

Well mixed

PLANETARY MIXERS ARE AVAILABLE IN DIFFERENT SPECIFICATIONS. THE FOLLOWING IS A MARKET SURVEY

++ figure 1



++ figure 2



++ figure 3



+ The capacities of the mixer's standard bowls range from 5 to 1,300 liters. Most suppliers also offer special solutions with higher volumes upon request. However, the technical challenges also increase with a higher capacity.

Italian suppliers are leaders in the development of large planetary mixers with a bowl volume of up to 1,300 liters. The challenges to be mastered are the handling of the large bowls and the gentle and uniform processing of the huge quantities of batter components.

In the last few years, the two large suppliers, namely Sancassiano and Tonelli have introduced some innovations.

Sancassiano of Roddi d'Alba, Italy, launched the patented "oil-free" drive system. This excludes the risk of oil migrating into the dough processing area. Sealing systems also become obsolete; cleaning and maintenance are facilitated.

The "oil-free" system also affects the mixing performance of the stirrers because the drive operates with two independent motors for the tool speed and the planetary movement. Both speeds can be set individually.

The planetary mixers offered have bowl volumes of between 120 and 1,300 liters. The production of even larger machines is technically feasible. Sancassiano uses two mixing tools and one bowl scraper for time-saving and the homogeneous mixing of the components. There is also an automatic ingredient weighing system and an automatic discharge. The system will withstand heavy high-pressure wash-down procedures and can also be integrated into an automatic cleaning system. The equipment is made from stainless steel and can be integrated into the automatic Sancassiano lines.

++ figure 4



Mixing and whipping machines

Supplier	Bowl size	Features
Diosna Dierks & Söhne GmbH Osnabrück, Germany, www.diosna.com	16 – 50 liters	Three types, one of which is made from stainless steel that can be heated
RMT Rego Maschinentechologie GmbH Haan, Germany, www.rmt-rego.com	10 – 60 liters	Many types. Stainless steel or powder-coated options, some can be heated

Jumbos - planetary mixers 120–1,300 liters

Supplier	Bowl size	Features
Sancassiano S.p.A. Roddi dAlba, Italy, www.sancassiano.com	120 – 1,300 liters	Completely made from stainless steel with two tools plus scraper. Bowls can be heated or cooled, with pressure and vacuum system. Patented drive without oiling and toothed wheels
Tonelli Group S.p.A. Collecchio, Italy, www.tonelligroup.it	120 – 1,300 liters	Completely made from stainless steel with two or three tools plus scraper. 20 different tools can be combined. Bowls can be heated or cooled, with pressure and vacuum system. Automatic cleaning and loading possible

The Tonelli Group of Collecchio, Italy, is also constantly developing its equipment. The latest feature is the option of using three mixing tools in their machines. They operate in combination with a counter-rotating bowl scraper, either with a fixed rpm-ratio or with an independent, infinitely adjustable speed control for tools and scraper. This allows an even more individual adjustment of the mixing process to specific recipes. Tonelli offers 20 different tools which can all be combined. The bowl's volume varies between 120 and 1,300 liters. There is also the option of automatic compo-

nent feeding. High pressure cleaning is also possible. The bowl scraper has a Teflon or polyethylene coating which facilitates the cleaning. The machine frame – a double column-bridge construction – is made of stainless steel. According to Tonelli, the average service life of the machines is 25 years.

++ figure 1
ERGO Bär

++ figure 2
RMT Vario

++ figure 3
Diosna BPL 75

++ figure 4
Planetary mixer by Tonelli

Daub brings new technology into traditional bakeries. As a leading manufacturer we supply solutions to quality-conscious customers around the world. Our extensive experience has resulted in a range of machines that deliver an optimal blend of product quality, flexibility and cost effectiveness.

Taste of Excellence

The ROBOCUT² is a compact hydraulic dough divider suitable for all fermented products from 200-1100 gr. It complies with the highest standards for hygiene and safety.

Ample choice of round and square models, automatic or electronic.

DAUB



P.O.Box 51, 5050 AB Goirle, Holland, Tel.: +31 13 530 87 00, fax: +31 13 530 87 29, e-mail: sales@daub.nl, Internet: www.daub.nl

Planetary mixers 5-200 liters		
Supplier	Bowl size	Features
Hobart GmbH Offenburg, Germany, www.hobart.de	5 and 20 liters	Many auxiliary attachments such as mincer, vegetable cutter and cereal grinder available
Thunderbird Food Machinery Inc. Dallas, USA www.thunderbirdfm.com	10 – 60 liters	Completely made from stainless steel with two tools plus scraper. Bowls can be heated or cooled, with pressure and vacuum system. Patented drive without oiling and toothed wheels
Sinmag Europe B.V.B.A. Zuienkerke, Belgium, www.sinmageurope.com	10 – 60 liters	Three- to ten-step speed setting. Manual operation. Cast-iron construction. 60l-machine, made from stainless steel also available
Emil Kemper GmbH Rietberg, Germany, www.emil-kemper.de	40 – 80 liters	Variable speed settings, no lubrication of mechanical parts
Diosna Dierks & Söhne GmbH Osnabrück, Germany, www.diosna.com	20 – 100 liters	Infinitely adjustable speed control. Resting times can be entered in some machines. All machines can be heated (the machines are from the former range of Boku Maschinenfabrik, Stuttgart, acquired by Diosna in 2001)
DelloOro S.r.l. Valmaderera, Italy, www.dellooro.it	20 – 100 liters	With electronic speed control; the 100l-model has high speed variation
Officine Meccaniche Pietro Berto S.p.A. Marano Vicentino, Italy, www.pietroberto.com	20 – 120 liters	Infinitely adjustable speed
TBM Tecnopast bakery machines S.r.l. San Vito di Leguzzano, Italy, www.tecnopast.com	20 – 120 liters	Three-step speed control
Starmix S.r.l. Schio, Italy, www.starmix.it	20 – 140 liters	Six different mixing and kneading tools. Stainless steel upon request
Br-Planetenrührmaschinen (A/S Wodschow & Co. Brøndby, Denmark), www.wodschow.dk	5 – 200 liters	10l-model in stainless steel only. All other types have powder coated or stainless steel as options. Ergo line for preventing back pain; infinitely adjustable speed control or pre-set rpm-programs available, 7 different mixing and kneading tools, smaller bowls optional with heater
Sigma S.r.l. Torbole Canaglia, Italy, www.sigmasrl.info	7.5 – 200 liters	All types made from stainless steel. For smaller models, many attachments such as mincer, vegetable cutter or cereal grinder are available
RMT Rego Maschinentechnologie GmbH, Haan, Germany, www.rmt-rego.com	12 – 200 liters	All models can be heated; removal of bowl without dismantling of mixing tools. Infinitely adjustable speed control

Little brothers

The market segment for smaller and medium-sized machines is highly sophisticated. Many machines have been reworked according to ergonomic aspects or an additional ergonomic series has been designed. The bowl automatically moves up to the mixing tools, thus avoiding stooping which is bad for the back. Operator-friendly machines have a large bowl lifting distance so that the bowl can be removed with-

++ figure 5



out having to dismount the mixing tool. Almost all machines have an automatic bowl lifting device.

Another trend experienced over the past few years is the replacement of the powder coating of the machine construction with a stainless steel variation which has prolonged durability and is more compliant with hygienic aspects. The mixing tools are made of stainless steel. All manufacturers provide computer-controlled operating panels which are operator-friendly. Some suppliers (Diosna, RMT Rego, Tonelli, Sancassiano) also provide an additional feature with an electrical or gas heater. The bowl can be heated for the production of aerated masses which can be produced hot or cold. Both systems – the mixing and whipping machine as well as the planetary mixer – operate reliably and uniformly when mixing mass components. The mixing and whipping machines are a German invention and not wide spread in other countries. Such machines are offered by Diosna, Osnabrück and RMT Rego, Haan. They process masses in batch sizes of between 10 and 60 liters. Their advantage is that they are not fixed to a certain bowl size but can be equipped with bowls of different sizes. This is advantageous when a smaller batch of dough or batter volume needs to be produced once in a while. However, only one bowl size can fit into the planetary mixing machines. +++

++ figure 5
Sancassiano PLT



TECNOPOOL

Custom made technology.

Tecnopool is a market leader in products for the food industry specializing in the design of versatile equipment. From the compact Omnia to a complete production line, Tecnopool is able to provide an infinite number of technical solutions which can be modified, if necessary, to meet any changes in production requirements.

- proofing
- cooling
- freezing
- pasteurizing
- pan conveying systems
- oven-loader
- oven-unloader

Tecnopool: from -40°C to +120°C,
custom-made reliability.



 **TECNOPOOL**
FOOD PROCESSING EQUIPMENT

Via Buonarroti - SAN GIORGIO IN BOSCO (PD) - ITALY
Tel. +39.049.9453111 - Fax +39.049.9453100
info@tecnopool.it - www.tecnopool.it