

AZO®MIXOMAT - economical transporting, dosing, weighing and mixing with an ingenious system

**Four functions,
one system**

**Easy expansion into
more raw material
components**

**Weighing of all
components**

**Quick cleaning
with large door**

**Compact
construction**

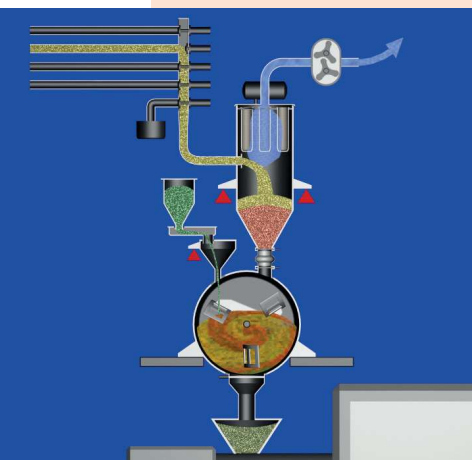
Preferred applications

The MIXOMAT is particularly well suited to discontinuous, gravimetric loading as well as to mixing and dyeing of granulate exactly as specified in the recipe, with masterbatch, re-work, pigments and additives. It can be used for medium to high throughputs values when loading compounding systems, blowing machines and foil lines. Various designs are available, covering a performance range from 150 kg/h to 2.5 t/h. Combining the process stages of transporting, dosing,

weighing and mixing in one device achieves an exemplary level of efficiency. The MIXOMAT can easily be cleaned and has proved to be effective in meeting exacting requirements in terms of quality and reproducibility. With this device, it is possible to register and report on the exact material consumption at any time, even with minor components. It can be used both with individual loading or in collective loading systems with shared blower and secondary

filter. The MIXOMAT can be combined excellently with high-precision dosing and weighing units such as FLEXIDOS® and AZODOS®, as well as with continuous gravimetric systems. By working together closely with the manufacturers of extrusion machines, AZO has developed modules that are precisely attuned for the extruders.

SYSTEMS



Special advantages

- Transporting, dosing, weighing and mixing in one compact, economical system
- Simple supply of up to 30 components via switching valves
- High repetition accuracy due to accurate weighing and recording of all components
- Rapid colour change and easy cleaning
- Precise throughput registration for each processing machine
- No need for differential dosing scales

System description

The MIXOMAT consists of a conical housing with a filling and ventilation pipe as well as a large cleaning door with quick-release fasteners and sight glasses. The mixing tool is driven by a geared motor. The discharge valve is operated by compressed air. A support bracket is provided for setup and attachment. Designs in mild steel or stainless steel are possible. It is recommended that the ground and polished finish be

used for special requirements, e.g. thorough cleaning when pigment has been used. There are three different system variants in all cases: MIXOMAT mixer, MIXOMAT scale and MIXOMAT conveying scale.

AZO®

Alternatively, the small component weighing can be performed directly using the MIXOMAT and the pre weighed



AZO®MIXOMAT scale for loading foil blower extruders



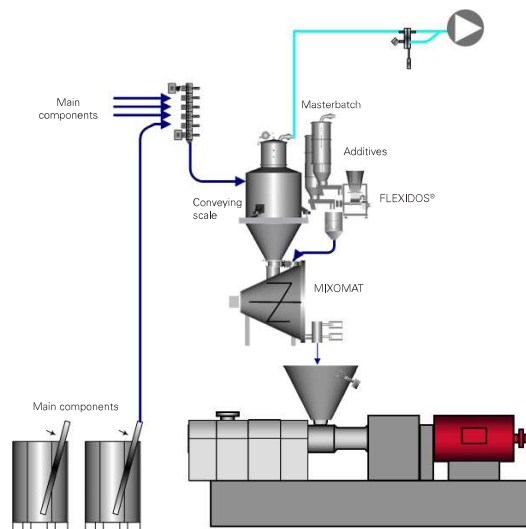
AZO®MIXOMAT scale above processing machine

AZO®MIXOMAT conveying scale

System description

This is an appealing solution for large throughput rates combined with high accuracy. A conveying scale is connected ahead of the MIXOMAT mixer, thereby allowing a new batch to be weighed in the conveying scale during mixing. This system can be arranged both directly over the processing machine, or next to it. Loading is then performed either in the free fall, or the batch is carried across using dense flow transport.

The components are drawn into a conveying scale through a switching valve according to the recipe, weighed precisely there and then transferred to the MIXOMAT mixer. Small quantity weighing (masterbatch and additives) is performed in parallel with an AZO FLEXIDOS® involving an ultra-small quantity scale and input directly into the mixer. The homogeneously mixed batch is then ready for loading the processing machines.



AZO®MIXOMAT conveying scale directly over extruder, masterbatch is weighed separately, additive in powder form is negatively weighed into the masterbatch scale using AZODOS®



Example of a complete system

The large quantities are extracted from silos and filling hoppers by means of a pneumatic suction weighing system, drawn into a conveying scale by the MIXOMAT mixer and weighed precisely. In parallel to this, the small quantities such as additives, dyes, stabilizing agents, etc. are weighed with accuracy down to the gram in a FLEXIDOS® station

set up level with the floor, before also being transported into the conveying scale pneumatically. Once all the components required by the recipe are in the conveying scale, the entire batch is emptied into the MIXOMAT mixer and homogeneously mixed. In the past, a mixer hopper was frequently used as a buffer, Now, the mixture is emptied directly

into a differential dosing device. This offers the advantage of requiring less cleaning when the product is changed over. Product quality can be increased significantly by loading the extruders with homogenous pre-mixtures made in the MIXOMAT. In parallel to this loading, additional components such as glass fibers are supplied in

big bags. These are securely docked in a big-bag unloading station using a dust tight docking mechanism, and the product is transferred to a differential dosing scale. This component, like the main component, is supplied to the extrusion process according to a set point that is specified by the extruder.



Outdoor silos for large quantities



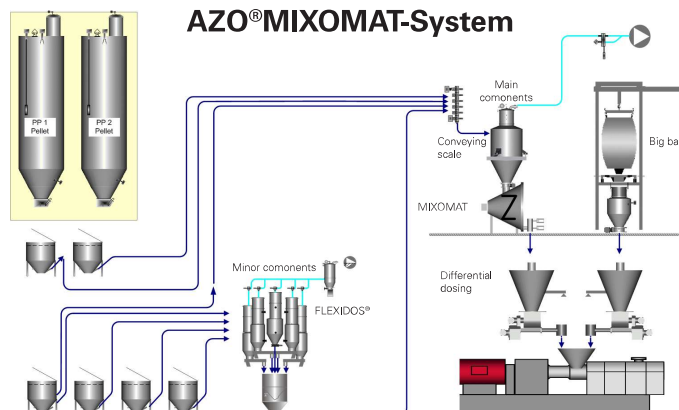
AZO MIXOMAT system



Big bag discharge stations, with two FLEXIDOS® stations next to them



Feeding hopper



Differential dosing scale AZODOS®



Simple feeding hopper for granulate



FLEXIDOS® stations, pneumatically loaded



Control terminal with process visualization