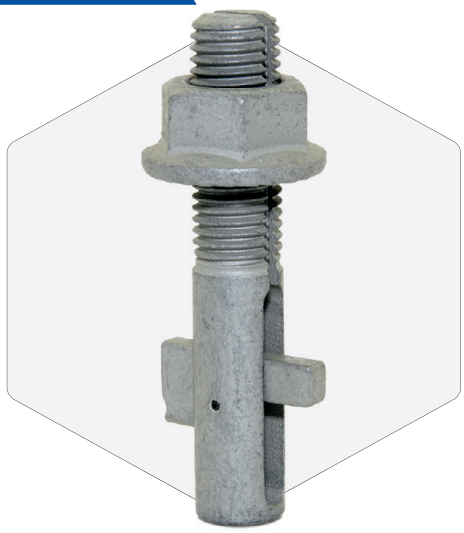
BLINDBOLT



INFORMATION

The BlindBolt is a zinc flake coated or stainless steel A4-70 blind fixing for use in a girder cavity or a box section.

The unique design helps to reduce the installation time.

The wide range of sizes gives flexibility of choosing the correct bolt according to the fixture thickness.

APPLICATIONS

- Box Sections
- Vertical Cylindrical Sections
- Hollow Profiles
- Simple Connections

FEATURES

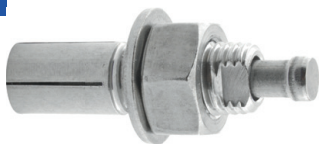
- Design Values For BS 5950-1
- Design Values For EN 1993-1-8
- Removable
- Fast And Secure Installation
- High Performance 10.9 Property Class
- GEOMET® 500/Stainless Steel A4-70
- Reaction To Fire Class A1

APPROVALS

SCI Member

SCI ASSESSED www.sci-assessed.com

RELATED PRODUCTS



HeavyDutyBolt

ThinWallBolt

RANGE AND LOAD DATA

RANGE DATA											
Part Number	Size	Length	Hole Diameter	Fixture Thickness		Anchor Clearance	Depth Clearance	Minimum Hole Centres	Width Across Flats	Width Across Corners	Washer Diameter
				Minimum	Maximum						
	-	L	d_0	$t_{fix,\,min}$	$t_{fix,\,max}$	V_0	D_0	p_{min}	A/F	A/C	d_2
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
Geomet 500B - Property Class 10.9											
BB0850DTASM	M8	50	9	9	24	19	25	20	13	15	18
BB1060DTASM	M10	60	11	10	30	23	30	20	16	17	22
BB1095DTASM		95		25	65						
BB10130DTASM		130		55	100						
BB1270DTASM	M12	70	13	12	35	26	35	25	18	20.5	26
BB12120DTASM		120		30	85						
BB12180DTASM		180		80	140						
GBB1475DTASM*	M14	75	15	14	35	32	38	32	21	24	30
GBB14125DTASM*		125		28	82						
GBB14185DTASM*		185		75	142						
GBB1690DTASM*	M16	90	17	13	43	36	43	35	24	27.5	34.5
GBB16130DTASM*		130		40	75						
GBB16180DTASM*		180		55	125						

* *It is strongly recommended to use the installation gauge when installing these bolts.*

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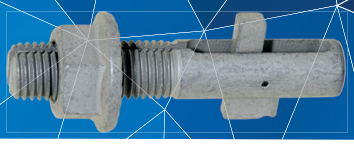
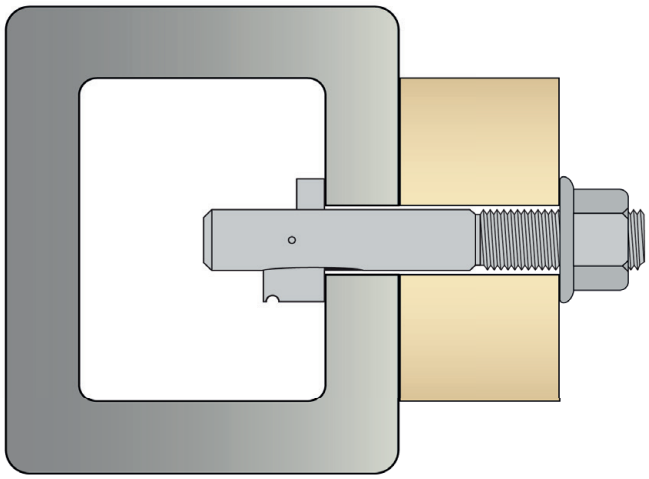
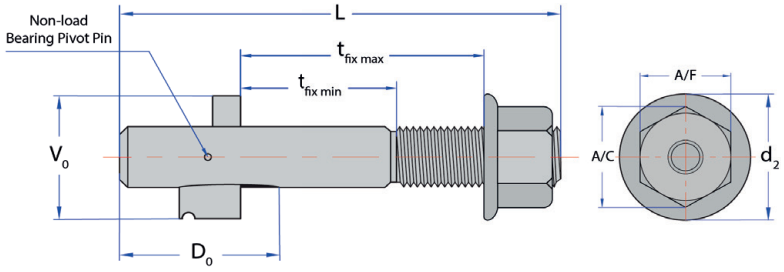
Technical Data Sheet



RANGE DATA											
Part Number	Size	Length	Hole Diameter	Fixture Thickness		Anchor Clearance	Depth Clearance	Minimum Hole Centres	Width Across Flats	Width Across Corners	Washer Diameter
				Minimum	Maximum						
	-	L	d_0	$t_{fix,\,min}$	$t_{fix,\,max}$	V_0	D_0	p_{min}	A/F	A/C	d_2
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
Geomet 500B - Property Class 10.9											
GBB20110DTASM*	M20	110	22	21	56	44	56	48	30	33	43
GBB20140DTASM*		140		21	86						
GBB20180DTASM*		180		80	120						
GBB20250DTASM*		250		130	185						
GBB24130DTASM*	M24	130	26	21	66	53	64	60	36	40.5	44
GBB30140DTASM*	M30	140	32	27	60	65	72	75	46	52	56
Stainless Steel A4-70											
BB0850A4ASM	M8	50	9	9	24	19	25	20	13	15	18
BB1060A4ASM	M10	60	11	10	30	23	30	20	16	17	22
BB1290A4ASM	M12	90	13	12	55	26	35	25	18	20.5	26
GBB16100A4ASM*	M16	100	17	13	53	36	43	35	24	27.5	34.5

* *It is strongly recommended to use the installation gauge when installing these bolts.*





D_0: Depth Clearance
V_0: Anchor Clearance

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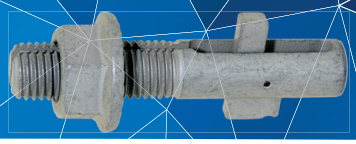

HIGH TENSILE GEOMET® 500B - PROPERTY CLASS 10.9

Performance Data (Design to BS 5950-1*)						
Size	Tension Capacity	Shear Capacity Over Thread	Shear Capacity Over Slot	Bearing Capacity in 10mm Plate		Recommended Tightening Torque
				S275	S355	
	P_t	$P_{s,Thread}$	$P_{s,Slot}$	P_b	P_b	T_{inst}
-	kN	kN	kN	kN	kN	Nm
M8	6.9	14.6	9.3	20.7	24.8	15.0
M10	12.9	23.2	15.9	27.6	33.0	24.0
M12	18.8	33.7	22.0	32.2	38.5	30.0
M14	TBC	TBC	TBC	TBC	TBC	TBC
M16	40.2	62.7	42.9	46.0	55.0	50.0
M20	57.9	97.9	63.4	55.2	66.0	65.0
M24	82.4	141.0	87.8	64.4	77.0	75.0
M30	123.5	224.0	137.2	80.5	96.3	85.0

* *Bearing resistances for different plate thicknesses can be calculated by scaling the values in proportion to the thickness, but should only be used where the distance from the centre line of the hole to the end of the plate is greater than 1.25×d.*

Combined tension and shear should satisfy the following equation:

$$\frac{F_s}{P_s} + \frac{F_t}{P_t} \leq 1.4$$

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.

Performance Data (Design to BS EN 1993-1-8*)			
Size	Tension Resistance	Shear Resistance Over Thread	Shear Resistance Over Slot
	$F_{t,Rd}$	$F_{v,Rd,Thread}$	$F_{v,Rd,Slot}$
-	kN	kN	kN
M8	6.9	14.6	11.1
M10	12.9	23.2	19.0
M12	18.8	33.7	26.3
M14	26.2	46.7	30.5
M16	40.1	62.7	51.5
M20	57.8	97.9	76.1
M24	82.3	141.0	105.4
M30	123.3	224.0	164.0

A partial safety factor of $\gamma_{M2} = 1.25$ from the UK National Annex has already been applied. Bearing resistances should be calculated from BS EN 1993-1-8, Table 3.4, taking d as the nominal diameter of the bolt.

Combined tension and shear should satisfy the following equation:

$$\frac{F_{v,Ed}}{F_{v,Rd}} + \frac{F_{t,Ed}}{1.4F_{t,Rd}} \leq 1.0$$

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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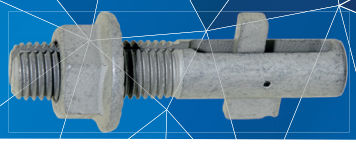

STAINLESS STEEL A4-70

Performance Data (Design to BS 5950-1*)						
Size	Tension Capacity	Shear Capacity Over Thread	Shear Capacity Over Slot	Bearing Capacity in 10mm Plate		Recommended Tightening Torque
				S275	S355	
	P_t	$P_{s,Thread}$	$P_{s,Slot}$	P_b	P_b	T_{inst}
-	kN	kN	kN	kN	kN	Nm
M8	7.7	10.3	6.5	20.7	24.8	15.0
M10	14.3	16.2	11.1	27.6	33.0	22.0
M12	20.8	23.6	15.4	32.2	38.5	28.0
M16	43.5	44.0	30.1	46.0	55.0	45.0

* *Bearing resistances for different plate thicknesses can be calculated by scaling the values in proportion to the thickness, but should only be used where the distance from the centre line of the hole to the end of the plate is greater than 2×d.*

Combined tension and shear should satisfy the following equation:

$$\frac{F_s}{P_s} + \frac{F_t}{P_t} \leq 1.4$$

Performance Data (Design to BS EN 1993-1-8*)			
Size	Tension Resistance	Shear Resistance Over Thread	Shear Resistance Over Slot
	$F_{t,Rd}$	$F_{v,Rd,Thread}$	$F_{v,Rd,Slot}$
-	kN	kN	kN
M8	7.7	12.3	7.8
M10	14.3	19.5	13.3
M12	20.8	28.3	18.5
M16	43.5	52.8	36.1

Combined tension and shear should satisfy the following equation:

$$\frac{F_{v,Ed}}{F_{v,Rd}} + \frac{F_{t,Ed}}{1.4F_{t,Rd}} \leq 1.0$$

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.

INSTALLATION INSTRUCTIONS

To watch the videos, please click on the links or scan the QR codes:

-BlindBolt Horizontal Installation: https://vimeo.com/84023929

-BlindBolt Downward Installation: https://vimeo.com/84023928

-BlindBolt Vertical Removal: https://vimeo.com/84037477

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