

SPECIAL MIXERS

Vertical Silo Mixer

The vertical mixer handles preparatory mixing before production and keeps material stored in a silo from caking because of humidity or formulation structure. It can also be used for other mixtures as needed.

Raw material rarely stays in the condition it arrived in. Powder held in a silo gradually compacts under its own weight and absorbs moisture from the air, and some formulations are naturally prone to bridging and caking. A vertical mixer deals with the problem at its source: it keeps the material inside the silo moving and sends free-flowing material on to production.

Three core tasks

- **Preparatory mixing:** brings ingredients together before production so that the main mixing step starts with more consistent material.
- **Preventing caking:** stops material taken into the silo from caking because of humidity or the structure of the formulation.
- **Flexible use:** can be applied to different mixtures if required.

Why caking causes trouble downstream

Caked material interrupts flow at the silo outlet or makes it erratic. Dosing accuracy drops, conveying lines block and the amount of material reaching the extruder fluctuates. Additives trapped inside lumps are not

spread evenly through the product, which can show up as colour or surface defects. Moving the material continuously or at regular intervals breaks the first link in that chain. Causes of caking that start further upstream, in the mixer and cooler, are covered in our guide to PVC dry blend problems and fixes.

Combine it with moisture control

Where caking is driven by moisture, agitation alone may not be enough. A dehumidifier and related auxiliary equipment complement the vertical mixer by dealing with silo ventilation and ambient conditions. For powders and granules that need homogeneous blending at low speed, a ribbon mixer is an alternative worth reviewing.

Information needed for a proposal

A vertical mixer is sized to the silo or vessel it will work in. When you request a proposal, tell us the silo volume and geometry, the type and bulk density of the material, the humidity conditions on site, and whether the mixer will run continuously or at intervals. With those details the right configuration can be defined quickly.

Applications

PVC drain pipes

PVC tarpaulin

Quotes and engineering support for your project

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<https://mikser.com.tr/en/product/vertical-mixer>