



PASSION FOR EXCELLENCE



COMPETENCE IN CAN FILLING

# HIGHEST EFFICIENCY IN CAN FILLING

FEIGE Filling GmbH is a traditional German medium-sized company in Bad Oldesloe. Founded in Hamburg in 1972, the company has developed into the market and technology leader in the field of filling technology by its innovative strength and open-mindedness. FEIGE Filling stands for gravimetric filling equipment for the filling of liquid and pasty products with calibrated accuracy.

Since 2003, the company is an integral member of the HAVER Group. With subsidiaries and agencies on all continents, we stand in a world-wide dialogue with our customers in a spirit of partnership. Very much in keeping with our philosophy "PASSION FOR EXCELLENCE" we are continuously developing our solutions to secure your technical head start.

## We have the suitable filling technology to meet your challenge

The modular assembly system of the range of filling equipment produced by FEIGE Filling offers you an appropriate solution for all your needs when it comes to the gravimetric filling of cans with sizes ranging from 0.5 kg to 60 kg.

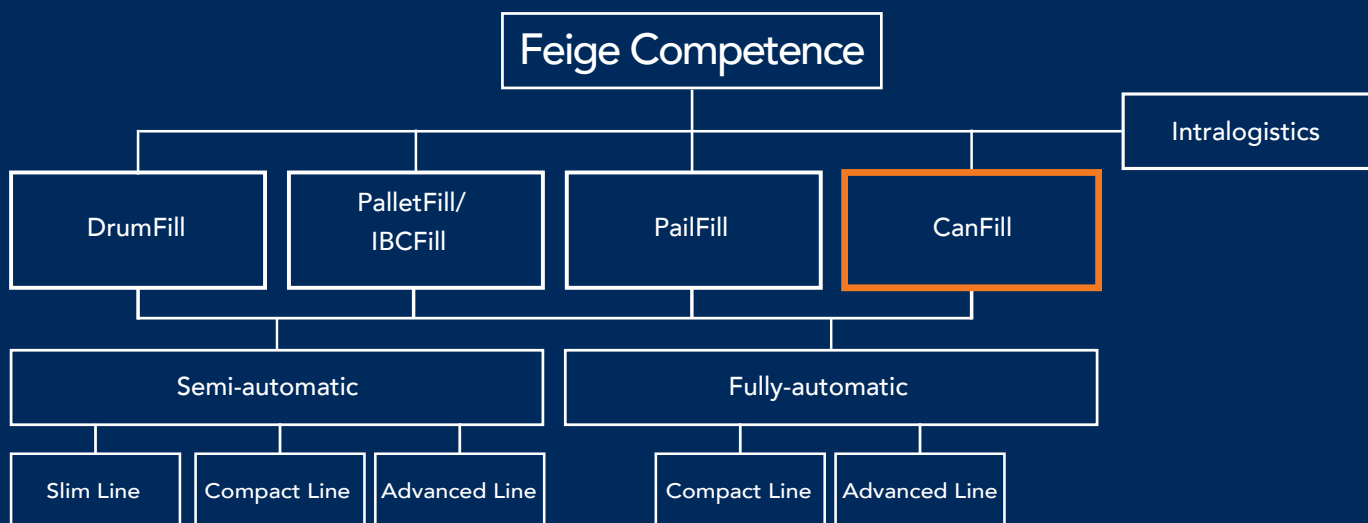
Decades of experience with innovative technology and also considering market requirements guarantee the successful implementation of your requests.

## Let us help you fill your cans

Whenever cans need to be filled, the use of filling equipment is inevitable. Decide for a turnkey filling solution – individually matched to your operating sequences:

- Can filler for individual containers
- Pre-configured can filling stations
- Automatic can filling machines
- Automatic can fillers

At your request, we will deliver a complete turnkey solution comprising everything from the machine-aided unloading of the empty containers from the truck to the palletising of full containers and load securing.





# SAFETY - ACCURACY - FLEXIBILITY

Reproducible accuracy as well as a high degree of safety during product filling are fundamental requirements which have to be met by filling equipment that satisfies the highest quality standards.

Irrespective whether your products are uncritical, foaming, explosive or flammable commodities, FEIGE Filling as specialist for filling equipment will make available appropriate filling technologies. All automatic can fillers have a standardised working principle. Whether individually or arranged on a pallet, the cans reach the automatic filler empty and clean and leave it filled with calibrated accuracy, clean and closed.

Central components of the can filler are filling valve and weigh scale. The filling operation takes place using the time-tested coarse/fine fill process. In order to observe the calibration error limits, it is necessary to restrict the volume flow towards the end of the filling process. This necessitates a two-stage or analogue adjustment of the filling valve opening.

## Filling - always with an eye on safety

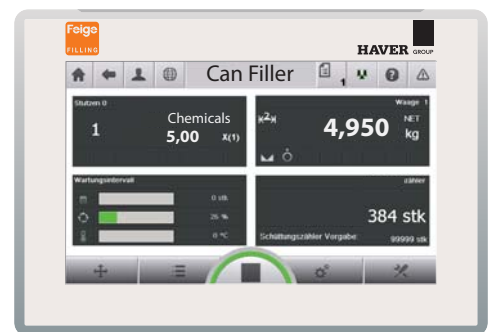
With the FEIGE Filling filling valve, you fill your liquid and viscous products with a proportional or multi-stage dosing system. The filling valve is dimensioned in accordance with your requirements on filling opening, viscosity and volume flow. Resistant materials such as stainless steel, Teflon, Hastelloy, titanium, nickel, PVDF and PTFE guarantee the reliable use of the filling valve. Depending on the area of application, you can also resort to filling valves of hygienic design, heated and with overflow protection. To enable you to change the filling valve within seconds during operation, a stainless steel quick-action filling valve mount is a standard feature.



## Measuring with calibrated accuracy

The FEIGE Filling weigh scale terminal is the heart of the equipment. Measuring the dosed filling volumes with calibrated accuracy is carried out with mass flow meters (minimum filling volume and filling tolerance) or load cells (maximum weight), which are integrated in the filling equipment as a system approved for verification. Safety mechanisms assume the control of all important parameters.

You operate the weigh scale terminal via discrete elements or a touch panel with alphanumeric input. The weigh scale records your operating data, logs the weighing results and puts statistical data at your disposal. The system communicates with your network or outputs the data on a mobile USB flash drive.



## The filling valve



- **Filling valve diameter** according to
  - Filling opening
  - Viscosity
  - Flow rate



- **Aseptic**
- **Minimum dead space**



- **Heated filling valves**



- **Material**
  - Stainless steel
  - Teflon
  - Hastelloy
  - Titanium/Nickel
  - PVDF/ PTFE



- **Multistage dosing**



- **Proportional Dosing**





### Safety Functions

The filling valves are equipped with important safety functions such as:

- Closing / opening with compressed air
- Closing with spring force
- Relieved of product pressure
- Leakage monitoring of the sealing space
- Fill level check
- With minimum dead space

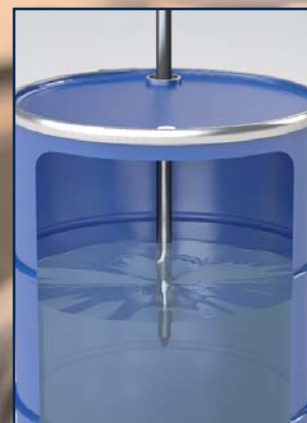
Above-Surface



Below-Bunghole



Below-Surface



## The weigh scale



- 255 product files, expandable



- Protocol of weighing results and statistics



- Alphanumeric entry through prompting



- Storage of operation data



- Label printer  
Protocol printer



- Measuring device  
Load cell  
Mass flow meter

# CONCENTRATED KNOW-HOW IN INTRALOGISTICS

**If you are planning a seamless overall concept of filling equipment with end packaging, palletising, conveying and marking technology, talking with the specialists of FEIGE Filling will certainly be of assistance.**

For more than 40 years, FEIGE Filling has been building automatic packaging systems for liquid and pasty products. Due to the numerous application experiences the engineers have gathered, existing systems are continuously enhanced and always adapted to the latest state-of-the art.

Due to the affiliation with the HAVER Group, the expertise at FEIGE Filling was further enhanced and the services portfolio expanded in synergy. Today, FEIGE Filling supplies you with the entire process technology seamlessly from one source.

## Turnkey complete solutions

In the field of filling, FEIGE Filling will project your complete turnkey equipment for the solution of complex logistic tasks. The equipment required by different industrial sectors for storage, mixing and filling of liquid or pasty products comprises:

- Computer-controlled process control
- Conveyor systems for container transport
- Conveyor systems for pallet feed
- Palletising systems
- Product feed
- Storage facilities for pallets and containers
- Loading facilities
- Cleaning systems
- Marking systems
- Load securing

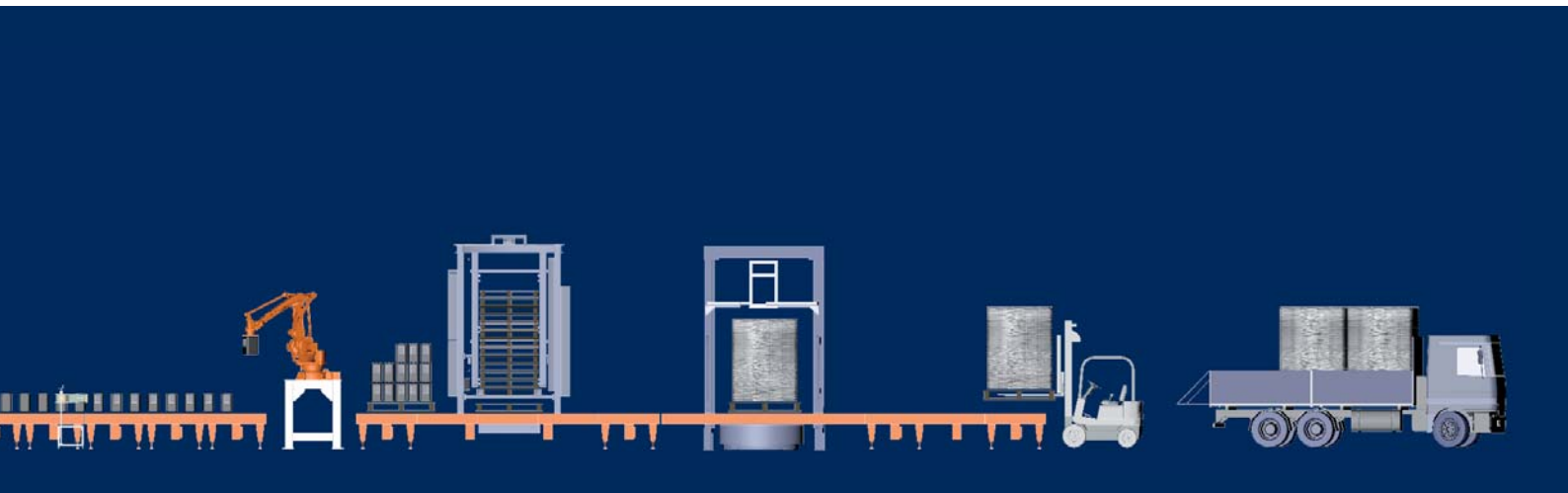
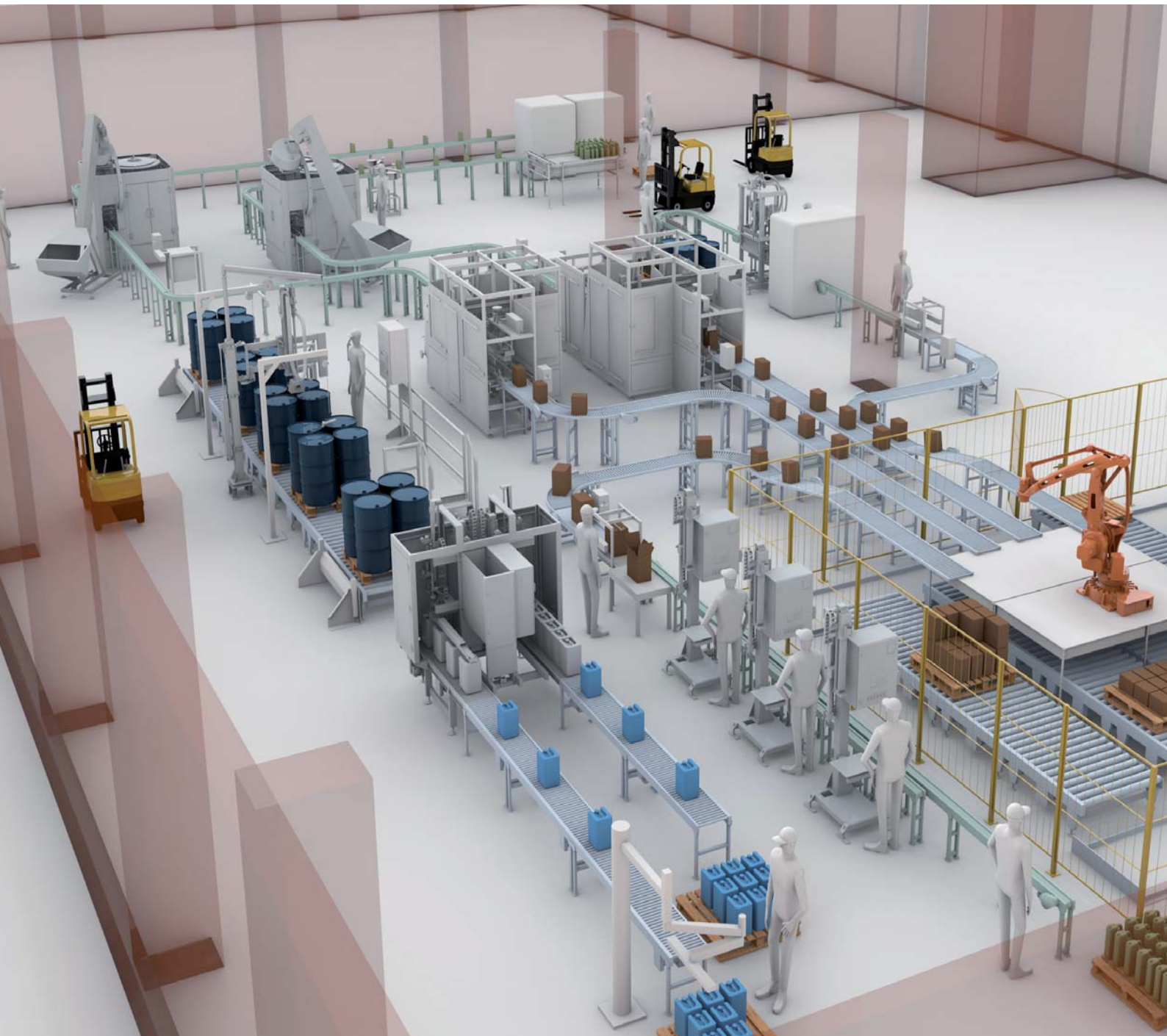
## Innovative factory and system design (FEIGE FACTORY DESIGN)

You would like to look at your new equipment long before it is implemented in your production hall? FEIGE FACTORY DESIGN shows you how. With an accurate, photo-realistic visualisation, you can marvel at your future equipment already before it is assembled. To make this possible, the planned equipment is adapted to the intended environment. Particularities inside the hall, e.g. an old system comprising subsequent extensions and conversions, are recorded by means of a 3D laser scan and taken into consideration.

This new procedure saves you time and costs. Planning is clearly simplified and accelerated. Disruptive ambient conditions are already given consideration during the tendering stage. Tedious drawing work or on-site actions have become superfluous. The accurate and realistic pre-visualisation offers you the perfect basis for a decision.







# VERSATILE SOLUTIONS FOR YOUR REQUIREMENTS

**You decide on the degree of automation. Compile your semi-automatic can filling system according to your individual requirements for the calibrated filling of cans for foaming, combustible or uncritical products from the FEIGE Filling modular system.**

Select the equipment that fits best with your type of filling – from simple “just fill” can filling to the customised filling process. The FEIGE Filling equipment will support you during the entire filling process.

## **Accelerate your filling processes**

The three can filling product lines of FEIGE Filling offer you all the functions of a gravimetric filler, ranging from the reasonably priced product line “Slim Line” and the pre-configured filling station “Compact Line” to the can filling system “Advanced Line” with versatile additional modules.

The systems convince by their ease of operation and installation. Depending on the application, they are also available in mobile designs conforming to ATEX requirements. All main functions of a gravimetric filler are executed in time-tested Feige quality.

You can extend the sturdy basic design of FEIGE Filling filling systems at any time by an extensive selection of important accessories, which integrate further working steps such as discharging the containers, gas extraction and many others.

## **Can filling and further options**

The individual containers are positioned below the filling valve, automatically filled with calibrated accuracy and manually closed. The can filling systems automatically process plastic and metal containers. A stainless steel design is also available for the food industry. Another option is available with the Feige palletising systems. After the filling operation, the filled cans can be palletised. Empty containers that are already palletised prior to filling are consecutively filled on the pallet after the filling valve has been manually positioned over the can’s bunghole. After actuating the start button, the container is automatically tared and filled with calibrated accuracy using the coarse / fine fill process. The necessary auxiliary tools for the correct capping of the cans are made available to you.

SEMI AUTOMATIC  
FILLING







## SLIM LINE

### JUST FILL

- Cost-effective filler
- Designed in well-proven FEIGE quality and accuracy
- Simple installation – easy use

CAN FILLER **TYPE 4**

## COMPACT LINE

### PLUG & FILL

- Pre-configured / pre-assembled compact filling station
- Stainless steel load cells / 255 product parameter sets
- Conveyors with up to three motors

CAN FILLING STATION **TYPE 14**

## ADVANCED LINE

### COMPLEX CONFIGURATION

- Large conveying systems for empty and filled containers
- Filling products or environment require special features

CAN FILLING EQUIPMENT **TYPE 24**

# MODULAR SYSTEM EXTENSIONS

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Ever more demanding customer requirements and just-in-time deliveries involve a high coordination effort and cost pressure for any company.

This is why, starting from a sturdy basic design, the FEIGE Filling equipment offers you a large choice of system extensions to enable you to offer the best solution to your customers. Why not simply grow along with your customers? You determine how you want to start and we will be ready to adapt the extensions for you.

## Increased Productivity

- Valve heating
- Roller conveyor on scale
- Roller conveyor in the in-feed and out-feed area

## Simplified Handling

- Drip scoop
- Drip extraction
- Valve rack
- Fine fill via product file
- Product hose suspension
- Manual capping station



## High Flexibility

- Level controlled ascent
- Filling valve principle and geometry
- Base height adjustment
- Drain funnel
- Product hose
- Valve encoding

## Utmost Reliability

- Reduced fill start
- Inerting
- Earthing
- Gas hood
- Collecting basin
- Overflow protection
- Pressure surges reduction

# HIGHLY INTEGRATED POWERFUL AUTOMATIC CAN

**You want a maximum in performance and availability? And at the same time, you want an automatic can filling system that is open to integrate your individual ideas of transport systems and storage technology? Then FEIGE Filling is the right address for you.**

You can start up the equipment immediately after installation. For an easy and safe handling, the menu-guided system control via touch panel will provide you with information about all operating modes and possible error messages of the equipment. During the filling operation, the work stations positioning, opening, pre-filling and final filling as well as closing are passed through in the fully equipped automatic machines. Depending on the equipment, the cans can be fed open, with screw cap or with dust cap and after filling be closed with a push-in cap or a screw cap.

## Automatically filled can

Pre-configured and pre-installed compact can filling systems can be selected from two different product lines. These automatic systems are equipped with specific characteristics to handle specific filling products or special types of environment according to your requirements.

The Compact Line can fillers as highly integrated powerful automatic machines are designed for the ergonomic operation by one operator. To increase the performance, the automatic can filler can at any time be supplemented by a can filling station, cap and plug sorting pot or by a palletising aid or palletising robot.

It goes without saying that all subsidiary work steps such as marking, labelling, printing, inerting and leakage tests can be integrated into the automatic operating sequence.

## Versatile options

The Advanced Line is characterised by a multitude of functions which leave nothing to be desired. The integrated push-bar chain conveyor, which transports the containers in cycled operation and with millimetric accuracy underneath the work stations, takes up a central function.

All container and filling parameters can be centrally set via a central touch panel with integrated scale display. This is also optionally used for communication and data exchange with control systems provided by the customer.

An appealing safety casing rounds off the compact design of the automatic machine. It can also be used with highest operating safety in potentially explosive atmospheres and considerably improves the efficiency during the production process.

## Turnkey - filling logistics







## COMPACT LINE

### PLUG & FILL

- Pre-configured / pre-assembled compact filling machines
- Operated via touch screen

### AUTOMATIC CAN FILLING MACHINE **TYPE 64**

De-capping and dust cap removal  
Pre- and final filling and capping

## ADVANCED LINE

### COMPLEX CONFIGURATION

- Large conveying systems for empty and filled containers
- Operated via touch screen
- Filling products or environment require special features

### AUTOMATIC CAN FILLER **TYPE 600**

Automatic opening , pre- and final filling and capping  
Up to 4 filling units

# HIGH QUALITY AND RELIABILITY

## Closing cans with a reliable process

The high standards required by occupational health and safety and environmental protection require a correct closing of the containers. The FEIGE Filling capper supports you with the precise and reliable capping of the cans with defined torques for a tight closing of the containers.

The capper increases safety and accelerates the closing operation of your cans. Screw caps are separately fed to the capper. The capping head picks up the cap and closes the can. The lowering pressure and the torque of the capper can be set to the required values. Screwing torque and capping time are monitored and ensure a safe closing of cans.

## Accurate feed of caps

Before the cans are closed with screw caps or plugs, it is necessary to feed them separately to the bunging head. A tool which contributes to a further automation of the process is also available for this work step.

## Ensuring no precious drop is wasted

For a leakage-free closing of tin cans, plugs are also frequently used. To safely close your cans with plugs, you can use the FEIGE Filling plug presser. After plug separation, the suction cup picks up a plug, moves across the outlet opening of the can and puts down the plug. Afterwards, the loosely applied plug is firmly pushed in with the punch.

## Torque monitoring of the screw caps

The correct and secure bunging of containers is one of the most important topics when it comes to automatic filling. The FEIGE torque monitoring unit checks the specified container or plug-dependent target torques. In order to do so, the torque achieved during the bunging procedure is continuously determined by a force sensor and monitored by the control system.

Evaluating the measurement curve makes it possible to reliably determine any faults such as missing bung-hole seal or plugs getting wedged. The data thus determined can be fed back to a PCS (production control system) for statistical evaluation. In case of a fault, a container that has not been closed according to the specifications can be rejected.

Sorting pot







# INTELLIGENT SYSTEM EXTENSION

Cost effectiveness and a high degree of protection for your filled products remain fundamental requirements placed on filling that is to meet the highest quality standards. With the automatic can fillers from FEIGE you have at your disposal a broad range of machines, which you can adapt to your specific requirements with individual extensions.

FEIGE automatic filling equipment complies with the latest state of the art and is ideal for filling liquid and pasty products.

The result: Highest filling output and optimised process control. Make use of the highest degree of flexibility, thus taking your production to the highest possible degree of productivity.

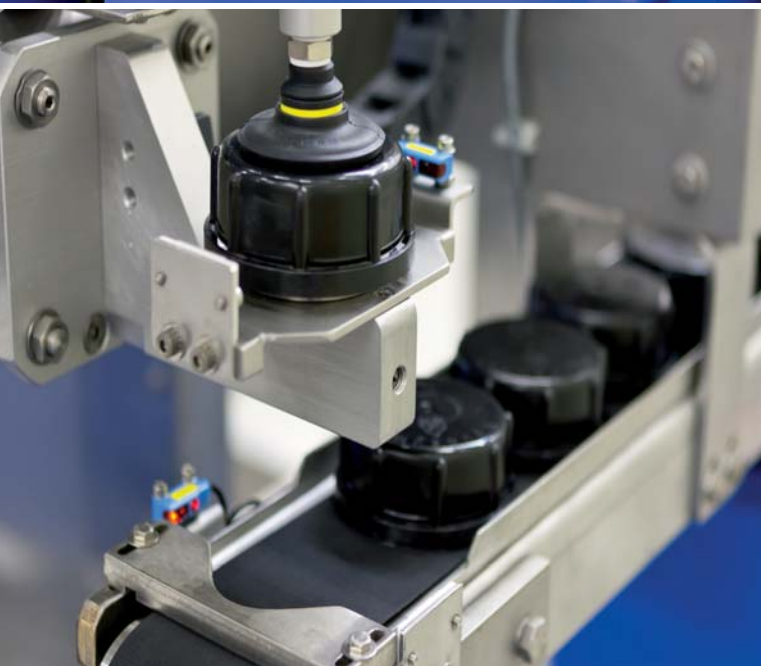
## Clean

- Level controlled ascent
- Drip scoop
- Drip extraction
- Cleaning station

## Flexible

- Valve heating
- Filling principle and geometry
- Base height adjustment
- Product hose
- Product hose suspension
- Valve rack
- Valve encoding





## Safe

- Reduced fill start
- Inerting
- Earthing
- Pressure surges reduction
- Gas hood
- Collecting basin
- Overflow protection

## Efficient

- Touch panel
- Fine fill via product file
- Roller conveyor on scale
- Roller conveyor in the in-feed and out-feed area
- Manual capping station

# SAFETY AND COST EFFECTIVENESS FOR YOUR EQUIPMENT

Resort to a competent and friendly service team to ensure that the reliability and precision of your FEIGE Filling system are retained at all times.

## Your partner for all circumstances

You are at the centre of all our considerations! We will support you as a partner at any time. An individual service package covers your requirements from straight-forward service intervals to a complete "no care" package.

Make use of our know-how, our consulting skills and our experience to keep your equipment's availability at the highest level.

Whether hotline, teleservice, training, calibration, equipment inspection and maintenance, troubleshooting service, spare part service or equipment extension and optimisation, committed and imaginative employees will offer you efficient and individual solutions combined with the know-how of experienced specialists.

We will take good care of your equipment!

# 24/7

## 24-hour hotline

Phone: +49 (0) 4531 - 8909-222

E-mail: [hotline@feige.com](mailto:hotline@feige.com)



## Teleservice

Dial-up access to your equipment control system via modem or Internet connection for trouble-shooting and diagnosis.



## Equipment inspection

Detailed status report for your equipment with function test.



## Equipment maintenance

Any measures to retain the required condition of your equipment with logging.



## Spare part service

Prompt and optimum supply of your equipment with any wear and spare parts required.





## Training

Certified training courses on your own equipment or at our plant.



## Equipment optimisation

Adaptation and/or extension of your equipment to new requirements in your company.



## Equipment testing

Support with recurring tests in spect of equipment safety and with calibration.

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