



Gewinde: Toleranzen

Thread: tolerances



Tabelle 4: Grenzmaße $A_0 - A_U$ (min. - max.) für Außen- und Innengewinde (Bolzen/Mutter) mit Regel- und Feingewinde (RG/FG) (Auswahl aus ISO 965-2 / DIN 13 - 20, 21, 22, 27)

Table 4: Dimension limits $A_0 - A_U$ (min. - max.) for external and internal threads (bolt/nut) with coarse and fine thread (RG/FG) (Selection from ISO 965-2 / DIN 13 - 20, 21, 22, 27)

Gewinde-Nenn \emptyset d / D	Steigung P		Flanken \emptyset Null-Linie h / H	Außen- / Bolzengewinde (External/bolt thread)						Innen- / Mutterngewinde (Internal/nut thread)						
	RG	FG		Tol.- Feld/ -lage	Außen \emptyset d		Flanken \emptyset d ₂		Kern \emptyset d ₃		Tol.- Feld/ -lage	Außen \emptyset D	Flanken \emptyset D ₂		Kern \emptyset D ₃	
					max.	min.	max.	min.	max.	min.			max.	min.		
M 3	0,5		2,675	6g	2,980	2,874	2,655	2,580	2,367	2,273	6H	3,000	2,675	2,775	2,459	2,599
				6e	2,950	2,844	2,625	2,550	2,337	2,243	6G	3,020	2,695	2,795	2,479	2,619
M 4	0,7		3,545	6g	3,978	3,838	3,523	3,433	3,119	3,002	6H	4,000	3,545	3,663	3,242	3,422
				6e	3,944	3,804	3,489	3,399	3,085	2,968	6G	4,022	3,567	3,685	3,264	3,444
M 5	0,8		4,480	6g	4,976	4,826	4,456	4,361	3,995	3,869	6H	5,000	4,480	4,605	4,134	4,334
				6e	4,940	4,790	4,420	4,325	3,959	3,833	6G	5,024	4,504	4,629	4,158	4,358
M 6	1		5,350	6g	5,974	5,794	5,324	5,212	4,747	4,596	6H	6,000	5,350	5,500	4,917	5,153
				6e	5,940	5,760	5,290	5,178	4,713	4,562	6G	6,026	5,376	5,526	4,943	5,179
M 8	1,25		7,188	6g	7,972	7,760	7,160	7,042	6,438	6,272	6H	8,000	7,188	7,348	6,647	6,912
				8e	7,937	7,602	7,125	6,935	6,403	6,165	6G	8,028	7,216	7,376	6,675	6,940
M 10	1,5		9,026	6g	9,968	9,732	8,994	8,862	8,128	7,938	6H	10,000	9,026	9,206	8,376	8,676
				8e	9,933	9,558	8,959	8,747	8,093	7,823	6G	10,032	9,058	9,238	8,408	8,708
M 12	1,75		10,863	6g	11,966	11,701	10,829	10,679	9,819	9,602	6H	12,000	10,863	11,063	10,106	10,441
				8e	11,929	11,504	10,792	10,556	9,782	9,479	6G	12,034	10,897	11,097	10,140	10,475
M 14	2		12,701	6g	13,962	13,682	12,663	12,503	11,508	11,271	6H	14,000	12,701	12,913	11,835	12,210
				8e	13,929	13,479	12,630	12,380	11,475	11,148	6G	14,038	12,739	12,951	11,873	12,248
M 16	2		14,701	6g	15,962	15,682	14,663	14,503	13,508	13,271	6H	16,000	14,701	14,913	13,835	14,210
				8e	15,929	15,479	14,630	14,380	13,475	13,148	6G	16,038	14,739	14,951	13,873	14,248
M 18	2,5		16,376	6g	17,958	17,623	16,334	16,164	14,891	14,625	6H	18,000	16,376	16,600	15,294	15,744
				8e	17,920	17,390	16,296	16,031	14,853	14,492	6G	18,042	16,418	16,642	15,336	15,786
M 20	2,5		18,376	6g	19,958	19,623	18,334	18,164	16,891	16,625	6H	20,000	18,376	18,600	17,294	17,744
				8e	19,920	19,390	18,296	18,031	16,853	16,492	6G	20,042	18,418	18,642	17,336	17,786
M 22	2,5		20,376	6g	21,958	21,623	20,334	20,164	18,891	18,625	6H	22,000	20,376	20,600	19,294	19,744
				8e	21,920	21,390	20,296	20,031	18,853	18,492	6G	22,042	20,418	20,642	19,336	19,786
M 24	3		22,051	6g	23,952	23,577	22,003	21,803	20,271	19,955	6H	24,000	22,051	22,316	20,752	21,252
				8e	23,915	23,315	21,966	21,651	20,234	19,803	6G	24,048	22,099	22,364	20,800	21,300
M 27	3		25,051	6g	26,952	26,577	25,003	24,803	23,271	22,955	6H	27,000	25,051	25,316	23,752	24,252
				8e	26,915	26,315	24,966	24,651	23,234	22,803	6G	27,048	25,099	25,364	23,800	24,300
M 30	3,5		27,727	6g	29,947	29,522	27,674	27,462	25,653	25,306	6H	30,000	27,727	28,007	26,211	26,771
				8e	29,910	29,240	27,637	27,302	25,616	25,146	6G	30,053	27,780	28,060	26,264	26,824
M 33	3,5		30,727	6g	32,947	32,522	30,674	30,462	28,653	28,306	6H	33,000	30,727	31,007	29,211	29,771
				8e	32,910	32,240	30,637	30,302	28,616	28,146	6G	33,053	30,780	31,060	29,264	29,824
M 36	4		33,402	6g	35,940	35,465	33,342	33,118	31,033	30,655	6H	36,000	33,402	33,702	31,670	32,270
				8e	35,905	35,155	33,307	32,952	30,998	30,489	6G	36,060	33,462	33,762	31,730	32,330
	3		34,051	6g	35,952	35,577	34,003	33,803	32,271	31,955	6H	36,000	34,051	34,316	32,752	33,252

**Tabelle 5: Maße in Millimeter für
- UNC / UNF / BSW / BSF-Gewinde
- Ww-Rohrgewinde**

**Table 5: Dimensions in mm for
- UNC / UNF / BSW / BSF threads
- Ww tube threads**

UNC UNF BSW BSF	Gewinde- Nenn \emptyset in mm	No. Zoll d/D	0	1	2	3	4	5	6	8	10	12	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1			
			1,524	1,854	2,184	2,515	2,845	3,175	3,505	4,166	4,826	5,486	6,35	7,94	9,53	11,1	12,70	14,29	15,88	19,05	22,23	25,40			
Ww- Rohr- Gewinde G / R / Rp	Gewinde- Nenn \emptyset / mm	Zoll	1/16	1/8	1/4	1/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	G = Zylindrisches Außen- / Innengewinde R = Kegeliges Außengewinde* Rp = Zylindrisches Innengewinde * a = Abstand der Bezugsebene / Meßebe- vom Gewindeanfang in mm										
	Außen \emptyset in mm	d/D	7,72	9,73	13,16	16,66	20,96	26,44	33,25	41,91	47,80	59,61	75,18	87,88											
	Abstand Meßebe- a		4,0	4,0	6,0	6,4	8,2	9,5	10,4	12,7	12,7	15,9	17,5	20,6											