

# AZO cyclone screener type DA

## The multifunction talent for reliable simultaneous safety screening, dosing and precise weighing

**Control screening**

**Safety screening**

**Fractioning**

**Separation of foreign particles**

**Breaking of lumps**

**Aeration of products**

**Customer**

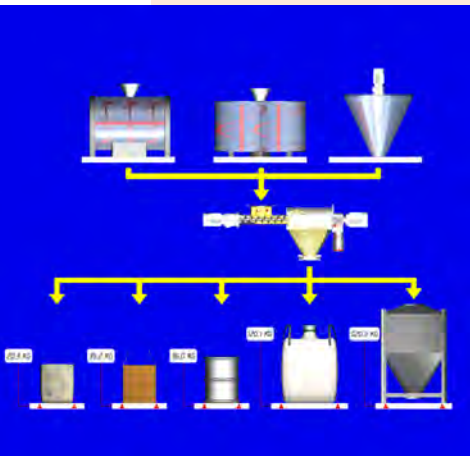
A mixing and packaging company frequently also produces very small quantities, e.g. kosher products, which are subject to particularly stringent production requirements. Consequently, the machines used have to be changed frequently and must meet extremely high requirements concerning cleanliness and freedom from contamination.

**Task**

The customer required the development of a system that

- reliably covers the areas of safety screening, dosing and precise weighing of bulk ingredients into different bins like drums, boxes, big bags or containers,
- requires only minimal cleaning work despite frequent product changes, and
- is low in overall height..

**SYSTEMS**



**AZO solution**

In this particular case, the cyclone screener type DA is coupled with a weighing process which, via coarse/fine switch over of the integrated dosing device, ensures precise weighing of the material to be screened. The special feature of this new type of cyclone screener is its self-dosing

function, which means that there is no extra dosing device required upstream. This saves overall height, and only one unit has to be cleaned when the product is changed.

The design characteristic of two easily accessible extraction devices with dosing screw on one

end and rotor screen at the other side furthermore facilitates the cleaning of the cyclone screening and dosing machine..

## How it works

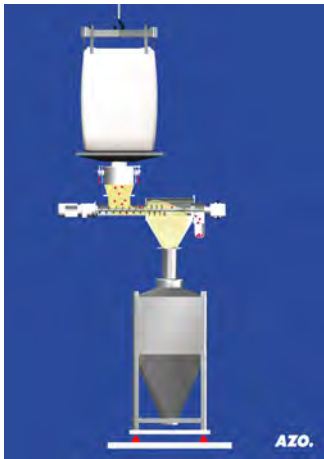
Via the product intake, the material- in many cases coming from a mixer- reaches the individually driven dosing screw, which transports the material into the screen frame. Exact dosing by uniform material flow, as required for trouble-free screening, is effected by setting the screw speed to product-specific values via a frequency converter. The material leaving the dosing screw is taken over by

a separately driven intake distributor with horizontally arranged fluidizing bars, and gently swirled through the drum-shaped screen frame. The fines fall through the screen into the fines outlet, the coarse product is transported to its particular outlet, where it is gently discharged.

## Easy inspection and cleaning

By means of a special extraction device with rapid fasteners the screen frame can be easily extracted and swivelled to the side for inspection. Thus thorough checking and any necessary replacing can be quickly done. The dosing screw can also be extracted and swivelled via rapid fasteners.

All safety-relevant connections have electrical safeguards which instantly stop the machine when the rapid fasteners are opened. The screen fabric is fastened on rings, can vibrate freely and in this way cleans itself. The built-in baffle plate prevents too much fine product getting into the coarse-product outlet.



Weighing and simultaneous safety screening into container, from big bags

## Precise weighing

Shortly before the weight set for the particular receptacle is reached, the connected weighing device automatically transmits a pulse for speed reduction to the bin unit of the cyclone screener. Thus quantity of product getting into the screening frame is reduced. This coarse/fine switch over, enables achieving the optimum switch-off point that ensures exact weighing of the screening product.



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## The special AZO plus features with this system:

- No extra dosing device is required, therefore less cleaning work and low overall height
- By opening rapid fasteners, the drive with dosing screw can be easily extracted without tools, and swivelled to the side for quick cleaning and inspection
- Drive with screen frame can also be extracted and swivelled

to the side for quick inspection, the screen fabric can vibrate freely and is thus self-cleaning

- Nickel chromium steel design in different surface versions as desired by customer



Dosing screw extractable



Screen basket swivelled out