Automation solutions for filling systems

We automate your success.
Filling in the system. With system.

The demands of filling machines are extremely dissimilar. The sheer variety of applications sets the bar high with regard to special demands. Next to ensuring the automated processes, the high cycling of the machines is the primary focus. Jetter AG have been supplying highly specialized systems as both complete and partial solutions that can help you achieve a decisive competitive advantage for machine builders of filling machines.

No matter if you process pharmaceutical, cosmetic or chemical products on your machine – with the integrated solutions from Jetter AG, you secure a significant performance increase for your systems when

- filling
- capping
- labeling

of liquid media in glass or plastic containers.
The JetControl control systems from Jetter AG take all aspects of the demands for modern automation solutions into account. The no-interface integration of movement controllers (Motion Control) and sequential control in a system enable highly flexible solutions. The integration of data management in the JetControl control system and the direct connection to ERP, BDE and MES are a given. The company-wide data flow of peripheral devices, up to the management level, makes production as of batch size 1 economical. This way, you are fit for Industry 4.0

With combined and synchronizable axis groups, the integrated Motion Control from Jetter AG guarantees the highest flexibility when designing your machines. The Tool Center Point consideration simplifies and streamlines the programming of coupled drives – no matter whether through synchronous operation, cam disc or path control.
Filling

Servo fillers – Always at the level

Linear filling machines
On linear filling machines, several containers are filled at the same time. For this purpose, the filling needle carrier is synchronized with the transport time. The dosing pumps are controlled so the complete filling process takes place during the synchronous run. Thereby, the filling needles always have the optimum level above the level of the liquid.

Round filling machines
On a round filling machine, the containers pass through a carousel. The filling process takes place as the containers pass through. Thereby, the dosing amounts and filling needle heights are individually controlled.
The Jetter solution

- Ethernet connection to management level
- JV-10xx with capacitive touch
- Modular I/Os-JX3 system
- Remote I/Os-JX3 system
- Compact Controller JC-365MC with Motion control
- Weighing device for process control
- Profinet or Ethernet/IP
- Field bus connectivity JX3-COM-xxx
- Up to 16 servo axes JM-10x, resp. JM-2xx
- Conveyor belt
- Dosing pumps
- Filling needle carrier

The filling needle is always under control
- Easy adaptation to higher machine cycles. Regulation of the filling needle height is always synchronous with the throughput amount
- Especially suited for aseptic filling of sterile products. Spraying or foaming of the media is prevented by the constant filling needle distance to the media surface
- High-precision dosing through servo-controlled dosing pumps
- Fast product change possible at any time. Simple format change through the dynamic switchover of the electronic cam disc.
Capping
Torque screwing – An exact fit

Modern high-performance closure machines are distinguished by a high flexibility when sealing dissimilar container forms. The closure process is cyclical or continual. The machines automatically seal the widest array of press-on, screw and orientation closures such as rubber stoppers, freeze-dry stoppers, dropper inserts, screw closures, press-on closures, crimp caps, pipette closures, non-tamper caps, and dosing and spray pumps.

In the process, the condition of molded closures with special features (grip molding, asymmetrical outer contour) which require a particular alignment is checked before they are sealed in the required position. The individual configuration of closure parameters, torque, angle position, number of rotations and speed of a format change can be simply and quickly realized.
Fast and precise closure

- High-end performance through intelligent support in servo drive
- Fast, precise screw closure. The look-ahead limit stop detection enables active braking before the stop
- Significant cost savings through closure without a separate torque sensor
- Expertise and security remain in house. Realize the optimal solutions through user-programmability yourself. Back up your data with the integrated copy protection function

Torque and current (torque) process when screwing on caps with look-ahead limit stop detection
Labeling

Flexibility meets accuracy

Round container forms and special forms such as bottles or tubes pose a great challenge to automation of labeling machines. Here, circumferential labels adapted to the design and size are frequently affixed, which requires a special construction of the machine. At the same time, the retooling the system should be as quick as possible in order to also realize the labeling of small and medium piece counts with flexibility.
The Jetter solution

- It always fits | Fits right
  - Always the correct positioning, through the synchronization with the conveyor belt and print-mark recognition
  - Individual labeling functions through free combination of position offsets, triggers and print-marks
  - Scalable in price and performance through flexible drive selection: stepper motor, DC/AC motor or servo motor with identical programming
The Jetter automation solution for filling systems – Your benefits

- **Shorter cycle times**
  With our special solutions for filling, trimming to size, and capping, you can further improve the cycle rates of your machines. As a result, you can significantly boost productivity at consistently high levels of process reliability.

- **Seamless systems integration**
  Seamless integration of control, drive and operating functions helps you conserve important resources even at the programming stage. You can also benefit from this during commissioning and service visits.

- **Generating competitive edges**
  The demands that filling systems are expected to meet are becoming ever higher. Machines are expected to be faster, more efficient and more economical at the same time. Our tool for calculating the ideal path will track down the perfect parameters. This keeps your filling system running in the optimum range - smoothly but nevertheless dynamically. Energy consumption and wear can therefore be reduced to a minimum.

- **Easy maintenance**
  Profit from the advantages of modern, sophisticated systems, also with regard to maintenance. No specialized programming skills are required. A screwdriver and a USB flash drive or SD card are all you need. Easy access via remote maintenance is possible.

- **Fit for Industry 4.0**
  Our systems with an end-to-end data flow enable economical production starting at batch sizes of 1 by
  - integrating the controller, drives and operating function
  - integrating data management in the control system
  - connecting directly to ERP, PDA, MES
  - simple company-wide networking
The Jetter industry competence

Our solutions for your systems

Jetter AG offers company-wide and scalable automation solutions for a great number of industries. Our specialist teams have extensive expertise in the specific production requirements actively take a share in technical further development. They pay special attention to continuously optimizing the processing operations.
Jetter AG at a glance

For over 35 years, Jetter AG has developed, produced, and engineered both integrated and open automation solutions for various lines of business. These solutions comprise perfectly coordinated software and hardware components, which, whether being part of a system or cooperating with other components, contribute to a remarkable increase in efficiency. Consistently supporting both open and classic standards of Jetter AG products guarantees maximum flexibility at any time.