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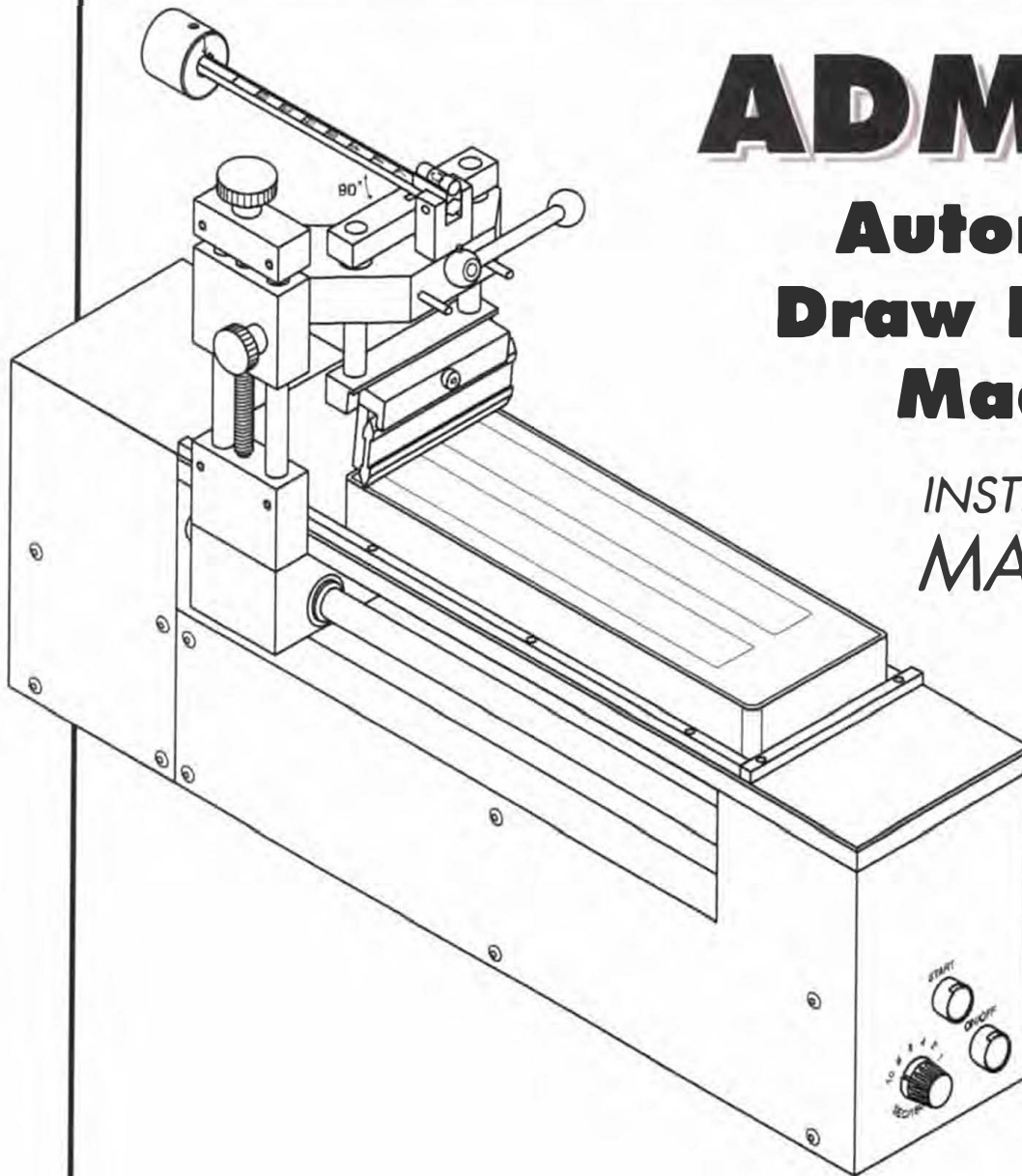


INSTRUCTIONS

GARDCO DISTRIBUTED PRODUCTS



LITTLE JOE
I N D U S T R I E S

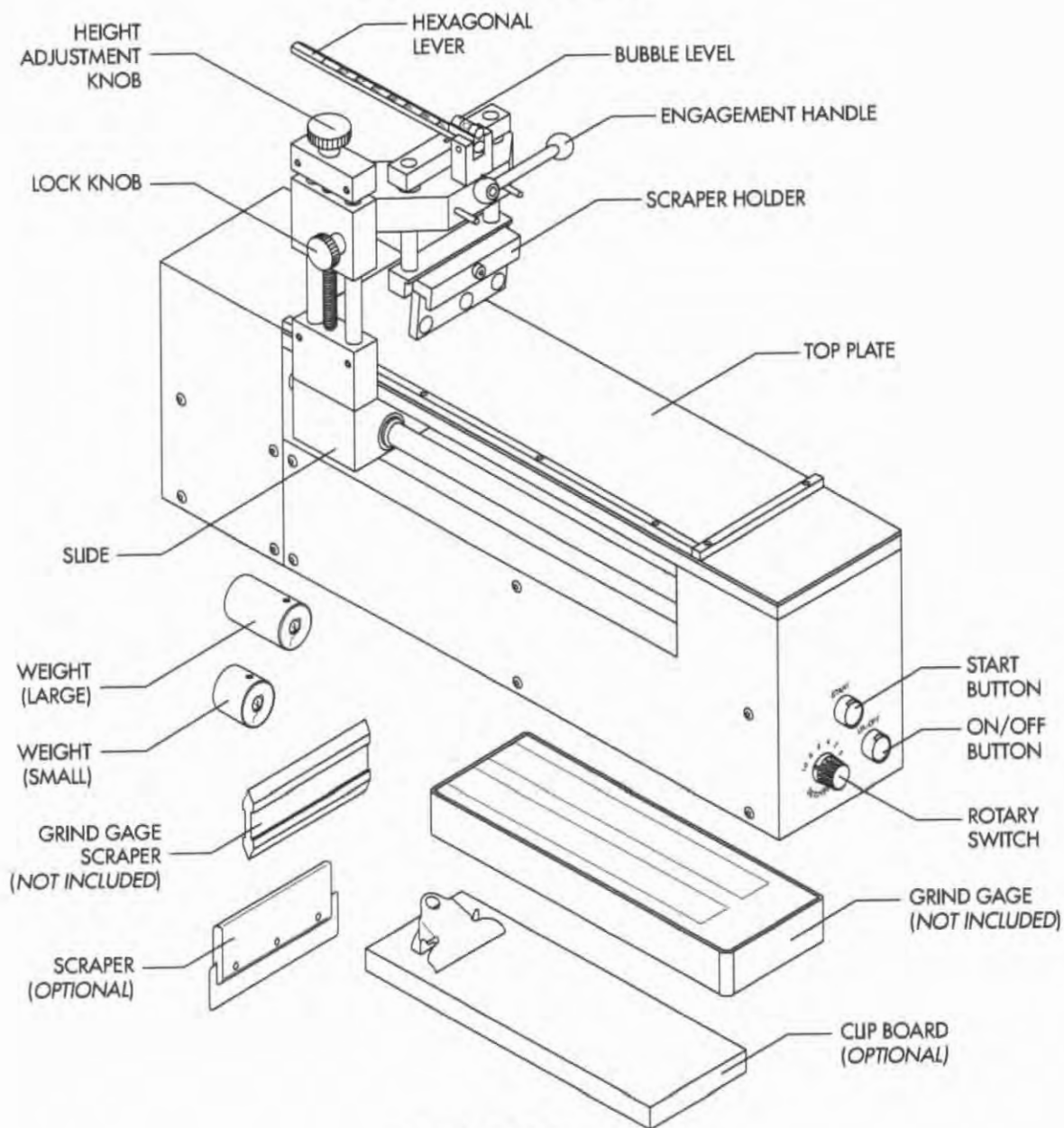


ADM-2

**Automatic
Draw Down
Machine**

*INSTRUCTION
MANUAL*

PARTS DIAGRAM



SPECIFICATIONS

MINIMUM SCRAPER FORCE:	1.75 KGS
MAXIMUM SCRAPER FORCE:	6 KGS
MAXIMUM GRIND GAGE SIZE:	25 CM LONG X 11 CM WIDE
SPEED:	VARIABLE
SCRAPER ANGLE:	85 DEGREES
POWER:	100/120 VOLTS OR 200/240 VOLTS; 50/60 HZ
FUSE:	1 AMP SLOW BLOW

A. UNPACKING

1. Carefully remove the ADM-2 and any extra items or packages from the box.
2. Check for damage resulting from improper handling by the carrier. If damage is present immediately make a claim with the carrier.
3. Check contents against packing list.
4. Set machine on suitable workbench or desk.

B. FINAL ASSEMBLY

1. Place the ADM-2 on its side such that the slide is facing up.
2. Using the two 1/4" screws supplied, mount the scraper holder assembly on to the slide such as can be seen in figure 1.
3. Lift the ADM-2 upright.

C. MAINTENANCE

1. Keep the machine free of dust so that this dust does not fall onto the grind gage and effect the results.
2. Oil the polished shafts with lightweight oil once a week. Only use enough oil such that the oil does not drip off. You may have to turn the ADM-2 on its side to oil the shaft towards the inside of the machine.

D. BASIC OPERATION

1. Plug the cord into an electrical outlet.
2. Press the red button labeled "ON/OFF" to turn power on.
3. Press the green button labeled "START" on the front of the ADM-2 to make the slide move forward.
4. To reverse the slide, push it back by hand.
5. To change the speed of the slide turn the rotary switch. The rotary switch reads in seconds per 150 millimeters. For example when the rotary switch is set at "10" it will take ten seconds for the slide to move 150 mm.
6. To raise the scraper assembly turn the engagement handle counter clockwise, to lower it turn the engagement handle clockwise. When raising or lowering the scraper assembly make sure not to let go of the engagement handle, as this will cause the scraper to slap down onto the grind gage possibly causing damage.
7. To install the scraper into the scraper holder, place the scraper against the magnets and lift the scraper so it seats firmly as shown in figure 2.

E. SETTING THE FORCE ON THE SCRAPER

1. The numbers on the hexagonal lever correspond to the force in kilograms being applied to the scraper.
2. The force on the scraper is adjusted by sliding the weights back and forth along the hexagonal lever. The hexagonal lever has two scales inscribed on it, a light scale for the small weight and a heavy scale for the large weight. The weights should be installed onto the hexagonal lever so the side with the arrow is facing toward the scraper. This way the arrow on the face of the weight will always point to the correct

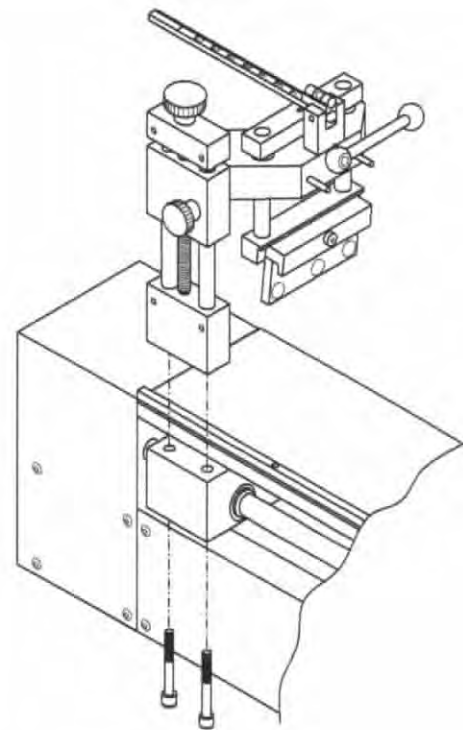


Fig. 1

scale.

3. Installed in each weight is a ball plunger that seats into the slots machined into the hexagonal lever. When properly seated into these slots this ball plunger holds the weight in place.
4. Use only enough force to get the proper results. Do not use more force than is required because this will wear the scraper and grind gage faster.

F. SETTING THE HEIGHT OF THE SCRAPER ASSEMBLY

1. The hexagonal lever must be horizontal during operation, as shown in figure 3, or the force readings will not be accurate. The bubble vial will show when the lever is horizontal.
2. Place the grind gage (or draw down pad installed in the clipboard) onto the top plate of the ADM-2.
3. Install the appropriate scraper into the scraper holder. Move the slide such that the scraper holder is over the grind gage or draw down pad.
4. Gently turn the engagement handle clockwise to the 3:00 o'clock position so the scraper comes in contact with the grind gage or draw down pad.
5. Loosen the lock knob and turn the height adjustment knob until the hexagonal lever is horizontal as indicated by the bubble vial.
6. Tighten the lock knob.

G. USING THE ADM-2 WITH GRIND GAUGES

1. The ADM-2 works with most commercially available grind gages and scrapers. Little Joe Industries does not supply grind gages or their associated scrapers.
2. The height of the scraper must be adjusted according to section F.
3. Make sure the slide is in the rear position and the engagement handle is in the 9:00 o'clock position.
4. Place the grind gage on the top plate and insert the scraper into the scraper holder.
5. Wipe the grind gage and scraper down with a solvent appropriate for the test sample you are testing making sure that no dust or lint remains on the grind gage.
6. Place a small amount of the test sample in the grind gage path or paths.
7. Move the slide forward until the tip of the scraper is just before the test sample.
8. Gently turn the engagement handle to the 3:00 o'clock position. Make sure not to let the engagement handle slap down quickly because this could damage the scraper or grind gage.
9. Press the green button and the slide will move forward until the green button is let go.
10. When the scraper comes to the end of the path quickly release the green button, turn the engagement handle to the 9:00 o'clock position, remove the scraper, and return the slide to the rear position.
11. Now read the results of the grind test.
12. Clean the grind gage and scraper.

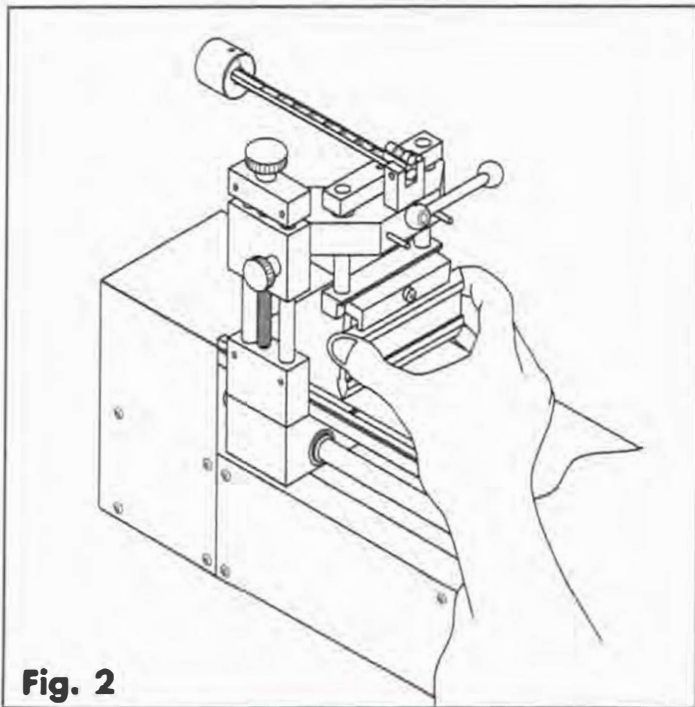


Fig. 2

H. USING THE ADM-2 WITH DRAW DOWN PADS

1. To make draw downs on draw down pads using the ADM-2 the Draw Down Pad kit must be purchased in addition to the ADM-2. The Draw Down Pad kit consists of a scraper adapter, scraper, and clipboard to hold the draw down pad. Draw down pads are not included.
2. Install the scraper into the scraper adapter and tighten it down using the three set-screws. The scraper does not need to be removed from the scraper adapter after each draw down.
3. The height of the scraper must be adjusted according to section F.
4. Make sure the slide is in the rear position and the engagement handle is in the 9:00 o'clock position.
5. Put the clipboard with draw down pad on the top plate.
6. Move the slide to the beginning of the draw down pad and install the scraper adapter.
7. Place the test sample on the draw down pad in the same way that you would for a manual draw down.
8. Move the engagement handle to the 3:00 o'clock position.
9. Press the green button and the slide will move down the length of the draw down pad. Release the green button when the scraper is near the end of the draw down pad.
10. Turn the engagement handle to the 9:00 o'clock position and remove the scraper adapter.
11. Return the slide to the rear position and clean the scraper.

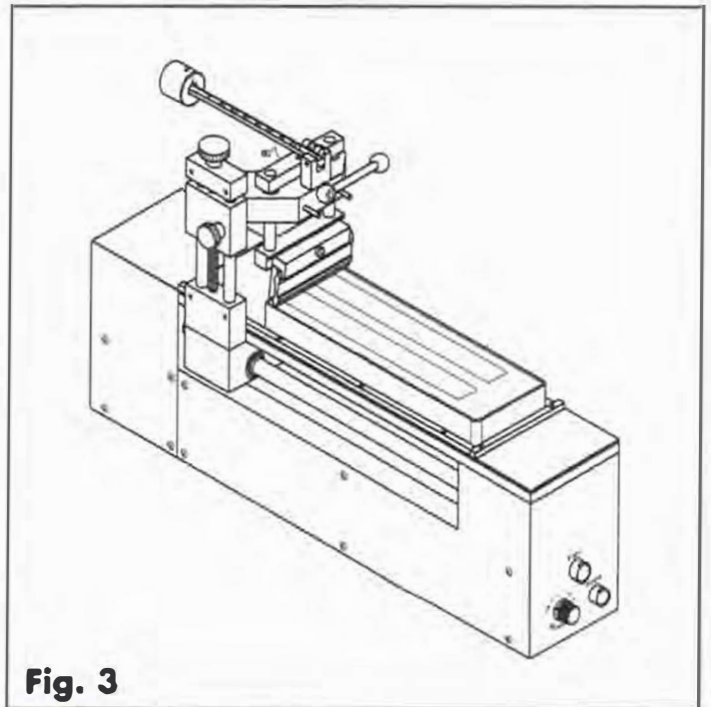


Fig. 3