SOFRAMIX
HIGH SHEAR DISPERSER

www.sofraden.com
SOLUTION FOCUSED ON 4 KEY POINTS

- **Performance**: high dispersion quality with a very short mixing time. Able to make various products (emulsions, dispersions, gels...), with different rheologies.
- **Flexibility**: broad operating range for each nominal size of machine. Designed to make dispersion tools easy to swap over.
- **Scalability**: many options to customize your mixer, to comply with your needs and with the product characteristics.
- **Cleanability**: easy-to-clean design, combined with our very efficient CIP system, ensures you an excellent quality of cleaning.

**APPLICATIONS**

All types of industries involving pasty products such as: dispersions, emulsions, gels, semi-pasty or pasty products...

**ACTIVITY**

Chemistry, materials for building construction, cosmetics, paints...

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**GENERAL OVERVIEW SOFRAMIX 250 PREMIUM**

We developed our machines with efficiency and productivity of our customers’ production processes in mind. We chose the most appropriate technologies and the most efficient features to cover anything from basic applications to the most complex ones.

**Standard shape for the whole range**: vertical vessel, with central & coaxial tool shafts, conical bottom.

**Various types of tools**: anchor with wall scrapers, impeller, special high shear dispersion tools - sawtooth disc turbine or rotor/stator - allowing to make emulsion droplets up to 5µm.

To meet your expectations, we have developed 2 different configurations of machines, combining different layouts and types of tools: **SOFRAMIX PREMIUM** and **SOFRAMIX BASIC**.

Among our range of machines, you will find the disperser which complies with your requirements, in terms of performance, flexibility, and CAPEX/OPEX ratio.

**APPLICATIONS**

All types of industries involving pasty products such as: dispersions, emulsions, gels, semi-pasty or pasty products...

**ACTIVITY**

Chemistry, materials for building construction, cosmetics, paints...

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<table>
<thead>
<tr>
<th>TYPE</th>
<th>Max. useful volume</th>
<th>Min. useful volume (Premium with F/R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOFRAMIX 250</td>
<td>250 ltr</td>
<td>40 ltr</td>
</tr>
<tr>
<td>SOFRAMIX 500</td>
<td>500 ltr</td>
<td>60 ltr</td>
</tr>
<tr>
<td>SOFRAMIX 750</td>
<td>750 ltr</td>
<td>60 ltr</td>
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<tr>
<td>SOFRAMIX 1000</td>
<td>1000 ltr</td>
<td>70 ltr</td>
</tr>
<tr>
<td>SOFRAMIX 1500</td>
<td>1500 ltr</td>
<td>70 ltr</td>
</tr>
<tr>
<td>SOFRAMIX 2000</td>
<td>2000 ltr</td>
<td>80 ltr</td>
</tr>
<tr>
<td>SOFRAMIX 3000</td>
<td>3000 ltr</td>
<td>100 ltr</td>
</tr>
<tr>
<td>SOFRAMIX 5000</td>
<td>5000 ltr</td>
<td>100 ltr</td>
</tr>
<tr>
<td>MIN. VOLUME</td>
<td>40 ltr</td>
<td>60 ltr</td>
</tr>
<tr>
<td>VESSEL Ø</td>
<td>700 mm</td>
<td>950 mm</td>
</tr>
<tr>
<td>LENGTH</td>
<td>700 mm</td>
<td>950 mm</td>
</tr>
</tbody>
</table>

The most flexible and efficient solution, with the dispersion tool located at the bottom.

- Central, coaxial and pendular anchor and impeller on the top. Dispersion tool on the bottom.
- Possibility of using a ‘rotor/stator’ dispersion tool.
- Suitable for products with viscosity up to 1’000,000 cP, or over with special features.
- Dispersion tool designed to be easily swapped, with another type.

**SOFRAMIX PREMIUM**

- Central, coaxial and pendular anchor and impeller on the top. Dispersion tool on the bottom.
- Flexibility: broad operating range for each nominal size of machine. Designed to make dispersion tools easy to swap over.
- Scalability: many options to customize your mixer, to comply with your needs and with the product characteristics.
- Cleanability: easy-to-clean design, combined with our very efficient CIP system, ensures you an excellent quality of cleaning.

**SOFRAMIX BASIC**

- Economical alternative solution.
- Suitable for products with viscosity of 50 cP up to 130’000 cP.
- Cost-effective solution.

**Economical alternative solution**

- Central, coaxial and pendular anchor and impeller on the top. Dispersion tool on the bottom.
- Possibility of using a ‘rotor/stator’ dispersion tool.
- Suitable for products with viscosity up to 1’000,000 cP, or over with special features.
- Dispersion tool designed to be easily swapped, with another type.

**Mechanical seals**

- High performance, low maintenance.

**Discharge valve**

- Sanitary type pneumatic valve.

**Instrumentation**

- Is pre-wired on terminal blocks in a cabinet, which also includes the pneumatic control components.

**OPTION:**

- Half-pipe jacket, for thermal process.
- Can be manufactured with wide range of materials: SS 304L, SS 316L, Hardox.
- Upon request, our machines comply with the ATEX directive.

**OPTION:**

- Design of the vessel according to the PED directives. Overpressure & vacuum operations.
CIP system
- High efficiency cleaning of the mixer
- Fully automated solution: reproducible results, steady quality of your product, no human risks factors
- Low consumption of cleaning liquid
Our solution combines smooth inner surfaces, with low surface roughness, the use of various types of cleaning nozzles, up to the supply of the complete skid with the pump, buffer tank...

Pressure/Vacuum solutions
- Unloading assistance for high viscosity products
- Introduction of the materials from the bottom of the vessel, with vacuum assistance
- Deaeration process of the product
Our solution combines design in accordance with the PED directive, the required components for the pressurization of the vessel, and/or the required components for the vacuum draw of the vessel...

Thermal process solutions
- Half-pipe jacket
- Possibility of heating or cooling the batch, by the use of a heat-transfer fluid (water, oil…)
Our solution combines the design of the half-pipe coil jacketed vessel, up to the complete skid to produce the utilities (chilled water, temperature controller with heat exchangers…)

Other option
- Customization on request

OUR TEST CENTER IS PROVIDED WITH:
A SOFRAMIX 250 ‘Premium’, provided with CIP system and pressure/vacuum design.
This machine is at your disposal to run tests and validate your processes.

REFERENCES
Michelin, Le Creuset, Saint-Gobain Weber...