**High-speed cup fillers with unrivaled hygiene level and precision**

**GRUNWALD has already delivered two identical high-speed filling lines, the FOODLINER 20.000UC/2x8 lane, to one of the largest dairy groups in Europe.**

Over the years, Grunwald has delivered numerous inline filling machines with capacities ranging from 20,000 to 25,000 cups per hour. However, receiving enquiries for high-speed lines capable of 40,000 cups per hour is a specialty - especially in this case, for two identical machines at once. These linear cup fillers were specifically designed for mass production, meeting the highest demands for speed and hygiene. To meet the high production requirements, each machine had to achieve an output of 40,000 cups per hour or 670 cups per minute - and all in an ultra-clean (UC) design.

To maintain a compact footprint - as small as possible -, the transport and filling system was designed in a 2x8 format, allowing 16 cups per stroke. Additionally, both the jam filling station and the main filling station feature a new, space-saving vertical EHEDG dosing system. This innovative solution ensures a particularly compact design and maximum efficiency in the filling process.

At first glance, the filling machine in operation appears calm and effortless. However, considering that 55 trays of 12 cups each leave the machine every minute, the scale of production quickly becomes apparent.

**Reliability and innovation at its Core**

Grunwald is recognized for its dependable and innovative machine solutions. This project with its two main objectives

1. High-capacity output of 40,000 cups per hour with an impressive > 98% efficiency rate,
2. Integrated in-line weighing to minimise product giveaway, ensuring precise dosing adjustments in real time,

reflects these characteristics. These features allow the system to maintain exceptional performance while optimising product usage and reducing waste.

**Ultraclean sterilisation and controlled environment**

To meet the highest hygiene requirements, the machines are equipped with:

* State-of-the-art pulsed light UV(C) sterilisation for cups and foils, achieving a sterilisation rate of ≥ LOG4 at 40 cycles per minute.
* HEPA filter class H14, ensuring sterile overpressure within the enclosed tunnel from cup denesting to final sealing.
* Gas flushing system to reduce residual oxygen levels below 1%, meeting the customer’s specific requirements for extended product shelf life.

By combining ultra-clean design, high-speed performance and precise dosing technology, the company once again proves its ability to set new industry benchmarks in dairy packaging technology.

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| **Key points of the GRUNWALD-FOODLINER 20.000UC**   * 2x8-lane intelligent inline cup filling machine with high production speed (40,000 cups/h). * an ultraclean (UC) design with peroxide-free hygiene concept. * High hygiene standard at its maximum speed  (sterilisation rate ≥ LOG4 at 40 cycles/min.). * Sterile HEPA filtered air transported in a tunnel above the cups. * Double, vertical EHEDG-certified filling system in CIP and SIP version. * Inline weighing to automatically adjust the filling volume. * Automatic cup and snap-on lid feeding. * Foil sealing incl. UV-(C) sterilisation and gas flushing. * Automatic integrated “End-of-line” packing lifting 48 cups at the same time into segmented 3x4 trays (55 trays/min). * Up-to-date, fully integrated industry 4.0 solution guarantees maximum process reliability in order to entirely avoid production downtimes. |

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| *Grunwald-Foodliner-20.000UC.jpg* | *The next ultraclean(UC) machine generation: fully-automatic cup filling and closing machine*  *GRUNWALD-FOODLINER 20.000UC in 2x8-lane design with integrated tray packer for dairy products* |
| Grunwald-filling-yoghurt\_0278.jpg  Oder  Grunwald-filling-youghurt\_0296.jpg | 2x8-line filling of stirred yoghurt |
| Grunwald-neue-Bevorratung\_19.jpg | The new lid feeding system from floor level |
| Grunwald-tray-packing\_0319.jpg | Integrated tray packing“ |