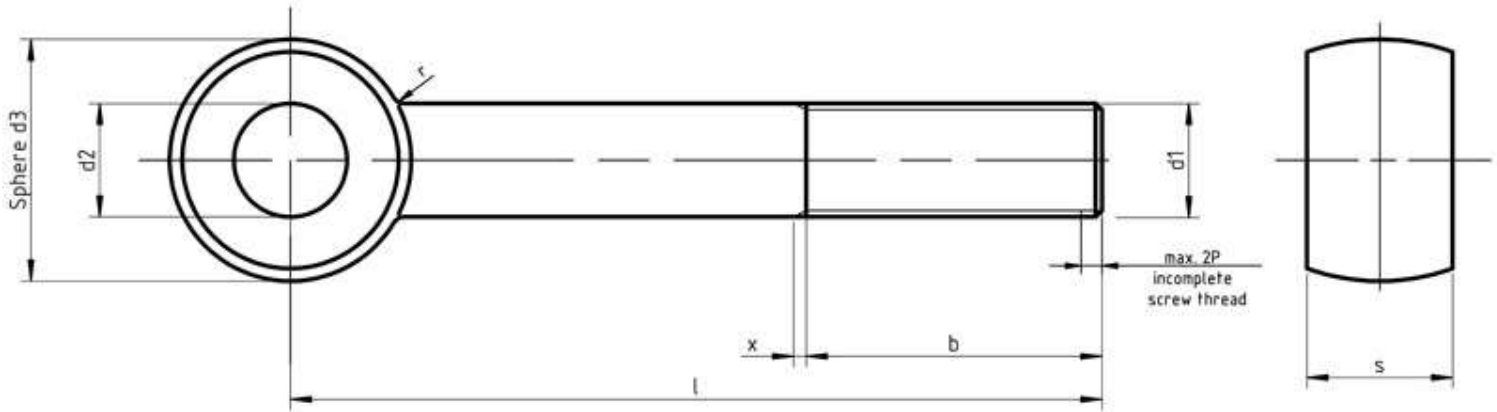


## Metric DIN 444 Eye Bolts

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Type A (product grade C = design g)  
 Type B (product grade B = design mg)  
 Type C (product grade A = design m)

### Dimensions of Metric DIN 444 Eye Bolts

Thread d1		M5	M6	M8	M10	M12	M16	M20	M24	(M27)	M30	(M33)	M36	(M39)
b	+2P	0.8	1	1.25	1.5	1.75	2	2.5	3	3	3.5	3.5	4	4
		16	18	22	26	30	38	46	54	60	66	-	-	-
	0	-	-	28	32	36	44	52	60	66	72	78	84	90
		-	-	-	-	49	57	65	73	79	85	91	97	103
d2	H9	5	6	8	10	12	16	18	22	24	27	30	32	35
d3	max.	12	14	18	20	25	32	40	45	50	55	60	65	70
	min. Type A	10.9	12.9	16.9	18.7	23.7	30.4	38.4	43.4	48.4	53.1	58.1	63.1	68.1
	min. Type B and C	11.57	13.57	17.57	19.48	24.48	31.38	39.38	44.38	49.38	54.26	59.26	64.26	69.26
r	approx.	2.5	4	4	4	6	6	6	10	10	10	16	16	16

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Thread d1		M5	M6	M8	M10	M12	M16	M20	M24	(M27)	M30	(M33)	M36	(M39)
s	Type A max.	8	9	11	14	17	19	24	28	30	34	38	41	46
	Type A min.	7.52	8.52	10.3	13.3	16.3	18.16	23.16	27.16	29.16	33	37	40	45
	Type B and C max.	6	7	9	12	14	17	22	25	27	30	34	38	41
	Type B and C min.	5.88	6.85	8.85	11.82	13.82	16.82	21.79	24.79	26.79	29.79	33.75	37.75	40.75

### Weight of Metric DIN 444 Eye Bolts

	M5	M6	M8	M10	M12	M16	M20	M24	(M27)	M30	(M33)	M36	(M39)
Nominal size	Weight kg/1000pcs												
30	7.93												
35	8.7	12.6											
40	9.47	13.7	25										
45	10.3	14.8	26.9	36									
50	11	15.9	28.9	39.1									
55	11.8	17	30.9	42.2	67								
60	12.6	18.1	32.8	45.3	71.4								
65	13.3	19.2	34.8	48.4	75.8								
70	14.1	20.3	36.8	51.5	80.3	149							
75	14.9	21.5	38.8	54.6	84.8	157							
80	15.7	22.6	40.7	57.6	89.2	164							
90		23.7	44.7	63.8	98.1	180							
100			48.6	70	106	196	334	454					
110			52.6	76.1	115	212	359	489					
120			56.5	82.3	124	228	383	524	618				

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	M5	M6	M8	M10	M12	M16	M20	M24	(M27)	M30	(M33)	M36	(M39)
Nominal size	Weight kg/1000pcs												
130			60.5	88.4	133	244	408	560	663				
140			64.4	94.5	142	259	433	596	708				
150				101	151	275	457	631	753	997	1240		
160					160	291	482	667	798	1050	1310	1570	1880
180					178	322	531	738	888	1160	1440	1730	2070
200					195	354	581	809	978	1270	1570	1890	2250
220					211	383	624	868	1060	1370	1690	2050	2420
240					229	414	674	9393	1140	1480	1820	2200	2610
260					247	446	723	1010	1230	1590	1960	2350	2790
280									1320	1700	2100	2500	2970
300									1400	1810	2240	2650	3100

Metric DIN 444 Eye Bolts are bolts with an eye (loop/ring) at one end and a threaded shank at the other. They are threaded into a pre-tapped hole or secured with a nut to a structure so that a rope or cable can be attached to the loop end. Only eye bolts with shoulders should be used to support angular loads. Aspen Fasteners offers one of the most complete ranges of metric bolts and other inch and metric industrial fasteners for immediate delivery from stock. The following sizes of metric DIN 444 Eye Bolts are available for immediate shipping from stock: Diameters ranging from M6 to M24 with lengths up to 150mm made of A2 and marine grade A4 stainless steel. View parts by clicking on the following link: [DIN 444 Eye Bolts](#)

DIN (Deutsches Institut für Normung - German Institute for Standardization) standards are issued for a variety of components including industrial fasteners as Metric DIN 444 Eye Bolts. 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.

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**1) Mechanical properties of stainless steel for metric DIN 444 Eye Bolts**

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 <sup>2</sup>	Tensile strength PSI	Dia range	Nut Load N/mm <sup>2</sup>
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 444 Eye Bolts

Grade	USA Grade	Material designation	Material no.	C %	Si ≤ %	Mn ≤ %	Cr %	Mo %	Ni %
<b>A 2</b>	<b>304</b>	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
<b>A 4</b>	<b>316</b>	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 444 Eye Bolts

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 444 Eye Bolts

MECHANICAL PROPERTY		PROPERTY CLASS								
		4.8	5.6	5.8	6.8	8.8		9.8	10.9	12.9
						Up to M 16	Over M 16			
Tensile Strength (Rm, N/mm <sup>2</sup> )	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/mm <sup>2</sup>	nom.	320	300	400	480	-				
	min.	340	300	420	480	-				
Stress at permanent set limit N/mm <sup>2</sup>	nom.	-				640		720	900	1080
	min.	-				640	660	720	940	1100

#### Disclaimer

Dimensional data and technical information for Metric DIN 444 Eye Bolts 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.

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