

Tanks & Vessels

Soups & Sauces



Products

- Soups
- Sauces
- Ragouts

Applications

- Heating and cooling
- Dissolving of ingredients for premix
- Mixing in components
- Buffering and keeping homogenous



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Sauce vessels with bottom driven agitators

Cookers and coolers: Applications used for sauce-, soup-, ready meal and pie fill production.

Process

The TERLET cookers and coolers, with bottom driven agitators are used in sauce, soup and ready meal preparation. The superb mixing effect of the agitator with the inclined inner vessel combined with the heat transfer through TERLET's typical dimple jacket system have proven to be a key factor in the production of high quality products. Sauces are normally based on either a roux or a starch in water base. Both optimal heat transfer and mixing are essential to prepare a smooth high quality sauce.

Features and benefits cooking vessel:

- Full access
- Hygienic design
- Split dimple pressure jacket for small cooking batches
- Fast heating times
- Wall and bottom surface scraped for optimal heat transfer
- Special Agitator for intensive mixing action resulting in a more homogeneous end product
- Low maintenance
- Less product loss
- No dead corners
- No seals or bearings in contact with product
- Homogenizing through optional homogenizer in one vessel
- In tiltable execution for viscous products
- CIP provisions optional

Features and benefits cooling vessel:

- Hermitically closed
- No contamination in cooling phase
- Vacuum / pressure execution
- Cooling with central inner cylinder which means very fast cooling times
- No fat separation
- No transport pump needed
- CIP provisions optional



Bottom driven
sauce vessel

Horizontal tanks and vessels for the production of soups and sauces

The horizontal cooking/mixing tanks are primarily employed in the preparation of sauces and soups in which there is a large variation in relative density. In other words, the tendency for the components to sink or float.

Process

This type of tank can be used for all soups and sauces, and has the advantage of mixing very efficiently products that tend to sink or float. Examples of such products are low-viscosity soups and sauces with solids that tend to sink, or soups with pieces of ham that tend to float. Because of the horizontal construction, the stirring mechanism drives light (floating) elements downwards and heavy (sinking) elements upwards. This operational principle works even for very small batches, so that this type of tank is eminently suitable as a buffer for a filling unit. This ensures that filling will always be homogeneous.

Design

The tank is produced as a horizontal cylinder with flat, conical or HP (high pressure) bottoms. The term 'horizontal' is not entirely appropriate, as the cylinder is slightly inclined in the direction of the outlet, which is situated on the lowest side. The stirring mechanism consists of a central (horizontal) shaft, to which the various stirring (mixing) elements are attached. This means that scoops can be positioned along the side, possibly with scrapers and/or a screw blade. In general, this type of stirring mechanism is operated at a low speed of revolutions.

Features and benefits

- Optimum mixing action, even at minimum fill ratio.
- Large heat-exchanging surface.
- No damage to the product because of the low revolving speed of the stirring mechanism.



Horizontal vessel



MMR tank for the preparation of soups, sauces and ragouts

The MMR is a heating/mixing tank that is used for soup products requiring a combination of mixing and heating operations. Firstly, an optimum mix has to be attained, in which the whole pieces in the soup, such as mushrooms, pieces of paprika, meat etc., are kept intact as much as possible. Secondly, the soup must be cooked without causing it to burn and stick to the side.

Process

As preparation tank for soups, water, vegetables and any thickening agents necessary are added, mixed to a homogeneous consistency and heated to boiling point. After a short cooking period, the soup is drained into a buffer tank from which filling takes place. The advantage of performing this entire process in this tank is a high-quality end product with whole pieces, with a high level of homogeneity assured even when there are great variations in relative density.

Design

The MMR is a top-driven tank with a conical bottom and a central outlet. To enable it to perform the aforementioned operations the MMR is equipped with a combined agitator mechanism. First, there is an anchor agitator mechanism with scrapers along the side and bottom that provides the horizontal stirring action, and also serves to keep the sides clean. Next, there is a screw blade that provides the upwards, vertical stirring action. The turning speeds of both agitator mechanisms are matched in such a way that there are no collisions. In principle, the screw draws away the same quantity of material that the anchor supplies.

Features and benefits

- Optimum mixing action, even with thin soups containing vegetable and meat pieces.
- No damage to the product solids.
- Good heat transfer, resulting in fast heating.



Process tank

Batch preparation systems for sauces, emulsions and ketchup

The various tank executions can be implemented in a batch preparation system, including the most efficient stirring devices for that particular application. Rotor-stator homogeniser and pump, together with the controls, form a system which is suitable for the following process steps.

Process

The various ingredients will be drawn into the tank by means of vacuum. The powders to be dispersed enter the tank just in front of the homogeniser. In this way the powder is immediately and evenly distributed in the fluid. After drawing in the powders through the tank, they can be circulated over the homogeniser, in order to obtain a good emulsion.

Preparation of pure emulsions is possible.

Prior to this, a so called starch base can be prepared from starch and water. Next the oil can be emulsified in the starch base.

Of course the system is also suitable for the preparation of red or brown sauces, ketchup and marinades.

Design

- Tank with conical bottom.
- Vacuum system
- Rotor-stator homogeniser.
- Various stirrer executions, for example a so called "counter turning stirrer".

Features and benefits

- Compact system
- Fully automatised
- Hygienic design



Vacuum mixing tank



Tanks & Vessels specifications

Terlet develops and builds tanks and vessels specified by our customers. The tanks and vessels are based on standard diameters.

Tanks and vessels from 50 up to 150.000 liters (15 up to 40.000 gallons).

- Atmospheric full vacuum and/or pressure options
- Other high quality SS-alloys applicable
- PED classification
- Insulation
- Various agitator designs for efficient heat transfer
- Product/medium side SS 316/ 304
- Dimple jacket guarantees quick/smooth heat transfer
- ASME U-stamp
- Internal finish $RA \leq 0,8 \mu$
- Designed and constructed in accordance with EHEDG recommendations



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