



Determining Screen Mesh Size

What is Mesh Size?

U.S. Mesh Size (or U.S. Sieve Size) is defined as the number of openings in one square inch of a screen. For example, a 36 mesh screen will have 36 openings while a 150 mesh screen will have 150 openings. Since the size of screen (one square inch) is constant, the higher the mesh number the smaller the screen opening and the smaller the particle that will pass through. Generally US Mesh is measured using screens down to a 325 mesh (325 openings in one square inch).

Sometimes the mesh size of a product is noted with either a minus (-) or plus (+) sign. These signs indicate that the particles are either all smaller than (-) or all larger than (+) the mesh size. For example, a product identified as -100 mesh would contain only particles that passed through a 100 mesh screen. A +100 grade would contain particles that did not pass through a 100 mesh screen. When a grade of product is noted with a dash or a slash it indicates that the product has particles contained within the two mesh sizes. For example, a 30/70 or 30-70 grade would only have particles that are smaller than 30 mesh and larger than 70 mesh.

Mesh vs. Grit

The terms Mesh and Grit are often confused. The terms can be used interchangeably when referring to abrasive grit. A 60 mesh Aluminum Oxide can also be correctly termed a 60 grit Aluminum Oxide. In practical terms, identifying a specific abrasive product with the term 60 mesh would normally indicate that the product has a median size of the openings on a 60 mesh screen. The term 60 Grit more accurately identifies the particle size distribution of the product but the difference in terminology is insignificant for industry purposes.

Mesh Conversion Chart

The chart below shows the approximate size in inches and microns for various mesh sizes. These values are generally accepted as accurate but are approximates because the thickness of the wire used to make a specific screen will vary the number of openings in the one square inch. A micron is one-millionth of a meter or one-twenty-five thousandths of an inch. Most grades below 325 mesh are indicated by the micron size as these sizes are not manufactured using screens.

