



Torques M_A in Nm

according to VDI 2230 2009 at average coefficient of friction (μ_G 0.12)

Each torque value should be recognised as a reference only, as extremely diverse friction coefficients (μ_G) exist in practice.

Vehicle manufacturers specify different torques for pin joints with the same dimensions. Vehicle-specific information is contained in the OSS assembly instructions. The reference value for pin joints without a spacer bush is 20 Nm.

The most common torques for metric threads and fine threads are listed in the tables.

From strength class 10.9 onwards, the torque values apply to non-galvanized screws only.

! WARNING

All contact surfaces must be free from dirt and rust when assembling shock absorbers, otherwise a stable connection of the components cannot be guaranteed. Connections can become loose, resulting in malfunctions or noises.

1. Fastening using screws / threaded bolts



Bracket fastening



Clamp fastening



Eye fastening



Locking bolt fastening



Bridge fastening

Thread	M 6			M 8			M 10			M 12			M 14			M 16		
Strength class	8.8	10.9	12.9	8.8	10.9	12.9	8.8	10.9	12.9	8.8	10.9	12.9	8.8	10.9	12.9	8.8	10.9	12.9
Torque M_A in Nm	10	15	17	25	36	42	48	71	83	84	123	144	133	195	229	206	302	354

Fine thread	M 8x1			M 10x1.25			M 12x1.25			M 12x1.5			M 14x1.5			M 16x1.5			M 18x1.5		
Strength class	8.8	10.9	12.9	8.8	10.9	12.9	8.8	10.9	12.9	8.8	10.9	12.9	8.8	10.9	12.9	8.8	10.9	12.9	8.8	10.9	12.9
Torque M_A in Nm	26	38	44	51	75	87	90	133	155	87	128	150	142	209	244	218	320	374	327	465	544



2. Fastening using pin joints



Without spacer bush



With spacer bush

Thread of pin joint	M 10x1.0	M 12x1.5	M 12x1.25	M 14x1.5	M 16x1.5
VW / Audi	20 Nm	60 Nm		40 – 50 Nm	
Mercedes	55 Nm			60 Nm	100 Nm
Opel	20 Nm		55 Nm		70 Nm
Ford			52 – 65 Nm		
BMW	20 – 27 Nm				

3. Fastening on the suspension strut insert



External thread



Internal thread

Screw connection of container cap and container tube

Thread Ø	M 48x1.0	M 48x1.5	M 50x1.5	M 50x1.5	M 51x1.5	M 55x1.5
Thread type	External thread	External thread	External thread	Internal thread	External thread	Internal thread
VW / Audi				120 Nm		150 Nm
Opel					200 Nm	
BMW		120 – 140 Nm				120 – 140 Nm
Porsche			140 Nm			
Ford			170 Nm			
Volvo	100 – 120 Nm					



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