



GEA Aseptic piston doser

Aseptic cold dosing for fruits and cereals

GEA Procomac has developed the new Aseptic Dual Filling System for the bottling of still beverages that contain pulps, fibres, and pieces of fruit or cereals with dimensions up to 10 x 10 x 10 mm. This is believed to be the first time this process has been used in a cold-fill environment for PET bottles. The Piston

Doser PX achieves the aseptic dosing of the valuable solid pieces ahead of the subsequent liquid filling process, with a high level of accuracy.

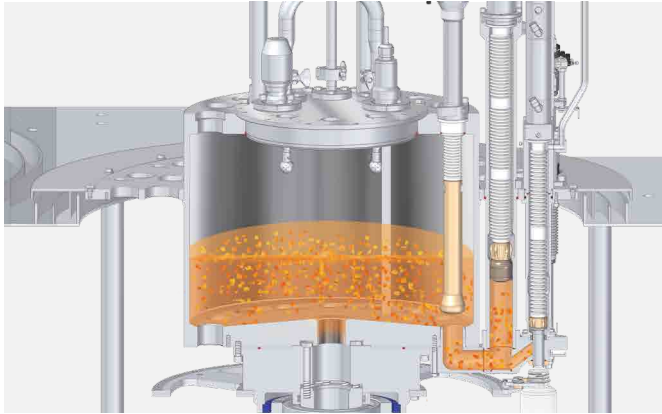
The Piston Doser PX is simple but effective. A cam-driven piston first draws into a cylinder the prescribed volume of solid particles, before injecting it into the

awaiting PET bottle. The bottle then moves onto a standard volumetric, electronic filler, the Fillstar FX, to add the liquid juice and complete the aseptic filling process. The dual fill system requires a 2 stream process line: one dedicated to the thermal treatment of the pieces and the other to the thermal treatment of the clear liquid.

The Piston Doser PX

Aseptic integrity

Product loading



The aseptic integrity of the Piston Doser is maintained with the inclusion of a hygienic seal around the piston which prevents product leaking through to the non-aseptic side. Dosing volume can easily be regulated from 30 to 150 ml by changing the dosing value on the HMI. The stroke of the piston is automatically adjusted by a linear motor. This provides adequate dosing for most products in PET bottles of up to 2 litres. Smaller/Greater dosing volumes may be achieved simply by changing the diameter of the cylinder. The Piston Doser PX is ideal for adding large pieces of pulp, fibre, fruit or cereal to still beverages, both High Acid and Low Acid, or for filling product whose density does not allow the consistent distribution of the pieces.

Filling



| Features | Benefits |
|---|---|
| Aseptic design | Suitable for HA and LA applications. Allows the dosing of cold solid particles in aseptic conditions. |
| Automatic dosing adjustment | Accurate dosing to prevent wastage of high value product. Very reliable. Easily adjusted by linear motors. |
| No contact between filling nozzle and bottle neck | Mandatory for Low Acid aseptic beverages. |
| Simple design | Low maintenance. |
| Volumetric measurement | No need for weighing equipment or flow meters. |
| High Speed dosing | Designed to match production volumes of Fillstar FX – up to 800 bpm. |
| Built-in CIP/SIP and sterile water rinsing | Fully automatic cleaning and sterilization cycle with overheated water and fast product change over availability. |
| Compact | Small footprint. |
| Gentle filling | Negligible damage rate in the final beverage. |

CIP/SIP



GEA Italy

GEA Procomac S.p.A.
Via Fedolfi, 29
43038 Sala Baganza (Parma), Italy

Tel +39 0521 839411
Fax +39 0521 833879

sales.italy@gea.com
www.gea.com