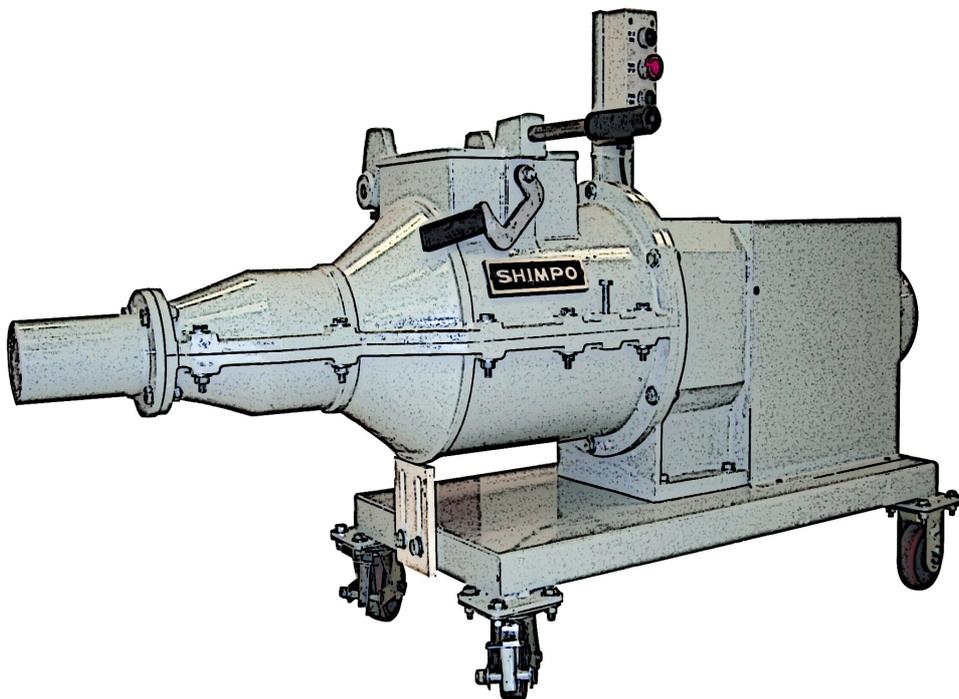


# INSTRUCTION MANUAL

Pugmill-Mixer

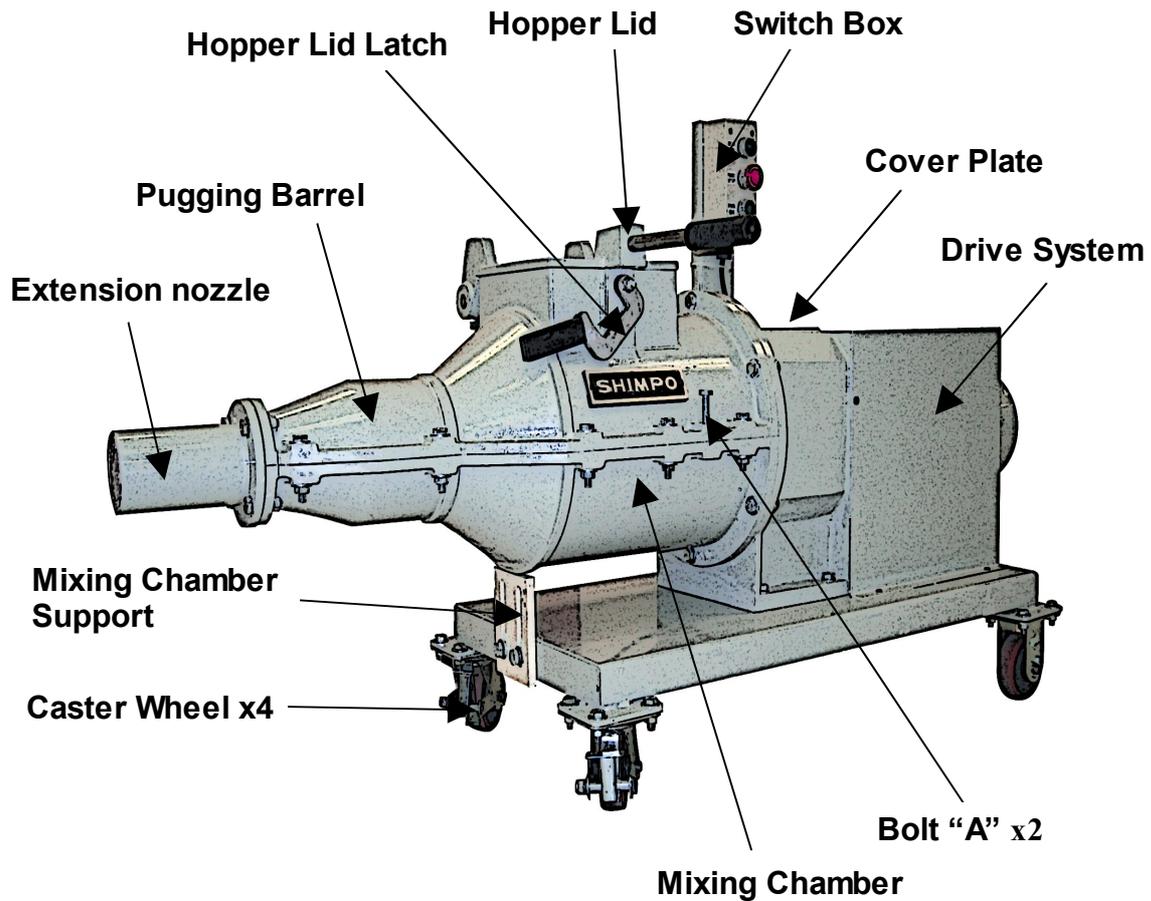
Model PMX-060



**SHIMPO**

A TRADITION OF EXCELLENCE

## Description of Parts



## Specifications

**MOTOR** 2HP, 20Amps, 250W, 230V, 60Hz, Single Phase  
**CAPAITY** Mix:300 lbs/ Hr, Extrude:1200 lbs/ Hr, Batch Size:60-85 lbs  
**NOZZLE SIZE** 3" Diameter

## SAFETY INSTRUCTIONS

**WARNING: NEVER PUT YOUR HANDS OR ANY PART OF YOUR BODY IN THE MIXER WHEN MACHINE IS IN OPERATION.**

All safety precautions must be observed during installation, operation, or repair work on the SHIMPO PMX-060 Pugmill-Mixer.

1. Inspect the machine thoroughly before power hook-up. Pay attention to the electrical system to ensure no damage was caused in shipping.
2. Read safety instructions completely before attempting to operate the Mixer.
3. Operate the machine only by authorized person.
4. Never operate the machine while under the influence of drugs, alcohol, or any medication.
5. Always disconnect electric power while the machine is not in use.
6. Always disconnect electric power before disassembly for cleaning, adjustments, repairs, or maintenance.
7. The Mixer is equipped with a safety shut-off switch which will stop the auger blades when the hopper lid is opened.
8. Always check that the switch box is operating properly when the machine is in use.
9. The switch is for safety; do not attempt to remove or by pass this device.

## UN-PACKING THE MIXER

1. Carefully remove the shipping crate.
2. Unbolt the Mixer from the wooden base board.
3. Locate the four caster wheels and fasten them to the base of the Mixer.

**The Mixer is insured for the unlikely event of damage during transport. Please report any damage to the trucking company at once.**

## ELECTRICAL SYSTEM

SHIMPO PMX-060 Pugmill-Mixer is equipped with 2HP, single phase, 230V, 14Amps motor. 3-phase motor is optional. The electrical supply should be **230V, 60HZ, single phase, 20Amps** outlet.

A power loss will occur from using a long extension cord or a thinner gage wire.

Connect attached power cord directly to a circuit breaker, or use a cord as short as possible and not less than #1 gage wire.

The Mixer is equipped with a thermal over load relay. The switch will shut the machine off if it is over heated or is over loaded.

**The switch can be reset under the following procedures:**

- (1) Turn off disconnection switch (red) on the door of electrical cabinet.
- (2) Open the door and find the relay.
- (3) Push reset button on the relay.
- (4) Close the door and turn on the disconnection switch.

**The Mixer is equipped with a push-button switch box for operation. The MIX button turns the auger in the MIX direction which keeps the clay in the chamber mixing until the mixing process is completed. The PUG button rotates the auger in the opposite direction which extrudes the clay forward and out of the nozzle.**

## OPERATION

**WARNING: NEVER PUT YOUR HANDS OR ANY PART OF YOUR BODY IN THE MIXER WHEN MACHINE IS IN OPERATION.**

**WARNING: NEVER LET MACHINE OPERATE WITHOUT ATTENDANTDANT.**

SHIMPO PMX-060 Mixer is designed for mixing clay from dry material, reclaiming clay scrap or adjusting premixed clay that might need additional moisture.

The functions of SHIMPO PMX-060 are:

1. Mix moist clay powder and water.
2. Reclaim scrap clay.

3. Blend two or more different materials.
4. Add materials (wet or dry) to an already moist clay.
5. Adjust moisture of an already wet clay.

**Leaving a clear plastic bag over the whole switch box will keep the push-buttons clean and working freely.**

Materials selection:

1. Dry Material : Needs an adequate quantity of water.
2. Slop : Needs dry material added to adjust moisture.
3. Moist Scraps : Add water if needed.
4. Partially Dry Scrap : Add water as needed.
5. Bone Dry Scrap : Add water as needed. Generally, pieces larger than a fist should be broken up or soaked before being placed in the mixer.

## OPERATION PROCEDURES

### **CAUTION:**

- 1. ALWAYS CHECK THE SAFETY SHUT-OFF SWITCH OF HOPPER LID IS OPERATING PROPERLY.**
- 2. ALWAYS STOP MOTOR COMPLETELY BEFORE REVERSING.**
- 3. NEVER COMPLETELY FILL THE MIXING CHAMBER AT ONCE. OVERLOADING THE MIXING CHAMBER LEAVES NO ROOM TO MIX AND CAN DAMAGE THE DRIVE SYSTEM.**

**STEP 1.** Put one or a combination of above materials into mixing chamber. Add adequate water into the mixing chamber. Then close the lid and secure the latch. Push the **MIX** button to start the mixing cycle for a couple of minutes.

**The quantity of water should be less than the actual requirement. Over moisture needs more dry scrap or dry powder to balance the clay.**

**STEP 2.** STOP the machine, open the hopper lid. Add more material and water. If needed, repeat **STEP 1**, until the clay in mixing chamber is at full capacity.

**SEPT 3.** START the mixing cycle. Check often. Add water as needed, a little at a time. Total mixing cycle takes about 20 minutes. It depends on the condition of the material.

### TO MIX FROM POWDER

Add all the powder and the water. Run in the **MIX** direction until thoroughly mixed. Add more powder and water if it is not at full capacity. Then proceed to **STEP 3**.

### TO RECLAIM FROM SCRAP

**Add water a little at a time. Adding too much water acts as a lubricant between the wall of mixing chamber and the clay body. The body will then slip without mixing action. Adding some dry clay will remedy this problem.**

Fill the mixing chamber just over half full. **START STEP 1**. Add more material and repeat **STEP 1** until clay in mixing chamber is at full capacity, and then proceed to **STEP 3**. **STOP** the machine. Push the **PUG** button and proceed to the clay Pugging Process.

### TO PUG CLAY

SHIMPO PMX-060 Pugmill-Mixer can act as a pugmill: Set the switch on **PUG** and add clay to the mixing chamber as needed to keep the extrusion rate constant.

### CLEANING

**DO NOT IMMERSE THE MACHINE IN WATER.**

Cleaning is only necessary to avoid cross contamination of clay bodies or for extended storage.

**STEP 1.** Pug the machine for several minutes to extrude the clay out of the barrel.

**STEP 2.** Unplug the cord or shut off the power supply.

**STEP 3.** Unbolt and remove the extension nozzle.

**STEP 4.** Unbolt the main upper barrel.

**STEP 5.** Screw bolts“A” to separate the upper barrel.

**STEP 6.** Unbolt the main lower barrel. Remove lower barrel.

**STEP 7.** Leave whole barrel and auger to air dry. Then knock off dry chunks easily.

**STEP 8.** Use wet rag to wipe and clean the auger and the barrels.

## MANITENANCE

**WARNING: DISCONNECT ELECTRICAL POWER BEFORE MAINTENANCE**

SHIMPO PMX-060 Pugmill-Mixer needs less maintenance. The front auger bearing is the only place that needs to be greased.

To refill grease:

1. Open top cover plate of main housing.
2. Use a grease gun with a small nozzle to grease the bearing.

**Grease once every two years with EP-2 grease. Do not over grease.**

## **WARRANTY**

**LIMITED EXPRESS WARRANTY:** Shimpo warrants, to the original purchaser of new product only, that this product shall be free from defect in workmanship and materials under normal use and proper maintenance for one year from the date of original purchase. This warranty shall not be effective if the product has been subject to overload, misuse, negligence, or accident, or if the product has been repaired or altered outside of Shimpo's authorized control in any respect which in Shimpo's judgment, adversely affects its condition or operation.

**DISCLAIMER OF ALL OTHER WARRANTIES:** The foregoing warranty constitutes the SOLE AND EXCLUSIVE WARRANTY, and Shimpo hereby disclaims all other warranties, expressed, statutory or implied, applicable to the product, including, but not limited to all implied warranties of merchantability and fitness..

**LIMITATION OF REMEDY:** Buyer must have Shimpo's authorization before returning the product. Property repackaged. freight prepaid to Shimpo to obtain warranty service.

Under this warranty, Shimpo's SOLE OBLIGATION SHALL BE TO REPAIR OR REPLACE the defective product or part at Shimpo's option. Shimpo reserved the right to satisfy warranty obligation in full by reimbursing Buyer for all payments made to Shimpo, whereupon, title shall pass Shimpo upon acceptance of return goods.

**INDIMNIFICATION & LIMITATION OF DAMAGES:** Buyer agrees to indemnity and hold Shimpo instruments harmless from and against all claims and damages imposed upon or incurred arising. Directly, from Buyer's failure to perform or satisfy and of terms described herein. In no event shall Shimpo be liable for injuries of any nature involving the product, including incidental or consequential damages to person or property, any economic loss of use.

**MERGER CLAUSE:** Any statement made by the seller's representative do not constitute warranties expect to the extent that they also appear in writing in this contract. This writing constitute the entire and final expression of the parties' agreement.

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