



## AZO COMPONENTER® in circular design

### - Efficient batching of bulk and minor ingredients -

With the continuously increasing competition in ASEAN, it is crucial for manufacturers in this region to produce their products reliably and efficiently. One way to increase productivity is to increase the level of automation. This is especially true for companies who are handling powders and liquid raw materials in their production. But what is the lowest hanging fruit when automating ingredient handling?

Like in many other cases, the Pareto Principle can be applied, where 80% of the output are generated by 20% of the inputs, also called the law of the vital few<sup>1</sup>. In the raw material ingredient world, we distinguish between bulk, minor and micro ingredients. The bulk ingredients are those few making up the highest raw material consumption, followed by minor ingredients and micro ingredients. Micro ingredients are those ingredients with the smallest consumption. However, there can be a large number of these, often expensive, ingredients in each recipe. One method to automate the batching of micro ingredients with the AZO ComponenterStep® was discussed [here](#).

Automating the batching of bulk and minor ingredients is typically the first step towards a higher level of process automation. A cost effective mechanical solution for this application is The AZO COMPONENTER® in circular design. It is recommended when a small number of components need to be automatically weighed, typically the bulk and some minor ingredients.

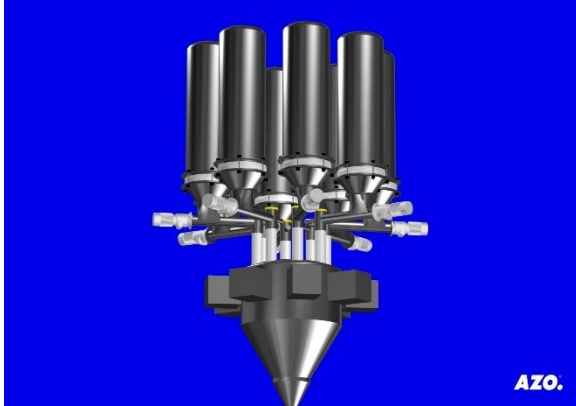


Picture 1: AZO COMPONENTER® in circular design

The center piece of the AZO COMPONENTER® is a collecting hopper. Positioned in a circular arrangement above are different kinds of hoppers, feeding hoppers or pneumatic receivers equipped with dosing screws—and discharge aids as needed by the characteristics of the

<sup>1</sup> Fic Hansraj (2021) Pareto Principle

ingredients handled. The center collection hopper is in many cases resting on a three-point scale, which is sufficiently accurate to weigh the bulk materials.



Picture 2: 3D Image of AZO COMPONENTER®

However, for the minor ingredients, the accuracy of this weighing hopper wouldn't be reliable and accurate enough. The solution? Smaller scale buckets are integrated in the central collection hopper. Once filled to the setpoint, these buckets flip over and tip the ingredients into the collecting hopper as well. Thus, a parallel weighing process becomes possible while achieving the best possible accuracy for each ingredient. On top

of that, the AZO COMPONENTER® can reach up to 40 batches per hour, allowing distribution to several mixing lines. The AZO COMPONENTER® may be used in the food, pharmaceutical, chemical, and plastic industry.

If you would like to read more about different methods of automating ingredient batching, please follow this [link](#).

About AZO Ltd.

AZO Ltd. provides innovative bulk material and raw material handling solutions for the reliable automation of ingredient handling in the food, pharmaceutical, chemical and plastic industry in Southeast Asia, Australia and New Zealand.

For more information about AZO's solutions for the plastic industry, check out our website or sign up to AZO's newsletter. We are looking forward to planning your next ingredient handling automation steps together with you!

written by: Jan-Wilko Helms