

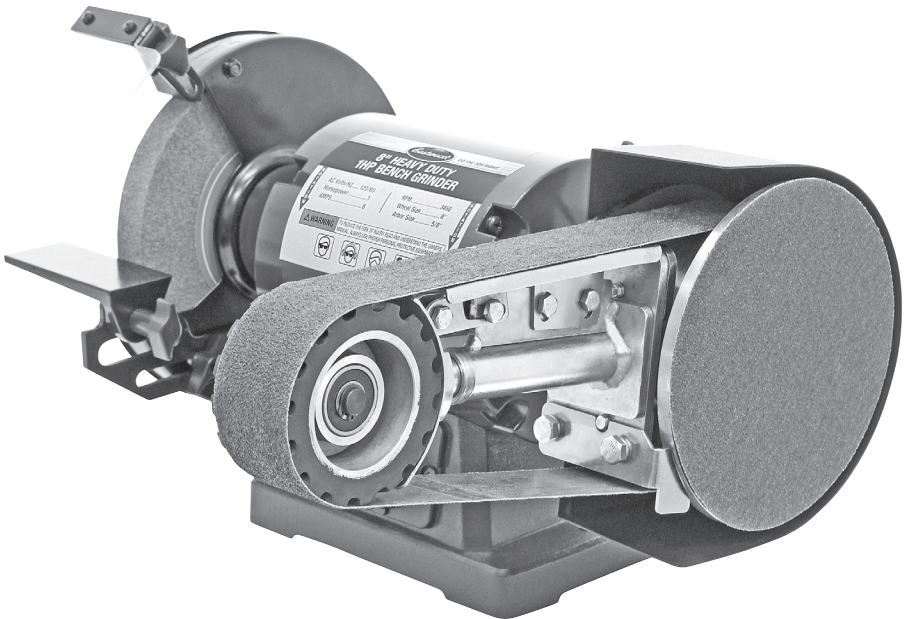
Eastwood[®]

DO THE JOB RIGHT.[®]

Item #68198
#68199
#68200

VERSA-GRIND BELT GRINDER ATTACHMENTS

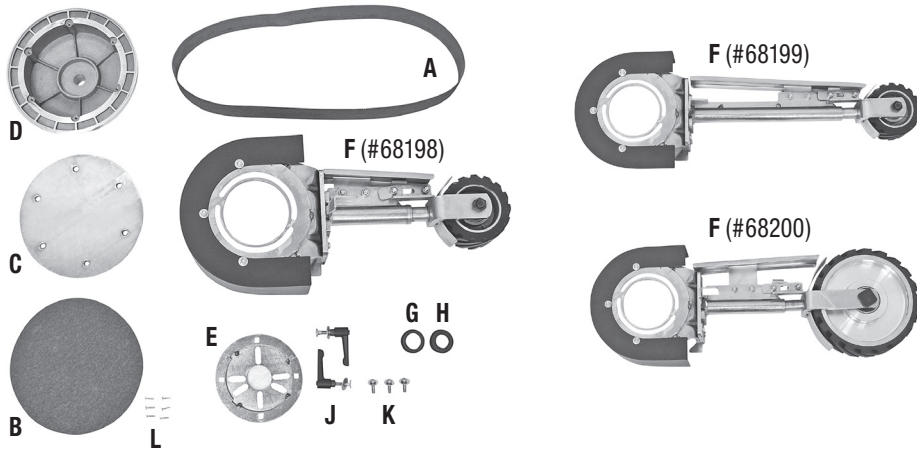
INSTALLATION AND OPERATING INSTRUCTIONS



The **EASTWOOD VERSA-GRIND BELT GRINDER ATTACHMENTS** bolt to your existing bench grinder and transform it into an extremely versatile, enhanced grinding solution. These attachments feature a large abrasive Belt with a platen-supported side for flat grinds, and a slack side for grinding blades or round objects. A rubber tread Contact Wheel at the front of the Belt allows grinding inside-radius features. A 7" abrasive Disc, at the side of the attachment, comes with provisions for an adjustable table. Eastwood's unique tool-less swivel adjustment enables arm position adjustments in a matter of seconds. Tool-less belt tracking adjustment, and a quick-change belt replacement and belt tensioning mechanism, allow fast setup and configuration changes for unparalleled versatility.

INCLUDES

- (1) 2" x 36" (#68198) or 2" x 48" (#68199, #68200) 80 grit Abrasive Belt **[A]**
- (1) 7" PSA Abrasive Disc, 80 grit **[B]**
- (1) Wheel Plate **[C]**
- (1) Belt Drive/Disc Wheel **[D]**
- (1) Belt Frame Mounting Flange **[E]**
- (1) 2X36 (#68198), 2X48 (#68199), or 2X48 Big Wheel (#68200) Belt Frame Assembly (Guard, Belt Support, Contact Wheel, Hardware installed) **[F]**
- (1) Ø20mm I.D. Locating Collar **[G]**
- (1) Ø17mm I.D. Locating Collar **[H]**
- (2) Low-Profile Adjustable Handles M6 with M6x25 Carriage Bolts, Washers **[J]**
- (3) M5x16 Round Head Screws, Captured Washers **[K]**
- (6) M4x12mm Flat Head Screws **[L]**



SPECIFICATIONS

	#68198	#68199	#68200
Abrasive Belt Size	2" x 36"	2" x 48"	
Abrasive Belt Grit	Aluminum oxide, 80 grit		
Abrasive Disc Size	Ø7", Pressure-sensitive Adhesive (PSA)		
Abrasive Disc Grit	Aluminum oxide, 80 grit		
Contact Wheel Size	Ø3.54" [90mm] x 1.97" [50mm] Wide	Ø7.09" [180mm] x 1.97" [50mm] Wide	
Max. Rated Speed	3600 RPM		
Arm Swivel	160° Range, Toolless position locking		
Fits Bench Grinder Shaft Size	5/8"		
Recommended Grinder Size	Minimum 1HP		

SAFETY INFORMATION

The following explanations are displayed in this manual, on the labeling, and on all other information provided with this product:

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

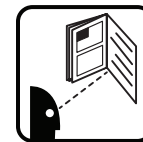
WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

⚠ NOTICE

NOTICE is used to address practices not related to personal injury.



READ INSTRUCTIONS!

- Thoroughly read and understand these product instructions before using.
- Keep these product instructions for future reference.



⚠ WARNING HEALTH AND INJURY HAZARDS!

- Dust and fine particles are generated while grinding which can contain hazardous or toxic substances. Breathing this dust can cause many serious respiratory health conditions. Always use NIOSH approved respiratory protection while using this Bench Grinder.
- Bench grinders will eject particles, dust and sparks at high velocity during operation. Use a face shield, ANSI approved safety glasses and wear skin protection at all times while operating.
- Grinding with a bench grinder can generate excessive noise. Wear appropriate hearing protection while grinding.
- The rotating Wheels and Belt can quickly catch loose clothing, long hair or jewelry causing serious personal injury. Keep all loose clothing, long hair and jewelry away during operation.
- Do not operate the Versa-Grind Belt Grinder Attachments without all machine guards in place. Missing or unsecured guards could result in serious injury.
- The rotating Abrasive Belt and Disc can suddenly grab the work piece with great force causing serious injury. The exposed Contact Wheel can pinch and injure. Keep fingers away while operating. Exercise extreme caution when using the Versa-Grind Belt Grinder Attachments.
- If accidentally switched on while plugged in to the electrical power supply, bench grinders can quickly start up and cause serious personal injury. Always unplug the tool from the electrical supply before changing Belts and Discs or performing maintenance.
- Sharp metal edges can cut and grinding will rapidly heat work piece. Always wear thick, well-fitting protective work gloves while grinding and handling materials.
- Rotating Abrasive Belts and Discs can quickly cause cuts. Keep hands and fingers away from rotating components.
- Bench grinders can quickly and violently propel a workpiece at over 80 MPH while operating, causing injury or property damage. Always wear a face shield and ANSI approved eye protection when grinding to protect face and eyes.

⚠ WARNING FIRE HAZARD!

- Grinding will eject sparks which can ignite flammable materials. Do not operate in the vicinity of flammable materials.



⚠ CAUTION INJURY HAZARD!

- NEVER reach across the Abrasive Belt to turn the bench grinder on/off or make tracking adjustments. Reaching across can quickly result in your arm or clothing getting caught by the Abrasive Belt or Contact Wheel.
- Workpieces may shift from your grip and suddenly drop when grinding. Maintain a firm grip and always wear closed toe shoes when grinding.
- Grinding dust may result in slippery surfaces in the area of operations. Always be sure-footed and well balanced when working around the bench grinders. Wear appropriate footwear to increase grip.
- Grinding will eject particles, dust and sparks at high velocity which can injure others nearby. Keep all persons and pets away from the work area.
- Regularly check the tightness of the Angle Adjustment Levers. Loosening could result in the Arm slipping and falling, causing personal injury and property damage.
- Damaged or improperly used Abrasive Belts can tear at high speed causing personal injury or property damage. If Belt damage is observed, discontinue use immediately and replace.

⚠ CAUTION DROP HAZARD!

- The Versa-Grind Belt Grinder Attachments will apply more torque to the bench grinder during operation than grinding wheels and will result in it tipping or falling. The bench grinder must be secured to a suitable workbench or pedestal before use.

⚠ NOTICE

- Only utilize the Versa-Grind Belt Grinder Attachments with a suitable bench grinder.
- Refer to your bench grinder's manual for safe operation instructions and warnings.
- Always install Belts in the correct rotation direction, as indicated by the arrows printed on its inner band.

COMPATIBILITY

- Eastwood Versa-Grind Belt Grinder Attachments are compatible with many Bench Grinders. For best performance, we recommend installing to a minimum 1HP, 8" class bench grinder such as the Eastwood 8" Heavy Duty 1HP Bench Grinder (#68201).
- The shaft size of the bench grinder should be 5/8", however you may use an adapter collar for 1/2" shafts.
- The grinder housing needs to clear the Adjustable Handles. The maximum diameter is $\text{\O}3.35"$ [$\text{\O}85\text{mm}$] at the mounting face and $\text{\O}3.54"$ [$\text{\O}90\text{mm}$] at 1.30" [33mm] from the mounting face (**FIG 1.1**). If tight, you may use spacers on the mounting flange with extended length mounting screws to provide a small amount of additional clearance. See **INSTALLATION (FIG 5)**.
- There must be mounting provisions on the bench grinder housing. Most grinders will have three or four predrilled and tapped mounting holes for their guards. These are typically suitable for mounting the Versa-Grind Belt Grinder Attachments. The maximum screw size is 1/4" [M6] and the minimum is 3/16" [M5]. The Mounting Plate supports 3 or 4 bolt circular patterns with diameters of $\text{\O}1.81"$ - $3.03"$ [$\text{\O}46$ - 77mm]. If your bench grinder does not have suitable mounting provisions, you can carefully drill and tap your own.

SET UP

LOCATION

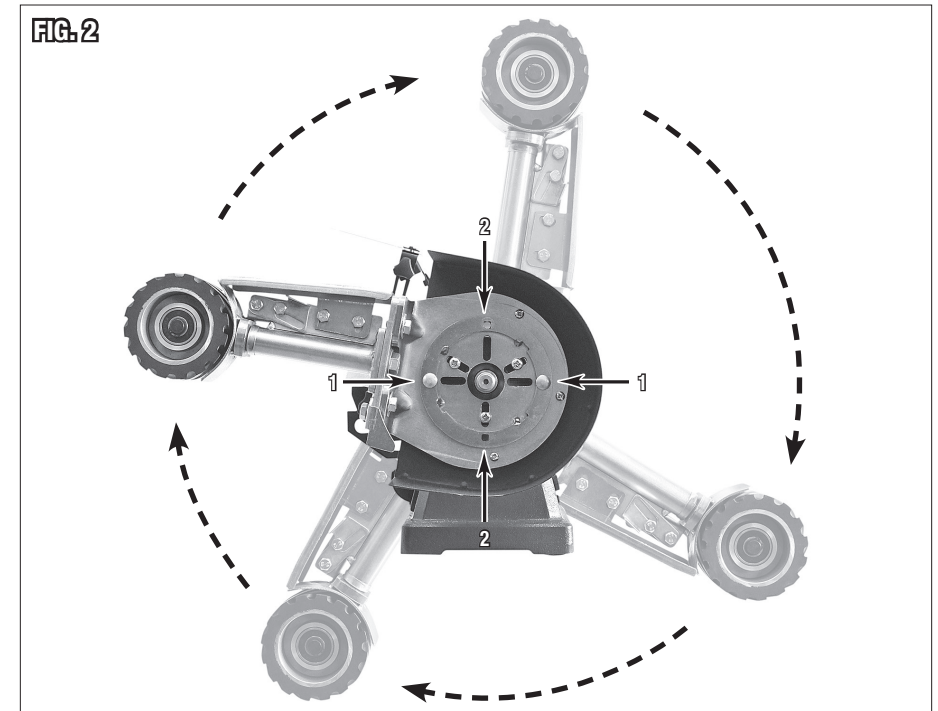
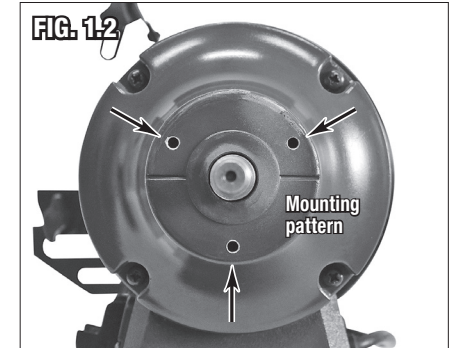
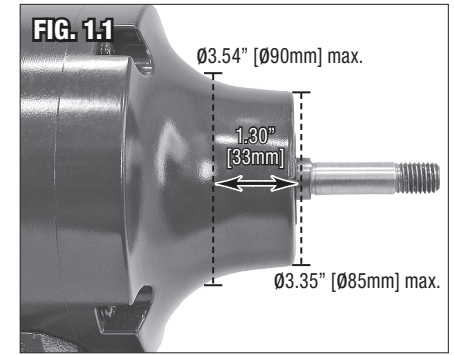
- Heavy grinding will throw a great deal of particles, dust and sparks into the air and on the ground in the vicinity of the Grinder. Make sure the area is clear of any flammables, well ventilated, suitable for accepting grinding dust and easily cleaned.
- Allow sufficient room around the Versa-Grind Belt Grinder Attachments for workpieces of various sizes, motion as you grind, arm range of motion, and access to the Disc sander. Installation to a bench grinder on a pedestal or at the corner of a workbench is ideal.

INSTALLATION

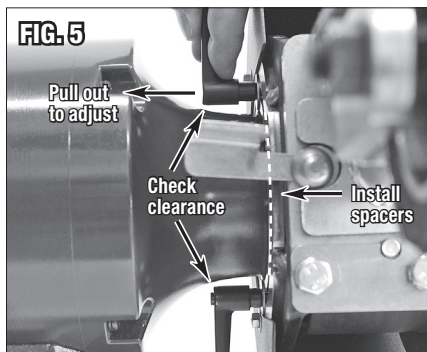
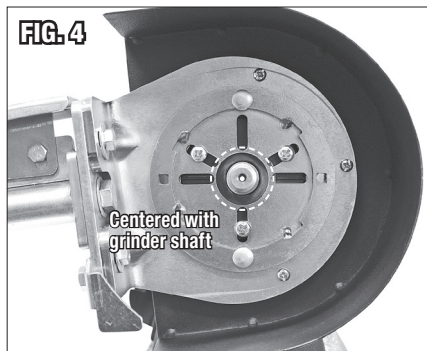
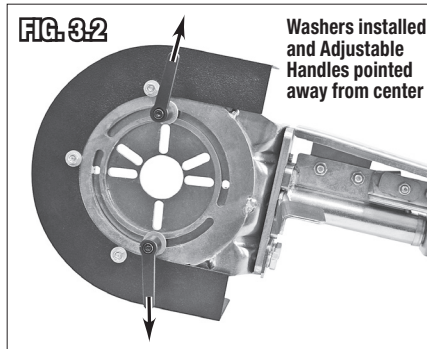
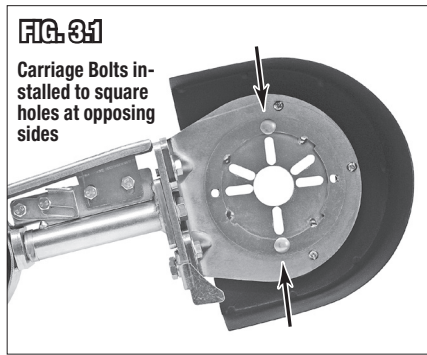
- The bench grinder must be securely mounted to a sturdy workbench or pedestal before installation. Verify the bench grinder is switched off and disconnected from the electrical power supply.
- Remove the guards and wheel from the right side of your bench grinder (**FIG 1**). Set aside the guard mounting hardware, shaft nut and support flanges.

NOTE: The Versa-Grind Belt Grinder Attachments are intended for right side installation but can be installed to the left side.

- Orient the Belt Frame Mounting Flange [E] to the bolt pattern on your bench grinder (**FIG 1.2**). The Mounting Flange has two different locations for the Adjustable Handles depending on the swivel range you desire (**FIG 2**). You may also flip which slot track they are in for additional range of motion adjustment.



- Seat the Mounting Flange in the Belt Frame Assembly [F] and install the Low-Profile Adjustable Handles M6 with M6x25 Carriage Bolts, Washers [J] to secure it (FIG 3). The Adjustable Handles can be pulled outward and swiveled on the nut. Start with them hand tight and pointing outward as shown.
- If your bench grinder is tapped for M5 screws you may use the included M5x16 Round Head Screws, Captured Washers [K] for mounting. If not, you may reuse the guard screws that were installed to your bench grinder.
- Hold the Frame Assembly with Mounting Flange installed against the bench grinder and start all mounting screws hand tight (FIG 4).
- Align the Mounting Flange centered with the shaft of the bench grinder using the included Ø20mm I.D. Locating Collar [G], Ø17mm I.D. Locating Collar [H], or visually (FIG 4). There is tolerance for slight misalignment.
- Check that the Adjustable Handles are functional and clear your bench grinder's housing (FIG 5). They can be pulled outward and swiveled on the nut to adjust Handle angle.

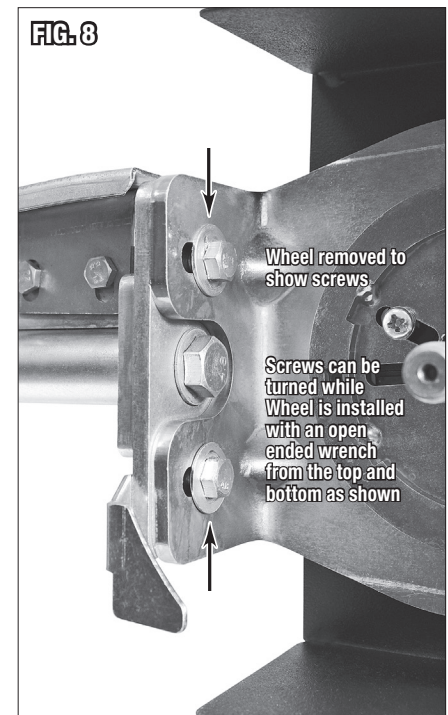
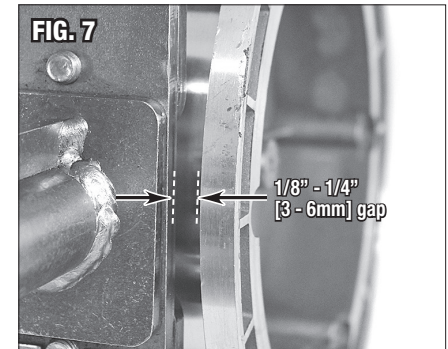
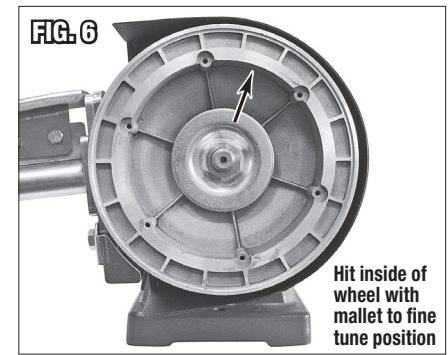


TECH TIP: If they do not clear you may use washers between the Attachment and the bench grinder to space it out (FIG 5), but verify your mounting screws still have full thread engagement. Source longer screws if necessary.

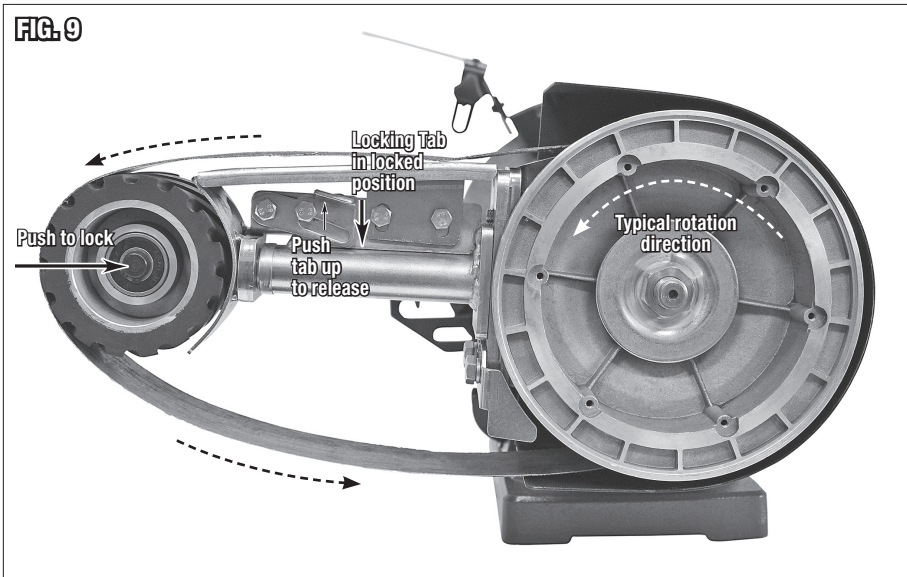
- Tighten the mounting screws fully.
- Install the Belt Drive/Disc Wheel [D] to the shaft hand tight with a washer and your grinder's nut (FIG 6). Check spacing of the Arm to the inside of the Wheel. It should be 1/8" - 1/4" [3 - 6mm] (FIG 7).
- If adjustment is needed, first loosen the top and bottom Arm screws (FIG 8) with an open ended wrench. The Arm Bracket is slotted for adjustment. Adjust as needed and retighten the screws.

TECH TIP: If there is not enough inward Arm adjustment instead use washers behind the Wheel to space it outward. Verify the shaft nut still has full thread engagement when doing this.

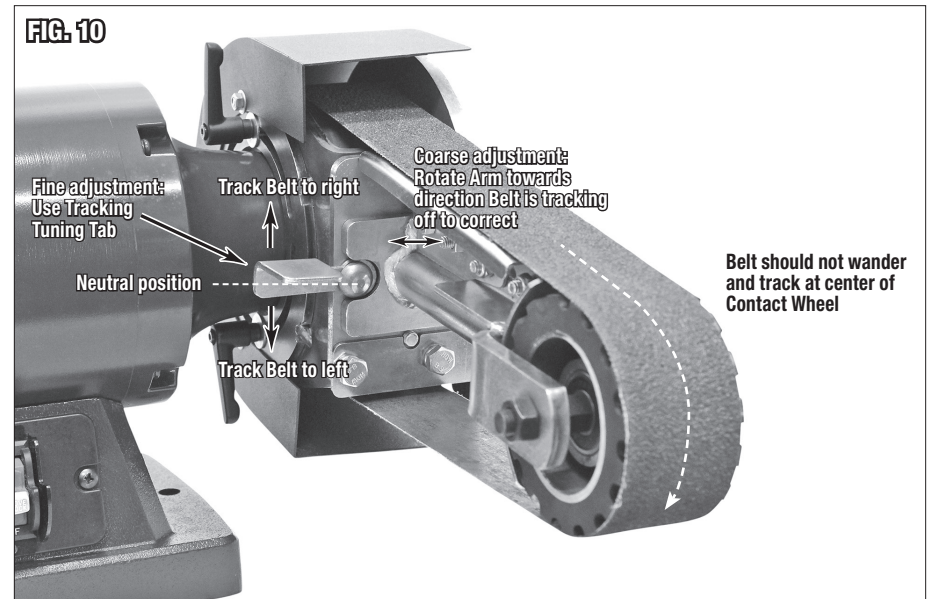
- Once satisfied with the spacing, hand snug the shaft nut with a wrench. Spin by hand to check clearance is still good.
 - To verify the Wheel is centered and does not vibrate, plug in the bench grinder. Verify your hands and fingers, cords, and any tools are clear of the bench grinder and Wheel. Power the bench grinder on.
 - If excessive vibration is present, determine which way the wheel needs to shift. Loosen the nut slightly and use a mallet on the inside of the wheel to shift it (FIG 6). Fully tighten the nut before starting the grinder again. Repeat adjustment until satisfied.
- NOTE:** Vibration is often caused by the grinding wheel installed to the opposite side. Remove and check for vibrations again.



- Verify the bench grinder is switched off.
- At this point you are ready to install the Abrasive Belt and adjust tracking. Lock back the arm tensioner by pushing inward on the Contact Wheel until the Locking Tab falls into the locking position (**FIG 9**). If the Locking Tab is sticky, you can loosen the screws slightly or simply flip it down by hand.
- Grab the 2" x 36" (#68198) or 2" x 48" (#68199, #68200) 80 grit Abrasive Belt **[A]** and check the directionality arrows printed on the inside of the Belt. Before installation, verify they are pointing in the same direction as grinder's rotation, typically arrows point outward on the top side of the Arm (**FIG 9**).
- Slip the Belt over the Drive Wheel and Contact Wheel (**FIG 9**). Release the locking tab by pushing it upward. Be cautious to not pinch your fingers, this will release spring energy rapidly.



- Adjust Tracking Tuning Tab to the neutral position (**FIG 10**). Rotate the Belt a few revolutions by hand and watch its tracking. If the Belt tracks aggressively in one direction, remove it and loosen the Arm screws (**FIG 8**). Rotate the Arm towards the direction the Belt is tracking off (**FIG 10**) approximately 1/8" [3mm]. Retighten the screws, reinstall the Belt and check tracking again.
- Repeat tracking adjustment until the Belt does not collide after a few turns. Fine adjustments can then be made with the Tracking Tuning Tab.

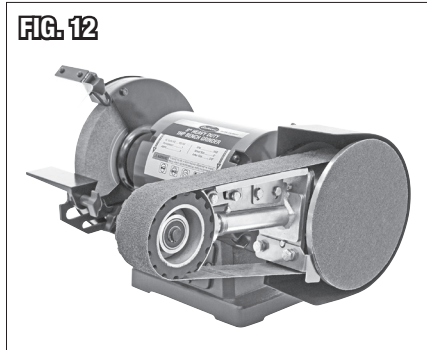
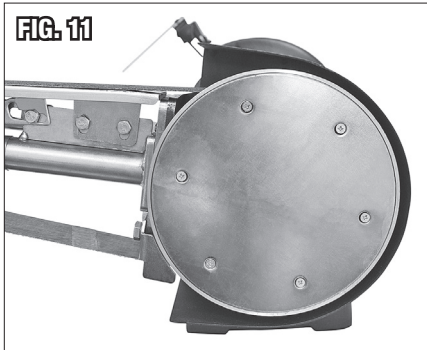


⚠ CAUTION INJURY HAZARD!

NEVER reach across the Abrasive Belt to turn the bench grinder on/off or make tracking adjustments. Reaching across can quickly result in your arm or clothing getting caught in the Abrasive Belt or Contact Wheel.

- Verify the Adjustable Handles are tight, and everything is clear of the rotating components. Plug in the bench grinder and turn it on. Adjust Tracking Tuning Tab as needed (**FIG 10**) so the Belt remains centered on the Contact Wheel.

- Turn off the grinder.
- Install the Wheel Plate [C] to the Wheel with the M4x12mm Flat Head Screws [L] (FIG 11).
Install the 7" PSA Abrasive Disc, 80 grit [B] to the Plate. Installation is completed (FIG 12).



OPERATION

⚠ WARNING HEALTH AND INJURY HAZARDS!

- Dust and fine particles are generated while grinding which can contain hazardous or toxic substances. Breathing this dust can cause many serious respiratory health conditions. Always use NIOSH approved respiratory protection while using this Bench Grinder.
- Bench grinders will eject particles, dust and sparks at high velocity during operation. Use a face shield, ANSI approved safety glasses and wear skin protection at all times while operating.
- The rotating Wheels and Belt can quickly catch loose clothing, long hair or jewelry causing serious personal injury. Keep all loose clothing, long hair and jewelry away during operation.
- The rotating Abrasive Belt and Disc can suddenly grab the work piece with great force causing serious injury. The exposed Contact Wheel can pinch and injure. Keep fingers away while operating. Exercise extreme caution when using the Versa-Grind Belt Grinder Attachments.
- Rotating Abrasive Belts and Discs can quickly cause cuts. Keep hands and fingers away from rotating components.
- Bench grinders can quickly and violently propel a workpiece at over 80 MPH while operating, causing injury or property damage. Always wear a face shield and ANSI approved eye protection when grinding to protect face and eyes.

⚠ WARNING FIRE HAZARD!

Grinding will eject sparks which can ignite flammable materials.
Do not operate in the vicinity of flammable materials.

ARM ANGLE ADJUSTMENT

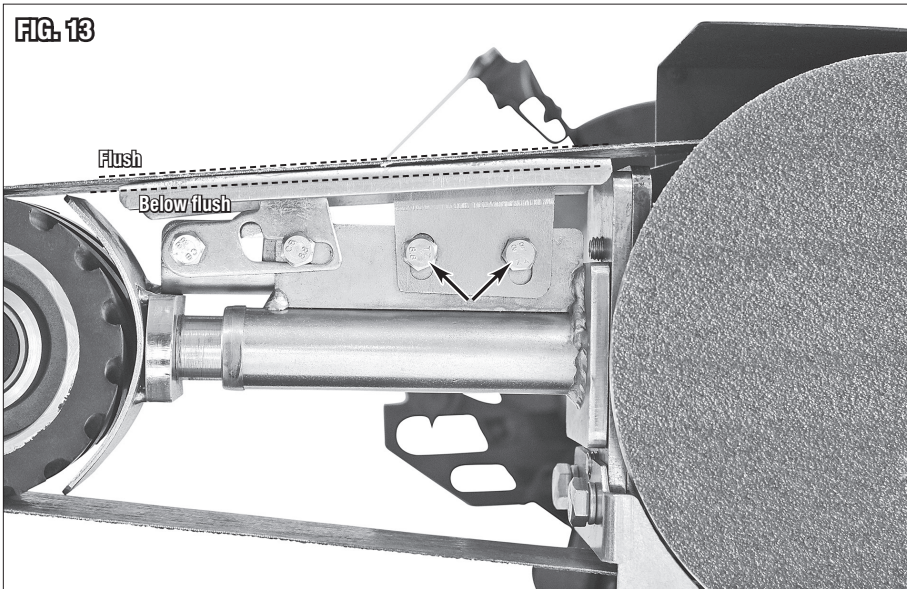
The Eastwood Versa-Grind Belt Grinder Attachments feature a toolless arm adjustment design that allows the arm to swivel 160°. To adjust:

- Loosen the Adjustable Handles approximately 1/4 turn (90°).
NOTE: These Handles can be pulled outward and swiveled on the nut to set them in the most efficient position (FIG 5).
- Adjust the Arm to the desired angle.
- Retighten the Adjustable Handles and check that the Arm will not slip with grinding pressure.
- The Adjustable handles may loosen during use. Check their tightness periodically.
- Retighten the Platen mount screws.

PLATEN ADJUSTMENT

The Platen lays underneath the Belt to support it for making flat grinds. Adjusting Platen height has some effect on grind flatness and squareness near the edges. Higher Platen adjustment yields the best flat grinding but will put more load on the grinder and Belt. If the Platen is used infrequently a lower adjustment will reduce undue strain. To adjust:

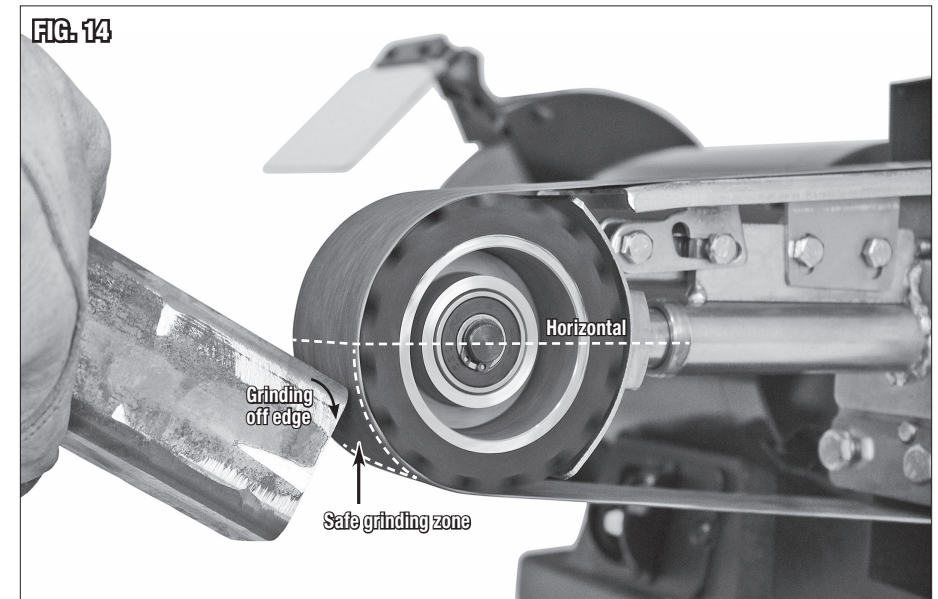
- Loosen the Platen mount screws. Shift the Platen to your desired height. It is not recommended to adjust beyond flush with the Belt (**FIG 13**). For low resistance, setting the Belt 1/16" (1.5mm) offset below the flush line is sufficient.
- Retighten the Platen mount screws.



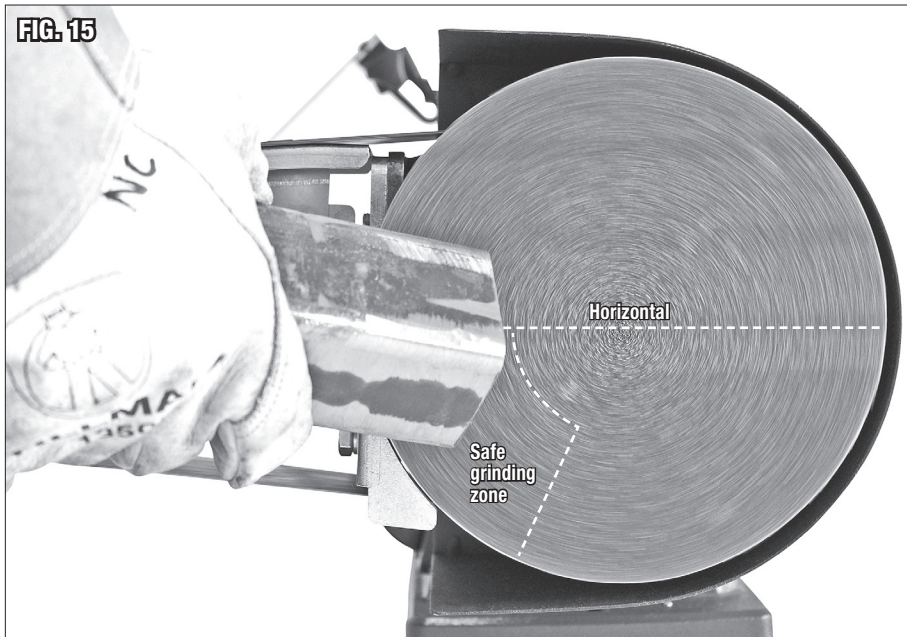
BEST GRINDING PRACTICES

The Eastwood Versa-Grind Belt Grinder Attachments are powerful and extremely versatile grinding tools, but simultaneously can be dangerous for inexperienced operators. Follow these practices for best personal safety and grinding results.

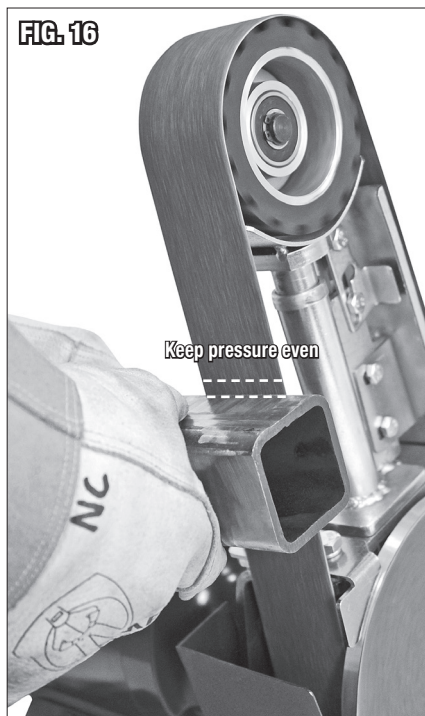
- ALWAYS work from one side of the Arm or diagonal to it. NEVER work directly in front of the Arm because the motion of the Belt may kick the workpiece into you or drag you into the Belt.
- Only work off the lower half of the Contact Wheel (**FIG 14**). The upper half will tend to grab and kick the workpiece into you.
- NEVER reach over the Arm to turn the bench grinder on/off, adjust the Belt tracking, or support the workpiece. Reaching over the rotation equipment risks clothing or other items getting caught in the grinder.



- Only grind on the downward rotating side of the Disc. Elsewhere will tend to kick the workpiece out of your hands or in a hazardous direction (**FIG 15**).



- The slack side of the Abrasive Belt is excellent for making smooth, rounded grinds, but too much pressure will put undue strain on the Belt and uneven pressure will cause the Belt to track off the Contact Wheel. Be careful using the slack side. Don't apply too much pressure, keep it evenly distributed and let the abrasive do the work (**FIG 16**). Be cautious using sharp edges to avoid making tears in the Belt.



- Be aware of what is installed at the opposite side of the bench grinder. The opposite side will be spinning with the side you are using and is just as capable of catching clothing or skin and causing severe bodily injury.
- Use extreme caution when grinding around edges. When grinding to an edge always position the workpiece such that the Belt or Disc is rotating off the edge (**FIG 14**), not into it. Grinding into the edge will result in it catching and tearing from your grip. Sharp edges can tear the Belt and ruin it quickly.
- After you have finished grinding and switched the grinder off and before you walk away, use the workpiece or a piece of scrap metal to brake the Belt or Disc until motor rotation stops. Rotational inertia will keep the motor spinning for a long period which invites accidents.

MAINTENANCE

INSPECTION

- Check the tightness of the bench grinder mounting hardware and Eastwood Versa-Grind Grinder Attachments' hardware regularly. Vibration from operation will loosen hardware over time.
- Always keep the Belt tracking correctly adjusted to avoid damaging the Belt.
- Verify the Abrasive Belt and Disc are in good condition. If they have damage, splits, or tears discontinue use and replace.

ABRASIVE BELT REPLACEMENT

- Verify the bench grinder is switched off and disconnected from the electrical power supply.
- Lock back the Arm tensioner by pushing inward on the Contact Wheel until the Locking Tab falls into the locked position (**FIG 9**).
- Slip the Belt off the end of the Contact Wheel and out from the Drive Wheel Drive Wheel. Reinstall the new Belt in reverse.
- Release the locking tab by pushing it upward. Be cautious to not pinch your fingers, this will release the spring and instantly tension the Belt.
- Adjust tracking as needed with the Tracking Tuning Tab.

ABRASIVE DISC REPLACEMENT

- Verify the bench grinder is switched off and disconnected from the electrical power supply.
- The use of a heat gun to assist peeling off the installed Abrasive Disc is recommended. Heat will soften the adhesive and result in less cleanup work.
- Remove any residual adhesive with a scraper and clean with acetone or similar. Allow Wheel Plate to dry.
- Partially peel the backing off the new Disc. Align and stick it to the Wheel Plate. Remove the backing completely and smoothly roll the rest of the Disc on without creating wrinkles or bubbles.
- Apply even pressure all around the Disc to fully adhere it. The use of a heat gun can increase adhesion.

STORAGE

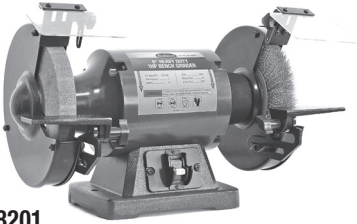
- Unplug from the electrical power source.
- Wrap cord securely around the Bench Grinder.
- Store in a clean, dry, dampness free area preferably covered with plastic sheeting.

TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Excessive Vibration or Wheel Wobble	Wheel Runout Excessive	The Wheel runout is typically less than or equal to 1/16" [1.5mm]. If excessive runout is measured, loosen the nut slightly and adjust the Wheel position with a mallet (FIG 6) to reduce the runout.
	Grinding Stone Wheel Installed to Opposite Side of Bench Grinder Damaged	Remove the grinding stone and recheck for the vibration. If vibration ceases, discard grinding stone and replace with a quality stone.
Bench Grinder Overheats or Stalls	Excessive Pressure Being Applied to While Grinding	Reduce force being applied to Abrasive Belt/Disc.
Belt/Disc is not Effectively Removing Material	Belt/Disc Clogged with Soft Metals	Use of the included Abrasive Belt/Disc on soft metals (aluminum, brass, copper, etc.) may result in clogs. Replace clogged Belt/Disc with a ceramic Disc and/or use an abrasive lubricant to reduce clogging.
7" PSA Disc is Not Sticking After Replacement	Wheel Plate Surface Not Cleaned Adequately	Scrape old adhesive off and thoroughly clean the Wheel Plate with acetone or rubbing alcohol.
	Not Enough Pressure Applied for Strong Bond	Apply greater pressure to the abrasive Disc. Work completely around the pad evenly distributing pressure for it to fully adhere. The use of a heat gun can increase adhesion.

ADDITIONAL ITEMS

R&D MUST-HAVE ACCESSORIES



#68201

Eastwood 8" Heavy Duty
1HP Bench Grinder



#66759

Eastwood Locking Plier Rack

CONSUMABLE ITEMS

- #20673** 2" x 36" Metal Working Belt and Disc Starter Kit
- #22150** 2" x 36" 40 Grit Zirconia Sanding Belt
- #22151** 2" x 36" 80 Grit Zirconia Sanding Belt
- #22152** 2" x 36" 120 Grit Zirconia Sanding Belt
- #22153** 2" x 36" 40 Grit Aluminum Oxide Sanding Disc
- #22154** 2" x 36" 80 Grit Aluminum Oxide Sanding Disc
- #22155** 2" x 36" 150 Grit Aluminum Oxide Sanding Disc

OPTIONAL ITEMS

- #43090** Safety Goggles
- #31573** Rockwood Clear Face Shield
- #31575** Rockwood Valved Dust Mask (10-Pack)
- #55070 / 55071** Leather MIG Welding Gloves (M / L)
- #55068 / 55068** Leather TIG Welding Gloves (M / L)

Visit eastwood.com for complete info and pricing.

If you have any questions about the use of this product, please contact

The Eastwood Technical Assistance Service Department: 800.343.9353 >> email: tech@eastwood.com

PDF version of this manual is available at eastwood.com

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