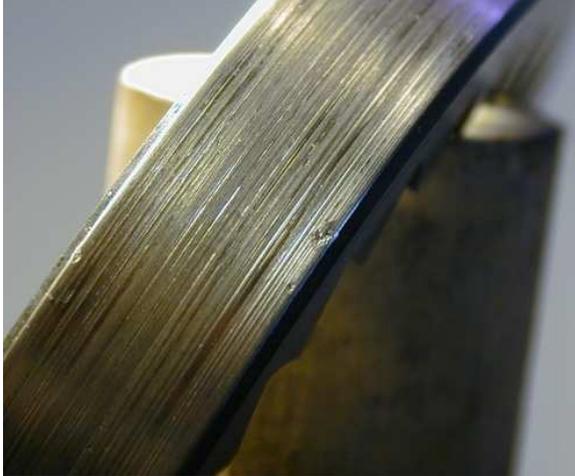

Wear Rate

Material Flow Solutions, Inc.



Particles contact wall and feeder surfaces and result in conditions where the wall surface may wear. *Wear* is typically a function of the stress applied to the bulk material and the velocity, or total strain, of material in a system. The degree to which wear occurs is known as *wear rate*. High wear rates can occur in conditions where the stress is high and the velocity is low, or in conditions where the stress is low and the velocity is high. For that reason, it is important to measure the wear rate ratios at conditions of high and low stress. It is also important to renew the bulk material at the wear surface being tested.

At Material Flow Solutions, our test technique provides a means of controlling the stress on a wear sample and maintaining fresh sample near or on the wear surface. Our wear test consists of wear rates measured at multiple stress levels on all potential process wall wear samples. The specific stress levels can then be determined from the unique flow property data for the material to be run through the process.

PRACTICAL APPLICATIONS of knowing the *wear rate* data for your material or process equipment include, but are not limited to:

- ✿ Quantify the abrasiveness of raw materials
- ✿ Evaluate the wear properties of material on potential process surfaces
- ✿ Determine best/worst surface materials for process design and manufacture
- ✿ Determine the expected wear on process equipment
- ✿ Predict the life of equipment or coating