

Feeding Technology for Plastics Processing

Feeding Technology for Plastics Processing, Vol. 26 #1, March 1999

by David H. Wilson, published by Hanser Press, 1998 ISBN No. 3-446-18685-9

David Wilson describes his text on feeding technology as an introductory text on the subject, but judging by the 340 pages he has prepared, he does himself somewhat of a disservice. The content and detail including references for further reading outclass many texts that do not profess to be introductory in nature.

Wilson breaks his text down into broad sections covering practical selection of feeding systems including working with vendors, the nature and background of bulk materials handling, volumetric vs. loss in weight systems, an extensive section on feeder control systems, batching, and supervisory control systems, and finally a section on start-up and training.

Wilson spends some time developing some tools to help quantify feeder performance. Short discussions on accuracy vs. repeatability are followed by a treatment of linearity and applying SPC/SQC techniques to your feeding system. This section is closed with a short treatment of how one can verify a feeder's performance before you purchase.

A chapter on bulk materials handling covers much of the basics. He then presents a very useful table of sorts on choices of feeder.

Like extruders, screw feeders come in single screw and all sorts of varieties of twin screw. Wilson discusses the merits of each, and presents some guidelines for selection. He also presents some simple tests for both the feeder and the feed to help work through the selection process. The treatment of volumetric feeders is followed directly by loss in weight feeders. All through both chapters Wilson ties in the technology with real world.

The book closes out with chapters on control systems, batching operations, supervisory systems, and installation, operation, and maintenance.

Like so many of Hanser's plastics and polymer processing texts, this is a high quality, informative, and complete reference. I would strongly recommend it to anyone who operates, specifies, or designs around bulk solids feeding systems.

- Robert E. Jerman Rohm and Haas Bristol Research