





#### Welcome to PINA

Your Process Innovation and Network Automation Experts

We are a leading engineering company specializing in process innovation and networking automation solutions for the food manufacturing industry. Our expertise in the field has helped us to deliver top-notch custom-designed machines that have enabled our clients to achieve maximum efficiency, improved productivity and increased profits.



Located at Makarpura G.I.D.C., Vadodara our manufacturing unit is devised with latest equipments and dedicated workforce required to manufacture robust and state of the art- designed equipment.

We have gained extensive knowledge from working with customers over the width of food industry over the last 14 years. Established in 2009 with a small foot print, today we are a young enterprise working out of a 10,000 sq.ft facility with over 48 employees.

Our inhouse design lab and innovative approach provide our customers with novel process solutions and highly efficient equipment.

Our team of highly experienced engineers, designers, and technicians have an in-depth understanding of the latest technology and trends in the industry, which enables us to provide cutting-edge solutions that can be tailored to meet the specific requirements of each client.

## core philosophy

We believe in innovation and excellence as the keys to success. We approach every challenge with a can-do attitude, working collaboratively with our clients to create unique and effective solutions. We are dedicated to creating a better world through innovation, technology and collaboration for providing safe and hygienic food technology.

## ABOUT US CORE PHILOSOPHY





### process innovation solutions

We understand that every food manufacturing process is unique, and as such, we offer custom process innovation solutions that can be adapted to each client's needs. Our team is equipped with state-of-the-art tools, software and equipment to develop custom-designed machines that can automate the manufacturing process, reduce waste and increase overall efficiency. Our solutions include:

- Design and fabrication of custom machines that can optimize the manufacturing process
- Automation of existing processes
- Upgrades to existing machinery
- Integration of the latest technology for increased efficiency
- Industrial 4.0
- Collecting data to increase the effectiveness of the process

## networking automation solutions

Our Networking Automation Solutions:

We also specialize in providing networking automation solutions that can help our clients to streamline their manufacturing processes, achieve maximum efficiency and reduce downtime. Our solutions include:

- Control systems design and implementation
- Networking automation for real-time monitoring and control
- Integration of IoT (Internet of Things) technology for enhanced efficiency

At PINA, we are committed to delivering the best quality service and solutions to our clients. Contact us today to see how we can help your business achieve its full potential.

## **PROCESS** INNOVATION **SOLUTIONS**

## **NETWORKING AUTOMATION SOLUTIONS**





# RETORT PROCESS SYSTEMS

Retort machine Filling machine Pouch packaging machine

Our range of premium batch retorts is designed for an optimal sterilization, pasteurization and cooking of packaged food. We design a wide range of sterilization retort models that share the same technological platform and are suitable for future upgrading. They are engineered to meet the highest food industry performances standards in terms of package integrity and respect of the organoleptic properties of the products.





#### **Area of Operation:**

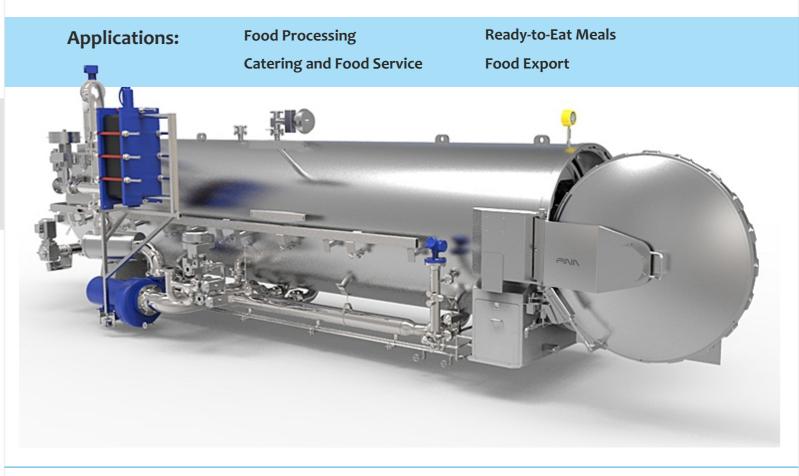
Pina Engineering operates globally, serving the food processing industry across various sectors and regions. Our advanced Retort Machine is designed to cater to the diverse needs of food manufacturers, including but not limited to:

**Canned Goods:** Our Retort Machine ensures the safe and efficient processing of canned food products, preserving their quality and extending their shelf life.

Glass Jars: With precise temperature and pressure control, our machine provides optimal sterilization for food items packed in glass jars, maintaining their taste, texture, and nutritional value.

Flexible Pouches: Our Retort Machine accommodates a wide range of flexible pouches, allowing for the processing and preservation of products like sauces, soups, and ready-to-eat meals.

**Other Packaging Formats:** Our versatile machine is adaptable to various food packaging formats, empowering food manufacturers to process and preserve fruits, vegetables, meats, and more.



Pina Engineering Company.

Address: 406, Behind Express Crane, G.I.D.C, Makarpura, Vadodara-390010.

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## **DRYING PROCESS SYSTEMS**

Lyophilizer | Freeze Dryer Vacuum Dryer Nucleation On Demand Blast Freezer Monorail Material Transfer System.

Our range of premium lyophilizer and freeze dryers are designed for optimal output, consistent textures and unmatched rehydration quality. We design a wide range of freeze dryer models that share the same technological platform from lab size models to industrial systems and are suitable for future upgrading and system integration. They are engineered to meet the highest food industry performances and safety standards.





#### **Area of Operation:**

Pina Engineering operates globally, serving the food industry across various sectors and regions. Our Freeze Dryer/Lyophilizer is designed to cater to the diverse needs of food manufacturers, including but not limited to:

Fruits and Vegetables: Preserve the natural flavors, colors, and nutritional content of fruits and vegetables through the gentle freeze-drying process.

Meats and Seafood: Extend the shelf life of meats and seafood while maintaining their taste, texture, and tenderness.

**Dairy and Dairy Products:** Freeze-dry dairy products like yogurt, cheese, and milk to create lightweight and shelf-stable options with preserved taste and nutrients.

Ready-to-Eat Meals: Create long-lasting, lightweight, and nutritious freeze-dried meals suitable for camping, emergency preparedness, and convenience.

**Applications:** 

**Food Processing Biotechnology** 

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**Pharmaceuticals** 

**Nutraceuticals and Supplements** 







Introducing the Pina Engineering Heating Cooling System, a cutting-edge solution that revolutionizes temperature control in various industries. With advanced technology and exceptional performance, our system offers precise and efficient heating and cooling capabilities for a wide range of applications.



#### **Technical Characteristics and Advantages:**

Pina Engineering is a trusted manufacturer of refrigerated heating circulators, and our YMGD series boasts impressive features and advantages:

Wide Working Temperature Range: Our system offers simultaneous cooling and heating functions, with a temperature control range from -70 °C to 300 °C. This versatility allows for precise control in various temperature-sensitive processes.

**Dual LED Display Controller:** Equipped with two LED display controllers, our system provides real-time monitoring of both the set temperature and the actual value.

Efficient and Simple Liquid Filling: Our system streamlines the liquid filling process, ensuring efficiency and ease of use. The simplified liquid filling mechanism saves time and enhances productivity in laboratory and industrial settings.

**Fast Cooling and Continuous Temperature Control:** Our system ensures rapid cooling even at high temperatures, enabling temperature control from -70  $^{\circ}$ C to 300  $^{\circ}$ C continuously. This capability is essential for demanding applications that require precise and consistent temperature regulation.

Closed Cycle System for Safety: Pina Engineering's heating cooling system features a closed liquid circulation system, eliminating the risks associated with oil mist or water vapor. This design ensures a safe working environment and extends the lifetime of the heat transfer fluid.

Reliable Performance: Our system utilizes highquality components, including a Copeland brand compressor & bitzer from the United States. This choice guarantees stable performance, reliability, and longevity, meeting the high standards of industrial and laboratory applications.

**Enhanced Safety Features:** Equipped with selfdiagnostic capabilities, our system includes safety functions such as freezer overload protection, high-pressure switch, overload relays, and thermal protection devices.

**Single Thermal Medium:** The Pina Engineering Heating Cooling System employs the same thermal medium throughout the entire heating and cooling process. This design simplifies operation and maintenance, providing a seamless and efficient temperature control solution.

High Lift Design: Our system incorporates a high lift design, allowing for long-distance transmission of the heat conducting medium. This feature enables flexible and adaptable temperature control in various setups and configurations

**Applications:** 

Food & Beverage **Material Testing** 

**Chemical Processing** 

**Laboratory Research** 

**Quality Control** 

Vadodara-390010



## **CRYOGENIC PROCESS SYSTEMS**

Immersion Freezer Tunnel Freezer **Batch Freezer IQF** Freezer Specialized Storage Tank

Introducing the Pina Engineering Liquid Nitrogen Cryogenics Processing Equipment and Storage Tanks, a state-of-the-art solution that harnesses the power of extreme cold for a wide range of applications. With cutting-edge technology and uncompromising quality, our equipment and tanks provide reliable and efficient cryogenic processing and storage capabilities.





#### **Technical Characteristics and Advantages:**

Pina Engineering specializes in manufacturing liquid nitrogen cryogenics processing equipment and storage tanks, offering a host of features and advantages:

Extreme Cold Performance: Our equipment and storage tanks are designed to withstand and maintain extremely low temperatures, ensuring optimal cryogenic processing and storage conditions.

**Robust Construction:** Built with precision and durability in mind, our equipment and tanks are constructed using high-quality materials and advanced manufacturing techniques, guaranteeing reliability and longevity.

Temperature Control and Stability: Our cryogenics processing equipment incorporates advanced temperature control systems, enabling precise regulation of the freezing and chilling process for various applications.

Efficient Cryogenic Processing: With Pina Engineering equipment, you can achieve rapid and efficient cryogenic processing, preserving the quality, flavor, and nutritional value of

products in industries such as food processing, pharmaceuticals, and biotechnology.

Large Storage Capacities: Our storage tanks offer ample space for storing significant volumes of liquid nitrogen, ensuring a constant and reliable supply for continuous production and processes.

**Safety Features:** Pina Engineering places the utmost importance on safety. Our equipment and tanks are equipped with safety mechanisms such as pressure relief valves, temperature sensors, and advanced monitoring systems to ensure secure and trouble-free operation.

**Customization Options:** We understand that every industry and application has unique requirements. That's why we offer customization options for our cryogenics equipment and storage tanks, tailoring solutions to meet specific needs.

**Applications:** 

Food & Beverage **Pharmaceuticals** 

**Biotechnology** 

**Research & Development** 

Medical & Healthcare

**Chemical & Petrochemical** 

#### Unleash the Power of Cold:

Embrace the future of cryogenic processing and storage with Pina Engineering Liquid Nitrogen Cryogenics Processing Equipment and Storage Tanks. Revolutionize your processes, preserve product quality, and unlock new possibilities in various industries. Contact us today to embark on a journey of advanced cryogenics technology with Pina Engineering.

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## **CHOCOLATE PROCESS SYSTEMS**

Enrober | Conche Ball mill | Panning machine Sugar grinder | Winnower Tempering machine Melting tank | Cooling tunnel Melenger | Roaster

Introducing the Pina Engineering Chocolate Machinery Processing Plant, a comprehensive and advanced solution designed to revolutionize the chocolate manufacturing industry. With our state-of-the-art machinery and equipment, we provide end-to-end solutions for chocolate production, ensuring the creation of delectable and high-quality chocolate products.





#### **Technical Characteristics and Advantages:**

Pina Engineering specializes in manufacturing chocolate machinery and equipment, offering a host of features and advantages:

**Customized Production Lines:** Our chocolate machinery processing plant is tailored to meet the specific needs and requirements of each client. We offer customized production lines, ensuring the seamless integration of different processes for a complete chocolate manufacturing solution.

Efficient and Precise Processing: Our machinery boasts advanced technology that enables efficient and precise processing of cocoa beans and other ingredients. From roasting and grinding to refining and conching, our equipment ensures consistent quality and texture throughout the chocolate-making process.

Temperature Control Systems: We understand the importance of precise temperature control in chocolate production. Our machinery incorporates cutting-edge temperature control systems, enabling optimal heat management during the different stages of chocolate processing, such as tempering and molding.

Versatile Production Capabilities: Pina Engineering machinery allows for the production of various chocolate products, including bars, truffles, pralines, filled chocolates, and more. Our versatile equipment adapts to different recipes and formulations, offering endless possibilities for creative chocolate creations.

**Automation and Integration:** We leverage automation and intelligent integration in our machinery to streamline production processes, improve efficiency, and reduce manual labor. This ensures consistent quality, increased productivity, and cost-effectiveness in chocolate manufacturing.

**Quality Assurance and Hygiene Standards:** Pina Engineering upholds the highest quality assurance and hygiene standards in our machinery design. Our equipment is crafted with materials that meet food-grade requirements, facilitating easy cleaning and maintenance to ensure food safety and compliance with industry regulations.

**Applications:** 

**Artisanal and Craft Chocolate** 

**Confectionery Manufacturing** 

**Industrial Chocolate Manufacturing** 

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#### **Craft Delightful Chocolate Experiences:**

Embrace the future of chocolate manufacturing with the Pina Engineering Chocolate Machinery Processing Plant. Revolutionize your production processes, unleash your creativity, and create irresistible chocolate products that captivate the taste buds of chocolate enthusiasts worldwide. Contact us today to embark on a journey of chocolate craftsmanship and success with Pina Engineering.



## **SNACKS PROCESS SYSTEMS**

Sheeting Machine Dough Mixer Conveying Oven Vacuum Frying | Continuous Fryer Extruder Washing Line Electroporation Blancher Slicing Machine

Introducing the Pina Engineering Whole Snacks Processing Plant, a comprehensive solution designed to revolutionize snack production and meet the growing demands of the snack industry. With cutting-edge technology and a focus on efficiency, our processing plant offers a complete range of equipment and systems to streamline snack manufacturing from start to finish





#### **Technical Characteristics and Advantages:**

The Pina Engineering Whole Snacks Processing Plant boasts a range of technical characteristics and advantages:

Versatile Processing Capabilities: Our plant is equipped with a wide array of processing equipment, allowing for the production of various snacks such as chips, extruded snacks, nuts, popcorn, and more. From raw material preparation to final packaging, we have you covered.

**Advanced Automation:** Our processing plant features state-of-the-art automation systems, ensuring precise control, optimal production efficiency, and consistent product quality. Automated processes minimize human intervention, reduce errors, and increase overall productivity.

**Customizable Production Lines:** We understand that each snack manufacturer has unique requirements. Our processing plant offers customizable production lines, allowing you to tailor the equipment layout, capacities, and processes to meet your specific needs.

**Efficient Raw Material Handling:** Our plant includes advanced systems for raw material handling, such as sorting, washing, drying, and blending. These systems ensure consistent quality and cleanliness of ingredients, contributing to the production of high-quality snacks.

**Superior Processing Equipment:** We provide a wide range of cutting-edge processing equipment, including fryers, ovens, extruders, seasoning machines, and packaging systems. Our equipment is designed for efficiency, precision, and durability, resulting in consistent and flavorful snacks.

**Quality Control and Monitoring:** Our processing plant incorporates advanced quality control and monitoring systems to ensure that snacks meet the highest standards. These systems allow for real-time monitoring of critical parameters, such as temperature, moisture, and production speed, ensuring consistent product quality and adherence to specifications.

**Applications: Potato Chips & Crisps** 

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G.I.D.C. Makarpura Vadodara-390010 **Nuts & Seeds** 

**Healthy Snacks** 

**Extruded Snacks** 

Popcorn

Dehydration

#### **Innovate Snack Production:**

Embrace the future of snack manufacturing with the Pina Engineering Whole Snacks Processing Plant. Revolutionize your processes, expand your product portfolio, and meet consumer demands with efficiency and quality. Contact us today to embark on a journey of snack innovation with Pina Engineering.



## **ICE CREAM PROCESS SYSTEMS**

Continuous freezer Batch Freezer Gelato machine Candy plant Homogenizer Pasteurizer Ageing tank Ball ice cream machine Specialised machine

Introducing the Pina Engineering Ice Cream Plant, a comprehensive solution designed to transform the ice cream production process and deliver delectable frozen treats. With cutting-edge technology and a focus on quality and efficiency, our ice cream plant offers a complete range of equipment and systems to streamline the production of ice cream from start to finish.





#### **Technical Characteristics and Advantages:**

The Pina Engineering Ice Cream Plant showcases a range of technical characteristics and advantages

Versatile Production Capabilities: Our plant is equipped with a diverse range of equipment to produce various types of ice cream, including gelato, sorbet, soft serve, and artisanal creations. From mix preparation to final packaging, our plant covers every step of the production

**Advanced Automation:** Our ice cream plant incorporates state-of-the-art automation systems, ensuring precise control, optimal production efficiency, and consistent product quality. Automated processes minimize human intervention, reduce errors, and increase overall productivity.

Customizable Production Lines: We understand that each ice cream manufacturer has unique requirements. Our processing plant offers customizable production lines, allowing you to tailor the equipment layout, capacities, and processes to meet your specific needs and production volumes.

Efficient Mix Preparation: Our plant includes advanced systems for mix preparation, ensuring accurate blending, pasteurization, homogenization, and aging of the ice cream mix. These systems contribute to the creation of a smooth, creamy, and consistent ice cream base.

Superior Freezing and Churning Equipment: We provide a wide range of cutting-edge freezing and churning equipment, such as batch freezers, continuous ice cream

freezers, and ice cream churns. These machines offer precise temperature control, rapid freezing, and optimal air incorporation, resulting in superior texture and flavor. Flavor and Ingredient Incorporation: Our plant features equipment for adding flavors, inclusions, and variegates to the ice cream mix. This allows for the creation of a diverse range of flavors and textures, enhancing the overall sensory experience of the finished ice cream product. Packaging and Decoration Solutions: Pina Engineering offers advanced packaging and decoration solutions, including filling machines, packaging materials, and automated decorating systems. These features enable efficient packaging, labeling, and branding of your ice cream products, enhancing their shelf appeal. **Quality Control and Monitoring:** Our ice cream plant incorporates advanced quality control and monitoring systems to ensure that every batch of ice cream meets the

quality and adherence to specifications. **Energy Efficiency and Sustainability:** Pina Engineering is committed to sustainability. Our ice cream plant incorporates energy-efficient technologies and optimized processes to minimize waste, reduce energy consumption, and promote eco-friendly ice cream production.

highest standards. These systems allow for real-time

monitoring of critical parameters, such as temperature,

overrun, and product consistency, ensuring consistent

**Applications:** 

**Industrial Production** 

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**Soft Serve & Frozen Desserts** 

**Custom & speciality** 

**Artisanal Ice Cream** 

**Novelty Ice Cream Products** 

#### **Craft Delicious Frozen Delights:**

Embrace the future of ice cream production with the Pina Engineering Ice Cream Plant. Streamline your processes, expand your product portfolio, and delight customers with exceptional frozen treats. Contact us today to embark on a journey of ice cream innovation with Pina Engineering.



## **SPICE PROCESS SYSTEMS**

Ribbon Blender Mixing Unit Sieving Machine Hammer Mill Pin Mill Cryomilling Coarse Grinder **Packaging Unit** 

Introducing the Pina Engineering Spice Plant Processing, a comprehensive solution designed to transform the spice processing industry and bring out the vibrant flavors and aromas of a wide range of spices. With cutting-edge technology and a focus on efficiency, our processing plant offers a complete range of equipment and systems to streamline spice manufacturing from start to finish.





#### **Technical Characteristics and Advantages:**

The Pina Engineering Spice Plant Processing boasts a range of technical characteristics and advantages:

Versatile Processing Capabilities: Our plant is equipped with a diverse range of equipment to process various spices, including grinding, blending, roasting, and packaging. From raw material handling to final packaging, our plant covers every step of the spice processing

Advanced Automation: Our spice processing plant incorporates state-of-the-art automation systems, ensuring precise control, optimal production efficiency, and consistent product quality. Automated processes minimize human intervention, reduce errors, and increase overall productivity.

Customizable Production Lines: We understand that each spice manufacturer has unique requirements. Our processing plant offers customizable production lines, allowing you to tailor the equipment layout, capacities, and processes to meet your specific needs and production volumes.

Efficient Raw Material Handling: Our plant includes advanced systems for raw material handling, such as cleaning, sorting, and drying. These systems ensure the purity, cleanliness, and quality of spices, contributing to the production of high-quality spice products.

Superior Grinding and Blending Equipment: We provide a wide range of cutting-edge grinding and blending equipment, including hammer mills, pin mills, and spice blenders. These machines offer precise particle size

reduction, uniform blending, and optimal flavor retention, resulting in consistent and flavorful spice powders.

Roasting and Flavor Enhancement: Our plant features specialized roasting equipment for spices, allowing for controlled roasting processes to enhance flavor, aroma, and color. This enables the production of customized spice blends with rich and authentic taste profiles.

Packaging and Labeling Solutions: Pina Engineering offers advanced packaging and labeling solutions, including filling machines, packaging materials, and automated labeling systems. These features enable efficient packaging, accurate weight control, and clear branding of your spice products, enhancing their shelf appeal.

**Quality Control and Monitoring:** Our spice processing plant incorporates advanced quality control and monitoring systems to ensure that every batch of spices meets the highest standards. These systems allow for realtime monitoring of critical parameters, such as moisture content, particle size, and spice blend consistency, ensuring consistent quality and adherence to specifications.

Energy Efficiency and Sustainability: Pina Engineering is committed to sustainability. Our spice processing plant incorporates energy-efficient technologies and optimized processes to minimize waste, reduce energy consumption, and promote sustainable spice production.

**Applications:** 

**Spice Powder Production** 

Vadodara-390010

**Custom Spice Blends** 

**Ethnic & Speciality Spices** 

**Organic & Natural Spices** 

#### Unleash the Aromas of Flavorful Spices:

Embrace the future of spice processing with the Pina Engineering Spice Plant Processing. Streamline your processes, enhance flavor profiles, and meet the demands of the spice industry with efficiency and quality. Contact us today to embark on a journey of spice innovation with Pina Engineering.



## **CHEESE PROCESS SYSTEMS**

Cheese Kettle With Direct Steam Injection System Filling Machine Mozzarella Cheese Stretcher Moulding Machine Dicer **EMC Machine** Cold Storage

Introducing the Pina Engineering Cheese Processing Plant, a comprehensive solution designed to revolutionize the cheese processing industry and deliver high-quality cheese products to consumers worldwide. Our plant incorporates cutting-edge equipment and systems to streamline every step of the cheese manufacturing process, ensuring efficiency, consistency, and exceptional taste.



#### **Key Equipment and Systems:**

Process Cheese Kettle: Our plant includes a state-of-the-art process cheese kettle, providing precise control over the cheese melting and blending process. This equipment ensures uniform texture, consistent meltability, and optimal flavor development.

Filling System: We offer advanced filling systems that enable efficient and accurate filling of processed cheese into various packaging formats, including tubs, cups, and pouches. These systems ensure efficient production and consistent portioning of cheese products.

Stretcher Machine: Our cheese processing plant features a high-performance stretcher machine, which allows for the stretching and molding of cheese curds. This equipment ensures the development of desired cheese textures, such as mozzarella, for a variety of applications.

Forming Machine: Pina Engineering provides reliable forming machines that shape cheese into desired forms, such as blocks, loaves, or slices. These machines maintain consistent

dimensions, ensuring uniformity and convenience for further processing or packaging.

**Dicer:** Our plant is equipped with a cutting-edge dicer, which precisely cuts cheese into uniform cubes or shreds. This equipment enables the production of cheese with specific sizes and shapes, ideal for applications like salads, sandwiches, or toppings.

**Enzymatically Modified Cheese (EMC) Machine:** We offer advanced EMC machines designed for the production of enzymatically modified cheese. These machines facilitate the controlled modification of cheese properties, such as texture, functionality, and flavor, allowing for

**Cold Storage Solutions:** Pina Engineering provides reliable and efficient cold storage solutions, including refrigeration systems and cold rooms, to maintain the freshness, flavor, and quality of cheese products during storage and distribution.

the creation of innovative cheese products.

**Applications: Processed Cheese** 

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**Natural Cheese** 

**Speciality Cheese Products** 

**Vegan Cheese** 

**Enzymatically Modified Cheese** 

**Analogues** 

#### **Craft Quality Cheese Products:**

Experience the future of cheese processing with the Pina Engineering Cheese Processing Plant. Streamline your processes, enhance flavor profiles, and deliver exceptional cheese products to consumers.





## **DAIRY PROCESS SYSTEMS**

BMC

**Cream Separator** Homogenizer | Pasteuriser Heat Exchanger Storage Silo **Processing Tank** Cooking Kettle Retort | Spray Dryer Packaging Machine | Filling Machine

Introducing the Pina Engineering Dairy Processing Plant, a comprehensive solution designed to revolutionize the dairy processing industry and deliver high-quality dairy products to consumers worldwide. Our plant incorporates advanced equipment and systems to streamline the entire dairy processing process, ensuring efficiency, consistency, and exceptional taste.



#### **Key Equipment and Systems:**

Milk Reception and Storage: Our dairy processing plant includes efficient milk reception systems equipped with state-of-theart sensors to ensure accurate measurement and quality assessment of incoming milk. We also provide storage solutions that maintain optimal conditions for milk freshness and preservation.

Pasteurization and Homogenization: We offer advanced pasteurization systems to ensure the safety and longevity of dairy products. Our homogenization equipment guarantees consistent texture and prevents cream separation, resulting in smooth and uniform dairy products.

**Separator and Clarification:** Pina Engineering provides reliable separators and clarification equipment to remove impurities and separate cream from milk. These machines ensure highquality dairy products with the desired fat content.

**Yogurt and Fermented Products:** We provide specialized equipment for the production of yogurt and other fermented dairy products. Our systems maintain precise temperature and incubation conditions, ensuring optimal fermentation and achieving desired taste and texture.

**Butter and Ghee Production:** Pina Engineering offers advanced equipment for butter and ghee production. Our churners, cream separators, and clarification systems ensure efficient separation of butterfat from cream and the production of high-quality butter and ghee.

**Powdered Dairy Products:** Pina Engineering provides advanced equipment for the production of powdered dairy products such as milk powder and whey powder. Our spray dryers and powder handling systems ensure efficient drying and packaging of powdered dairy products while preserving their nutritional properties.

**Applications:** Fluid Milk Processing

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**Powdered Dairy Products** 

**Cheese Production** 

**Ice Cream Production** 

**Ghee & Butter Production** 

**Yogurt & Fermented Product** 





## **GRANOLA BAR PROCESS SYSTEMS**

Roasting machine Peeling machine Cutting machine Sugar cooking machine Mixer machine Press cutter with feeding machine Enrober machine with cooling tunnel Packaging machine

Introducing the Pina Engineering Granola Bar Processing Line, a comprehensive solution designed to revolutionize the granola bar manufacturing industry and deliver high-quality granola bars to consumers worldwide. Our processing line incorporates advanced equipment and systems to streamline every step of the production process, ensuring efficiency, consistency, and exceptional taste.





#### **Key Equipment and Systems:**

Mixing and Blending: Our granola bar processing line includes high-capacity mixers and blenders designed to uniformly combine various ingredients, such as oats, nuts, dried fruits, sweeteners, and binders. These machines ensure consistent texture and flavor distribution throughout the granola bars.

Forming and Compacting: We offer state-of-theart forming and compacting machines that shape the blended mixture into granola bars of desired dimensions and thickness. These machines guarantee precise portioning and uniform density, resulting in visually appealing and structurally sound bars.

**Baking and Toasting:** Pina Engineering provides advanced baking and toasting ovens specifically designed for granola bar production. Our ovens ensure even heat distribution and controlled baking conditions, resulting in perfectly baked bars with the desired crunchiness and flavor development.

**Coating and Enrobing:** Our processing line includes coating and enrobing machines that allow for the application of various coatings, such as chocolate, yogurt, or caramel, onto the granola bars. These machines create an enticing outer layer and enhance the taste and appearance of the bars.

**Cooling and Packaging:** We offer efficient cooling systems that rapidly cool down the freshly baked granola bars, ensuring their structural integrity and preserving their freshness. Our packaging machines provide reliable and automated solutions for packaging the granola bars, ensuring proper sealing and labeling.

**Applications:** 

**Commercial Production** 

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G.I.D.C. Makarpura Vadodara-390010 **Snacks Bar** 

**Artisanal & Niche Products** 

**Protein Bar** 

#### **Craft Quality Granola Bars:**

Experience the future of granola bar production with the Pina Engineering Granola Bar Processing Line. Streamline your processes, enhance flavor profiles, and deliver exceptional granola bars to consumers. Contact us today to embark on a journey of granola bar innovation with Pina Engineering.



## **CONFECTIONARY PROCESS SYSTEMS**

High-capacity Mixers And Blenders Cooking And Boiling Systems **Molding And Forming Machines Enrobing And Coating Machines Cooling Systems Packaging Machines Tempering Machines Depositing Machines** Caramel And Toffee Cookers Hard Candy And Lollipop Molding Machines **Coating Machines** 

Introducing the Pina Engineering Confectionery Plant, a comprehensive solution designed to revolutionize the confectionery industry and deliver high-quality sweet delights to consumers worldwide. Our plant incorporates advanced equipment and systems to streamline every step of the confectionery production process, ensuring efficiency, consistency, and exceptional taste.





#### **Key Equipment and Systems:**

Mixing and Blending: Our confectionery plant includes high-capacity mixers and blenders designed to uniformly combine various ingredients, such as sugar, syrups, flavorings, and colors. These machines ensure consistent texture and flavor distribution throughout the confectionery products.

Cooking and Boiling: We offer state-of-the-art cooking and boiling systems that precisely control temperature and cooking times for confectionery items such as caramel, toffee, and fudge. These systems ensure optimal texture and flavor development.

**Molding and Forming:** Pina Engineering provides advanced molding and forming machines for creating a variety of confectionery shapes, including bars, drops, balls, and molded figures. These machines offer precise control over size, shape, and detailing, resulting in visually appealing confectionery products.

**Enrobing and Coating:** Our confectionery plant includes enrobing and coating machines that allow for the application of chocolate, candy coatings, or glazes onto confectionery items. These machines create an enticing outer layer, enhance the taste, and improve the shelf life of the products.

**Cooling and Packaging:** We offer efficient cooling systems that rapidly cool down freshly made confectionery items, ensuring their structural integrity and preservation of flavor. Our packaging machines provide reliable and automated solutions for packaging the confectionery products, ensuring proper sealing and labeling.

**Applications:** 

**Chocolates & Truffles** 

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**Gummies & Jellies** 

**Caramels & Toffees** 

**Hard Candies & Lollipops** 

#### **Craft Sweet Delights:**

Experience the future of confectionery production with the Pina Engineering Confectionery Plant. Streamline your processes, enhance flavor profiles, and deliver exceptional confectionery products to consumers. Contact us today to embark on a journey of confectionery innovation with Pina Engineering.



## **POST HARVEST PROCESS SYSTEMS**

Introducing the Pina Engineering Post Harvest Processing Line, a comprehensive solution designed to preserve the freshness and extend the shelf life of harvested fruits and vegetables. Our processing line incorporates advanced equipment and systems to optimize post-harvest handling, ensuring minimal spoilage, improved quality, and increased marketability of produce.





#### **Key Equipment and Systems:**

Ethylene Ripening and Ethylene Absorber: We provide ethylene ripening systems that facilitate controlled ripening of fruits, enhancing their flavor, aroma, and color. Additionally, our ethylene absorber systems help regulate ethylene levels, preventing over-ripening and prolonging the shelf life of fruits and vegetables.

Wax Coating: Our post-harvest processing line includes wax coating machines that apply a thin, protective layer of natural or synthetic wax to fruits and vegetables. This coating helps maintain moisture, slows down respiration, and provides a barrier against microbial growth, preserving the quality and freshness of the produce.

**UV Treatment:** We offer UV treatment systems that utilize ultraviolet light to eliminate surface pathogens and reduce microbial contamination on fruits and vegetables. This non-chemical treatment method effectively extends shelf life and enhances food safety, ensuring high-quality produce for consumers.

**Cut Fruit Shelf Life Extension:** Pina Engineering provides innovative solutions for extending the shelf life of cut fruits. Our processing line includes specialized equipment and treatments that maintain freshness, prevent browning, and preserve the taste and texture of cut fruit, enabling longer shelf life and reducing waste.

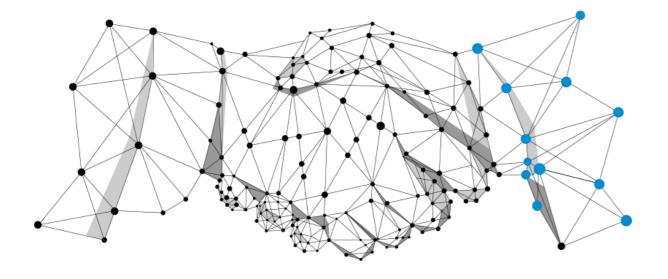
#### **Applications:**

Fresh Produce Distribution: Our processing line is ideal for post-harvest handling and treatment of a wide range of fruits and vegetables, ensuring extended shelf life during storage and transportation. This benefits wholesalers, distributors, and retailers by reducing losses and maintaining product quality.

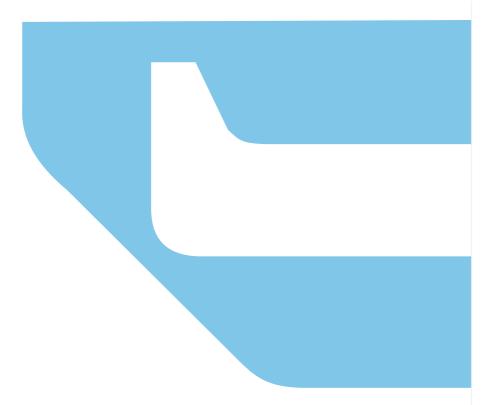
Supermarkets and Retail Chains: By utilizing our post-harvest processing line, supermarkets and retail chains can enhance the shelf life and visual appeal of fresh produce, offering customers high-quality fruits and vegetables with extended freshness. This leads to increased customer satisfaction and reduced waste.

Food Service and Catering: Our line enables food service providers, caterers, and restaurants to maintain the quality and freshness of cut fruits, salad ingredients, and prepped vegetables for longer periods. This results in improved menu options, reduced food waste, and increased operational efficiency.

Export and Import: For international trade, our post-harvest processing line ensures that fruits and vegetables maintain their quality and appearance during long-distance shipping. This extends the market reach of producers and promotes trade by delivering fresh produce to global markets.







#### Partner with Pina Engineering:

When you choose Pina Engineering, you partner with excellence. We offer comprehensive support, from conceptualising, manufacturing, installation and training to ongoing maintenance and technical assistance. Our commitment to your success is unwavering, empowering you to thrive in the ever advancing industrial environment.

Submit your hand sketch or any data on given link. We will design it for you.



Company Name:	Address:	Contact Person:	Contacts
			M.:
			Email:

