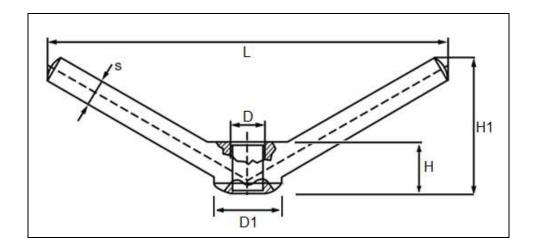


## **Product Dimensions and Weights**

**DIN 80701 Specifications** 

# Metric DIN 80701 Wing Nut / Toggle Nuts

Visit our online store for product availability



# Dimensions and Weight of Metric DIN 80701 Wing Nut / Toggle Nuts

D (mm)	D1	L	н	H1	s	Weight Kg/1000pcs
M16	40	240	25	75	16	570
M20	40	240	25	75	16	560
M24	40	240	25	75	16	550

All measurements are in mm

Metric DIN 80701 Wing Nut / Toggle Nuts are solid round based nut with two cylindrical wings on either side that allow tightening and loosening by use of thumb and forefinger rather than a having to use a wrench or other tool thus ensuring easy rapid assembly and disassembly using only fingers. DIN 80701 Wing Nut / Toggle Nuts can be used for many applications where quick hand tensioning and clamping is required. Aspen Fasteners offers over 500,000 unique fastener products from stock in inch and metric standard in a variety of materials and finishes. The following sizes of DIN 80701 Wing Nut / Toggle Nuts are available for immediate shipping from stock: Diameters ranging from M16 to M24 in stainless steel A4. View parts by clicking on the following link:

Metric DIN 80701 Wing Nut / Toggle Nuts or contact our knowledgeable and friendly sales staff for more information and/or an immediate quote.

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DIN (**D**eutsches Institut für **N**ormung - German Institute for Standardization) standards are issued for a variety of components including industrial fasteners as Metric DIN 7995 phillips oval head wood screws. 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 80701 Wing Nut / Toggle 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.

			Screws, Nuts and Bolts						
Steel group	Steel grade	Strength class	Tensile strength N/mm <sup>2</sup>	Tensile strength PSI	Dia range	Nut Load N/mm <sup>2</sup>			
		50	500	70,000	<=M39	500			
Austenitic	A2 and A4	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
	50	A1, A2	Soft; cold worked, turned and soft pressed fasteners
Austenitic	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 80701 Wing Nut / Toggle Nuts

Grade	USA Grade	Material designation	Material no.	C %	Si ≤ %	Mn ≤ %	Cr %	Mo %	Ni %
		X 5Cr Ni 1810	1.4301	≤ 0.07	1.0	2.0	17.5 to 19.5	ı	8.0 to 10.5
A 2 304	304	X 2 Cr Ni 1811	1.4306	≤ 0.03	1.0	2.0	18.0 to 20.0	ı	10 to 12.0
		X 8 Cr Ni 19/10	1.4303	≤ 0.07	1.0	2.0	17.0 to 19.0	1	11.0 to 13.0
A 4	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
^7	310	$1 \times 2 (r N_1 M_0 1/12) = 1 1 4404 1$	≤ 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 80701 Wing Nut / Toggle Nuts

PROPERTY CLASS		CHEM	ICAL COMP	TEMPERING		
	MATERIALANDTREATMENT	С		Р	s	TEMPERING TEMP °C MIN.
		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



## 4) Mechanical properties of steel for metric DIN 80701 Wing Nut / Toggle 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	r	nom.	400	5	000	600	8	00	900	1000	1200	
$(Rm, N/mm^{2})$	r	min.		500	520	600	800	830	900	1040	1220	
Vickers Hardness	min.		130	155	160	190	250	255	290	320	385	
vickers hardness	max		250			320	336	360	380	435		
Brinell Hardness	r	min.	124	147	152	181	319	242	266	295	353	
billell nardness	max.		238			385	319	342	363	412		
	min.	HR	71	79	82	89			-			
Rockwell Hardness		HRC	-	-	-	-	20	23	28	32	39	
Rockwell Hardriess		HR		95		99	99			-		
	max.	HRC	-	-	-	-	32	34	37	39	44	
Yield Stress ReL.	nom.		320	300	400	480	-					
N/mm²	min.		340	300	420	480	-					
Stress at permanent	r	nom.			-		640 720 900			900	1080	
set limit N/mm²	min.				-		640 660 720 940			1100		

#### Disclaimer

Dimensional data and technical information for Metric DIN 80701 Wing Nut / Toggle 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.