Packaging machines
for your cosmetic products
Only experts master future technologies
Challenges? That’s what we like.

Innovative packaging machines demand a high level of specialization. Optima meets this requirement with innovative concepts for the development and manufacture of branch-oriented systems in its four areas of Consumer, Nonwovens, Pharma and Life Science. Continuous growth has characterized this family business since it was established in 1922. With more than 1,700 employees worldwide, Optima has deliberately chosen to maintain flexibility and customer focus as central principles.

Day after day, unimaginable quantities of food, cosmetics and chemical products are dosed, filled and packed. Many of them with machines from Optima Consumer and this for several reasons: machine flexibility, high output rates, product protection and process assurance are prime advantages. From starter models to complete lines, including some with handling and assembly functions.

Optima Consumer offers everything that makes dosing, filling and packaging easier, safer and even more economical. Optima Consumer machines are also continuously optimized with respect to the total cost of ownership. Thus they require only a minimum of service, wear and tear and replacement parts while offering long-term high performance and precise and consistent weighing results.
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Filling, closing and cartoning
for your product diversity

Packaging technologies for your flexible production

The world today is constantly changing and every day there are innovations on the market. These can be new perfumes, creams, gels, mascara or lip-gloss: Diversity of products has never been a problem for Optima Consumer filling and closing machines. Products expand and evolve and so does their packaging. We offer innovative technologies for liquid and viscous fluids and meet all the challenges with new ideas and technical refinements. One result can already be seen today: A complete program for dosing, filling and closing, including the assembly of complex packaging with turnkey line solutions.

**Product characteristics**
- Liquid
- Pasty
- Powdery

**Packaging types**
- primary:
  - Glass
  - Plastic
  - PET
  - Standing containers
  - Containers that do not stand alone
- secondary:
  - Cartons, folding boxes
  - T-liners
  - Leaflets / booklets

**Closures**
- Screw closures
- Press-on closures
- Crimp / crimpless closures
- Brushes
- Trigger pumps
- Pump closures with dip tube
- Drop or spray inserts
- Aluminium or plastic sealing foils
- Lids
- Collars

**Machine types**
- Laboratory machines
- Pilot systems
- Semi and fully automatic machines
- Monoblock machines (filling, closing and labeling on one machine)
- Packaging systems for portion packs
- Complete turnkey lines
The right solution for every requirement

The processes

- Transport
- Unscrambling
- Sorting
- Cleaning
- Filling
- Closing
- Labeling
- Cartoning
- Palletizing / Depalletizing

mg – kg
ml – l
End of Line
In the manufacture and packaging of cosmetics such as mascara, lip-gloss, cosmetic sticks, make-up or nail varnish there are a number of obstacles to overcome. Rational and hygienic processing of mostly sensitive and yet pasty products are in demand.

High pressure and shearing forces can quickly have a negative effect on the quality of a product. A filling solution must take both factors into account. To present, this fact paired with the pasty product characteristics limited the output of the filling machines – or the quality of the product was endangered. At the same time the cleaning characteristics of a filling unit are an important criterion for in-plant practice. Optima Consumer cosmetics filling systems provide a convincing solution for these requirements.

In the matter of hair care and styling, it is a daily challenge to have products on hand that convince you right from the start. Value is placed on “Color & Care” in order to care for the hair and protect the color from fading and washing out. Skincare is also important and for this reason many hair care and styling products use the latest technologies and the qualitative best components.

Numerous variations come up which require frequent product changes. Optima Consumer has the ideal solution for handling your products in this situation. You can rely on the specialists for all matters relating to cleaning, filling, closing, labeling and cartoning. Our machine solutions implement your innovative ideas and concepts rationally, efficiently and with space savings.
Well-groomed every day

- From liquid to granulated products: Creams, lotions, gels, dental care products, deodorants, bath salts

New trends regularly affect the market for cosmetics – for example, exotic and esthetic shapes in containers for creams, lotions, gels, shampooos or bath salts are essential features.

Filling and packaging of such products are thus subject to their own laws. Cosmetics manufacturers look out for the greatest possible flexibility of their capital goods. Optima Consumer is well aware of this aspect and offers the best possible technical solutions for the composition of filling and packaging processes such as e.g. automatic format changes or series function modules.

Wish for individual fragrance?

- Liquid products: Perfume, body spray, after-shave

Not only beauty and sensuality belong to the cosmetics branch but also more individuality. Thus, an enormous variety of perfumes are offered, whether noble or sporty brands and together with numerous large and small fashion labels, “classics” as well as “celebrity fragrances” often produced in small series.

One can also go a further step forward. Why not create one’s own personal perfume? Contents and fragrance, flacon, closure, lettering and packaging can all be almost freely selected. The machine solution for this “batch size 1” has already been put into practice successfully by Optima Consumer.
Complete handling
from object feed to cleaning

Transport, unscrambling, sorting and cleaning

With a broad spectrum of line components and innovative engineering, Optima Consumer presents high performance machine solutions for many processing steps. For example, manipulators, rotary tables, disc sorters, supply bunkers, linear feed belts/rails, vibratory sorters, conveyors, labeling machines and robots.

Transport

- Different movements and speeds on a transport system are possible with SRS Speed Rail System
- Belt systems according to the latest cGMP aspects
- Transport possible in pucks (workpiece carriers)
- Clamp belt feeders

Handling

- Unscrambling
- Sorting via disc sorters or vibratory sorters
- Feeding
- Individual solutions for rotary tables, buffer tables and discharge tables
- Insertion into pucks
- Placing on the transport belt
- Optical controls
- Bunker with elevator
- up to 250 containers/min.

Figure shows an example:
Conveyor

Figure shows an example:
Disc sorter FA
Handling with robot technology

- Multiple uses
- Quick and easy format change
- New formats – no problem!
- Product supply as bulk goods /in trays or cartons
- Optical controls

One regulating unit, four possibilities
Up to 80 products per minute can be processed per robot unit with two, four or six axes. It is often necessary to bring containers carefully, rationally and faultlessly into the automated packaging process even though these were supplied on trays in variable and undefined positions. Optima Consumer robot solutions provide the perfect basis to reduce the error potential, thus decreasing product rejection rate towards zero.

Cleaning

- Air rinsing and extraction
- Modules for integration in existing machine solutions
- Objects can be cleaned in all positions
**Filling techniques**
One goal, various solution possibilities

**Linear fillers**

Our **linear filling machines** can be supplied for many output ranges and with various dosing systems. Operational modes include intermittent, continuous or with cross transfer.

1 – 32 filling points

**Dosing systems:**
Rotary piston pumps, piston pumps with rotary valve, peristaltic pumps, magnetic-inductive flow metering system, mass flow metering system, powder dosing units

**Technical details:**
- Container height: up to 300 mm
- Container size: up to Ø 100 mm
- Volume: up to 1,000 ml / 250 g
- Output: up to 350 pieces/min.

**Rotary fillers**

Needs change daily and our machines change based on the needs. The flexible construction of our **intermittent or continuous operation rotary fillers** allows process stations to be integrated in any position as required. With this concept, virtually all requirements and special wishes can be accommodated.

1 – 20 filling points

**Dosing systems:**
Rotary piston pumps, piston pumps, magnetic-inductive flow metering system, mass flow metering system, powder dosing units

**Technical details:**
- Container height: up to 250 mm
- Container size: up to Ø 100 mm
- Volume: up to 1,000 ml / 250 g
- Output: up to 300 pieces/min.
Modular concepts

Today liquid, tomorrow powder, the next day paste. Our modular filling machines grow and change in accordance with needs: Liquid, pasty or powdery products can be dosed by means of the appropriate modules. On the basis of a modular grid a great variety of functions can be added or removed as desired in this machine system which is composed of basic module and function modules. Retrofit expansion or exchange of the dosing unit is of course possible with minimum effort and expense.

1 – 12 filling points

Dosing systems:
Rotary piston pumps, piston pumps, magnetic-inductive flow metering system, mass flow metering system, powder dosing units

Technical details:
- Container height: up to 200 mm
- Container size: up to Ø 100 mm
- Volume: up to 1,000 ml / 250 g
- Output: up to 200 pieces/min.

Characteristics
- Product supply via product hopper, pressure vessel with spray ball, pressure barrel or other supply systems
- Automatic cleaning (CIP - Clean in Place) and sterilizing (SIP - Sterilization in Place)
- Integrated reject
- Product contact parts can be dismantled or completely removed via a trolley system
- Explosion-protected execution

This is what matters
- Quick and easy format change
- Top dosing precision
- Compact and easily accessible construction
- Dosing quantity can be stored as preset value
- cGMP guidelines and all globally valid standards are complied with
- All important parts are made of corrosion resistant materials and allow simple, thorough cleaning and care
Closing techniques
All variants are possible

up to 350 containers/min.

Figure shows an example:
Flexocap

**Technical details**
- Package height: up to 300 mm
- Package size: up to Ø 100 mm
- Output: up to 350 pieces/min.

**This is what matters**
- Compact construction
- Quick and easy format change
- Easy to clean
Types of closures

- Stoppers
- Droppers
- Reducers
- Spray pumps with dip tube
- Brushes
- Screw caps
- Crimp closures
- Press-on closures
- Pipettes
- Aluminium or plastic films for temperature or induction sealing
- Other special closures

Characteristics

- Linear or continuous operation
- Inserting or press-on station
- Capping station
- Control station
- Eject, further transport via conveyor
- Integrated reject for non-conforming products
- Sorting with rotary table, vibratory sorter or disc sorter
- Safe cap transfer via distribution star wheel and Pick-and-Place system
- Foil punching
- Foil placing, tack-welding and sealing
Labeling

Optima is your contact partner for all your labeling solutions beyond the standard possibilities. Whether installed in an existing machine or as a separate machine we offer the right solution.

Cartoning

For perfect sales packages
The cartoners are equipped with innovative devices for smooth and gentle processing of even highly sensitive products such as high gloss cartons. With supplementary functions such as coding, insertion of leaflets and control of work steps, the cartoners are designed to meet all individual customer needs.

Figure shows an example: CMF
This is what matters

- Innovative processing of non-standard containers
- Know-how in product handling far beyond labeling standards
- Very space-saving through the possibility of integration into existing machines
- Control optimization

Technical details

- Output: up to 200 pieces/min.

This is what matters

- Innovative processing of special folding boxes e.g. with slanted tuck-in closure
- Swivel-mounted transport unit enables horizontal or vertical filling of folding boxes
- Gentle product handling
- Simple and quick format change with IVO counter

Technical details

- Box size: up to 120 x 120 x 200 mm
- Output: up to 200 pieces/min.
Functional Closures
Closures with additional function(s)

1 – 100 ml

50 – 240 packaging/min.

This is what matters

- Modular machine construction enables flexible adjustment to the wide variety of product requirements
- Ongoing automatic process
- Each process step is fully monitored
- Simple to operate
- Excellent access
- High machine efficiency
- Leakage test to check if the closure provides optimum protection for the product
- Combining process modules with electric and pneumatic control systems to form a compact unit guarantees short commissioning times.
Functional Closures - Closures with additional function(s)

With modular designed filling and assembly machines Optima Consumer provides solutions for closures with additional functionalities. Several machine functions can be integrated: Dosing system for contents, sorting and assembly of the various components and in addition control functions for the leak tightness of the closure. Particularly important for the closure’s reliability is the accuracy of the manufacturing process.

This is how it works:
With activation of the Functional Closures - also called Ingredient Release or Dispensing Closures - liquid or dry contents are automatically released into the container. Functional Closures are applicable for example, for hair coloration products, to achieve a longer shelf life in the closure and can be safely dosed. Further applications are possible for food items, chemical products or OTC.

Processes
- Sorting
- Transport
- Dosing (dry and liquid)
- Foil sealing
- 100% leak tightness check for all seals
- Mounting of various components
- Coding
Your product in the bag
Intelligent solutions for a multitude of applications

Bag in Box

Inline Production

This is what matters

- Inline pre and post processing
- Linear, one line or multi-lane projects
- Format changeover times of less than a minute due to interchangeable filling systems
- Fully automatic CIP cleaning

Figure shows an example: OPTIMA BiBM
Liquid in bag

A new packaging form, in the next trend. The applications for bag or refill packs for concentrates, liquid soaps, shampoos and lotions are diverse.

Optima offers individual solutions for dosing, closing and secondary packaging processes for liquids and viscous products.

Processes

- Bag production or bag feed
- Bag labeling on both sides
- Leak detection
- Filling station with mass flow and inductive dosing systems
- Ventilation facility
- Closing station
- Placing into pucks or cartons
Service = Security

With the acquisition of an Optima machine all the benefits of a long-term partnership are united. For example, regular maintenance by the experts of our globally available service network minimizes the risk of machine downtime. Optima emergency service is available to customers around the clock in person, via tele-service and online.

Perfect service needs an extensive spare parts warehouse. Our proven logistics system guarantees that the replacement parts reach you in the shortest possible time. Original replacement parts are of course in Optima quality.

We also offer you an extensive selection of format parts that enable you to respond flexibly to market changes. In particular, components and modules such as manipulators, robots and line automation, sorting modules and conveying systems are available.

Service begins when the machines are taken into operation. Individual training concepts lead to confident handling of the user friendly technology. A further aspect is that it is not always necessary to invest in new machine systems. Innovative machine upgrades and individual conversion packages from Optima bring your machines up to the latest state of technology.

Consulting, development and integration of various systems to ensure faultless filling and packaging processes e.g. SCADA systems, line monitoring, track & trace solutions or optical inspection systems all belong to our daily business.
Your contact partner
We are at your service

Our Service Team is at your disposal!

Our hours of business:
Monday – Friday
7:00 am – 5:00 pm (CET)

We can also be contacted on our Service-Hotline 24 hours a day:
+ 49 7333 808-133

Contact our worldwide subsidiaries and service support centers.

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An overview of OPTIMA consumer

Packaging machines for your chemical products
- Pesticides and fertilizers - dry & liquid
- Washing and cleaning agents - dry & liquid
- Refined products

Packaging machines for your food products
- Instant products
- Soups & Sauces / Spices - dry and liquid
- Concentrates

OPTIMA - Excellence in Packaging
- Milestones
- Globally active, close to the customer
- Service global
- Nonwovens
- Consumer
- Pharma
- Life science

Service worldwide – A Comprehensive Service Program
- Start up
- Produce
- Maximizing availability
- Optimize
- Develop further

Semi-automatic machines
- Auger dosing feeders
- Filling and weighing machines
- Liquid filling
- Closers

We will be pleased to send you further information.
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