

Plastic Limit Roller

INTRODUCTION:

The Plastic Limit Roller is a unique time-saving device designed to produce consistent results with easy operation.

NOTE: These instructions are provided as a guide for the general operation of this device. The operator is responsible for following the test procedure outlined in ASTM D 4318 or AASHTO T 90.

ASSEMBLY INSTRUCTIONS:

Place one sheet of adhesive-backed Plastic Limit paper on the bottom plate and one on the top plate of the Plastic Limit Roller (see Figure 1).

OPERATING INSTRUCTIONS:

1. Reduce the water content of the soil to approximately the Plastic Limit (i.e. where the soil is non-sticky).
2. Select four to five 1.5 —2g portions of soil.
3. Roll each portion of soil into an ellipsoidal mass.
4. Place each ellipsoidal mass about 1 —1-1/2in apart on the bottom plate (see Figure 2).
5. Use the top plate to begin gently rolling down the soil portions using a back and forth motion.
6. When the top plate comes into contact with the 1/8in rail, check to see if the soil is at the Plastic Limit. For an example of the Plastic Limit, see Figure 3. (Be sure to check all Plastic Limit definitions with the procedure.)
7. If the soil is not at the Plastic Limit, collect the threads and knead them together. Repeat Steps 2 —6.
8. When the soil is at the Plastic Limit, push the threads to one side of the bottom plate and dump them into a tared container. Weigh immediately.

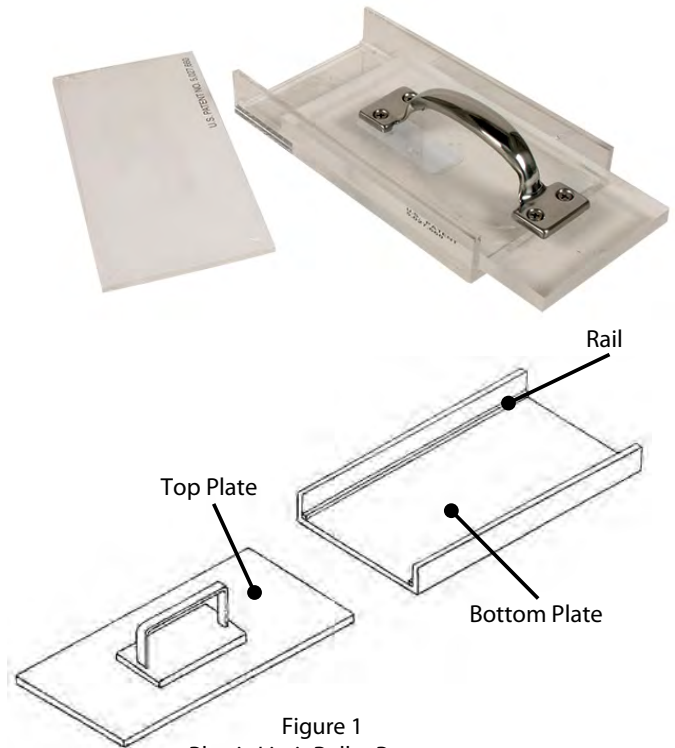


Figure 1
Plastic Limit Roller Parts

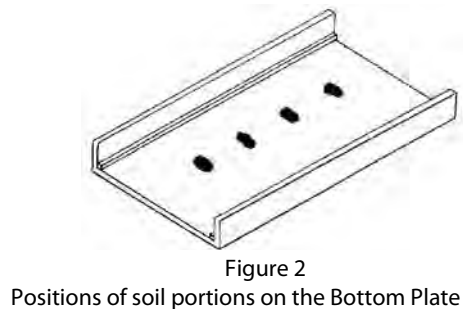


Figure 2
Positions of soil portions on the Bottom Plate

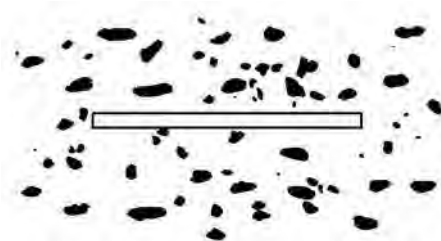


Figure 3
Clay soil at the Plastic Limit

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