



TECHNOLOGICAL LINES

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Root vegetables processing

SnackPro Line



The line ensures a complete processing of vegetable snacks and performs such processes as washing, cleaning, slicing and frying. At the end of the process, ready-made snacks are prepared for packaging.



Item	Description	Model	Photo
Drum washer with conveyor	The product is loaded into the washing machine mechanically, and after washing, the product is unloaded by a conveyor.	DrumWash	
Flow divider	Mechanical control for adjusting the direction of the product flow to the potato peeler section.	FD	
Potato peeler	The machine is designed for peeling and washing root vegetables.	ŠKBZ	
Feeding conveyor with hopper	The conveyor can be easily integrated into any production line - supply of raw materials for further processing (baking, thawing, heating, etc..).	ICH	
Cutting machine	Cuts the product into slices.	CUT NC	
Washing machine	Washing machine of a hydro cyclone type is intended for removing starch from potato.	UNI M	
Screw blancher	A large diameter screw is placed inside the working chamber. The product is moved by the screw towards an unloading direction.	Screw I	
De-watering system	The section is designed for drying the product after blanching. It removes the maximum amount of water by the intensive air blowing.	CAC	
Fryer with paddles	The product is moved by the constant oil flow as well as with the help of the paddles, that move the product towards the discharge zone and carefully stir it for a uniform heat treatment.	Snack Pro 2	
De-oiling system	Conveyor is used for removing an excess oil from the product after the frying process.	CAC	

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Vegetables processing under the vacuum SnackPro Profi Line



The line is designed for processing raw vegetable to chips or french fries. The result of the processing is healthy products. It is possible to process different kind of vegetables such as potatoes, beets, carrots, parsley and etc. The final product can be flavoured by salt or other spices.



Item	Description	Model	Photo
Drum washer with conveyor	The product is loaded into the washing machine mechanically, and after washing, the product is unloaded by a conveyor.	DrumWash	
Brush washer	The device is suitable for cleaning root vegetables such as carrot, beet or potato. The product is washed by the built-in brush.	DP Wash	
Conveyor with hopper	The conveyor transports the product to the vegetable cutter.	CWH	
Cutting machine	Rotary-type continuous cutting machine for slicing.	EasyCut	
Vacuum fryer	Frying is done under the vacuum at low temperature. It is a unique and cutting-edge heat treatment method. Products from the fryer are manually unloaded to the conveyor.	VF	
Conveyor with hopper	The conveyor transports the product to the drum coater.	CWH	
Drum coater	Drum coater is suitable for flavouring different products. The drum operates continuously.		

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Deep frying line

CombiFry Line



The line consists of equipment for forming, frying and pre-cooling. It is an electromechanical complex of continuous equipment intended for frying various snacks.

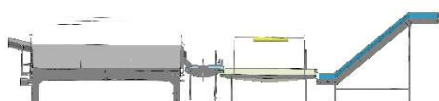






Item	Description	Model	Photo
Forming machine	It forms the product into a desired shape.		
Dewatering system	Conveyor is used for removing water from the product before the frying.	CAC	
Continuous fryer	Fryer combines the immersion frying and pouring with oil. The main principle is to heat products by spraying (pouring) hot oil, which creates a film on all sides of the product.	CombiFry	
De-oiling system	Conveyor is used for removing an excess oil from the product after the frying process.	CAC	

Frozen vegetables processing



The line is suitable for processing frozen products. Products have to be gently defrosted without overheating or causing damage.



Item	Description	Model	Photo
Drum blancher	Blanching of the product is carried out by continuous rolling and stirring inside the working chamber	BD	
Cooling conveyor	The device cools various products such as vegetables, fruit, mushrooms, berries etc.	CWC	
Inspection conveyor	Inspection conveyor is used for controlling and manual removing of defective products. The product is removed through the side walls of the conveyor.	IC	
Inclined conveyor	Inclined conveyor is used for transporting frozen raw materials. The conveyor can be easily integrated into any production line due to its universal design.	IC-Z	


Jam processing

Double VK Line



The plant consists of two vacuum cooking chambers where products are cooked alternately. This ensures an uninterrupted supply of the cooked product to the dispenser. Components are loaded through a hopper placed at a convenient height, which facilitates operator's work - there is no need for additional lifters.








Item	Description	Model	Photo
Vacuum kettle x 2	Cookers work interdependently and different processes can be carried out in two kettles at the same time.		

Jam processing



The line for jam processing mixes fruit puree and sugar and delivers a high quality jam.



Item	Description	Model	Photo
Mixing tank	Double jacketed tank is equipped with a special stirrer that mixes the product at a low speed to avoid damaging fruits/berries structure.		
Sugar hopper	The hopper dispenses sugar, it has an adjustable dosing system		
Vacuum cooker	Cooks the product at lower temperatures - under the vacuum, keeping the natural taste, colour and smell. An efficient technology to remove air bubbles from the product.		
Tempering tank	It is designed for a temporary storage of the finished product with maintaining the set temperature. It has a jacket and a stirring device.		
Pasteurization tunnel	It pasteurizes and cools jars and cans after they are filled with the finished product.		

Dried fruits production line



The line for production of dried fruits. The line performs a complete production process of dried fruits up to the packaging.



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Item	Description	Model	Photo
Inspection conveyor	Inspection conveyor is used for controlling and manual removing of defective products. The product is removed through the side walls of the conveyor.	IC	
Conveyor with a hopper	The conveyor is used for transporting the products. The conveyor can be easily integrated into any production line due to its universal design.	ICH	
Cutting machine	Cuts the product into slices.	Cut NC	
Bubble washing machine	The system generates bubbles in the water bath. Intensive bubble movement gently washes the products.	Wash W Air	
Inclined screw blancher	The product is moved by a large screw towards unloading section, while being evenly heated.	Screw I	
Drying chamber	Of the condensate principle		






Yoghurt processing

UniLine



This universal cooking and homogenizing plant with pasteurization function is intended for processing a wide range of liquid and viscous products.



Item	Description	Model	Photo
Universal cooker	Works either under the vacuum or under atmospheric pressure. It is jacketed, insulated, equipped with a heating system and a frame-type stirrer with Teflon scrapers.	MHF	
Homogenizer	The homogenizer of a rotor-stator type produces a homogeneous product with a particle size of up to 3 microns.		
Hose pump	Hose pump works with sensitive high-density substances. When starting the hose pump, it is not necessary to fill it with working fluid - it works on a "dry" run.	PP	
Accumulating vessel with agitator	The finished product is transported via this vessel to the pasteurising unit.	ST	
Scraped surface heat exchanger	Scraper-type pasteurizer works efficiently with various products and with solid particles up to 15 mm in size.	Normit EX	







Mayonnaise production







Mayonnaise Pro Line



Normit mayonnaise production line effectively processes mayonnaise and similar products. Mixing is a key stage in a mayonnaise production - a high speed mixer ensures perfect mixing and it is a key component in the line.



Item	Description	Model	Photo
IBC container	Is used for oil storage.	IBC	
High speed mixer	The mixing vessel is designed for a high-speed mixing. The included frequency inverter allows changing the mixing speed.	HSM	
Measuring vessel	The oil measuring vessel is equipped with a control unit, a level sensor and a connection to the pump.	MV	
Dosing unit	It is used for filling and dispensing of mayonnaise.		
BIN container	The finished product is stored in the container which keeps its state until it is filled.	BIN	
CIP station	It is used for cleaning and sterilizing the industrial equipment and pipes after the end of the production cycle. The cleaning detergent is sprayed through the special nozzles.	CIP	

Oil drying line			
			
<p>Line is an automated closed system for evaporation, increasing the product concentration in the solvent or a complete solvent removal.</p>			
			
Item	Description	Model	Photo
Vacuum spray drying unit	The vacuum dryer works on a spraying method. It is connected to a condensate collection tank and a vacuum pump. The product is heated and then sprayed through the nozzles reaching a dispersed state.	NSD	
Filtration system	Filters the product, removing impurities, works in a batch mode. It is equipped with the level sensor	F	
Flow filtering machine	Filters liquids in a flow. The product flows through the filters under the pressure.	CFC	
Heat exchanger	It heats the product up to 200°C, the installed electric heating is 168 kW. The heated product is forwarded to the spray drying unit.		

Honey processing

HH Line



Honey homogenization line is an electromechanical complex of equipment intended for homogenizing one batch of honey. The line consists of a honey loading system, a horizontal homogenizer, and a weighing and dosing station. The line is equipped with a semi-automatic control panel.






Item	Description	Model	Photo
Honey homogenizer	The plant is used for mixing, blending, and homogenizing various kinds of honey to improve its qualities and to obtain certification for the entire batch. It is a horizontal cylindrical container with a heating jacket and a screw-type agitator.	HPL	
Tilting system	It lifts the containers with honey and tilts them to load the honey into the homogenizer. The lift is equipped with either hydraulic or pneumatic lifting mechanism.		
Tensometric drum filler	It is intended for packing the finished product in a large industrial container by the weight principle.	AP	

Honey processing



The line is intended for processing hard, raw honey. The line melts, filtrates and homogenizes crude impurified honey and prepares it for dozing into the industrial packaging.

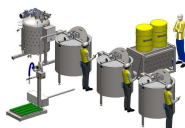






Item	Description	Model	Photo
Honey melter	Turbo-melter pre-melts large honey crystals, mixes honey and improves its structure and consistency, preparing for further homogenization. It is equipped with a screw agitator for an effective stirring.	Turbomelter	
Honey homogenizer	The plant is used for mixing, blending, and homogenizing various kinds of honey to improve its qualities and to obtain certification for the entire batch. It consists of a horizontal cylindrical container with a heating jacket and a screw-type agitator.	HPL	
Tensometric drum filler	It is intended for packing a finished product in a large industrial container by the weight principle.	AP	

Honey processing



Honey is added to the melter to reach the liquid texture. Subsequently, it is forwarded to the vertical homogenizers. At the end of the process, a creamed honey is produced and ready to be filled to the containers.



Item	Description	Model	Photo
Honey melter	Turbo-melter pre-melts large honey crystals, mixes honey and improves its structure and consistency, preparing for further homogenization. It is equipped with a screw agitator for an effective stirring.	Turbomelter	
Honey homogenizer x3	The equipment is used for mixing, and homogenizing different kinds of honey to get a batch of a product with homogeneous properties. The vertical working vessel has a screw agitator and a jacketed design.	VPL	
Honey creaming machine	The Plant is used for the production of creamed honey. It allows producing creamed honey on an industrial scale thanks to the significant reduction in crystallization time.	CH Profi	
Tensometric drum filler	It is intended for packing the finished product in a large industrial container by the weight principle.	AP	

Chocolate production

Choco line



Line is an automatic system intended for making chocolate, chocolate glaze and fillings.



Item	Description	Model	Photo
Pre-mixing machine with a melting grid and a homogenizer	A stirrer and a subsequent homogenizer dissolves and mixes the confectionery fat at constant heating. The length of the cycle depends on the time required.		
Ball mill with a heating jacket	It grinds raw materials by the use of continuously colliding and rubbing balls, which drive a blade-type mixer.		
Storage tank	It stores chocolate mass or glaze while heating through the jacket and low-speed stirring by an anchor-type agitator with Teflon scrapers.		
Heat exchanger	It is designed to heat the coolant which is necessary for the line components to function. It is equipped with electric heating 4.5 kW, circulation pump and a pipeline.		








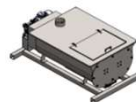
Chocolate bar production line

ContiBar Line



The line is suitable for producing sweet bars made of wheat flakes, muesli, nuts, cereals, fruits seeds, nuts, puffed rice, corn puffs and etc. The production line performs such processes as preparation of confectionery mass, forming and cooling.


















Item	Description	Model	Photo
COOKING PART OF LINE			
1.Layer. The Base			
Tensometric dosing system for dry components	The system weights components required for a syrup production.		
Components mixer	It produces a syrup by mixing dry components with water.		
Fat melter	It is intended for melting vegetable fats.		
Vacuum evaporator for syrup	It is used for boiling and concentrating the sugar syrup.		
Screw conveyor	The conveyor is used for filling sugar to the tensometric dosing system for dry products.		
Twin screw mixer	Performs a delicate mizing of the dry base with the syrup.		

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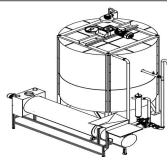
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2. Layer			
Screw conveyor	The conveyor is used for filling sugar to the tensometric dosing system for dry products.		
Tensometric dosing system for dry products	The system weights components required for a syrup production.		
Vessel for mixing components	Device mixes and heats weighed raw materials.		
Aerator	Provides high levels of oxygenation.		
Mixer	It mixes the product carefully, it does not destroy a light foam structure of the product.		
Forming machine	It forms a layer by compression in accordance with calibrated dimensions. Confectionery mass (for example, nougat) passes through the reels in a cyclic mode.		
Extruder	Designed for shaping various solid, viscous and paste-like products. Extrudes the product under pressure.		
Cooling tunnel	Cools the product. It operates on the principle of a contact cooling of the product from the bottom (refrigerant) and the upper cooling by cold air.		
Longitudinal cutting machine	Cuts the finished product into equally wide strips in accordance with the specified parameters.		
Expander	It is intended for dividing cut strips of the finished product in order to avoid their sticking.		
Transversal cutting machine	Performs transverse cutting of strips according to the specified parameters, by using a set of blades mounted on a mobile frame.		
Glazing machine	It is designed for glazing confectionery and flour products with tempered chocolate, fat-based glazes and sugar-containing masses.		
Cooling tunnel	Cools the product. It operates on the principle of a contact cooling of the product from the bottom (refrigerant) and the upper cooling by cold air.		
Tempering machine	Cylindrical jacketed and insulated tank, which is designed for tempering chocolate glaze.		

Salt processing EcoSo



The industrial production of white salt involves the preparation of a saline solution for further evaporation, direct evaporation and subsequently drying of the formed crystals. It consists of an atmospheric evaporator, a filter and a drum convective dryer.





Item	Description	Model	Photo
Crystallizing machine	It performs heating of the saline solution and its continuous filtration. The solution constantly circulates in the system for a uniform and effective evaporation.		
Drum dryer	It heats loose products with hot air by a continuous drum rotation. It is equipped with special paddles for easy product unloading in a working mode.		

Cleaning and sterilizing glass jars



It is used for washing, sterilizing and drying containers of various shapes and sizes.

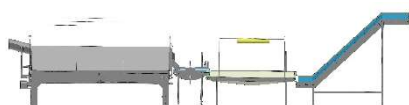






Item	Description	Model	Photo
Machine for rinsing and steaming containers	The device is intended for washing and sterilizing small containers before they are filled with the product, as well as for final rinsing and drying of the sealed container with the product.		
Conveyor	Device is used for transporting clean containers to the next line sections.		

Frozen vegetables processing



The line is suitable for frozen products processing. Products are defrosted without a danger of being overheated or damaged. The line is used in the canning industry.



Item	Description	Model	Photo
Drum blancher	Blanching is carried out by continuous rolling and stirring the product inside the working chamber. The screw agitator stirs the product and moves it towards the discharge zone.	BD	
Cooling conveyor	The device is designed for cooling products as well as for transporting.	CWC	
Inspection conveyor	Inspection conveyor is used for controlling and manual removing defective products. The product is removed through the side walls of the conveyor.	IC	
Inclined conveyor	Inclined conveyor is used for transporting frozen raw materials. The conveyor can be easily integrated into any production line due to its universal design.	IC-Z	

Dry mixtures preparation



The line consists of devices that perform the processes of homogenization, drying and subsequent transport of the product for further processing.



Item	Description	Model	Photo
Lifting device	The equipment lifts and tilts barrels with bulk dry materials.	LDM	
Storage tank	It is intended for a temporary storage of bulk products. The tank has a conical bottom for easy unloading.		
Screw conveyor with heating	Conveyor is designed for horizontal transporting of bulk materials and their continuous heating.		
Screw conveyor	Conveyor is designed for horizontal or screw transport of bulk materials.		
Cyclone	It filters the exhaust air from mineral impurities.		
Mixer with a conical bottom	Mixer is equipped with a special agitator with Teflon scrapers. It is intended for mixing powder-type products.		

Industrial paint production line









The line is used for industrial paints processing. The line performs the following processes: materials preparation, mixing liquid and powder components, and subsequent dosing into industrial packaging.



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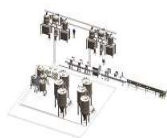
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Item	Description	Model	Photo
Lifting and tilting device	It is intended for unloading powder-type components from industrial packaging and forwarding them to the dosing station.	VBB	
Dry powders dosing station	It is suitable for dosing of powders according to the parameters set by the user. The special design prevents from powder getting stuck in the corners of the working chamber or on the walls.	BBDS	
Cyclone	It filters the exhaust air from mineral impurities.	CS	
Mixing vessel	It mixes the powder-type products with an agitator, equipped with Teflon scrapers.		
Filling industrial pains	It is designed for filling viscous liquid products in an automatic mode.		
Lid closer	It performs a mechanical plugging of industrial plastic packaging. Buckets are fed manually.		












Toffee production



The production line prepares, boils and mixes ingredients. The finished product is forwarded for forming.



Item	Description	Model	Photo
Storage tank for condensed milk	It is intended for a temporary storage of condensed milk before its further use, it has a cone-shaped bottom with a jacket.	ST	
Storage tank for syrup	It is intended for a temporary storage of syrup before its further use, it has a cone-shaped bottom with a jacket.	ST	
Measuring vessel	It is equipped with strain gauges for dosing condensed milk and syrup.	GTT	
Device for sugar syrup preparation	It is intended for mixing sugar with the water and for further boiling and concentrating of the syrup.	AC+	
Syrup preparation device	It is intended for mixing the dry components with prepared water and syrup and a subsequent boiling of the mixture.		
Storage tank	It is intended for a temporary storage of the product before its further use in the next line section.	SST	
Measuring vessel	It is equipped with strain gauges for dosing of the syrup.	GTT+	

The device for boiling and concentrating the toffee mass	It is intended for thickening and concentration of ready-made syrups for obtaining a toffee mass at a constant heating and stirring. This evaporation process is done under the low atmospheric pressure.		
Separator	It is designed to separate steam from the smallest droplets of liquid during the evaporation process under the low atmospheric pressure.	ES	
Condensator	It is designed for steam condensation during the evaporation process at the low atmospheric pressure.	Heatex Tube	
Condensate collection	It collects the water condensate produced by the condensator.	VST	
Z-mixer	It is intended to prepare mixes from dry and wet components under the stable temperature. Stirring is carried out by a two-shaft mixer with the special blades. Operates in a batch mode.	Z Sigma Arm	
Z-mixer washer	Mobile device equipped with a horizontally tilting system. The device is equipped with nozzles to supply water to the Z-mixer in an inclined position.	CEP	
Plough mixer	It simultaneously mixes large volume of dry components, which tend to form lumps when in a contact with liquids.	NP	
Storage tank for purified water	It is intended for a temporary storage of water before its further use.	STCW	
Storage tank for hot water	It is intended for a temporary storage of hot water before its further use. The tank maintains the temperature of the water.	STCW	
Preparation and submission of a solution	It is used for preparation of 50% glycerol solution used for the line maintenance.	PLSU	
Preparation of solvents for disinfection	It is intended for the preparation of washing solution used in the line maintenance.	VPS	

Creams production line



The line for production of gels, masks and similar viscous materials. The line consists of a vacuum mixer with a hopper and a dispenser mounted on the same frame.



Item	Description	Model	Photo
Storage unit with dosing function	Single-layer storage tank is intended for storage of water. It is placed above the vacuum mixer.		
Piston dispenser	It is used for dosing of liquid and pasty products where an exact fine-volume dosage or packing is required.	P 2-100	
Vacuum mixer	It is designed for an effective high-speed mixing of the specified components.	PVM 100	