Mindesteinschraubtiefen nach VDI 2230-1:2015
für Innengewinde in Aluminium-Gusslegierungen
(Scherfestigkeitsverhältnis τ_B / R_m = 0.52)

Statik | Ermüdungsfestigkeit | Bruchmechanik
Schrauben, Schweißnähte, Maschinenbauteile
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Scherfestigkeit [N/mm²]	Festigkeits-klasse	Mindesteinschraubtiefen [mm] für Nenndurchmesser											
		M3	M4	M5	M6	M8	M10	M12	M16	M20	M24	M30	M36
50	8.8	17.6	22.0	27.5	32.1	42.1	52.2	62.3	84.2	106.9	127.0	159.2	191.5
	10.9	22.5	28.2	35.2	41.1	54.0	66.9	79.9	108.2	132.6	157.6	197.7	237.9
	12.9	26.2	32.8	41.0	47.9	62.9	78.0	93.1	126.3	154.7	183.9	230.7	277.7
60	8.8	14.8	18.6	23.2	27.1	35.5	44.0	52.5	70.8	89.9	106.9	133.8	160.9
	10.9	18.9	23.7	29.6	34.6	45.4	56.3	67.2	90.9	111.4	132.4	165.9	199.6
	12.9	22.0	27.6	34.4	40.2	52.9	65.5	78.2	105.9	129.8	154.2	193.4	232.7
70	8.8	12.8	16.1	20.1	23.5	30.8	38.1	45.5	61.3	77.8	92.5	115.7	139.1
	10.9	16.4	20.5	25.6	29.9	39.3	48.7	58.1	78.5	96.2	114.3	143.2	172.2
	12.9	19.0	23.8	29.8	34.8	45.7	56.6	67.5	91.3	111.9	133.1	166.8	200.6
78 (G-AlSiCu3 S F)	8.8	11.6	14.6	18.2	21.3	27.9	34.5	41.2	55.4	70.3	83.6	104.6	125.6
	10.9	14.8	18.6	23.2	27.1	35.5	44.0	52.5	70.8	86.8	103.2	129.3	155.4
	12.9	17.2	21.5	26.9	31.4	41.2	51.1	60.9	82.4	101.0	120.0	150.4	180.9
80	8.8	11.4	14.3	17.8	20.8	27.3	33.8	40.2	54.1	68.7	81.7	102.1	122.7
	10.9	14.5	18.2	22.6	26.5	34.7	43.0	51.3	69.2	84.8	100.8	126.2	151.7
	12.9	16.8	21.0	26.2	30.7	40.3	49.9	59.5	80.4	98.6	117.2	146.8	176.6
90	8.8	10.2	12.9	16.0	18.7	24.5	30.3	36.2	48.6	61.6	73.3	91.6	109.9
	10.9	13.0	16.3	20.3	23.7	31.1	38.5	46.0	61.9	75.9	90.3	113.0	135.7
	12.9	15.0	18.9	23.5	27.5	36.1	44.7	53.3	71.9	88.2	104.8	131.3	157.8
100	8.8	9.3	11.7	14.6	17.1	22.3	27.6	32.9	44.1	56.0	66.5	83.1	99.8
	10.9	11.8	14.8	18.4	21.6	28.3	35.0	41.7	56.1	68.8	81.8	102.4	123.0
	12.9	13.6	17.1	21.3	25.0	32.7	40.5	48.3	65.2	79.9	95.0	118.9	142.9
110	8.8	8.6	10.8	13.4	15.7	20.5	25.4	30.2	40.5	51.3	61.0	76.2	91.4
	10.9	10.8	13.6	16.9	19.8	25.9	32.1	38.2	51.4	63.0	74.9	93.7	112.5
	12.9	12.5	15.7	19.5	22.9	30.0	37.1	44.2	59.6	73.1	86.9	108.7	130.6
120	8.8	7.9	10.0	12.4	14.6	19.0	23.5	28.0	37.4	47.5	56.5	70.4	84.5
	10.9	10.0	12.6	15.6	18.3	24.0	29.7	35.4	47.5	58.2	69.2	86.5	103.8
	12.9	11.5	14.5	18.0	21.1	27.7	34.3	40.9	55.0	67.4	80.1	100.2	120.4
130	8.8	7.4	9.4	11.6	13.6	17.8	21.9	26.1	34.9	44.2	52.6	65.6	78.6
	10.9	9.3	11.7	14.6	17.1	22.3	27.6	32.9	44.1	54.1	64.3	80.4	96.4
	12.9	10.7	13.5	16.8	19.7	25.8	31.9	38.0	51.1	62.6	74.4	93.1	111.7
140	8.8	6.9	8.8	10.9	12.8	16.7	20.6	24.5	32.7	41.4	49.3	61.4	73.6
	10.9	8.7	11.0	13.6	16.0	20.9	25.9	30.8	41.3	50.6	60.2	75.1	90.1
	12.9	10.0	12.6	15.7	18.4	24.1	29.8	35.5	47.7	58.5	69.6	86.9	104.3
150	8.8	6.5	8.3	10.2	12.1	15.7	19.4	23.1	30.8	39.0	46.4	57.8	69.2
	10.9	8.2	10.4	12.8	15.1	19.7	24.3	29.0	38.8	47.6	56.6	70.6	84.7
	12.9	9.4	11.9	14.8	17.3	22.7	28.0	33.4	44.8	54.9	65.3	81.6	97.9
160	8.8	6.2	7.9	9.7	11.4	14.9	18.4	21.9	29.1	36.9	43.9	54.6	65.4
	10.9	7.8	9.8	12.1	14.3	18.6	23.0	27.4	36.6	44.9	53.4	66.6	79.9
	12.9	8.9	11.2	13.9	16.4	21.4	26.5	31.5	42.2	51.8	61.6	76.9	92.3
166 (G-AlCu4MgTi K T4)	8.8	6.0	7.6	9.4	11.1	14.5	17.8	21.2	28.2	35.7	42.5	52.9	63.3
	10.9	7.5	9.5	11.8	13.8	18.0	22.3	26.5	35.4	43.5	51.7	64.5	77.3
	12.9	8.6	10.9	13.5	15.8	20.7	25.6	30.5	40.9	50.1	59.6	74.4	89.3
170	8.8	5.9	7.5	9.2	10.9	14.2	17.5	20.8	27.6	35.0	41.6	51.8	62.0
	10.9	7.4	9.3	11.5	13.5	17.7	21.8	26.0	34.7	42.6	50.6	63.1	75.6
	12.9	8.5	10.7	13.2	15.5	20.3	25.1	29.9	40.0	49.1	58.3	72.8	87.3
180	8.8	5.7	7.2	8.8	10.4	13.6	16.7	19.9	26.3	33.3	39.6	49.3	59.0
	10.9	7.0	8.9	11.0	12.9	16.8	20.8	24.8	33.0	40.5	48.2	60.0	71.9
	12.9	8.0	10.2	12.6	14.8	19.3	23.9	28.4	38.0	46.6	55.4	69.2	82.9
190	8.8	5.4	6.9	8.5	10.0	13.0	16.1	19.1	25.2	31.9	37.9	47.1	56.3
	10.9	6.7	8.5	10.5	12.3	16.1	19.8	23.6	31.5	38.6	45.9	57.2	68.5
	12.9	7.7	9.7	12.0	14.1	18.4	22.8	27.1	36.2	44.4	52.8	65.9	79.0
200	8.8	5.2	6.7	8.2	9.7	12.6	15.5	18.4	24.2	30.6	36.4	45.2	54.1
	10.9	6.4	8.1	10.0	11.8	15.4	19.0	22.6	30.1	36.9	43.9	54.7	65.5
	12.9	7.3	9.3	11.5	13.5	17.6	21.8	25.9	34.6	42.5	50.5	63.0	75.5
210	8.8	5.1	6.5	7.9	9.3	12.1	14.9	17.8	23.4	29.5	35.1	43.6	52.0
	10.9	6.2	7.8	9.6	11.3	14.8	18.3	21.7	28.8	35.4	42.1	52.4	62.7
	12.9	7.0	8.9	11.0	13.0	16.9	20.9	24.9	33.1	40.7	48.4	60.3	72.2

farblich hervorgehobene Werte sind:
●: 1.5 · d ≤ mges ≤ 3 · d - nur mit Vorsicht und gesonderter Prüfung zu verwenden / ●: mges > 3 · d - nach Möglichkeit zu vermeiden