

There have been several technical advances in the area of mass finishing systems over recent years. Primarily, these advances are most notable in the area of speed or finishing times. This is a direct result of equipment technology.

First came the barrel tumbler which has been around for quite some time. Then came vibratory tubs and bowl type systems. Now there are the high-speed disc and barrel systems that use centrifugal energy forces to shorten time cycles still further. All these systems still work. It is just the element of finishing time and cost that has changed. For instance, a 1 cubic foot barrel system typically deburrs parts in 2 to 4 hours and costs \$600-1,000. A vibratory system deburrs parts in about an hour and costs \$1000 to 3000. A high-speed centrifugal system deburrs parts in about 10-15 minutes and costs \$3000 -8000.

One often overlooked area comes in the material handling aspect or parts preparation and/or separation. That is, the parts must be placed into the machine and then removed. Simple? Easy? Not always! When selecting equipment, you don't want to spend more time and money on material handling than on machine time. Look and compare before you buy.

Most material processes involving mass finishing equipment uses deburring and polishing media. This is usually a preform ceramic or plastic shaped media mixed proportionately 60% or more to parts. To operate efficiently, the parts processed are normally larger than the media being used. The reason for this is the need to separate the parts from the media once the processing is complete. That means that the machine must be stopped, the contents of the machine have to be removed and separated again into parts and media.

In some cases, an integral separation system can be found on some existing equipment. In fact, it is quite common on large vibratory bowl type systems or special continuous flow through machines. It is not common on the newer high-speed systems. These latter systems utilize mostly automated dump and screen type systems which can be quite costly. This is the same technology used by the barrel tumbling systems.

Nova Finishing Systems makes small bench top vibratory deburring/polishing equipment. We claim to make the best low priced, industrial quality, bowl type vibratory machines on the market. In the last week of December 1994, our company and president was granted a patent for a semi-automatic separation system called the "Inseparator".

The Inseparator is a screen and frame basket type system that allows a machine operator to remove the parts from the media within the machine in less than one minute. Media and parts separation occur automatically when the machine is running, but insertion and removal must be done manually. The screen size, or hole open area to part size ratio has a lot to do with speed and efficiency. Where there are a lot of flat parts, this operation may have to be repeated several times. At no time does the machine have to be shut down or the media removed, unless you so desire on your part.

The Inseparator, is the fastest, most efficient (100% separation every time), most economical parts separation system available on the market today bar none. However, the Inseparator is only available or compatible with Nova finishing equipment in machine sizes of a 1/4, 1/2, and 1 cubic foot capacity.

Using the smallest media preform and special screen, part separation can only be accomplished down to a size of .030 or larger. Special systems can be designed on larger and/or competitive bowl type equipment.

- Nova Finishing Systems manufactures small, heavy-duty bowl finishers that stack up to most of the big equipment on the market but cost much less. Nova series vibratory equipment also comes with the same warranties of the larger machines.

For more information on this equipment line, contact:

NOVA Finishing Systems
559 Crook Street
Hampton, TN 37658
980 429-5773 Tel,
704 665-5658 Fax
NOVA@LTSmachinery.com