

Successful generation change: the E and K series available on the market



*Prize draw for presentation
of the E series*

2012 saw the introduction of a new generation at BMA. With its E1810, BMA successfully launched the medium-size version of its new series of batch centrifugals. Following this smooth start, the other two sizes, E1390 and E2240, are now ready for rollout. The first E1390 centrifugal will already be supplied in summer 2013, and the large E2240 machine is expected to be available as from the third quarter 2013.

The motto for this rollout is "The next generation – the new standard". With this slogan, BMA expresses its expectations right from the start: that the new series of centrifugals will set new standards in the worldwide centrifugal market, thanks to its innovative features.

The E series is characterised by its highly efficient mode of operation and a design that focuses on the essential. The long discharger that was already successfully used for the B series has been consistently improved; in the E series, it swivels only horizontally into the sugar layer for discharging. There is no more vertical movement, the batch time is shorter, and the number of components used could be significantly reduced.

The new internal syrup separation unit, too, impresses with its simple design. For example, internal mechanics is no longer needed. Based

on the separation flume principle and thanks to an optimised housing base, back-mixing of the two syrups is minimised and an excellent separation performance can thus be achieved. Compared to conventional external syrup separation, it is possible to draw off either wash syrup with clearly less colour or larger quantities of wash syrup of the same colour, depending on requirements.

Another highlight of the E series is the new basket design. The E series are the first batch centrifugals worldwide that are equipped as standard with a basket with elliptical discharge openings. This helps reduce the peak stresses that occur during operation by more than 40 %. The calculated service life of this, the "most expensive wearing part" of a batch centrifugal, could thus be extended to 250 %. In its development of the E series, BMA also relied on the latest findings regarding operational reliability, for example by using a failsafe control as standard unit.

The sugar factory Ouvré Fils S.A. at Souppes, France, has been one of the first customers for the new series, having put two E1810 centrifugals into operation for the 2012 beet campaign. This factory with a processing capacity of about 9,000 t/d specifically chose to replace two older centrifugals from another manufacturer with state-of-the-art technology. This exchange was no problem at all, since the girder spacing is the same as with many other models, e.g. BMA's G series.

The customer was impressed primarily by the centrifugals' low maintenance requirements and the resulting low service life costs, and by the simple yet efficient syrup separation. In addition, the E series delights with its excellent running smoothness, which allows the hassle-free processing of varying massecuite qualities.

In 2009, BMA had already introduced a new continuous centrifugal, the K3300 model. In its development, too, the focus had been on efficiency, process stability, simple installation, operation and maintenance, as well as on operational availability. Since its introduction, the K3300 centrifugal has quickly gained acceptance all over the world, and it goes without saying that BMA is continuously working to further enhance it.

Just one example: BMA has implemented a solution for automatically controlling the addition of wash water, steam and the mixing medium.

Centrifugal station at

Souppes with two E1810



The motor current serves as a reference variable for control, and the steam-out cycle is automatically controlled as well.

In a station with six centrifugals, each K3300 machine was equipped with its own small PLC, which controls these functions. In addition, a central control unit displays the higher-level safety functions, such as the emergency shutdown function or the interlocking of the centrifugals requested by the customer. For visualisation of the operational statuses and for local adjustment of all important operating parameters, each centrifugal was equipped with a touch panel.

This centrifugal station successfully started operation with the 2013 thick juice campaign.

Another innovation for the K3300 centrifugals: to date, the K3300 was used for processing B and C product; now BMA has developed a model that is suitable for massecuite spinning in the beet and cane sugar industries, with massecuite purities above 88 %.

For this purpose, BMA uses a new basket that is based on the tried-and-tested functional principle of the staged basket, executed with special inclination angles. The smooth conveying of sugar can thus be ensured also for speeds lower than used in B or C product processing. For a long service life of the screen and reduced life cycle cost, both basket stages are equipped with wear-resistant wedge-wire screens. The centrifugal is exclusively available with an integrated mixing and melting unit. A typical application for this type of centrifugal is the production of C affination magma.

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