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Westfield Fasteners Product Specification:

DIN 934 - Full Hex Nuts (Standard Pitch)

This product guide contains the specification for metric threaded full hex nuts available from Westfield Fasteners. The basis of this specification is the DIN standard DIN 934.

Product Description

Hexagon full nut to DIN 934 (similar to ISO 4032), with standard metric coarse pitch. Typically fitted with a spanner or ratchet with socket. The most popular nut type, and used for decades on all types of assemblies throughout the world. Can be used in conjunction with hexagon thin nuts in a "locking" formation for a more secure fitment.

Scope of the DIN Standard.

DIN 934 specifies the tolerances and the variation in form of metric threaded full sized hexagon nuts, for sizes from M1 up to and including M160. Fine pitch and left hand thread variants are also covered under this standard.

Table 1 below defines the overall dimensions and tolerances of this nut type.

Although the DIN 934 standard has now been superceded by ISO 4032, off the shelf parts are currently more generally available to the older specification. The ISO standard specifies revised nut heights and across the flats dimensions on certain sizes, but are otherwise interchangable.
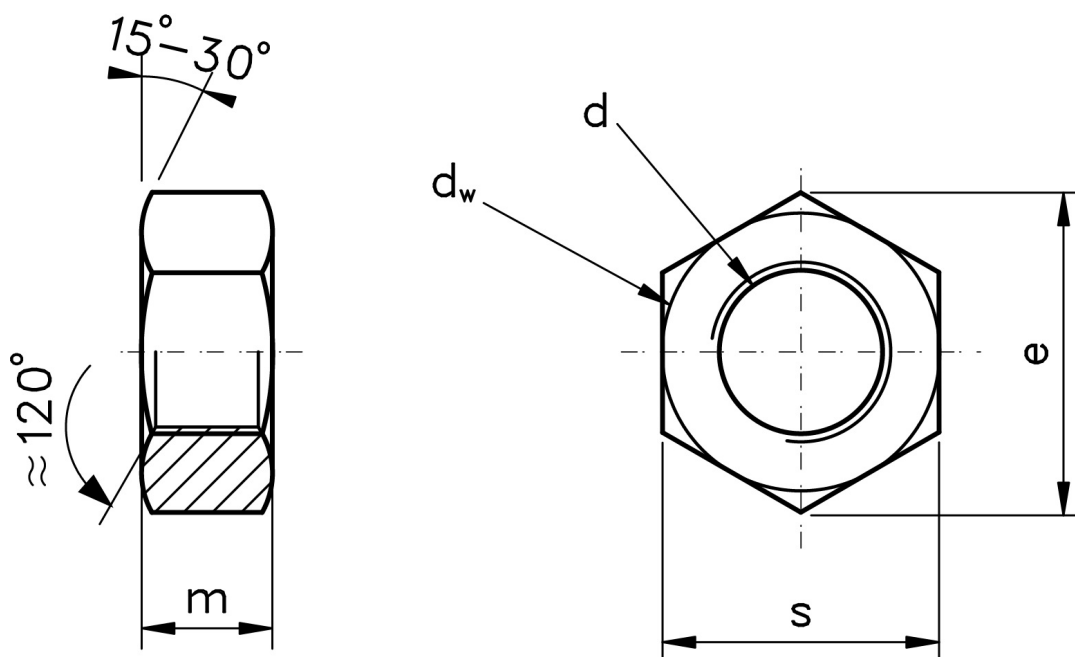

Figure 1: Full Hex Nut (Standard Pitch)

Variations from DIN 934

DIN 934 covers materials including carbon steel, and A2 & A4 stainless steel. The hex nuts we stock in other materials and grades are made with reference to this standard, but are not mentioned specifically. Please note that due to manufacturing limitations, all nylon variants of these items are only "similar to" and not "in absolute accordance with" this specification and the DIN 934 standard upon which it is based.

Table 1: Dimensions & Tolerances according to DIN 934

Thread, d		M1	M1.3	M1.4	M1.6	M2	M2.5	M3	M3.5	M4	M5	M6	M7
	p	0.25	0.25	0.3	0.35	0.4	0.45	0.5	0.6	0.7	0.8	1	1
d_a	min	1	1.2	1.4	1.6	2	2.5	3	3.5	4	5	6	7
	max	1.15	1.4	1.6	1.84	2.3	2.9	3.45	4	4.6	5.75	6.75	7.75
d_w	min	2	2.1	2.1	2.4	3.2	4.1	4.5	5	5.8	6.8	8.8	9.5
e	min	2.71	3.28	3.28	3.41	4.32	5.45	6.01	6.58	7.66	8.79	11.05	12.12
m	nom=max	0.8	1	1.2	1.3	1.6	2	2.4	2.8	3.2	4	5	5.5
	min	0.55	0.75	0.95	1.05	1.35	1.75	2.15	2.55	2.9	3.7	4.7	5.2
s	nom=max	2.5	3	3	3.2	4	5	5.5	6	7	8	10	11
	min	2.4	2.9	2.9	3.02	3.82	4.82	5.32	5.82	6.78	7.78	9.78	10.73

Table 1 continued

Thread, d		M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M39
		M8x1	M10x1	M12x1.5	M14x1.5	M16x1.5	M18x1.5	M20x2	M22x1.5	M24x2	M27x2	M30x2	M33x2	M36x3	M39x3
		-	M10x1.25	M12x1.25	-	-	M18x2	M20x1.5	M22x2	-	-	-	-	-	-
p		1.25	1.5	1.75	2	2	2.5	2.5	2.5	3	3	3.5	3.5	4	4
d_a	min	8	10	12	14	16	18	20	22	24	27	30	33	36	39
	max	8.75	10.8	13	15.1	17.3	19.5	21.6	23.7	25.9	29.1	32.4	35.6	38.9	42.1
d_w	min	11.3	15.3	17.2	20.2	22.2	25.3	28.2	29.5	33.2	38	42.7	46.6	51.1	55.9
e	min	14.38	18.90	21.10	14.49	26.75	29.56	32.95	35.03	39.55	45.2	50.85	55.37	60.79	66.44
m	nom=max	6.5	8	10	11	13	15	16	18	19	22	24	26	29	31
	min	6.14	7.64	9.64	10.3	12.3	14.3	14.9	16.9	17.7	20.7	22.7	24.7	27.4	29.4
s	nom=max	13	17	19	22	24	27	30	32	36	41	46	50	55	60
	min	12.73	16.73	18.67	21.67	23.67	26.16	29.16	31	35	40	45	49	53.8	58.8

Table 1 continued

Thread, d		M42	M45	M48	M52	M56	M60	M64	M68	M72x6	M76x6	M80x6	M85x6	M90x6	M100x6
		M42x3	M45x3	M48x3	M52x3	M56x4	M60x4	M64x4	M68x4	M72x4	M76x4	M80x4	M85x4	M90x4	M100x4
p		4.5	4.5	5	5	5.5	5.5	6	6	-	-	-	-	-	-
d_a	min	42	45	48	52	56	60	64	68	72	76	80	85	90	100
	max	45.4	48.6	51.8	56.2	60.5	64.8	69.1	73.4	77.8	82.1	86.4	91.8	97.2	108
d_w	min	60.6	64.7	69.4	74.2	78.7	83.4	88.2	92.9	97.7	102.4	107.2	111.9	121.1	135.4
e	min	71.3	76.95	82.6	88.25	93.56	99.21	104.86	110.51	116.16	121.81	127.46	133.11	144.08	161.02
m	nom=max	34	36	38	42	45	48	51	54	58	61	64	68	72	80
	min	32.4	34.4	36.4	40.4	43.4	46.4	49.1	52.1	56.1	59.1	62.1	66.1	70.1	78.1
s	nom=max	65	70	75	80	85	90	95	100	105	110	115	120	130	145
	min	63.1	68.1	73.1	78.1	82.8	87.8	92.8	97.8	102.8	107.8	112.8	117.8	127.5	142.5

For further details, please refer to the ISO/DIN standard document for this item.