

PRE-CRYSTALLIZATION

Different types of tempering equipment are offered for obtaining the required pre-crystallization of the cocoa or chocolate. Either batch-wise or continuous, our tempering machines ensure the correct viscosity for your product.

They facilitate de-moulding and provide chocolate with excellent characteristics. The compact tempering machine promotes the formation of crystals by adding solid chocolate and is suitable for lab scale plants. We also offer a 3-stage tempering process, either batch-wise or continuous, for larger capacities of cocoa mass or chocolate.



FLEX TEMPERING MACHINE

DEPOSITING – MOULDING – ENROBING

This equipment offers you flexibility in manufacturing moulded, enrobed and filled products. Easy to operate and guaranteeing a perfectly shaped product, our equipment is suitable for various recipes. The depositor, with 16 pistons, has a minimum depositing cycle of 3 seconds and the depositing range can vary from 3 to 50 grams per piston. Different volumes, number of rows and columns can be selected. During production, the tempering machine is automatically filled by the buffer tank, while it in turn automatically fills the depositor. This continuous product flow avoids interruptions and fluctuations in the production process.

The temperature of the chocolate is controlled by the continuous pre-crystallizer, which ensures a constant product temperature and therefore a homogeneous product. After moulding, the product is fed into the cooling tunnel.

For enrobing, the product is deposited on the cooled belt and a perfect couverture is brought onto the top and bottom. The production process has visual access so can easily be monitored by the operator. After enrobing, the products are fed into the cooling tunnel. Temperature and humidity in the cooling tunnel are digitally controlled. This tunnel is executed in stainless steel with a polyurethane belt.

EXCELLENT INNOVATIONS, GLOBAL SERVICES.

Royal Duyvis Wiener B.V., founded in 1885, with its head office in Koog aan de Zaan, the Netherlands, is one of the leading manufacturers in the global cocoa and chocolate processing industry. We optimize production processes by supplying new equipment and upgrading existing plants. We reduce production costs by saving energy and minimizing downtime. The Royal Duyvis Wiener group includes: F.B. Lehmann, located in Aalen, Germany; Thouet, located in Aachen, Germany; JAF Inox, located in Tambau, Brazil; Log5, located in Koog aan de Zaan and Royal Duyvis Wiener Indonesia, located in Jakarta.

The company JAF Inox, located in Tambau, Brazil and founded in 2008, derives from the Sartori & Pedrosa Food Company, a family owned business and manufacturer of gourmet chocolate. The processing equipment for the production of gourmet chocolate, developed and engineered in-house, is unique to the Brazilian market and very popular among cocoa- and chocolate producers in Brazil.

Competitive in cocoa and chocolate equipment

The Royal Duyvis Wiener group is well known across the globe as a solution provider in every industrial environment, particularly in the cocoa and chocolate industry. The Royal Duyvis Wiener group is the sole global supplier of complete turnkey lines for the production of cocoa, chocolate, compound and nut pastes. For either lab or large-scale production, single machines or turnkey processing plants, we offer multiple solutions for the complete process from cocoa bean to bar.

Guaranteed continuity

The Royal Duyvis Wiener group also globally modifies, repairs and maintains all types and brands of industrial cocoa and chocolate equipment. The Royal Duyvis Wiener team provides tailor made solutions, either preventative or curative. The result is a reliable and efficient production process by minimizing downtime, saving energy costs and providing optimum yields.

Remarkable development

Our team of engineers, technical and process development experts work side by side, focusing on sustainable production processes and innovative solutions. The technology centers in the Netherlands, Germany and Brazil facilitate customers' product development by testing food products in general and cocoa, chocolate and confectionery products in particular.

Serving our customers across the globe

The Royal Duyvis Wiener group is proud to have built a solid foundation by expanding its business and services in different parts of the world. Based in the Netherlands, Germany, Indonesia and Brazil, our dedicated global staff is highly motivated in supporting our customers by assisting them to realize their optimal production facility, from raw beans to finished chocolate.

Corporate responsibility

We are very proud that, in 2011, Her Majesty Queen Beatrix of the Netherlands has granted Duyvis Wiener the designation 'Royal'. Through its shareholder the P.M. Duyvis foundation, Royal Duyvis Wiener is involved in society, contributes and allocates its personnel and resources back to the community.

With a long term outlook on and responsibility for the global environment, the R & D team at Royal Duyvis Wiener constantly seeks in to develop processing equipment which uses minimal energy, yet offers maximum durability and optimal quality.

GOURMET CHOCOLATE

Turn-key chocolate processing from bean to bar



COCOA & CHOCOLATE PROCESSING EQUIPMENT

JAF Inox is currently one of the leading manufacturers of artisan gourmet bean-to-bar and laboratory-size cocoa and chocolate equipment, supplying multinational companies, artisanal chocolate makers, universities, technology centers and research institutes.

JAF Inox can supply complete turn-key chocolate production systems from bean to bar. The standard lines are highly economical and offer capacities from 10 up to 300 kilos of chocolate per hour. The range of equipment covers bean cleaning, roasting, winnowing, and grinding through 5-roll refining, conching, tempering, moulding and enrobing.

CLEANING AND CLASSIFICATION

Cleaning and classification equipment handle the first step in cocoa processing. The removal of impurities and defective beans is essential at this stage. We offer a table for manual classification for small volumes and high quality gourmet beans, mechanical classification for larger volumes and a 3-stage classifier for larger production lines. All material in contact with the product is executed in AISI 304 stainless steel or food grade plastic and the equipment is easy to clean.

WINNOWING

When nib roasting is required, the winnower is placed after the classification table. The cocoa beans are broken by a hammer mill and the separation of shell and nib is performed by vibratory sieves of different sizes. Our continuous sieve winnower with cyclone is easy to operate and maintain and ensures less than 1.75% of shell in the nibs. For bean roasting, the winnower is placed after the roaster.



CLEANING AND CLASSIFICATION



ROASTING



COOLING



WINNOWING

ROASTING

JAF Inox roasters are suitable for bean or nib roasting. They have an excellent sterilizing and pasteurizing effect. The bean roaster ensures easy loosening of the shell, reduces the moisture content in the beans and extracts unwanted volatiles. The equipment is manufactured from stainless steel and its thermal insulation guarantees efficient heat exchange with low energy consumption. Excellent temperature distribution ensures homogeneous roasting and optimal development of colour and flavour. After the bean roaster, the beans are fed into the winnower and cooled down for milling. With nib roasting, the nibs are cooled down and immediately fed into the batch knife mill.

PARTICLE REDUCTION

In order to reduce the particle size, nibs are crushed by the batch knife mill through quick and efficient milling to obtain a homogeneous mass while maintaining aroma and flavour. The batch knife mill has low energy consumption and all parts in contact with the product are manufactured from stainless steel.

After milling, the liquor is ready for fine grinding in the roll refiner. The 3- or 5-roll refiner exhibits superb particle reduction for chocolate. The rolls are cooled by a chiller and the temperature is digitally controlled. The rolls are covered with hardened, polished steel. The speeds of the rolls, as well as the gaps between the 1st, 3rd, 4th and 5th rolls, can be mechanically adjusted. After passing through the roll refiner, the mass is fed to the conche. JAF Inox offers different types of conching: single shaft conches for small capacities, double shaft conches and longitudinal conches.



PRE-GRINDING AND MIXING



REFINING



CONCHING

De-moisturization, flavour development and the extraction of undesirable volatiles along with precise control of temperature are some of the main characteristics of our conches. They provide a perfectly homogeneous mass, and no additives are required to produce the finest chocolate.

The single and double shaft conches can be used for any type of chocolate. The single shaft conche is particularly suitable for chocolate with a high cocoa content. It has a special design for clockwise mixing and counter clockwise conching with shear stress. The jacketed double shaft conches achieve very high efficiency and use high shear.

Both types have specially designed blades for perfect shear distribution and effective mixing. Speed and rotation are frequency controlled. Water and chocolate temperature is monitored by a PT-100 sensor. The longitudinal conche is often used when taste has higher priority than capacity. The traditional technology, improved with modern temperature controls and exhaustion, provides excellent flavour development and the extraction of undesired volatile acids.

Bean to bar processing



Cocoa beans



Cleaning and classification



Roasting



Cooling



Winnowing

Pre-grinding



Pre-grinding and Mixing

Mixing



Pre-grinding



Intermediate Grinding

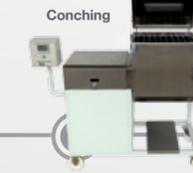
Cocoa butter
Cocoa/milk powder -
Sugar and additives

Cocoa butter
Cocoa/milk powder -
Sugar and additives

Refining



Conching



Fine Grinding



Tempering



Tempering



Cooling



Cooling



Cocoa liquor