Classification and Application of Feed Dryer

The purpose of feed drying is to remove excess moisture from feed raw materials, so as to facilitate packaging, transportation, storage, processing and use. Pigeon feed Microwave Drying / Sterilizing machine

Drying is a complex process, different drying objects have different drying methods, so it is necessary to determine a reasonable drying method according to the different composition and characteristics of feed.

Microwave drying machinery and equipment

The classification and method of feed dryer are introduced as follows.

1 Classification

The spiral flash dryer is mainly composed of feeder, drying chamber, cyclone separator and bag collector.

The dried material enters the drying chamber from the feeder, and the hot air enters the drying chamber along the tangent direction, and flows upward from the bottom of the drying chamber in a high-speed rotating state, fully contacting with the material, so that the material is in a stable equilibrium fluidization state.

Under the combined action of mixer impact and high-speed rotating airflow in drying chamber, the material blocks are dispersed into irregular granules. The larger dried material moves towards the chamber wall and falls to the lower part of the drying chamber to repeat the above process because of its larger settling speed.

With the material being dispersed and the material colliding with each other, the dried particles on the surface of the material block will move to the axis line of gas rotation in the drying chamber and be discharged to the material collector together with the air flow, so that the drying products with uniform particle size and drying degree can be obtained.

The outstanding advantages of this dryer are high drying efficiency, low energy consumption, uniform product drying, compact structure, and integration of crushing and drying. It is suitable for drying viscous, pasty, powdery and cake-like materials. In feed industry, it can be used for drying blood meal, meat and bone meal, fish meal, protein paste, etc.

The spiral vibration dryer is composed of inner and outer cylinders, circular orifice plates and vibration sources. When the motor rotates, the vertical excitation force and the couple moment of the excitation force around the vertical axis will be generated, so that the dryer body will do the vertical linear vibration and the torsional vibration around the vertical center line.

The combination of two vibrations makes the material jump continuously from top to bottom

along the horizontal annular orifice plate. The drying medium is blown into the drying cylinder by the blower through the air inlet, and through the orifice plates of each layer from bottom to top, through the material layer.

Because of the continuous throwing and turning of materials, it can not only avoid the material sticking to the spiral groove surface, but also greatly increase the contact area between materials and drying media, thus strengthening the heat and mass transfer process between materials and drying media.

The advantages of spiral vibration dryer are energy saving, wide range of materials, good quality of drying products and high production efficiency. It is suitable for drying all kinds of granular, powdery, massive and flaky materials. In feed industry, the dryer can be used to dry fish and shrimp bait, various additives, distiller's grains, starch residue, vegetable protein and so on.