



Cover: Reliable Hygienic
Conveying and Dosing

Reduced Sugar
Fruit Spreads

Customized Weighing and
Filling for Diced Meat

Improved Sorting for
Nut Processors

A Reliable Solution for Hygienic Conveying and Dosing

Pumps used in food manufacturers' plants need to run reliably and guarantee the extremely gentle conveying of a range of different media. In particular, the feeding, mixing and pumping of these high-viscosity, viscous media, such as bread or cake dough, yeast solutions, as well as fruit, sugar and filling compounds, time and time again pose major challenges for pumps.

High-viscosity, pasty ingredients (with viscosities of up to 3,000,000 mPas) need to be gently conveyed in food manufacturing plants. Problems can arise because bread, cake, leftover mixture, chocolate or filling compounds, as well as thick fruit, vegetable and sugar masses, cannot be drawn in nor can these media be guaranteed to flow freely into the pump inlet. Very often media containing solid chunks are continuously fed into the pump. The pieces of apple, for instance with an apple strudel filling, may not be excessively chopped. And it needs to be ensured with sensitive

media, such as raspberries – especially if they are being conveyed hot – that the fruit is not crushed and the sensitive membranes broken down during the conveying process. Chocolate and other sugar masses need to be conveyed lump-free and at an appropriate temperature within the plant. The pump manufacturers' design engineers take these requirements and challenges into account in their developments so that the pumps ideally fulfil their tasks in the plants and perfectly convey the product. "We are looking forward and continually ask ourselves, often together with our global customers and sales partners, what we can change and improve," explains Claus Garnjost, Managing Director of Pumpenfabrik Wangen GmbH.

WANGEN VarioTwin NG – an additional module with hopper and screw conveyor

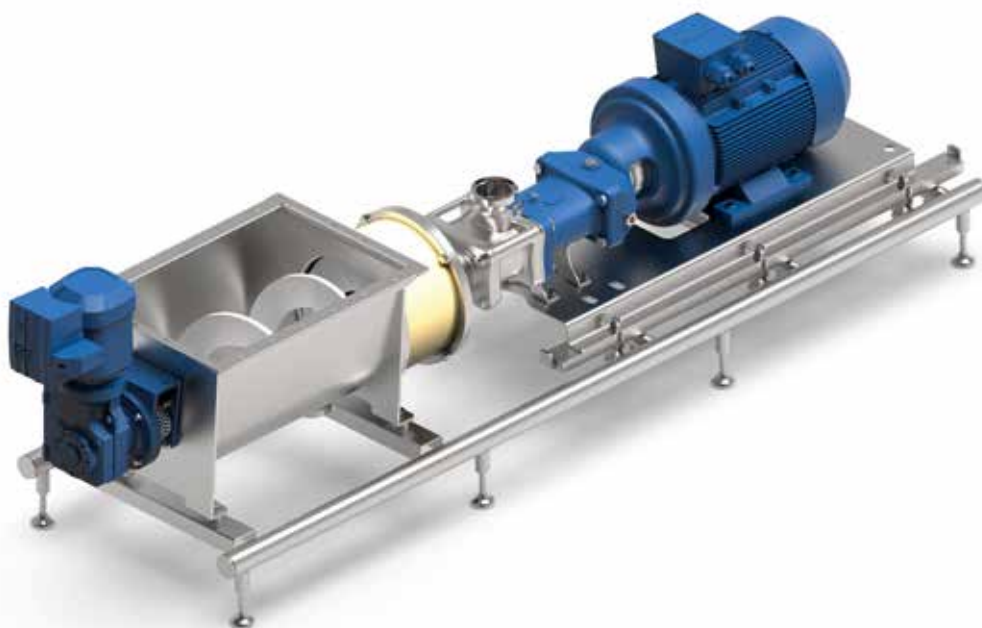
The VarioTwin NG pump is a patented advancement of the existing WANGEN

Twin screw pump. An additional module with a hopper and screw conveyor is now available in different lengths, which is simple and effective to clean, and is ideally configured to the respective application and requirements.

"WANGEN PUMPEN has developed precisely the solution we need in the food industry."

The VarioTwin NG Unit feeds the Twin NG pump with the viscous medium. This avoids any break in flow on the suction side and conveyance is continuous. "This unit also improves the filling of the individual chambers, significantly increasing the efficiency of the pump. Media that have considerable inclusions of air, tend to form continuous air ducts, which then also have a negative impact on the efficiency of the pump. The VarioTwin NG Unit ensures that these air ducts do not form, as the medium is continuously

The VarioTwin is the ideal feeder unit to pump highly viscous, not flowable media for the WANGEN Twin NG. This is due to the forced conveying of the pumped media via the feed screw.



fed into the pump,” explains Marcus Gutfracht, Application Engineer at WANGEN PUMPEN. The “Vario” label relates to the independent drive units of the Vario Unit and the Twin pump. Two separate motors enable the pump and the worm pre-conveyor to operate independently of each other. The speeds of the Vario Unit and Twin pump are then individually coordinated to each other by a frequency converter, ensuring the gentle conveying of the medium. The proven, low-dead-space overall concept of the Twin range is systematically extended by further benefits, thanks to the special design of the WANGEN VarioTwin NG hopper. The feed of media can be subject to

strong fluctuations, especially with hopper feed pumps. To compensate for this, the “soulless” screw used in WANGEN PUMPEN VarioTwin pumps ensures a large buffer volume for the supply of media. Excess material conveyed is transported through the front part of the screw, through the axial hollow chamber of the screw, and back to the rear part, evening out the pump volume in the event of temporary supply of excess material. This guarantees consistent filling during the pumping process at all times.

For many years now, the baking and confectionery industry has relied on the performance of WANGEN

pumps, because the real strength of the South-German Allgäu-based pump manufacturer lies in customized solutions. WANGEN PUMPEN offers a wide range of pumps for the gentle pumping and metering of high-viscosity or paste-like media in all sectors of the food and drink industry. All WANGEN pumps are designed to handle specific media and convey the product – whether chunky, viscous, sensitive, shear or at a high temperature – with low pulsation to its final destination. The pump design, its materials and specifically defined performance parameters are adapted to their respective tasks. They also permit optimum processing with minimum possible residual quantities

WANGEN pumps convey products gently, allow processing of the smallest residual quantities and are easy to clean thanks to the CIP or SIP design.



and ease of cleaning, taking into consideration all hygienic aspects. The WANGEN product range also includes pump series that can optionally be equipped with CIP or SIP, available as mobile or stationary units.

Our solutions:

WANGEN Twin NG: Perfect form and technology

The twin screw pump stands out on account of its features, including ease of servicing, wide pressure range up to 30 bar, advanced applicational options, gentle pumping and maximum connectivity – it is in a hygienic class of its own. The perfect solution for pure juice concentrate, pulp, yeast and dairy products.

WANGEN MX: For exacting hygienic conveying and metering

The WANGEN MX progressing cavity pump precisely fulfils the exacting requirements of the food industry. State-of-the-art design features ensure excellent ease of cleaning and maintenance. The pump therefore carries all popular certificates. And, thanks to its EvenWall® technology, the pumps have a minimal elastomer layer thickness, enabling them to cope with very high levels of pressure.

Passionate, reliable, precise – facts and figures about the company.

Pumps for a wide range of media are developed and produced in Wangen,



WANGEN Twin NG mounting

Germany. With 251 employees from 12 nations and, as one of the market leaders for progressive cavity pumps, WANGEN PUMPEN is a hidden champion. Since 1969, the German mechanical engineering company has been developing pumps for industries, such as the food and beverage, environmental, biogas and agricultural sectors.

The company has an excellent network of distributors and partners worldwide,

which are there for to provide companies with the best possible support.

Quality in detail. And in Wangen. 

