

Quadro® Comil®

SIZING RAW MATERIALS FOR USE IN NUTRACEUTICAL POWDERS

BACKGROUND/REQUIREMENT

A manufacturer of botanical extracts approached Quadro to help them with the sizing of the nutraceutical powders they were processing. The manufacturer derived these extracts by first combining water with a blend of vegetables, fruit and herbs in a mixer/blender. The mixture was run through an extruder to produce a homogeneous paste. The paste was then passed through an infrared dryer. The resulting particulate contained many over/under-sized particles; a characteristic that was not conducive to tablet pressing in later stages. Energy incorporation was one of the customer's concerns, as the nutrients are easily denatured by the addition of heat. The target mesh size for the product was 80 mesh. A Hammermill was being employed by the manufacturer but the yield on the product was low and the Hammermill imparted a high amount of energy into the product affecting the nature of the ingredients and frequently blinding the screen.

COMIL® PERFORMANCE

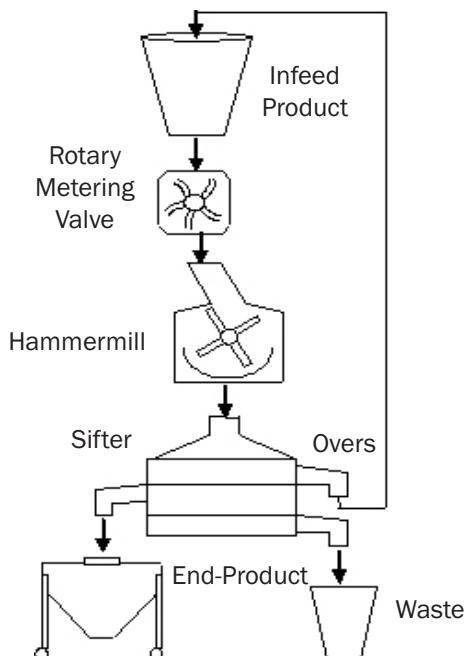
To effectively size the product for the manufacturer, a Quadro® Comil® was used. The Comil®'s gentle action milled the material coming out of the infrared dryer with little heat transfer and no fines. To ensure that the 80 mesh criteria was met, the product coming from the Comil® passed through a screener and the over-size particles were re-introduced to the Comil®. The final product was then sent to packaging.

SUMMARY

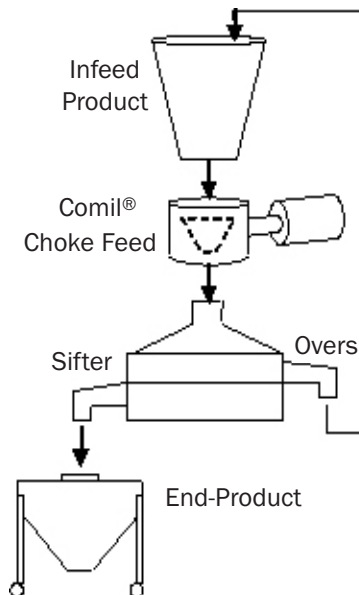
The Quadro® Comil® overcame the limitations of the Hammermill, increased the on-spec yield (eliminating fines), and produced a consistent product for the manufacturer with a high nutrient content.



Previous System



New System



QUADRO
Leading Process Equipment Innovation

www.quadro.com