





## ELEVATOR BOLTS

A Worldwide Manufacturer of High Quality, Technologically Advanced Material Handling & Electronic Components



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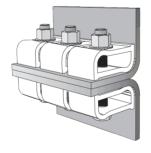
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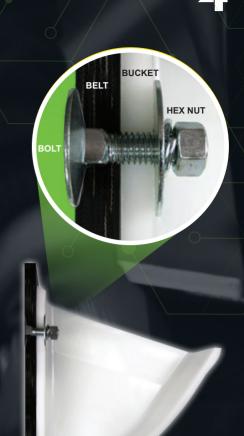
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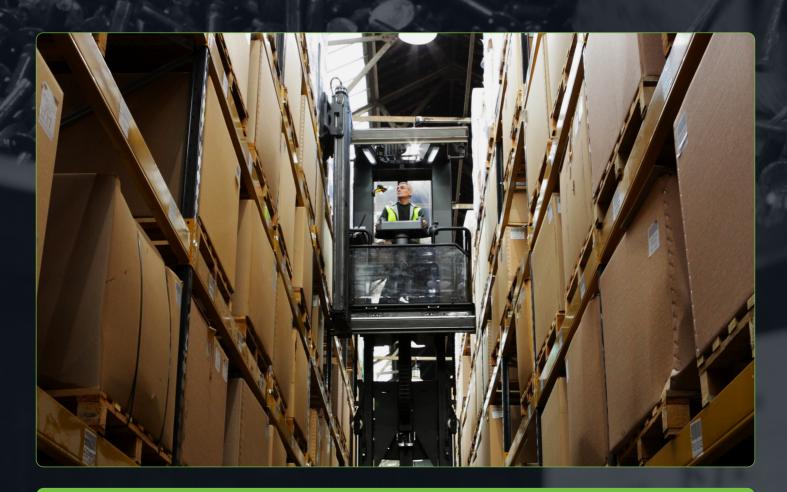
# LEADING THE FIELD IN ELEVATOR BOLT DESIGN & MANUFACTURE

4B is the only original manufacturer of the most well known elevator bolt types - Reference 70™ Bolts, Euro Bolts, Fang Bolts, Easifit Bolts, Large Oval Washers. The internationally proven range of 4B elevator bolts for materials handling applications offers benefits including safety, durability, damage reduction and ease of use.

WITH OVER 12 MILLION BOLTS PRODUCED PER ANNUM, 4B IS THE WORLD'S LEADING MANUFACTURER OF ELEVATOR BOLTS.

4B HAS LARGE NUMBER OF ELEVATOR BOLTS AVAILABLE IN STOCK FOR IMMEDIATE SHIPMENT.





COLD FORGED FOR THE HIGHEST QUALITY

## **EURO BOLTS**

#### STEEL / STAINLESS STEEL



- · Manufactured to approx. DIN15237
- ISO grade 5.8 (exceeds DIN15237)
- · Large bolt head diameter
- · Fully threaded
- Available as zinc plated, self-colour or stainless

- · Alternative choice of packings:
- Bolt, hex nut & domed washer boxed/100
- Bolt only, bulk packed in bags
- Bolt torque rating dependent on bucket & belt size



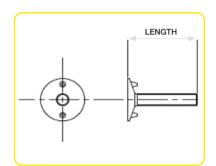
For steel buckets with recessed holes use: Bolt, hexagon nut and large domed washer.



For steel buckets with flat holes use: Bolt, hexagon nut and small flat washer.



For plastic buckets use: Bolt, hexagon nut and large flat washer.



#### Bolt, hex nut, small washer (boxed/100) - weight Kg/100

						BOLT LENGTH (measured overall)						
REF.	HEAD Ø (mm)	MAX. BOLT TORQUE (Nm)	20 (mm)	22 (mm)	25 (mm)	30 (mm)	35 (mm)	40 (mm)	45 (mm)	50 (mm)	60 (mm)	70 (mm)
M6¹)	21	8	1.28	-	1.38	1.50	-	-	-	-	-	-
M7	23	13	1.82	1.94	2.10	2.16	2.22	-	-	-	-	-
M8	28 / 272)	20	2.98	2.00	3.00	3.02	3.37	3.72	3.88	3.94	-	-
M10	35 / 31 <sup>2)</sup>	36	-	-	5.42	5.43	5.44	5.84	6.02	6.18	-	-
M12¹)	42	65	-	-	-	-	-	9.24	-	4.96*	5.36*	5.60*

<sup>1)</sup> Not available in stainless steel

2) Stainless steel

\* Weight Kg/50

#### Bolts Only (bulk packet) - weight Kg/packet

		,	3 3 1 1 1								
		BOLT LENGTH (measured overall)									
REF.	20 (mm)	22 (mm)	25 (mm)	30 (mm)	35 (mm)	40 (mm)	45 (mm)	50 (mm)	60 (mm)	70 (mm)	Qty
M6¹)	19.4	-	20.8	21.4	-	-	-	-	-	-	2000
M7	20.1	21.3	22	24.2	17.5*	-	-	-	-	-	1500
M8	10.1	11.1	11.3	12.3	13	13.7	14.3	14.9	-	-	500
M10	-	-	18.8	20	21	22.3	23.7	12.6**	-	-	500
M12¹)	-	-	-	-	15.9	16.7	17.7	18.7	20.8	23.2	250

## REFERENCE 70 (REF 70)



#### STEEL / STAINLESS STEEL

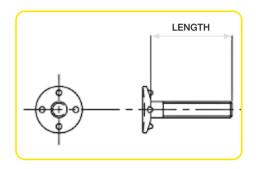


- Steel ISO grade 5.8 (exceeds DIN 15237)
- Concave head with 4 lugs on the underside to prevent rotation when tightening
- · Hexagon nut and small flat washer included
- Available in Whitworth thread or metric thread
- · Zinc plated (self colour on special request)
- Bolt torque rating dependent on bucket & belt size









					BOLT LENG	GTH (measur	ed from unde	er the bolt he	ead) Kg/100		
REF.	HEAD Ø (mm)	MAX. BOLT TORQUE (Nm)	1/2" 12 (mm)	3/4" 20 (mm)	1" 25 (mm)	1 1/4" 30 (mm)	1 1/2" 40 (mm)	13/4" 45 (mm)	2" 50 (mm)	21/4" 55 (mm)	21/2" 65 (mm)
1/4" BSW M6	17	5	1.04	1.18	1.24	1.48	1.56	-	-	-	-
5/16" BSW M8	23	10	-	2.08	2.38*	2.54*	2.90*	-	3.24	-	-
3/8" BSW M10	27	18	-	-	3.94	4.44*	4.80*	5.08*	5.36*	5.50	5.72
1/2" BSW M12	35	42	-	-	-	7.44	7.78	8.12	8.44	9.08	-

<sup>\*</sup> Available in stainless steel



#### ACCESSORY -4B LARGE OVAL WASHER

REF.	Ø	(mm)	Kg/100
LOW1	1/4" M6	33/45	1.44
LOW2	5⁄16" M8*	37/50	2.22
LOW3	3⁄8" M10*	45/57	2.90
LOW4	1/2" M12*	53/63	3.94

#### ZINC-PLATED STEEL/STAINLESS STEEL

- $^{\bullet}$  Use with Ref  $70^{\text{\tiny{TM}}}$  bolts in heavy duty applications
- Locates over 4 lugs on bolt head, increasing effective bolt head size and bolt holding
- Belt must be thick enough to absorb the washer and / or the bucket belt holes should be recessed
- Not recommended on pulley diameters of less than 20" (500mm)
- Fit the longest part of the oval across the



NOTE: Bolt head and oval washer installed behind belt as shown

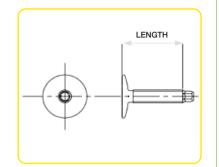
<sup>\*</sup> Available in stainless steel

## **EASIFIT BOLTS**

#### STEEL / STAINLESS STEEL



- · Supplied with small washer and nylon insert locknut
- Shank formed with hexagon tip. Special tool grips this hexagon, stopping bolt rotation while simultaneously driving the self-locking nut on (or off) in one easy operation
- · Speeds fitting and removal of bolts
- · Improves elevator safety
- · Reduces belt damage caused by standard bolts
- UNF thread
- · Bolt torque rating dependent on bucket & belt size



			BOLT LENGTH (measured from top of the head to end of the thread) Kg/100								
REF.	HEAD Ø (mm)	MAX. BOLT TORQUE (Nm)	3/4"	1"	1 1/4"	1 1/2"	1 3⁄4"	2"			
1/4" UNF	25	12	1.82	1.88*	2.04	-	-	-			
5/16" UNF	30	25	2.84*	3.02*	3.24	3.48	3.68	-			
3/8" UNF	32	46	-	4.56	4.70*	5.10*	5.50	5.90			

Standard zinc plated, self colour and stainless options on request - Stainless bolts are "special". Please check stock and delivery situation before ordering.

Easifit elevator bolts require a specialized ratchet. The ratchet has been designed to grip the hexagon tip, holding the bolt in place while the nut is tightened. The ratchet is available in either a standard hand model or in a pneumatic air version.





Easifit Installation Video & Pneumatic Ratchet Demo

can the QR Code



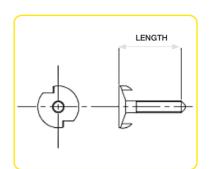
## **FANG BOLTS**



#### **STEEL**



- Unique Design fangs bite into belt, locking bolt in place while nut is tightened
- · Eases fitting and removal of nut
- Large bolt head diameter = maximum resistance to pull through
- Flat bolt head pulls fully flush into belt reduces risk of rip out of bolt due to head protruding from back of belt
- · Suitable for recessed or non recessed bolt holes
- · Ideal for CC-S buckets
- Bolt torque rating dependent on bucket & belt size



					BOLT LENGT				
REF.	HEAD Ø (mm)	MAX. BOLT TORQUE (Nm)	20 (mm)	25 (mm)	30 (mm)	35 (mm)	40 (mm)	45 (mm)	80 (mm)
M6	25	11	1.56	1.82	-	-	-	-	-
M8	30	27	-	2.76	2.02	-	3.24	-	-
M10	27	47	-	-	4.90	5.12	5.34	5.56	-

Standard zinc plated, self colour on request



## **BOLTS ACCESSORIES**

METRIC NYLON INSERT SELF LOCKING NUT (DIN 985)





Ø	Kg/100	
M6	0.15	
M7	0.20	
M8	0.48	
M10	1.10	
M12	1.50	
	M6 M7 M8 M10	

BSW NYLON INSERT SELF LOCKING NUT (P-TYPE)





Ref.	Ø	Kg/100
NY1	1/4"	0.44
NY2	5/16"	0.76
NY3	3/8"	0.97
NY4	1/2"	2.72

HEXAGON LOCKNUTS (HALF NUTS)





Ref.	Ø	Kg/100		
HN2	5/16" BSW	0.34		
HN3	3/8" BSW	0.54		
ним8	M8	0.48		
HNM10	M10	0.90		

EASIFIT HAND TOOL



Ref.	Ø
EFHT1	1/4"
EFHT2	5/16"
EFHT3	3/8"

DOMED WASHER THIN (NOT DIN) STAINLESS STEEL 304 ONLY



Ref.	Ø	D	Т	Kg/ 100
DW06 304S	М6	25	1.0	0.45
DW08 304S	M8	32	1.0	0.65
DW10 304S	M10	40	1.0	1.50

STAINLESS FENDER/ REPAIR WASHER (MUD-GUARD WASHER)



Ref.	Ø	D	т	Kg/ 100
FW1S	M6	25	1.5	0.50
FW2S	M8	30	1.5	0.70
FW3S	M10	30	1.5	0.92

DOMED WASHER DIN 15237 MILD STEEL



Ref.	Ø	D	т	Kg/ 100
DW06	M6/M7	25	1.5	0.60
DW08	M8	32	1.5	0.90
DW10	M10	40	2.0	1.80
DW12	M12	50	2.0	2.70

**EASIFIT AIR TOOL** 



Ref.	Ø
EFAT1	1/4"
EFAT2	5/16"
EFAT3	3/8"
EFAT4	1/2"

**RUBBER WASHER** 



Ref.	Ø	D	т	Kg/
RW2	M8	25	5	0.18
RW3	M10	30	5	028

STEEL FENDER/REPAIR WASHER (MUDGUARD WASHER)



Ref.	Ø	D	т	Kg/
		_	_	
FW1	M6	25	1.5	0.35
FW2	M8	25	1.5	0.81
FW3	M10	30	1.5	0.79
FW4	M12	38	1.5	1.24

SINGLE COIL SPRING WASHER



Ref.	Ø	Kg/100
SP1	M8 / 5/16"	0.02
SP2	M10 / 3/8"	0.04

SHAKE PROOF LOCK WASHER



Ref.	Ø	Kg/100
SHM1	М6	0.02
SHM2	M8	0.03
SHM3	M10	0.04



### **BELT FASTENERS**



#### **4B BC CLAMP**

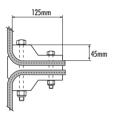
The Braime Clamp (BC) series of heavy-duty belt splices securely fastens belting on larger bucket elevators. As the originator of this proven style of belt clamp, 4B designed it from three pieces of extruded aluminium including a center wedge section to minimize belt wear.

The BC1 and BC2 can be used on textile belts. All BC Clamps can be used on steel web belting.

The BC2, BC3 and BC4 versions incorporate an additional three piece machined steel vise grip section designed to ride above the aluminium base clamp and secure the steel cords within a steel web belt.

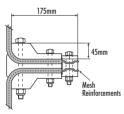






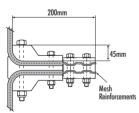
#### BC1

- Belt Strength 1,400 kN/m
- · Weight 31.6 Kgs/m
- · Size Bolt M16



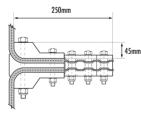
#### BC<sub>2</sub>

- Belt Strength 1,600 kN/m
- · Weight 56.5 Kgs/m
- · Size Bolt M16



#### BC3

- · Belt Strength 2000 kN/m
- · Weight 71 Kgs/m
- · Size Bolt M16



#### BC4

- Belt Strength 2,500 kN/m
- · Weight 96 Kgs/m
- · Size Bolt M16

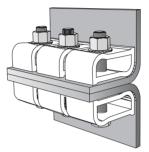
\*For textile belts, use only BC1.

#### **4B SUPERGRIP SYSTEM**

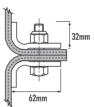
- · Easy to fit modular system of 50mm segments
- 4 versions available for belts up to 1250 kN/m without thickness limitation
- Each assembly comprises 2 half joints, high tensile bolt & self-locking nut
- With standard nylon nuts max temp. 80° C, for temp. 80° C+ specify Philidas nuts
- · Available in stainless steel

Example of joint using 3 Supergrips on a belt of 150 to 195mm wide.

25mm minimum belt projection for all sizes.

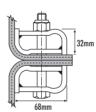






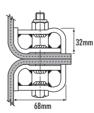
#### **SUPERGRIP NO.1**

- · Belt Strength 500kN/m max.
- · Weight 0.5Kgs
- · M14 Bolts



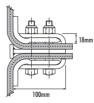
#### **SUPERGRIP NO.2**

- Belt Strength 630kN/m max.
- Weight 0.8Kgs
- · M14 Bolts



#### **SUPERGRIP NO.3**

- · Belt Strength 800kN/m max.
- Weight 0.85Kgs
- M14 Bolts



#### **SUPERGRIP NO.4**

- Belt Strength -1000 & 1250kN/m max.
- · Weight 1.83Kgs
- · M16 Bolts

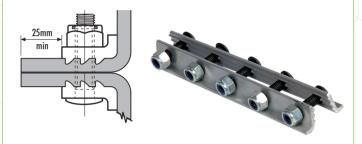
Bespoke belt clamps available for belts over 1250kN/m. Contact 4B's technical department.

## **BELT FASTENERS**

#### **4B GRIPWELL**

#### LIGHT DUTY FASTENER

- For elevator belts up to 630 kN/m and up to 7.0mm max. thickness
- · Vise grip between serrated jaws
- For longer joints use 2 fasteners of equal length per joint.
   e.g. 2 x 150mm Gripwell fasteners for a 300mm wide belt

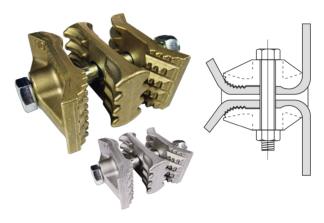


Belt Width (mm)	Actual Length (mm)	Bolt Holes (mm)	ø (mm)	Centres (mm)
50	45	2	8.0	25
65	57	2	8.0	33
75	70	2	8.0	43
90	83	3	8.0	2x28
100	96	3	8.0	2.33
115	109	3	8.0	2x42
125	122	4	8.0	3x32
140	134	4	8.0	3x36
150	147	4	8.0	3x40
165	160	5	8.0	4x33
175	172	5	8.0	4x36
200	198	6	8.0	5x34
225	223	6	8.0	5x40
250	248	7	8.0	6x37
275	273	7	8.0	6x41
300	299	8	8.0	7x39

#### **4B VISE SPLICE**

4B Vise Splices are mechanical splices for use on most PVC and rubber elevator belts. Each splice unit is made of three pieces. The outside plates have two different gripping areas. The ribbed gripping area is mounted towards the face of the belt. The opposite end has a series of both longitudinal and axial teeth. The center plate is symmetrical and cannot be improperly installed around its elongated center hole.

The splice functions by using the tension supplied by the belting. This tension on the belt ends pulls the outer plates apart, and forces gripping pressure towards the teeth on the splice unit. The greater the belt tension, the more pressure is exerted on the gripping teeth at the forward end of the splice.



#### **Features**

- For belts 1000 to 1400 kN/m tensile strength
- · Use on PVC and rubber belting
- · Non-sparking (non-ferrous version)
- · Each splice accommodates 50mm of belt width

#### Non-ferrous

- · Non-ferrous metal (bronze colour)
- For belts of up to 1400 kN/m tensile strength
- · Non-sparking, non-corroding and non-rusting
- 1.33 kgs
- Up to 260°C

#### **Ferrous**

- · Ferrous metal (silver colour)
- For belts of up to 1000 kN/m tensile strength
- 1.18 kgs
- Up to 315°C









#### A Worldwide Manufacturer

#### 4B catalogues also available:

Electronics

Elevator Buckets

Elevator Belting

Forged Chains





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