MIXATÖREN

Nytt, Blandat & Mixat

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RECLAIM THE PROCESS RESULT

or when mixing matters!

This time in MIXATÖREN we take the opportunity to highlight "When does Mixing Matter?". Remember the old ad of beer: "When does a Tuborg taste best?", followed by the answer "every time!". If you think about it – it's the same with mixing. In process industries when careful developed formulas and ingredients are to be refined and processed to a specified product at high value, of ´course mixing matters!
Have you also lately noticed that what really matters technically, is more and more forgotten or down prioritised? Shouldn't we focus more on process result and technically competitive solutions? Are people involved too concerned about the surroundings, the project it self, schedule slimming and special conditions of purchase? More or less far away from the goal to achieve a process result. Mixing is not about a machine specification but about getting a desired result from a process. The information herein will hopefully give you ideas for reclaiming your process result without being in the hands of somebody else!

Steridose® medium shear mixer = when two turns to one

Steridose® has introduced a Medium Shear magnetically driven mixer, **model SMMS**.

It will fill the gap between a low shear and a high shear bottom entry mixer. Pretty obvious when a low shear mixer will not disperse and a high shear mixer will not pump to create a desired flow pattern in the volume. This means, to get out the most of the process, either one had to be completed with an additional mixer or disperser. Now you can manage a larger range of tasks where a magnetic drive is essential with only one mixer, the Sterimixer® type SMMS.

TECHNICAL DATA

Parameter	SMMS 85	SMMS 120
Max working volume	2000 liter	7000 liter
Outer diameter	89 mm	128 mm
Max rpm (waterlike media)	1200 rpm	1800 rpm
Tip speed at max rpm	5.6 m/s	12.1 m/s
Motor power	0.55 kW	3 kW

The new mixer, based on the well proven design of Sterimixer®, is ideal for incorporation of light or hydrophobic solids into solutions (e.g. yeast). Features of the new model include a direct coupled motor without need for gear reducer, interchangeable in same weld-plate and male bearing as the standard low shear Sterimixer®. The open design of the impeller allows the new model SMMS to be used in CIP/SIP applications without the need of being submerged during the cleaning process.

When mixing matters

LightninMiniLab™
For more than 90 years Lightnin has been helping customers with their mixing processes by performing a wide variety of testing. The Process Technology Laboratory (PTL) in Rochester is dedicated to the memory of Dr James Y. Oldshue who held the post of Vice President at Lightnin until his retirement in 1992. James presented many papers on developing mixing science and was the author of Fluid Mixing Technology (McGrawHill) which is a reference book for mixing technologist all over the world. The PTL has produced many mixing innovations and impeller designs over the years and developed new technologies for even the most challenging of applications. Laboratory testing has proven to be an effective way for customers to obtain desired production targets including optimum mixing performance, better yields, to reduce power consumption or blend time. To enable customers to explore such advantages and the latest of mixing technologies Lightnin developed a solution to allow more customers a meaningful laboratory time: Lightnin has created the LightninMiniLab™.

The LightninMiniLab™ ships as a complete unit in its own container. When received by the customer, a trained Laboratory Technician travels to site to perform the testing with the customers team. Within the set-up is a carousel with many types of impellers, viscometer and other laboratory equipment that you would expect to find in a full test facility. The clear tank can have the baffles configured as needed and allows for high speed digital imagery of the mixing process. The unit is designed for global use and accept 190 to 240VAC 50/60Hz. The mixer drive is connected to a data acquisition system that replicates the Rochester PTL capabilities.

Tests using the LightninMiniLab™ are conducted by our Lightnin experts using our proprietary software specifically developed for recording and analysing mixer characteristics. The software is prepopulated with a database of information about Lightnin impellers so that online calculated data such as power and flow can be displayed. Torque and speed are measured too. Configurations can be changed quickly to enable quick assessment and comparison. Multiple impeller and baffle configurations are possible as off centre mixer mounting. The clear tank is mounted on a mirror so bottom of the vessel is easily viewed and filmed. The bottom shape can also be changed between flat, dished and cone to mimic the production vessel. The LightninMiniLab™ can perform testing for solid suspension or liquid blending of viscosities up to 15.000 cP. Gases could also be introduced. Once all the tests are completed and the data acquired, Lightnin will prepare a detailed report with comments for the customer to make scale up or any improvements in existing process.

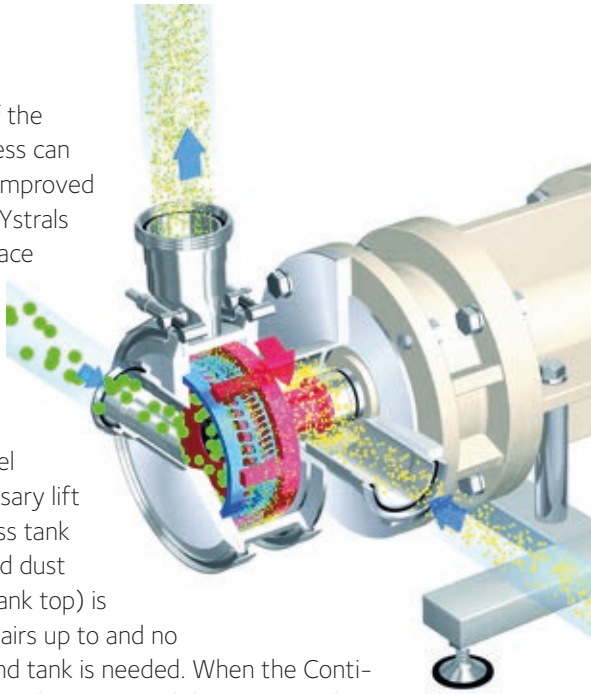
When mixing matters and mixing improvement will be of interest for your company, please feel free to call us or visit www.bergius.se

Pulverize your processing times.

The Conti-Tds processing systems by Ystral GmbH is now established in all branches. Over the last years Ystral plant engineering has fine tuned the combination of the Conti-Tds (the well known disperser which efficiently induct powders), big-bag handling and emptying stations with smart recipe, cleaning and operation controls at latest technology. Enclosed picture visualises the hardware. The software we´ll describe another day or preferable: You tell us which functions you want.

With over 5000 (five thousands) of powders and solids tested at Ystral or treated in customer installations with the Conti-Tds technology, we and Ystral GmbH are proud to tell that in fact all branches in the processing industries are using the Conti-Tds technology. Typical industries are paint, lacquers, adhesives and sealing compounds, coatings, spray emulsions, dairy and food products, pharma, cosmetics, personal and home care. Also Conti-Tds is used in the oil and biofuel industry.

The economic and efficiency of the production process can be considerably improved with the help of Ystrals individual and space saving system. All of the up front powder handling can be done at floor level without unnecessary lift work. The process tank can be closed and dust therein (and at tank top) is eliminated. No stairs up to and no upper floor around tank is needed. When the Conti-Tds as ONE UNIT induct, wet and disperse powders into liquid and deliver the mixture in ONE GO, there´s a great potential for process rationalising. Especially when sticky, difficult or harder powders are treated – the Conti-Tds technology will "pulverize" your time. We have, as an example, installations when TiO2 powder is dispersed into pigment paste in less than 50% of the time of an in-tank dissolver. The recipe and quality are also more precise and repeatable while all components are dispersed and wetted out below liquid surface. Overdosing is not needed and eventual downstream filters are less loaded.



Fresh lime and basil herring

Starter for 8 persons, operation 10 min + 12 h in refrigerator. If processing a larger volume at shorter time – use your Ystral Dispermixer at min. 3000 rpm. With this tasty herring we will wish you a Merry Christmas and a peaceful and happy New Year. Instead of sending the traditional greetings we have sent a gift to the Red Cross organization.

2 cans dewatered potted herring (you can use the 5 minutes type).
1 pot fresh Basil (save a cpl of twigs in pot before start up)
2 table spoons of Olive oil.
1 wedge of Garlic.
1 Lime fruit + ev. little salt.
1,5 dl Cremé Fraiche + **1,5 dl** sour cream.

Mix basil, garlic and oil – reduce speed and add the creams. Grate the lime and cut the herring in nice small pieces. Add some pressed lime. Blend all in softly. Taste if salt and more lime is needed.

Next day when serving – add some Basil leaves on top as decoration. Absolut Cilantro may be good as Schnapps.

Microfluidics launches new electric driven, easy-to-use homogenizer!

The new LM20 Microfluidizer™ from Microfluidics further expands our offerings to customers.
Microfluidics is the exclusive producer of the Microfluidizer™ high shear fluid processors for uniform particle size reduction, robust cell disruption and nano-particle creation. The Microfluidics Technology Center, Massachusetts, USA is staffed by expert engineers with a wide range of nano-technology and application experience. Microfluidizer™ technology enables companies to create tiny particles that achieve big results. This suits the product portfolio of Bergius very well and we are glad to present the new LM20 Microfluidizer™.

The LM20 Microfluidizer™ is a new electric driven model that fits into the latest line of table-top, customer-oriented homogenizers from Microfluidics. The LM20 is now a key unit of Microfluidics' ongoing product update. With this new offering, Microfluidics has a comprehensive line of modern lab-scale machines that are easy to use, at an affordable price point. In Scandinavia it will come as 50hz 3ph 220v version and the electro-hydraulic intensifier pump will provide a desired pressure (up to 2068 bar) at a constant rate to the product stream. The display is multi language, easy to use and shows process data as pressure, temperature(s) and number of strokes. A diamond interaction chamber is supplied with the 2068 bar version. The homogenizing "work" is taking place in a special chamber (see Mixatören Oct 2010) with fixed geometry micro channels without moving or adjustable parts. Steve Mesite, Director of Applications at Microfluidics, commented, "This offering is ideal for those who are developing nano-emulsions, liposomes and polymer particle formulations with the goal of sterile filtration, and customers who are performing cell disruption. The LM20 provides outstanding performance only possible with the unrivaled Microfluidics fixed geometry technology." To learn more, please visit www.bergius.se or www.microfluidicscorp.com or feel free to contact us on the number below.

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