# Flexco<sup>®</sup> Bolt Solid Plate Fastening System

## The Cement Industry Standard for Strong, Long-Lasting Splices

Downtime can cost a cement plant as much as \$25,000 an hour, so operators need to replace belts and get damaged belts up and running as quickly as possible. Flexco® Bolt Solid Plate fasteners are engineered to meet the demands of the toughest material handling applications, providing a strong, sift-free splice with superior holding ability. A choice of sizes accommodates belts from 5 mm to over 24 mm thick.



Exclusive Piloted Bolts: Tapered tips that cradle nuts securely in place. Reduce installation time. Easy to use.

Selectio	n Guide		
Fastener Size	Belt Thickness Range	For Belts with Mechanical Fastener Ratings Up To:	Minimum Pulley Diameter
	mm	kN/m	mm
1	5 - 11	30	300
140, 140VP	5 - 11	40	360
190, 190VP	8 - 14	65	460
1-1/2	11 - 17	50	460
2, 2VP	14 - 21	75	760
2*	8 - 32	123	510
2-1/4	14 - 30	105	920
2-1/2	19 - 25	75	1070
3	24 & over	100	1220

\* When used with No. 3 Lead Wedlok® pattern, belts over 22 mm require extra long No. 2-1/4 bolts



### High strength.

High strength is the result of superior design and plate compression on both the top and bottom sides of the belt. High tensile strength bolts compress top and bottom plates to distribute splice tension evenly across the entire width of each fastener plate. For added strength and pullout resistance, specially formed teeth penetrate deep into the belt carcass – without damaging carcass fibers.

### Easy installation.

Field-proven templets, punches, and boring tools make it easy to quickly and accurately prepare belts for fastener installation. Fasteners are easily installed on-site using portable hand tools or power tools. Our exclusive piloted bolts also contribute to faster installation.



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### FLEXCO® BOLT SOLID PLATE Fastening System

## **Fasteners**

Each Quick-Fit "E" box contains 25 complete fastener sets. A set consists of a top plate, a bottom plate, two nuts, and two bolts.

Drdering	Information		
Steel	Stainless — 300 Series	MegAlloy® Top Plates Balance Steel	MegAlloy® Top & Bottom Plates, Steel, Bolts & Nuts
	"E" Bo	x (25 Fastener Sets)	
1E			
140E	140ES	140EMA	140EMAP
190E	190ES	190EMA	190EMAP
1-1/2E	1-1/2ES	1-1/2EMA	1-1/2EMAP
2E	2ES	2EMA	2EMAP
2-1/4E	2-1/4ES	2-1/4EMA	2-1/4EMAP
2-1/2*			
3*			
"C" Buck	et (100 Fastener	Sets – Bottom Plate	s Pre-Assembeled)
1C		ICMA	
140C		140CMA	140CMAP
190C		190CMA	190CMAP
1-1/2C		1-1/2CMA	1-1/2CMAP
2C		2CMA	2CMAP
2- 1/4C		2-1/4CMA	
2-1/2C**			
3**			



\* 10 fastener sets \*\* Packaged in cartons

NOTE: Additional fastener metal selections are available

Fasteners S	rs Sets Required in a Complete Joint					
Belt Width		er Size & 190		er Size & 2-1/4		er Size 2 & 3
mm	mm	mm	mm	mm	mm	mm
	90°	45°	90°	45°	90°	45°
300	9	12	8	10	6	7
450	14	19	11	15	9	12
600	19	26	15	21	13	16
750	24	33	19	27	16	21
900	29	40	23	32	19	26
1000	32	45	26	36	21	29
1050	34	47	27	38	21	30
1200	39	54	31	43	26	35
1350	44	61	35	49	29	40
1500	49	68	39	55	32	44
1800	59	82	49	65	39	53

NOTE: Required fastener sets may vary from those listed depending on exact fastener size





Flexco® V	P™ Faste	ners			
	overed Top lance Stee			overed Top y® Bottom	
Ordering Number	Plates Per Strip	Strips Per Box	Ordering Number	Plates Per Strip	Strips Per Box
	Box*			Box*	
140VP	6	5	140VPMA	6	5
190VP	6	5	190VPMA	6	5
2VP	4	6			
	Bucket			Bucket	
140VPB	6	16	140VPBMA	6	16
190VPB	6	16	190VPBMA	6	16
2VPB	4	24			

\* Box quantities provide enough fasteners to splice a 900 mm belt

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# **Installation Tools**

### 90° and 45° Templets

Templets are required for 90° and 45° Bolt Solid Plate fastener installation. Templets simplify installation by providing a guide for accurate bolt-hole placement. Lengths for all standard belt widths are available.

Ordering I	rdering Information							
Belt Width		Ordering Number						
mm	1	140	190	1-1/2	2	2-1/4	2-1/2	3
			90	° Templets				
300	1-12	140-12	190-12	1-1/2-12	2-12			
450	1-18	140-18	190-18	1-1/2-18	2-18			
600	1-24	140-24	190-24	1-1/2-24	2-24	2-1/4-24	2-1/2-24	
750	1-30	140-30	190-30	1-1/2-30	2-30	2-1/4-30	2-1/2-30	
900	1-36	140-36	190-36	1-1/2-36	2-36	2-1/4-36	2-1/2-36	3-36
1050	1-42	140-42	190-42	1-1/2-42	2-42	2-1/4-42	2-1/2-42	3-42
1200	1-48	140-48	190-48	1-1/2-48	2-48	2-1/4-48	2-1/2-48	3-48
1350				1-1/2-54	2-54	2-1/4-54	2-1/2-54	
1500			190-60	1-1/2-60	2-60	2-1/4-60	2-1/2-60	3-60
1800				1-1/2-72	2-72	2-1/4-72	2-1/2-72	3-72
			45	° Templets				
300	1-12-45							
450	1-18-45		190-18-45	1-1/2-18-45				
600	1-24-45	140-24-45	190-24-45	1-1/2-24-45	2-24-45			
750	1-30-45	140-30-45	190-30-45	1-1/2-30-45	2-30-45			
900	1-36-45	140-36-45	190-36-45	1-1/2-36-45	2-36-45			
1050		140-42-45	190-42-45	1-1/2-42-45	2-42-45			
1200	1-48-45	140-48-45	190-48-45	1-1/2-48-45				
1500		140-60-45	190-60-45	1-1/2-60-45	2-60-45			



### **Rip Repair**

Use standard Flexco<sup>®</sup> Solid Plate fasteners to repair conveyor belt holes and edge tears. For jagged length-wise conveyor belt tears, standard Bolt Solid Plate fasteners can be combined with three-bolt Rip Repair fasteners. Three-bolt Rip Repair fasteners can also be used to bridge "soft" spots in the belt before they become rips.



Rip Repair Select	tion Information
<b>Belt Thickness</b>	Fastener
mm	Size
10-14	No. 16
6-13	RP1
10-21	RP2
14-30	2-1/4



Ordering Information	n
Ordering Number	Box Qty.
Steel	
RP1E	25
RP1C	100
RP2E	25
RP2C	100
2-1/4E	25
2-1/4C	100
Stainless	;
RP1ES	25
RP2ES	25
2-1/4ES	25
Everdur®	)
2-1/4EE	25
Turtle <sup>®</sup> Fastene	r-Steel
16	50





Hand installation tools



Power installation tools



Bolt Breaker



Flexco-Lok® Tape



Cracking Chisel

### FLEXCO<sup>®</sup> BOLT SOLID PLATE Fastening System

#### Installation Tools and Supplies

The only tools needed for Bolt Solid Plate fastener installation are a templet and portable hand or power tools such as wrenches and belt punches. Impact wrench driven power tools are recommended and can reduce installation time by at least 50%.

#### Flexco-Lok® Tape

Rigid nylon tape helps eliminate belt ripples on plied or solid-woven belting so belts run smoothly over pulleys and under cleaners. Also helps seal splices against seepage of fines and moisture.

#### **Cracking Chisel**

With a hammer and cracking chisel, individual worn plates can be easily replaced – without resorting to replacement of the entire splice.



Silicone Lubricant Spray

Description	Fastener Number	Ordering Number
H	and Installation Tools	
Bolt Horn		2BH
	1, 140, 190, RP1	P1P
Punch	1-1/2, 2, 2-1/4, RP2	P2P
	2-1/2, 3	P3P
	1, 140, 190, RP1	B1B
Boring Bit	1-1/2, 2, 2-1/4, RP2	B2B
	2-1/2, 3	B3B
	1, 140, 190, RP1	\$1\$**
Wrench	1-1/2, 2, 2-1/4, RP2	S2S
	2-1/2, 3	S3S
P	ower Installation Tools	
	1, 140, 190, RP1	HP1
Power Punch	1-1/2, 2, 2-1/4, RP2	HP2
	2-1/2, 3	HP3
	1, 140, 190, RP1	HB1
Power Boring Bit	1-1/2, 2, 2-1/4, RP2	HB2
	2-1/2, 3	HB3
	1, 140, 190, RP1	HW1**
Power Wrench	1-1/2, 2, 2-1/4, RP2	HW2
	2-1/2, 3	HW3
Quick Change Chuck		5552
	Bolt Breaker	
	1, 140, 190, RP1	110
Bolt Breaker (Two Per Package)	1-1/2, 2, 2-1/4, RP2	112*
	2-1/2, 3	113*
Flexco-	Lok® Tape (100' per ca	arton)
	1, 140	FL7C
	190, 1-1/2, 2, 2-1/4	FL11C
	Cracking Chisel	
	1, 140, 190	C1C
	1-1/2, 2, 2-1/4	C2C
	2-1/2, 3	C3C
Fle	xco® Silicone Lubricar	nt
Silicone Lubricant Spr	ау	SL5-1

\* Sizes 112 and 113 are straight bolt breakers—no bend \*\* For use with slotted nuts only

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