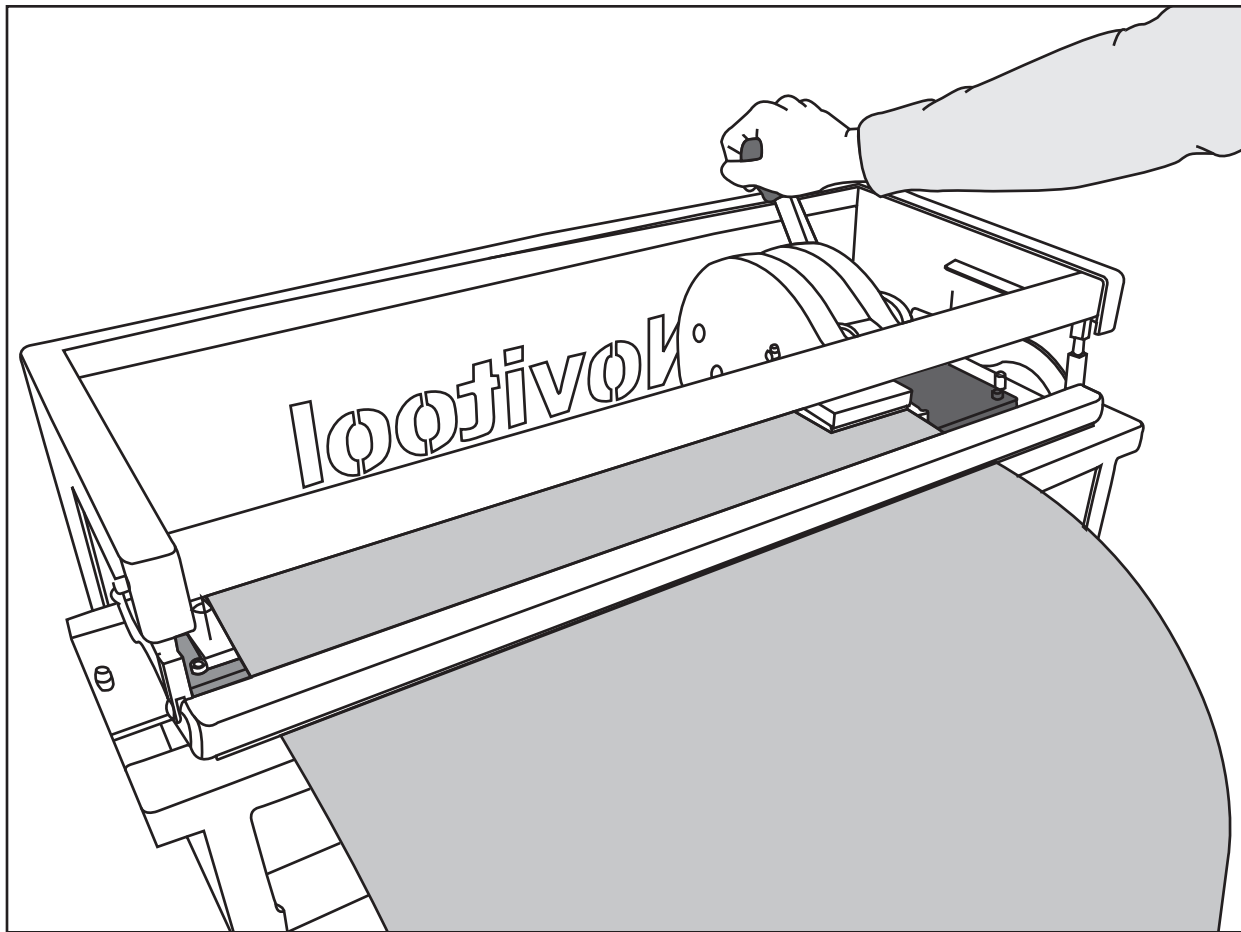

PUN M™ Manual Finger Punch

300 - 600 - 900 - 1500

Safety and Operation Manual

For punching thermoplastic belting materials only.



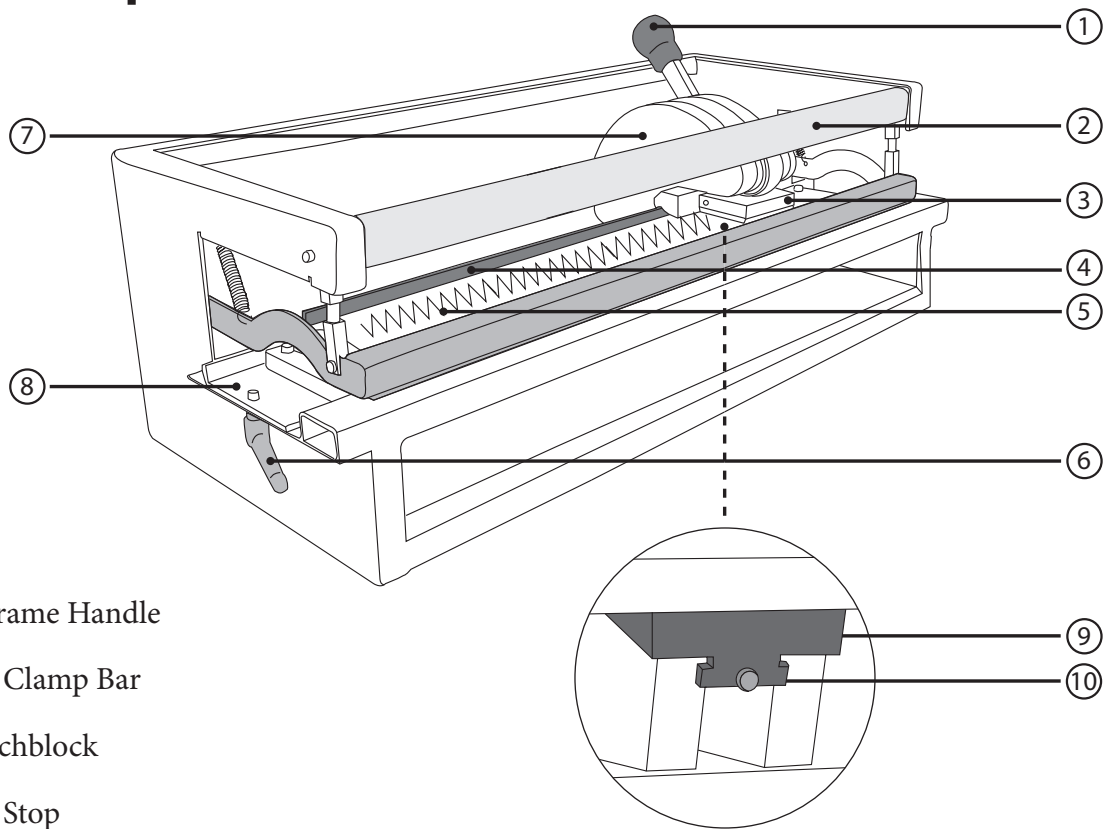
! WARNING

IMPROPER OR UNSAFE use of this tool can result in serious bodily injury! This manual contains important information about product function and safety. Please read and understand this manual BEFORE operating the tool. Please keep this manual available for other users and owners before they use the tool. This manual should be stored in a safe place.

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Main Components



1. C-Frame Handle
2. Belt Clamp Bar
3. Punchblock
4. Belt Stop
5. Punchboard with Finger Knives
6. Lock Handle
7. C-frame
8. Punchboard Tray
9. C-frame Wedge
10. Fixation Screw and Punching Force Adjustment

Description

The PUN M™ is designed to punch fingers on the ends of lightweight thermoplastic conveyor belts as a preparation for making finger- or finger-over-finger splices.

The Pun M is manually operated and does not need electricity or air pressure for its operation. The punching force of 11,000 lbs. (50 kN) is created by pulling the lever and is easily done with one hand by an average person. Because of its easy set-up and manual operation, the Pun M is an ideal tool for working on location, as well as in a workshop.

Although all punchboards of the Pun M have a specified net width, the open construction of the frame allows belts of larger widths to be punched with these machines.

With one lever pull, a finger punch of 90mm wide can be made (based on 50 × 20 fingers for finger-overlap-finger splicing) or 60mm wide (based on 80 × 20 or 70 × 15 fingers for single finger splicing). The maximum thickness is up to 5mm for light weight belting.



Tool Specifications

Pun M™ Dimensions				
	L	H	W	Weight
Pun M 300	23" 570mm	15" 370mm	14" 360mm	31 lbs 14 kg
Pun M 600	34" 870mm	15" 370mm	14" 360mm	37 lbs 17 kg
Pun M 900	46" 1170mm	15" 370mm	14" 360mm	44 lbs 20 kg
Pun M 1500	74" (1880mm)	15" (370mm)	16" (400mm)	90.5 lbs (41.1kg)

Pun M™ Ordering Information		
Ordering Number	Effective Punching Length	Item Code
PUN-M-300	300	08016
PUN-M-600	600	08017
PUN-M-900	900	08018
PUN-M-1500	1500	08910

NOTE: Punchboards not included with Pun M.
Purchase separately.

Pun M™ Punchboard Specifications		
	Ordering Number	Item Code
Pun M 300 Punchboards		
1.97" × 0.79" (50 × 20mm)*	PUN-B-50x20-300	08019
2.76" × 0.59" (70 × 15mm)	PUN-B-70x15-300	08022
3.15" × 0.79" (80 × 20mm)	PUN-B-80x20-300	08025
1.97" × 0.71" (50 × 18mm)**	PUN-B-50x18x31BIAS-300	08539
Pun M 600 Punchboards		
1.97" × 0.79" (50 × 20mm)*	PUN-B-50x20-600	08020
2.76" × 0.59" (70 × 15mm)	PUN-B-70x15-600	08023
3.15" × 0.79" (80 × 20mm)	PUN-B-80x20-600	08026
1.97" × 0.71" (50 × 18mm)**	PUN-B-50x18x31BIAS-600	08540
3.15" × 0.79" (80 × 20mm)	PUN-B-80x20x113BIAS-600	08439
Pun M 900 Punchboards		
1.97" × 0.79" (50 × 20mm)*	PUN-B-50x20-900	08021
2.76" × 0.59" (70 × 15mm)	PUN-B-70x15-900	08024
3.15" × 0.79" (80 × 20mm)	PUN-B-80x20-900	08027
1.97" × 0.71" (50 × 18mm)**	PUN-B-50x18x31BIAS-900	08526
3.15" × 0.79" (80 × 20mm)	PUN-B-80x20x113BIAS-900	08440
Pun M 1500 Punchboards		
1.97" × 0.79" (50 × 20mm)*	PUN-B-50x20-1500	08912
2.76" × 0.59" (70 × 15mm)	PUN-B-70x15-1500	08913
3.15" × 0.79" (80 × 20mm)	PUN-B-80x20-1500	08914
1.97" × 0.71" (50 × 18mm)**	PUN-B-50x18x31BIAS-1500	08915
3.15" × 0.79" (80 × 20mm)	PUN-B-80x20x113BIAS-1500	08916

*Also suitable for Finger-Over-Finger splices.

**For Bias Finger-Over-Finger splice.

NOTE: Custom punchboards are available for other finger dimensions.
Contact Customer Service for information.

Pun M™ Punching Block Nylon Inlay	
Ordering Number	Item Code
PUN-M-NYLONPAD-KIT	08279

General Safety Rules –Save These Instructions–

Signal words:

“DANGER” indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. The signal word is limited to the most extreme situations.

“WARNING” indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

“CAUTION” indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

Safety Symbol



This international safety symbol is used to identify and call attention to specific safety matters.

Safety Information

To Avoid Severe Personal Injury or Property Damage, read carefully and understand the following Safety Precautions.

1. WORK AREA

! CAUTION

Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.

2. PERSONAL SAFETY

! WARNING

Stay alert, watch what you are doing and use common sense when operating a tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating tools may result in serious personal injury.

Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.

Do not overreach. Keep proper footing and balance at all times to enable better control of the tool in unexpected situations.

Never alter or remove safety devices.

Keep your hands and fingers away from the knives in the punchboard, at all times.

! CAUTION

Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

General Safety Rules

3. TOOL USE AND CARE

WARNING

Always use the punching machine on a level, firm surface. Punching should be performed operating the machine with one hand on the handle and the other on the top part of the frame or C-frame.

Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.

CAUTION

Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges, are less likely to require unnecessary high forces and are easier to control. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.

The Punching machine should not be used to punch materials other than thermoplastic belting materials. The thickness of the belting material should never exceed 0.20 inch (5mm).

When servicing a tool, use only original Flexco replacement parts.

Do not wipe plastic parts with solvent. Solvents such as gasoline, thinner, benzene, carbon tetrachloride, and alcohol may damage and crack plastic parts. Do not wipe them with such solvents. Wipe plastic parts with a soft cloth lightly dampened with soapy water and dry thoroughly.

4. PUNCHBOARD SAFETY AND REPLACEMENT

CAUTION

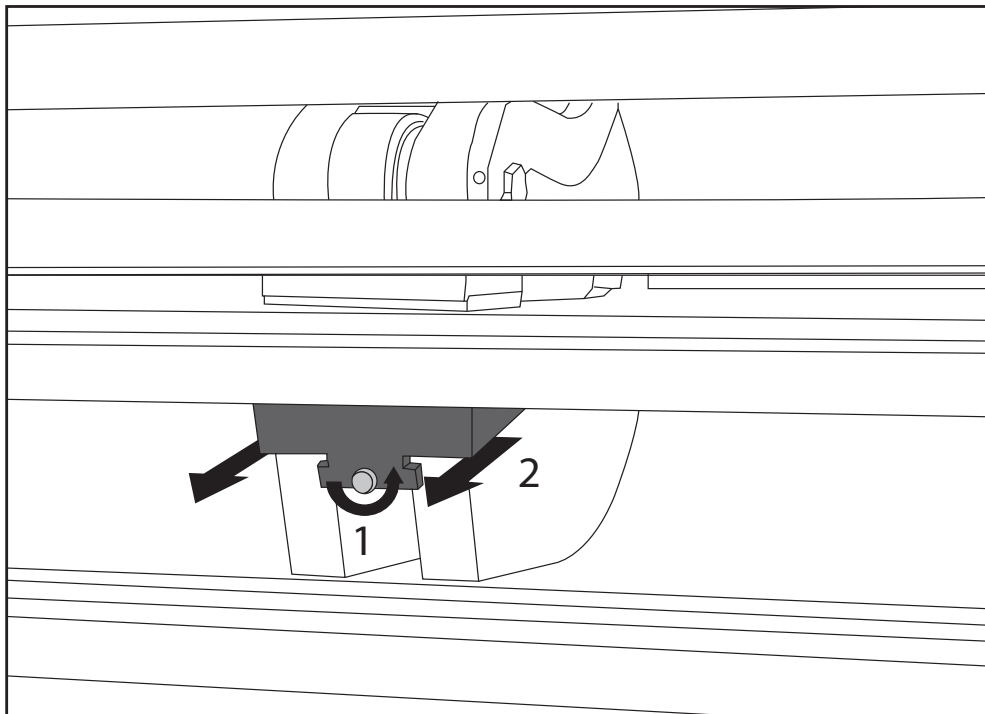
Always use original Flexco punchboards in combination with the Pun M™.

Do not use dull or damaged punchboards.

Always protect yourself against the knives of unused punchboards by shielding them with cardboard packaging material or wood. This material should also protect the knives from getting damaged.

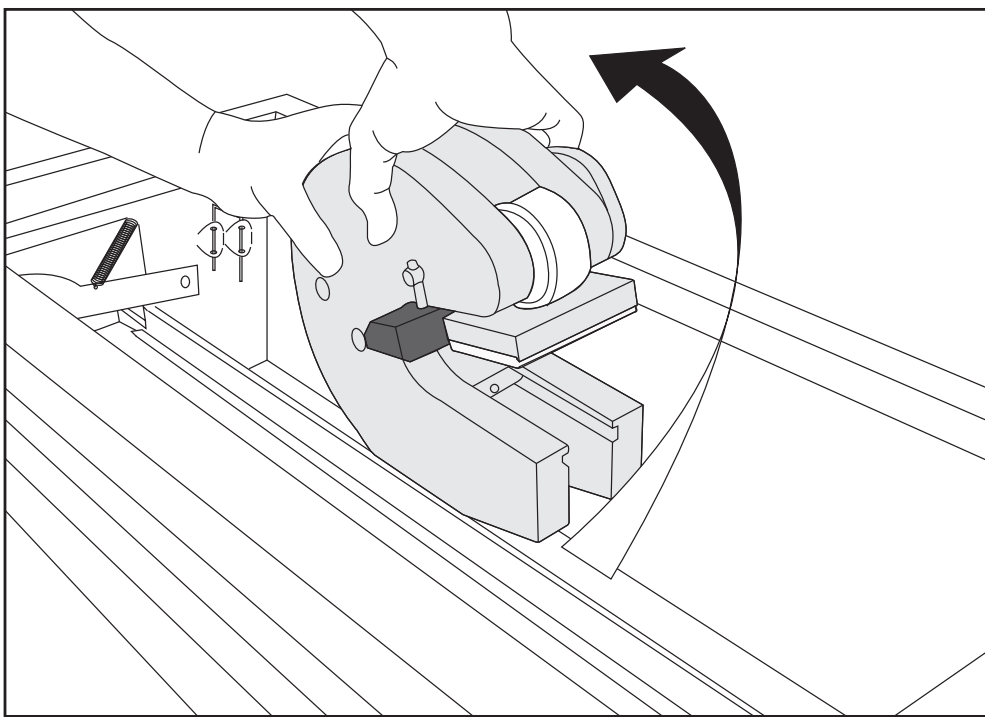
Work Preparation and Replacing Punchboards

A1



1. Loosen and remove fixation screw. 2. Take out the black C-frame wedge.

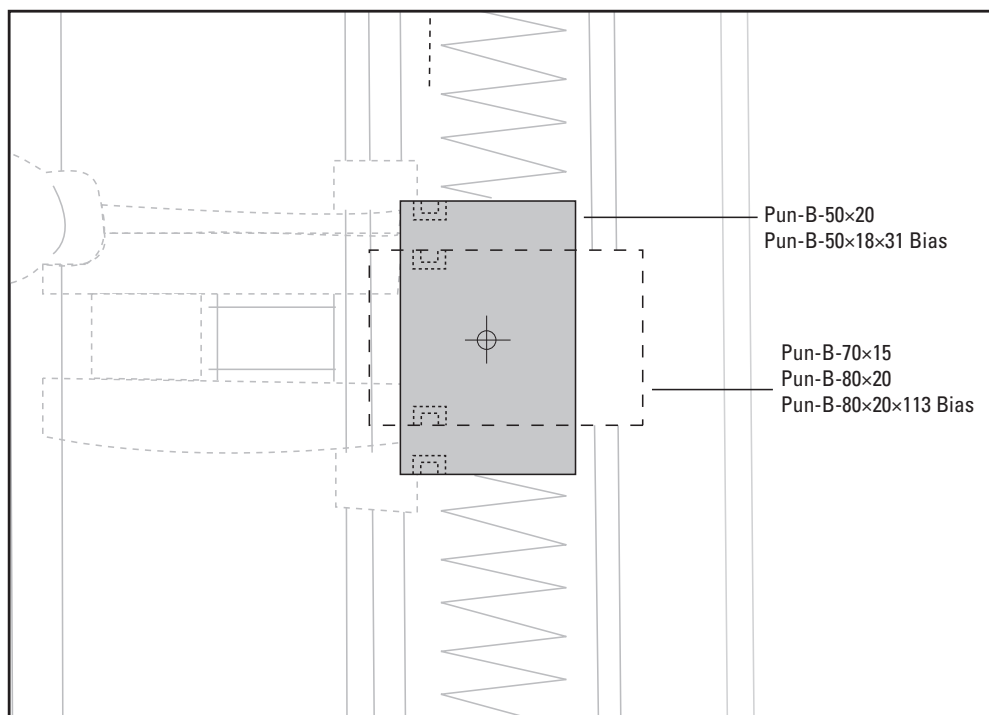
A2



Ensure tray is in forward position. Twist C-frame to remove.

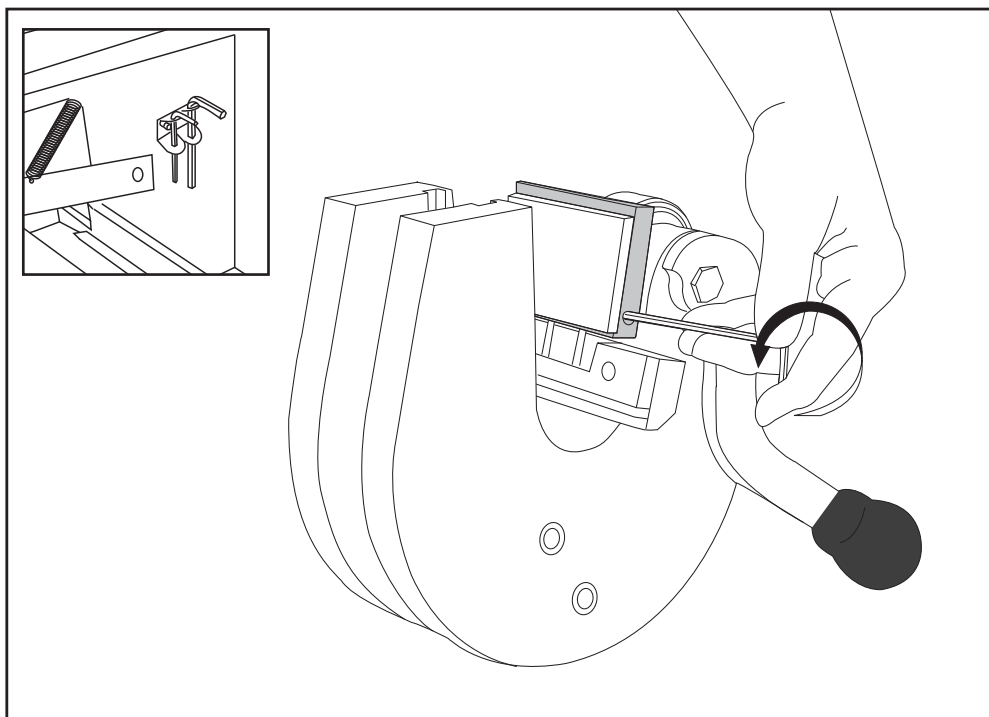
Work Preparation and Replacing Punchboards

A3



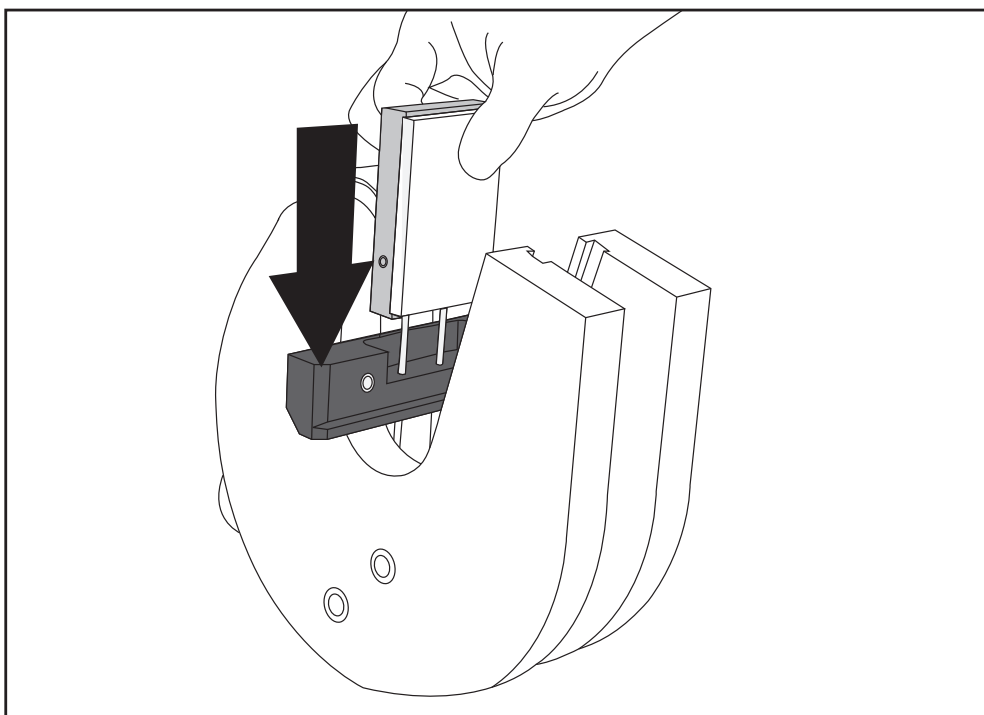
Determine required punchblock position.

A4



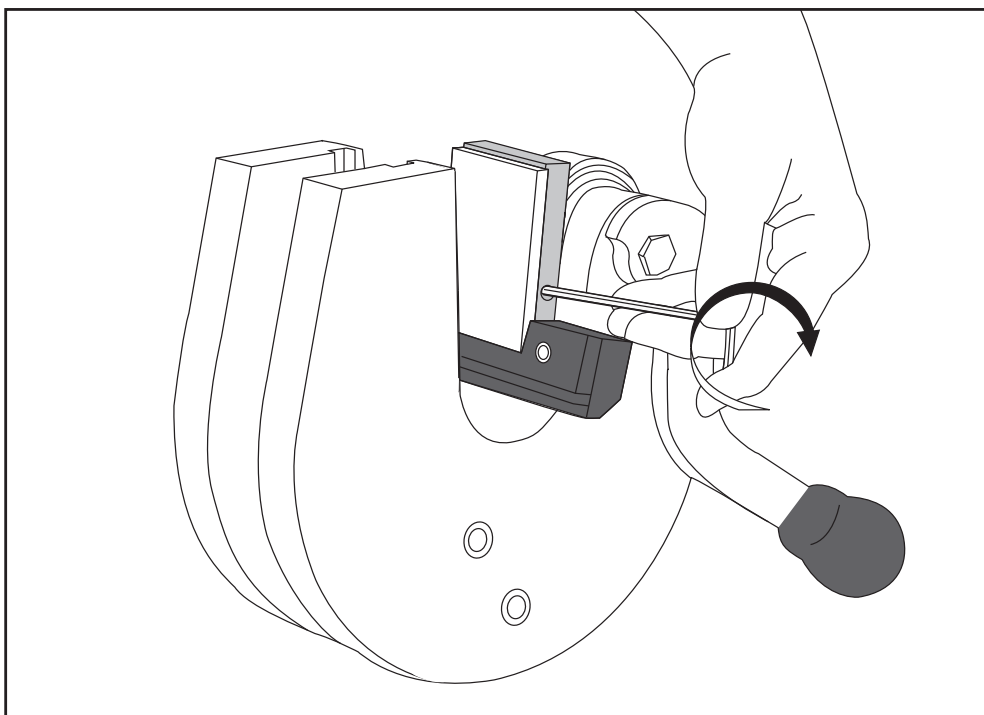
Loosen set screw that holds punchblock in place when repositioning is required.

A5



Slide punchblock over pins.

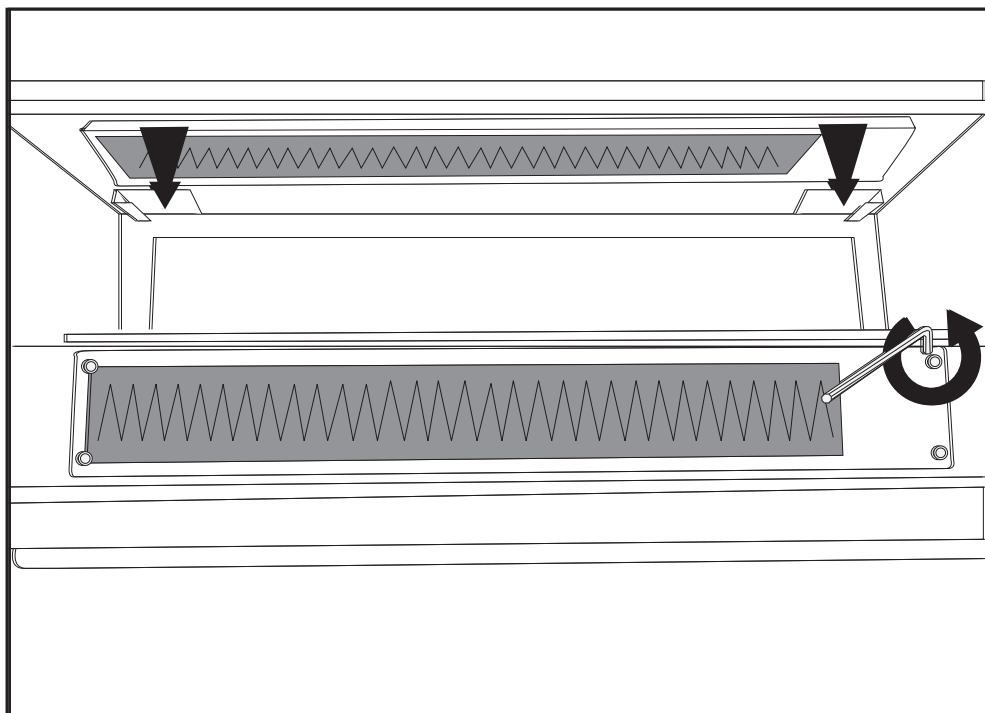
A6



Secure punchblock with set screw.

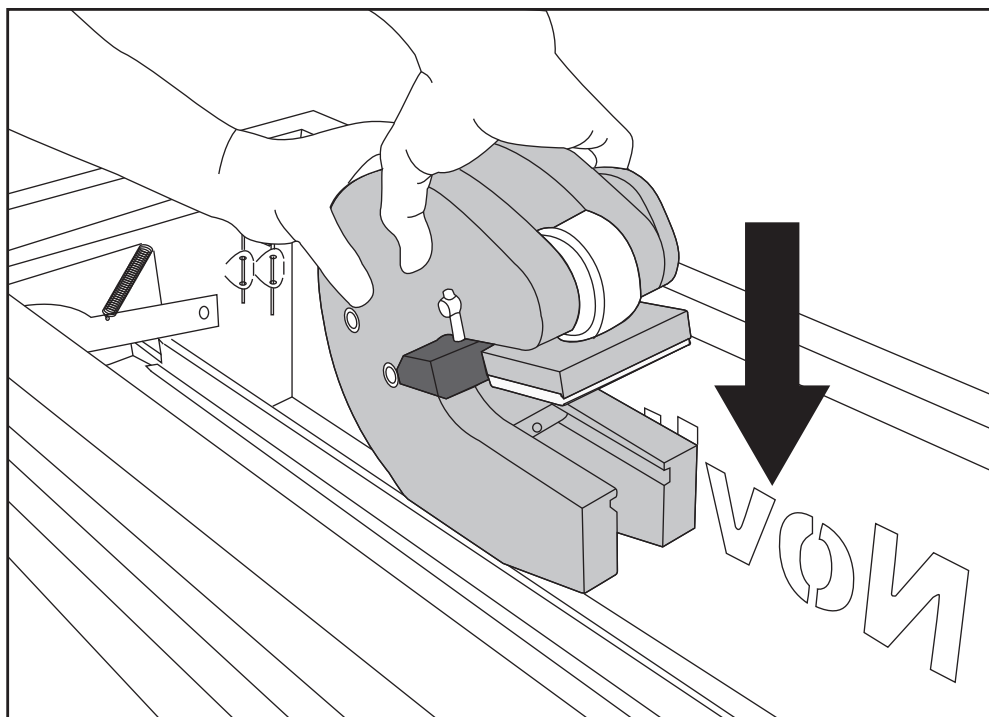
Work Preparation and Replacing Punchboards

A7



Replace punchboard by unscrewing the four hex bolts. Stow unused punchboard in holder on the back.

A8



Reinstall C-frame.

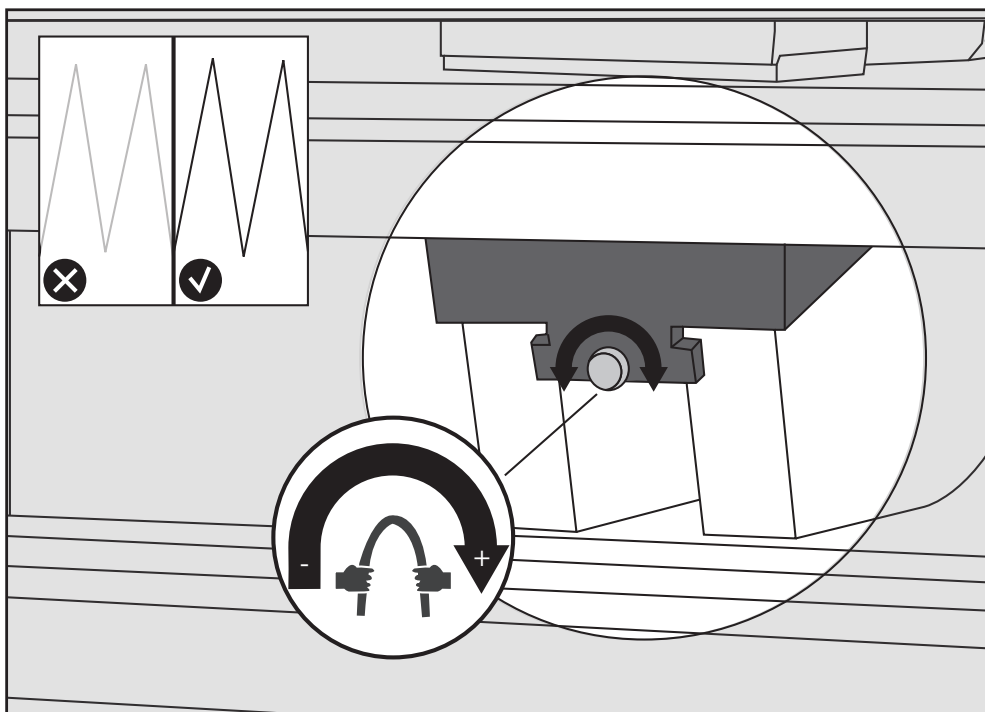
Work Preparation and Replacing Punchboards

A9



Secure C-frame. 1. Reinstall C-frame wedge. 2. Turn the fixation screw to the right. **ATTENTION: The screw is also used to adjust punching force.**

A10



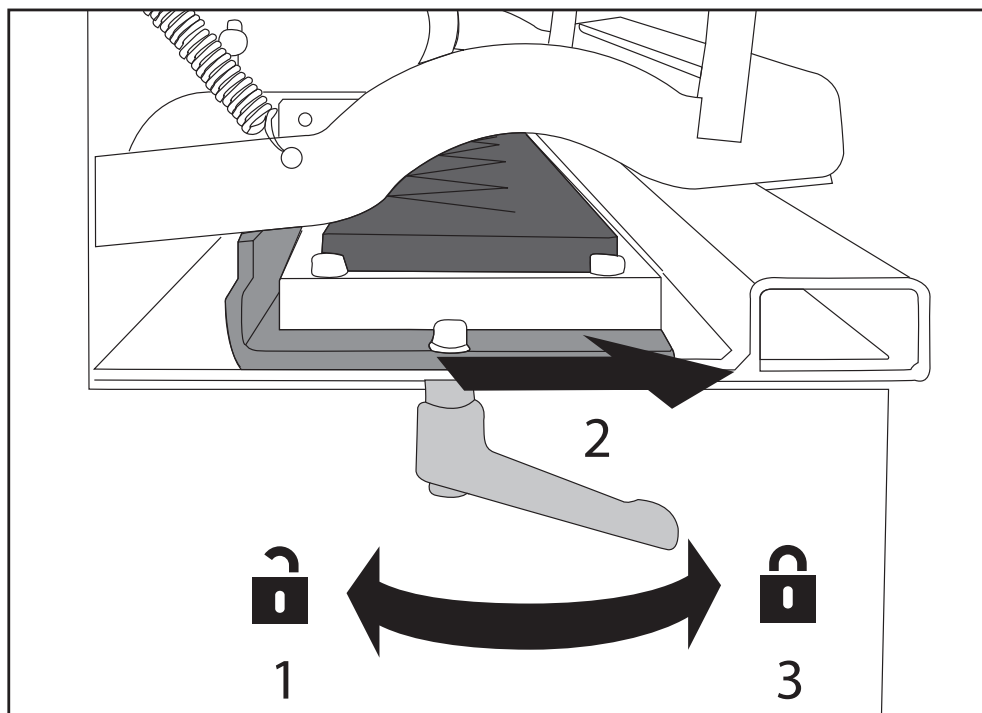
Turn fixation screw clockwise to increase punch cutting force.

Punching Single Fingers



Prior to punching ensure:

- The punchblock is in the right position (A3)
- The correct punchboard is installed (A7)
- The punch force has been adjusted for material (A10)

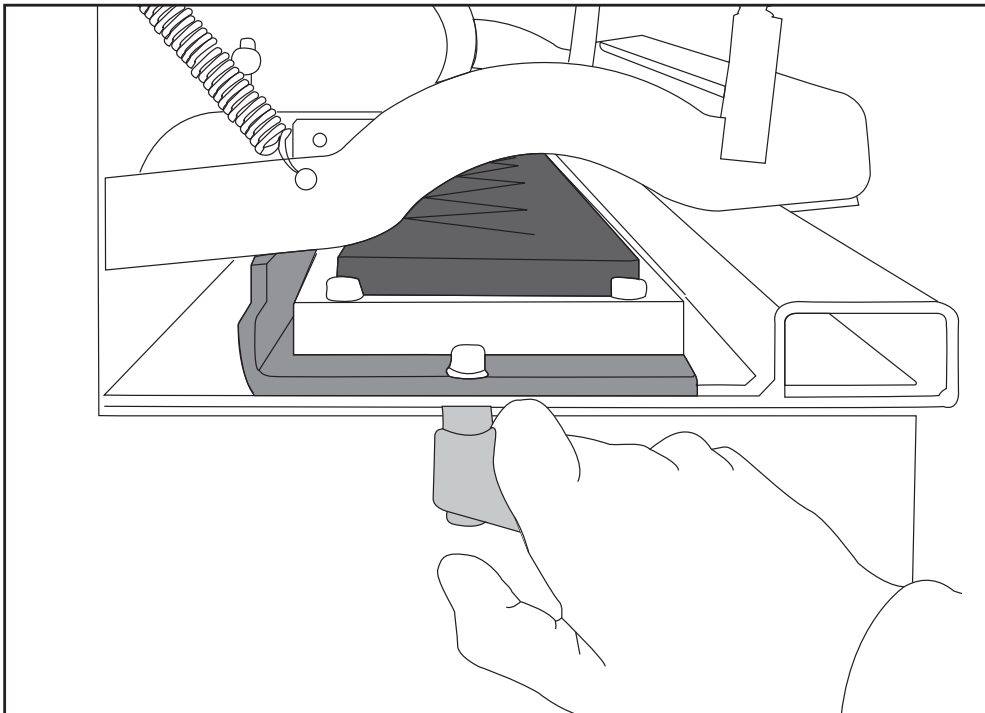
B1

1. Unlock punchboard tray at both ends. 2. Move punchboard tray to front most position. 3. Lock punchboard tray at both ends.

ATTENTION: When required, reposition lock handle (A11).

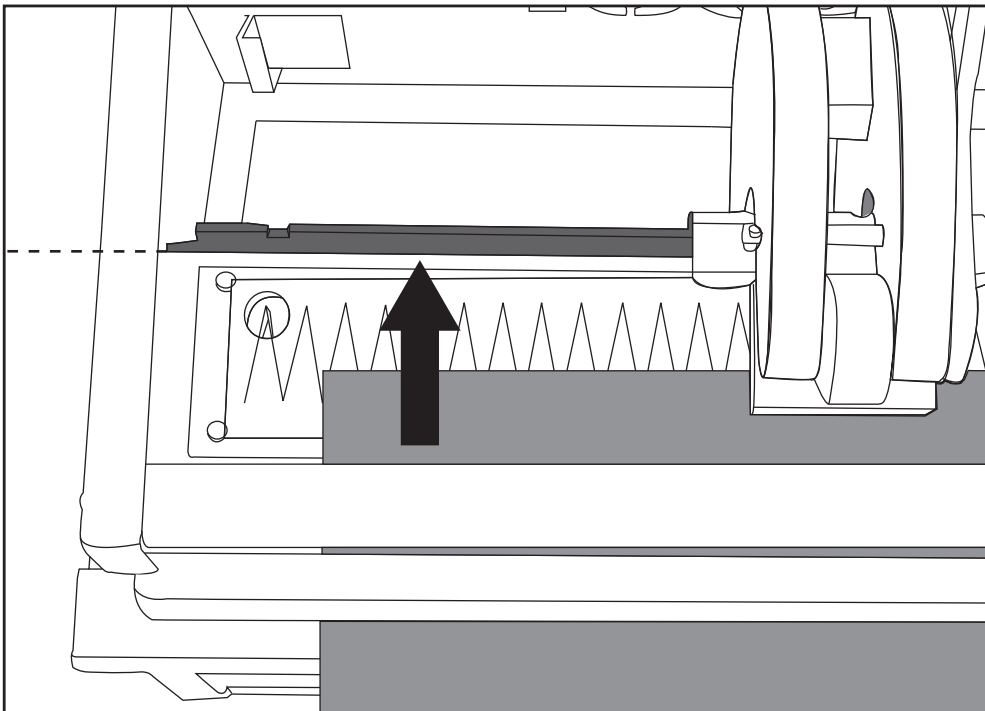
Punching Single Fingers

B2



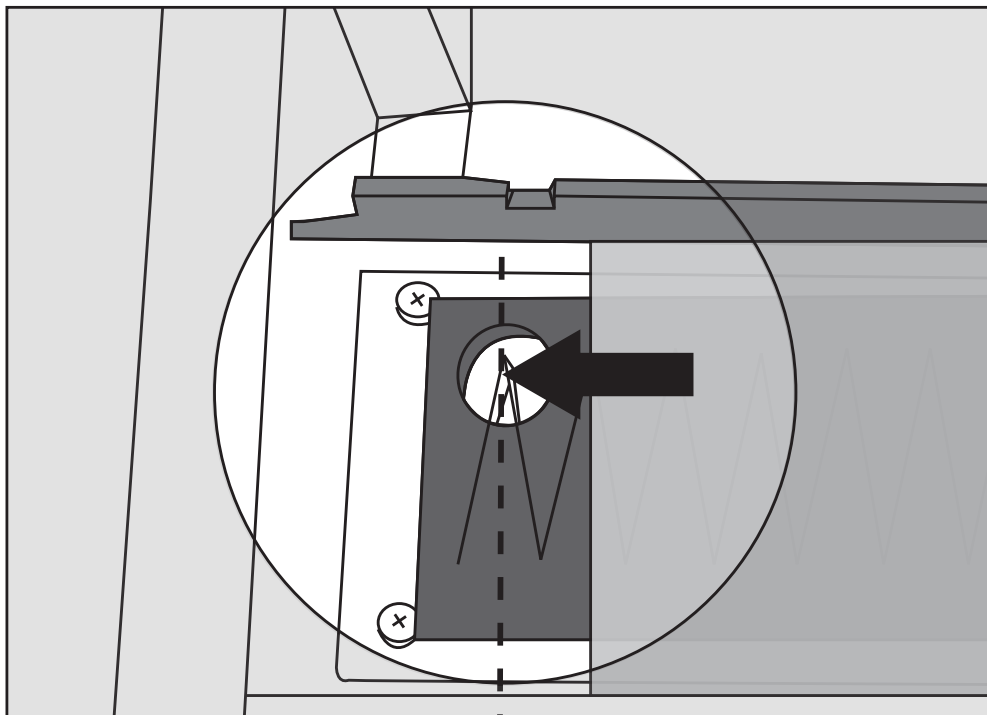
Pull lock handle down if repositioning is required to firmly lock tray.

B3



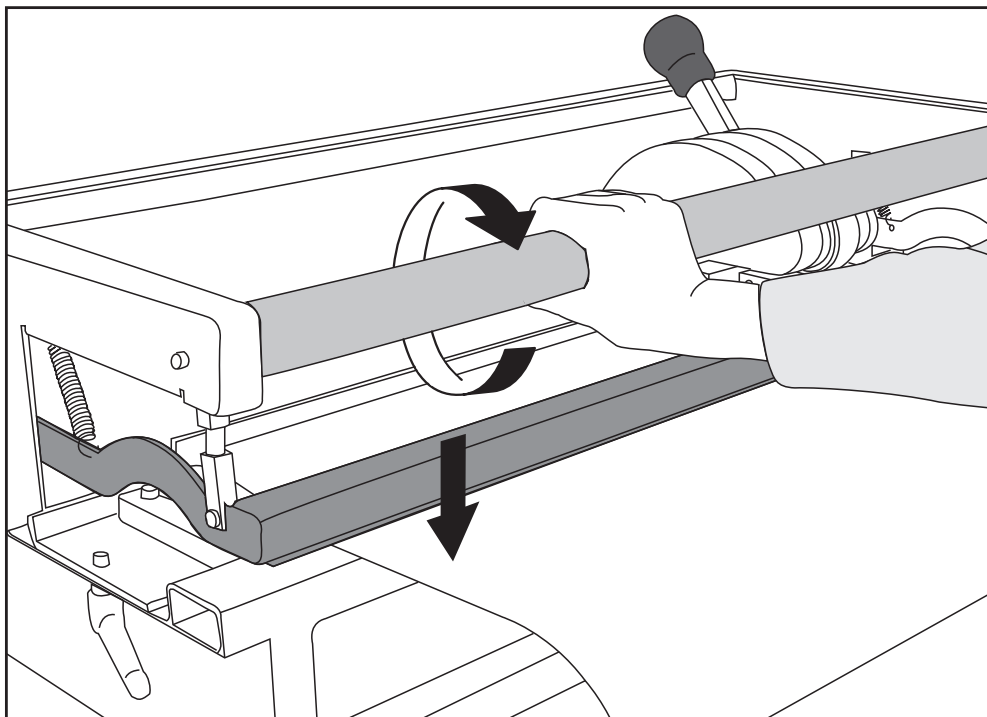
Insert belt until flush against belt stop.

B4



Left align belting material with top of V-Pattern in knife set.

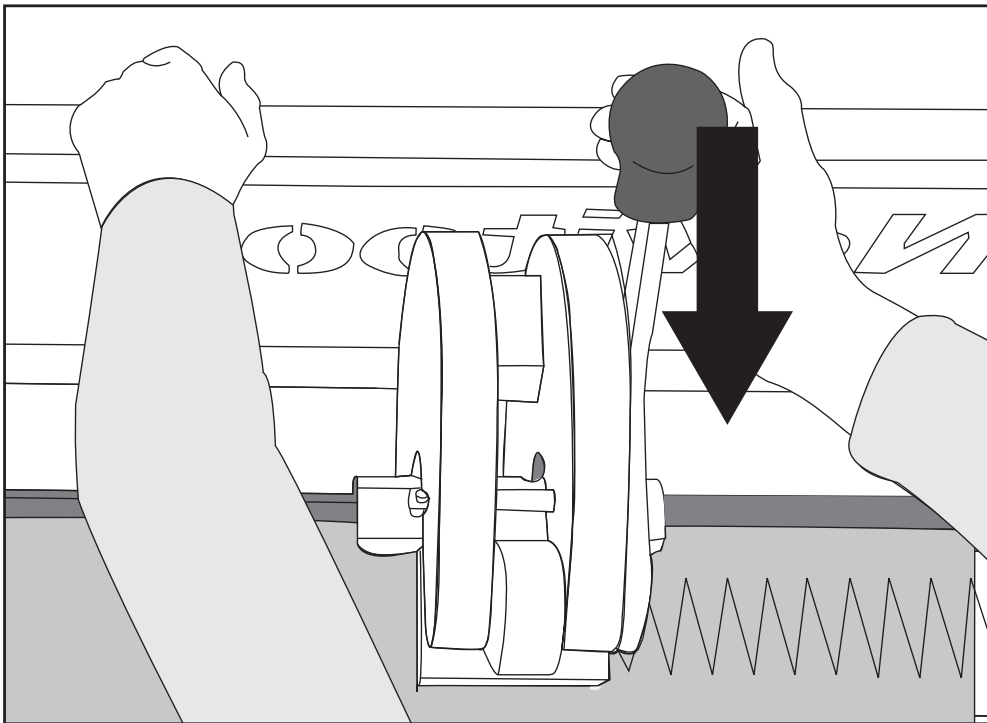
B5



Turn belt clamp bar to clamp belt.

Punching Single Fingers

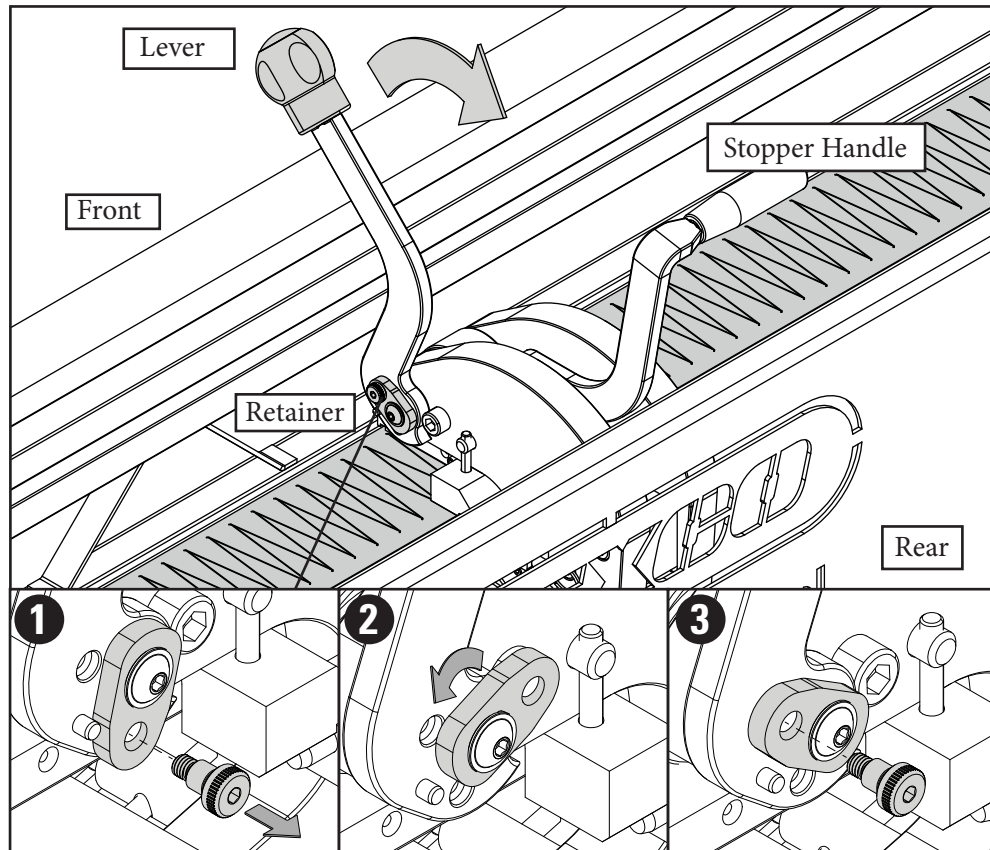
B6



Place left hand on rear frame for support. Use other hand to operate lever to punch belt.

Punching Single Fingers

B7



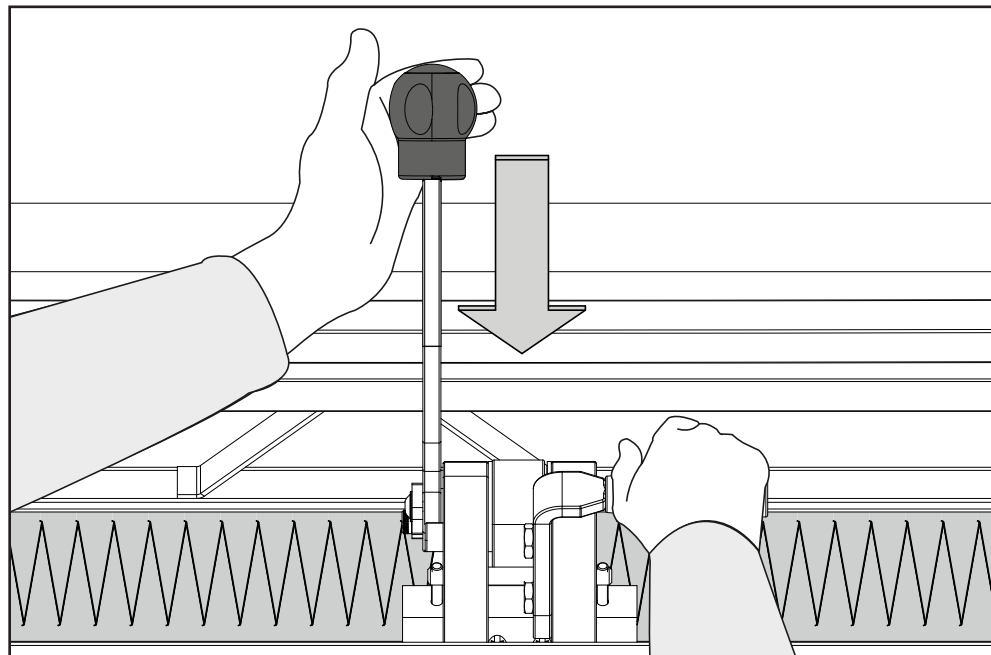
Remove screw.

Rotate retainer.

Replace screw.

Optional Alternate Position: If using the two-handle C-Frame, the lever can also be operated from the back of the tool, facing the rear frame. Adjust the retainer on the lever to enable a pull motion.

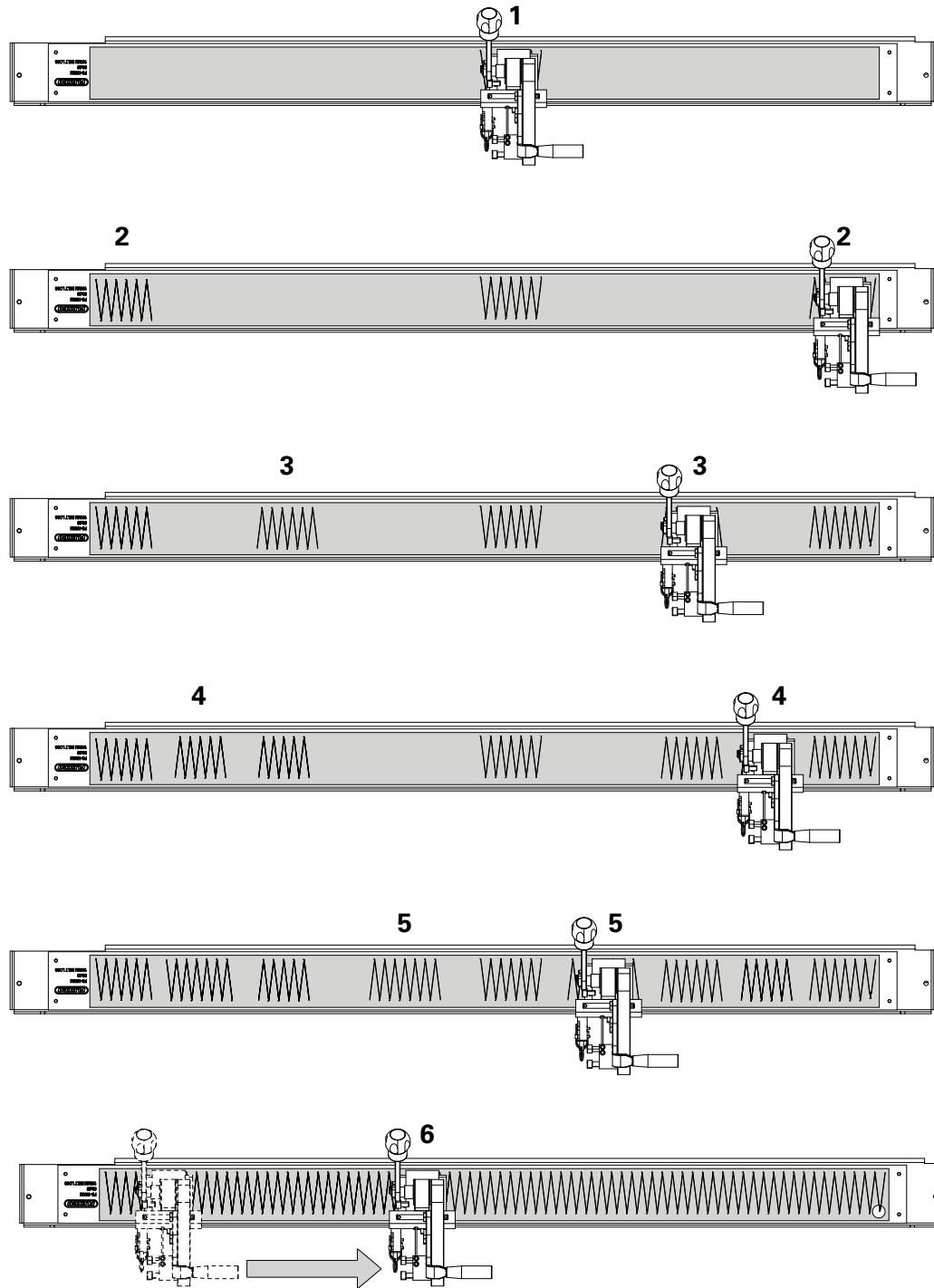
B8



Place right hand on fixed stopper handle for support. Use other hand to operate lever to punch belt.

Punching Single Fingers

B9

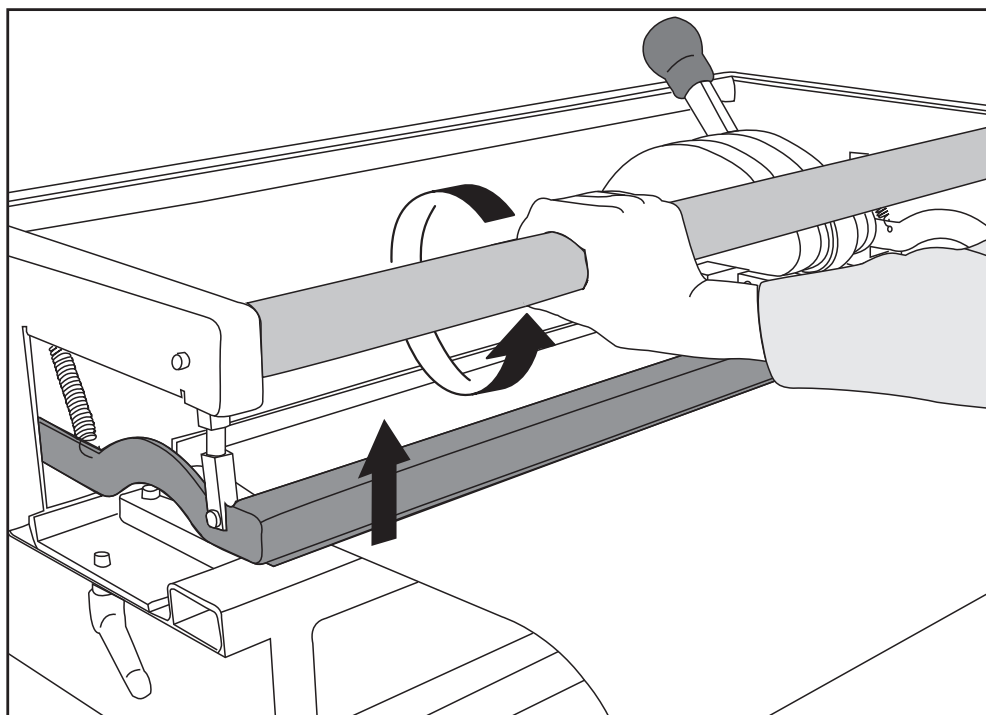


Punch in the center and at both ends. Continue to punch in centers of created sections. Then punch across remainder of material.

NOTE: Thinner belts have a tendency to bubble up between punches. Punching in centers of sections will help ensure punched belt ends will align together. Remove excess punched material and loosen fingers from punch board.

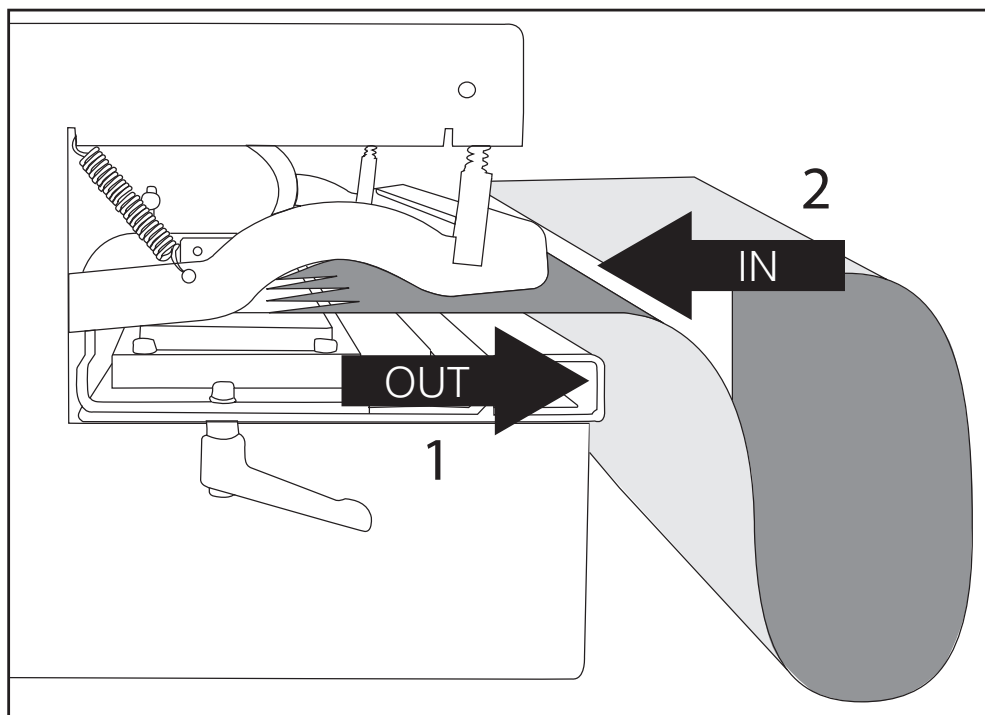
Punching Single Fingers

B10



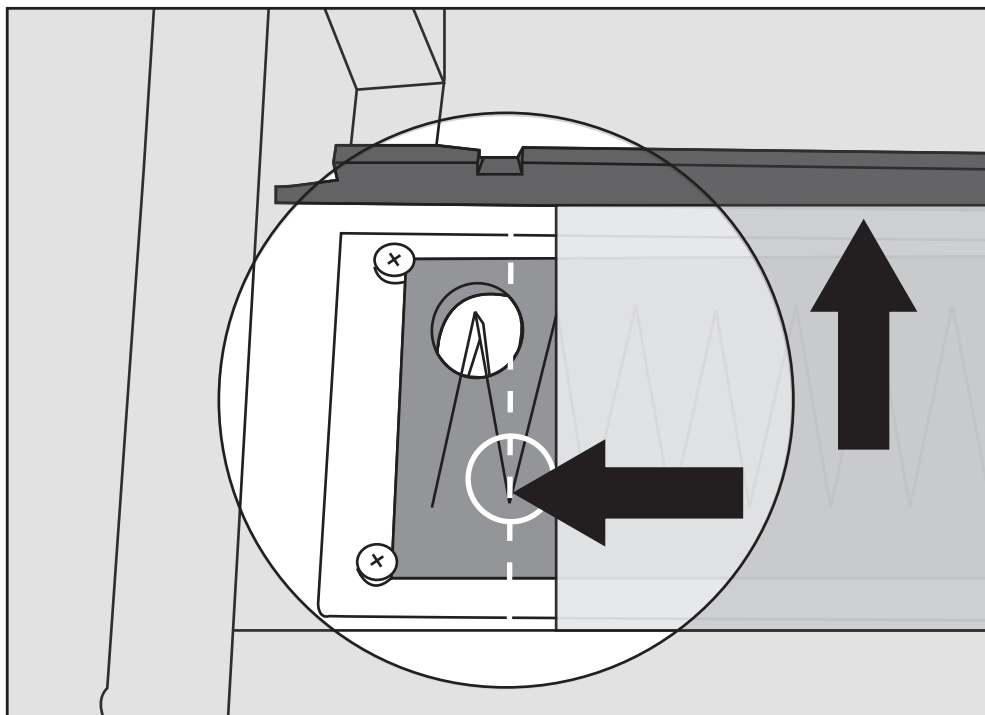
Turn belt clamp bar. Remove belt.

B11



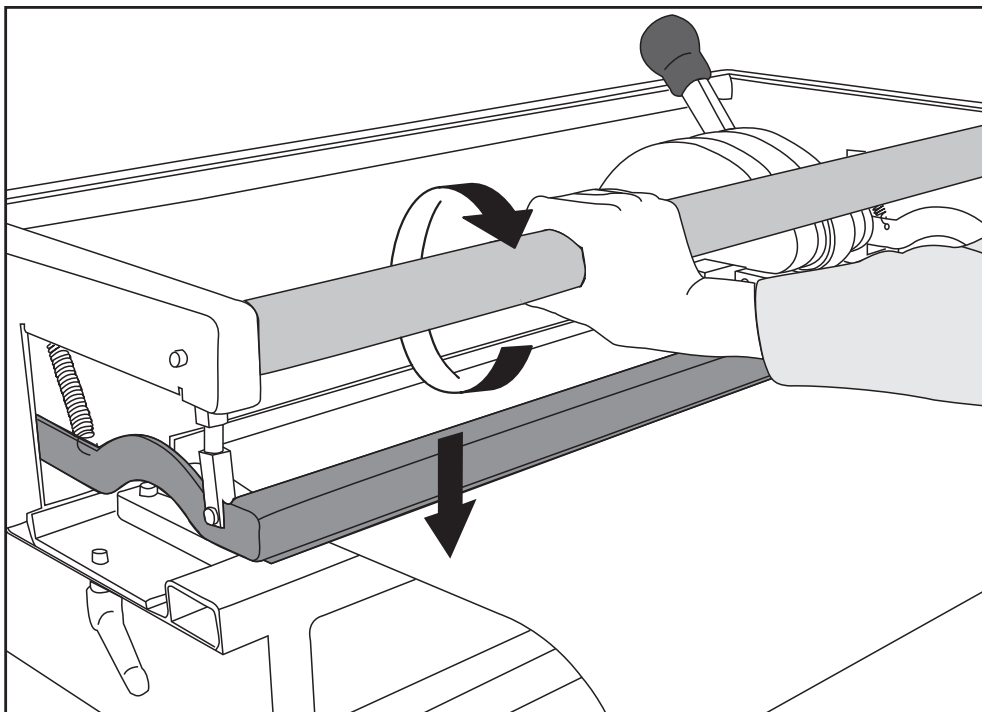
Remove punched belt end. Install opposite belt end with cover side down into the machine.

B12



Insert belt end until flush with belt stop. Left align belt with the bottom of V-Pattern in knife set.

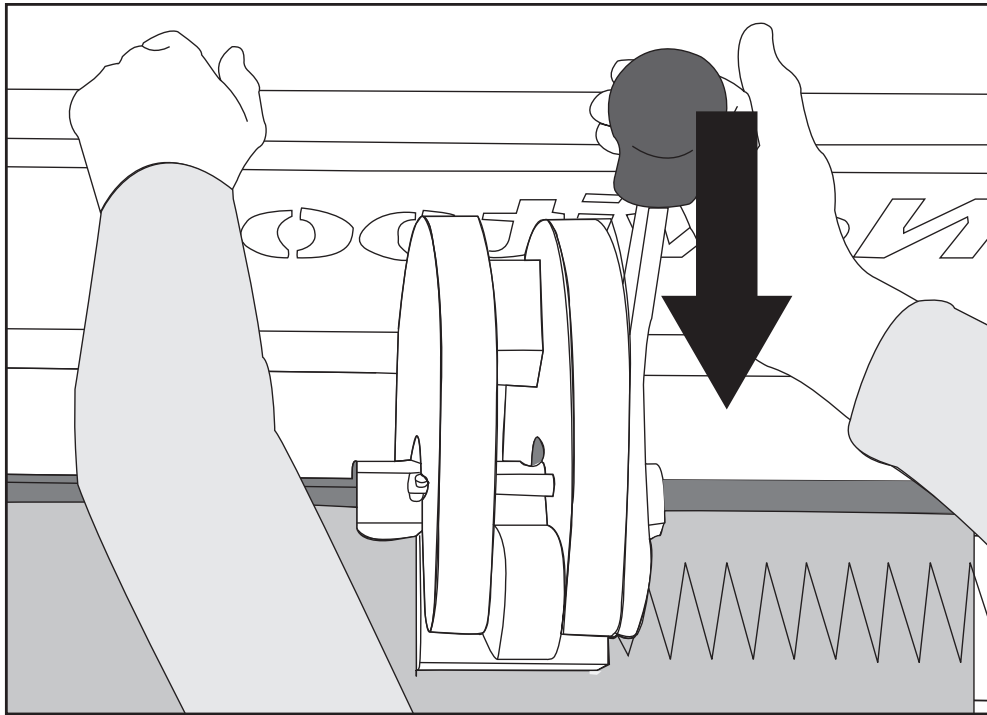
B13



Turn belt clamp bar to clamp belt.

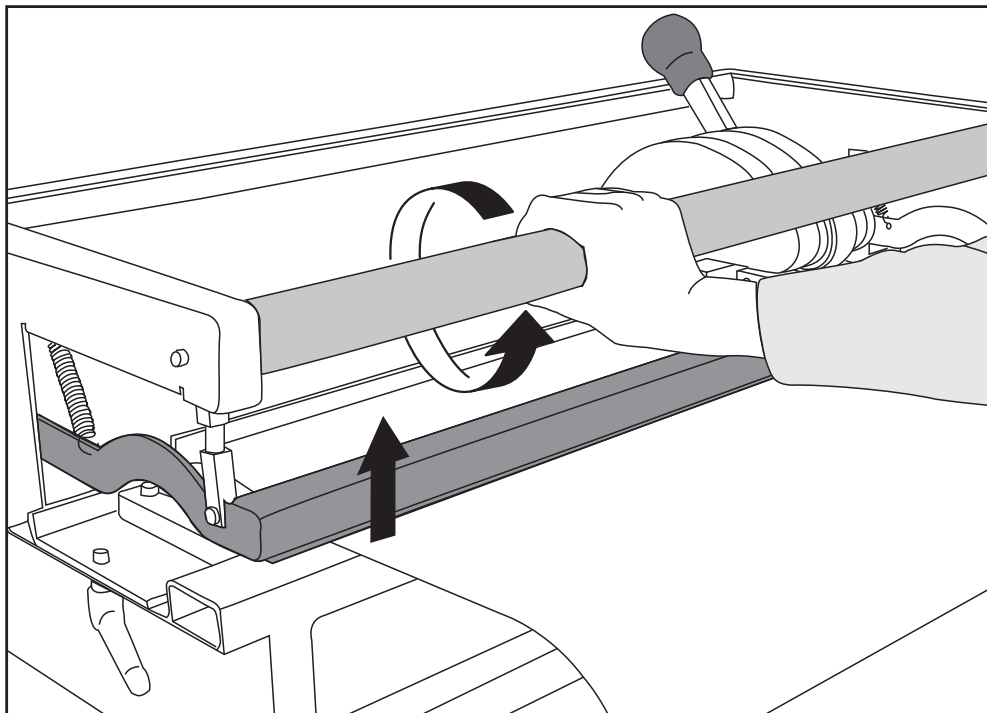
Punching Single Fingers

B14



Repeat punching process as shown in B9.

B15



Turn belt clamp bar. Remove belt.

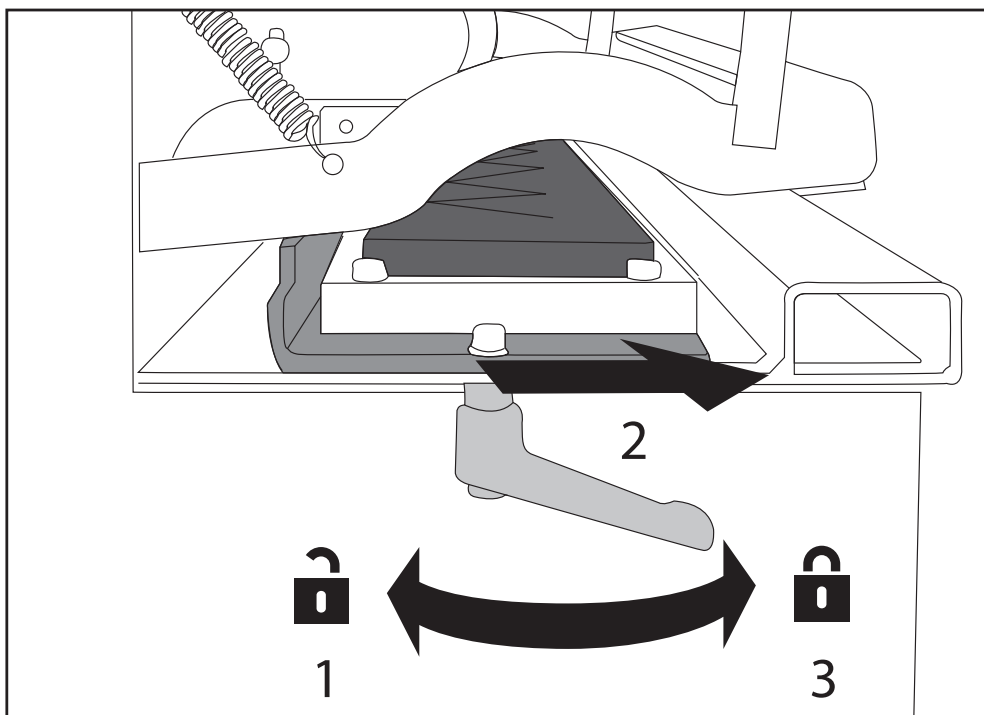
Punching Finger over Finger



Prior to punching ensure:

- The punchblock is in the right position (A3)
- The correct punchboard is installed (A7)
- The punch force has been adjusted for material (A10)
- Make sure belt ends are ply separated

C1

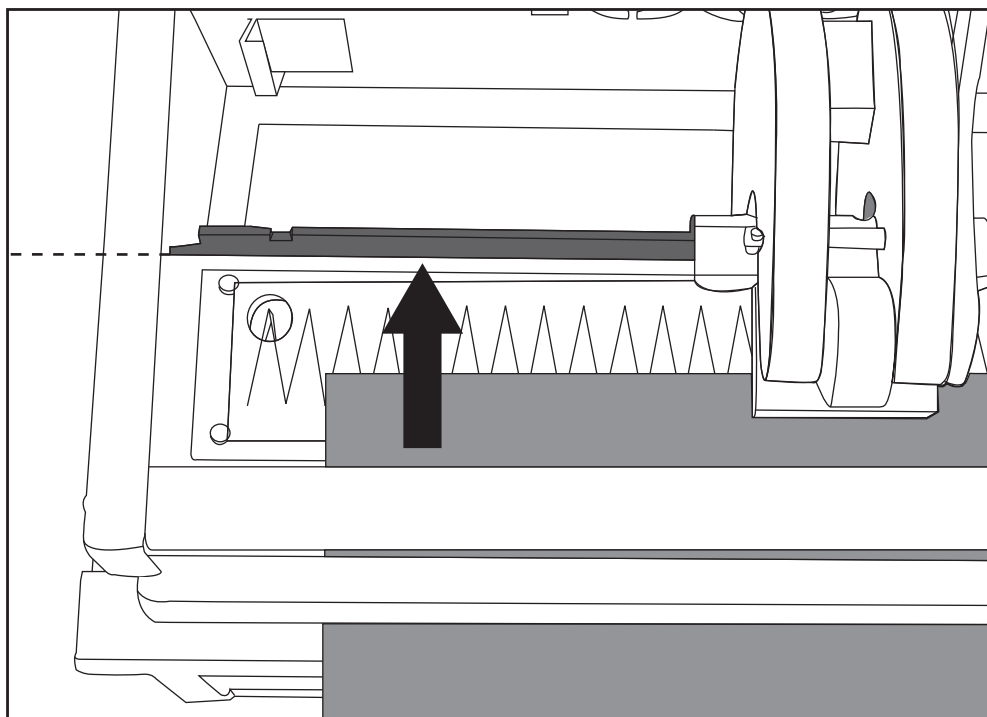


1. Unlock punchboard tray at both ends. 2. Move punchboard tray to front most position. 3. Lock punchboard tray at both ends.

Attention: When required, reposition lock handle (B2).

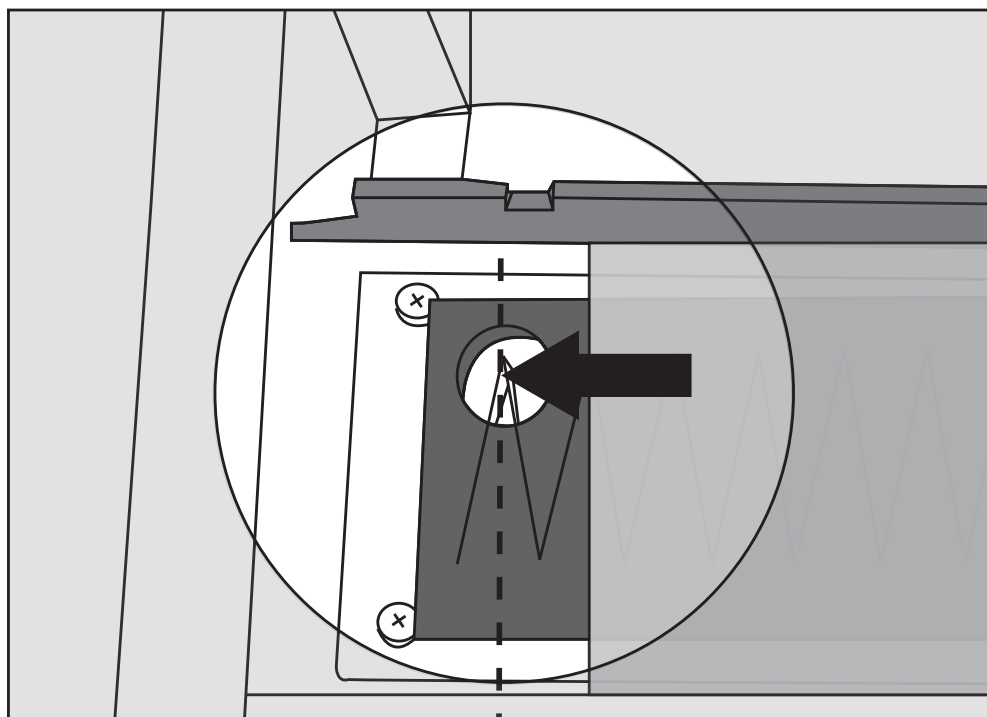
Punching Finger over Finger

C2



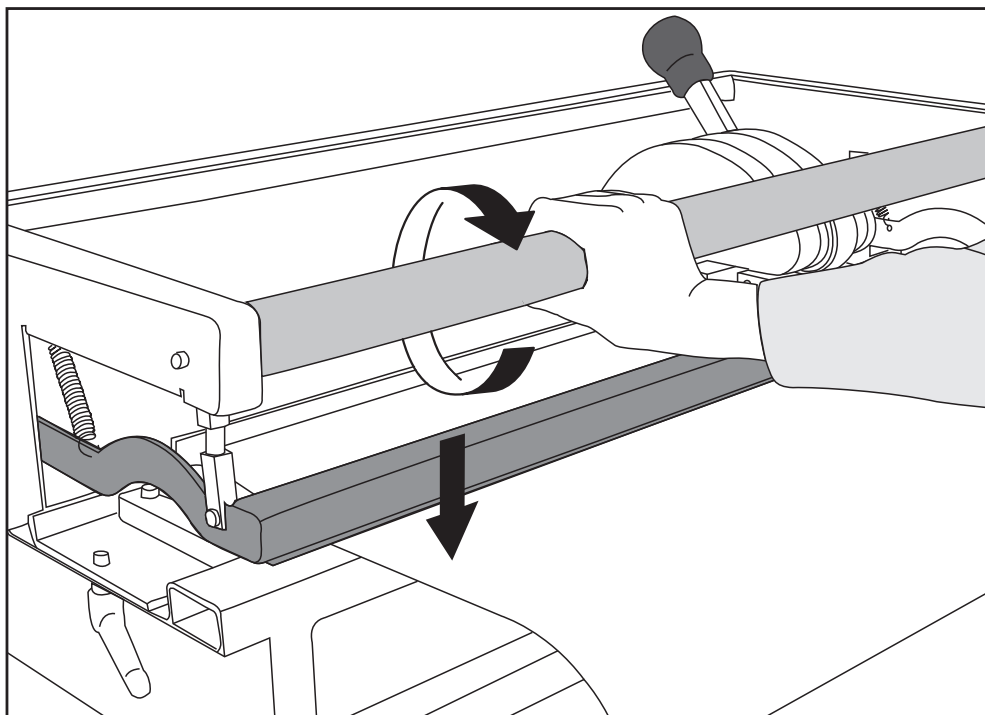
Insert belt until flush against belt stop.

C3



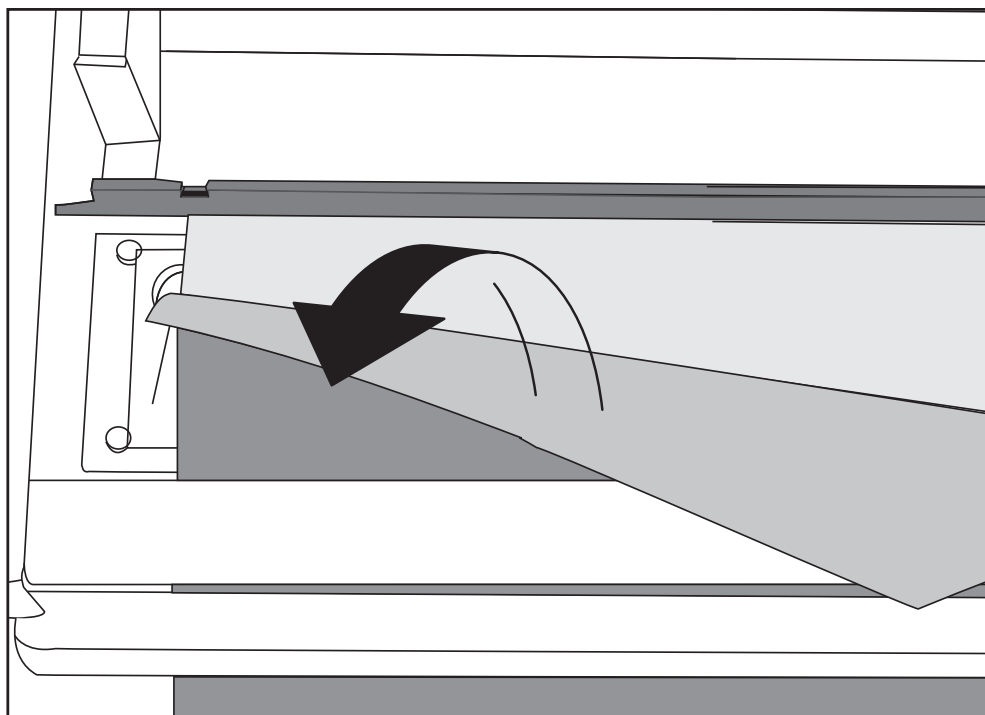
Align belt with top of V-Pattern in knife set.

C4



Turn belt clamp bar to clamp belt.

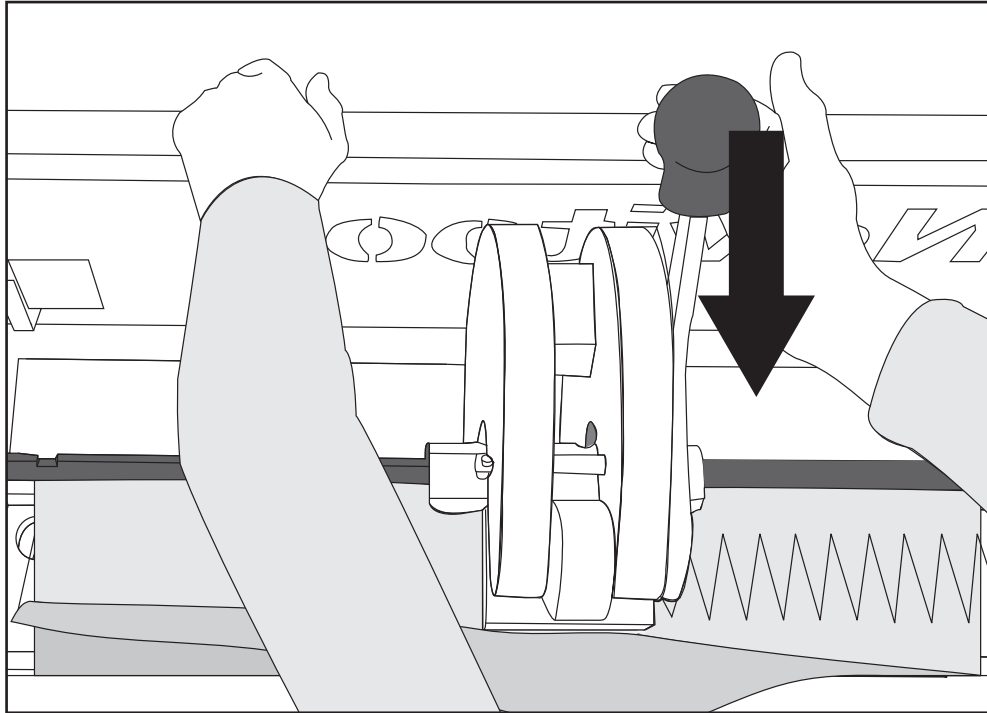
C5



Fold top layer of belt towards you.

Punching Finger over Finger

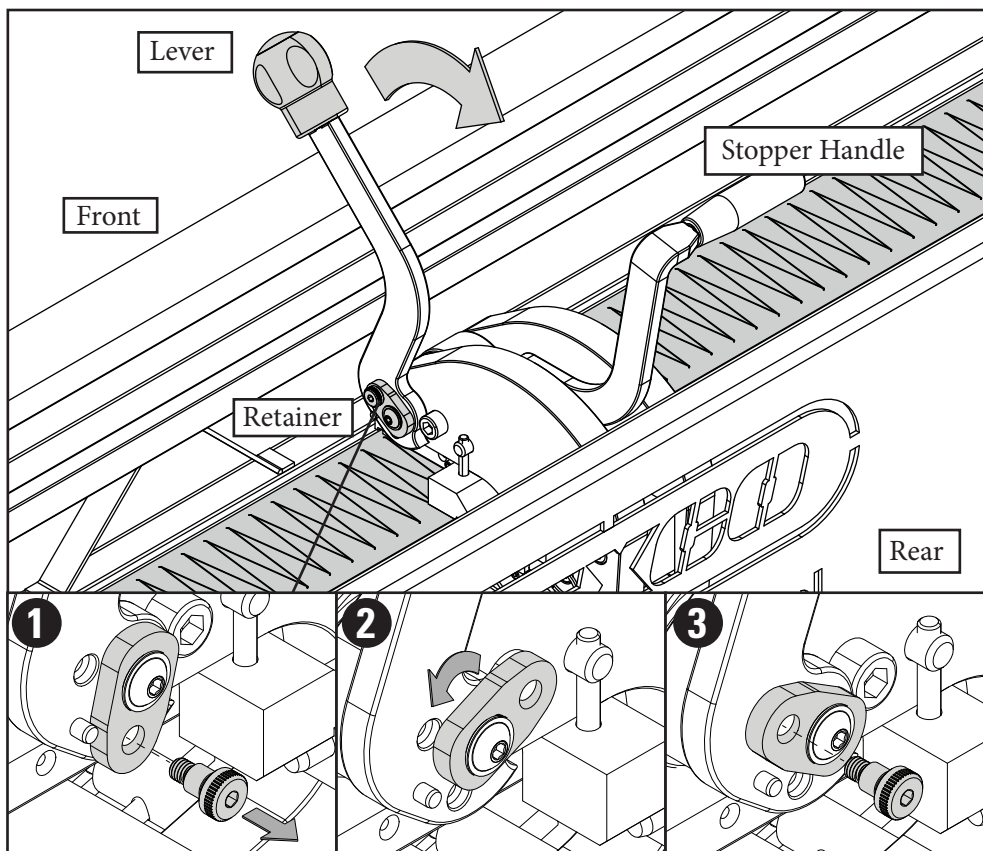
C6



Place left hand on rear frame for support. Use other hand to operate lever to punch belt.

Punching Finger over Finger

C7



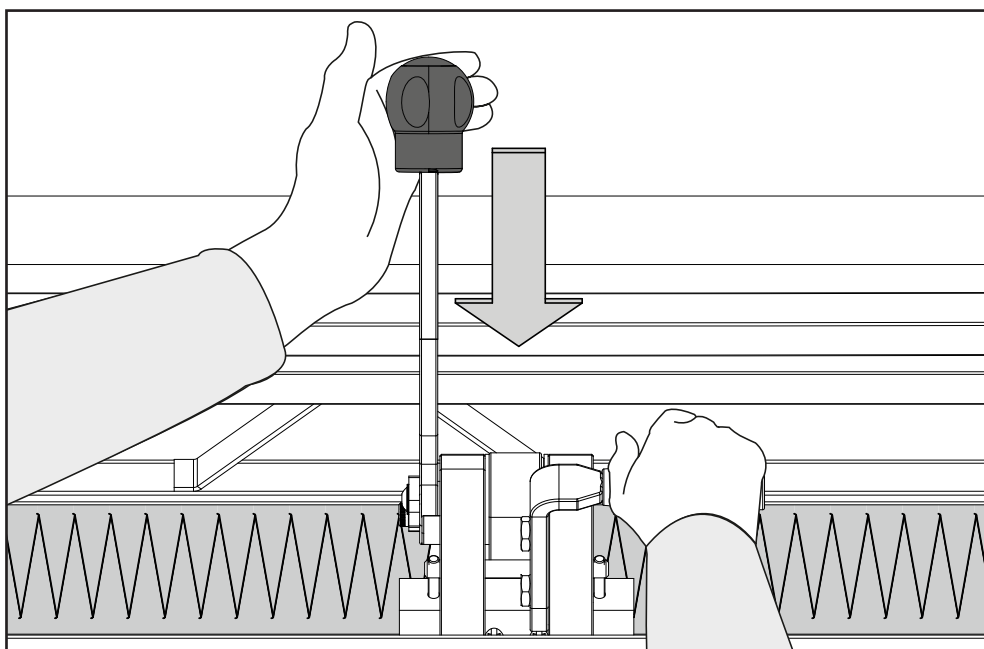
Remove screw.

Rotate retainer.

Replace screw.

Optional Alternate Position: If using the two-handle C-Frame, the lever can also be operated from the back of the tool, facing the rear frame. Adjust the retainer on the lever to enable a pull motion.

C8

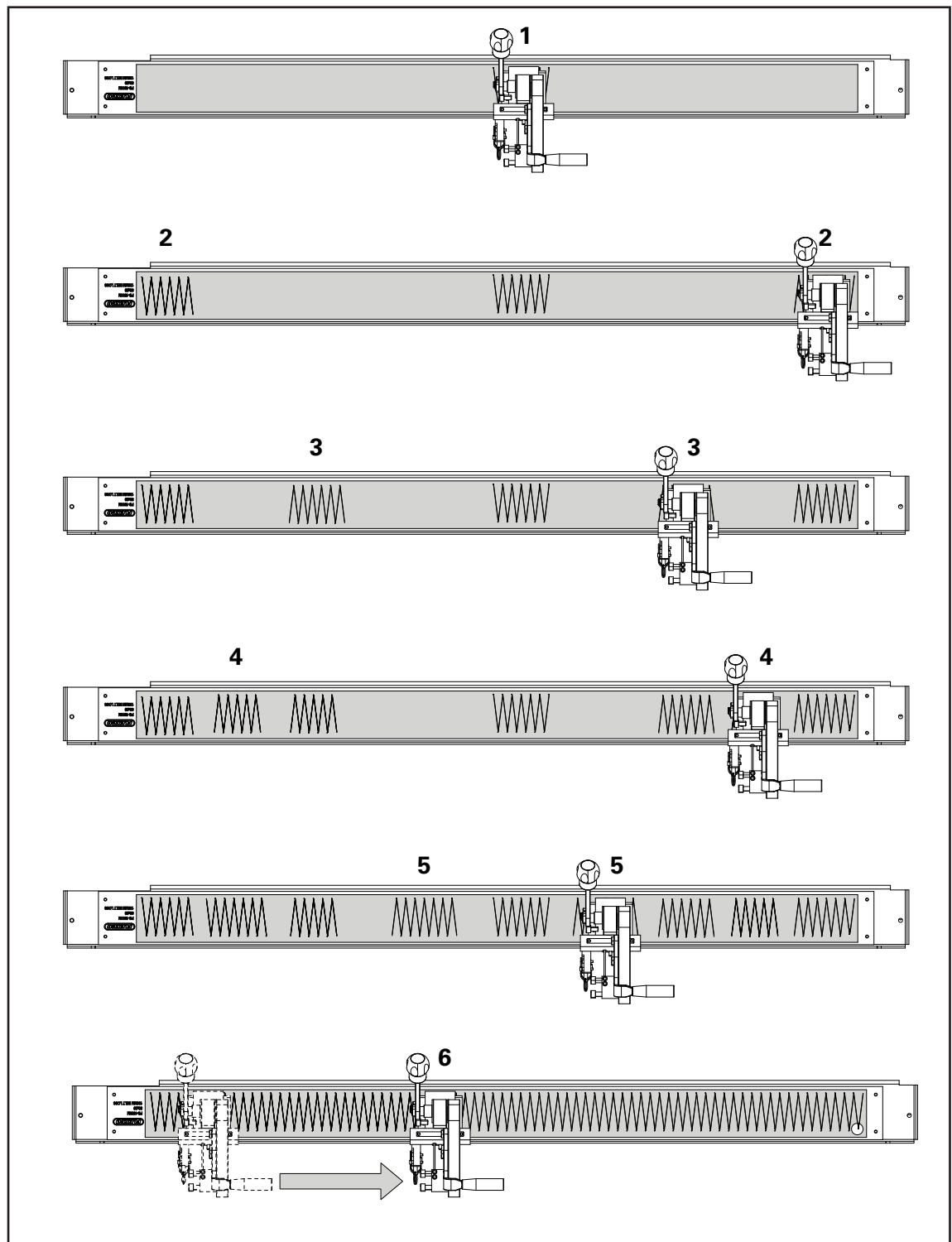


Place right hand on fixed stopper handle for support. Use other hand to operate lever to punch belt.



Punching Finger over Finger

C9

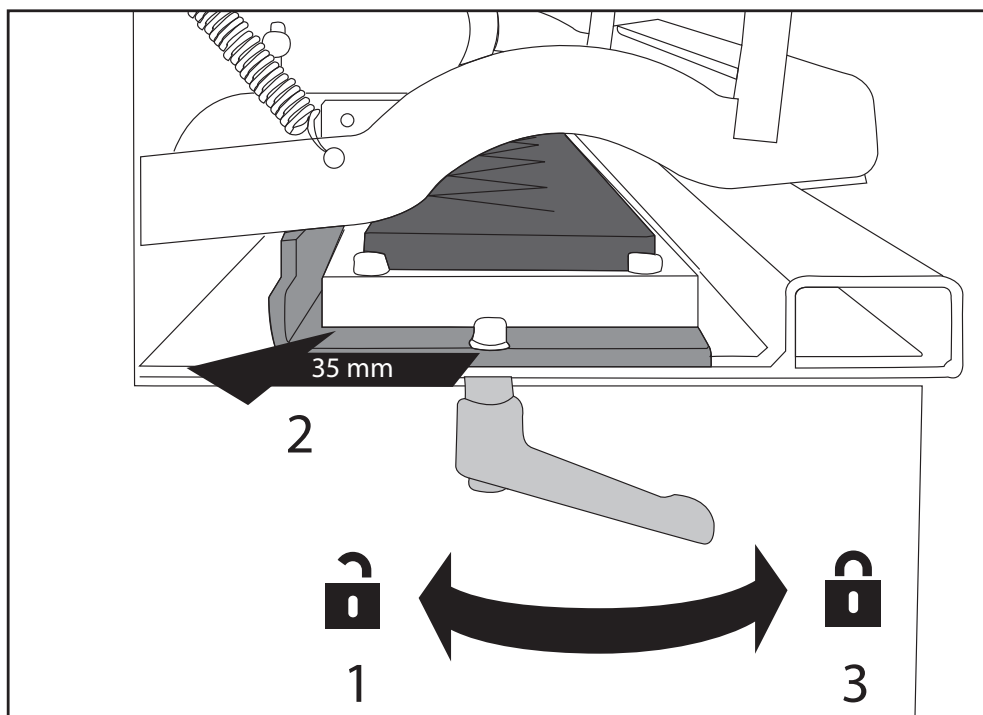


Punch in the center and at both ends. Continue to punch in centers of created sections. Then punch across remainder of material.

NOTE: Thinner belts have a tendency to bubble up between punches. Punching in centers of sections will help ensure punched belt ends will align together. Remove excess punched material and loosen fingers from punch board.

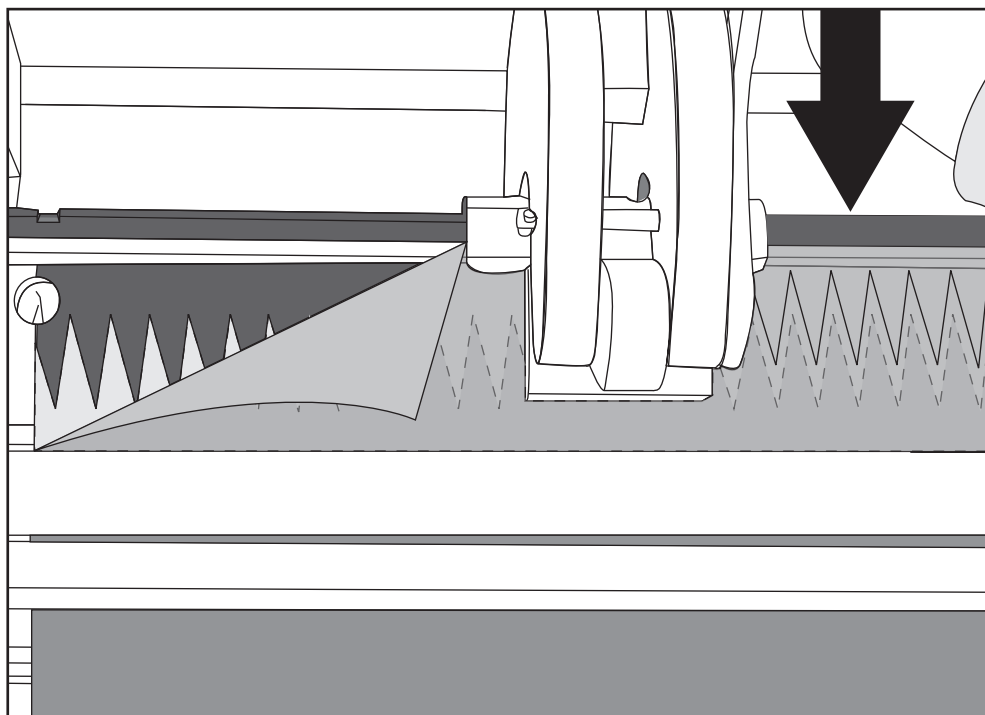
Punching Finger over Finger

C10



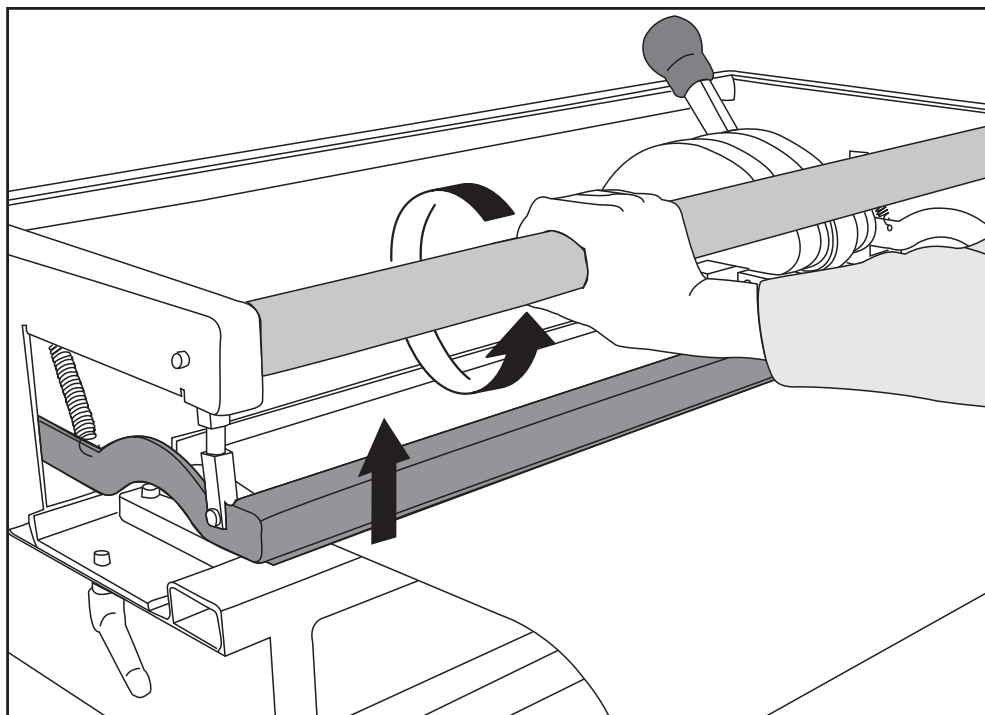
Keep belt clamped. 1. Unlock punchboard tray at both ends. 2. Slide it to the final back position. 3. Lock punchboard tray at both ends.

C11



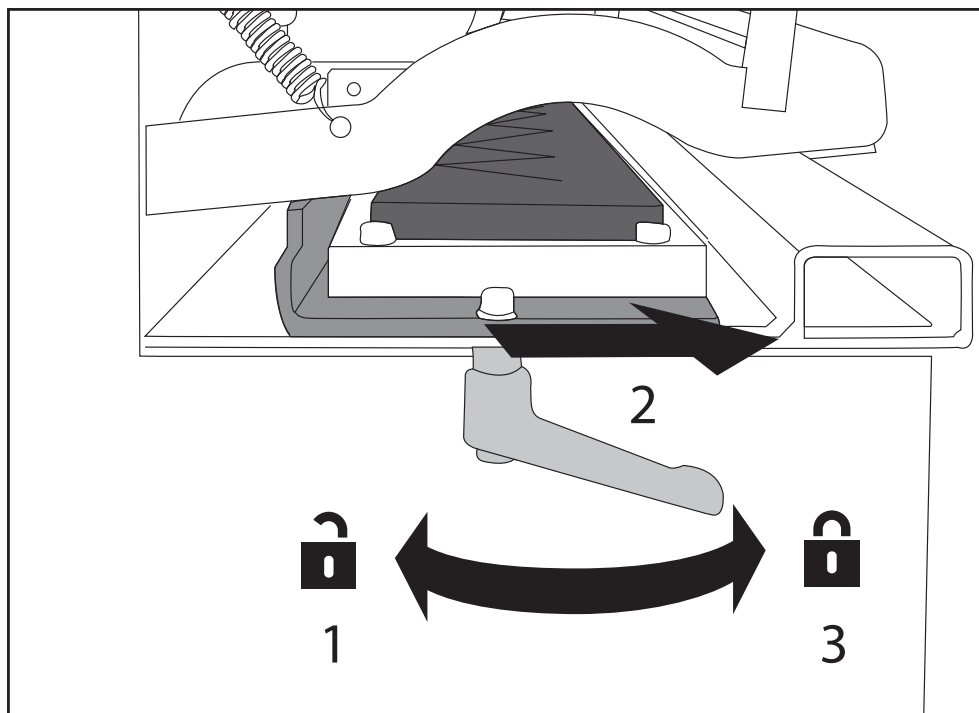
Repeat punching process as shown in C6-C9 for second array of fingers. Again remove punched excess material.

C12



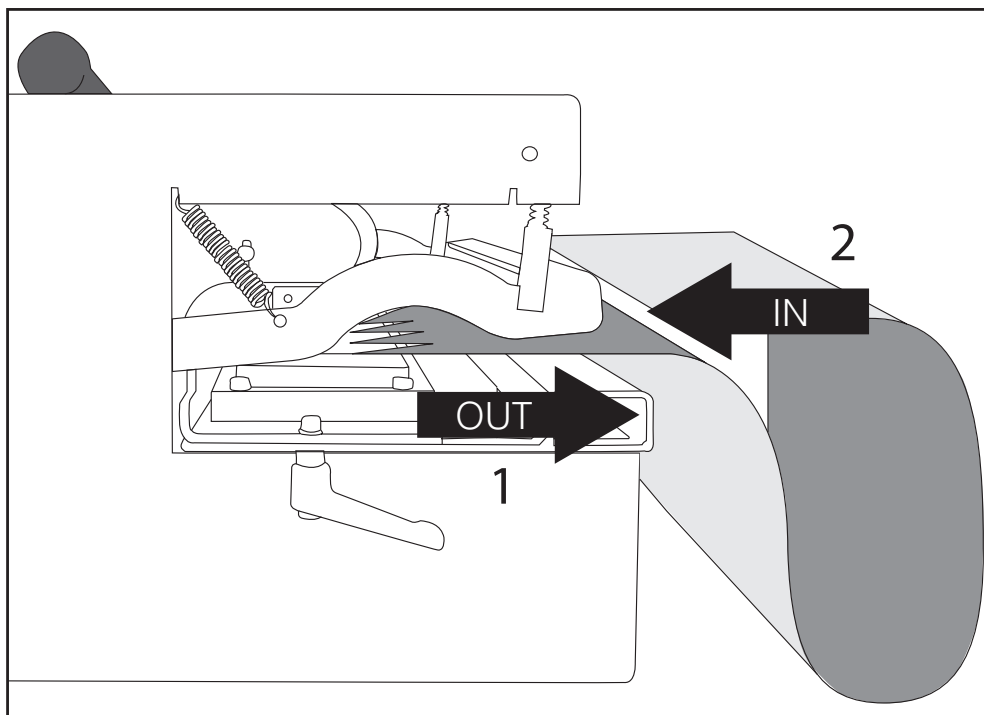
Turn belt clamp bar. Remove belt.

C13



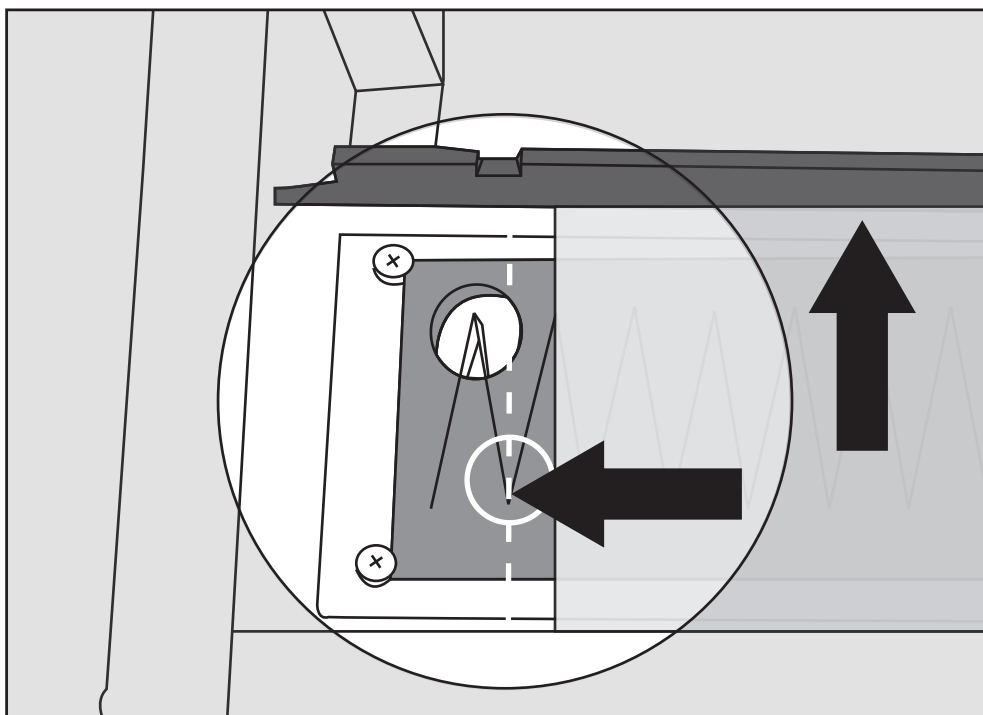
1. Unlock punchboard tray at both ends. 2. Move punchboard tray to front most position. 3. Lock punchboard tray at both ends.

C14



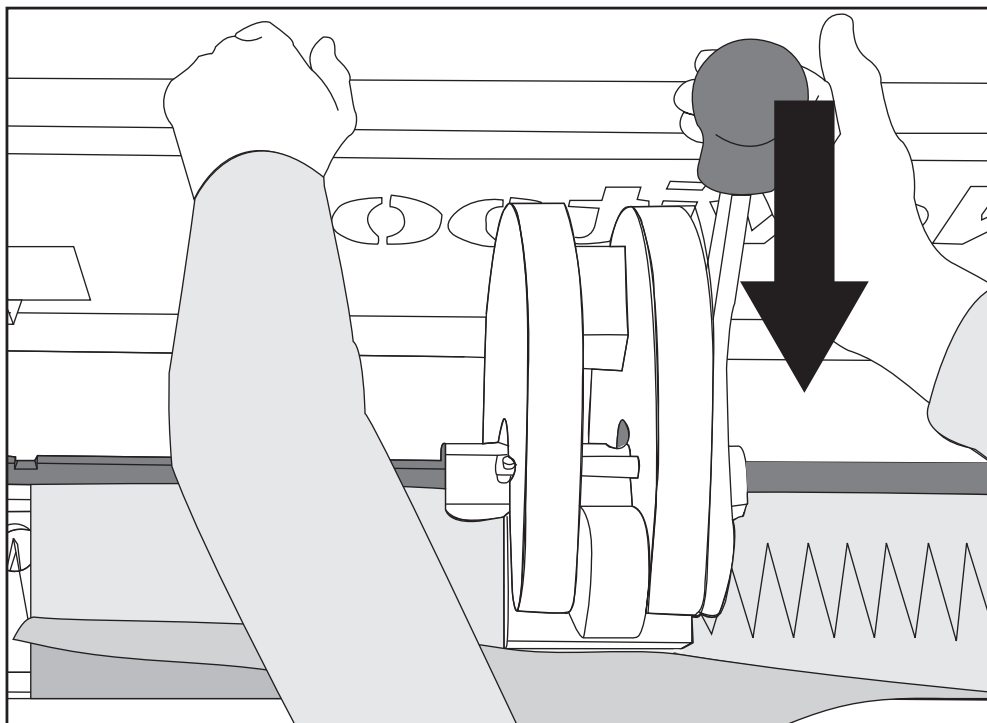
Install opposite belt end with cover side down into the machine.

C15



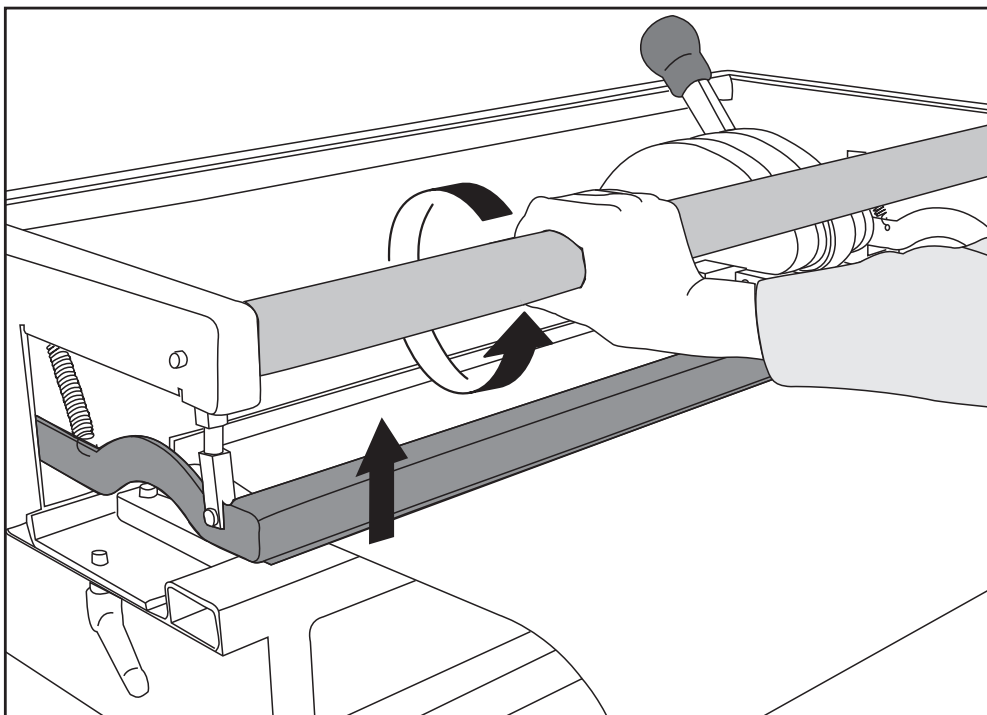
Insert belt end until flush with belt end stop. Left align belting material with bottom of V-Pattern in knife set.

C16



Repeat punching process as shown in C4-C9 for first layer.
Repeat C10-C11 for second layer.

C17



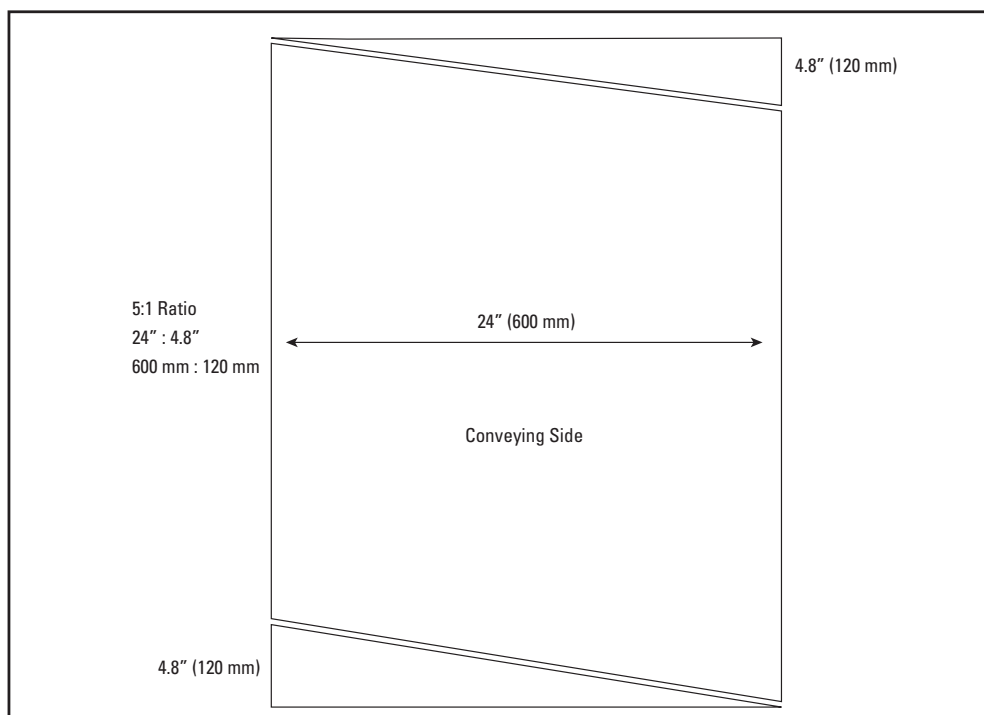
Turn belt clamp bar. Remove belt.

Bias Finger Punching



Prior to punching ensure:

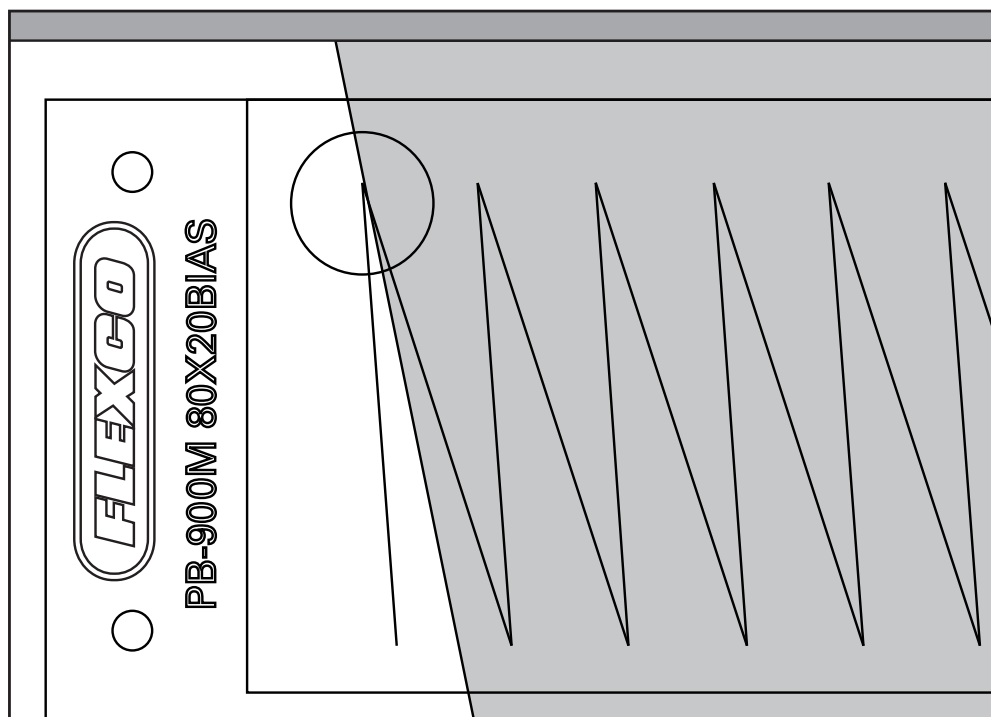
- The punchblock is in the right position (A3)
- The correct punchboard is installed (A7)
- The punch force has been adjusted for material (A10)

D1

Prepare the belt ends for bias finger punching by cutting opposing (5:1 ratio) angles on each belt end.

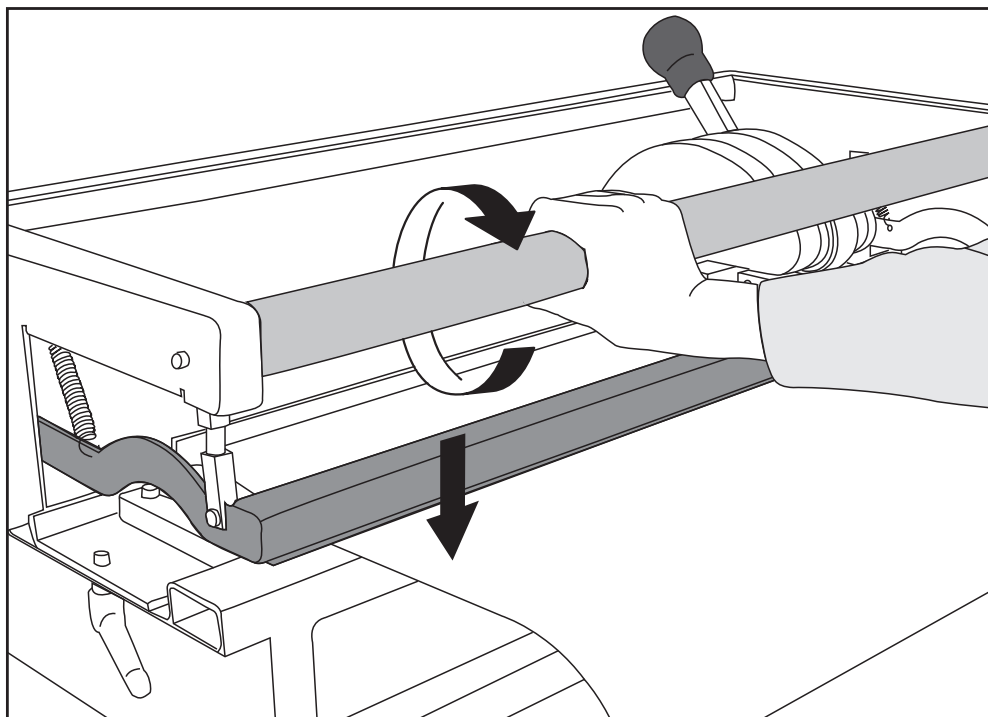
NOTE: Both belt ends will be punched with the conveying side upwards in the PUN M.

D2



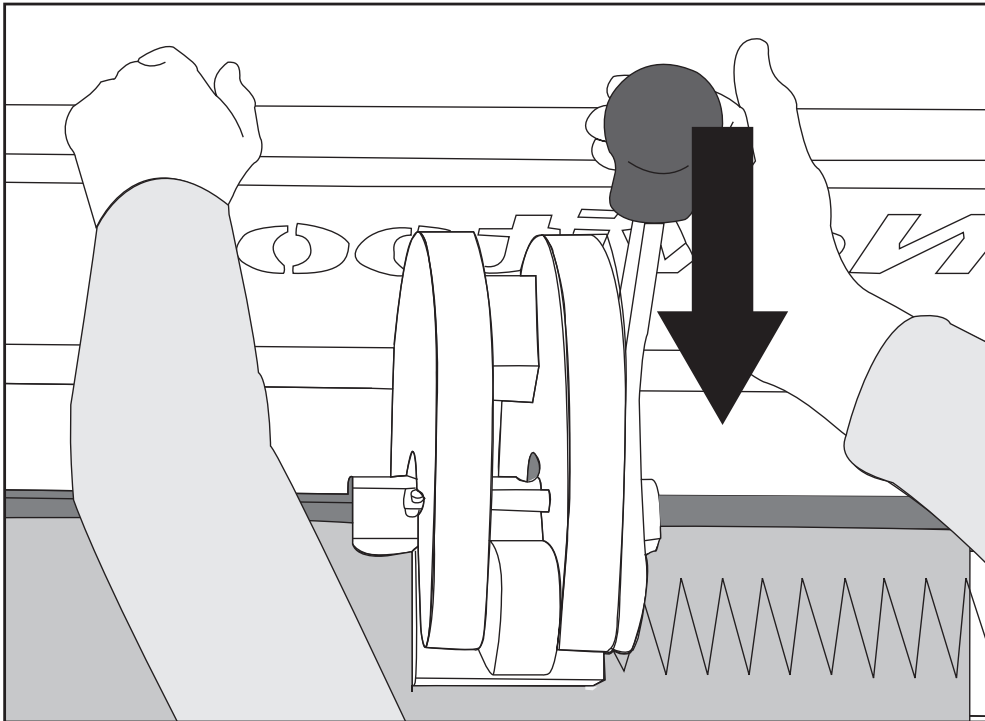
Insert the initial belt end cover side up and flush against belt stop. Align the left edge of belting with top of V-pattern in knife set.

D3



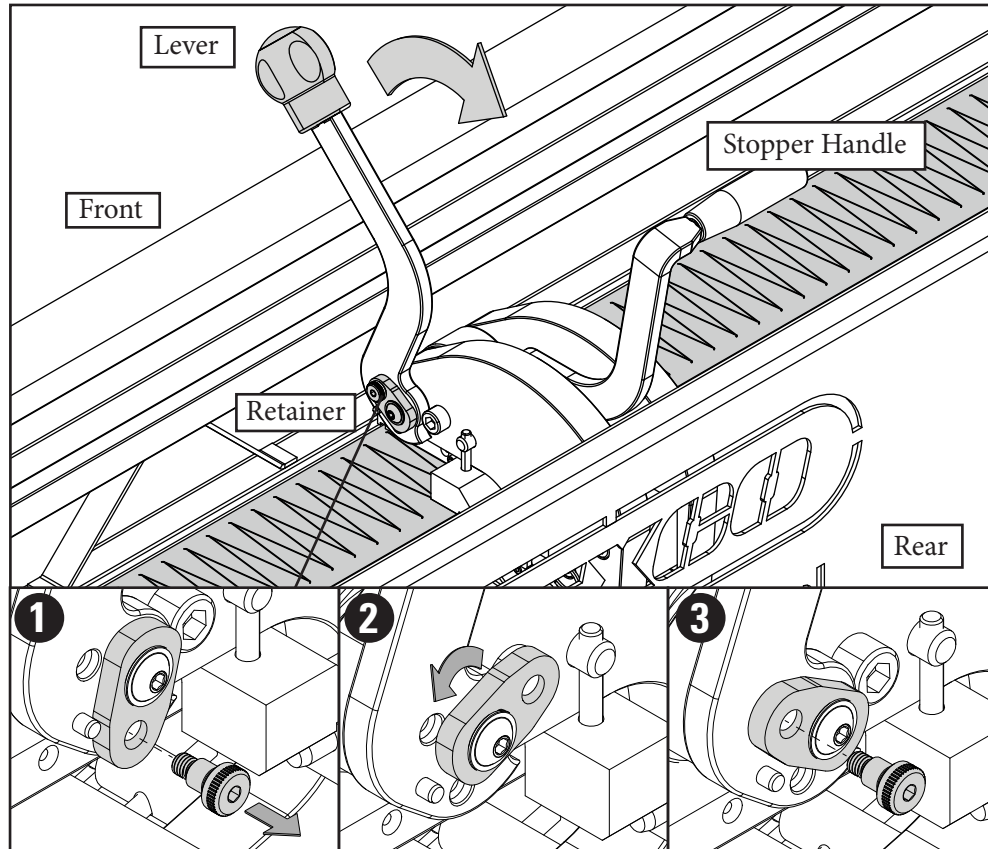
Clamp the belt in place by rotating the belt clamp bar.

D4



Place left hand on rear frame for support. Use other hand to operate lever to punch belt.

D5



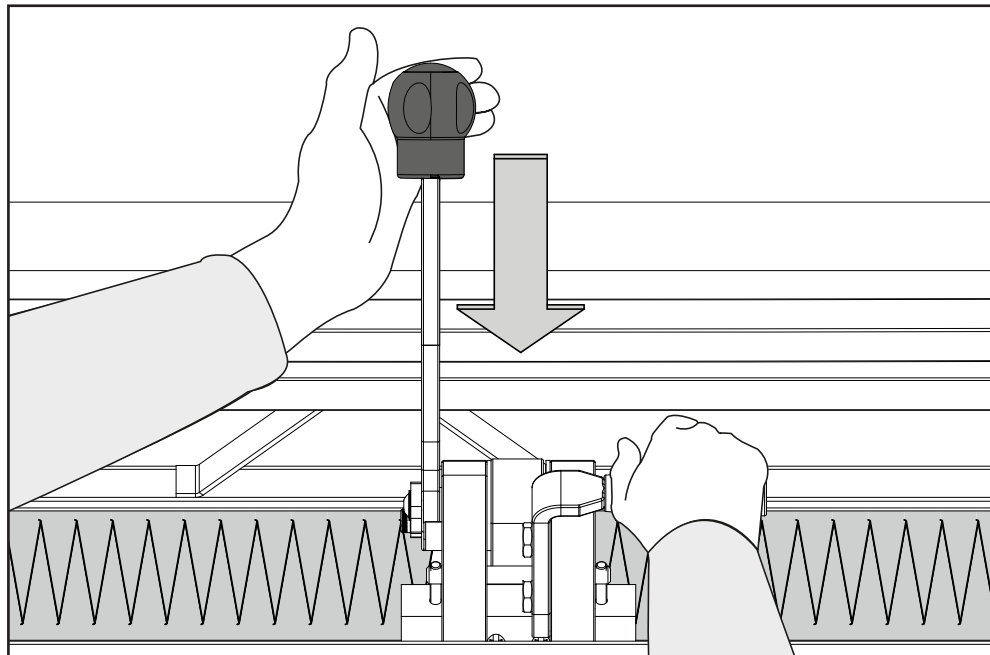
Remove screw.

Rotate retainer.

Replace screw.

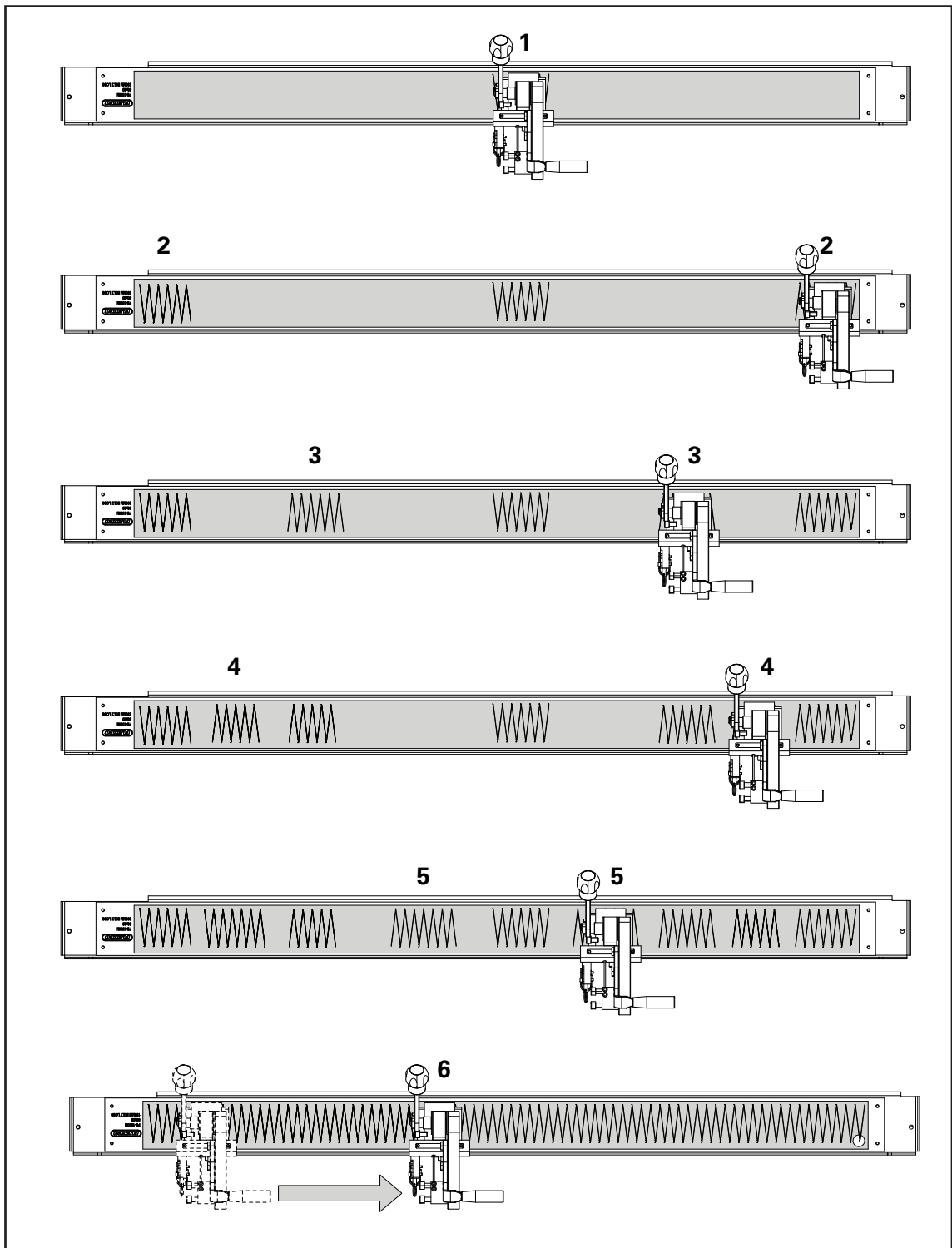
Optional Alternate Position: If using the two-handle C-Frame, the lever can also be operated from the back of the tool, facing the rear frame. Adjust the retainer on the lever to enable a pull motion.

D6



Place right hand on fixed stopper handle for support. Use other hand to operate lever to punch belt.

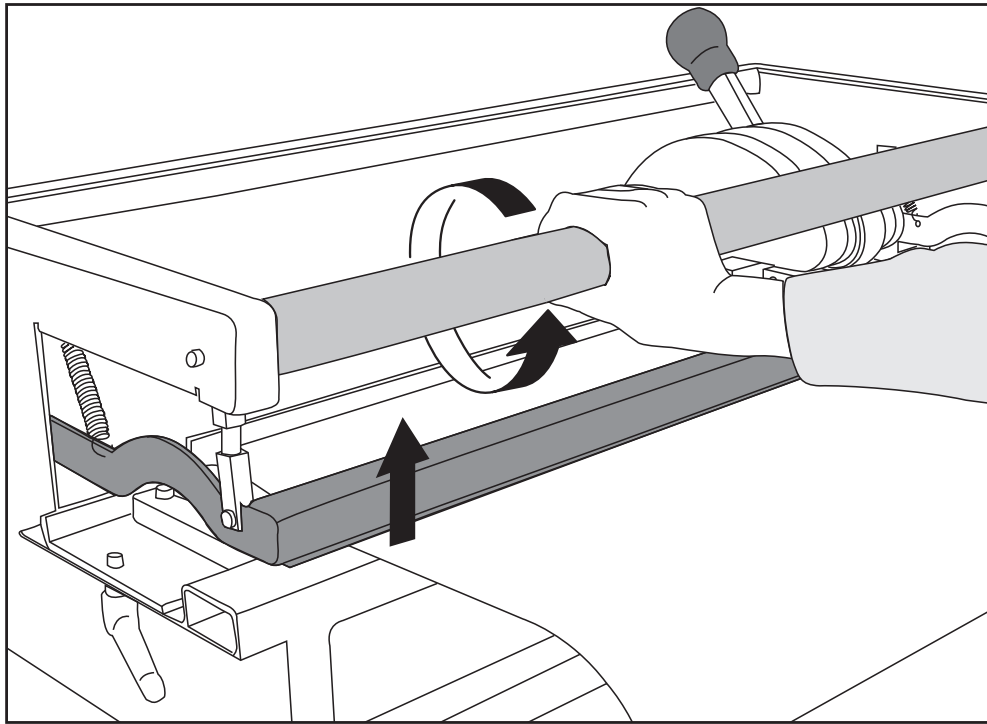
D7



Punch in the center and at both ends. Continue to punch in centers of created sections. Then punch across remainder of material.

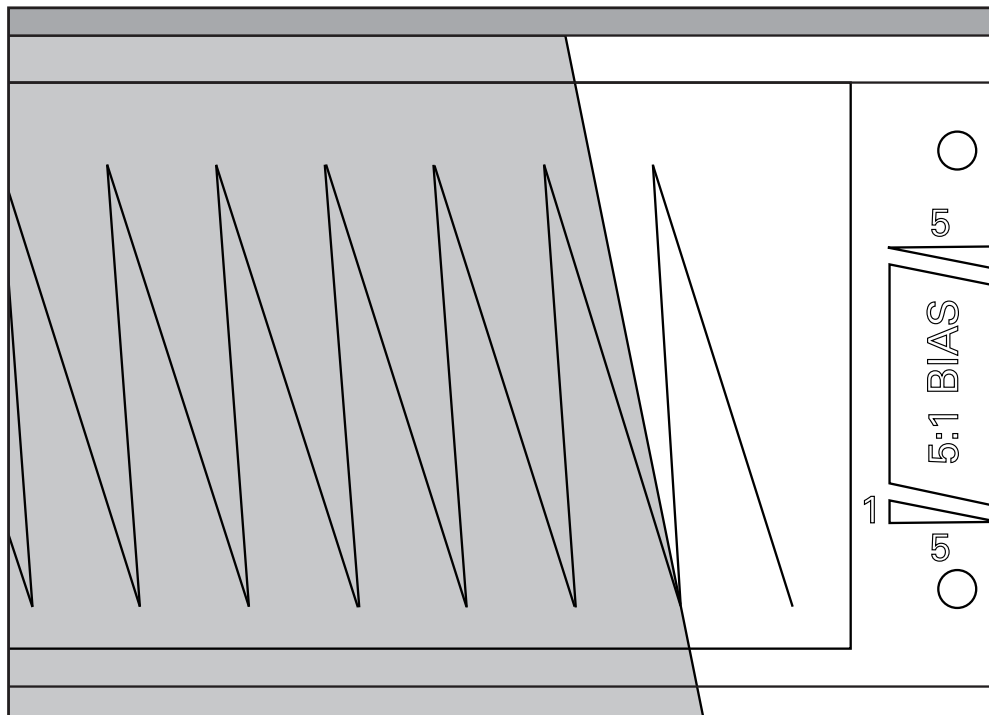
NOTE: Thinner belts have a tendency to bubble up between punches. Punching in centers of sections will help ensure punched belt ends will align together. Remove excess punched material and loosen fingers from punch board.

D8



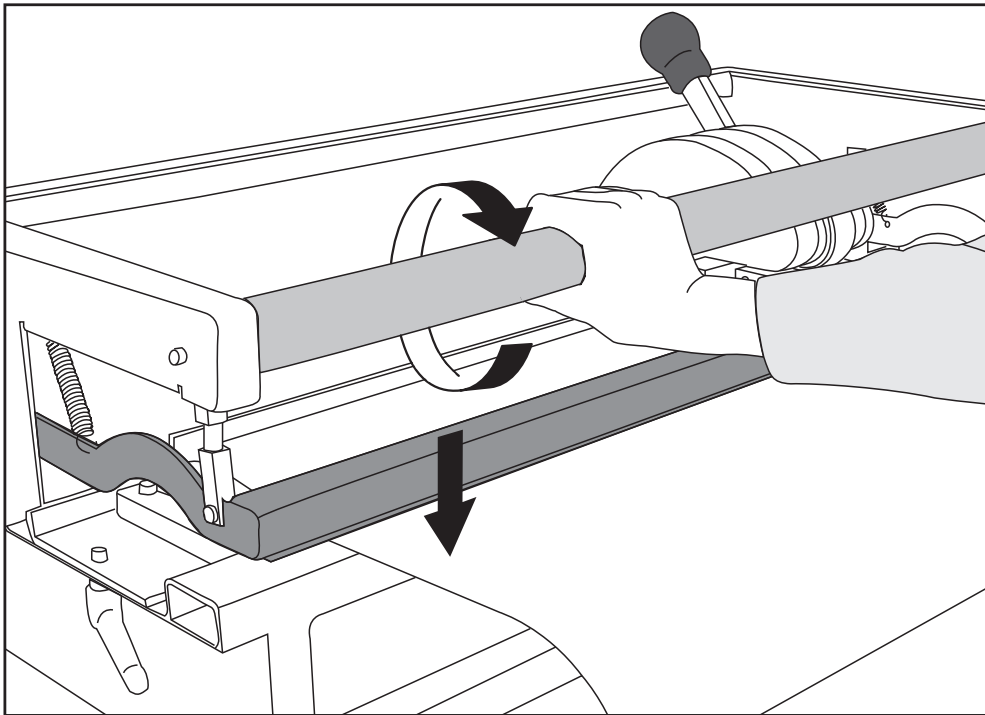
Turn belt clamp bar. Remove belt.

D9



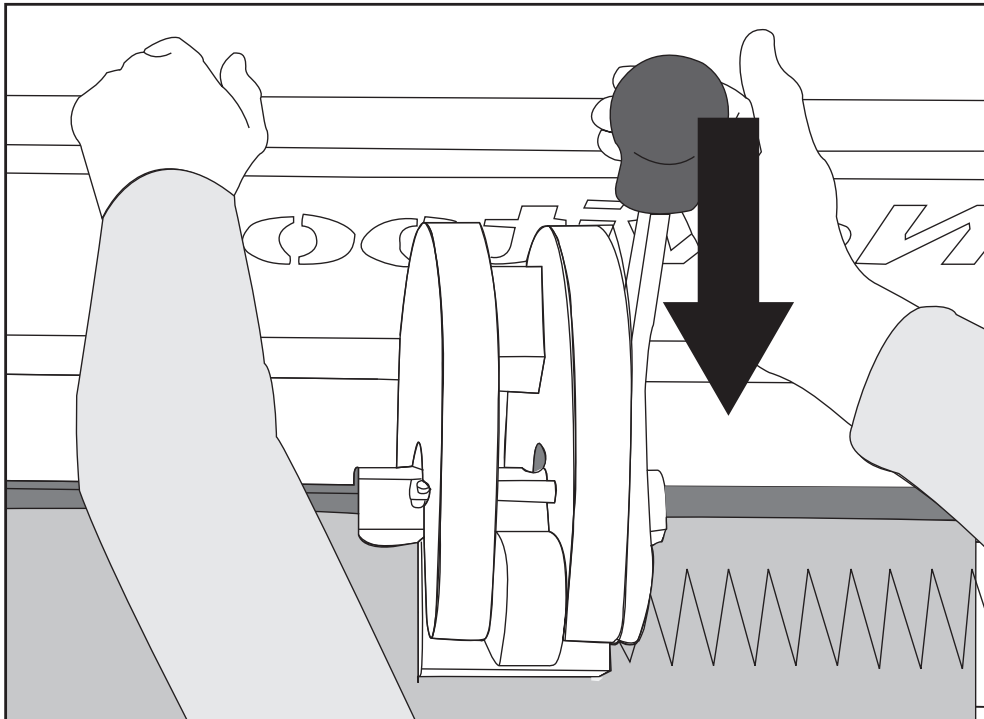
Insert the opposite belt end cover side up into the Punch. Flush against belt.
Align right belt edge with bottom of V-pattern in knife set.

D10



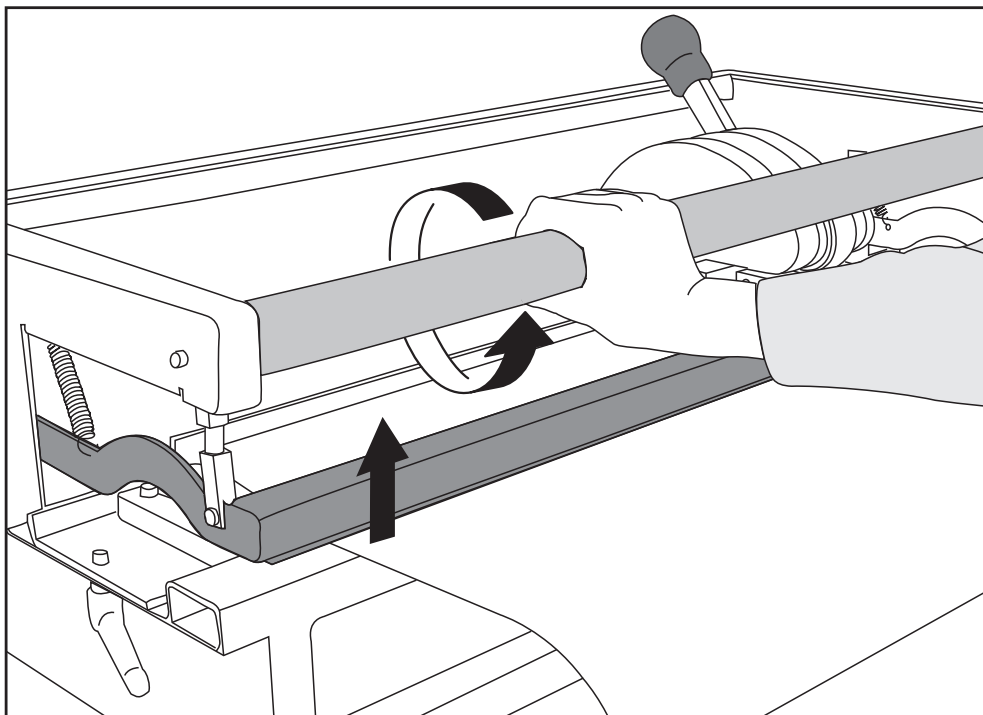
Turn belt clamp bar to clamp belt.

D11



Repeat punching process as shown in D4-D7.

D12



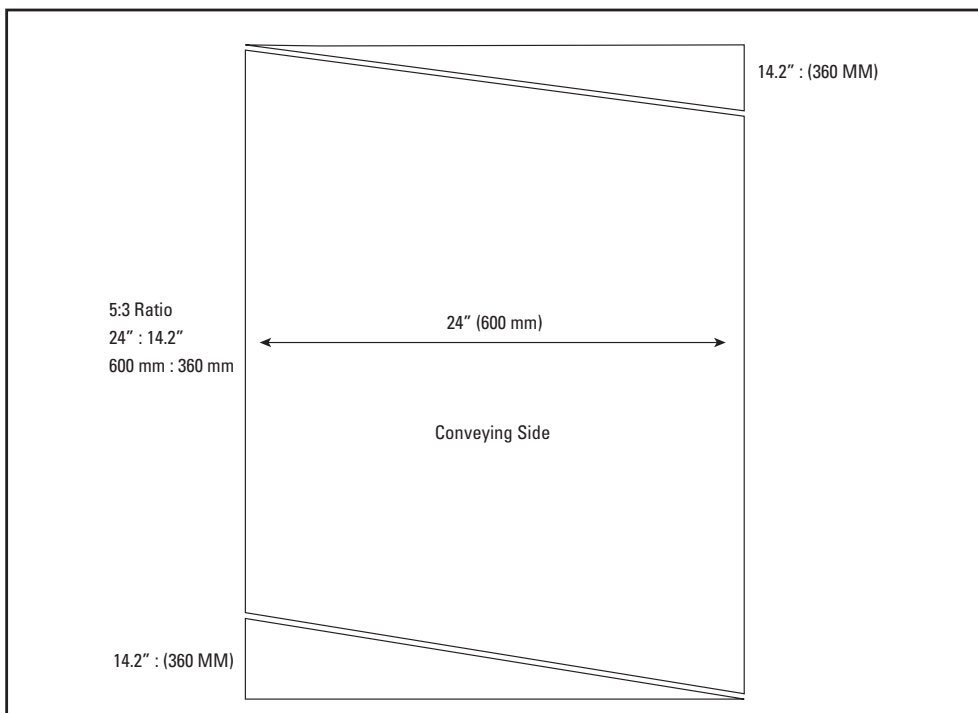
Turn belt clamp bar. Remove belt.

Bias Finger Over Finger Punching



Prior to punching ensure:

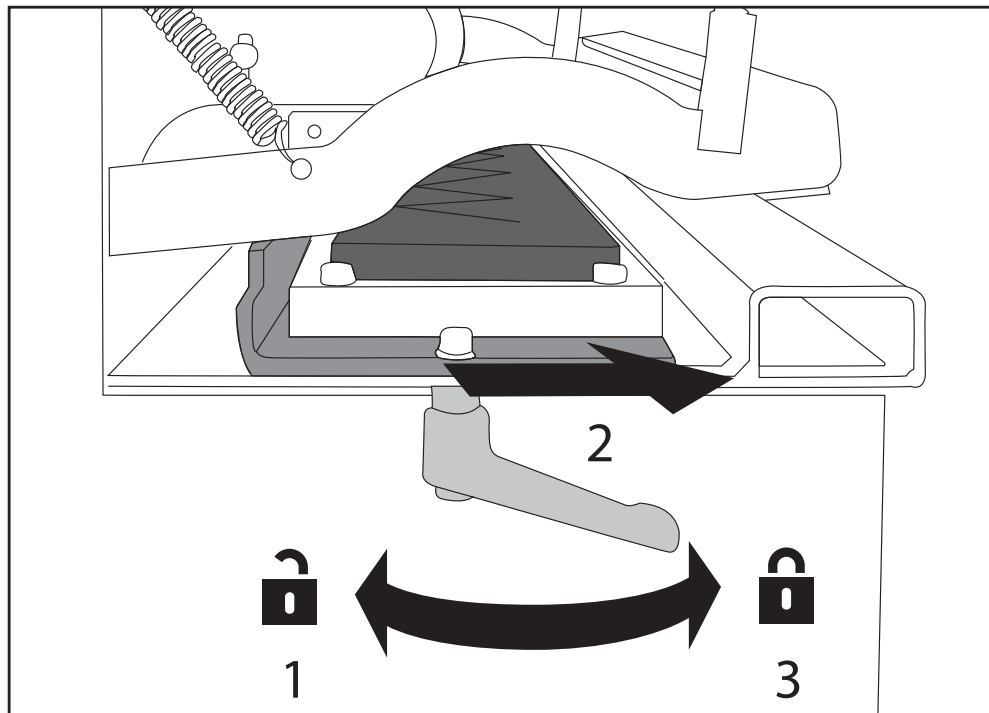
- The punchblock is in the right position (A3)
- The correct punchboard is installed (A7)
- The punch force has been adjusted for material (A10)
- Make sure belt ends are ply separated.

E1

Prepare the belt ends for bias finger over finger punching by cutting opposing (5:3 ratio) angles on each belt end. Use the Ply 130™ to separate each belt end to 4.3\" (110mm) depth.

Bias Finger Over Finger Punching

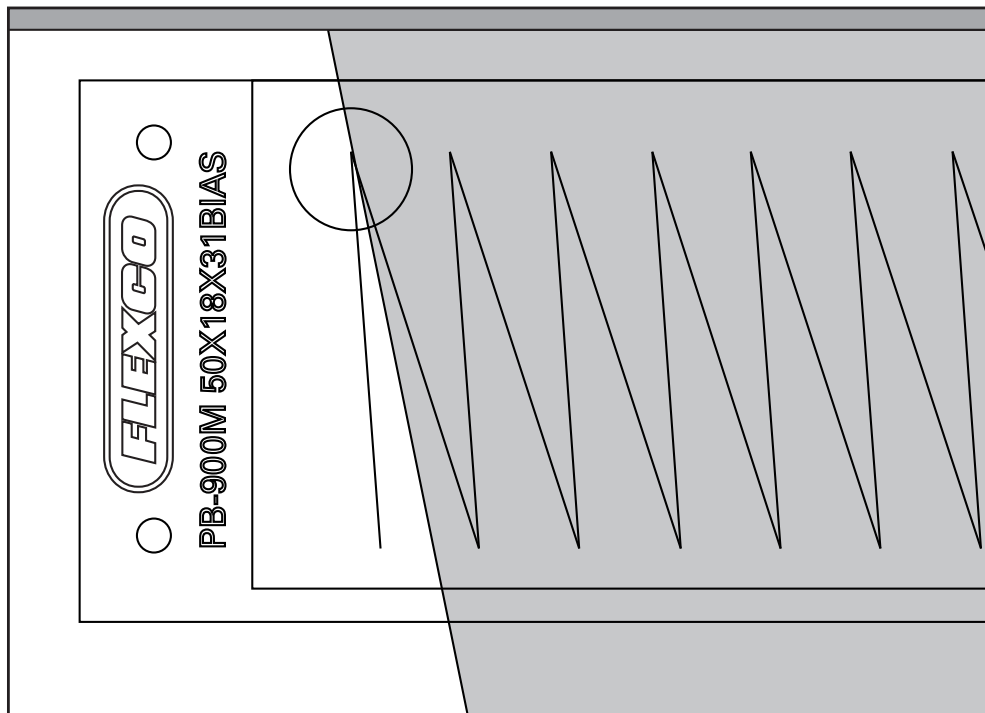
E2



1. Unlock punchboard tray at both ends. 2. Move punchboard tray to front most position. 3. Lock punchboard tray at both ends.

ATTENTION: When required, reposition lock handle (B2).

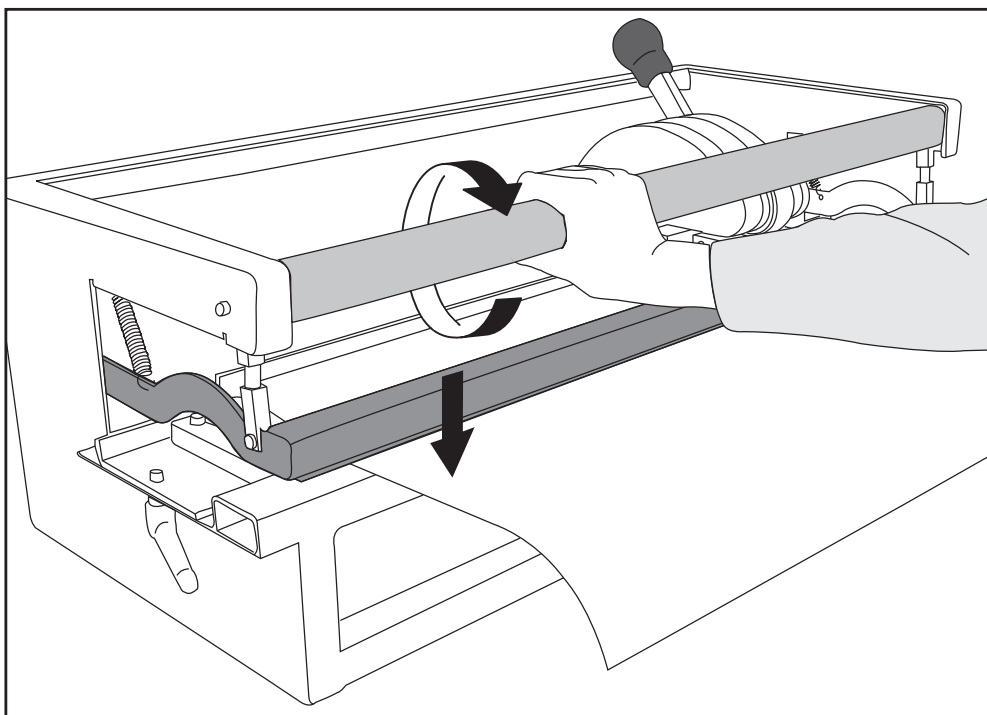
E3



Insert initial belt end cover side up and flush against belt stop. Align the left edge of the belting with the top of V-pattern in knife set.

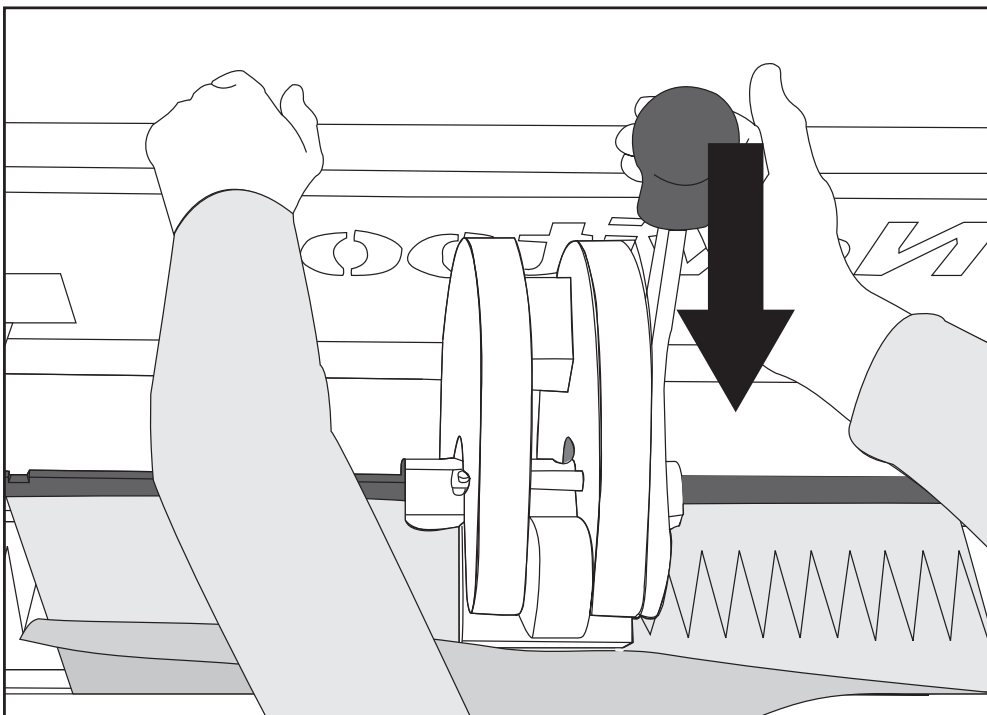
Bias Finger Over Finger Punching

E4



Clamp belt in place by rotating belt clamp bar.

E5

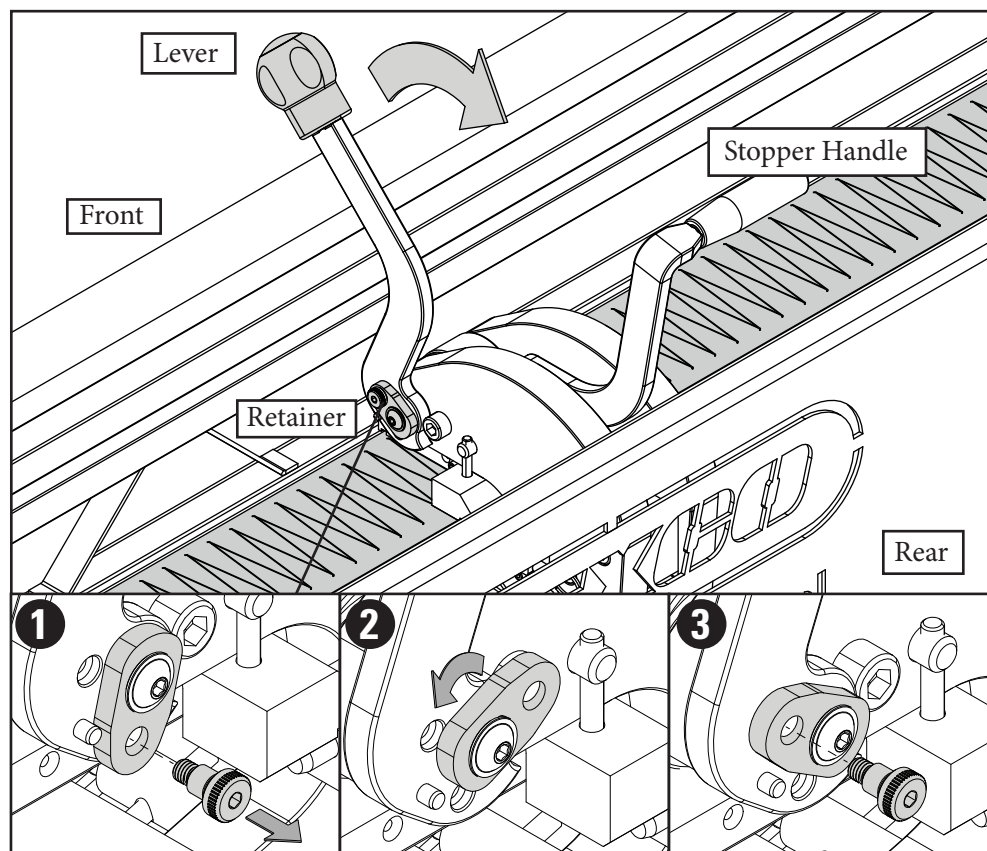


Lift top layer of belt up. In this step you will only punch the bottom layer. Place left hand on rear frame for support. Use other hand to operate lever to punch belt.

FLEXCO

Bias Finger Over Finger Punching

E6



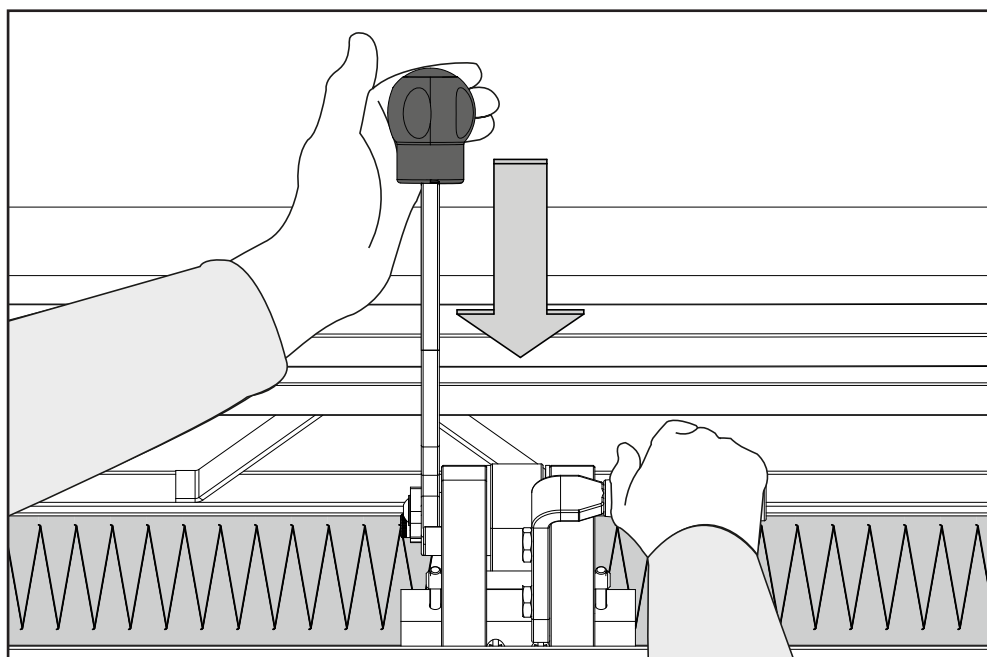
Remove screw.

Rotate retainer.

Replace screw.

Optional Alternate Position: If using the two-handle C-Frame, the lever can also be operated from the back of the tool, facing the rear frame. Adjust the retainer on the lever to enable a pull motion.

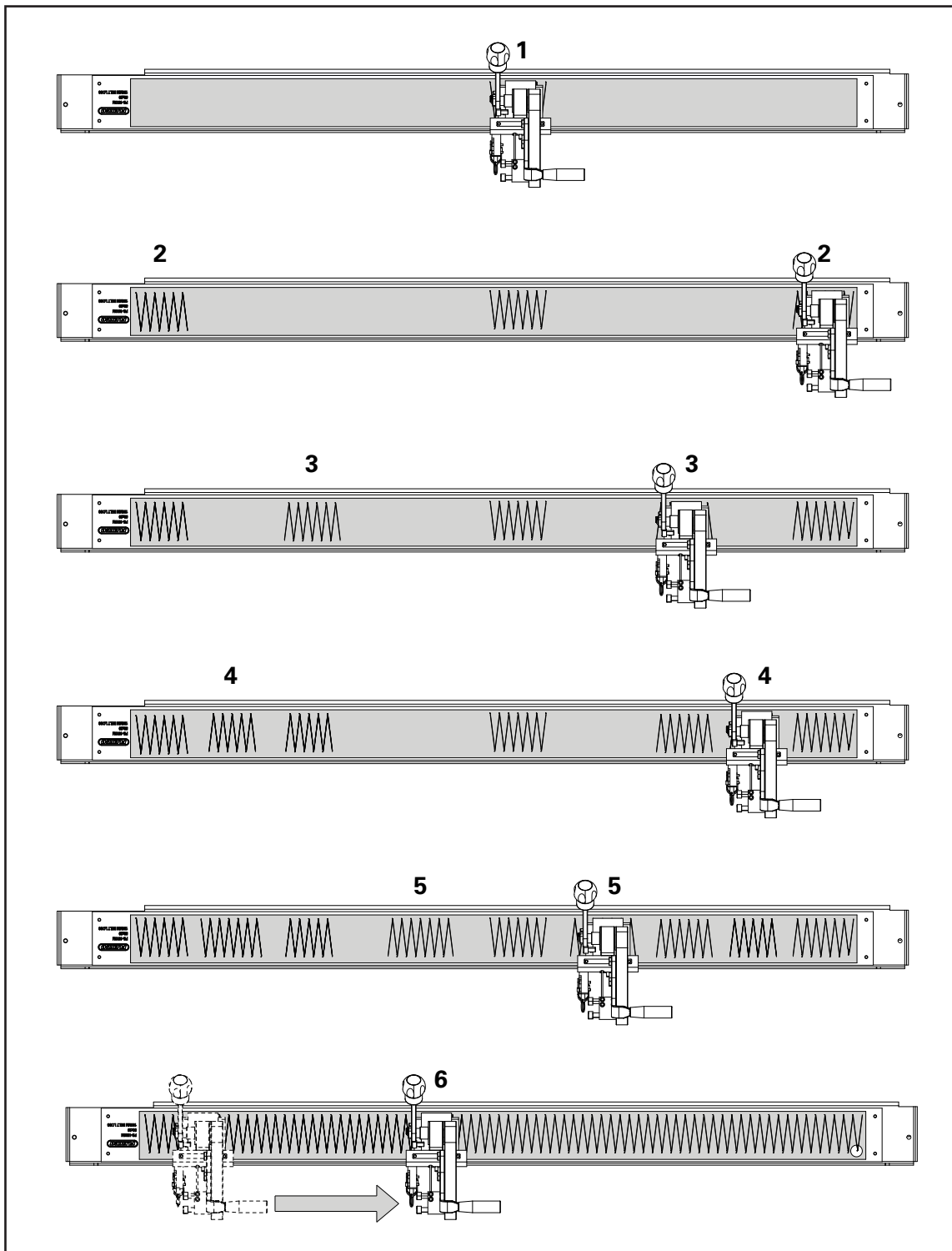
E7



Place right hand on fixed stopper handle for support. Use other hand to operate lever to punch belt.

Bias Finger Over Finger Punching

E8



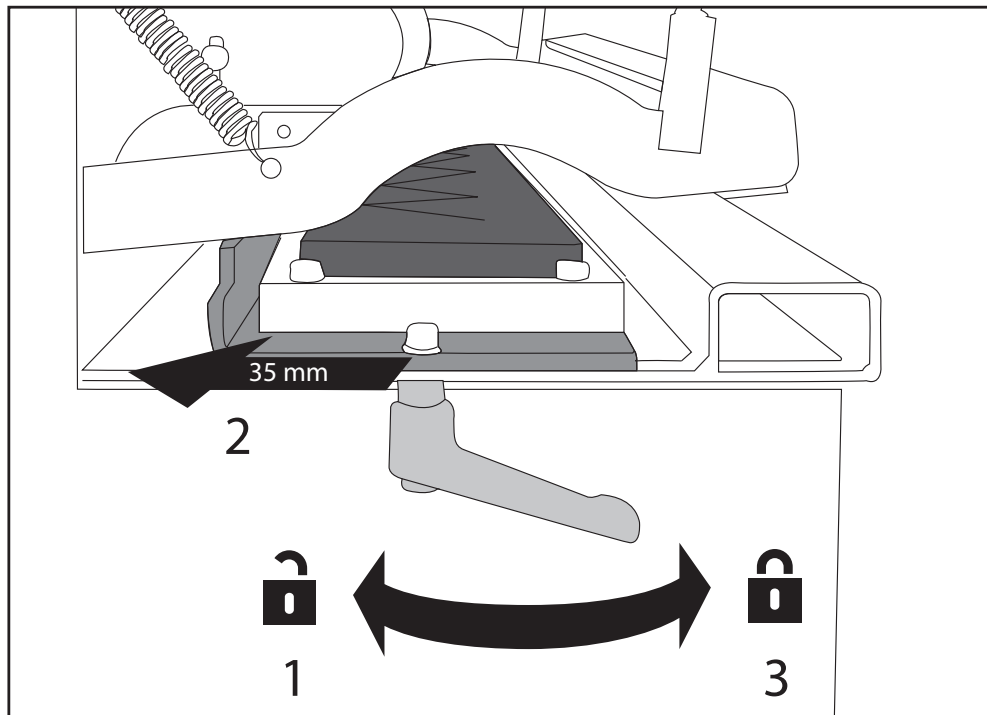
Punch in the center and at both ends. Continue to punch in centers of created sections. Then punch across remainder of material.

NOTE: Thinner belts have a tendency to bubble up between punches. Punching in centers of sections will help ensure punched belt ends will align together. Remove excess punched material and loosen fingers from punch board.



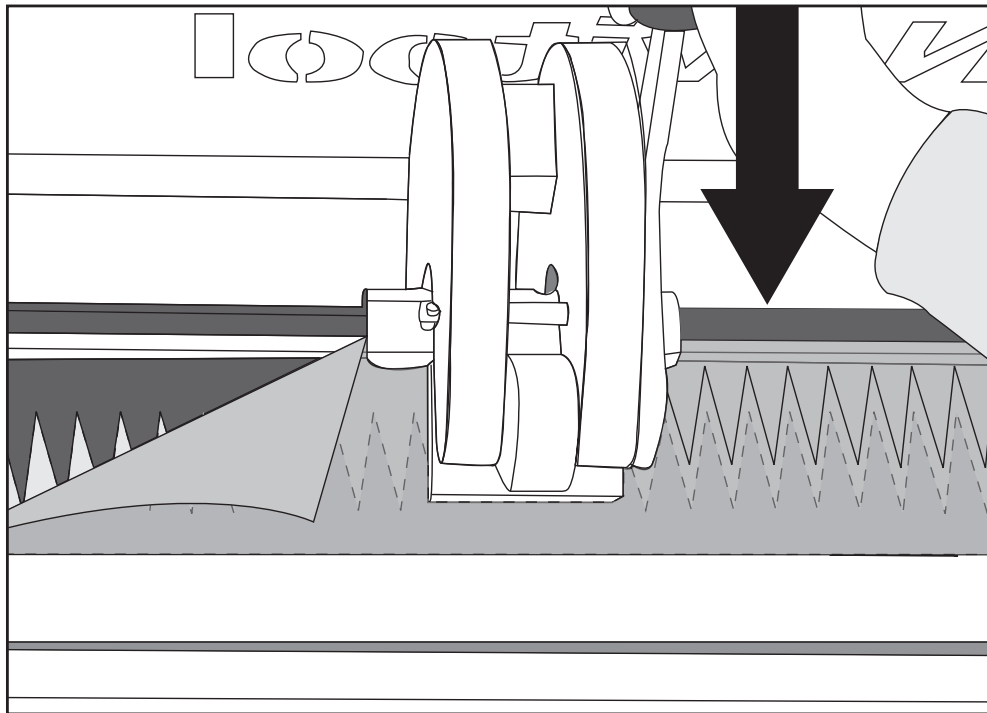
Bias Finger Over Finger Punching

E9



Keep belt clamped. 1. Unlock punchboard tray at both ends. 2. Slide it to final back position. 3. Lock punchboard tray at both ends.

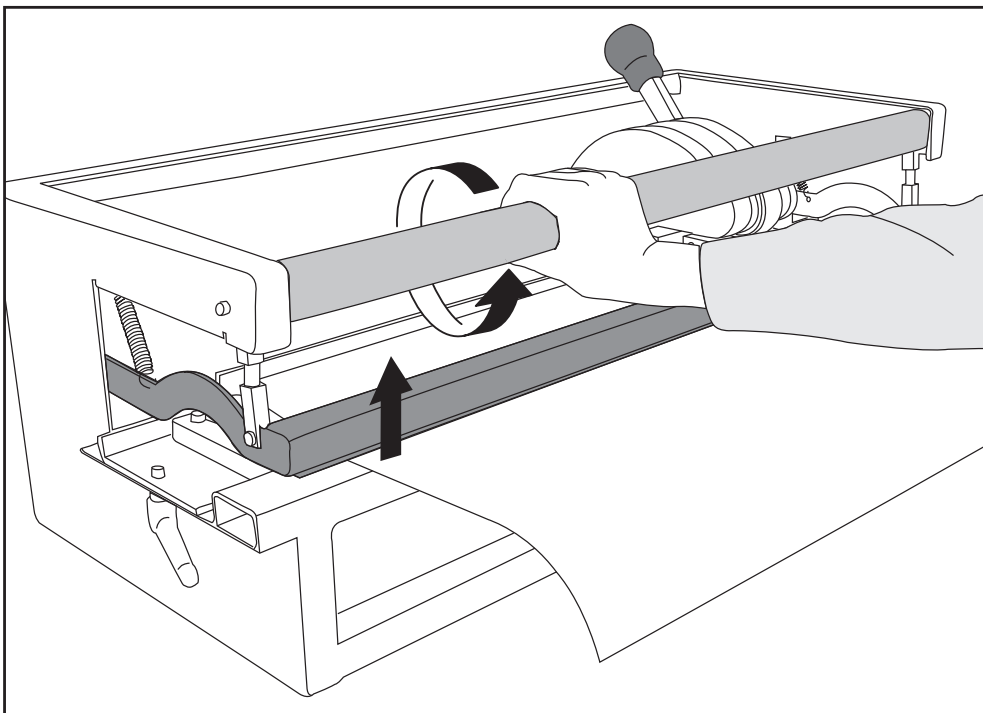
E10



Lay top cover down and repeat punching process for second array of fingers. Remove excess punched material and loosen fingers from punch board.

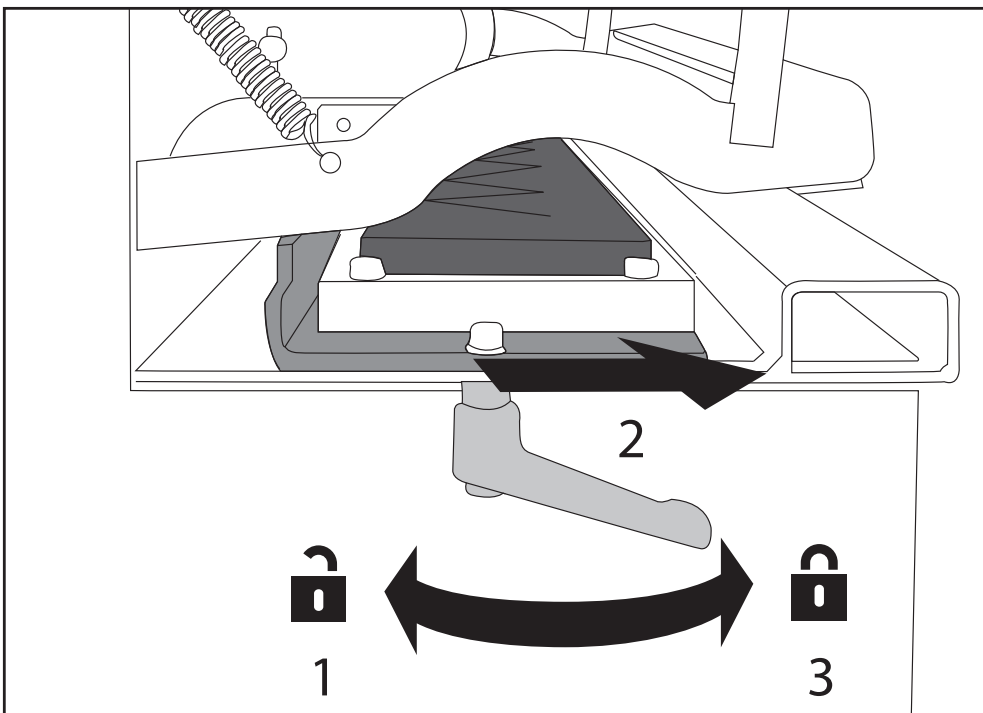
Bias Finger Over Finger Punching

E11



Turn belt clamp bar. Remove belt.

E12



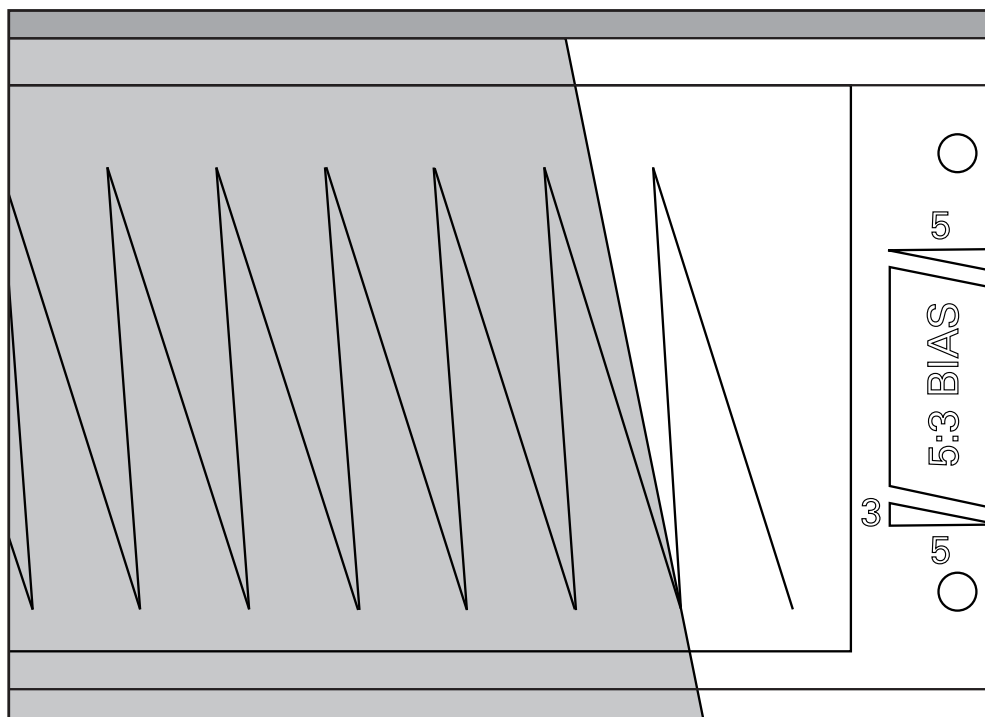
1. Unlock punchboard tray at both ends. 2. Move punchboard tray to front most position. 3. Lock punchboard tray at both ends.

ATTENTION: When required, reposition lock handle (B2).



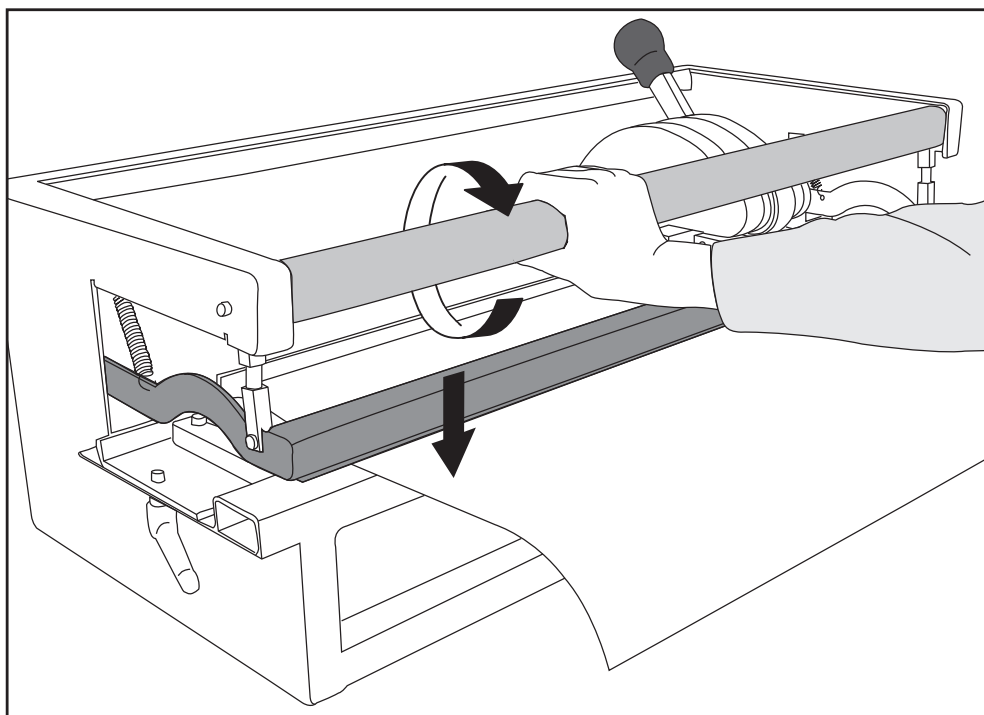
Bias Finger Over Finger Punching

E13



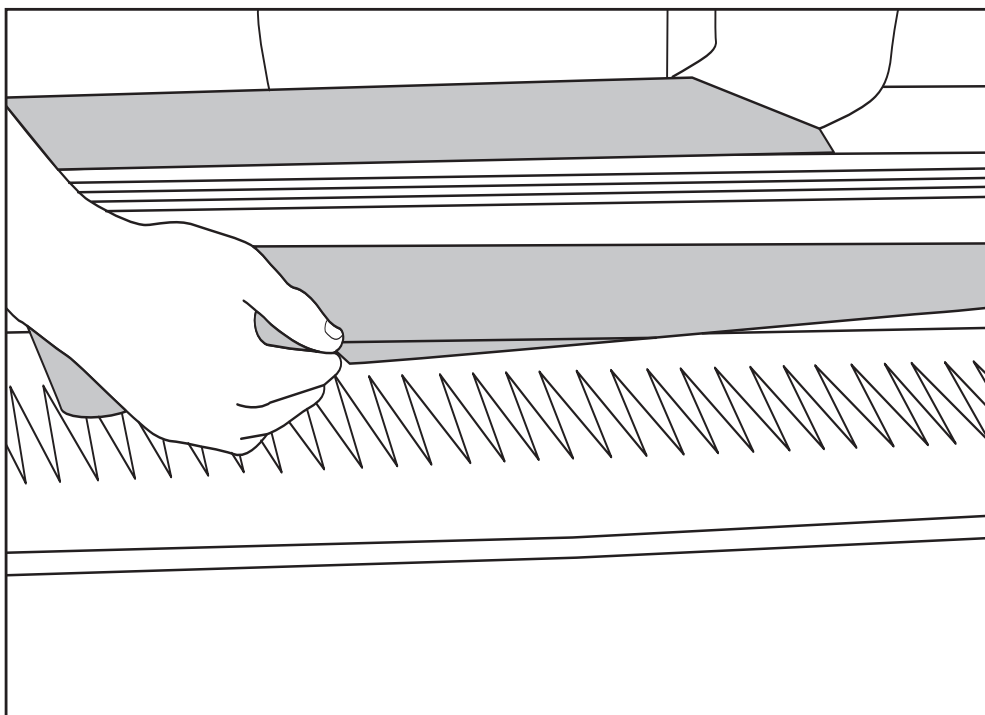
Insert opposite belt end cover side up and flush against belt stop. Align right belt edge with bottom of V pattern in knife set.

E14



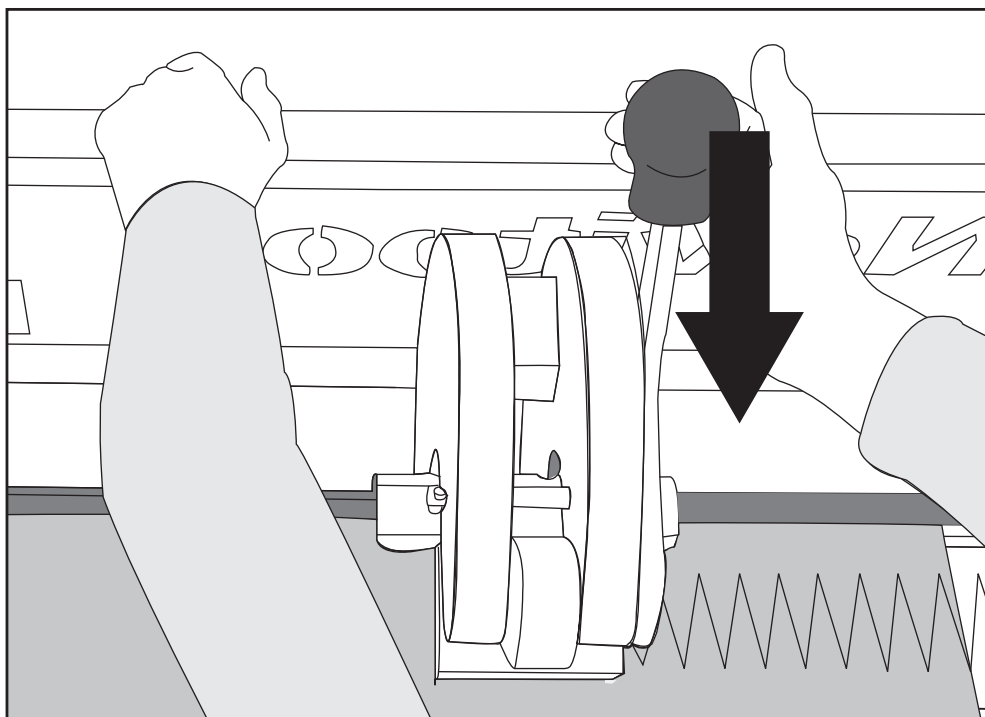
Clamp belt in place by rotating belt clamp bar.

E15



Lift top layer of belt up and then tuck the bottom layer under the punchboard tray.

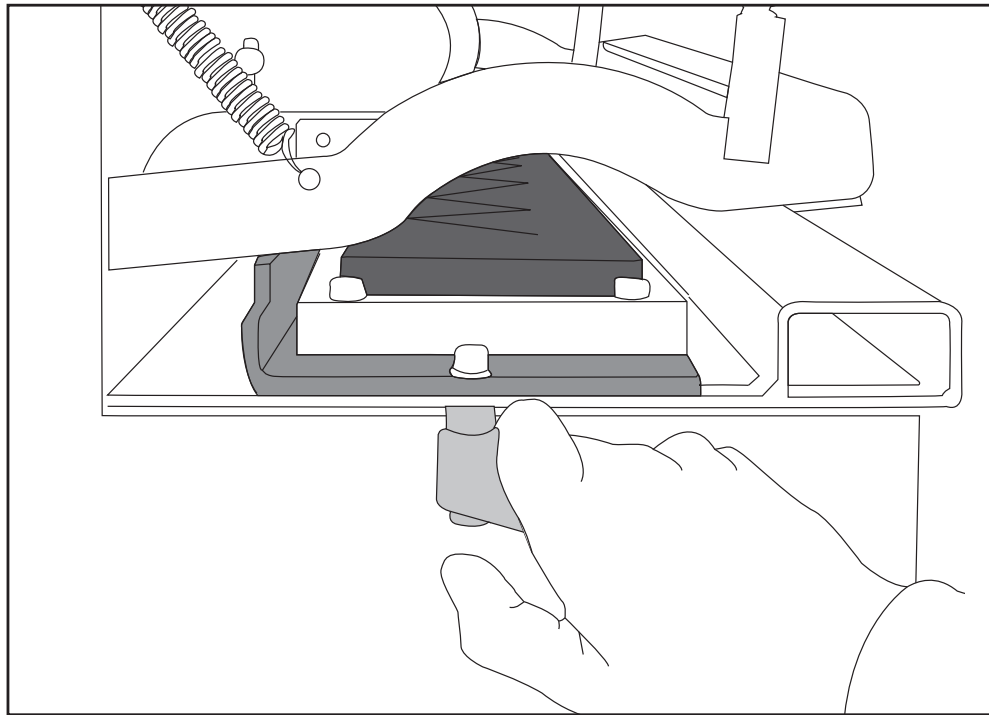
E16



Once bottom layer is out of the way, lay top layer down and punch belt. Place left hand on rear frame for support. Use other hand to operate lever to punch belt. Repeat punching process as shown in E6-E8.

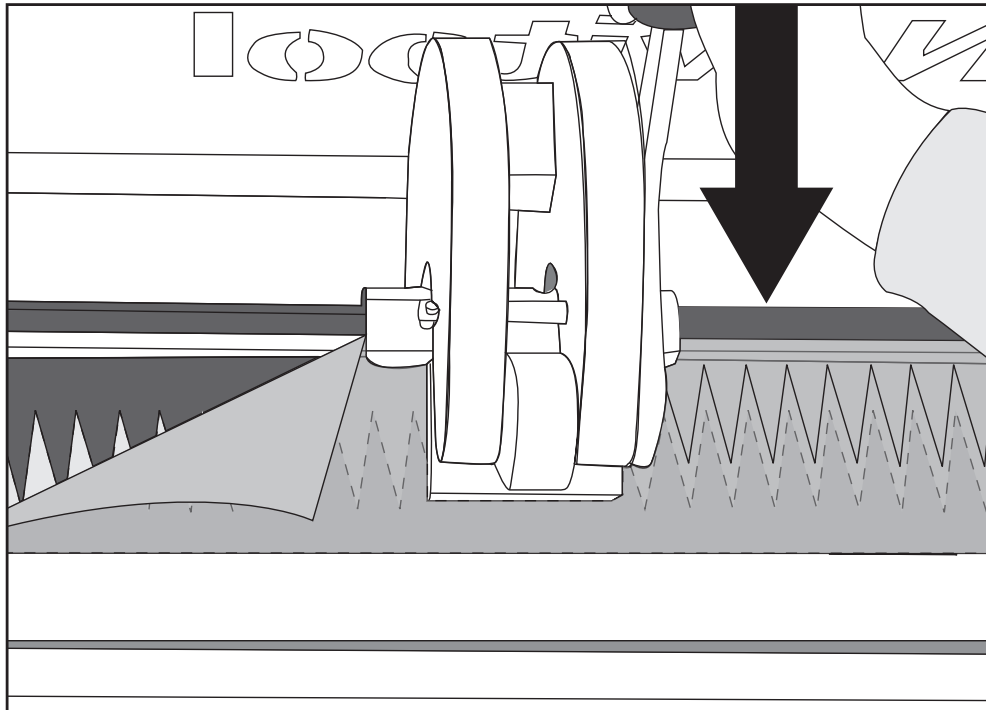
Bias Finger Over Finger Punching

E17



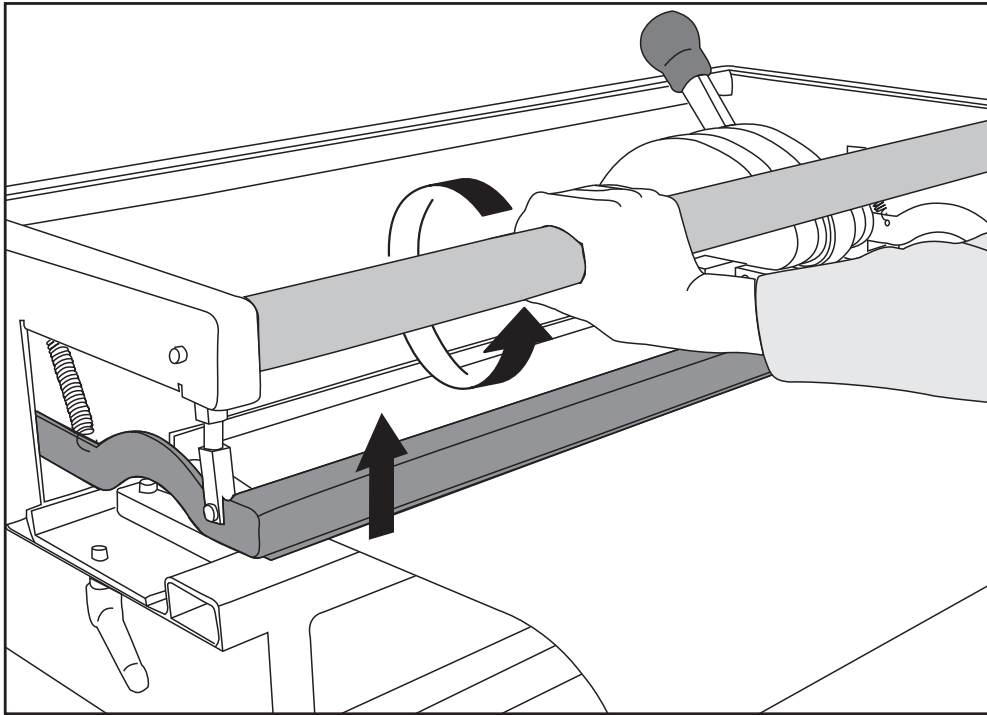
Keep belt clamped. 1. Unlock punchboard tray at both ends. 2. Slide it to final back position. 3. Lock punchboard tray at both ends (=1.38"/35mm displacement).

E18



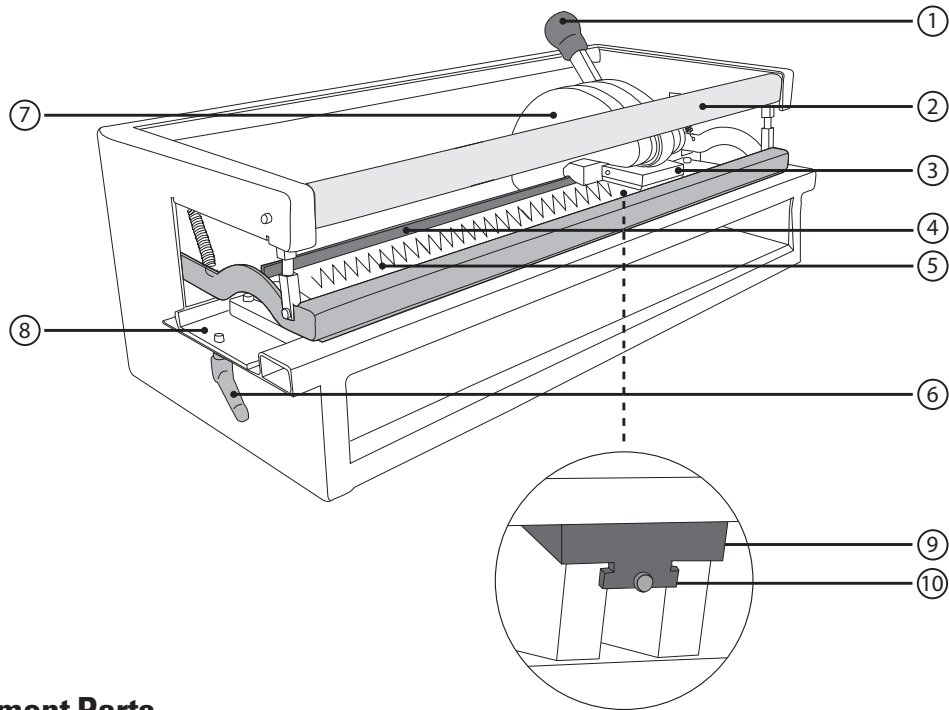
Lift top layer of belt up and reposition bottom layer over punchboard. In this step you will only punch the bottom layer. Repeat punching process as shown in E8.

E19



Turn belt clamp bar. Remove belt.

Replacement Parts



Replacement Parts

POSITION	DESCRIPTION	ORDERING NUMBER	ITEM CODE	POSITION	DESCRIPTION	ORDERING NUMBER	ITEM CODE
1	C-frame Handle Grip	PUN-M-CFRAMEHNDLGRIP	08197	6	Lock Handle for Punchboard Tray	PUN-M-TABLELEVER	08191
2	Belt Clamp Bar for PunM 300	PUN-M-ACTUATORBAR-300	08182	8	Punchboard Support Table for PunM 300	PUN-M-TABLE-300	08188
	Belt Clamp Bar for PunM 600	PUN-M-ACTUATORBAR-600	08183		Punchboard Support Table for PunM 600	PUN-M-TABLE-600	08189
	Belt Clamp Bar for PunM 900	PUN-M-ACTUATORBAR-900	08184		Punchboard Support Table for PunM 900	PUN-M-TABLE-900	08190
	Belt Clamp Bar for PunM 1500	PUN-M-ACTUATORBAR-1500	119478		Punchboard Support Table for PunM 1500	PUN-M-TABLE-1500	119476
3	Complete Punchblock	PUN-M-PUNCH-PLATE	08128	10	C-frame Wedge	PUN-M-ADJUSTERWEDGE	08194
Component of 3	Replacement Nylon Punchpad and Tape	PUN-M-NYLONPAD	08279		Wedge Hardware Kit (plastic cap, locking collar, adjusting bar)	PUN-M-ADJUSTINGWEDGE-HARDWARE	08713
5	Torsion Bushing	FGTBSG	56521				

PUN M™ Manual Punch*

ORDERING NUMBER	ITEM CODE	ORDERING NUMBER	ITEM CODE
PUN-M-300	08016	PUN-M-900	08018
PUN-M-600	08017	PUN-M-1500	08910

ORDERING NUMBER	ITEM CODE	ORDERING NUMBER	ITEM CODE	ORDERING NUMBER	ITEM CODE	ORDERING NUMBER	ITEM CODE
PUN M 300 PUNCHBOARDS		PUN M 600 PUNCHBOARDS		PUN M 900 PUNCHBOARDS		PUN M 1500 PUNCHBOARDS	
PUN-B-50×20-300*	08019	PUN-B-50×20-600*	08020	PUN-B-50×20-900*	08021	PUN-B-50×20-1500*	08912
PUN-B-70×15-300	08022	PUN-B-70×15-600	08023	PUN-B-70×15-900	08024	PUN-B-70×15-1500	08913
PUN-B-80×20-300	08025	PUN-B-80×20-600	08026	PUN-B-80×20-900	08027	PUN-B-80×20-1500	08914
PUN-B-50X18X31BIAS-300**	08539	PUN-B-50×18×31BIAS-600**	08540	PUN-B-50×18×31BIAS-900**	08526	PUN-B-50×18×31BIAS-1500**	08915
		PUN-B-80×20×113BIAS-600	08439	PUN-B-80×20×113BIAS-900	08440	PUN-B-80×20×113BIAS-1500	08916

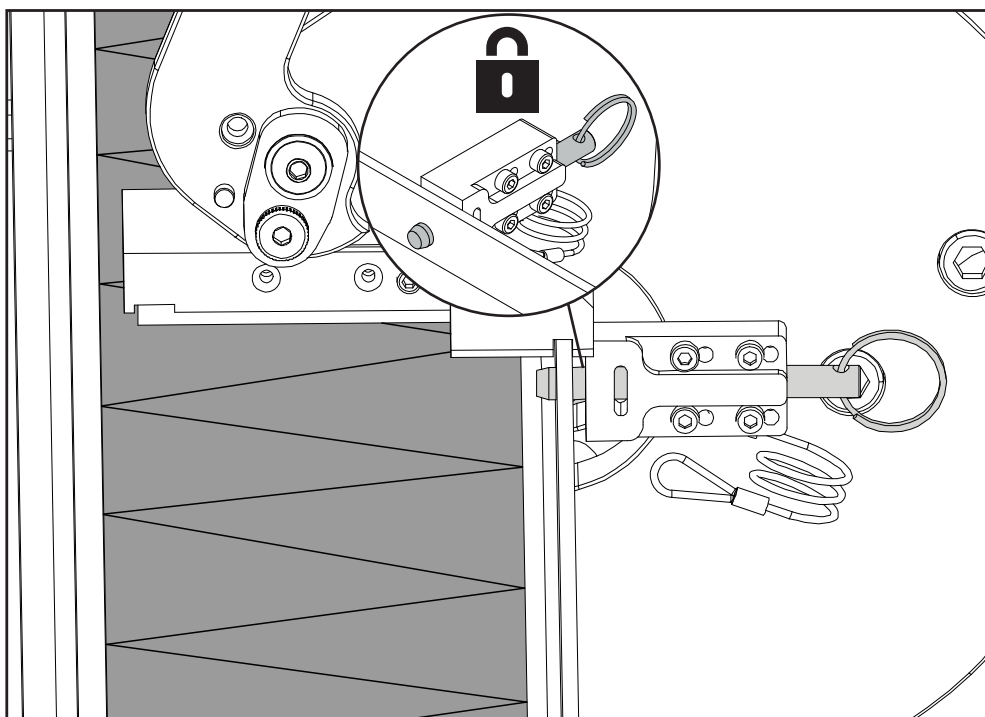
*Also suitable for Finger-Over-Finger splices.

**For Bias Finger-Over-Finger splice.

NOTE: Punchboards not included with Pun M; purchase separately. Custom punchboards are available for other finger dimensions. Contact Customer Service for information.

Transportation Security

G1



Position C-Frame to middle of punchboard tray and slide locking pin into hole.

Visit www.flexco.com for other Flexco locations and products, or to find an authorized distributor.

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