

Belt Sander

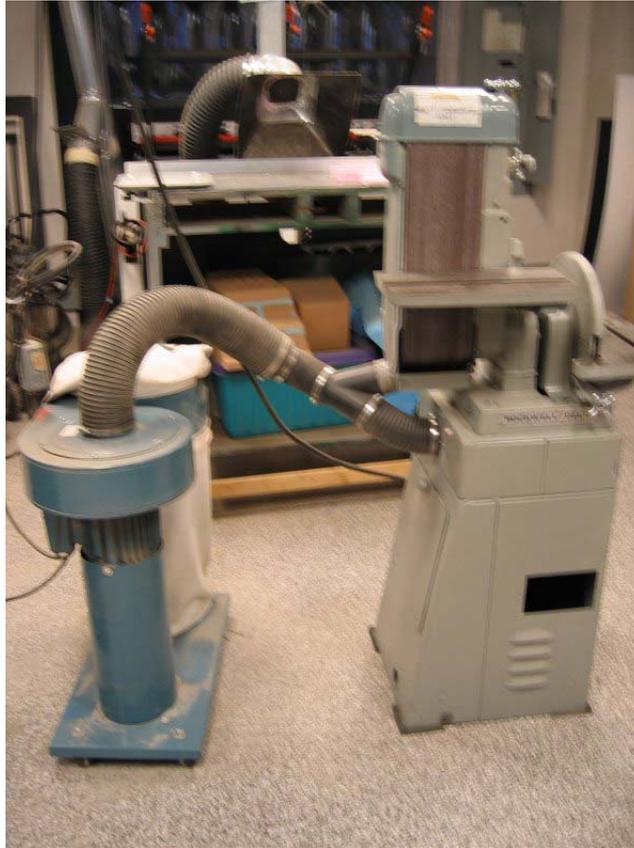


Photo by John Dennett

A Belt Sander in the Laboratory

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Description

A belt sander is useful for removing burrs and rough edges from parts. It is composed of a belt coated with abrasive riding about two pulleys. The lower pulley is driven by a motor. The upper pulley follows and allows tension in the belt to be adjusted.

Beltsanders are effective on wood, most metals (aluminum, steel, brass, etc), and some plastics. The small particles generated by the belt sander can be toxic. It's good to use a sander with a vent attached to it and to wear a mask when using the belt sander. Don't use the belt sander on printed circuit boards or fiberglass; they create toxic particles.

Operating a Belt Sander

When smoothing edges and rounding corners, the part should be supported on the table of the machine. The part should be moved back and forth to achieve a better finish and to avoid hot spots on the belt.

To round off the edges of a part, one must hold the part on an angle with respect to the belt. Be sure that the belt is pointing down into the belt as demonstrated in the video. If the part is pointing up, the belt could catch on the part and throw it down into your hand. Note the size of the gap between the belt and table is wider than the workpiece. This is a dangerous situation. The gap should be adjusted.

Using a Small Belt Sander

Some jobs cannot be done on the large belt sander shown above. For instance it is impossible to smooth out the faces of an inside corner. For this task, a smaller machine with a thin belt is appropriate.

As the small belt sander was previously configured, it is difficult to smooth out convex features without creating facets on the part. This problem can be alleviated by reconfiguring the machine. The table and platen can be removed to allow the belt to conform to the shape of your part.
