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Product Dimensions and Weights **DIN 979 Technical Specifications**

Metric DIN 979 Thin Hexagon Slotted Castle Nuts

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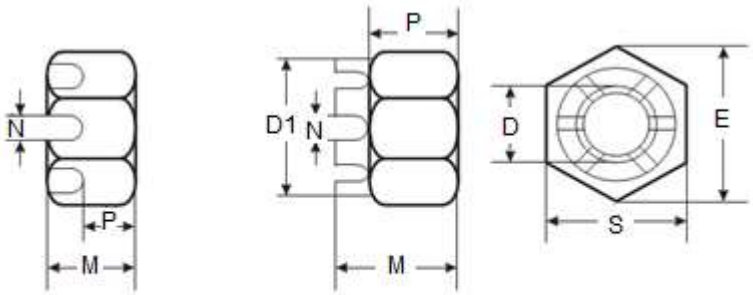

Dimensions of Metric DIN 979 Thin Hexagon Slotted Castle Nuts

D	D1	M	S	E	N	P	COTTER PIN (DIN 94)	Weight kg/1000pcs
6	-	5	10	11.05	2	2.0	1.6x14	2.5
8	-	6.5	13	14.38	2.5	3.5	2x16	5.4
10	-	8	16	18.9	2.8	4.0	2.5x20	11.2
12	17	10	18	21.1	3.5	5.0	3.2x22	14.7
14	19	11	21	24.5	3.5	6.0	3.2x25	17.9
16	22	13	24	26.75	4.5	7.0	4x28	22.7
18	25	15	27	29.56	4.5	9.0	4x32	33.2
20	28	16	30	32.95	4.5	10.0	4x36	41.1
22	31	18	32	37.29	5.5	10.0	5x36	49.8
24	34	19	36	39.55	5.5	11.0	5x40	67.8
27	38	22	41	45.2	5.5	14.0	5x45	103
30	42	24	46	50.85	7	15.0	6.3x50	133
36	50	29	55	60.79	7	17.0	6.3x63	447
42	58	33	65	72.02	9	20.0	8x71	710
45	65	34.5	70	82.6	9	22.0	8x80	1060

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Metric DIN 979 Thin Hexagon Slotted Castle Nuts are hex nuts where slots are cut into one side of the nut (DIN 979 up to 12mm dia) or through the crown (>/= 12mm dia). These slots are designed to offer a locking feature where a split pin/cotter pin (DIN 94), R clip or safety wire can aligned through the slots and guided through a hole drilled in the shank of the mated bolt. They are similar to DIN 935 but are thinner making them ideal when there are space restrictions. Aspen Fasteners offers the following sizes for immediate delivery from stock: Diameters ranging from M6 to M30 available in A2 and marine grade A4 stainless stee. View available parts by clicking on the following link: DIN 979 Thin Hexagon Slotted Castle Nuts

DIN (**D**eutsches **I**nstitut für **N**ormung - German Institute for Standardization) standards are issued for a variety of components including industrial fasteners as metric DIN 979 Thin Hexagon Slotted Castle Nuts. The DIN standards remain common in Germany, Europe and globally even though the transition to ISO standards is taking place. DIN standards continue to be used for parts which do not have ISO equivalents or for which there is no need for standardization.

1) Mechanical properties of stainless steel for metric DIN 979 Thin Hexagon Slotted Castle Nuts

Stainless steels can be divided into three groups of steel - austenitic, ferritic and martensitic. Austenitic steel is by far the most common type (>90% of commercial fasteners). The steel groups and strength classes are designated by a four-digit sequence of letters and numbers (eg A2-70) as shown in the following table. DIN EN ISO 3506 governs screws and nuts made from stainless steel.

Steel group	Steel grade	Strength class	Screws, Nuts and Bolts			
			Tensile strength N/mm^2	Tensile strength PSI	Dia range	Nut Load N/mm^2
Austenitic	A2 and A4	50	500	70,000	<=M39	500
		70	700	100,000	<=M20	700
		80	800	118,000	<=M20	800

The tensile stress is calculated with reference to the tensile stress area (see DIN EN ISO 3506-1979). Nuts to be paired with same grade of stainless steel screws

Steel group	Property Strength class	Made From	Characteristics
Austenitic	50	A1, A2	Soft; cold worked, turned and soft pressed fasteners
	70	A2, A4	Cold worked, normal strength formed fasteners
	80	A2, A4	Extreme cold worked, high strength, special applications

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2) Chemical composition of stainless steel metric DIN 979 Thin Hexagon Slotted Castle Nuts

Grade	USA Grade	Material designation	Material no.	C %	Si ≤ %	Mn ≤ %	Cr %	Mo %	Ni %
A 2	**304**	X 5Cr Ni 1810	1.4301	≤ 0.07	1.0	2.0	17.5 to 19.5	-	8.0 to 10.5
		X 2 Cr Ni 1811	1.4306	≤ 0.03	1.0	2.0	18.0 to 20.0	-	10 to 12.0
		X 8 Cr Ni 19/10	1.4303	≤ 0.07	1.0	2.0	17.0 to 19.0	-	11.0 to 13.0
A 4	**316**	X 5 Cr Ni Mo 1712	1.4401	≤ 0.07	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10.0 to 13.0
		X 2 Cr Ni Mo 1712	1.4404	≤ 0.03	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10 to 13

3) Chemical composition of steel metric DIN 979 Thin Hexagon Slotted Castle Nuts

PROPERTY CLASS	MATERIAL AND TREATMENT	CHEMICAL COMPOSITION LIMITS %				TEMPERING TEMP °C MIN.
		C		P	S	
		min.	max.	max.	max.	
4.6, 4.8, 5.8, 6.8	Low or medium carbon steel	-	0.55	0.05	0.06	-
8.8	Medium carbon steel quenched, tempered	0.25	0.55	0.04	0.05	425
9.8	Medium carbon steel quenched, tempered	0.25	0.55	0.04	0.05	425
10.9	Medium carbon steel additives e.g. boron, Mn, Cr or Alloy steel - quenched, tempered	0.20	0.55	0.04	0.05	425
12.9	Alloy steel - quenched, tempered	0.20	0.50	0.035	0.035	380

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4) Mechanical properties of steel for metric DIN 979 Thin Hexagon Slotted Castle Nuts

MECHANICAL PROPERTY		PROPERTY CLASS								
						8.8				
		4.8	5.6	5.8	6.8	Up to M 16	Over M 16	9.8	10.9	12.9
Tensile Strength (Rm, N/mm²)	nom.	400	500		600	800		900	1000	1200
	min.	420	500	520	600	800	830	900	1040	1220
Vickers Hardness	min.	130	155	160	190	250	255	290	320	385
	max	250				320	336	360	380	435
Brinell Hardness	min.	124	147	152	181	319	242	266	295	353
	max.	238				385	319	342	363	412
Rockwell Hardness	min. HR	71	79	82	89	-				
	HRC	-	-	-	-	20	23	28	32	39
	HR	95			99	-				
	max. HRC	-	-	-	-	32	34	37	39	44
Yield Stress ReL. N/mm²	nom.	320	300	400	480	-				
	min.	340	300	420	480	-				
Stress at permanent set limit N/mm²	nom.	-				640		720	900	1080
	min.	-				640	660	720	940	1100

Disclaimer

Dimensional data and technical information for metric DIN 979 Thin Hexagon Slotted Castle Nuts was obtained from publicly available sources and not acquired through standards agencies. It has been completed and compiled for reference purposes only; where discrepancies are found they are subject to change without notice. Aspen Fasteners makes no warranties or representations regarding the accuracy and validity of the compiled information and data. Contact the relevant standards authorities for accurate and detailed information.