

You Can't Have the Yogurt Without the **Cups**

Supermarket refrigerated sections are full of all kinds of yogurts and desserts. With this diversity, it's necessary to implement a suitable machine technology to fill and package the products. In the retail industry, this brings about requirements for cost-effective logistics as well as economical and hygienic handling of the products themselves. GASTI Verpackungsmaschinen GmbH in Schwäbisch Hall (Germany) is a specialist in this area.

For nearly a hundred years now, GASTI has been producing a diverse machine program with intelligent solutions for packaging liquid or semi-liquid products. The systems differ in production capacity and hygiene level and are optimized to meet the needs of the products being filled. This German company first used B&R automation solutions in December 2003. The goal, among other things, was to optimize the changeover times for various cup diameters. The newly developed Combiseptic filling and closing machines, with changeover times of only 15 – 30 minutes, made this a reality. The Combiseptic is mainly characterized by extremely fast changeover of form components for various cup sizes and the modular construction of the individual functional modules.

Continuous Motion


GASTI cup machines use a unique continuous motion system which is unequalled throughout the world. For example, the cups are not subject to acceleration forces during filling. Even at

high speeds, the product is filled without spilling and the headspace between the product surface and lid can be very small. Continuous motion when removing cups from the transport chain guarantees smooth transfer onto the transport conveyor.

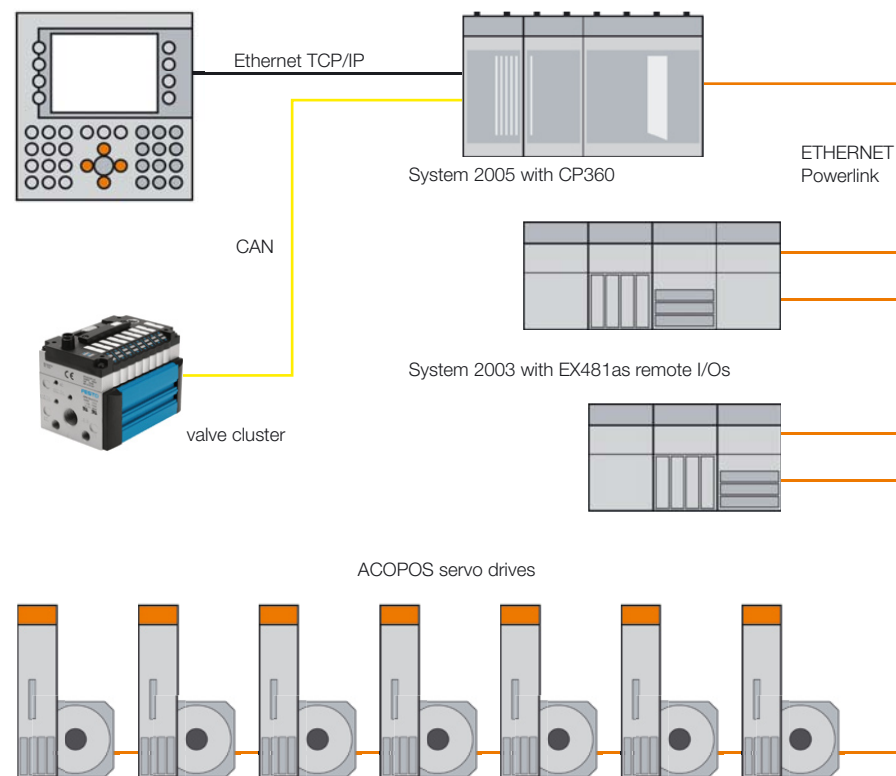
Highly Dynamic Servo Drives as Core Items

A B&R System 2005 controller with a CP360 CPU handles machine control. However, the ACOPOS servo drive system is at the heart of the automation solution. Seven highly dynamic servo drives, connected using the ETHERNET Powerlink real-time communication protocol, provide smooth machine operation. The advantages of the ACOPOS technology are especially evident in the filling aggregate. Here, filling behavior is improved significantly and products that are difficult to fill are now also filled with the same high performance. System 2003 I/O modules, which are also integrated in the Ethernet Powerlink network, are distributed throughout the machine. Valve islands communicate with the controller using a CAN bus.

The visualization system, made up of an industrial PC with OPC coupling, provides an optimal user-interface for the machine operator. The straight-forward construction provides clear control of functions and easy correction of any problems that may occur because of faulty packaging material.

Regardless of if the container holds yogurt, milk, soft drink, quark, fruit jelly or jams, Gasti fills and closes them quickly and reliably. 

www.gasti.de



Automation solution for Combiseptic filling and closing machines: Seven B&R servo drives, which communicate in true real-time using ETHERNET Powerlink, allow highly precise and dynamic positioning.