

# ROYSON ENGINEERING COMPANY

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## Primary uses of Mass Finishing

### **Deburr**

Deburring is the operation normally thought of in mass finishing. Usually using a mild compound and a ceramic media to deburr the parts. Most parts are done in a 15 to 30 minute time cycle. As a byproduct of the deburring, the compound has cleaned the oil or whatever off of the part and it is now clean.

### **Burnish**

Burnishing, (peening metallic parts to a brilliant luster), can be done with porcelin media but is usually done with steel media. Steel media can be had in a number of shapes, but a funny, flying saucer looking thing, called a balcone is the most popular. Unlike deburring, when burnishing, compound selection and metering is critical. You may have to try 4 different burnishing compounds on aluminum or zinc parts to find the one that makes your parts look the most brilliant, and once you get set up and running, if you let it run out of compound for only a few minutes, your media will turn dull and your parts will look dull. Remember, when burnishing, your parts will never look better than your media, so you must keep your media brilliant.

### **Improve surfaces**

With proper media selection, you can change the surface to fit your requirement. You could use ceramic media to give it a satin finish or a prepaint finish. You could use steel media to burnish it to a very shiny surface. Plastic media could be used to give it a smooth preplate finish. You can even go the other way and take a smooth part, by using a large media, and rough it up. The main thing is to use proper media selection to achieve the surface finish you want.

### **Clean**

If you have dirty, oily or greasy parts and need them cleaned, this can be done in a vibratory finisher. The normal procedure for this would be to use a machine with internal separation, leaving the gate in the unload position all the time, dropping the parts in and letting them go thru one time and then come out of the machine. Because you are trying to do this in one pass, the larger the outside diameter of the machine, the better, since all things being equal, more diameter will give you more time in the machine for the work to be done. If you are using a long radius machine then it will probably handle steel media, which would probably be best for this application. Then you won't have media wear to worry about which not

only costs money but when it wears down to a size that will lodge in your part, well you know the rest of that story. If you do use ceramic media for this

application go with a porcelin media that wears very little to minimize media cost and wear/lodging problems, since the medias only job in this application is to scrub. The compound is the main force in this job. If you also want to deburr the part along the way then use conventional ceramic media. If you use steel media you will still get deburring action by the media hammering down the burrs. It won't be like being sanded off, but there won't be any real sharp edges that would cut an assemblyperson. Your compound selection, rate and water flow rate will be based on what you are trying to take off of the part and how effective your compound is. This job takes a pretty strong compound. Normally this is done with cold water because water over 120 degrees can soften the liner and cause premature wear. If these clean parts need inhibited to keep them from oxidizing, you can place a spray bar over the screen deck to spray inhibitor on the parts on their way out of the machine.

### **Dry**

The typical use for vibratory finishers in drying is to use ground corn cob as a media. When the parts come out of the machine used for finishing, they drop into the machine used for drying and go around one time and then come out of the dryer. After the cob has dried the part the cob will continue to polish the part until it comes out.