

For proper chamfering see the following table (see fig. 6, p. 0)

Pitch mm	up to 1.5	up to 2.5	up to 6	over 6
Thread to 1 "	up to 16	up 10	up to 4	below 4
For material R < 800 N/mm ² m =	20 °	25 °	30 °	35 °
For material R > 800 N/mm ² m =	15 °	20 °	25 °	30 °

12.3 Tables

12.3.1 Blank size tables

Note:

The following are reference values and material influences have not been taken into account when they were established. Normally, material influences are negligible and not coverable in blank size determination. Nevertheless the usability of the blank sizes should be checked by testing prior to rolling.

12.3.1.1 Blank sizes for metric ISO threads - Fine pitch threads DIN 13 (tolerance ranges 4h; 6g; 8g)

Thread diameter (mm)	Pitch (mm)	Blank sizes (mm) Tolerance range					
		Max.size 4 h	Min. size 4 h	Max.size 6 g	Min. size 6 g	Max.size 8 g	Min. size 8 g
1.6	0.2	1.47	1.45	1.45	1.41	-	-
2	0.25	1.83	1.81	1.82	1.77	-	-
2.5	0.35	2.27	2,25	2.25	2.2	-	-
3	9.35	2.77	2.74	2.75	2.7	-	-
4	0.5	3.68	3.64	3.66	3.6	-	-
5	0.5	4.68	4.64	4.66	4.6	-	-
6	0.5	5.68	5.64	5.66	5.58	-	-
6	0.75	5.52	5.47	5.5	5.41	-	-
8	0.5	7.67	7.64	7.65	7.58	-	-
8	0.75	7.52	7.47	7.5	7.41	-	-
8	1	7.36	7.31	7.33	7.24	7.33	7.17
10	0.5	9.67	9.63	9.65	9.58	-	-
10	0.75	9.52	9.47	9.5	9.41	-	-
10	1	9.36	9.31	9.33	9.24	9.33	9.17
10	1.25	9.2	9.15	9.18	9.08	9.18	9.03
12	0.5	11.67	11.63	11.65	11.58	-	-
12	0.75	11.52	11.46	11.5	11.4	-	-
12	1	11.36	11.29	11.33	11.22	11.33	11.16
12	1.25	11.2	11.14	11.17	11.06	11.17	10.98
12	1.5	11.05	10.98	11.02	10.9	11.02	10.81

Thread diameter (mm)	Pitch (mm)	Blank sizes (mm) Tolerance range					
		Max.size 4 h	Min. size 4 h	Max.size 6 g	Min. size 6 g	Max.size 8 g	Min. size 8 g
16	0.5	15.67	15.63	15.65	15.58	-	-
16	0.75	15.52	15.46	15.49	15.4	-	-
16	1	15.35	15.3	15.33	15.23	15.33	15.16
16	1.5	15.04	14.97	15.01	14.89	15.01	14.81
20	0.5	19.67	19.63	19.65	19.58	-	-
20	0.75	19.52	19.46	19.49	19.4	-	-
20	1	19.35	19.3	19.33	19.23	19.33	19.16
20	1.5	19.04	18.97	19.01	18.89	19.01	18.8
20	2	18.73	18.65	18.69	18.55	18.69	18.46
24	0.75	23.51	23.46	23.49	23.39	-	-
24	1	23.35	23.29	23.33	23.22	23.33	23.14
24	1.5	23.04	22.96	23.01	22.88	23.01	22.79
24	2	22.73	22.64	22.69	22.54	22.69	22.44
30	0.75	29.51	29.46	29.49	29.39	-	-
30	1	29.35	29.29	29.32	29.22	29.32	29.14
30	1.5	29.04	28.96	29.01	28.87	29.01	28.79
30	2	28.72	28.64	28.69	28.54	28.69	28.44
30	3	28.1	28	28.06	27.88	28.06	27.76
36	1	35.35	35.29	35.32	35.22	35.32	35.14
36	1.5	35.04	34.96	35	34.87	35	34.79
36	2	34.72	34.63	34.68	34.53	34.68	34.44
36	3	34.1	33.99	34.05	33.87	34.05	33.75
42	1	41.35	41.29	41.32	41.22	41.32	41.14
42	1.5	41.03	40.96	41	40.87	41	40.79
42	2	40.72	40.63	40.68	40.53	40.63	40.44
42	3	40.09	39.99	40.05	39.87	40.05	39.75
42	4	39.47	39.35	39.41	39.21	39.41	39.08
48	1	47.35	47.28	47.32	47.2	47.32	47.12
48	1.5	47.03	46.95	47	46.86	47	46.77
48	2	46.72	46.63	46.68	46.52	46.68	46.42
48	3	46.09	45.98	46.04	45.85	46.04	45.73
48	4	45.47	45.34	45.41	45.19	45.41	45.05
56	1	55.35	55.28	55.32	55.2	55.32	55.12
56	1.5	55.03	54.95	55	54.86	55	54.77
56	2	54.72	54.62	54.68	54.52	54.68	54.42
56	3	54.09	53.98	54.04	53.85	54.04	53.73
56	4	53.46	53.33	53.4	53.19	53.4	53.05

Thread diameter (mm)	Pitch (mm)	Blank sizes (mm) Tolerance range					
		Max.size 4 h	Min. size 4 h	Max.size 6 g	Min. size 6 g	Max.size 8 g	Min. size 8 g
64	1	63.35	63.28	63.32	63.2	63.32	63.12
64	1.5	63.03	62.95	63	62.86	63	62.77
64	2	62.72	62.62	62.68	62.52	62.68	62.42
64	3	62.09	61.97	62.04	61.85	61.4	61.05
64	4	61.46	61.33	61.4	61.18	61.4	61.05
72	1	71.35	71.28	71.32	71.2	71.32	71.12
72	1.5	71.03	70.95	71	70.86	71	70.77
72	2	70.72	70.62	70.68	70.52	70.68	70.42
72	3	70.09	69.97	70.04	69.84	70.04	69.72
72	4	69.45	69.33	69.39	69.18	69.39	69.04
72	6	68.21	68.05	68.13	67.87	68.13	67.7
80	1	79.35	79.28	79.32	79.2	79.32	79.12
80	1.5	79.03	78.95	79	78.86	79	78.77
80	2	78.72	78.62	78.68	78.52	78.68	78.42
80	3	78.08	77.97	78.04	77.84	78.04	77.77
80	4	77.45	77.33	77.39	77.18	77.39	77.04
80	6	76.2	76.05	76.12	75.87	76.12	75.7
90	1.5	89.03	88.95	89	88.86	89	88.77
90	2	88.72	88.62	88.68	88.52	88.68	88.42
90	3	88.08	87.97	88.04	87.84	88.04	87.72
90	4	87.45	87.32	87.39	87.18	87.39	87.04
90	6	86.2	86.04	86.12	85.86	86.12	85.69
100	1.5	99.03	98.94	99	98.85	99	98.85
100	3	98.08	97.96	98.03	97.83	98.03	97.7
100	4	97.45	97.31	97.39	97.16	97.39	97.01
100	6	96.19	96.03	96.11	95.84	96.11	95.66

12.3.1.2 Blank sizes for metric ISO threads-Coarse pitch threads DIN 13 (tolerance ranges 4h; 6g; 8g)

Thread diameter (mm)	Pitch (mm)	Blank sizes (mm) Tolerance range					
		Max.size 4 h	Min. size 4 h	Max.size 6 g	Min. size 6 g	Max.size 8 g	Min. size 8 g
1.6	0.35	1.38	1.34	1.36	1.31	-	-
1.8	0.35	1.57	1.55	1.56	1.51	-	-
2	0.4	1.74	1.72	1.72	1.67	-	-
2.2	0.45	1.91	1.88	1.89	1.84	-	-
2.5	0.45	2.21	2.18	2.19	2.14	-	-
3	0.5	2.68	2.65	2.66	2.6	-	-
3.5	0.6	3.12	3.08	3.1	3.03	-	-
4	0.7	3.56	3.52	3.53	3.46	-	-
4.5	0.75	4.03	3.98	4	3.93	-	-
5	0.8	4.49	4.45	4.46	4.39	4.46	4.33
6	1	5.37	5.31	5.34	5.25	5.34	5.18
7	1	6.36	6.31	6.34	6.24	6.34	6.18
8	1.25	7.21	7.15	7.18	7.08	7.18	7.01
9	1.25	8.21	8.15	8.18	8.08	8.18	8.01
10	1.5	9.05	8.99	9.02	8.91	9.02	8.83
11	1.5	10.05	9.99	10.02	9.91	10.02	9.83
12	1.75	10.9	10.82	10.86	10.73	10.86	10.65
14	2	12.74	12.66	12.7	12.56	12.7	12.47
16	2	14.74	14.66	14.7	14.56	14.7	14.47
18	2.5	16.43	16.34	16.39	16.24	16.39	16.14
20	2.5	18.42	18.34	18.38	18.23	18.38	18.14
22	2.5	20.42	20.3	20.38	20.23	20.38	20.13
24	3	22.11	22.01	22.06	21.87	22.06	21.77
27	3	25.11	25	25.06	24.88	25.06	24.76
30	3.5	27.79	27.68	27.74	27.55	27.74	27.43
33	3.5	30.79	30.68	30.74	30.55	30.74	30.42
36	4	33.48	33.36	33.42	33.22	33.42	33.09
39	4	36.47	36.36	36.41	36.21	36.41	36.08
42	4.5	39.16	39.04	39.1	38.39	39.1	38.75
45	4.5	42.16	42.03	42.1	41.88	42.1	41.75
48	5	44.85	44.71	44.78	44.55	44.78	44.4
52	5	48.84	48.71	48.77	48.55	48.77	48.4
56	5.5	52.53	52.39	52.46	52.22	52.46	52.06
60	5.5	56.53	56.38	56.45	56.21	56.45	56.05
64	6	60.21	60.06	60.13	59.88	60.13	59.71
68	6	64.21	64.06	64.13	63.88	64.13	63.71

12.3.1.3 Blank sizes for Whitworth threads (BSW 55°)

Nom. thread diameter (in)	Threads per inch	Blank sizes (mm)			
		Max.size	Minimum size for tolerance		
			f	m	g
1/4	20	5.54	5.5	5.48	5.44
3/18	16	8.51	8.47	8.45	8.41
7/16	14	9.95	9.91	9.88	9.84
1/2	12	11.35	11.3	11.27	11.22
5/16	18	7.03	6.9	6.97	6.94
5/8	11	14.4	14.35	14.32	14.27
3/4	10	17.42	17.37	17.34	17.29
7/8	9	20.42	20.36	20.33	20.28
1	8	23.37	23.31	23.28	23.22
1 1/8	7	26.25	26.19	26.16	26.09
1 1/4	7	29.43	29.36	29.33	29.27
1 3/8	6	32.22	32.15	32.11	32.04
1 1/2	6	35.39	35.32	35.29	35.22
1 5/8	5	38.02	37.95	37.91	37.84
1 3/4	5	41.2	41.12	41.09	41.01
1 7/8	4 1/2	44.01	43.93	43.89	43.82
2	4 1/2	47.19	47.11	47.06	46.99
2 1/4	4	53.09	53	52.96	52.87
2 1/2	4	59.44	59.35	59.31	59.22
2 3/4	3 1/2	65.21	65.12	65.08	64.99
3	3 1/2	71.56	71.47	71.43	71.34

12.3.1.4 Blank sizes for Whitworth pipe threads DIN-ISO 228 and 229

Nom.threa d diameter (in)	Threads per inch	Blank sizes (mm)		
		Max.size	Minimum size for tolerance	
			m	g
R 1/8	28	9.15	9.13	9.12
R 1/4	19	12.3	12.24	12.2
R 3/8	19	15.81	15.75	15.71
R 1/2	14	19.97	19.73	19.68
R 5/8	14	21.75	21.68	21.64
R 3/4	14	25.28	25.21	25.17
R 7/8	14	29.04	28.97	28.93
R 1	11	31.77	31.69	31.64
R 1 1/8	11	36.42	36.34	36.29
R 1 1/4	11	40.43	40.36	40.3
R 1 3/8	11	42.85	42.77	42.72
R 1 1/2	11	46.33	46.25	46.21
R 1 5/8	11	50.51	50.43	50.38
R 1 3/4	11	52.27	52.19	52.14
R 2	11	58.14	58.06	58.01
R 2 1/4	11	64.23	64.16	64.11
R 2 3/8	11	67.92	67.84	67.97
R 2 1/2	11	73.71	73.63	73.58