The horizontal barrel tumblers are designed to handle a broad range of finishes on a wide range of substrates from hardened steel to soft non-ferrous metals and from rough cutting and deburring to high luster burnishing and polishing.

Barrel finishing, also known as barrel tumbling, is a surface improving operation in which a mixture of parts, media and compounds are placed in an eight-sided barrel and rotated at a predetermined speed for the purpose of rounding corners, deburring, grinding, descaling, deflashing, improving surface finish, burnishing, polishing and radiusing parts in bulk.

It works by tumbling parts in a rotating barrel, thus creating friction by tumbling parts against each other and against other materials, such as media and compounds.

**STANDARD FEATURES INCLUDE:**

Heavy duty Industrial quality construction to support finishing applications such as ball burnishing and part on part finishing.
Producing good surface finishes using barrel finishing depends on the right selection and use of tumblers, abrasives, lubricating agents, carrying agents and polishing agents.

Tumbling Highlights

Parts can be finished less expensively than by hand. Many parts can be processed at one time. Requires very little handling. Parts are tougher and stronger after tumbling. Tumbling provides a certain amount of stress relief. Forgings and castings can be blended. Machine parts and stampings can be deburred and burnished to a high finish. On long runs, the systems can run overnight. Careful and proper machining of your parts will save tumbling time. There are two types of barrel finishing: wet tumbling and dry tumbling. Wet tumbling is used almost exclusively for removal of excess stock. Dry tumbling is used for all phases, including polishing.

Wet Tumbling

Horizontal and oblique barrels are commonly used in wet tumbling. The horizontal barrel is generally octagonal or hexagonal in shape. Though the oblique barrel is easier to load and unload, the horizontal is preferred because of its larger capacity and better tumbling action.

The Barrels are made of steel, with an abrasive resistant lining against the impact of the tumbling parts against the barrels wall, thus prolonging the life of the barrel.

After a barrel is filled up to about half of its capacity with parts and media, water is added to within three to five inches below the load. This can be varied either way. The lower the water level, the faster the cut. The more water used, the finer the finish and the slower the cutting rate. For burnishing, the water should be about level with the load.

The compound is put into the barrel last. Depending upon the amount of material to be removed from the parts, tumbling will take anywhere from 6 to 24 hours. Very light plastic parts require adding smooth ceramic or hardwood media in a dry process to increase the load weight.

After a run, the parts and the barrel should be rinsed thoroughly with fresh water.

Dry Tumbling

For dry tumbling, the horizontal octagonal barrel is used almost exclusively. This barrel sometimes has a metal skin, and a hardwood lining which can be replaced as necessary. For versatility, these barrels are divided into two compartments saving space, especially when operating multiple barrels.
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103 Spare Drum

View 103 Spare Drum on our web site at http://www.rileysurfaceworld.co.uk/machines/26826.htm

PHOTOGRAPHS TAKEN PRIOR TO REFURBISHMENT.