

Full technical details and distributor information can be found on our website www.blindbolt.com
All dimensions are stated in millimetres unless noted otherwise.



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Blind Bolt Product Specification Geomet 500B - Property Class 10.9

Bolt Size (Stock number)	Box Qty	Hole Diameter	Fixing Thickness Min	Max	Anchor Clearance	Depth Clearance	Minimum Hole Centres
M8 x 50	50	9	9	24	19	25	22
BB0850DTASM		1 ¹ / ₃₂ "	2 ³ / ₆₄ "	1 ⁵ / ₁₆ "	3 ¹ / ₄ "	6 ³ / ₆₄ "	2 ⁵ / ₃₂ "
M10 x 60	40	11	10	30	23	30	26
BB1060DTASM		7 ¹ / ₁₆ "	2 ⁵ / ₆₄ "	1 3 ¹ / ₁₆ "	2 ⁹ / ₃₂ "	1 3 ¹ / ₁₆ "	2 ⁵ / ₃₂ "
M10 x 95	20	11	25	65	23	30	26
BB1095DTASM		7 ¹ / ₁₆ "	6 ³ / ₆₄ "	2 9 ¹ / ₁₆ "	2 ⁹ / ₃₂ "	1 3 ¹ / ₁₆ "	2 ⁵ / ₃₂ "
M10 x 130	20	11	55	100	23	30	26
BB10130DTASM		7 ¹ / ₁₆ "	2 1 ¹ / ₆₄ "	3 1 ⁵ / ₁₆ "	2 ⁹ / ₃₂ "	1 3 ¹ / ₁₆ "	2 ⁵ / ₃₂ "
M12 x 70	20	13	12	35	26	35	32
BB1270DTASM		1 ¹ / ₂ "	1 ⁵ / ₃₂ "	1 3 ³ / ₈ "	1 1 ¹ / ₃₂ "	1 3 ³ / ₈ "	6 ³ / ₆₄ "
M12 x 120	25	13	30	85	26	35	32
BB12120DTASM		1 ¹ / ₂ "	1 2 ¹ / ₁₆ "	3 1 ¹ / ₃₂ "	1 1 ¹ / ₃₂ "	1 3 ³ / ₈ "	6 ³ / ₆₄ "
M12 x 180	20	13	80	140	26	35	32
BB12180DTASM		1 ¹ / ₂ "	3 5 ⁵ / ₃₂ "	5 2 ³ / ₆₄ "	1 1 ¹ / ₃₂ "	1 3 ³ / ₈ "	6 ³ / ₆₄ "
M14 x 75*	20	14.5	14	35	32	38	36
GBB1475DTASM		9 ¹ / ₁₆ "	9 ¹ / ₁₆ "	1 3 ³ / ₈ "	1 1 ¹ / ₄ "	1 1 ¹ / ₂ "	1 1 ¹ / ₂ "
M14 x 125*	20	14.5	28	82	32	38	36
GBB14125DTASM		9 ¹ / ₁₆ "	1 1 ¹ / ₈ "	3 1 ¹ / ₄ "	1 1 ¹ / ₄ "	1 1 ¹ / ₂ "	1 1 ¹ / ₄ "
M14 x 185*	20	14.5	75	142	32	38	36
GBB14185DTASM		9 ¹ / ₁₆ "	3"	5 1 ¹ / ₂ "	1 1 ¹ / ₄ "	1 1 ¹ / ₂ "	1 1 ¹ / ₄ "
M16 x 90*	20	17	13	43	36	43	40
GBB1690DTASM		1 ¹ / ₁₆ "	3 ³ / ₆₄ "	1 1 ¹ / ₆₄ "	1 2 ⁷ / ₆₄ "	1 1 ¹ / ₁₆ "	1 3 ³ / ₈ "
M16 x 130*	15	17	40	75	36	43	40
GBB16130DTASM		1 ¹ / ₁₆ "	1 2 ⁷ / ₆₄ "	2 6 ¹ / ₆₄ "	1 2 ⁷ / ₆₄ "	1 1 ¹ / ₁₆ "	1 3 ³ / ₈ "
M16 x 180*	10	17	55	125	36	43	40
GBB16180DTASM		1 ¹ / ₁₆ "	2 1 ¹ / ₆₄ "	4 5 ⁹ / ₆₄ "	1 2 ⁷ / ₆₄ "	1 1 ¹ / ₁₆ "	1 3 ³ / ₈ "
M20 x 110*	10	22	21	56	44	56	48
GBB20110DTASM		1 ³ / ₁₆ "	5 ³ / ₆₄ "	2 1 ³ / ₆₄ "	1 4 ⁷ / ₆₄ "	2 1 ³ / ₆₄ "	1 5 ⁷ / ₆₄ "
M20 x 140*	8	22	21	86	44	56	48
GBB20140DTASM		1 ³ / ₁₆ "	5 ³ / ₆₄ "	3 2 ⁵ / ₆₄ "	1 4 ⁷ / ₆₄ "	2 1 ³ / ₆₄ "	1 5 ⁷ / ₆₄ "
M20 x 180*	10	22	80	120	44	56	48
GBB20180DTASM		1 ³ / ₁₆ "	3 5 ⁵ / ₃₂ "	4 2 ³ / ₃₂ "	1 4 ⁷ / ₆₄ "	2 1 ³ / ₆₄ "	1 5 ⁷ / ₆₄ "
M20 x 250*	10	22	130	185	44	56	48
GBB20250DTASM		1 ³ / ₁₆ "	5 1 ¹ / ₈ "	7 9 ¹ / ₃₂ "	1 4 ⁷ / ₆₄ "	2 1 ³ / ₆₄ "	1 5 ⁷ / ₆₄ "
M24 x 130*	5	26	21	66	53	64	58
GBB24130DTASM		1"	5 ³ / ₆₄ "	2 1 ⁹ / ₃₂ "	2 3 ¹ / ₃₂ "	2 3 ³ / ₆₄ "	2 2 ³ / ₆₄ "
M30 x 140*	5	32	27	60	65	72	74
GBB30140DTASM		1 1 ¹ / ₄ "	1 1 ¹ / ₁₆ "	2 2 ³ / ₆₄ "	2 9 ¹ / ₁₆ "	2 5 ³ / ₆₄ "	2 6 ¹ / ₆₄ "



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CARBON STEEL BLINDBOLT

DESIGN RESISTANCES DETERMINED IN ACCORDANCE WITH AC 437 AND AISC 360-10

Diameter inch (mm)	Tension Resistance				Shear Resistance Through Slot				Shear Resistance Through Unslotted Threaded Shank				Recommended Tightening Torque (lbf)
	LRFD		ASD		LRFD		ASD		LRFD		ASD		
	kN	KIPS	kN	KIPS	kN	KIPS	kN	KIPS	kN	KIPS	kN	KIPS	
0.345 (8)	6.8	1.53	4.2	0.94	5.8	1.30	3.6	0.81	17.0	3.82	11.3	2.54	11
0.394 (10)	9.5	2.14	5.9	1.33	13.7	3.08	8.6	1.93	26.5	5.96	17.7	3.98	18
0.472 (12)	15.1	3.39	9.4	2.11	17.8	4.00	11.1	2.50	38.2	8.59	25.4	5.71	22
0.551 (14)	22.7	5.10	14.2	3.19	24.5	5.51	15.3	3.44	52.0	11.69	34.6	7.78	28
0.630 (16)	28.4	6.38	17.8	4.00	30.7	6.90	19.2	4.32	67.9	15.26	45.2	10.16	36
0.787 (20)	45.4	10.21	28.4	6.38	54.0	12.14	33.7	7.58	106.0	23.83	70.7	15.89	48
0.945 (24)	75.4	16.95	46.5	10.45	75.7	17.02	47.3	10.63	152.7	34.33	101.8	22.89	55
1.181 (30)	110.2	24.77	68.9	15.49	110.7	24.89	69.2	15.56	238.6	53.64	159.0	35.74	63

In bearing, the resistance of a blind bolt should satisfy the requirements of AISC specification 360-10 clause J3-10, expressions J3-6a or J3-6b as required, using the nominal diameter d , of the bolt. No reduction in diameter to allow for the slot is required.

In combined tension and shear, blind bolts should satisfy the following expressions:

$$\text{LRFD: } \left(\frac{F_{t,Ed}}{\phi R_{nt}} \right) + \left(\frac{F_{v,Ed}}{\phi R_{nv}} \right) \leq 1.3$$

$$\text{ASD: } \left(\frac{F_{t,Ed}}{R_{nt}/\Omega} \right) + \left(\frac{F_{v,Ed}}{R_{nv}/\Omega} \right) \leq 1.3$$

where:

$F_{t,Ed}$ and $F_{v,Ed}$ are the applied tension and shear forces respectively (LRFD or ASD values)

ϕR_{nt} and R_{nt}/Ω are the design tension resistance (LRFD or ASD), from the above table.

ϕR_{nv} and R_{nv}/Ω are the design shear resistance (LRFD or ASD) from the above table.

The above resistances and interaction criteria make no allowance for the deformation or yield of the connected part.



Important Note: The above tension resistances make no allowance for the deformation or yield of the connected parts. An appropriate design model for connections in hollow sections can be found in Joints in Steel Construction: Simple Connections

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Stainless Steel Blind Bolt Product Specification

Bolt Size (Stock number)	Box Qty	Hole Diameter	Fixing Thickness Min	Max	Anchor Clearance	Depth Clearance	Minimum Hole Centres
M8 x 50	50	9	9	24	19	25	22
BB0850A4ASM		11/32"	23/64"	15/16"	3/4"	63/64"	25/32"
M10 x 60	40	11	10	30	23	30	26
BB1060SA4ASM		7/16"	25/64"	1 3/16"	29/32"	3/16"	25/32"
M12 x 90	20	13	12	55	26	35	32
BB1290SA4ASM		1/2"	15/32"	2 11/64"	1 1/32"	1 3/8"	63/64"
M16 x 100*	20	17	13	53	36	43	40
GBB16100SA4ASM		11/16"	33/64"	2 3/64"	1 27/64"	1 11/16"	1 3/8"

STAINLESS STEEL BLINDBOLT

DESIGN RESISTANCES DETERMINED IN ACCORDANCE WITH AC 437 AND AISC DESIGN GUIDE 27

Diameter	Tension Resistance				Shear Resistance Through Slot				Shear Resistance Through Unslotted Threaded Shank				Recommended Tightening Torque (lbf)
	LRFD		ASD		LRFD		ASD		LRFD		ASD		
inch (mm)	kN	KIPS	kN	KIPS	kN	KIPS	kN	KIPS	kN	KIPS	kN	KIPS	
0.345 (8)	3.9	0.88	2.4	0.54	6.7	1.51	4.5	1.01	11.9	2.68	7.9	1.78	11
0.394 (10)	9.2	2.07	5.8	1.30	11.4	2.56	7.6	1.71	18.6	4.18	12.4	2.79	16
0.472 (12)	14.4	3.24	9.0	2.02	15.9	3.57	10.6	2.38	26.7	6.00	17.8	4.00	20
0.630 (16)	31.0	6.97	19.4	4.36	31.0	6.97	20.6	4.63	47.5	10.68	31.7	7.13	33

For bearing in carbon steel elements, the resistance of a stainless steel blind bolt should satisfy the requirements of AISC specification 360-10 clause J3-10, expressions J3-6a or J3-6b as required, using the nominal diameter d, of the bolt. No reduction in diameter to allow for the slot is required.

The bolt should satisfy the requirements of AISC Design Guide 27, section 9.3.6, expressions 9-1 or 9-4 as required, using the nominal diameter d, of the bolt. No reduction in diameter to allow for the slot is required. It may be assumed that for the common grade of austenitic stainless steel, $F_u = 515 \text{ N/mm}^2 (75 \text{ ksi})$.

In combined tension and shear, stainless steel blind bolts should satisfy the following expressions:

$$\text{LRFD: } \left(\frac{F_{t,Ed}}{\phi R_{nt}} \right) + \left(\frac{F_{v,Ed}}{\phi R_{nv}} \right) \leq 1.3$$

$$\text{ASD: } \left(\frac{F_{t,Ed}}{R_{nt}/\Omega} \right) + \left(\frac{F_{v,Ed}}{R_{nv}/\Omega} \right) \leq 1.3$$

where:

$F_{t,Ed}$ and $F_{v,Ed}$ are the applied tension and shear forces respectively (LRFD or ASD values) ϕR_{nt} and R_{nt}/Ω are the design tension resistance (LRFD or ASD), from the above table. ϕR_{nv} and R_{nv}/Ω are the design shear resistance (LRFD or ASD) from the above table. The above resistances and interaction criteria make no allowance for the deformation or yield of the connected part.