Pumping and mixing solutions for the starch and sweeteners industry

The production of starch and starch-based sweeteners presents processing challenges all the way from various raw materials (corn, wheat, rice, potato, cassava, pea, etc.) to a wide range of end products. The equipment used is exposed to fibers, entrained gases, slurries with a high solids content, and liquids with changing viscosities. Having the optimum pumps and agitators is therefore critical to ensure reliable and long-lasting operation. Sulzer offers the superior solution for all your applications. With thousands of installations around the world, our products have stood the test of time.

Proven expertise
We have core competencies based on close partnerships with key OEMs and end users. By working with Sulzer, you benefit from:
- Superior application knowledge with long experience
- High product reliability and quality
- Custom-engineered solutions to meet specific needs

Products that match
- State-of-the-art equipment for reliable operation in challenging conditions
- Wide choice of centrifugal and positive displacement pumps, agitators, submersible pumps and mixers, aerators, and compressors
- Energy-efficient products with low life-cycle costs and a smaller environmental footprint
- Special degassing pumps which can handle viscous suspensions with up to 40% air content

Service at your doorstep
Wherever you are, Sulzer is close by to bring personal, knowledgeable support and qualified services for the entire product life cycle, day and night. You can trust us to serve your installed base with our original Ensival Moret and Sulzer spare parts.

<table>
<thead>
<tr>
<th>Process</th>
<th>P</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw material washing (potato, cassava, etc.)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Steeping (corn)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Milling or rasping</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Separation and screening</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Starch washing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dewatering and drying</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Refining (sweeteners)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Auxiliaries (power, cooling, etc.)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Water and wastewater treatment and re-use</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

P = pumping, M = mixing
Extensive product coverage

Through a wide portfolio, we propose you the most adapted pumping, mixing and aeration solutions. Our high-efficiency products with numerous options (dynamic seals, degassing systems, etc.) improve the performance, reliability and sustainability of your starch and sweetener plants.

**Process pumps**
- AHLSTAR A process pump
- AHLSTAR N non-clogging pump
- AHLSTAR W wear-resistant pump
- A, N and W self-priming and gas removal pumps
- SNS process pump
- CPE ANSI process pump

**Specialty pumps**
- CAHR axial flow pump
- EMW slurry pump
- PLR-CR slurry pump
- ZPP and SMD double suction pumps
- MBN multistage ring section pump
- MC and MD boiler feed pumps

**Vertical pumps**
- SIL vertical inline pump
- NK/WK and VA/VAP vertical cantilever pumps
- NV and VM vertical slide bearing pumps
- SJT vertical turbine pump
- Ejector
- Sulzer Sense

**PD pumps**
- Herold pump
- PC transfer pump
- PC dosing pump

**Agitators**
- Scaba and SALOMIX top-mounted agitators
- SALOMIX side-mounted agitator
- Scaba and AGISTAR side-mounted agitators

**Submersible pumps and mixers**
- AS submersible pump
- Piranha submersible grinder pump
- XFP submersible heavy duty pump
- VUPX submersible propeller pump
- RW and XRW submersible mixers
- SB and XSB flow boosters

**Aerators and compressors**
- OKI submersible aerator mixer
- Venturi Jet submersible aerator
- XTA and XTAK submersible aerators
- DDS disc diffuser system
- HST™ turbocompressor
- HSR turbocompressor