



Sweet Engineering

Production lines and equipment of the highest quality

www.lekos.sk

LEKOS
CONFECTIONERY MACHINES

Content

This family company was established in 1994 by team of engineers and technologists with rich experiences, coming from years of practice in confectionery. During 20 years of history, Lekos became important and stable partner of many significant confectionery producers, especially in Middle and Eastern Europe.

Our success is based only on our work and satisfaction of our customers. From small garage, to factory with over 4 000 m² of production area without any promotion on prestige international fairs or in media, we think it says all.

Since the establishment of the company we have been dealing only with design, manufacturing, installations and renovations of specialized machines and equipment not only for confectionery, but for bakery products too. All projects have been and still are made to measure, according to the specific necessities and requirements of every customer. Small group of people in charge of company allows us to react flexibly and be flexible in all project phases. We have our own designers and engineers, machine technologists, confectionery technologists and now, our own testing centre. All these workplaces have the most sophisticated equipment with newest software and other necessary equipment. Whole process from design, through manufacturing, assembling, pre-shipment testing and packing is centralized and monitored.

About company

LEKOS DESIGNS AND MANUFACTURES SPECIAL MACHINES AND EQUIPMENT FOR FOOD INDUSTRY, ESPECIALLY ORIENTED FOR CONFECTIONERY AND BAKERY PRODUCTION.



This family company was established in 1994 by team of engineers and technologists with rich experiences, coming from years of practice in confectionery. During 20 years of history, Lekos became important and stable partner of many significant confectionery producers, especially in Middle and Eastern Europe.

Our success is based only on our work and satisfaction of our customers. From small garage, to factory with over 4 000 m² of production area without any promotion on prestige international fairs or in media, we think it says all.

Since the establishment of the company we have been dealing only with design, manufacturing, installations and renovations of specialized machines and equipment not only for confectionery, but for bakery products too. All projects have been and still are made to measure, according to the specific necessities and requirements of every customer. Small group of people in charge of company allows us to react flexibly and be flexible in all project phases. We have our own designers and engineers, machine technologists, confectionery technologists and now, our own testing centre. All these workplaces have the most sophisticated equipment with newest software and other necessary equipment. Whole process from design, through manufacturing, assembling, pre-shipment testing and packing is centralized and monitored.

Currently, we're offering our solutions and services especially in the form of chocolate moulding lines, enrobing lines, drop lines, production lines for bars, depositors, cooling tunnels, tempering machines and a lot of other devices and equipment.

Your products

WE OFFER SPECIALIZED MACHINES AND EQUIPMENT FOR WIDE RANGE OF CONFECTIONERY AND BAKERY PRODUCTS



Chocolate moulded products



Dragees



Chocolate drops and glaze



Enrobed products



Bakery products



Bars

Machinery and equipment

Chocolate moulding lines

- + Moulding lines
- + Step moulding lines
- + Continual moulding lines
- + Modernization of moulding lines
- + Mould exchange station
- + Tempering section
- + Piston depositor
- + Vibrating section
- + Shell-forming station
- + Cooling section
- + Bottoming section
- + Demoulding section

Dosing equipment

- + Inclusions dosing and mixing
- + Aromas dosing and mixing
- + Whole hazlenuts depositor
- + Cherry depositor
- + Crushed ingredients feeder
- + Biscuit feeder

Enrobing lines

- + Enrobing machine
- + Cooling tunnel

Bar lines

- + Bars production line
- + Kitchen
- + Mixer
- + Extruder
- + Cooling tunnel
- + Cutting station
- + Enrobing machine

Auxiliary equipment

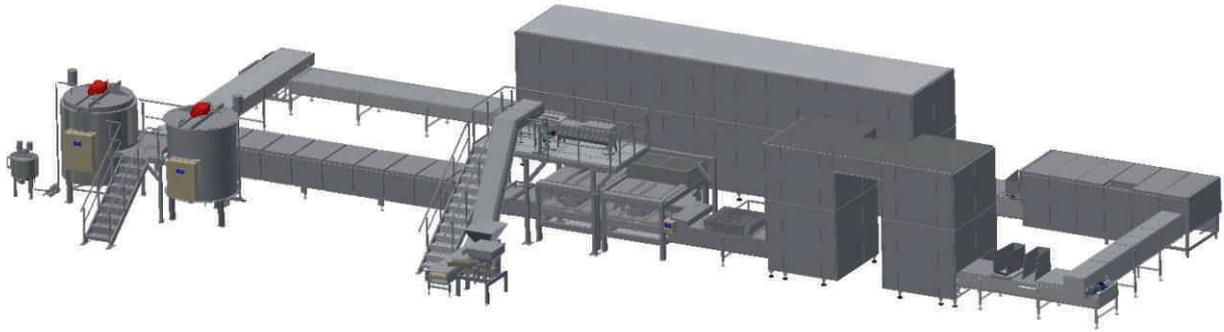
- + Tempering equipment
- + Flow-through cooler
- + Decrystalizer
- + Storage tank
- + Pipe systems and accessories

Machines for bakery

- + Wafer blocks cooling cabinet
- + Wafer cutting station

Transportation systems

Buffers



Chocolate moulding lines

Moulding lines

Lekos company utilizes traditional principles of moulded chocolate products manufacture, thanks to which Lekos solutions are universal for manufacture of wide spectrum of moulded goods.

Needs and requirements of individual customers are taken into account during design process, for example range of products, required performance, available space for installation, possibility of line extension or implementation of new products in the future, etc. Flexibility of the company allows the design and manufacturing of line to measure even for existing sets of moulds given by customer.

Two basic types of moulding lines are available:

Step moulding lines / so called "race track" /

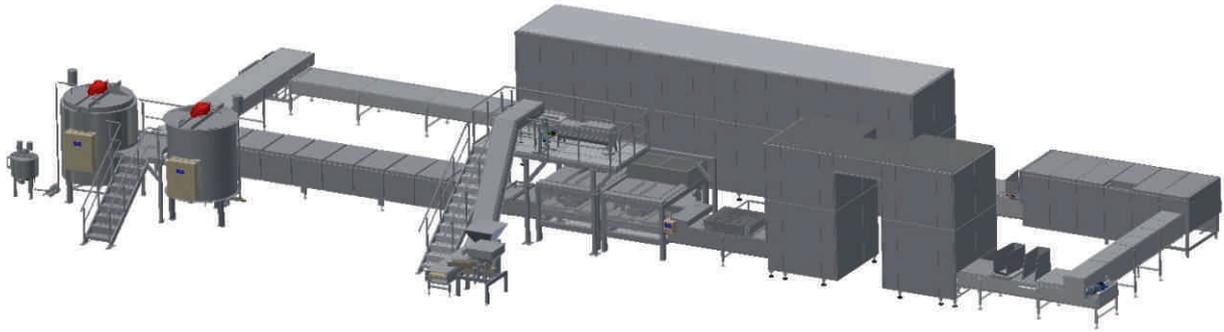
- + lines with loose moulds, especially for production of unfilled and filled tablets, bars and pralines, without ingredients and with various ingredients

Continual moulding lines / so called "monoblock" /

- + lines with moulds fixed to the chain, determined only for production of plain and ingredient chocolate tablets and bars

Products





Chocolate moulding lines

Step moulding lines

Step moulding lines are ideal for production of wide range of moulded chocolate products, from plain chocolate bars and tablets, through products with ingredients, various recipes of filled products and combinations of chocolate and biscuits.

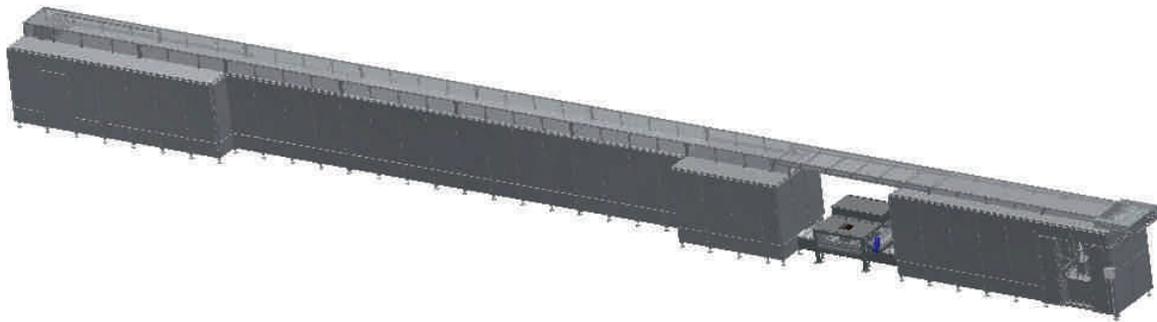
In technical terms these lines work with loose moulds, which are during step mode transported through individual sections, during which individual technologic operations are executed. Essentially they are fully automatic loop lines. Each section of line is designed and manufactured from modules, which allows for individual approach to needs and requirements of customers. In addition it's also possible to extend the line by individual sections and modules in the future, and thus to enlarge range of manufactured products or increase of production capacity.

Standard width of mould ranges from 275 mm to 1200 mm and maximum operation speed ranges from 12 moulds per minute to even 30 moulds per minute. Line may also be adjusted to already existing set or sets of moulds given by customer.

Production line usually consists of small loop and large loop. Small loop serves for production of basic spectrum of plain chocolate products and chocolate with ingredients. Large loop is designed for production of filled products with or without various ingredients such as whole hazelnuts, cherries, crushed ingredients or biscuits. Project can be realized also in two stages by future installation of large loop to small loop, which allows for saving acquisition investments and adjusting range of delivery to current needs of customer.

Products





Chocolate moulding lines

Continual moulding lines

These lines are ideal for production of plain chocolate products which are not filled, and products with inclusions.

From technical perspective, these lines work with moulds, which are fixed to the conveying chain and during continual mode they are transported through individual sections, in which individual technologic operations happen.

Standard mould width ranges from 470 mm to 1200 mm and maximum operating speed may range from 12 moulds/min to even 65 moulds/min. Modular design allows extension of line's capacity in the future.

Moulds are fixed and carried thanks to pair of pins of left and right chain and two openings inside mould placed diagonally. The mould is stabilized by scroll on vertical transitions, which is powered mechanically by engine of line's chain. This system is very simple and highly effective without any additional mould carriers. One of its advantages is possibility to disconnect mould from continual chain easily, which is needed for example for automatic mould removal and insertion of new mould into the line. Design without additional carriers significantly raises technical reliability and reduces operational expenses.

Products



Chocolate moulding lines

Modernization of moulding lines

To invest into purchase of new moulding line or to modernize key parts on existing line? This question is often asked and the right decision depends on the case.

Lekos takes into account technical status of line in each of these requests, current hygienic requirements, human safety, food safety and optional requirements for portfolio of moulded products or extension of production capacity. Based on specific situation Lekos realizes different projects from partial modifications of certain line sections, through complete replacements of sections according to need, to even complete modernization and reconstruction of lines.

Most common projects of modernizations are:

- + Automatic identification and mould exchange station
- + Tempering section
- + Mass depositor
- + Vibrating section
- + Shell-forming station
- + Cooling section
- + Bottoming section
- + Demoulding section

Products





Chocolate moulding lines

Mould exchange station

Target of this system is identification of undemoulded products in moulds, which are returned from demoulding station back to the production process and automatic exchange of moulds on moulding line.

Identificator represented by electro-mechanic system reliably identifies whole undemoulded products or their parts inside alveoli of moulds independently from dirtiness of moulds, mould colour spectrum and other potential adverse states. Identified moulds are afterwards automatically removed from line and stacked in hopper accessible by staff. Into empty position on conveyor, empty and clean mould is automatically inserted afterwards. Thus, double depositing, dosing of fresh chocolate onto undemoulded product is avoided.

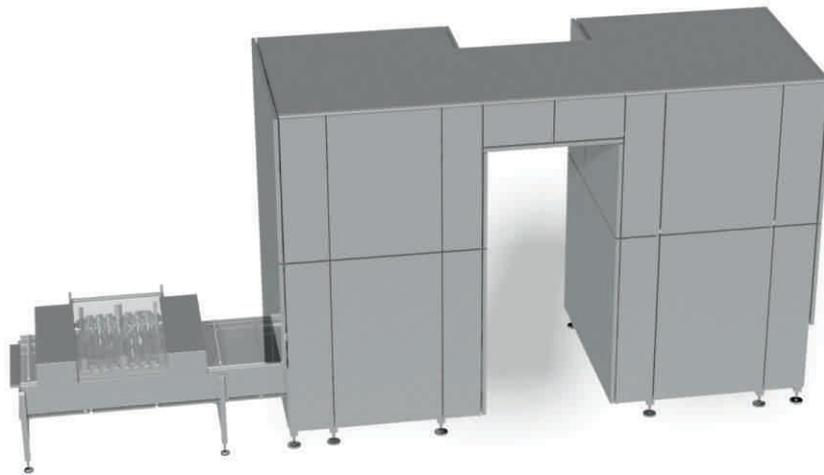
This system's pros are following:

- + improvement of product's quality
- + reduction of rework and waste level
- + production efficiency increase
- + shortening of change-over time
- + human safety improvement

Based on these reasons, such system is standard of new Lekos moulding lines, thus as more and more requested demand of customers for completion into existing lines. Lekos adapts and installs such functional even for existing lines of different mould sizes and capacities.

Products





Chocolate moulding lines

Tempering section

Correct mould temperature before deposition of chocolate, either for production of plain or filled moulded products, belongs among important assumptions for production of quality moulded products.

Tempering sections made by Lekos are of vertical design in case of new lines design. These sections consist of several separately configurable and regulated zones. Individual tempering zones can be divided by passage which lead into inner space of line and serve for staffs and mechanism to pass comfortably through. Proposed dwell time inside tempering sections is long enough so that it's possible to work with operational air temperature near to required temperature of moulds. This, when combined with function control and performance control of heating and fans, prevents risk of overheating of moulds in case of line stopping. This design, also supplemented by individual station with infrared heating after output from tempering section, enables to reach required temperature of moulds with high accuracy.

Design of tempering sections in projects, where existing line is modernized, is adapted to specific situation. These sections can be either of vertical or horizontal design.

Equipment is made from materials fully suitable for use in food industry. Stainless steel frame is equipped with safety and thermal insulating covers. The covers are characteristic for their unique hygienic design.

Lekos adapts and installs tempering boxes or tunnels even for existing lines from different producers and for lines of various mould sizes and capacities.

Products





Chocolate moulding lines

Piston depositor

Lekos offers depositors for dosing of different plain masses or with inclusions. They are ideal for depositing of chocolate masses, fat based fillings, water based fillings, including different kinds of jelly, caramel and rework.

Fundamentally it is classical depositing piston head driven by powerful servo drives, to reach high technical accuracy of individual moves. One of the main reasons for versatility of technical solution for wide spectrum of masses are pistons equipped with special sealing rings.

Lekos offers depositors either for spot or for ribbon dosing, and either for intermittent lines or for continual lines. Movement of the head for ribbon dosing or for continual lines is powered separately. In such case it's possible to between more available dosing modes on the panel.

Each device is designed for individual production portfolio of given customer, however in each case the versatility of depositor is ensured, its suitability for depositing of new formats in the future. If the application requires it, the device can be designed for simple change of whole depositing head. In such case, two mutually exchangeable depositing heads, each with different diameter and number of pistons, bring possibility of simple change-over between so different products.

Cleaning of all functional parts can be done, depending on the character of the cleaning itself, in several ways. High degree of automation allows to turn on washing mode of individual depositing head, which can also be extractable next to line's conveyor. Part of our offers are also mobile depositors washable in the washing rooms.

Professionally designed hardware and software are guarantee of user-friendly work environment, with option of creation and selection of recipes and individual operational modes of the machine.

Device is made out of materials fully suitable for use in food industry.

Lekos adapts and installs such depositors even to the existing lines which are of various mould sizes and capacities.

Products





Chocolate moulding lines

Vibrating section

Depending on use there are stations available which ensure vertical or horizontal vibrations.

Characteristic properties of the mass itself and properties of product are basic factors which influence the selection of not just the type of vibrations but also required capacity and performance of whole vibrating section. Such section consists of certain number of vibrating stations.

Option to configure eccentricity and frequency of vibrations on each station individually is standard and it brings high degree of flexibility to entire solution. Stations are installed in solid stainless steel frame, equipped with noise-insulating doors, which are typical with their unique hygienic design.

Essential functional characteristics:

- + flexible solution thanks to modular design
- + effectivity

Device is made up of materials fully suitable for use in food industry

Lekos adapts and installs vibrating sections even to existing lines of various mould sizes and capacities.

Products





Chocolate moulding lines

Shell-forming station

Shell-forming station manufactured by Lekos is constructed with high degree of professionalism and with its principle of functionality and effectiveness it ensures production of high quality chocolate shell, speaking mainly of accurate shell shape, dimensions and weight.

It consists of certain amount of independently controlled and high speed shell-forming heads. The amount of heads depends on required performance of the device. Each head for two or three moulds is individually switchable, and it has independently settable eccentricity and speed of movement. Chocolate is usually collected into collecting vessels with scroll, jacket and with heating water and output into transporting pump for return of excessive chocolate mass back into customer's system. Bottom and upper cleaning rollers clean surface of mould after shell-forming and its turning to original position.

Each functional unit is powered by its own drives, individual shell-forming heads are powered by servo drives.

Professionally designed hardware and software are guarantee of user-friendly work environment, with option of creation and selection of recipes and individual operational modes of the machine.

Device is constructed out of materials fully suitable for use in food industry. Stainless steel frame is equipped with safety and thermal insulating openable covers. Emphasis is put on access, safety and comfort needed for cleaning and maintenance of the machine.

Lekos adapts and installs stations like this even for existing lines made by different producers, which are of various mould sizes and performances.

Products





Chocolate moulding lines

Cooling section

Lekos manufactures cooling sections for shell cooling, for filling cooling, bottom cooling and cooling of final product.

They are designed either as cooling tunnels or cooling cabinets. Depending on designation and capacity of given section, each tunnel or cabinet consists of several cooling zones. Own air filters, heat-exchanger and fans ensure air filtration, cooling and air circulation in each cooling zone independently. Air temperature and airflow speed in area of moulds with goods are configurable. Air conduits and deflectors direct airflow and optimize its speed in whole cross-section of mould zone.

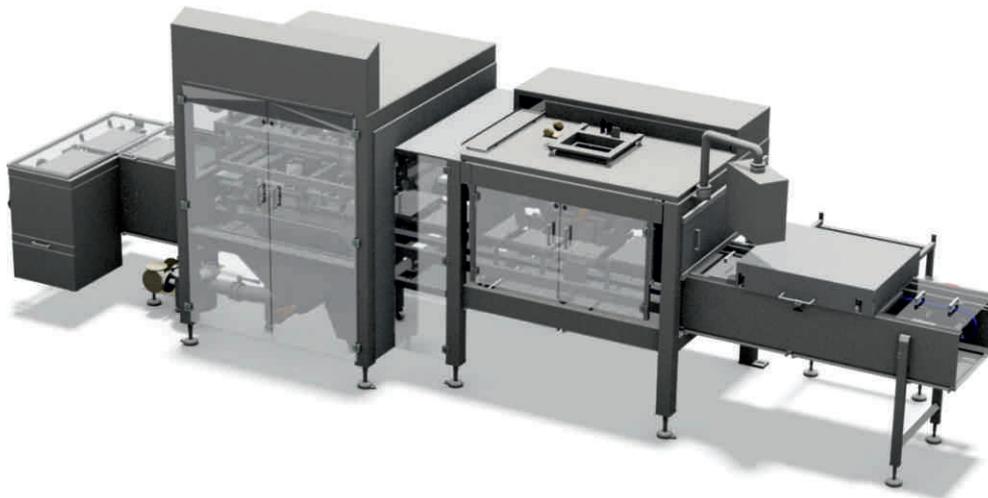
Each section's capacity depends on its designation, whether designed to cool shells, creams or bottoms and final goods. Sufficient residence time of moulds in individual cooling zones and independently configurable temperature and airflow speed allow the setting of ideal cooling profile for each specific product.

Device is constructed out of materials fully suitable for use in food industry. Stainless steel frame is equipped with safety thermal insulating covers. Covers are unique for their hygienic design.

Lekos adapts and installs cooling sections even existing different moulding lines.

Products





Chocolate moulding lines

Bottoming section

The newest design of bottoming section manufactured by Lekos is guarantee to produce bottoms of premium quality with current provision of mould's cleanness during whole process. The newest design of bottoming section manufactured by Lekos is guarantee to produce bottoms of premium quality with current provision of mould's cleanness during whole process.

It usually consists of conveyor system between output from filling cooling box and input to final cooling box. Conveyor system transports moulds through infrared heating, depositing piston head, scrapping station and vibrating section.

Infrared heating allows pre-heating mainly of upper edge of shell for its better connection with bottom. Its technical execution ensures high efficiency during operating and at the same time it prevents overheating of moulds with goods in case of line stopping.

Depositing piston head is classic chocolate depositor made by Lekos, equipped with servo drives. It is significant for its high functionality and reliability.

Scrapping station serves to wipe deposited and vibrated excessive chocolate away from mould. Scrapping is done in two position, one after another, trolley with scrapping plotters is configurable in each position and it can be set independently. Technical execution is guarantee of comfortable setting of parameters with high technical accuracy and repeatability of movements.

Vibrating station ensures afterwards the last step needed for creation of premium quality bottom.

Products



Professionally designed hardware and software are guarantee for creating comfortable work environment, with option of creation and selection of recipes and individual operational modes of machine.

Device is made of materials fully suitable for use in food industry.

Lekos installs and adapts scrapping stations also for different existing lines.

Based on these reasons, such system is standard of new Lekos moulding lines, thus as more and more requested demand of customers for completion into existing lines. Lekos adapts and installs such functional even for existing lines of different mould sizes and capacities.



Chocolate moulding lines

Demoulding section

Demoulding section made by Lekos is combination of effective twisting of cooled moulds with goods and following highly effective demoulding of goods in one of several possible modes.

Standard design of device allows demoulding of tablets, bars, pralines and any specific products on trays or polyurethane conveyor belt. Transition between these modes can be manual or automatic. The demoulding itself is realized usually with combination of high frequency pneumatic vibrating pistons and classic pneumatic hammers.

Lekos company delivers these devices along with additional equipment as complex units even for demoulding of 3D products / so called "sea shells", etc. / onto conveyor or demoulding of classic moulded products into countermoulds and into blisters.

Device is made out of materials fully suitable in food industry. Stainless steel frame is equipped with safety noise-insulating covers. Covers are unique with their hygienic design.

Lekos adapts and installs whole demoulding sections even for existing lines made by different producers which are of different mould sizes, layouts and capacities.

Products



Dosing equipment

Inclusions dosing and mixing

Lekos offers complex solution for dosing of required ratio of ingredients to chocolate, their mutual mixing and mixing with chocolate and dosing of finished mixture to the depositor's hopper.

This system allows simultaneous dosing of one or more sorts of ingredients to the chocolate and preparation of final mixture for dosing of chocolate tablets and bars with various inclusions on moulding line.

In addition to the materials used in the construction, there is emphasis put on cleanability of individual parts of the system and possibility of changing the recipe, too. Dosing machines have easily accessible and cleanable hoppers and dosing parts. Conveyors, whether Z-conveyor or horizontal conveyors, have sophisticated construction. Their construction simplifies cleaning and allows quick removal of conveyor belts for cleaning or exchange for new clean belts. The mixing scroll is made of stainless steel with continuous welding, spindle itself along with scroll is easily removable.

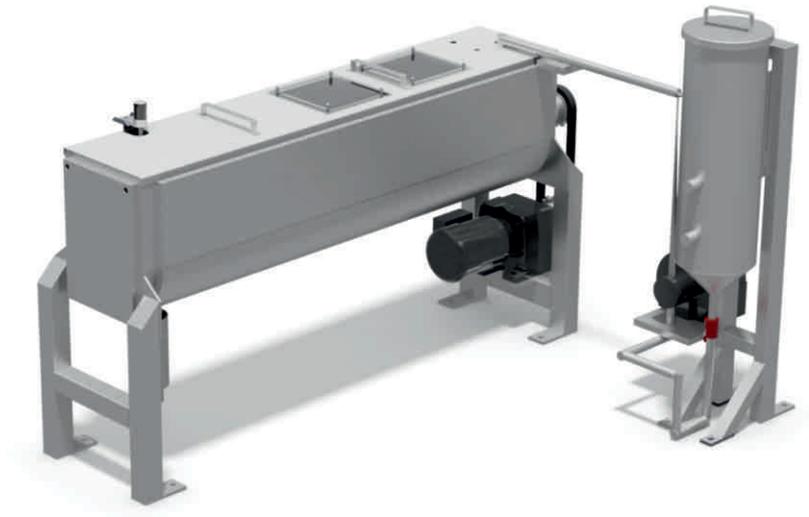
By default, the system is designed in such way that the dosing machines are placed on the ground to be easily accessible by staff. Z-conveyor and optionally other horizontal conveyor transport ingredients to the mixing scroll. Output of the scroll is placed above the depositor. Parts of the system placed on the top are accessible from the platform. Platform with the stairs use to be part of delivery.

System works continuously and it is suitable for:

- + crushed, dry, not sticky ingredients, such as crushed hazelnuts, almonds, others
- + whole, dry, not sticky ingredients, such as whole nuts, peanuts, almonds, others
- + raisins, fruits
- + cereals, crushed biscuit
- + whole and crushed lenses and other inclusion

Products





Dosing equipment

Aromas dosing and mixing

Lekos offers complete dosing solution of required ratio of flavours to chocolate masses or creams, their mutual mixing and dosing of flavoured masse to the hopper of depositor.

Standard design of device allows demoulding of tablets, bars, pralines and any specific products on trays or polyurethane conveyor belt. Transition between these modes can be manual or automatic. The demoulding itself is realized usually with combination of high frequency pneumatic vibrating pistons and classic pneumatic hammers.

The system may be composed out of one or more storage tanks for individual flavours, equipped by level sensor. Flavour is dosed from each tank by individual precise dosing pump to mixing scroll. System works continually, flavour flow and mass feeding to mixing scroll are synchronized. There is possibility to simply choose corresponding recipe on the control panel.

Configuration of whole system is tailor made, depending on specific demands, applications and space restrictions. Stainless steel operating platforms, if needed, are part of Lekos manufacture.

Products



Dosing equipment

Whole hazelnuts depositor

Demoulding section made by Lekos is combination of effective twisting of cooled moulds with goods and following highly effective demoulding of goods in one of several possible modes.

Depositor is used for dosage of whole hazelnuts to particular positions in forms, mainly into chocolate shells of tablets, bars or pralines. Therefore it's integral part of moulding lines which are producing products with filling and whole hazelnut inside. Lekos depositor is very simple and functional device, however, the technical part is thought out to the smallest details. In the top of device, hazelnuts are gathered from hopper to alveoli in loading stripes and in the bottom part of device they are released from the stripes through reducing plate to the mould. Special cleaning idles ensure proper functionality after every step. Particular technical execution depends on required performance of the device and on specific applications, either for intermittent motion moulding lines or for continual lines.

Depositor may be removable or extractable next to line conveyor in order to provide sufficient access to the conveyor for cleaning or maintenance, depending on space possibilities.

Products





Dosing equipment

Cherry depositor

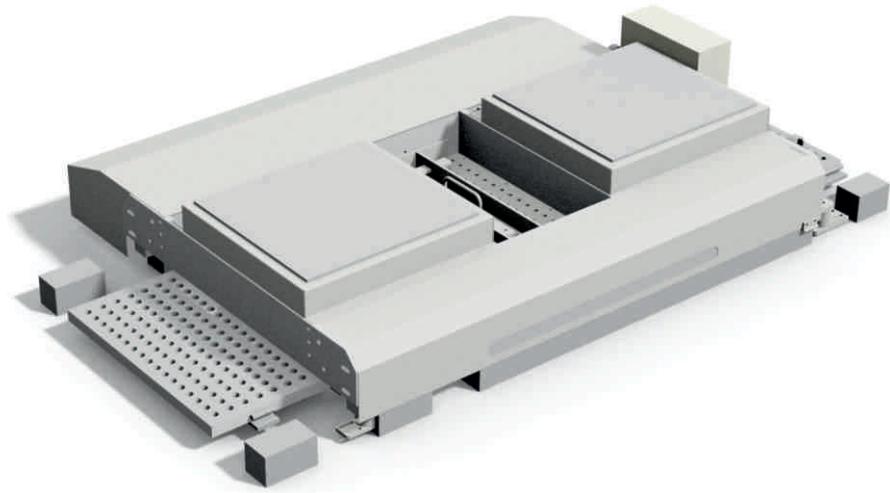
Lekos designs these machines as part of its own moulding lines, or as accessory to existing moulding lines in existing operations.

Depositor is used for dosage of cherries to particular positions in forms, mainly into chocolate shells of pralines. Lekos depositor is very simple and functional device, however, the technical part is thought out to the smallest details. Cherries are gathered from hopper to alveoli in loading stripes and later they are released from the stripes through reducing plate to the transport plate. Cherries are by transport plate transferred over the moulding line conveyor and they are dosed into mould alveoli passing through cleaning plate. Depositor works with cherries with bones in spirit.

Offer includes also pressing device and cocoa butter spraying machine.

Products





Dosing equipment

Crushed ingredients feeder

Lekos designs these machines as part of its own moulding lines, or as accessory to existing moulding lines in existing operations.

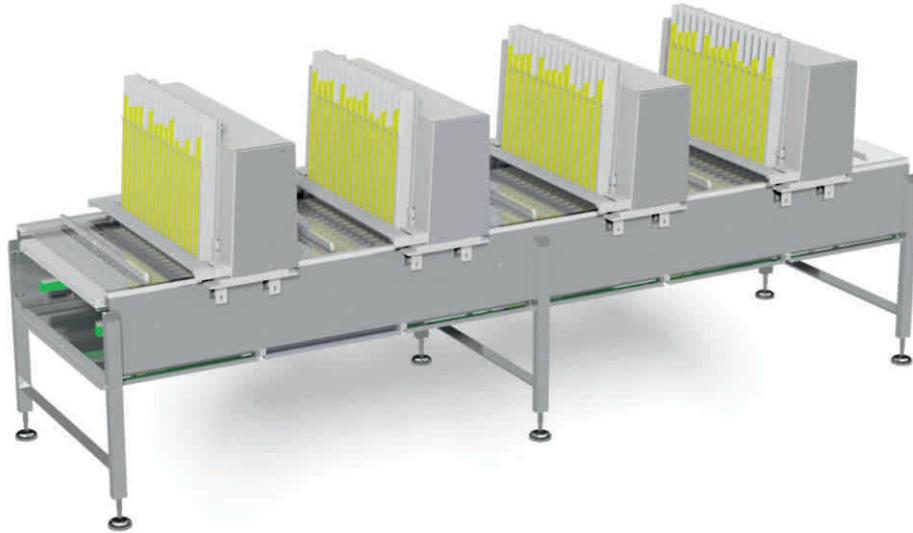
Crushed ingredients feeder is used for dosing of specific volume of crushed ingredients to particular positions in forms, mainly into chocolate shells of tablets, bars or pralines. Therefore it's integral part of moulding lines, which are producing products with filling and specific amount of ingredients in separate pillows of product. Lekos designs feeders for crushed hazelnuts, crushed pistachios, crushed almonds, crocanut and cereals too.

Ingredients are dosed from hopper of the device to particular positions in forms by volumetric method.

Feeder may be extractable next to line conveyor, removable or foldable, it depends on specific application.

Products





Dosing equipment

Biscuit feeder

Lekos has rich experiences with dosing of biscuits of various shapes and sizes for particular applications.

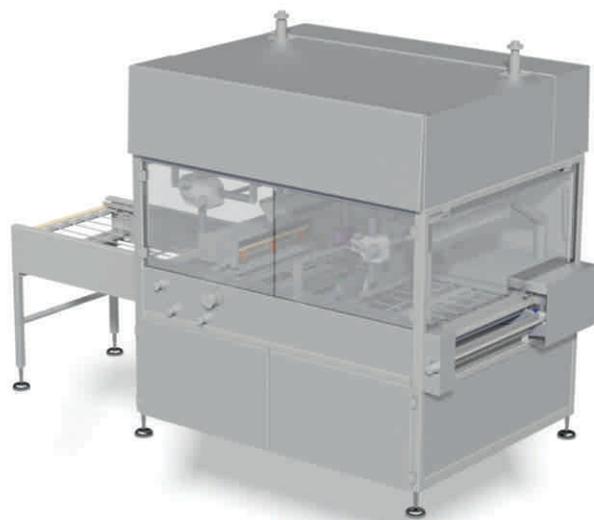
Design and technical execution of feeder or feeding system depends on specific application. Together with our other experiences, we can offer complete solutions for diverse products.

Possible applications are:

- + biscuits dosing to the chocolate shells or creams of moulded products
- + biscuits dosing to counter moulds for further processing
- + biscuits dosing to the conveyor belt

Products





Enrobing lines

Enrobing machine

Enrobing machine made by Lekos provides wide spectrum possibilities of use for producers of various types of confectionery and bakery products.

It is the proper device for enrobing of confectionery and bakery products by tempered chocolate masses, fat glazes and sugar masses, along with following strict requirements to quality parameters of the final product.

Enrobing machine is suitable for fully enrobed, or bottom enrobed bars in chocolate or glaze, for enrobing of bakery products with various effects on the final product. Common applications are for example belt enrobing of waffles, or bottom enrobing of bakery products with following turn on the belt at the entrance of cooling tunnel. All needed additional devices are available in Lekos, too.

Ordinary width of the wire mesh belt is available from 450 and 1500 mm wide.

Parameters of upper enrobing wave, bottom enrobing wave, vibration section, blowing, scrapping, off-tailing are simply adjustable by local controls and control panel on operating side. Lower collecting and storing vessel is constructed with mixer and usually two pumps as one device on common stainless steel frame on wheels. After the unplugging of device from water, electricity and chocolate, with quick-connectors and connectors, there is possibility to pull out the device.

Basic technical execution of the machine combines functionality, high quality materials and user-friendly working environment. Automatic release of wired belt, almost unlimited access to individual parts of the machine, simple disassembling of most of needed parts, lower collecting pull-out and quick to replace vessel with mixer and pumps – these are essential preconditions for thorough sanitation and cleaning of device and quick change-over.

Whether our customer needs to place the device into well-defined area of the existing line, or customer needs to equip machine with double blowing or other accessories, our company is flexible in this way.

Products





Enrobing lines

Cooling tunnel

Cooling tunnels Lekos are most often equipped with polyurethane conveyor belts with guiding wedges or with system of automatic steering of the belt. Noses of diameter from 7 mm up ensure smooth transition of products into input or output from the tunnel's belt. At all times the position of at least one nose is horizontally configurable through gearbox, so that it is possible to set optimal gap between nose of the tunnel and upstream or downstream machine.

Cooling tunnel is according to length divided into one or more cooling zones, each with its own way of cooling and independent regulation of technologically important parameters. Each cooling zone is equipped with its own stainless steel box, with air filtration, cooling and fans for filtration, reaching required temperature and circulation of air. Tunnel can also be equipped with unit for drying the air and ensuring of required relative humidity of the air in the individual product zones.

Most frequent applications for cooling tunnels are:

- + cooling of different masses / nougats, caramels, cereal mixtures etc. / after their extruding and forming on conveyor belt
- + cooling of wide range of enrobed products
- + cooling of bakery products, for example from output of conveyor belt behind the oven until entry of products into enrobing or directly into packing part
- + glaze drops cooling or cooling of chocolate on drop lines behind drop pouring heads
- + cooling of hollow moulded chocolate products inside the moulds during semi-automatic operation, etc.

Products





Bar lines

Bar production line

Bar line Lekos is dedicated mostly for manufacturing of following portfolio of products:

- + classical muesli bars, recipes with various ratio of cereals, fruit, nuts, alternatively other ingredients
- + nut bars / almonds, cashew, peanuts, pistachios / without cereals
- + caramel bars
- + oat bars
- + bars on milk nougat base, others

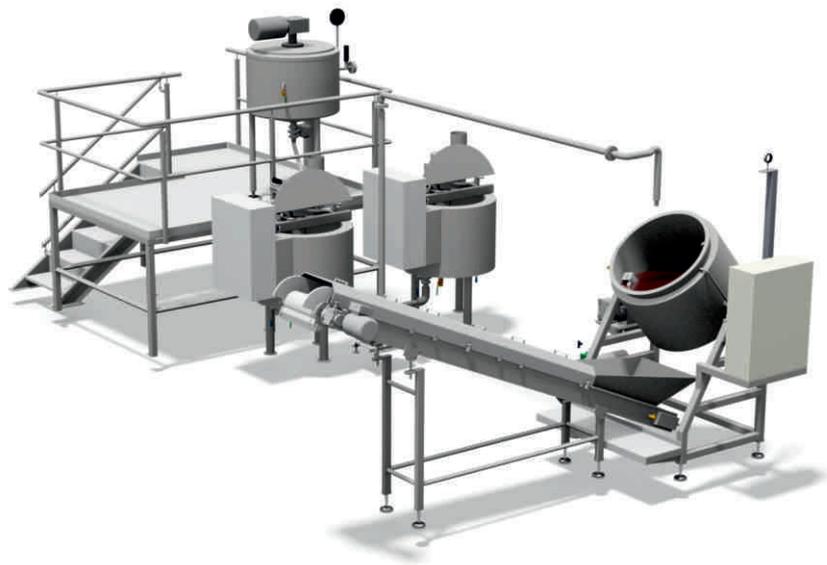
Bar production line usually consists of following parts:

- + Kitchen
- + Preparation of mixture
- + Forming part
- + Cutting station
- + Enrobing section

However, depending on the recipe, its design may slightly differ and line can be equipped with additional extruders, feeders of inclusions, decoration, etc.

Products





Bar lines

Kitchen

Design of kitchen produced by Lekos truly depends on required recipe and capacity.

For most of classical muesli recipes, oat and nut bars the kitchen is equipped usually with following equipment:

- + syrup pump for feeding syrup into cooking cauldron
- + stainless steel platform with needed amount of cooking cauldrons
- + storage tanks for cooked syrup, their number depends on capacity and requirements of recipes, aromatization for example
- + pump to transport syrup into mixer

Fundamental functional characteristics:

- + pumping of syrup from barrel or reservoir into cooking cauldron or cauldrons
- + cooking the syrup, release of cooked syrup from cauldrons into storage tanks
- + aromatization
- + automatic dosing of selected amount of syrup into mixer
- + dosing of dry ingredients by staff

Products





Bar lines

Mixer

To ensure flexibility of use, Lekos mixer is produced with robust mixing arms, scrapping and option to heat but also to cool inside double jacket of machine.

Fundamental functional characteristics:

- + automatic dosing of selected amount of syrup into the mixer
- + dosing of dry ingredients by staff
- + emptying the dose by foldable design of mixer onto feeding conveyor that transports it into roller extruder

Products





Bar lines

Extruder

Twin-roller extruder Lekos is designed based on specific recipe.

Hopper is equipped with sensor of mass level for automatic feeding of mass from mixer into extruder. Turns of both rollers can be synchronized electronically. Rollers and hopper can be heated but also cooled, to ensure suitable surface temperature for forming of wide spectrum of masses. Fluent change of speed and thickness of moulded carpet is certainty.

Following equalising roller or rollers ensure concretion of formed carpet on the conveyor belt and achievement of required product height. Even equalising roller can be heated or cooled. It has always own water system which is independent from water system for extruding rollers.

Forming head can be installed in front of entrance to cooling tunnel, to pre-form desired shape on top of bar.

Forming part of bar production line can be equipped also by extruder for creation of stripes of masses and combinations of extruders for more layered bars.

Products





Bar lines

Cutting station

Cutting station is generally used to cut various kinds of cereal masses, nuts and fruit masses, various caramels, nougats, but also "bird's milk" and other masses into pieces of specified dimensions.

Cutting station Lekos can be installed as complete station that consists from station of lengthwise cutting of carpet of mass into defined number of lines of specified width, smooth spreading of lines and lateral cutting into products of specified length.

Station of lengthwise cutting is based on principle of disc knives with automatic leading of cut edges onto lateral conveyor and their transportation into collecting vessel. Simple change of format is basis for machine's flexibility and comfort of operation. Lines are fluently spread into defined width and transported onto conveyor underneath the guillotine. Guillotine is powered by servo drive with comfortable and fluent change of cutting length and distance of rows of final products.

However, Lekos also developed station for discontinuous cutting of „bird's milk“, that increases effectivity of „bird's milk“ production when compared to manual production. Operator places plate of „bird's milk“ onto input centring conveyor belt in front of cutting station. Whole process of cutting, separation of rework, ordering products and their leading into enrobing machine is automatic.

Lekos company also delivers separate guillotines.

Products





Auxiliary equipment

Tempering equipment

Tempering equipment of Lekos combines classical principle of disc tempering machine with use of modern technologies.

Effective heat exchange and homogenous in whole chocolate volume is achieved by mass transition through individual cooling sections and through tempering section in tempering body, along with thorough scrapping of the mass from the discs surfaces and its mixing. Actual chocolate temperature is measured at the output of every section. Water temperature is automatically regulated in individual sections, so that required temperature of chocolate at the output from separate sections is reached and maintained. Lekos tempering machine is ideal for tempering of various chocolate masses with their various physic-chemical attributes. Creation of stable **B-V** crystals of cocoa butter, homogeneously spread in the mass volume is the result. Tempered mass in this manner is typical for its bright shine on final product, characteristic snap and contraction.

Lekos manufactures tempering machines without built-in decrystallizer. Usual temperature of chocolate at inlet into tempering machine is about 43-45°C. At this temperature, all crystals of cocoa butter are melted. Tempered mass, which is not consumed at the consuming point (moulding line, enrobing machine etc.) is returned back through pipe decrystallizer to the storage tank. Lekos offers decrystallizers separately.

Maximum available performance of standard Lekos tempering machine is between 150 and 1500 kg per hour.

Products





Auxiliary equipment

Flow-through cooler

Anywhere, where technology demands reduction of masses temperatures – compounds, fillings or creams – before these masses are processed on the production line, the flow-through cooler is an ideal solution.

Lekos designs and delivers flow-through coolers, which are same in principle as disc tempering machine, but without heating output section. Flow-through cooler is usually installed in such way, that it continually cools down the mass which is pumped from storage tanks to point of supply (such as compound drop depositor, creaming station on waffles line etc). The mass is pumped through several cooling sections. Each section is equipped with individual water circuit with adjustable water temperature on the output. During continual mixing and scrapping inside the discs heat exchange occurs. Thus the mass is continually cooled homogeneously throughout the volume of the mass to required output temperature with high efficiency.

Flow-through cooler is available with capacity from 150 up to 2500 kg per hour. It can be equipped also with built-in aeration stage.

Products





Auxiliary equipment

Decrystallizer

Lekos designs and manufactures individual decrystallizers which are placed on the return pipe of chocolate mass into storage tank.

Decrystallizer consists of longitudinal steel pipe system, placed inside steel drum. Chocolate mass is at the input distributed to these pipes. Warm water circulates in the drum usually at 52-55°C. Tempered mass, which is returned back to storage tank, is heated to a temperature of 43-45°C by passing through decrystallizer. At this temperature, 100% of the cocoa butter crystals are melted and mass is ready to tempering process again.

Decrystallizers for this purpose are available with maximum capacity from 150 to 5 000 kg per hour.

Lekos delivers decrystallizers ready to the warm water connection by customer or equipped with own water circuit with water heating and automatic set water temperature regulation in the circuit.

Products





Auxiliary equipment

Storage tank

Lekos storage tanks are typical for their design of water jacket, which is designed with emphasis on food safety.

Because of this, every water jacket is designed so that water and food are never separated by single weld. Sanitary design, high quality welded and polished surfaces and design for wide spectre of use are matter of course.

Lekos manufactures and offers these interior storage tanks made of stainless steel A304 or A316. Their maximum useful volume can be up to 6 000 litres.

Lekos delivers interior storage tanks for:

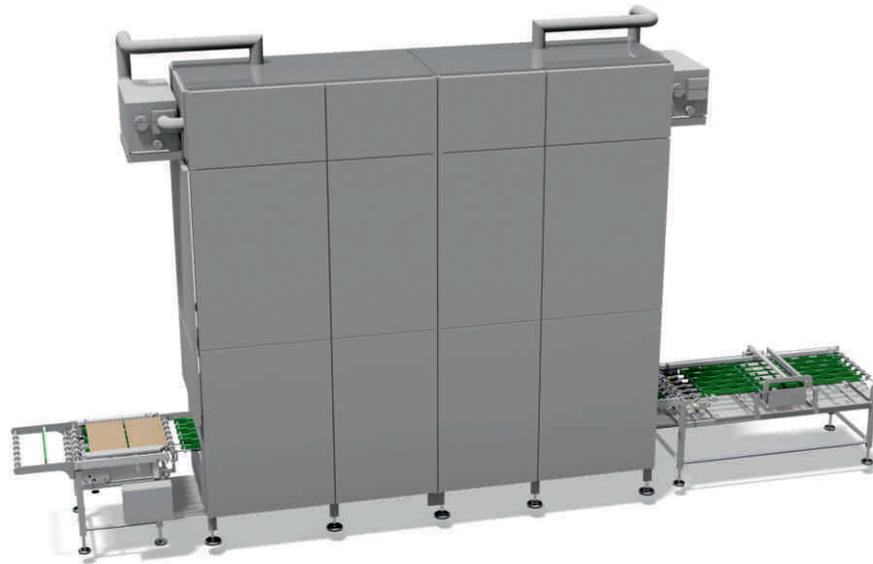
- + storage of chocolate masses or creams by required temperature
- + storage of boiled syrups by required temperature
- + mixing of the masses with emulsifiers and other ingredients

Possible equipment of interior storage tanks:

- + individual water circuit of the storage tank and mass level sensor in various design executions
- + mass blender with or without scrapers on the walls and bottom, and with or without propeller
- + storage tank placed on weighing cells, or without them placed on classic stand
- + from basic control of the storage tank, through own control system, up to connection to the superior system
- + other equipment upon request

Products





Machines for bakery

Wafer blocks cooling cabinet

Lekos company is experienced in areas of design, production, delivery and installation of devices even for the bakery sector.

One of offered devices is cooling box for cooling of wafer blocks. It is a complete delivery after the output from station of creaming and sticking waffles into blocks, up to input to cutting station.

Cooling box itself is of vertical design and it is divided into two cooling zones. Both zones have independent and separately configurable air temperature, airflow speed and relative air humidity. Transport of blocks through individual cooling zones is ensured by vertical conveyor chain system with carriers. Design and execution of carriers ensures keeping the block's flatness during cooling.

Device is made of materials fully suitable for use in food industry. Stainless steel frame is equipped with safety thermal-insulating covers. Execution of covers is typical for its hygienic design.

User's comfort is also supported by control panel with visualization and option to simply set parameters of the device.

Products



Wafer cutting station

Lekos company is experienced in areas of design, production, delivery and installation of devices even for the bakery sector.

One such device offered by company is cutting station for wafer blocks. Its stainless steel construction, its safety covers, pushing mechanism in lateral and longitudinal direction with regulation of individual movements and option to change the format are typical features of this device. Lekos also manufactures and delivers system for orientation of wafers on the edge and their transportation through enrobing machine, necessary for belt enrobing of wafers.



Transportation systems

Lekos company produces systems of various constructions and for different applications, either as part of own production lines /chocolate moulding lines, bar producing lines etc / or for different applications.

Lekos offers:

- + chain conveyors
- + belt conveyors / classical belt /
- + belt conveyors / tooth belt /
- + conveyors with steel conveyor belt
- + conveyors with modular conveyor belts

Products



Buffer

Lekos offers buffer of unique concept, where various confectionary and bakery products are accumulated on conveyors with polyurethane belts.

Conveyors are not equipped by own drives. Drive is static and it is connected/disconnected by clutch to given conveyor only in place where products are fed in an out of buffer. It means that is in place of product infeed onto specified buffer's conveyor and on place of product outlet from conveyor of buffer. Advantage of this principle of belt buffer if compared to classic buffers with solid shelves, is that running belt eliminates friction underneath the product during filling and emptying the buffer. Conveyors are inside of buffer's construction transported in vertical and horizontal direction by two different principles depending on buffer principle – FIFO / first in = first out / buffer or FILO / first in = last out / buffer.

So called FIFO buffer is located between output of products from production line and input to packing line. So called FILO buffer is located at the end behind packing line.





Interested?

FIND OUT MORE INFORMATION ON-LINE

www.lekos.sk

Company name: Lekos, s.r.o., Trebišov, Slovakia
Official residence: Gorkého 17, Trebišov 075 01, Slovakia
Plant address: Kollárova 455, Sečovce 078 01, Slovakia

Phone: +421 56 668 0712
Fax: +421 56 668 0713
E-mail: lekos@lekos.sk
www.lekos.sk

LEKOS
CONFECTIONERY MACHINES