FEEDING 101

Summary

This course is divided into two separate modules:

1) **Module 1: Basic course: Introduction to feeding (1-day)**
2) **Module 2: Specialized courses (1/2-day)**

The basic module is a two-part course focusing on the operation of a variety of industrial feeders commonly used in continuous manufacturing lines.

The first part consists of a theoretical course on a variety of feeders available at CESPE, split in 3 chapters. The first chapter focusses on the different properties of the feeders, their accessories and field of application. The second chapter covers an introduction on how and what kind of raw output data can be generated by the feeder, depending on the feeding mode of the feeder. In the last chapter, an introduction is given on the kind of feeder output responses that can be extracted from the raw data.

The second part of the basic course covers a hands-on introduction on how to dismantle, install and operate the feeder equipment. Two raw materials commonly used in research and industrial settings will be processed by the feeder in its different modes.

The specialized module will cover a variety of aspects that are directly related to the feeding process. Some of them will cover the feeding equipment, while others tackle how adaptations in a formulation can improve the process.

MODULE 1: BASIC COURSE

Theoretical

1) *Introduction to the feeding equipment*
    a. GEA Compact Feeder
    b. Coperion KT20/QT20
    c. Coperion MT12 microfeeder

2) *How to generate feeder output data?*
    a. What are the different feeder trials?
    b. What output does each trial generate?

3) *How to analyze the output data?*
    a. What are the relevant responses to collect?

Practical

1) *Dismantling and installing the loss-in-weight feeder*

2) *Operating the feeder*
    a. Volumetric feeding trials
    b. Gravimetric feeding trials

MODULE 2: SPECIALIZED COURSES

1) *Use-case 1: Surrogate approach for feeding*
    a. What is the surrogate approach?
    b. How can it be implemented in the feeding process?
    c. What is the pharmaceutical relevance?

2) *Use-case 2: Glidants*
    a. What are glidants?
    b. What is the role of glidants in the feeding process?
    c. What is the pharmaceutical relevance?

3) *Use-case 3: How specific configurations and settings impact the feeding process*
    a. What alterations to the standard configuration can be done?
    b. What settings could play an important role?
    c. What is the pharmaceutical relevance?

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