

Hexagon head screws

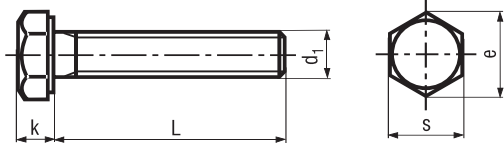
fully threaded

Tornillos de cabeza hexagonal

totalmente roscados

六角头螺钉

全螺纹



DIN 933	8.8
ISO 4017	
Steel 8.8 Acero 8.8	
<ul style="list-style-type: none"> ■ black / negro ■ zinc plated blue / cincado pasivado azul ■ zinc plated yellow / cincado pasivado amarillo ■ hot-dip galvanized / galvanizado en caliente 	

DIN 933: Standard withdrawn
Estándar descatálogo

d ₁	M3	M4	M5	M6	M8	M10	M12	(M14)	M16	(M18)	M20	(M22)
e	6,01	7,66	8,79	11,05	14,38	18,9	21,1	24,49	26,75	30,14	33,53	35,72
k	2	2,8	3,5	4	5,3	6,4	7,5	8,8	10	11,5	12,5	14
s	5,5	7	8	10	13	17/16*	19/18*	22/21*	24	27	30	32/34*

d ₁	M24	(M27)	M30	(M33)	M36	(M39)	M42	M48
e	39,98	45,2	50,85	55,37	60,79	66,44	71,3	82,6
k	15	17	18,7	21	22,5	25	26	30
s	36	41	46	50	55	60	65	75



Preloads and tightening torques
Precargas y pares de apriete

* Wrench size according to ISO on request
Anchos de llave conforme a ISO bajo demanda



with TufLok® patch: BN 5244
10.9 black: BN 71
5.6 annealed: BN 11491
Magnetic inserts 1/4": BN 31522 / CG 1

con parche de nylon TufLok®: BN 5244
10.9 negro: BN 71
5.6 recocido: BN 11491
Llaves de vaso hexagonal magnética 1/4": BN 31522 / GC 1

BN 54			BN 56			BN 58		
d ₁	M3		d ₁	M3		d ₁	M3	
L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐
6	●	100	5	●	100	5	●	100
8	●	100	6	●	100	6	●	100
10	●	100	8	●	100	8	●	100
12	●	100	10	●	100	10	●	100
(14)	●	100	12	●	100	12	●	100
16	●	100	(14)	●	100	(14)	●	100
(18)	●	100	16	●	100	16	●	100
20	●	100	20	●	100	20	●	100
25	●	100	25	●	100	25	●	100
30	●	100	30	●	100			

BN 54			BN 56			BN 58		
d ₁	M4		d ₁	M4		d ₁	M4	
L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐
6	●	100	6	●	100	6	●	100
8	●	100	8	●	100	8	●	100
10	●	100	10	●	100	10	●	100
12	●	100	12	●	100	12	●	100
(14)	●	100	(14)	●	100	(14)	●	100
16	●	100	16	●	100	16	●	100
(18)	●	100	(18)	●	100	20	●	100
20	●	100	20	●	100	25	●	100
(22)	●	100	(22)	●	100	30	●	100
25	●	100	25	●	100			
30	●	100	30	●	100			
35	●	100	35	●	100			
40	●	100	40	●	100			

Hexagon head screws

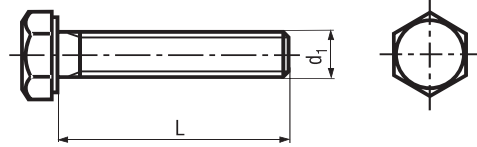
fully threaded

Tornillos de cabeza hexagonal

totalmente roscados

六角头螺钉

全螺纹



DIN 933	8.8
ISO 4017	
Steel 8.8 Acero 8.8	
<ul style="list-style-type: none"> ■ black / negro ■ zinc plated blue / cincado pasivado azul ■ zinc plated yellow / cincado pasivado amarillo ■ hot-dip galvanized / galvanizado en caliente 	

DIN 933: Standard withdrawn
Estándar descatálogo

BN 54			BN 56			BN 58		
d ₁	M5		d ₁	M5		d ₁	M5	
L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐
6	●	100	6	●	100	8	●	100
8	●	100	8	●	100	10	●	100
10	●	100	10	●	100	12	●	100
12	●	100	12	●	100	(14)	●	100
(14)	●	100	(14)	●	100	16	●	100
16	●	100	16	●	100	20	●	100
(18)	●	100	(18)	●	100	25	●	100
20	●	100	20	●	100	30	●	100
(22)	●	100	(22)	●	100	35	●	100
25	●	100	25	●	100	40	●	100
30	●	100	30	●	100	45	●	100
35	●	100	35	●	100	50	●	100
40	●	100	40	●	100			
45	●	100	45	●	100			
50	●	100	50	●	100			

BN 54			BN 56			BN 58		
d ₁	M6		d ₁	M6		d ₁	M6	
L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐
6	●	100	6	●	100	6	●	100
8	●	100	8	●	100	8	●	100
10	●	100	10	●	100	10	●	100
12	●	100	12	●	100	12	●	100
(14)	●	100	(14)	●	100	(14)	●	100
16	●	100	16	●	100	16	●	100
(18)	●	100	(18)	●	100	(18)	●	100
20	●	100	20	●	100	20	●	100
(22)	●	100	(22)	●	100	(22)	●	100
25	●	100	25	●	100	25	●	100
30	●	100	30	●	100	30	●	100
35	●	100	35	●	100	35	●	100
40	●	100	40	●	100	40	●	100
45	●	100	45	●	100	45	●	100
50	●	100	50	●	100	50	●	100
55	●	100	55	●	100			
60	●	100	60	●	100			
65	●	100	70	●	100			
70	●	100	80	●	100			
80	●	100	90	●	100			
90	●	100	100	●	100			
100	●	100						

Hexagon head screws

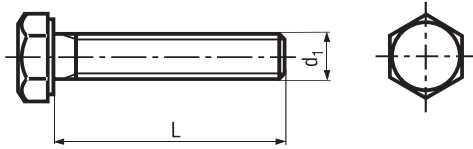
fully threaded

Tornillos de cabeza hexagonal

totalmente roscados

六角头螺钉

全螺纹



DIN 933	8.8
ISO 4017	
Steel 8.8 Acero 8.8	
<ul style="list-style-type: none"> ■ black / negro ■ zinc plated blue / cincado pasivado azul ■ zinc plated yellow / cincado pasivado amarillo ■ hot-dip galvanized / galvanizado en caliente 	

DIN 933: Standard withdrawn
Estándar descatálogo

BN 54			BN 56			BN 58			BN 60		
d ₁	M8		d ₁	M8		d ₁	M8		d ₁	M8	
L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐
8	●	100	8	●	100	10	●	100	16	●	100
10	●	100	10	●	100	12	●	100	20	●	100
12	●	100	12	●	100	(14)	●	100	25	●	100
(14)	●	100	(14)	●	100	16	●	100	30	●	100
16	●	100	16	●	100	(18)	●	100	35	●	100
(18)	●	100	(18)	●	100	20	●	100	40	●	100
20	●	100	20	●	100	(22)	●	100	45	●	100
(22)	●	100	(22)	●	100	25	●	100	50	●	100
25	●	100	25	●	100	30	●	100			
30	●	100	(28)	●	100	35	●	100			
35	●	100	30	●	100	40	●	100			
40	●	100	35	●	100	45	●	100			
45	●	100	40	●	100	50	●	100			
50	●	100	45	●	100	55	●	100			
55	●	100	50	●	100	60	●	100			
60	●	100	55	●	100	70	●	100			
65	●	100	60	●	100	80	●	100			
70	●	100	70	●	100						
80	●	100	80	●	100						
90	●	100	90	●	100						
100	●	100	100	●	100						
110	●	100	120	●	100						
120	●	100									

Hexagon head screws

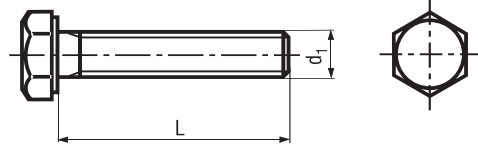
fully threaded

Tornillos de cabeza hexagonal

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全螺纹



DIN 933	8.8
ISO 4017	
Steel 8.8 Acero 8.8	
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DIN 933: Standard withdrawn
Estándar descatálogo

BN 54			BN 56			BN 58			BN 60		
d ₁	M10		d ₁	M10		d ₁	M10		d ₁	M10	
L	● / ●	100	L	● / ●	100	L	● / ●	100	L	● / ●	100
10	●	100	10	●	100	12	●	100	20	●	100
12	●	100	12	●	100	16	●	100	25	●	100
(14)	●	100	(14)	●	100	20	●	100	30	●	100
16	●	100	16	●	100	25	●	100	35	●	100
(18)	●	100	(18)	●	100	30	●	100	40	●	100
20	●	100	20	●	100	35	●	100	45	●	100
(22)	●	100	(22)	●	100	40	●	100	50	●	100
25	●	100	25	●	100	45	●	100	60	●	100
30	●	100	30	●	100	50	●	100			
35	●	100	35	●	100	55	●	100			
40	●	100	40	●	100	60	●	100			
45	●	100	45	●	100	65	●	100			
50	●	100	50	●	100	70	●	100			
55	●	100	55	●	100	80	●	100			
60	●	100	60	●	100						
65	●	100	65	●	100						
70	●	100	70	●	100						
80	●	100	80	●	100						
90	●	100	90	●	100						
100	●	100	100	●	100						
110	●	50	120	●	50						
120	●	50									

Hexagon head screws

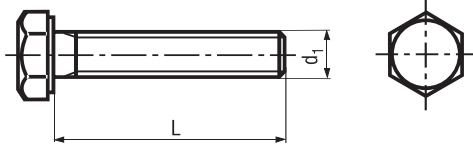
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Tornillos de cabeza hexagonal

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DIN 933: Standard withdrawn
Estándar descatalogado

BN 54			BN 56			BN 58			BN 60		
d ₁	M12		d ₁	M12		d ₁	M12		d ₁	M12	
L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐
12	●	100	(14)	●	100	16	●	100	20	●	100
(14)	●	100	16	●	100	20	●	100	25	●	100
16	●	100	20	●	100	25	●	100	30	●	100
20	●	100	(22)	●	100	30	●	100	35	●	100
25	●	100	25	●	100	35	●	100	40	●	100
30	●	100	30	●	100	40	●	100	45	●	100
35	●	100	35	●	100	45	●	100	50	●	100
40	●	100	40	●	100	50	●	100	60	●	100
45	●	100	45	●	100	55	●	100	70	●	50
50	●	100	50	●	100	60	●	100			
55	●	100	55	●	100	65	●	50			
60	●	100	60	●	100	70	●	50			
65	●	50	65	●	50						
70	●	50	70	●	50						
80	●	50	80	●	50						
90	●	50	90	●	50						
100	●	50	100	●	50						
110	●	50	120	●	50						
120	●	50									
130	●	50									
140	●	50									
150	●	50									

BN 54			BN 56		
d ₁	(M14)		d ₁	(M14)	
L	■ / ●	☐	L	■ / ●	☐
16	●	100	70	●	50
20	●	100	80	●	50
25	●	100	90	●	50
30	●	100	100	●	50
35	●	100			
40	●	100			
45	●	50			
50	●	50			
55	●	50			
60	●	50			
65	●	50			

Hexagon head screws

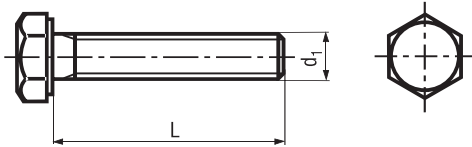
fully threaded

Tornillos de cabeza hexagonal

totalmente roscados

六角头螺钉

全螺纹



DIN 933	8.8
ISO 4017	
Steel 8.8 Acero 8.8	
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DIN 933: Standard withdrawn
Estándar descatálogo

BN 54			BN 56			BN 58			BN 60		
d ₁	M16		d ₁	M16		d ₁	M16		d ₁	M16	
L	☐ / ☒	☑	L	☐ / ☒	☑	L	☐ / ☒	☑	L	☐ / ☒	☑
16	●	50	20	●	50	25	●	50	30	●	50
20	●	50	25	●	50	30	●	50	35	●	50
25	●	50	30	●	50	35	●	50	40	●	50
30	●	50	35	●	50	40	●	50	45	●	50
35	●	50	40	●	50	45	●	50	50	●	50
40	●	50	45	●	50	50	●	50	60	●	25
45	●	50	50	●	50	55	●	25	70	●	25
50	●	50	55	●	25	60	●	25	80	●	25
55	●	25	60	●	25	65	●	25			
60	●	25	70	●	25	70	●	25			
65	●	25	80	●	25	80	●	25			
70	●	25	90	●	25	90	●	25			
80	●	25	100	●	25						
90	●	25	120	●	25						
100	●	25									
110	●	25									
120	●	25									
130	●	25									
140	●	25									
150	●	25									
160	●	25									
180	●	25									
200	●	25									

BN 54			BN 56		
d ₁	(M18)		d ₁	(M18)	
L	☐ / ☒	☑	L	☐ / ☒	☑
30	●	50	60	●	50
35	●	50	65	●	50
40	●	50	70	●	50
45	●	50	80	●	50
50	●	50	90	●	25
55	●	50	100	●	25

Hexagon head screws

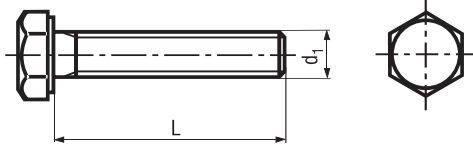
fully threaded

Tornillos de cabeza hexagonal

totalmente roscados

六角头螺钉

全螺纹



DIN 933	8.8
ISO 4017	
Steel 8.8 Acero 8.8	
<ul style="list-style-type: none"> ■ black / negro ■ zinc plated blue / cincado pasivado azul ■ zinc plated yellow / cincado pasivado amarillo ■ hot-dip galvanized / galvanizado en caliente 	

DIN 933: Standard withdrawn
Estándar descatálogo

BN 54			BN 56			BN 58			BN 60		
d ₁	M20		d ₁	M20		d ₁	M20		d ₁	M20	
L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐
25	●		25	●		25	●		25	●	
30	●		25	●		25	●		25	●	
35	●		25	●		25	●		25	●	
40	●		25	●		25	●				
45	●		25	●		25	●				
50	●		25	●		25	●				
55	●		25	●		25	●				
60	●		25	●		25	●				
65	●		25	●		25	●				
70	●		25	●							
80	●		25	●							
90	●		25	●							
100	●		25								
110	●	1									
120	●	1									
130	●	1									
140	●	1									
150	●	1									
160	●	1									
180	●	1									
200	●	1									

BN 54			(M22)					
d ₁								
L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐
40	●	1	55	●	1	70	●	1
45	●	1	60	●	1	80	●	1
50	●	1	65	●	1	100	●	1

BN 54			BN 56			BN 60		
d ₁	M24		d ₁	M24		d ₁	M24	
L	■ / ●	☐	L	■ / ●	☐	L	■ / ●	☐
40	●	1	(75)	●	1	40	●	1
45	●	1	80	●	1	45	●	1
50	●	1	90	●	1	50	●	1
55	●	1	100	●	1	55	●	1
60	●	1	120	●	1	60	●	1
65	●	1	140	●	1	65	●	1
70	●	1				70	●	1

Hexagon head screws

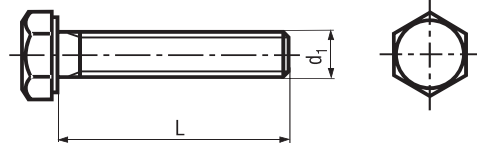
fully threaded

Tornillos de cabeza hexagonal

totalmente roscados

六角头螺钉

全螺纹



DIN 933	8.8
ISO 4017	
Steel 8.8 Acero 8.8	
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DIN 933: Standard withdrawn
Estándar descatálogo

BN 54		■			
d ₁	(M27)				
L	■ / ■	■	L	■ / ■	■
60	●	1	80	●	1
65	●	1	100	●	1
70	●	1			

BN 54		■		BN 56		■		
d ₁	M30			d ₁	M30			
L	■ / ■	■	L	■ / ■	■	L	■ / ■	■
60	●	1	90	●	1	60	●	1
65	●	1	100	●	1	70	●	1
70	●	1	120	●	1	80	●	1
80	●	1	140	●	1			

BN 54		■						
d ₁	(M33)		d ₁	M36				
L	■ / ■	■	L	■ / ■	■	L	■ / ■	■
60	●	1	60	●	1	100	●	1
70	●	1	70	●	1	120	●	1
80	●	1	80	●	1	140	●	1
90	●	1	90	●	1			

BN 54		■						
d ₁	(M39)		d ₁	M42		d ₁	M48	
L	■ / ■	■	L	■ / ■	■	L	■ / ■	■
100	●	1	100	●	1	100	●	1
			120	●	1	120	●	1

Hexagon head screws

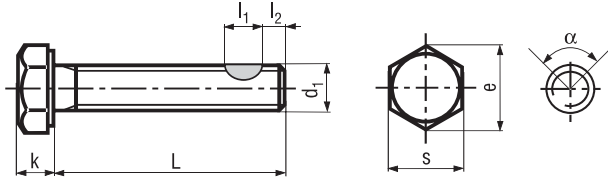
fully threaded, with Tuflok® patch

Tornillos de cabeza hexagonal

totalmente roscados, con parche de nylon Tuflok®

六角头螺钉

全螺纹，涂附Tuflok®



d1	M5	M6	M8	M10	M12
e	8,79	11,05	14,38	18,9	21,1
k	3,5	4	5,3	6,4	7,5
s	8	10	13	17/16*	19/18*



Coating angle alpha in the screw body area approx. 90°, edge zone (spray transition) up to 180°. Coating length l1 = 4 to 6 thread turns. Around 2 to 3 thread turns remain uncoated to ensure flawless installation (l2).

La mínima circunferencia de recubrimiento son 90°, hasta 180° con 4 ó 6 hilos de rosca cubiertos. Los 2 ó 3 primeros hilos no tienen recubrimiento para facilitar el roscado.



Consult CG 14 for detailed information
Magnetic inserts 1/4": BN 31522 CG 1
Para una información técnica más precisa, véase GC 14
Llaves de vaso hexagonal magnéticas 1/4": BN 31522 GC 1

* Wrench size according to ISO on request
Anchos de llave conforme a ISO bajo demanda

DIN 933	8.8
ISO 4017	Tuflok®
Steel 8.8 Acero 8.8	
■ zinc plated blue / cincado pasivado azul	

DIN 933: Standard withdrawn
Estándar descatálogo

BN 5244		■										
d1	L	■ / ■	☐	d1	L	■ / ■	☐	d1	L	■ / ■	☐	
M5	10	●	100	M8	30	●	100	M12	25	●	100	
	16	●	100		M10	20	●		100	30	●	100
	20	●	100		25	●	100		35	●	100	
M6	16	●	100	30	●	100	40	●	100			
	20	●	100	35	●	100	45	●	100			
	25	●	100	40	●	100	50	●	100			
M8	20	●	100	M12	20	●	100					
	25	●	100									

Hexagon head screws

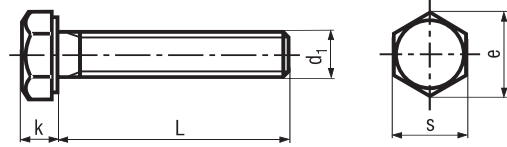
fully threaded

Tornillos de cabeza hexagonal

totalmente roscados

六角头螺钉

全螺纹



d ₁	M6	M8	M10	M12	(M14)	M16	M20	M24
e	11,05	14,38	18,9	21,1	24,49	26,75	33,53	39,98
k	4	5,3	6,4	7,5	8,8	10	12,5	15
s	10	13	17/16*	19/18*	22/21*	24	30	36

* Wrench size according to ISO on request
Anchos de llave conforme a ISO bajo demanda



Preloads and tightening torques
Precargas y pares de apriete

BN 71				■									
d ₁	L	■ / ■	■	d ₁	L	■ / ■	■	d ₁	L	■ / ■	■		
M6	10	●	100	M10	20	●	100	(M14)	40	●	50		
	12	●	100			45	●		50				
	(14)	●	100		M16	30	●	100	35	●	50		
	16	●	100				40	●	50				
	20	●	100				45	●	50				
25	●	100	M12	20	●	100	M20	40	●	25			
M8	12	●		100		25		●	100		45	●	25
	(14)	●		100		30		●	100		50	●	25
	16	●		100		35		●	100		60	●	25
	20	●		100		40		●	100	M24	50	●	1
	25	●	100		45	●	100		60		●	1	
30	●	100	(M14)	25	●	50		70	●	1			
35	●	100			30	●	50						
M10	16	●	100		35	●	50						

DIN 933	10.9
ISO 4017	
Steel 10.9	
Acero 10.9	
■ black / negro	

DIN 933: Standard withdrawn
Estándar descatálogo

Hexagon head screws / bolts UNC

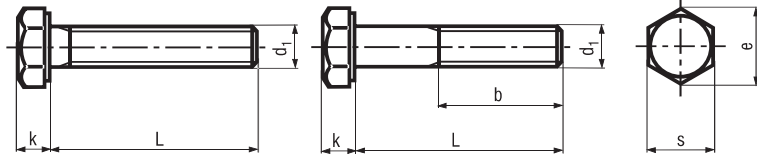
fully and partially threaded

Tornillos de cabeza hexagonal UNC

total / parcialmente roscados

六角头螺钉/螺栓 英制粗牙

全螺纹和部分螺纹



UNC	8.8
~DIN 933 / 931	
Steel 8.8 / Grade 5.2 Acero 8.8 / Grado 5.2	
■ zinc plated blue / cincado pasivado azul	

8.8 / Grade 5.2: At manufacturer's option
Dependiendo del fabricante.

d₁ UNC	1/4"	5/16"	3/8"	(7/16")	1/2"	(9/16")	5/8"	3/4"	(7/8")	1"
b	19	22	25	28	32	35	38	44	51	57
e max.	12,8	14,7	16,5	18,3	22	23,8	27,5	33	38,5	44
k	4	5,2	6	7,1	7,9	9,1	9,9	11,9	13,9	15,5
s	7/16"	1/2"	9/16"	5/8"	3/4"	13/16"	15/16"	1 1/8"	1 9/16"	1 1/2"
	L ≤	1"	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 3/4"	2"	2 1/4"
	L >	1"	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 3/4"	2"	2 1/4"

BN 67		■										
d₁	L			d₁	L			d₁	L			
1/4"	1/2"	●	100	3/8"	1"	●	100	5/8"	1"	●	50	
	5/8"	●	100		1 1/4"	●	100		1 1/4"	●	50	
	3/4"	●	100		(7/16")	3/4"	●		100	1 1/2"	●	50
	7/8"	●	100		7/8"	●	100		1 3/4"	●	50	
	1"	●	100		1"	●	100		3/4"	1 1/2"	●	50
5/16"	5/8"	●	100	1 1/4"	●	100	1 1/2"	●		50		
	3/4"	●	100	1/2"	1"	●	100	2"	●	50		
	7/8"	●	100		1 1/4"	●	100	(7/8")	2"	●	1	
1"	●	100	1 1/2"	●	100	2 1/4"	●	1				
3/8"	5/8"	●	100	(9/16")	1"	●	100	1"	2"	●	1	
	3/4"	●	100	1 1/4"	●	100	2 1/4"	●	1			
	7/8"	●	100	1 1/2"	●	100	2 1/2"	●	1			

BN 67		■										
d₁	L			d₁	L			d₁	L			
1/4"	1 1/4"	●	100	3/8"	3 1/2"	●	50	1/2"	3 1/2"	●	50	
	1 1/2"	●	100		4"	●	50		4"	●	50	
	1 3/4"	●	100		(7/16")	1 1/2"	●		100	4 1/2"	●	50
	2"	●	100		1 3/4"	●	100		5"	●	50	
5/16"	1 1/4"	●	100	1/2"	2"	●	100	(9/16")	2"	●	100	
	1 1/2"	●	100		2 1/4"	●	100	2 1/2"	●	50		
	1 3/4"	●	100		2 1/2"	●	50	3"	●	50		
	2"	●	100		2 3/4"	●	50	5/8"	2"	●	50	
	2 1/4"	●	100		3"	●	50		2 1/4"	●	50	
	2 1/2"	●	100		3 1/2"	●	50		2 1/2"	●	50	
	3"	●	100		4"	●	50		2 3/4"	●	50	
3/8"	1 1/2"	●	100	1/2"	1 3/4"	●	100	3"	●	50		
	1 3/4"	●	100		2"	●	100	3 1/4"	●	50		
	2"	●	100		2 1/4"	●	100	3 1/2"	●	50		
	2 1/4"	●	100		2 1/2"	●	50	3 3/4"	●	50		
	2 1/2"	●	100		2 3/4"	●	50	4"	●	50		
	2 3/4"	●	100		3"	●	50	4 1/2"	●	25		
	3"	●	100		3 1/4"	●	50	5"	●	25		

Hexagon head screws / bolts UNC

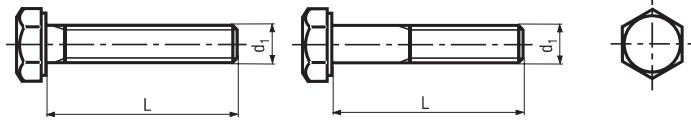
fully and partially threaded

Tornillos de cabeza hexagonal UNC

total / parcialmente roscados

六角头螺钉/螺栓 英制粗牙

全螺纹和部分螺纹



UNC	8.8
~DIN 933 / 931	
Steel 8.8 / Grade 5.2 Acero 8.8 / Grado 5.2	
■ zinc plated blue / cincado pasivado azul	

8.8 / Grade 5.2: At manufacturer's option
Dependiendo del fabricante.

BN 67		■	■									
d ₁	L	● / ●	☐	d ₁	L	● / ●	☐	d ₁	L	● / ●	☐	
3/4"	2 1/4"	●	50	3/4"	4 1/2"	●	1	(7/8")	5"	●	1	
	2 1/2"	●	25		5"	●	1	1"	3"	●	1	
	2 3/4"	●	25		5 1/2"	●	1	4"	4"	●	1	
	3"	●	25		6"	●	1	5"	5"	●	1	
	3 1/4"	●	25	(7/8")	2 1/2"	●	1	5 1/2"	5 1/2"	●	1	
	3 1/2"	●	25	2 3/4"	●	1	6"	6"	●	1		
	3 3/4"	●	25	3"	●	1						
	4"	●	1	4"	●	1						

Hexagon head screws / bolts UNF

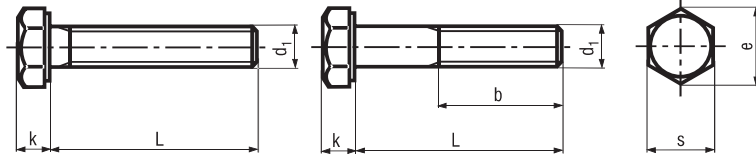
fully and partially threaded

Tornillos de cabeza hexagonal UNF

total / parcialmente roscados

六角头螺钉/螺栓 英制细牙

全螺纹和部分螺纹



d₁ UNF	1/4"	5/16"	3/8"	(7/16")	1/2"	5/8"	3/4"
b	19	22	25	28	32	38	44
e max.	12,8	14,7	16,5	18,3	22	27,5	33
k	4	5,2	6	7,1	7,9	9,9	11,9
s	7/16"	1/2"	9/16"	5/8"	3/4"	15/16"	1 1/8"
L ≤	1"	1"	1 1/4"	1 1/4"	1 1/2"	1 3/4"	2"
L >	1"	1"	1 1/4"	1 1/4"	1 1/2"	1 3/4"	2"

UNF

8.8

~DIN 933 / 931

Steel 8.8 / Grade 5.2
Acero 8.8 / Grado 5.2

■ zinc plated blue / cincado pasivado azul

8.8 / Grade 5.2: At manufacturer's option
Dependiendo del fabricante.

BN 69				■								
d ₁	L	/		d ₁	L	/		d ₁	L	/		
1/4"	1/2"	●	100	3/8"	3/4"	●	100	1/2"	1 1/2"	●	100	
	5/8"	●	100		7/8"	●	100		5/8"	1"	●	50
	3/4"	●	100		1"	●	100			1 1/4"	●	50
	7/8"	●	100		1 1/4"	●	100			1 1/2"	●	50
	1"	●	100		(7/16")	3/4"	●		100	1 3/4"	●	50
5/16"	5/8"	●	100	7/8"	7/8"	●	100	3/4"	1 1/2"	●	50	
	3/4"	●	100		1"	●	100		1 3/4"	●	50	
	7/8"	●	100		1 1/4"	●	100	2"	●	50		
	1"	●	100		1/2"	1"	●		100			
3/8"	5/8"	●	100	1 1/4"	●	100						

BN 69				■								
d ₁	L	/		d ₁	L	/		d ₁	L	/		
1/4"	1 1/4"	●	100	(7/16")	1 1/2"	●	100	5/8"	2 1/4"	●	50	
	1 1/2"	●	100		1 3/4"	●	100		2 1/2"	●	50	
	1 3/4"	●	100		2"	●	100		2 3/4"	●	50	
	2"	●	100		2 1/4"	●	100		3"	●	50	
	2 1/4"	●	100		2 1/2"	●	50		3 1/2"	●	50	
5/16"	1 1/4"	●	100	2 3/4"	2 3/4"	●	50	3/4"	4"	●	50	
	1 1/2"	●	100		3"	●	50		5"	●	25	
	1 3/4"	●	100		3 1/2"	●	50		2 1/4"	●	50	
	2"	●	100		4"	●	50			2 1/2"	●	25
	2 1/4"	●	100		1/2"	1 3/4"	●			100	2 3/4"	●
2 1/2"	●	100	2"	●		100	3"	●	25			
3/8"	3"	●	100	2 1/4"	●	100	3 1/4"	●	25			
	3 1/2"	●	50	2 1/2"	●	50	3 1/2"	●	25			
	4"	●	50	2 3/4"	●	50	3 3/4"	●	25			
				3"	●	50	4"	●	1			
				3 1/4"	●	50	4 1/2"	●	1			
				3 1/2"	●	50	5"	●	1			
				4"	●	50	5 1/2"	●	1			
				4 1/2"	●	50	6"	●	1			
				5"	●	50						
				5 1/2"	●	50						
			5/8"	2"	●	50						

Slotted hexagon head screws

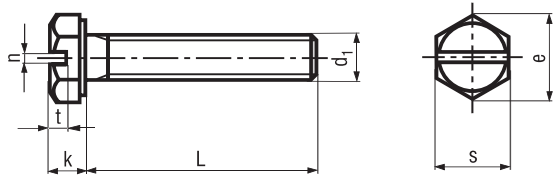
fully threaded

Tornillos de cabeza hexagonal ranurada

totalmente roscados

开槽六角头螺钉

全螺纹



d ₁	M4	M5	M6	M8
e	7,66	8,79	11,05	14,38
k	2,8	3,5	4	5,3
s	7	8	10	13
n min. ¹⁾	1,06	1,26	1,66	2,06
t min. ¹⁾	1,12	1,4	1,6	2,12

- 1) Slot according DIN 962
Ranura conforme a DIN 962



Magnetic inserts 1/4": BN 31522 / CG 1
Llaves de vaso hexagonal magnéticas 1/4": BN 31522 / GC 1

BN 63				■							
d ₁	L	☐ / ☐	☐	d ₁	L	☐ / ☐	☐	d ₁	L	☐ / ☐	☐
M4	6	●	100	M5	16	●	100	M6	35	●	100
	8	●	100		20	●	100		M8	40	●
	10	●	100		25	●	100	12		●	100
	12	●	100		M6	8	●	100	16	●	100
	16	●	100	10		●	100	20	●	100	
20	●	100	12	●		100	30	●	100		
25	●	100	16	●		100	40	●	100		
				20		●	100	50	●	100	
M5	8	●	100		25	●	100				
	10	●	100		30	●	100				
	12	●	100								

DIN 933 Sz	8.8
~ISO 4017	
Steel 8.8 Acero 8.8	
■ zinc plated blue / cincado pasivado azul	

DIN 933: Standard withdrawn
Estándar descatálogo

Hexagon head screws

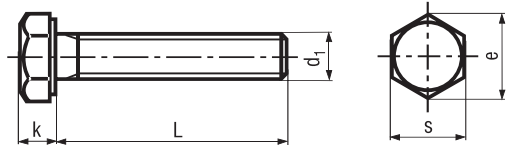
fully threaded

Tornillos de cabeza hexagonal

totalmente roscados

六角头螺钉

全螺纹



d1	M12	M16	M20	M24
e	20,03	26,75	33,53	39,98
k	7,5	10	12,5	15
s	18	24	30	36



This quality is used for devices subjected to Pressure Equipment Directive (PED) 97/23/EC. Certificate acc. EN 10204 3.1 available on request.

Esta calidad puede utilizarse para aplicaciones conforme a la directriz de aparatos de presión DGRL 97 / 23 / CE (PED). Certificado según EN 10204 3.1 disponible bajo demanda.



Preloads and tightening torques
Precargas y pares de apriete



These screws are paired with class 5-2 nuts: CG 3, BN 10529
Para el emparejamiento con tuercas hexagonales 5-2: GC 3, BN 10529

BN 11491											
d1	L	☐ / ☐	☐	d1	L	☐ / ☐	☐	d1	L	☐ / ☐	☐
M12	20	●	100	M16	30	●	50	M20	60	●	25
	25	●	100		35	●	50		65	●	25
	30	●	100		40	●	50		70	●	25
	35	●	100		45	●	50		75	●	25
	40	●	100		50	●	50	M24	50	●	1
	45	●	100		55	●	50		60	●	1
	50	●	100		60	●	50		70	●	1
	55	●	100		65	●	25		80	●	1
60	●	100	M20	50	●	25					
M16	25	●		50	●	25					

ISO 4017	5.6
~DIN 933	
Steel annealed 5.6 Acero recocido 5.6	
■ zinc plated yellow cincado pasivado amarillo	