

Plant Design Maximizes Flexibility In Chocolate Production

Modern chocolate production no longer involves simple manufacturing. Today it is much more the art of recognizing and developing trends early on — while operating economically and without compromising quality.



Over the years chocolate has become a general commodity — both its consumption and its production are more affordable, faster and more global than ever before. And the competition for new flavor nuances in the wide world of chocolate has become much tougher. Today manufacturers can rapidly respond to the specific desires of the customers with the help of flexible production and adequate machine capacities.

NETZSCH-Feinmahltechnik GmbH has developed a plant design firmly based on the pillars of flexibility and quality. The goal was to design a chocolate machine that is fast, user friendly, compact, energy efficient and capable of producing all kinds of sweet treats, even in small quantities. The *ChocoEasy*® idea was born.

Engineers started with the contemporary redesign of the classic production processes mixing, roughing, refining, dry and wet conching. The result is that agitator bead mills are employed for the fine grinding of the chocolate, with the crushing process and wet conching occurring in parallel, and with no compromise to quality. This method significantly reduces the production time while also saving energy and cooling water. The process, which is slightly modified in comparison to the traditional manufacturing process, also facilitates easy and accurate adjustment of fineness and quality. This saves up to 5 percent of cocoa butter.

The machines were primarily developed for specialized niche suppliers, so NETZSCH offers the modular plant in six different sizes. Requirements from 25 kg all the way up to 6,000 kg per batch can be met precisely. The *ChocoEasy*® machine series can

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be scaled up. Each model can produce white, milk and dark chocolate and even allows the production of lecithin-free chocolate. In addition, flavorings and additives can be mixed into the recipe in order to reach new target groups or to surprise existing ones.

To help ensure new varieties can be produced from a technical standpoint before mass production, NETZSCH-Feinmahltechnik has established a WhiteLab specifically for testing all possible recipes and machine configurations in advance. Variables like temperature, aeration and processing time can be tested to ensure the well-balanced flavor of the end product.

Thanks to the customers, who continuously bring us new challenges, the components of the *ChocoEasy*® system are being refined on an ongoing basis in order to make production of the perfect chocolate even more efficient, faster and easier. The latest successful innovation is the production of the new SAMBA components, which facilitate direct feeding of granulated sugar into the agitator bead mill. This has made the production process even more flexible.

NETZSCH-Feinmahltechnik GmbH will be showcasing the ChocoEasy® in its booth at ProSweets 2012 in Cologne, Germany. For more information, visit www.netzch.com [1].

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[1] <http://www.netzch.com/>