



**Coneloc[®]
Nuts**

Product Range



The Coneloc nut is an all-metal prevailing torque type self-locking nut. The locking action is achieved by localised precision deformation of the thread in the cone section on top of the nut. When the nut is tightened onto the bolt, the thread is gripped on the flanks providing the locking action. The prevailing torque is the torque needed to run the nut down a thread prior to joint clamping occurring.

The photograph above shows a typical application for a Coneloc nut. The stump grinder removes tree stumps by milling them away. The fasteners securing the cutting teeth to the rotating disk are subjected to extreme vibration and keeping them in place can be problematical. Problem solved when the Coneloc nut is used.

The table below shows the prevailing torque specification for Coneloc nuts.

Thread Size	Prevailing Torque N m					
	Property Class 8			Property Class 10 and 12		
	1st installation (Maximum)	1st removal (Minimum)	5th removal (Minimum)	1st installation (Maximum)	1st removal (Minimum)	5th removal (Minimum)
M3	0,43	0,12	0,08	0.6	0.15	0.1
M4	0,9	0,18	0,12	1.2	0.22	0.15
M5	1,6	0,29	0,2	2.1	0.35	0.24
M6	3	0,45	0,3	4	0.55	0.4
M7	4,5	0,65	0,45	6	0.85	0.6
M8	6	0,85	0,6	8	1.15	0.8
M10	10,5	1,5	1	14	2	1.4
M12	15,5	2,3	1,6	21	3.1	2.1
M14	24	3,3	2,3	31	4.4	3
M16	32	4,5	3	42	6	4.2
M18	42	6	4,2	56	8	5.5
M20	54	7,5	5,3	72	10.5	7
M22	68	9,5	6,5	90	13	9
M24	80	11,5	8	106	15	10.5
M27	94	13,5	10	123	17	12
M30	108	16	12	140	19	14
M33	122	18	14	160	21.5	15.5
M36	136	21	16	180	24	17.5
M39	150	23	18	200	26.5	19.5



Coneloc

An all-metal prevailing torque type self-locking nut.

The Coneloc is an all-metal prevailing torque type self-locking nut. The locking action is achieved by localised precision deformation of the thread in the cone section on top of the nut. When the Coneloc nut is tightened onto the bolt, the thread is gripped on the flanks providing the locking action.

Coneloc nuts are available, as standard, in property class 8 and 10 (to the ISO 898-2 standard). These nuts are compatible with bolts of property class 8.8 and 10.9 respectively. Nuts of a higher property class can also be used with lower strength bolts. Beware, unlike Coneloc, many other prevailing torque nuts are of lower strength and should only be used with low strength bolts.

We sell, as standard, nuts that are electro-zinc plated, other coatings are available upon request.

The nuts meet the performance requirements of the BS EN ISO 2320 standard (Prevailing torque type steel hexagon nuts - mechanical and performance requirements.) This standard specifies the prevailing torque requirements that the nut should possess. These requirements specify that the nut should be capable of being re-used five times but still retain a prevailing torque. To achieve the full locking action of the nut, it is recommended that at least two bolt threads should protrude through the top of the nut.

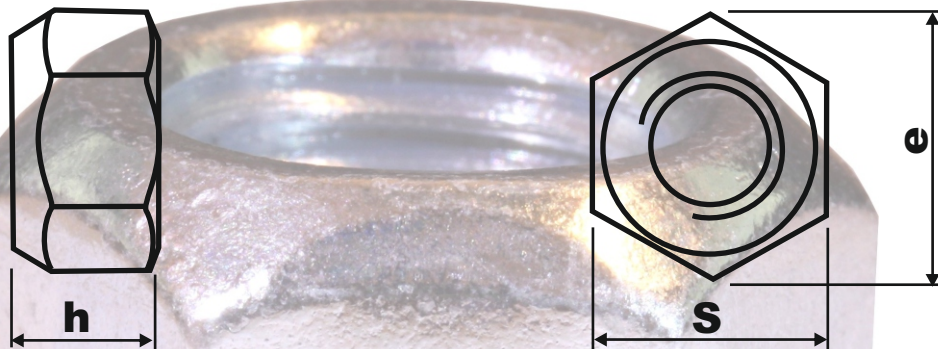
Coneloc Flange Nuts are also available. The advantage of using a flange nut compared to using a standard hex nut is that the flange reduces the bearing stress on the joint. This is of importance when using high strength fasteners on relatively soft joint materials, such as aluminium.



**Coneloc
Flange
Nut**

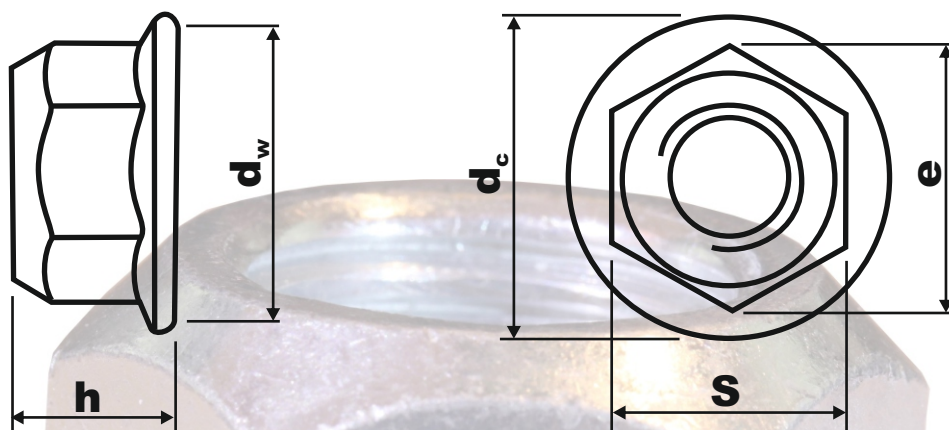
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Dimensions



Coneloc Nut

	M5	M6	M8	M10	M12	(M14)	M16	M20	M24	M30	M36
Pitch P	0.8	1	1.25	1.5	1.75	2	2	2.5	3	3.5	4
s	max.	8.00	10.00	13.00	16.00	18.00	21.00	24.00	30.00	36	55
	min.	7.78	9.78	12.73	15.73	17.73	20.67	23.67	29.16	35	53.8
e min.	8.79	11.05	14.38	17.77	20.03	23.36	26.75	32.95	39.55	50.85	60.79
h	max.	5.1	6.0	8.00	10.00	12.00	14.1	16.4	20.3	23.9	30.0
	min.	4.8	5.4	7.14	8.95	11.57	13.4	15.7	19.0	22.6	27.3



Coneloc Flange Nut

	M5	M6	M8	M10	M12	(M14)	M16	M20
Pitch P	0.8	1	1.25	1.5	1.75	2	2	2.5
s	max.	8.00	10.00	13.00	16.00	18.00	21.00	30.00
	min.	7.78	9.78	12.73	15.73	17.73	20.67	29.16
e min.	8.79	11.05	14.38	17.77	20.03	23.36	26.75	32.95
h	max.	6.2	7.3	9.40	11.40	13.80	15.9	22.4
	min.	5.7	6.8	8.74	10.34	12.57	14.8	20.3
d_c max.	11.8	14.2	17.9	21.8	26	29.9	34.5	42.8
d_w min.	9.8	12.2	15.8	19.6	23.8	27.6	31.9	39.9

Dimensions in millimetres. The dimensions quoted are for reference purposes only.

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Torque Values for Coneloc Nuts

Nut Type	Coneloc Nut	Coneloc Nut	Coneloc Flange Nut	Coneloc Flange Nut
Nut Strength	Property Class 8	Property Class 10	Property Class 8	Property Class 10
Bolt Strength	Property Class 8.8	Property Class 10.9	Property Class 8.8	Property Class 10.9
Size				
M5	4.7	6.8	5.2	7.6
M6	8.1	12	9.5	14
M8	19	28	22	33
M10	38	55	45	65
M12	65	95	80	115
M14	100	150	120	180
M16	155	230	190	275
M20	310	440	375	535
M24	530	760		
M30	1040	1480		
M36	1830	2600		
All torque values are in Nm				

Notes

1. This table is for guideline purposes only. In any critical application, tests should be completed to establish the optimum torque value.
2. This table was derived from tests on Coneloc nuts having an electro-plated zinc (EZF) finish when tightened on bolts having an EZF finish. The torque value is based upon the nut being tightened against a hardened steel plain surface with the bolt held stationary.
3. Differences in the joint surface condition and the fastener finish will affect the torque value.
4. The torque table is based upon the methodology in VDI 2230 (Systematic calculation of highly stressed bolted joints).
5. The torque values are for the as-received condition with no additional lubrication applied.
6. Please contact Nuts and Bolts if advice is needed regarding the appropriate torque value for a specific application or the bolt loads that can be anticipated by applying the above torque values.

This table is only applicable to genuine Coneloc nuts.

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