

Flexco® 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 (3/16") to over 24 mm (15/16") thick.



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



Selection Guide						
Fastener Size	Belt Thickness Range		For Belts with Mechanical Fastener Ratings Up To:		Minimum Pulley Diameter	
	mm	in.	kN/m	P.I.W.	mm	in.
1	5 - 11	3/16 - 7/16	30	150	300	12
140, 140VP	5 - 11	3/16 - 7/16	40	225	360	14
190, 190VP	8 - 14	5/16 - 9/16	65	375	460	18
1-1/2	11 - 17	7/16 - 11/16	50	300	460	18
2, 2VP	14 - 21	9/16 - 13/16	75	440	760	30
2*	8 - 32	15/16 - 1-1/4	123	700	510	20
2-1/4	14 - 30	9/16 - 1-3/16	105	620	920	36
2-1/2	19 - 25	3/4 - 1	75	450	1070	42
3	24 & over	15/16 & over	100	560	1220	48

* When used with No. 3 Lead Wedlok® pattern, belts over 7/8" (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 pull-out resistance, specially formed teeth penetrate deep into the belt carcass – without damaging carcass fibers.

Easy installation.

Field-proven templates, 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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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.



Ordering Information			
Steel	Stainless— 300 Series	MegAlloy® Top Plates Balance Steel	MegAlloy® Top & Bottom Plates, Steel, Bolts & Nuts
“E” Box (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” Bucket (100 Fastener Sets – Bottom Plates Pre-Assembled)			
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

Flexco® VP™ Fasteners					
Rubber Covered Top Plates Balance Steel			Rubber Covered Top Plates MegAlloy® Bottom Plates		
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 36" (900 mm) belt

Fasteners Sets Required in a Complete Joint													
Belt Width		Fastener Size 1, 140, & 190				Fastener Size 1-1/2, 2 & 2-1/4				Fastener Size 2-1/2 & 3			
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
		90°		45°		90°		45°		90°		45°	
300	12	9	10	12	12	8	8	10	9	6	6	7	7
450	18	14	15	19	19	11	12	15	15	9	9	12	12
600	24	19	20	26	26	15	16	21	21	13	12	16	17
750	30	24	25	33	33	19	20	27	27	16	16	21	21
900	36	29	30	40	41	23	24	32	33	19	19	26	26
1000		32		45		26		36		21		29	
1050	42	34	35	47	48	27	28	38	39	21	22	30	31
1200	48	39	40	54	55	31	32	43	44	26	26	35	35
1350	54	44	45	61	63	35	36	49	48	29	29	40	40
1500	60	49	50	68	69	39	40	55	56	32	32	44	44
1800	72	59	61	82	83	49	48	65	68	39	39	53	53

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

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



Rip Repair

Use standard Flexco® 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 Selection Information

Belt Thickness		Fastener Size
mm	in.	
10-14	3/8-9/16	No. 16
6-13	1/4-1/2	RP1
10-21	3/8-13/16	RP2
14-30	9/16-1-3/16	2-1/4



Ordering Information

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® Fastener-Steel	
16	50

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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.

Ordering Information		
Description	Fastener Number	Ordering Number
Hand Installation Tools		
Bolt Horn		2BH
Punch	1, 140, 190, RP1	P1P
	1-1/2, 2, 2-1/4, RP2	P2P
	2-1/2, 3	P3P
Boring Bit	1, 140, 190, RP1	B1B
	1-1/2, 2, 2-1/4, RP2	B2B
	2-1/2, 3	B3B
Wrench	1, 140, 190, RP1	S1S**
	1-1/2, 2, 2-1/4, RP2	S2S
	2-1/2, 3	S3S
Power Installation Tools		
Power Punch	1, 140, 190, RP1	HP1
	1-1/2, 2, 2-1/4, RP2	HP2
	2-1/2, 3	HP3
Power Boring Bit	1, 140, 190, RP1	HB1
	1-1/2, 2, 2-1/4, RP2	HB2
	2-1/2, 3	HB3
Power Wrench	1, 140, 190, RP1	HW1**
	1-1/2, 2, 2-1/4, RP2	HW2
	2-1/2, 3	HW3
Quick Change Chuck		5552
Bolt Breaker		
Bolt Breaker (Two Per Package)	1, 140, 190, RP1	110
	1-1/2, 2, 2-1/4, RP2	112*
	2-1/2, 3	113*
Flexco-Lok® Tape (100' per carton)		
	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
Flexco® Silicone Lubricant		
Silicone Lubricant Spray		SL5-1

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



Hand installation tools



Power installation tools



Bolt Breaker



Flexco-Lok® Tape



Cracking Chisel



Silicone Lubricant Spray

Authorized Distributor: