

Materials with Feed Stability Problems

[Print](#)

[\(10\)](#) » [Screw Cooling Length](#) » [Flow Surging](#) » [Materials with Feed Stability Problems](#)

Materials with feed stability problems

Vol. 27 #1, March 2000

Many surging problems originate far back into the feed section - zone 1. Screw cooling can be beneficial for materials that have problems with feed section stability. Coring the center of the screw through the length of the feed section and then using a cooling liquid through a rotary union will keep the root of the screw's feed section cooled. Cooling the screw and increasing the barrel temperature in the first zone may help stabilize the feeding of the material.

When installing the rotary union, if an immersion thermometer is installed in the water return line, this can be used to monitor the water temperature. This is simply and inexpensively accomplished by just installing a pipe T, with the flow piping at right angles and screwing an immersion thermometer into the other pipe T opening. These are low-cost thermometers that can be purchased from most industrial supply houses. This gives another data point that can be recorded and used for troubleshooting.

- Timothy Womer, Consultant

See also:

- [Screw cooling in extrusion](#)
- [Screw cooling length](#)
- [Troubleshooting polymer processing operations](#)

Return to [Consultants' Corner](#)