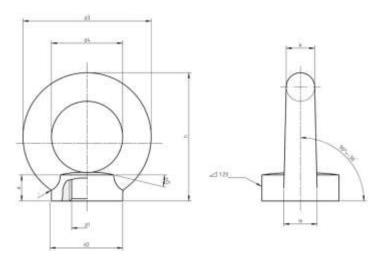


## **Product Dimensions and Weights**

### **DIN 582 Technical Specifications**

# Metric DIN 582 Lifting Eye Nuts

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### Dimensions of Metric DIN 582 Lifting Eve Nuts

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Thread size d1	M8	M10	M12	M16	M20	M24	M30	M36	M42	M48	M56	M64	M72x6	M80x6	M100x6
d2	20	25	30	35	40	50	65	75	85	100	110	120	150	170	190
d3	36	45	54	63	72	90	108	126	144	166	184	206	260	296	330
d4	20	25	30	35	40	50	60	70	80	90	100	110	140	160	180
e	8.5	10	11	13	16	20	25	30	35	40	45	50	60	70	80
h	36	45	53	62	71	90	109	128	147	168	187	208	260	298	330
k	8	10	12	14	16	20	24	28	32	38	42	48	60	68	75
m	10	12	14	16	19	24	28	32	38	46	50	58	72	80	88
r	4	4	6	6	8	12	15	18	20	22	25	25	35	35	40
Weight kg/1pc	0.1	0.09	0.16	0.24	0.36	0.72	1.32	2.08	3.11	5.02	6.69	9.3	18.5	27.3	36.4

Metric DIN 582 Lifting Eye Nuts are fasteners with a female threaded end and a looped head at the other end. They are designed to receive a hook, rope or cable. Eye nuts are designed for lifting vertical loads, and not recommended for use with angular lifts. Eye nuts that are not load-rated are designed for use with tie downs and guiding wires. They are not rated for lifting applications. Aspen Fasteners offers the following sizes for immediate delivery from stock: Diameters ranging from M6 to M36 available in A2 and marine grade A4 stainless steel. View available parts by clicking on the following link: DIN 582 Lifting Eye Nuts

Aspen Fasteners 4807 Rockside Road, Suite 400, Independence, OH 44131 USA www.aspenfasteners.com | aspensales@aspenfasteners.com | 1-800-479-0056



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 582 Lifting Eye 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 582 Lifting Eye 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/mm²		
		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



# 2) Chemical composition of stainless steel metric DIN 582 Lifting Eye Nuts

Grade	USA Grade	Material designation	Material no.	C %	Si ≤ %	Mn ≤ %	Cr %	Mo %	Ni %
A 2		X 5Cr Ni 1810	1.4301	≤ 0.07	1.0	2.0	17.5 to 19.5	ı	8.0 to 10.5
	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	ı	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
	310	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 582 Lifting Eye Nuts

		CHEMI	ICAL COMP	TEMPEDING			
PROPERTY CLASS	MATERIAL AND TREATMENT	(	0	Р	S	TEMPERING TEMP °C MIN.	
0 = 100		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 582 Lifting Eye 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	nom.		400	500 600		800		900	1000	1200	
(Rm, N/mm²)	m	in.	420	500	520	600	800	830	900	1040	1220
\/;alaanallandaaaa	min.		130	155	160	190	250	255	290	320	385
Vickers Hardness	max		250				320	336	360	380	435
Drinell Landage	min.		124	147	152	181	319	242	266	295	353
Brinell Hardness	max.		238			385	319	342	363	412	
	min.	HR	71	79	82	89			-		
Rockwell Hardness		HRC	-	-	-	-	20	23	28	32	39
Rockwell Hardness	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	no	om.	-				640 72			900	1080
set limit N/mm²	min.				-		640 660 720 940 110				

#### Disclaimer

Dimensional data and technical information for metric DIN 582 Lifting Eye 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.