



PROCESS

The customer approached FEECO looking to increase the capacity of their existing plant, which processed botanical powders for use in animal feed products.

The plant relied on a competitor's pin mixer to convert the botanical powders (yucca and quillaja) into a granular product. In addition to the mixer size being insufficient to meet their need for increased capacity, the process was plagued by frequent upsets, due to challenging characteristics of the material and its response to agglomeration.

The project started in the [FEECO Innovation Center](#), where testing was conducted in a pilot-scale [pin mixer](#). In addition to developing the parameters required to meet the desired increase in production capacity, testing also centered around identifying the issue(s) responsible for upsets.

Through testing, FEECO was able to determine that with only a few percentage points of moisture between on-size granules and sludge, the process required a careful balance of solid and liquid feed rates, feed consistency, and mixer speed in order to minimize upsets.

Using the data gathered during testing, FEECO established the process parameters necessary to scale up the process to the desired capacity and design two custom pin mixers to carry out the job.

Each mixer featured an automatically raising cover to facilitate easier cleaning and pin adjustment, as well as eutectic pin coatings to protect against wear.

PROJECT SPECS

Customer:
Proprietary

Equipment Supplied:
(2) Pin Mixers

Project Location:
Mexico, Chile

Industry:
Animal Feed

Material:
Yucca & Quillaja Botanical Powders

Project Engineer:
FEECO International, Inc.