



## Crucible Mixer



# Operation & Safety Manual

Updated September 19, 2013

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## Overview

The Legend Crucible mixer is designed to automate the mixing of fire assay crucibles. Because the operators are removed from the mixing operation, there are significant savings of time as well as substantial safety benefits due to reduction of 'carpel tunnel' repetitive motion reduction and removal of the operator from the potential contact with lead dust while mixing.

## Safety Precautions

While using a Legend Crucible Mixer, the following precautions are necessary;

- Make sure all guards, panels and interlocks are in place before operating.
- Do not defeat the door interlock.
- The rotating carriage lock intentionally props the door opened when engaged, thus keeping the door interlock from engaging.
- Make sure all bolts remain tight, especially the motor mounting bolts.
- Do not operate the mixer with the motor inspection cover opened.

This list is not all-inclusive. Common sense and safe work practices are essential for all equipment.

## Equipment Operation

1. Fill the wood pallet with crucibles. The crucibles should already be charged with your sample, flux and all other components. If you are adding a cover, this will be added after mixing.



2. Place a sheet of the clear poly film over the crucibles. Place the foam cover on top of the poly film. The poly film keeps the samples from contaminating the foam with sample, litharge and other flux components. Failure to use the film will result in contaminated future samples as well as additional lead exposure.

3. Slide the wood crucible pallet, poly film and foam into the mixer. Make sure the lid is raised sufficiently to allow this to slide in easily.



4. Turn the hand wheel to lower the lid. You can make your own determination on the degree of compression you need on the foam, but typically the foam will compress  $\frac{1}{2}$ " to  $\frac{3}{4}$ " on top of the crucibles.

5. Make sure you stop the hand wheel with the spinner handle, either to the left or the right, in line with the cross brace. If the spinner handle is left either to the forward or back, there is insufficient clearance and it will hit the mixer cabinet.



6. Grease all bearings after each 8 hours of operation. Also, check all bearing mounting bolts and other nuts and bolts to make sure they remain tight. Check bearing set screws and belt tension, as well.

7. Set the included batch timer to the appropriate setting.



## Replacement Parts Guide

Typical wear and replacement parts are shown below. It is suggested that spares be kept to minimize down time.

17820	Extra crucible pallets-standard for 24-30 or 40 gram crucibles
17830	Foam cover, high density
17840	Poly film disposable cover
17821	Gas shock
17822	Axel with mounting plate
17823	Bearing for axle
17825	Threaded shaft with mounting plate
17827	Nut for threaded shaft with thrust washer
17828	Thrust washer

You can find all these parts and more at our webpage:

<http://www.lmine.com>

Thank you for choosing Legend, Inc. for all your equipment needs. We look forward to serving you in the future.