Your product is our only concern

Rotary-type cup fillers

GRUNWALD®
Dosing · Filling · Packing
Pure technology is available from many companies but not the experience behind it. GRUNWALD have been a reliable partner in dosing, filling and packing for several decades. Today our filling machinery is used all over the world by the food producing industry, delicatessen industry, meat processing industry, ready-meal producers and the cosmetics industry.

We do everything we can to help you give your product the best reception in the marketplace. Many years experience with a large variety of products, container shapes and lid types makes it possible to develop innovative, individual, flexible and reliable machinery. This guarantees production reliability, easy operation and changeover, giving the maximum speed and flexibility for your products.

Flexibility, speed, value for money, short delivery times and prompt, reliable customer service result in long-lasting partnerships with all of our customers.

Perfect presentation and mouth-watering taste will make your product a bestseller. We understand this and we do all we can to help you achieve it.

It is a fact that to keep your product as delicious as it was when it was made, the appropriate technology is required. This is one of our key strengths.

Different designs of filler guarantee weight-accurate, non-drip filling and thus the best possible presentation of your products.
This compact filling machine combines a maximum of flexibility with outstanding value for money.

The HITTPAC AKH-019 is a rotary machine with a proven, reliable design. The special features of this machine are its easy operation and rapid changeover to different products and packing materials.

This model is available in several versions:
- “R” with electronic cam control
- “S” with PLC control
- “RE” and “SE” with an extended basic frame, and
- “SEP” with an integrated packer which was especially developed for dairies.

The HITTPAC AKH-019 is also suitable for filling cleaning agents and beauty products in cups and buckets (with or without handle).

**HITTPAC AKH-019R**
Dimensions: 1,000 x 1,000 mm
1- and 2-lane versions
Approximately 2,500 – 5,000 cups/h
Dosing range: 10 – 1,200 ml

**HITTPAC AKH-019S**
Dimensions: 1,200 x 1,200 mm
1- to 3-lane versions
Approximately 2,500 – 7,500 cups/h
Dosing range: 10 – 2,000 ml

**HITTPAC AKH-019RE**
**HITTPAC AKH-019SE**
Dimensions: 1,200 x 1,200 mm
1- to 3-lane versions
Approximately 2,500 – 7,500 cups/h
Dosing range: 10 – 2,000 ml

**HITTPAC AKH-019SEP**
with integrated packer. A single processor controls both – the cup filler and the packer.

**HITTPAC AKH-019SEP**
Dimensions: 2,000 x 4,000 mm
1- and 2-lane versions
Approximately 2,000 – 4,000 cups/h
Dosing range: 100 – 600 ml
HITTPAC AKH-059

Our versatile machine

This versatile rotary machine combines great flexibility and high speed with an attractive price.

The HITTPAC AKH-059 is the biggest machine of the successful model range HITTPAC and shares its proven, reliable design which gives easy operation and rapid change-over to different products and packing materials.

Due to the size of the machine frame the HITTPAC AKH-059 offers sufficient space for many different stations and thus extends the possibilities available to you.

This machine can also be equipped with, for example, a packing material sterilisation system.

HITTPAC AKH-059
Dimensions: 1,750 x 1,750 mm
1- to 4-lane version
Approximately 2,500 – 10,000 cups/h
Dosing range: 10 – 2,000 ml

Sealing station for reel-fed film
Optionally with the possibility of evacuation and gas injection.

Due to the sliding frame a format changeover can be carried out rapidly without any tools.

The HITTPAC AKH-059VG offers evacuation and gas injection up to 0.1 bar (MAP). The production speed varies depending on the required residual oxygen value within the cup. An integrated lid setter is also available.
Innovative and flexible, the **ROTARY** machine offers both reliability and performance.

The concept of **GRUNWALD-ROTARY** has been a continued success story. Our customers at home and abroad successfully use this rotary machine in multi-shift operation to generate an excellent return on their investment.

The **ROTARY** model range is a product flexible cup filler and the basic model is already in full servo design.

We are constantly developing this rotary filler, using our innovative ideas, technical knowledge and real-world experience. We build individual machines with various specially-designed stations based upon this **ROTARY** chassis in response to individual customer’s requirements and ideas.

**ROTARY 6.000**
- Dimensions: 1,500 x 1,500 mm
- 1- to 4-lane versions
- Approximately 3,000 – 12,000 cups/h
- Dosing range: 10 – 2,000 ml

**ROTARY 6.000**
- 2-lane machine
- with laminar cabin (with HEPA filter)

**ROTARY 6.000**
- Rotary table with quick-change system
  - for a quick format changeover without any tools
- with automatic cup storage and angled snap-on lid magazine
ROTARY 12.000 and 20.000

Our high-capacity machines

These machines are the flagships of the GRUNWALD ROTARY range, and like all of our rotary machines their design is based upon a set of well-proven design concepts.

Their innovative hygienic design, with the minimum number of separate parts in the working area, all without edges and corners, guarantees easy and quick cleaning.

Special features which should also be emphasised are good working access as well as a low, operator-friendly working height. Even at speeds of more than 50 cycles per minute, the ROTARY machines are incredibly smooth and efficient in operation.

Maximum availability is guaranteed by short product and format changeover times. All this can be achieved by our cost effective machines.

ROTARY 12.000
Dimensions: 2,000 x 2,000 mm
2- to 6-lane versions
Approximately 6,000 – 18,000 cups/h
Dosing range: 10 – 2,000 ml

ROTARY 20.000
Dimensions: 2,300 x 2,300 mm
4- to 6-lane versions
Approximately 12,000 – 18,000 cups/h depending on product and packaging material
2 x 3-lane up to 2 x 4-lane versions
Approximately 15,000 – 20,000 cups/h depending on product and packaging material
Dosing range: 10 – 1,000 ml

ROTARY 12.000
4-lane machine
with agitator in the hopper

ROTARY 12.000
3-lane machine
with laminar cabin
(with HEPA filter)

ROTARY 20.000
4-lane machine
with laminar cabin
(with HEPA filter)
and packing material sterilisation by means of double pulsed UV(C) high-performance radiator.
Guaranteed sterilisation rate: LOD 4 – at full cycle speed

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4- to 6-lane versions
Approximately 12,000 – 18,000 cups/h depending on product and packaging material
2 x 3-lane up to 2 x 4-lane versions
Approximately 15,000 – 20,000 cups/h depending on product and packaging material
Dosing range: 10 – 1,000 ml

GRUNWALD
Depending on the cycle speed and the de-nest height, the standard storage time for cups and lids is 3 - 5 minutes.

In order to extend the storage time there are the following options:

• angled or curved magazines normally give a storage time of 5 - 10 minutes
• fully-automatic conveyor-based storage stations for both cups and lids normally give a storage time of up to 20 minutes (see photo)

The use of a cup indexing station offers maximum flexibility. If you have small batches, or products which cannot be filled in fully-automatic operation, such as antipasti products, then pre-filled cups can be loaded into the rotary table tooling and liquids can be post-filled by means of a piston filler.

When filling pumpable products the indexing station can be quickly exchanged for a standard cup setter. Thus empty cups can be automatically de-nested from the magazine as normal and can then be filled and closed.
Depending on the requirements, rotary-type GRUNWALD machines can be equipped with between 1 and 3 piston fillers, and optionally with dosing systems for handling products which are non-pumpable. The following dosing systems for various types of product can be integrated into GRUNWALD rotary machines:

- multi-head weighers
- chamber fillers
- vibratory fillers
- auger fillers

All dosing systems can be equipped with a downstream checkweigher or an integrated inline weigher with tendency control. If the product density fluctuates, then dosing volume is re-adjusted fully automatically.

**Inline weighing**

Cups are lifted and weighed by electronic weighing cells directly after the main filling station. The inline weigher immediately assesses the weight of the cups and automatically adjusts the fill volume according to the average weight, thus reducing the number of incorrect cups as well as keeping the standard deviation to a minimum.

This inline weighing system can be used with very high cycle speeds of up to 50 cycles per minute.

Using a reject station for faulty cups, any under- or overweight cups are automatically rejected at the outfeed conveyor area.

The mobile dosing systems from GRUNWALD are suitable for pumpable products and products which are able to trickle.

The dosing system MOBIFILL is especially suitable for a quick product change. For this purpose, the complete dosing system is exchanged for the next, already cleaned and filled dosing system. The dosing systems are connected and disconnected without tools without much effort. Due to the complete exchange of the dosing system with all product contact parts, the GRUNWALD filling machine will be allergen-free within less than 5 minutes.

The disconnectable dosing systems are cleaned independently of the filling machine. Alternately with further mobile dosing systems, the cleaning can take place during production and therefore outside the production room.

All product-specific settings of the dosing systems used are stored in the control of the cup filling machine. Therefore several identical dosing systems can be used rotationally without readjustments.

Dosing ranges: 20 ml – 1,900 ml, depending on the design of the filler.

Available in 2- to 6-lane versions.
Operator convenience

The standard equipment on all GRUNWALD cup filling machines (except for the HITTPAC AKH-019) includes a 250 mm infrared colour message display. The screen is made of scratch resistant laminated safety glass which makes it much more durable than conventional resistive message displays. The clear design offers excellent levels of operator clarity.

The HITTPAC AKH-019 is equipped with a conventional 145 mm resistive colour message display.

Recording of production data

Production data acquisition system "McDat" (option)

To help improve the productivity of filling and packing machines all machine production data can be recorded for analysis using the "McDat" system, thus allowing improvements and adjustments to be carefully targeted where they will have the most affect.

The "McDat" continuously operates in the background automatically collecting data. This can then be evaluated on the Touchpanel or on an external PC via Ethernet connection.
To solve the most difficult tasks requires continuous innovation from our designers, programmers and development engineers. Forward thinking and customer focused innovation are the keys for a successful machine concept. The best customised solutions arise from first consulting with our customers to ensure that we fully understand their requirements.

GRUNWALD cup filling machines not only succeed because of their durable and sophisticated design, but also by the range of optional equipment that is available and their versatile modular drive technology.

Drive
- pneumatic – for auxiliary functions
- mechanical – step-by-step cam-driven motion
- electronic – servo drive

Format changeover
- fully-automatic height adjustment
- rapid format changeover system without tools to guarantee a changeover time of between 5 and 10 minutes
- movable stations - format parts do not have to be changed

Extended storage stations for cups and lids
- curved, extended magazine rods for cups and snap-on lids
- fully-automatic storage systems for cups and snap-on lids giving a storage time of 10 - 20 minutes

Miscellaneous
- leak test station
- inline checkweigher
- reject station for leaky or underweight cups

Types of lidding
- Sealing of aluminium/plastic
- Sealing of aluminium/aluminium
- Sealing of aluminium/glass
- Sealing of plastic/plastic - pre-cut or reel-fed
- Snap-on lid

Sealing technology
- Pneumatic heat sealing
- Mechanical heat sealing
- Servo-driven heat sealing
- Hydraulic heat sealing
- Ultrasonic sealing

Cleaning
- Manual cleaning
- Intermediate cleaning
- CIP
- SIP

Hygiene
- Laminar airflow
- Sterile air covers
- Cup and lid sterilisation using a mixture of steam and hydrogen peroxide
- Cup and lid sterilisation with pulsed UV(C) high-performance radiator

Electric components
- Modern electronic processor control with operator guidance via a graphical message display
- Electronic cam control with dwell time compensation
- Automatic batch start-up and completion programme
- Remote fault diagnosis via internet (or modem)
- Production data acquisition system McDat
- Transfer of production data via OPC server

Rotary-type machines
- ROTARY
- HITTPAC

Inline machines
- FOODLINER
- FOODLINER UC (ultra clean)
- FLEXLINER
- FLEXLINER UC (ultra clean)

Bucket Filler
- FLEXLINER XL
- HITTPAC XL
- ROTARY XL
- ROTARY XXL

Dosing machines
- SERVODOS
- MOBIFILL
- MEGADOS
- SEMIDOS

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