

# Flexco® Bolt Solid Plate Fastener System

BSP200



When belt top covers are 3/16" (5 mm) or more, countersinking (recessing) fastener plates is recommended.



Exclusive tapered tip cradles nuts securely in place.

Easy to use.

Reduces installation time.

Flexco® Bolt Solid Plate fasteners are engineered to meet the demands of the toughest material handling applications, providing a strong sift-free splice and superior holding ability. A choice of sizes accommodates belts from 3/16" (5 mm) to over 15/16" (24 mm) thick.

## 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.

## Market applications

- Sand
- Gravel
- Crushed stone
- Grain
- Coal
- Cement
- Salt

## Flexco® Bolt Solid Plate Fastener Selection Guide

Fastener Size	Belt Thickness Range		For Belts with Mechanical Fastener Ratings Up To:		Recommended Minimum Pulley Diameter (Operating Tension 75% -100% of Belt Rating)	
	in.	mm	P.I.W.	kN/m	in.	mm
1	3/16 - 7/16	5 - 11	150	30	12	300
140	3/16 - 7/16	5 - 11	225	40	14	350
190	5/16 - 9/16	8 - 14	330	60	18	450
1-1/2	7/16 - 11/16	11 - 17	300	50	18	450
2	9/16 - 13/16	14 - 21	440	75	30	750
2-1/4	9/16 - 1-3/16	14 - 30	620	105	36	900
2-1/2	3/4 - 1	19 - 25	450	75	42	1050
3	15/16 & over	24 & over	560	100	48	1200

**FLEXCO®** Bolt Solid Plate

# Flexco® Bolt Solid Plate Fastener System

## Fasteners

Each “E” box contains 25 complete fastener sets. A set consists of a top plate, a bottom plate, two nuts, two bolts, and an assembly clip.



### “E” Box

(25 Fastener Sets)

Ordering Number			
Steel	Stainless – 300 Series	MegAlloy® Top Plates Balance Steel	MegAlloy® Top & Bottom Plates, Steel Bolts & Nuts
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*			

\*10 Fastener Sets

NOTE: Other metals are also available in “E” boxes.

### “C” Bucket

(100 Fastener Sets – Bottom Plates Pre-Assembled)

Ordering Number		
Steel	MegAlloy® Top Plates Balance Steel	MegAlloy® Top & Bottom Plates, Steel Bolts & Nuts
1C		
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*		
3C*		

\* Packaged in Cartons

NOTE: Other metals are also available in “C” buckets.

## 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 Fasteners

Ordering Number	Box Qty.
<b>Steel</b>	
RP1E	25
RP2E	25
2-1/4E	25
<b>Stainless</b>	
RP1ES	25
RP2ES	25
2-1/4ES	25

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

# Flexco® Bolt Solid Plate Installation Tools and Supplies

The only tools needed for Bolt Solid Plate fastener installation are a templet and portable hand tools 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%.



Hand Tools



Power Tools

## Hand Installation Tools

Description	For Fastener Number	Ordering Number
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

Description	For Fastener Number	Ordering Number
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

Description	For Fastener Number	Ordering Number
Bolt Breaker (Two Per Package)	1, 140, 190 & RP1	110
	1-1/2, 2, 2-1/4 & RP2	112
	2-1/2 & 3	113



Bolt Breaker

## 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.

**Flexco-Lok®**  
Belt Tape (100' per Carton)

Fastener Size	Ordering Number
1 & 140	FL7C
190, 1-1/2	FL11C
2 & 2-1/4	



## Flexco® Cracking Chisel

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

### Cracking Chisel

Nut Size	Ordering Number
1, 140 & 190	C1C
1-1/2, 2 & 2-1/4	C2C



# Flexco® Bolt Solid Plate Fastener System

## 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.



### 90° Templets

Belt Width		Ordering Number							
in.	mm	1	140	190	1-1/2	2	2-1/4	2-1/2	3
12	300	1-12	140-12	190-12	1-1/2-12	2-12			
16	400	1-16	140-16	190-16					
18	450	1-18	140-18	190-18	1-1/2-18	2-18			
24	600	1-24	140-24	190-24	1-1/2-24	2-24	2-1/4-24	2-1/2-24	
30	750	1-30	140-30	190-30	1-1/2-30	2-30	2-1/4-30	2-1/2-30	
36	900	1-36	140-36	190-36	1-1/2-36	2-36	2-1/4-36	2-1/2-36	3-36
42	1050	1-42	140-42	190-42	1-1/2-42	2-42	2-1/4-42	2-1/2-42	3-42
48	1200	1-48	140-48	190-48	1-1/2-48	2-48	2-1/4-48	2-1/2-48	3-48
60	1500				1-1/2-60	2-60	2-1/4-60	2-1/2-60	3-60

### 45° Templets



Belt Width		Ordering Number				
in.	mm	1	140	190	1-1/2	2
12	300	1-12-45				
18	450	1-18-45		190-18-45	1-1/2-18-45	
24	600	1-24-45	140-24-45	190-24-45	1-1/2-24-45	2-24-45
30	750	1-30-45	140-30-45	190-30-45	1-1/2-30-45	2-30-45
36	900	1-36-45	140-36-45	190-36-45	1-1/2-36-45	2-36-45
42	1050		140-42-45	190-42-45	1-1/2-42-45	2-42-45
48	1200	1-48-45	140-48-45	190-48-45	1-1/2-48-45	
60	1500		140-60-45	190-60-45	1-1/2-60-45	2-60-45



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