

Simple Tips For Protecting Your Plastics While Turning and Milling

Two common methods of machining plastics include turning and milling. In addition to their common usage, there are also common problems inherent to machining plastics with these methods. Tips to overcome two common problems associated with turning and milling plastics include:

1. **Milling** – When milling thermoplastics, one common concern is the localized buildup of heat on the material. Because of plastic's insulative properties, heat does not quickly dissipate as it does in metals. As a result, the buildup can lead to melting or otherwise distorting the plastic in undesirable ways. One of the best ways to overcome this tendency is to modify the way in which the material is milled.

Conventional milling feeds the material against the direction of the blade. By using this method, the friction and heat that is generated from the cutting tool is passed directly into the material. To overcome this problem, it is recommended that the thermoplastics be climb milled. This method passes the material through the cutting tool in the same direction in which it is spinning. This will allow for the heat generated to be passed off in the shavings rather than the material that will be kept as the end product.

2. **Turning** – When turning plastics, there is a common problem of the chip becoming wrapped around the chuck, tool, or the work piece. This can present the worker with a frustrating situation in which he is faced with either working in a tangled mess of plastic or stopping the process and cleaning the area. To overcome this problem, it is suggested that a compressed air powered suction system be put in place. Such systems automatically draw the swarf away and place it in a container so that the operator is given clear visibility of the material he is machining and the work area is kept clean.

For more helpful tips, contact your EM Plastic representative.