

MULTIPROCESS C

Continuous production systems for chocolate, compounds and creams



Figure 1 – Multiprocess C full optional

Multiprocess C is the mini-line by **TECNO 3** designed for the production of small amounts of chocolate. It features equipment to grind cocoa nibs, mix ingredients, as well as refining and conching equipment, that will enable to obtain the finished liquid chocolate ready to be put in shape.

This is a compact, small sized machine, consists of:

- Cocoa nib grinding unit
- Mixer for ingredients
- Refiner
- Conching evaporation tower
- Two-way outlet for chocolate
- Vibrating sieve
- Collection container

The process starts with the introduction of the dosed amount of cocoa nibs in the grinding unit to form the paste. The thick cocoa mass created passes through the horizontal mixer, where the other ingredients of the recipe are added, like cocoa butter, sugar, milk, etc. after being weighed to recipe. The maximum capacity of the mixer can vary depending on the Mutiprocess C model and can work 5, 25 or 50 kg.



Figure 2 – Ascendent belt, conching tower and re-cycling belt

After the ingredients are mixed together, the product goes in the ball mill where the refining stage starts. The product, from the ball mill, is channelled out on a tilted ascendant conveyor belt to the top of the conching tower. The product is inserted in the conching tower perpendicularly to a spinning disc, which helps spread out evenly in a very thin layer the chocolate in the internal wall of the structure.



Figure 3 – Shaping of finished chocolate

The cylinder is heated to the desired conching temperature, which is transmitted to the product by contact. An upward flow of air promotes the evaporation of excess water and any unwanted aromatic substances. At the base of the cylinder the chocolate is conveyed either in the initial mixer from where the product starts re-circling or to the vibrating sieve to be tempered and put in shape.

The cycle is repeated until the desired fineness is achieved. If the conching result is not yet satisfactory, the rotation speed of the refiner can be reduced to the so as to stop further refinement but continue conching the product. Once the process has been completed, the chocolate is diverted on the vibrating sieve and collected in the designated removable container.

There are no pumps and connection pipes. Each single part of the system can be easily disassembled and removed to ensure thorough cleaning and sanitation. The system is made entirely of AISI 304 stainless steel. The control parameters for the temperatures and rotation speeds of the line can be set on the screen of the electrical control panel.

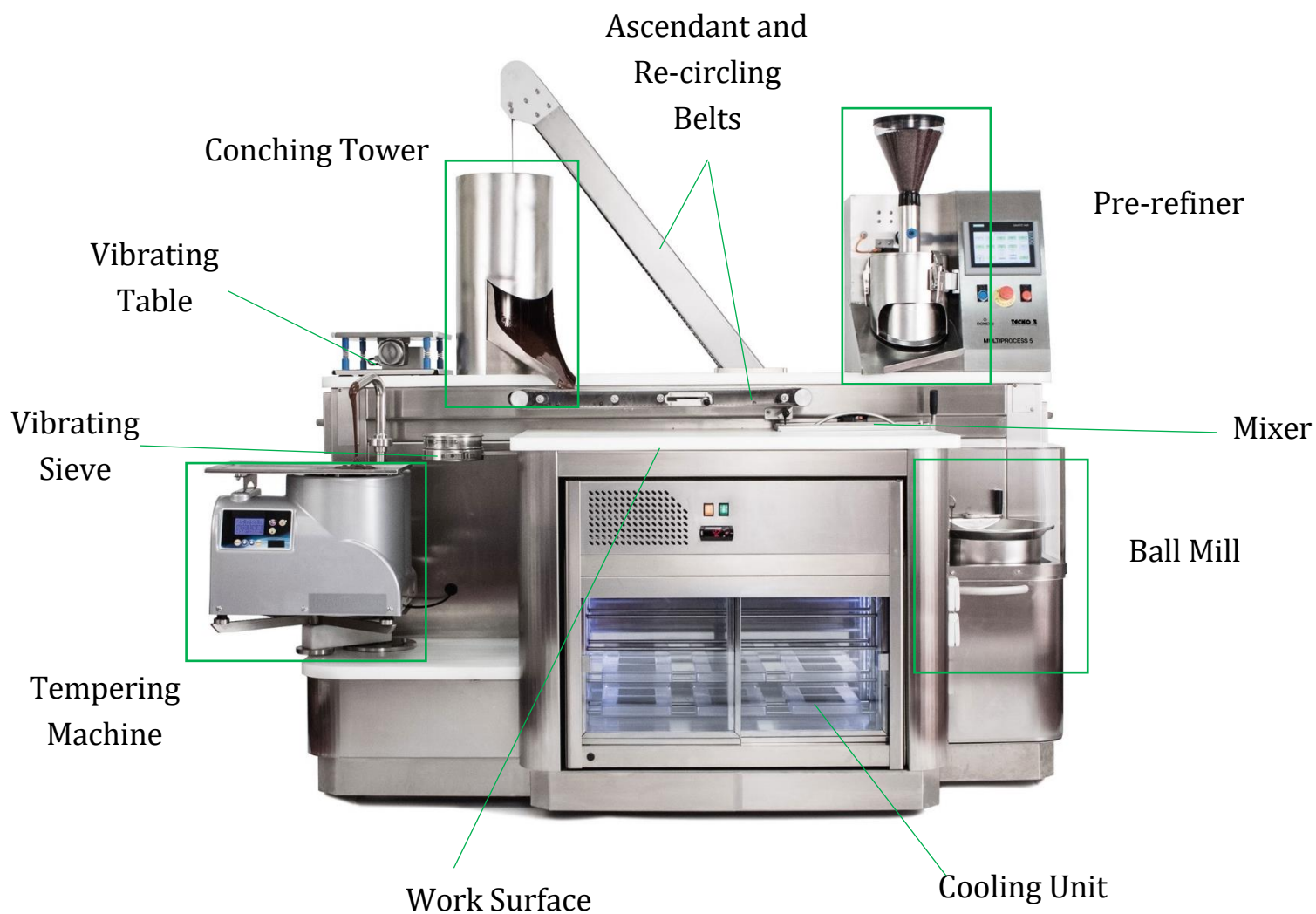
The 5 kg model can include several options according to requests: a tempering machine, a vibrating surface to help the air bubbles out of the shaped chocolate and a refrigeration unit to harden the chocolate to create the finished product. In a full-optional Multiprocess C5 conched chocolate falls through the vibrating sieve directly into the tempering machine's tank, installed where the collection container would be located. The cooling cell is inserted in the lower part of the structure without causing any increase of the overall dimensions of the machine compared to the standard line.



Figure 4 - Control panel

TECNO 3

Chocolate and confectionery technology



Tecno 3 S.r.l. - Via Mastri Cestai 2 - 12040 - Corneliano d'Alba (CN) - Italy

Tel. +39 0173 61.05.64 - tecno3@tecno-3.it

P.Iva 03119410045