NEW

CONTAINER MIXER - CMQ
THE NEXT GENERATION

MIXING TECHNOLOGY

www.zeppelin-systems.com
Benefit from Zeppelin’s global leadership in mixing technology!

Based on the pioneering HENSCHEL-Mixers® Zeppelin has been setting standards in the mixing technology for decades and has well-proven expertise in the areas of plastics, additives, colors, paints, pigments, toners, food, ceramics, minerals and metal compounds.

We know what is important and we have the skills to process and handle sensitive materials. We offer ground-breaking solutions for any mixing task and procedure as well as for up- and down-stream handling and processing.

The mixing technology of the 21st century is characterized by innovations, inventiveness and solution-oriented engineering. As one of the world leading mixing technology experts we not only provide mixers and mixing solutions but understand the entire manufacturing process.

Perfect first-hand mixing solutions

Container Mixers are versatile mixers providing enormous benefits for many applications (e.g.: color toner, TPU/TPE, technical polymers like Peek and PTFE, any additive premix, masterbatches, powder coatings) thus achieving excellent qualities in homogenizing, dispersing and coloring for bulk materials.

Unlike for stationary installed mixers, the mixing bowl (container) is movable. Filling and discharging can be done remotely from the mixing station.

The new Container Mixer CMQ

Specially designed for coloring applications, mainly Powder Coatings and Color Masterbatch, the CMQ provides highest flexibility and reduces cleaning time to a minimum. Integrated in an automated material handling system, Zeppelin offers a sophisticated process solution. This innovation ensures our customers a competitive edge in the international market.
The three coordinates represent the lightness (L* = 0 yields black and L* = 100 white), the position between red and green (a* ≤ 0 green, a* ≥ 0 red) and the position between yellow and blue (b* ≤ 0 blue and b* ≥ 0 yellow) of the color.

Optimized design for best results

The innovative wing profile tool with its unprecedented lifting abilities makes the bottom shell radius and a deflection via that radius unnecessary. The tool is no longer near-ground and the special airfoil shape generates a suction effect that directs the material upwards. The combination of the flat mixing head with the wing profile tool provides high lifting forces, minimal turbulence and low mixing resistance. This ensures a fast and effective homogenization and a very good color strength.

Thanks to the high bottom clearance, no pressure is generated on the surface of the mixing head and any material deposits or build-ups are eliminated. This results in hardly any temperature increase (approx. 1.5 - 2 °C/min), a low power consumption and less wear on the mixing tool.

Watch and experience how efficient our mixers work
FIRST CLASS MIXING – MOST EFFICIENT CLEANING DESIGN
Save up to 80 % cleaning time

Patent pending wing profile tool
- Airfoil shaped mixing arms with winglets for lowest mixing resistance
- Optimized mixing with lowest cleaning effort

Fast and easy cleaning
- Flat panel mixing head
- Most minimal cleaning effort
- Unprecedented cleanability
- Allows shortest cleaning times

Dust Reduction System
- Container venting integrated in container seal
- Drop in two stages

No guiding installations
- Self centering container
- No obstacles on the floor for cleaning

Options: Safe handling
- Monitored automatic container grounding

Preventative maintenance
- Monitoring of the bearings via vibration and gyroscopic sensors

Innovative
DESIGNED FOR MAXIMUM EFFICIENCY

The ergonomic design of our Container Mixers allows for intuitive handling and processing even the biggest volumes. These characteristics additionally offer a significant time saving. Benefit from both: procedural and economic advantages!

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Type</th>
<th>Net volume</th>
<th>Drive Power (kW)</th>
<th>Speed (m/s)</th>
<th>Dimensions (height x width x depth) (mm)</th>
<th>Batch weight (pb 0,5kg/l) (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMQ 300</td>
<td>100-240</td>
<td>15 - 22</td>
<td>5-25</td>
<td>2790 x 2500 x 2600</td>
<td>50-120</td>
</tr>
<tr>
<td>CMQ 1000</td>
<td>350-800</td>
<td>45 - 100</td>
<td>5-25</td>
<td>3900 x 3000 x 3600</td>
<td>175-400</td>
</tr>
<tr>
<td>CMQ 2000</td>
<td>600-1600</td>
<td>75 - 125</td>
<td>5-25</td>
<td>4600 x 3600 x 4000</td>
<td>300-800</td>
</tr>
</tbody>
</table>

Further machine sizes in preparation.
CONTAINER SYSTEM AND SURROUNDINGS

Easy transport
- Rail conveyor
- Chain conveyor
- Roller conveyor
- AGV (Automated Guided Vehicle)
- Manual or with mover

Container feeding
- Automated or manual design for a precise loading solution

Operator Safety
- Safety fence or light barrier

Different container discharging solutions
- Drive-in
- Load-on

Central aspiration unit
- Efficient venting

Container lid
- Dust-free handling
- Prevents cross contamination

Fully automated container plant
WE MAKE YOUR BUSINESS EFFICIENT AND MANAGEABLE

Advantages at a glance

- Most efficient cleaning effort
  Reduces cleaning times up to 80%

- Consistent color strength
  Low measurable $\Delta E$ (total color difference)

- Fast and effective homogenization
  Even distribution of all components

- High dispersion
  Prevention of any pigment agglomeration
  Equalizing of particle size

- Low mixing resistance
  Minimal temperature increase, approx. 1.5 - 2°C/min

- Trusted technology
  For reliable function and long life-time

- Guaranteed reproducible quality
  For optimum products

- Reliable batch tracking
  Allows for trouble-free quality management

- Low material pressure
  No caking or material build-ups

- High flexibility
  Quick set-up and change-over

- Intelligent machine frame design
  No edges, deadspots and obstacles for fast and easy cleaning of the surroundings

Invitation

We gladly invite you to our Mixing Technology Center in Kassel. Convince yourself of the CMQ effectiveness and its outstanding benefits.

All essential mixing processes can be tested in our Technology Center under production conditions.