

# Pumping and mixing solutions for the edible oils and fats industry

Edible oils and fats have a wide range of applications in the food, biochemicals and energy markets. Main processes include oil extraction from various fruits and seeds (soybean, rapeseed, coconut, sunflower, palm, etc.), physical or chemical refining of crude oil, refined oil modification and production of basic oleochemicals (fatty acids, fatty alcohols, methyl esters, glycerin, etc.). The equipment used can be exposed to high temperatures and pressures, chemical attacks or liquids with changing viscosities. For these challenging conditions, Sulzer offers you a broad selection of advanced pumping and mixing solutions. We support our customers with the constant development of new and environmentally friendly technologies.

#### Proven expertise

We have core competences 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 fit

- State-of-the-art equipment for reliable operation in difficult environments
- Full 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
- New process pumps with heating jackets for optimal thermal maintenance





### 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.

Process  Milling, pressing and solvents extraction  Degumming and bleaching  Neutralization  Deodorization  Splitting, hydrolysis  Transesterification  Evaporation and crystallization  Distillation  Hydrogenation  Final products storage  Auxiliaries (power, cooling, CIP, etc.)			
Degumming and bleaching  Neutralization  Deodorization  Splitting, hydrolysis  Transesterification  Evaporation and crystallization  Distillation  Hydrogenation  Final products storage	Process	Р	М
Neutralization  Deodorization  Splitting, hydrolysis  Transesterification  Evaporation and crystallization  Distillation  Hydrogenation  Final products storage	Milling, pressing and solvents extraction	$\checkmark$	
Deodorization  Splitting, hydrolysis  Transesterification  Evaporation and crystallization  Distillation  Hydrogenation  Final products storage	Degumming and bleaching	$\checkmark$	$\checkmark$
Splitting, hydrolysis  Transesterification  Evaporation and crystallization  Distillation  Hydrogenation  Final products storage	Neutralization	$\checkmark$	$\checkmark$
Transesterification  Evaporation and crystallization  Distillation  Hydrogenation  Final products storage	Deodorization	$\checkmark$	
Evaporation and crystallization  Distillation  Hydrogenation  Final products storage	Splitting, hydrolysis	$\checkmark$	
Distillation  Hydrogenation  Final products storage	Transesterification	$\checkmark$	$\checkmark$
Hydrogenation	Evaporation and crystallization	$\checkmark$	
Final products storage	Distillation	$\checkmark$	
	Hydrogenation	$\checkmark$	$\checkmark$
Auxiliaries (power, cooling, CIP, etc.)	Final products storage	$\checkmark$	$\checkmark$
	Auxiliaries (power, cooling, CIP, etc.)	$\checkmark$	$\checkmark$
Water and wastewater treatment and re-use $\checkmark$ $\checkmark$	Water and wastewater treatment and re-use	$\checkmark$	<b>√</b>

 $P = pumping, \, M = mixing$ 

# Extensive product coverage

Our wide portfolio enables the most optimal pumping, mixing and aeration solutions. Our high-efficiency products with several material options (cast iron, ductile iron, duplex, corrosion-resistant and/or high-hardness alloys, etc.) improve the performance, reliability and sustainability of your vegetable oils and fats plants. We also offer a complete range of mechanical seals, including our own Sulzer models, dynamic seals, as well as heating/cooling jackets and degassing systems to ensure a reliable process and long service life.

#### Process pumps





AHLSTAR W



A, N and W self-priming



SNS process pump





## Specialty pumps



CAHR axial flow pump



PLR-CR slurry pump



EMW 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



vertical cantilever pumps



slide bearing pumps







Sulzer Sense

#### PD pumps



Herold pump



PC transfer pump



PC dosing pump



Scaba and SALOMIX top-mounted agitators



SALOMIX SSF side-mounted agitator



SALOMIX SSA side-mounted agitator

### 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



#### Aerators and compressors



OKI submersible aerator mixer



XTA and XTAK submersible aerators





HST™ turbocompressor



HSR turbocompressor

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