0.28
M3	3.2	3.38	8.64	9.0	0.8	0.7	0.9	0.35
M3.5	3.7	3.88	10.57	11.0	0.8	0.7	0.9	0.53
M4	4.3	4.48	11.57	12.0	1.0	0.9	1.1	0.77
M5	5.3	5.48	14.57	15.0	1.2	1.0	1.4	1.46
M6	6.4	6.62	17.57	18.0	1.6	1.4	1.8	2.79
M7	7.4	7.62	21.48	22.0	2.0	1.8	2.2	5.29
M8	8.4	8.62	23.48	24.0	2.0	1.8	2.2	6.23
M10	10.5	10.77	29.48	30.0	2.5	2.3	2.7	12.17
M12	13	13.27	36.38	37.0	3.0	2.7	3.3	22.20
M14	15	15.27	43.38	44.0	3.0	2.7	3.3	31.64
M16	17	17.27	49.38	50.0	3.0	2.7	3.3	40.90
M18	20	20.52	54.1	56.0	4.0	3.4	4.6	67.47
M20	22	22.52	58.1	60.0	4.0	3.4	4.6	76.85
M22	23	23.52	64.8	66.0	5.0	4.4	5.6	131.90
M24	26	26.84	70.1	72.0	5.0	4.0	6	138.97
M27	30	30.52	83.6	85.0	6.0	5.4	6.6	230.64
M30	33	34	89.8	92.0	6.0	5.0	7	272.82
M36	39	40	107.8	110.0	8.0	6.8	9.2	521.79

DIN440 (ISO 7094/GB/T5287-1985)

SIZE	ID		OD		THICKNESS		KG/1000
	MIN	MAX	MIN	MAX	MIN	MAX	
5	5.5	5.80	18	16.9	1.7	2.3	3.6
6	6.6	6.96	22	20.7	1.7	2.3	5.4
8	9.0	9.36	28	26.7	2.4	3.6	13.0
10	11.0	11.43	34	32.4	2.4	3.6	19.1
12	13.5	13.93	44	42.4	3.4	4.6	43.3
14	15.5	15.93	50	48.4	3.4	4.6	55.7
16	17.5	18.20	56	54.4	4.0	6.0	87.2
20	22.0	22.84	72	70.1	5.0	7.0	174.0
22	24.0	24.84	80	78.1	5.0	7.0	215.0
24	26.0	26.84	85	82.8	5.0	7.0	242.0
27	30.0	30.84	98	95.8	5.0	7.0	322.0
30	33.0	34.00	105	102.8	5.0	7.0	368.0
33	36.0	37.00	112	108.8	5.0	7.0	416.0
36	39.0	40.00	125	122.5	6.8	9.2	695.0
39	42.0	43.00	140	137.5	6.8	9.2	881.0
42	45.0	46.00	150	147.5	6.8	9.2	1010.0
45	48.0	49.00	160	157.5	6.8	9.2	1150.0
48	52.0	53.20	170	167.5	8.8	11.2	1620.0
52	56.0	57.20	180	177.5	8.8	11.2	1800.0

DIN126 (ISO 7091)

规格	标准	内径D1		外径D2		厚度H		KG/1000
		最小	最大	最小	最大	最小	最大	
5.5	5	5.5	5.8	10	9.1	1	1.2	0.43
6.6	6	6.6	6.96	12	10.9	1.6	1.9	1.3
7.6	7	7.6	7.96	14	12.9	1.6	1.9	1.3
9	8	9	9.36	16	14.9	1.6	1.9	1.3
11	10	11	11.43	20	18.7	2	2.3	1.7
13.5	12	13.5	13.93	24	22.7	2.5	2.8	2.2
15.5	14	15.5	15.93	28	26.7	2.5	2.8	2.2
17.5	16	17.5	17.93	30	28.7	3	3.6	2.4
20	18	20	20.52	34	32.4	3	3.6	2.4
22	20	22	22.52	37	35.4	3	3.6	2.4
24	22	24	24.52	39	37.4	3	3.6	2.4
26	24	26	26.52	44	42.4	4	4.5	3.4
30	27	30	30.52	50	48.4	4	4.5	3.4
33	30	33	33.62	56	54.1	4	4.5	3.4
36	33	36	37	60	58.1	5	6	4
39	36	39	40	66	64.1	5	6	4
42	39	42	43	72	70.1	6	7	5
45	42	45	46	78	76.1	7	8.2	5.8
48	45	48	49	85	82.8	7	8.2	5.8
52	48	52	53.2	92	89.8	8	9.2	6.8
56	52	56	57.2	98	95.8	8	9.2	6.8
62	56	62	63.2	105	102.8	9	10.2	7.8
66	60	66	67.2	110	107.8	9	10.2	7.8
70	64	70	71.2	115	112.8	9	10.2	7.8
78	72	78	79.2	125	122.5	10	11.2	8.8
86	80	86	87.4	140	137.5	12	13.6	10.4
96	90	96	97.4	160	157.5	12	13.6	10.4
107	100	107	108.4	175	172.5	14	15.6	12.4
117	110	117	118.4	185	182.1	14	15.6	12.4
127	120	127	128.6	210	207.1	16	17.6	14.4
132	125	132	133.6	220	217.1	16	17.6	14.4
137	130	137	138.6	220	217.1	16	17.6	14.4
147	140	147	148.6	240	237.1	18	19.6	17.4
158	150	158	159.6	250	247.1	18	19.6	17.4
168	160	168	169.6	250	247.1	18	19.6	17.4



Page 2 DIN 7980

Table 1.

Nominal size	d ₁ min. / max. dimensions	d ₂ min. / max. dimensions	t ₁	t ₂	Minimum number of teeth		Mass (17.86 kg/dm ³) per 1000 units, in kg for types A and J	For nominal thread diameter
					A	J		
1.7	1.7	1.84	3.8	5.2	8	7	0.02	1.6
2.5	2.5	2.64	4.8	6.2	8	7	0.03	2.5
2.7	2.7	2.84	5.8	7.2	8	7	0.045	2.5
3.2	3.2	3.38	6	7.7	10	9	0.06	2
3.7	3.7	3.88	7	8.64	10	8	0.11	2.5
4.3	4.3	4.48	8	9.64	10	8	0.14	4
5.3	5.3	5.48	10	11.57	10	8	0.26	5
6.4	6.4	6.62	11	13.57	12	9	0.36	6
7.4	7.4	7.62	12.5	15.57	14	10	0.5	7
8.4	8.4	8.62	15	18.57	16	10	0.8	8
10.5	10.5	10.77	18	22.57	18	12	1.25	10
13	13	13.27	20.5	26.57	18	12	1.6	12
15	15	15.27	24	31.57	18	14	2.3	14
17	17	17.27	26	34.57	18	14	2.9	10
19	19	19.33	30	40.57	18	14	4	18
21	21	21.33	30	43.57	20	16	6	20
23	23	23.33	36	51.57	20	16	7.8	22
26	26	26.38	36	58.57	20	16	8	24
28	28	28.38	44	69.57	22	18	12	27
31	31	31.39	48	79.57	22	18	14	30

1) Limit deviations for d₁ as specified in DIN 1644.



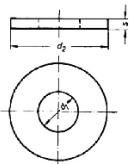
GB/T848-1986(DIN433,汽标Q400)

Table 1.

Nominal size	For thread size	Clearance hole diameter, d ₁	Outside diameter, d ₂	Nominal size		Thickness, h		r	Mass (MS109 per 1000 units in kg.)		
				max.	min.	max.	min.				
1.1	1	1.1	2.4	2.5	0.3	0.35	0.25	1.4	1.2	0.15	0.010
1.3	1.2	1.3	1.44	3	2.75	0.3	0.35	0.25	1.6	1.4	0.014
1.5	1.4	1.5	1.64	3	2.75	0.3	0.35	0.25	1.8	1.6	0.019
1.7	1.6	1.7	1.84	3.5	3.2	0.3	0.35	0.25	2	1.8	0.021
2	1.8	2	2.14	4	3.7	0.3	0.35	0.25	2.3	2.1	0.022
2.2	2	2.2	2.34	4.5	4.2	0.3	0.35	0.25	2.6	2.4	0.023
2.7	2.6	2.7	2.84	5	4.7	0.5	0.55	0.45	3.1	2.9	0.025
3.2	3	3.2	3.34	6	5.7	0.5	0.55	0.45	3.6	3.4	0.027
3.7	3.5	3.7	3.84	7	6.64	0.5	0.55	0.45	4.1	3.9	0.029
4.3	4	4.3	4.48	8	7.64	0.5	0.55	0.45	4.7	4.5	0.031
5.3	5	5.3	5.48	9	8.64	1	1.1	0.9	5.7	5.5	0.036
6.4	6	6.4	6.62	11	10.57	1.6	1.8	1.4	6.8	6.6	0.042
8.4	8	8.4	8.62	15	14.67	1.6	1.8	1.4	9.2	9	0.052
10.5	10	10.5	10.77	18	17.67	1.6	1.8	1.4	11.2	11	0.061
13	12	13	13.27	20	19.48	2	2.2	1.8	13.7	13.5	0.074
16	14	16	16.27	24	23.48	2.5	2.7	2.3	15.7	15.5	0.094
17	16	17	17.27	28	27.48	2.5	2.7	2.3	17.7	17.5	0.104
19	18	19	19.33	30	29.48	2.5	2.7	2.3	20.2	20	0.114
21	20	21	21.33	34	33.38	3	3.3	2.7	22.4	22	0.124
24	24	25	25.33	38	38.38	4	4.3	3.7	26.4	26	0.144
31	30	31	31.39	50	49.38	4	4.3	3.7	33.4	33	0.180
37	36	37	37.62	60	58.6	0	5.6	4.4	39.4	39	0.215

Continued on pages 2 and 3

DIN7349



DIN7349

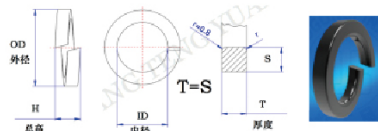
Designation of a plain washer with hole diameter d₁ = 17 mm in steel (St): Plain washer 17 DIN 7349 = St

d ₁	d ₂	s	Weight (St 304) (kg/1000 pieces)	For clamping sleeves according to DIN 18151 Nominal diameter	For direct diameter
3.2	9	1	0.408	3	3
4.3	12	1.5	1.24	4	4
5.3	15	2	3.42	12	6
6.4	17	3	6.59	19	8
8.4	21	4	9.15	16	8
10.5	25	4	12.7	18	10
13	30	6	27.1	21	12
16	38	6	38.6	25	16
17	40	6	48.5	25	16
19	44	8	77.4	30	18
21	48	8	104.4	35	20
24	56	10	116	40	24
28	66	10	174	43	27
31	68	10	226	46	30

DIN7989-1974钢结构用平垫

规格	ID内径		OD外径		THICKNESS厚度		WEIGHT重量
	MIN	MAX	MIN	MAX	MIN	MAX	
M10	11	11.7	18.7	20	8	8	13.80
M12	13.5	14.2	22.7	24	8	8	19.40
M14	16	16.7	25.7	27	8	8	23.31
M16	17.5	18.2	28.7	30	8	8	29.30
M18	20	20.84	31.4	33	8	8	33.95
M20	22	22.84	35.4	37	8	8	43.70
M22	24	24.84	37.4	39	8	8	46.57
M24	26	26.84	42.4	44	8	8	62.10
M27	30	30.84	48.4	50	8	8	78.90
M30	33	34	54.1	56	8	8	101.00
M33	35	36		60	8	8	117.04
M36	38	39	66	8	8	8	143.50

DIN7980-1987弹垫 HV430-510



SIZE	ID		T		H		WEIGHT
	MIN	MAX	MIN	MAX	MIN	MAX	
M 3	3.1	3.4	1	0.9	1.10	2	2.35
M 3.5	3.6	3.9	1	0.9	1.10	2	2.36
M 4	4.1	4.4	1.2	1.1	1.30	2.4	2.83
M 5	5.1	5.4	1.6	1.5	1.70	3.2	3.78
M 6	6.1	6.5	1.6	1.5	1.70	3.2	3.78
M 8	8.1	8.5	2	1.9	2.10	4	4.72
M 10	10.2	10.7	2.5	2.35	2.65	5	5.9
M 12	12.2	12.7	2.5	2.35	2.65	5	5.9
M 14	14.2	14.7	3	2.8	3.20	6	7.1
M 16	16.2	17	3.5	3.3	3.70	7	8.25
M 18	18.2	19	3.5	3.3	3.70	7	8.25
M 20	20.2	21.2	4.5	4.3	4.70	9	10.6
M 22	22.5	23.5	4.5	4.3	4.70	9	10.6
M 24	24.5	25.5	5	4.8	5.20	10	11.8
M 27	27.5	28.5	5	4.8	5.20	10	11.8
M 30	30.5	31.7	6	5.8	6.20	12	14.2
M 33	33.5	34.7	6	5.8	6.20	12	14.2
M 36	36.5	37.7	7	6.75	7.25	14	16.5
M 42	42.5	43.7	8	7.75	8.25	16	18.9
M 48	49	50.5	8	7.75	8.25	16	18.9

DIN 6916



SIZE	内径ID		外径OD		厚度	HICKNESS		C	E	WEIGHT
	MIN	MAX	MIN	MAX		MIN	MAX			
M12	13	13.27	23.48	24	3.3	2.7	1.6	1.9	0.5	7.03
M16	17	17.27	30	29.48	4	3.3	2.7	1.6	1	14.6
M20	21	21.33	37	36.38	4	3.3	2.7	1.6	1	19.8
M22	23	23.33	39	38.38	4	3.3	2.7	1.6	1	24.3
M24	25	25.33	44	43.38	4	3.3	2.7	1.6	1	30.6
M27	28	28.52	50	49	5	5.6	4.4	2.5	1	50.2
M30	31	31.62	56	54.8	5	5.6	4.4	2.5	1	63.2
M36	37	37.62	66	64.8	6	6.6	5.4	3	3.5	115

DIN127B弹簧垫圈规格表

规格	内径	外径	厚度	开口处高度	工件中					
M2	2.10	2.40	0.40	0.90	+0.1	0.50	+0.1	1.00	1.20	0.03
M2.2	2.30	2.60	0.40	1.00	+0.1	0.60	+0.1	1.20	1.40	0.05
M2.5	2.60	2.90	0.50	1.10	+0.1	0.80	+0.1	1.20	1.40	0.05
M3	3.10	3.40	0.50	1.30	+0.1	0.80	+0.1	1.60	1.80	0.11
M3.5	3.60	3.90	0.70	1.30	+0.1	0.80	+0.1	1.60	1.80	0.12
M4	4.10	4.40	0.70	1.50	+0.1	1.00	+0.1	1.80	2.10	0.18
M5	5.10	5.40	0.90	1.80	+0.1	1.20	+0.1	2.40	2.80	0.36
M6	6.10	6.50	1.10	2.00	+0.15	1.60	+0.1	3.20	3.80	0.63
M7	7.10	7.50	1.20	2.50	+0.15	1.60	+0.1	4.00	3.20	0.83
M8	8.10	8.50	1.40	3.00	+0.15	2.00	+0.1	4.00	4.70	1.60
M10	10.20	10.70	1.80	3.50	+0.2	2.20	+0.15	4.40	5.20	2.23
M12	12.30	12.70	2.10	4.00	+0.25	2.50	+0.15	5.60	5.90	4.53
M14	14.20	14.70	2.40	4.50	+0.2	3.00	+0.15	8.00	7.10	8.01
M16	16.20	17.00	2.70	5.00	+0.2	3.50	+0.2	7.00	8.30	8.91
M18	18.20	19.00	2.90	5.00	+0.2	3.50	+0.2	7.00	8.30	9.73
M20	20.30	21.20	3.00	6.00	+0.25	4.00	+0.2	8.00	9.40	16.50
M22	22.50	23.50	3.00	6.00	+0.2	4.00	+0.2	8.00	9.40	16.50
M24	24.50	25.50	4.00	7.00	+0.25	5.00	+0.2	10.00	11.80	26.20
M27	27.50	28.50	4.00	7.00	+0.25	5.00	+0.2	10.00	11.80	26.70
M30	30.50	31.70	4.50	8.00	+0.25	6.00	+0.2	12.00	14.20	44.53
M33	33.50	34.70	5.00	8.00	+0.25	6.00	+0.2	12.00	14.20	48.60
M36	36.50	37.70	5.50	10.00	+0.25	6.00	+0.2	12.00	14.20	57.80
M39	39.50	40.70	6.10	10.00	+0.25	6.00	+0.2	12.00	14.20	71.60
M42	42.50	43.70	6.80	12.00	+0.25	7.00	+0.25	14.00	16.50	111.00
M45	45.50	46.70	7.10	12.00	+0.25	7.00	+0.25	14.00	16.50	117.00
M48	48.50	50.00	7.50	12.00	+0.25	7.00	+0.25	14.00	16.50	123.00
M52	53.00	54.50	8.00	14.00	+0.25	8.00	+0.25	16.00	18.90	182.00
M56	57.00	58.50	8.50	14.00	+0.25	8.00	+0.25	16.00	18.90	193.00
M60	61.00	62.50	9.00	14.00	+0.25	8.00	+0.25	16.00	18.90	203.00
M64	65.00	66.50	9.50	14.00	+0.25	8.00	+0.25	16.00	18.90	218.00
M68	69.00	70.50	9.00	14.00	+0.25	8.00	+0.25	16.00	18.90	228.00
M72	73.00	74.50	10.00	14.00	+0.25	8.00	+0.25	16.00	18.90	240.00
M80	81.00	82.50	11.00	14.00	+0.25	8.00	+0.25	16.00	18.90	282.00
M90	91.00	92.50	12.00	14.00	+0.25	8.00	+0.25	16.00	18.90	290.00
M100	101.00	102.50	13.00	14.00	+0.25	8.00	+0.25	16.00	18.90	318.00

ASME B 18 USS/SAE 美标平垫标准书

ANSI	ID	MIN		MAX		MIN	T		MAX	MIN	weight/1000
		OD	MAX	OD	MAX		MIN	MAX			
1	1.98	1.98	1.85	4.78	4.78	0.65	0.51	0.64	0.41	0.06	
2	2.39	2.39	2.26	6.35	6.35	6.22	0.51	0.64	0.41	0.11	
3	3.18	3.38	3.05	7.92	8.13	7.80	0.81	1.02	0.64	0.26	
6	3.96	4.17	3.81	9.53	9.91	9.40	1.24	1.65	0.91	0.58	
8	4.78	4.98	4.65	11.13	11.51	11.00	1.24	1.65	0.91	0.77	
10	5.56	5.77	5.44	12.70	13.08	12.57	1.24	1.65	0.91	1.00	
3/16	6.35	6.73	6.22	14.27	14.66	14.15	1.24	1.65	0.91	1.25	
1/2	6.35										

BS 4320										BS4320-1968 英国标准 The British standard									
SIZE	ID			OD			THICKNESS			KG/1000	THICKNESS			KG/1000					
	MIN	MAX	MIN	MAX	MIN	MAX	T	MIN	MAX		T	MIN	MAX						
2	2.2	2.35	4.7	5	0.3	0.2	0.4	0.568											
2.5	2.7	2.85	6.2	6.5	0.5	0.4	0.6	0.108											
3	3.2	3.4	6.7	7	0.5	0.4	0.6	0.119											
3.5	3.7	3.9	6.7	7	0.5	0.4	0.6	0.109											
4	4.3	4.5	8.7	9	0.8	0.7	0.9	0.308											
5	5.3	5.5	9.7	10	1.0	0.9	1.1	0.443											
6	6.4	6.7	12.1	12.5	1.6	1.4	1.8	1.14	0.8	0.7	0.9	0.57							
7	7.4	7.7	13.6	14	1.6	1.4	1.8	1.39	0.8	0.7	0.9	0.70							
8	8.4	8.7	16.6	17	1.6	1.4	1.8	2.15	1	0.9	1.1	1.35							
10	10.5	10.9	20.5	21	2.0	1.8	2.2	4.07	1.25	1.05	1.45	2.55							
12	13	13.4	23.5	24	2.5	2.3	2.7	6.27	1.6	1.4	1.8	4.01							
14	15	15.4	27.5	28	2.5	2.3	2.7	8.61	1.6	1.4	1.8	5.51							
16	17	17.4	29.5	30	3.0	2.7	3.3	11.29	2	1.8	2.2	7.53							
18	19	19.5	33.2	34	3.0	2.7	3.3	14.69	2	1.8	2.2	9.79							
20	21	21.5	36.2	37	3.0	2.7	3.3	17.15	2	1.8	2.2	11.43							
22	23	23.5	38.2	39	3.0	2.7	3.3	18.33	2	1.8	2.2	12.22							
24	25	25.5	43.2	44	3.7	4.3	3.2	25.20	2.5	2.3	2.7	20.19							
27	28	28.5	49.2	50	4.0	3.7	4.3	42.28	2.5	2.3	2.7	26.43							
30	31	31.6	55	56	4.0	3.7	4.3	53.59	2.5	2.3	2.7	40.19							
33	34	34.6	59	60	5.0	4.4	5.6	75.28	3	2.7	3.3	45.17							
36	37	37.6	65	66	5.0	4.4	5.6	92.00	3	2.7	3.3	55.20							
39	40	40.6	71	72	6.0	5.4	6.6	132.46	3	2.7	3.3	66.23							

BS 4320										C										D									
SIZE	ID			OD			THICKNESS			KG/1000	THICKNESS			KG/1000	THICKNESS			KG/1000											
	MIN	MAX	MIN	MAX	MIN	MAX	T	MIN	MAX		T	MIN	MAX		T	MIN	MAX												
4	4.3	4.5	9.7	10	0.8	0.7	0.9	0.40																					
5	5.3	5.5	12.1	12.5	1	0.9	1.1	0.79																					
6	6.4	6.7	13.6	14	1.6	1.4	1.8	1.53	0.8	0.7	0.9	0.76																	
8	8.4	8.7	20.5	21	1.6	1.4	1.8	3.65	1	0.9	1.1	2.28																	
10	10.5	10.9	23.5	24	2.0	1.8	2.2	5.24	1.25	1.05	1.45	3.59																	
12	13	13.4	27.5	28	2.5	2.3	2.7	9.47	1.6	1.4	1.8	6.06																	
14	15	15.4	29.5	30	2.5	2.3	2.7	10.40	1.6	1.4	1.8	6.65																	
16	17	17.4	33.2	34	3	2.7	3.3	16.02	2	1.8	2.2	10.68																	
18	19	19.5	36.2	37	3	2.7	3.3	18.63	2	1.8	2.2	12.42																	
20	21	21.5	38.2	39	3	2.7	3.3	19.96	2	1.8	2.2	13.31																	
22	23	23.5	43.2	44	3	2.7	3.3	26.00	2	1.8	2.2	17.38																	
24	25	25.5	49.2	50	4	3.7	4.3	46.20	2.5	2.3	2.7	28.88																	
27	28	28.5	55	56	4	3.7	4.3	57.95	2.5	2.3	2.7	36.22																	
30	31	31.6	59	60	4	3.7	4.3	65.02	2.5	2.3	2.7	40.64																	
33	34	34.6	65	66	5	4.4	5.6	98.56	3	2.7	3.3	59.14																	
36	37	37.6	71	72	5	4.4	5.6	117.50	3	2.7	3.3	70.50																	
39	40	40.6	76	77	6	5.4	6.6	160.00	3	2.7	3.3	80.00																	

BS 4320										E									
SIZE	ID			OD			THICKNESS			KG/1000	THICKNESS			KG/1000					
	MIN	MAX	MIN	MAX	MIN	MAX	T	MIN	MAX		T	MIN	MAX						
8	9	9.4	16.2	17	1.3	1.3	1.9	1.9											
10	11	11.5	20.2	21	1.7	1.7	2.3	3.7											
12	14	14.5	23.2	24	2.4	2.4	2.8	5.6											
14	16	16.5	27.2	28	2.8	2.8	2.8	7.8											
16	18	18.5	29.2	30	3.0	3.0	3.6	10.2											
18	20	20.6	32.8	34	3.4	3.4	3.6	13.2											
20	22	22.6	35.8	37	3.7	3.7	3.6	15.5											
22	24	24.6	37.8	39	3.9	3.9	3.6	18.6											
24	26	26.6	42.8	44	4.4	4.4	4.6	29.7											
27	30	30.6	48.8	50	5.0	5.0	4.6	37.9											
30	33	33.8	54.5	56	5.6	5.6	4.6	48.4											
33	36	36.8	58.8	60	6.0	6.0	5.6	68.7											
36	39	39.8	64.5	66	6.6	6.6	4.0	84.5											
39	42	42.8	70.5	72	7.2	7.2	5.0	122.4											
42	45	45.8	76.5	78	7.8	7.8	5.8	170.0											
45	48	48.8	83	85	8.5	8.5	5.8	204.9											
48	52	53	90	92	9.2	9.2	6.8	274.8											
52	56	57	96	98	9.8	9.8	6.8	309.1											
56	62	63	103	105	10.5	10.5	7.8	386.5											
60	66	67	108	110	11.0	11.0	7.8	417.1											
64	70	71	113	115	11.5	11.5	7.8	448.8											
68	74	75	118	120	12.0	12.0	8.8	534.9											

BSW 英制平垫圈 British Standard Whitworth Thread										
SIZE	ID			OD			THICKNESS			KG/1000
	MIN	MAX	MIN	MAX	T	MIN	MAX	T		
1/8	3.55	3.9	10.85	10.85	1	0.8	1.2	0.66		
5/32	4.05	4.4	12.35	12.35	1	0.8	1.2	0.85		
3/16	4.85	5.2	15.85	15.85	1	0.5	1.5	1.42		
1/4	6.85	7.2	18.85	18.85	1.5	1	2	2.88		
5/16	8.55	8.9	21.85	21.85	1.5	1	2	3.77		
3/8	10.15	10.5	25.25	25.25	2	1.5	2.5	6.64		
7/16	11.85	12.3	27.85	27.85	2	1.5	2.5	7.88		
1/2	13.85	14.2	31.85	31.85	2.5	2	3	12.75		
5/8	17.35	17.9	37.85	37.85	3	2.5	3.5	21.03		
3/4	20.85	21.4	44.85	44.85	3	2.5	3.5	29.27		
7/8	23.35	23.9	49.85	49.85	3.5	3	4	41.99		
1	26.3	26.8	57.8	57.8	3.5	3	4	57.39		
1 1/8	30.7	31.3	62.8	62.8	4	3.5	4.5	74.12		
1 1/4	33.3	33.8	67.8	67.8	4	3	5	86.28		
1 1/2	39.8	40.3	79.8	79.8	4	3	5	118.27		
1 3/4	47.7	48.3	89.7	89.7	4	3	5	142.81		
1 3/8	36.8	37.3	74.8	74.8	4	3	5	104.87		
2	53.7	54.3	94.7	94.7	4	3	5	150.53		

BS 4320										F									
SIZE	ID			OD			THICKNESS			KG/1000	THICKNESS			KG/1000					
	MIN	MAX	MIN	MAX	T	MIN	MAX	T	MIN		MAX	T	MIN		MAX				
8	9	9.4	20.2	21	1.6	1.3	1.9	3.5											
10	11	11.5	23.2	24	2	1.7	2.3	5.6											
12	14	14.5	27.2	28	2.5	2.2	2.8	9.1											
14	16	16.5	29.2	30	2.5	2.2	2.8	9.9											
16	18	18.5	32.8	34	3	2.4	3.6	15.4											
18	20	20.6	35.8	37	3	2.4	3.6	17.9											
20	22	22.6	37.8	39	3	2.4	3.6	19.2											
22	24	24.6	42.8	44	3	2.4	3.6	25.1											
24	26	26.6	48.8	50	4	3.4	4.6	44.9											
27	30	30.6	54.5	56	4	3.4	4.6	55.1											
30	33	33.8	58.5	60	4	3.4	4.6	61.9											
33	36	36.8	64.5	66	5	4	6	94.2											
36	39	39.8	70.5	72	5	4	6	112.8											
39	42	42.8	75.5	77	6	5	7	153.9											

BS 4320										G									
SIZE	ID			OD			THICKNESS			KG/1000	THICKNESS			KG/1000					
	MIN	MAX	MIN	MAX	T	MIN	MAX	T	MIN		MAX	T	MIN		MAX				
5	5.5	5.8	14.2	15.0	1.6	1.3	1.8	1.9											
6	6.6	7.0	17.2	18.0	2.0	1.7	2.3	3.5											
7	7.6	8.0	20.2	21.0	2.0	1.7	2.3	4.7											
8	9.0	9.4	23.2	24.0	2.0	1.7	2.3	6.1											
10	11.0	11.5	29.2	30.0	2.5	2.2	2.8	12.0											
12	14.0	14.5	34.8	36.0	3.0	2.4	3.6	20.3											
14	16.0	16.5	40.8	42.0	3.0	2.4	3												