



Paul N. Gardner Company

WOOD PAINT PIGMENT VOLUMETER DENSITY

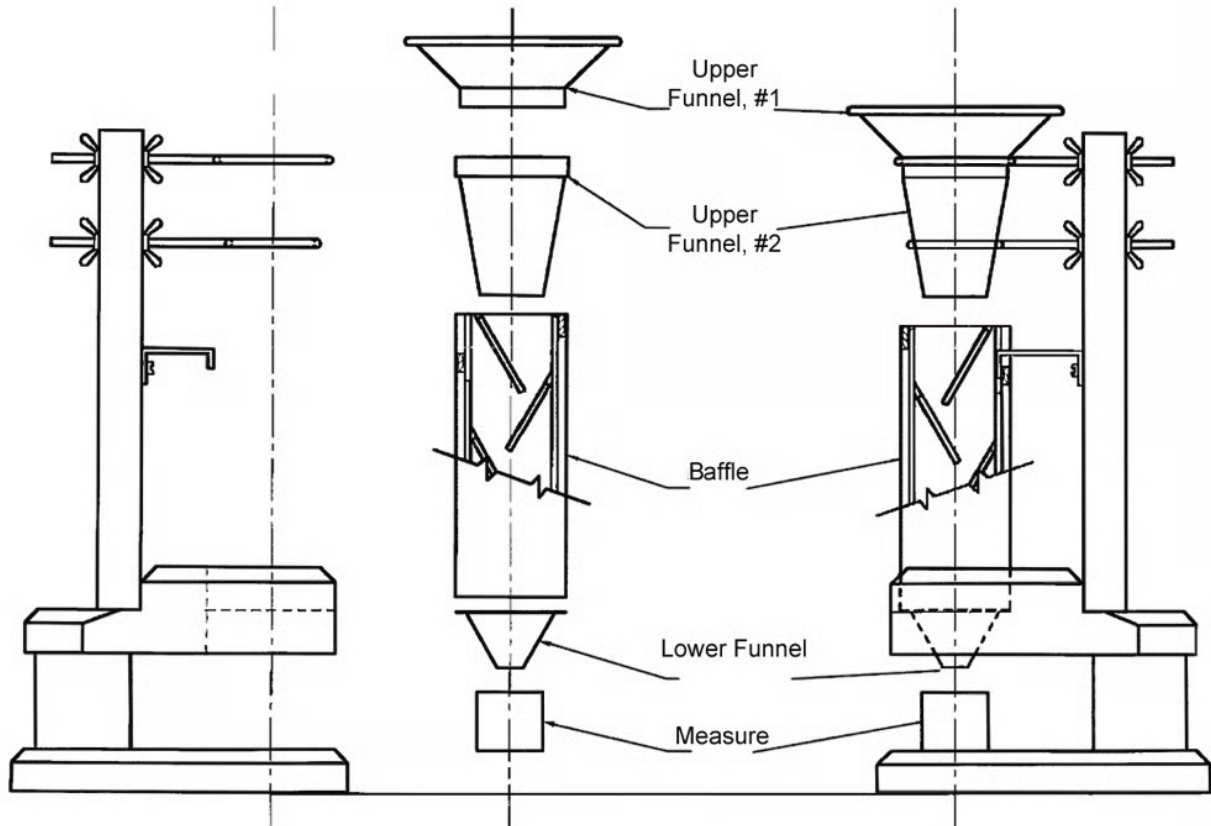
Instructions for determining the
apparent density of dry pigments
and other free-flowing fine
powders.



Wood Paint Pigment Volumeter



The Wood Paint Pigment Volumeter is used to determine the apparent density of dry pigments and other free-flowing fine powders. It consists of a base and support, an upper funnel, glass baffles over which the powder falls, a lower funnel, and a one-cubic-inch measure.



Instructions for Use

1. Weigh the empty, clean, dry cubic-inch measure on a balance sensitive to 0.1 g.
2. Place the tared measure below the opening at the bottom of the baffle column.
3. Pour slightly more than one cubic inch of dry, lump-free powder into the upper funnel.
4. Gently rub the sample through the 40-mesh screen using a non-metallic spatula.
5. Allow the powder to pass through the glass baffles and into the measure.
6. When the measure is full to overflowing, level it with a spatula so it is exactly full. Do not compress or shake the powder in the measure.
7. Weigh the measure and its contents.
8. Subtract the weight of the empty measure from the filled weight. The difference is the apparent density in grams per cubic inch.

Cleaning and Care

After Each Test

- Remove the measuring cup and empty any remaining powder
- Use a soft brush to clean the:
 - Top loading funnel
 - 40-mesh screen
 - Glass baffle assembly
 - Lower funnel
 - Measuring cup
- Gently tap the frame to dislodge trapped powder
- If needed, use clean, dry, low-pressure compressed air to remove residual powder

Between Different Powder Types

- Remove all loose powder with a soft brush and, if needed, clean, dry, low-pressure compressed air.
- Wipe the funnel surfaces with a lint-free cloth.
- If needed, use isopropyl alcohol on a lint-free cloth to clean the glass baffles and funnels.
- Allow all components to dry completely before reuse.

Avoid

- Water, unless absolutely necessary
- Abrasive cleaners or Scotch-Brite pads
- Metal tools that could scratch the glass baffles
- Excessive compressed air pressure directed at the glass plates

Calibration Check

Periodically verify:

- The 40-mesh screen is clean and not damaged
- The funnels are free from dents, buildup, or obstruction
- The glass baffles are clean, intact, and securely mounted
- The one-cubic-inch measure is clean and free from damage that could affect its volume

Common Issue

The most common cause of poor repeatability is powder buildup on the glass baffles. Even a very thin coating can change powder flow characteristics and affect apparent density results. If you notice increased variation between tests, clean the baffle assembly first.

Service Note

For the Gardco model, disassembly of the glass baffle assembly is generally **not** recommended unless repair is required. Routine cleaning with a soft brush, careful low-pressure compressed air, and isopropyl alcohol is usually sufficient and helps minimize the risk of glass breakage.