

Basic information

List of tightening torques

Designwerk

This document describes the tightening torques specified by Designwerk unless otherwise defined in the instructions.

	NOTICE
	Tool selection Use a torque wrench to tighten the screw connection to the correct torque.

Tightening torque for metric standard threads

The specified tightening torque is standardised according to **VDI 2230:2014**. The friction values are based on the total friction coefficient **0.12** for steel, respectively **0.1** for stainless steels. The lubrication condition to be applied is the condition of the screw when the product is delivered.

The lubrication condition to be applied is the condition of the screw when the product is delivered. For lubricated or chemically secured screws, the same tightening torques can be used.

For fine threads, the torque of the nominal thread diameter can be used.

Metric standard threads						
Dimension	Strength class	Torque [Nm]		Dimension	Strength class	Torque [Nm]
M3	8.8	1,27		M12	8.8	84
	10.9	1,79			10.9	123
	12.9	2,14			12.9	144
	A2/A4-70	0,8			A2/A4-70	51
M4	8.8	3,0		M14	8.8	133
	10.9	4,6			10.9	195
	12.9	5,1			12.9	229
	A2/A4-70	1,85			A2/A4-70	82
M5	8.8	5,9		M16	8.8	206
	10.9	8,6			10.9	302
	12.9	10,0			12.9	354
	A2/A4-70	3,6			A2/A4-70	126
M6	8.8	10,1		M18	8.8	295
	10.9	14,9			10.9	421
	12.9	17,4			12.9	492
	A2/A4-70	6,3			A2/A4-70	176
M7	8.8	16,8		M20	8.8	415
	10.9	24,7			10.9	592
	12.9	28,9			12.9	692
	A2/A4-70	-			A2/A4-70	247
M8	8.8	24,6		M22	8.8	567
	10.9	36,1			10.9	807
	12.9	42,2			12.9	945
	A2/A4-70	15,2			A2/A4-70	337
M10	8.8	48		M24	8.8	714
	10.9	71			10.9	1'017
	12.9	83			12.9	1'190
	A2/A4-70	30			A2/A4-70	426

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