

## Specifications:

<b>Max. sheet thickness</b>	3 mm
<b>Roller length</b>	76 mm
<b>Roller diameter</b>	43 mm
<b>Shipping weight</b>	48 lbs.

## Using Your Rolling Mill

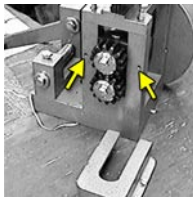
The rollers on your new rolling mill have been coated with heavy grease to prevent rusting during shipment. Before using your mill, carefully remove the plastic covering from the rollers taking care not to scratch them. Remove the grease that coats the rolls with a soft cloth or paper towel. When using your mill, reduce your stock in small graduations and remember to anneal it every 3rd or 4th pass. After each pass, turn your stock 180 degs. to ensure even thickness.

## Caring for your Rolling Mill

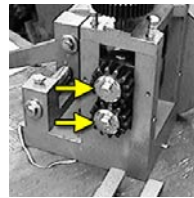
Occasionally apply a light metal preservative oil to your rollers to prevent rust. Always make sure that any metal that you pass through the mill is free of dirt, chips, polishing grits, or other residues that might damage the rollers. This mill is designed for use with soft metals such as gold, silver, brass, copper, and tin/lead alloys. If harder metals are placed through the mill, or if the maximum thickness capacity is exceeded, severe damage to the mill can result. Always center the stock to be rolled. Occasionally check the rollers for proper alignment by placing a feeler gauge, or a narrow steel plate with 2 parallel surfaces, between the rollers and sliding it from side to side. Readjust the rollers by removing the T-handle at the top of the mill and turning the roller gears by hand.

## Removing the Rollers from the Mill

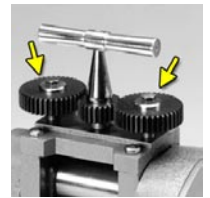
**1** Take off the small gear guard on the side opposite the crank handle by removing the two slotted screws indicated in the photograph on the right.



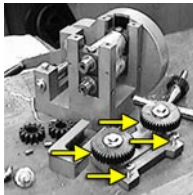
**2** Unscrew the two hex head bolts securing the small gears and slide off the gears. Put these parts aside, taking care not to misplace the small piece of key-stock within each gear.



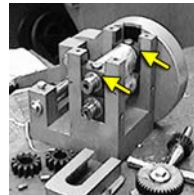
**3** Slide the T-handle off the top of the mill and turn the two indexing gears counter-clockwise (by hand) until you have enough room to access the four hex head bolts located below the gears.



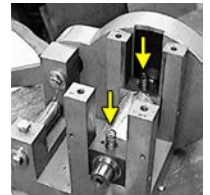
**4** With both indexing gears raised, unscrew all four hex head bolts (see photo on right) and lift the top plate off of the mill.



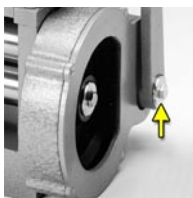
**5** Slide the two bronze roller blocks (see photo on right) up and out of the mill, along with the upper roller itself. Note the two springs located between the upper and lower roller blocks.



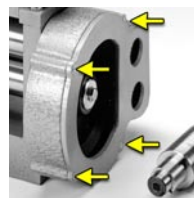
**6** With the upper roller removed, you can now remove the two compression springs that sit atop the lower roller blocks. Put the springs aside.



**7** Remove the crank handle of the mill by unscrewing the hex head bolt and washer shown in the photograph on the right. Be careful not to misplace the key-stock within the handle.



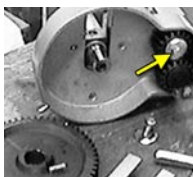
**8** Take off the outer plate of the large gear guard by removing the four slotted screws shown on the right.



**9** Unscrew the hex head bolt and washer at the center of the large gear and slide off the gear, being careful not to misplace the key-stock within the gear.



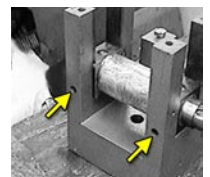
**10** Unscrew the hex head bolt securing the upper small gear. Then, slide off both of the small gears. Note that only the lower gear has a slot for the key-stock inside of the crank handle.



**11** With all three gears removed, the entire gear guard can be taken off by unscrewing the three slotted screws indicated in the photo on the right.

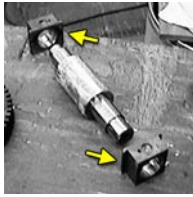


**12** Using an Allen wrench, loosen the two recessed set screws located at the back of the mill. You should now be able to slide the bronze roller blocks, along with the roller itself, up and out of the mill.

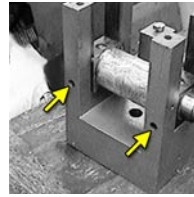


## Reinstalling the Rollers in the Mill

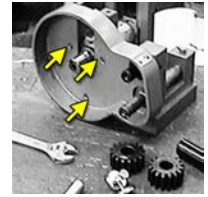
**1** Place the two *lower* roller blocks on the ends of one of the rollers. The wider end of the block should face inward. *The lower blocks are identified by a circular depression on one side and **no nub** on the other side.*



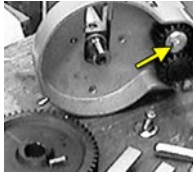
**2** Slide the lower roller assembly into the mill with the depressions in both blocks facing upward. Using an Allen wrench, tighten the two recessed set screws indicated in the photo on the right.



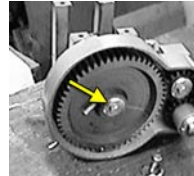
**3** Secure the large gear guard to the mill using the three slotted screws indicated in the photo on the right.



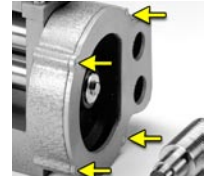
**4** Slide the two small gears onto their shafts. The gear with the slotted hole should be in the lower position. Secure the upper gear with the hex head bolt and washer as shown on the right.



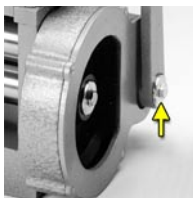
**5** Slide the large gear onto its shaft, taking care to align the piece of key-stock with the slots in the gear and the shaft. Secure the gear to the mill with the hex head bolt and washer.



**6** With all three gears in place, re-attach the outer plate of the gear guard with the four slotted screws shown in the photo on the right.



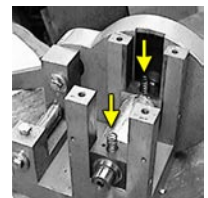
**7** Slide the crank handle onto its shaft, aligning the key-stock with the slots in the handle and the shaft. Secure the handle with the hex head bolt and washer.



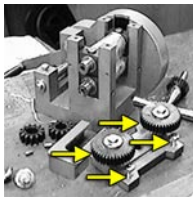
**8** Place the two remaining roller blocks on the ends of the second roller, with the wider end facing inward. *The **nubs** of both blocks should face upward, with the circular depression on the underside.*



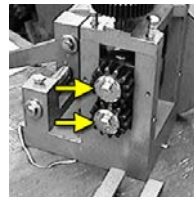
**9** Place the two compression springs into the depressions on the lower roller blocks. Then, slide the upper roller assembly into the mill, keeping the spring aligned.



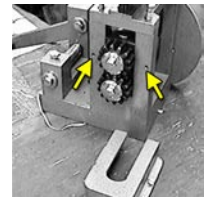
**10** Position the top of the mill over the rollers and secure it to the uprights with the four hex head bolts indicated in the photo on the right.



**11** Slide the final two gears onto their shafts opposite the crank handle. Be sure to align the key-stocks with the slots in both the gears and on the shafts. Secure both gears with the hex head bolts and washers.



**12** Replace the small gear guard, securing it with the two slotted screws indicated on the right. Before installing the T-handle, follow the steps below for adjusting the spacing between the rollers.



## Adjusting the Spacing Between the Rollers

**1** Remove the T-handle from the top of the mill. Turn the indexing gears clockwise (by hand) until the rollers barely touch. Now, turn both gears counter-clockwise 1/2 turn.

**2** Using a feeler gauge or a thin piece of steel sheet with uniform thickness, check the spacing between the rollers. Rotate the indexing gears until the space is exactly even across the length of the rollers.

**3** Once the spacing between the rollers is exactly even, replace the T-handle at the top of the mill. Your mill should be checked periodically and the spacing adjusted when necessary.

**ONE YEAR LIMITED WARRANTY:** Subject to the OBJECTION AND EXCLUSIONS below, MRB Products. (Company) warrants this compact rolling mill (Product) against defects in materials or workmanship for a period of one (1) year for parts from the date of the first consumer purchase. The Company will repair or replace at its option, the Product and any of its parts which fail to conform to this warranty. The Company may replace or repair the Product using new or refurbished parts. All replaced parts become the property of the Company. All warranty repairs must be performed by MRB Products.

**OBLIGATIONS OF OWNER:** The original dated purchase receipt with Item No. 190-891 on it must be retained as proof of purchase and be presented to the Company before warranty services will be rendered. In order to obtain warranty service, the Product must be delivered with the approval of the Company, have a detailed description of the problem, and have freight prepaid to the Company, in the original packaging or equivalent (to avoid shipping damage). The repaired Product will be returned to the owner, freight prepaid.

**EXCLUSIONS:** This Limited Warranty does not cover the repair of cracked, scratched, broken, or modified plastics or other cosmetic damage; parts that have been altered, defaced, or removed; or stripped threads from overtightening. This Limited Warranty does not apply to repairs or replacement necessitated by any cause beyond the control of the Company including, but not limited to, any malfunction, defects or failures which in the opinion of the Company are caused by or resulting from unauthorized service or parts, improper maintenance, operation contrary to furnished instructions, shipping or transit accidents, modification or repair by the user, abuse, misuse, neglect, accident, fire, flood, or other acts of God.

**LABOR CHARGES:** At the company's discretion, a labor charge may be assessed on Products returned for Limited Warranty repairs in which no fault is found.