



SULZER

Sulzer Pumps for Potato Starch Applications

motralec

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The **Heart**
of Your
Process





Sulzer Pumps at Your Service

AHLSTAR™ APP/APT* standard process pumps are designed according to ISO 5199/ISO 2858 standards for all normal pumping applications of clean, mild abrasive or corrosive liquids and also for liquids containing fibers.



ADVANTAGE CPT chemical process pumps series is designed according to ANSI/ASME B73.1 M standards for all normal pumping applications of clean, abrasive or corrosive liquids.



AHLSTAR™ ASP/AST self priming gas removal pumps enable efficient and trouble-free pumping when liquids contain gas, up to 70%, or when self priming capability is needed.



AHLSTAR™ NPP/NPT non-clogging pumps for the continuous pumping of liquids, slurries and stocks containing large solids or long fibers.



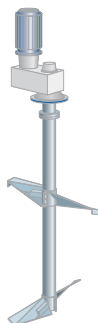
AHLSTAR™ WSP/WST wear resistant self priming gas removal pumps for pumping of corrosive and abrasive liquids either containing gas or in self priming applications.



AHLSTAR™ WPP/WPT wear resistant pumps are designed for applications in which durability is essential, like pumping slurries that contain abrasive and corrosive particles.



SALOMIX™ LV Agitator slow rotating top entry agitators with AF/AFX -paddles for efficient handling of liquids in starch process. The LV agitators are available for the most storage and production tank applications.



PUMPS FOR OTHER UTILITIES
we also have wide range of pumps for applications in water transport, boiler feed and dewatering.

* P and T versions refer to metric and inch measures



Advanced Pumping Solutions for the Starch Industry

Sulzer Pumps has made hundreds of pumps that are running in demanding applications in starch and starch based sweetener industries. Our high quality products and deep understanding of starch processes generate reliable pumping solutions to meet the needs of our customers.

A problem frequently faced by the starch industry is pumping liquids that have a tendency to foam. This special feature of starch processes arises partly because of the protein content of the pumped liquids and partly because the different raw material components are separated mechanically. The AHLSTAR™ ASP Self Priming Gas Removal Pump is the perfect solution to pump these foamy liquids, and at the same time remove significant amounts of the troublesome air to help with downstream processing. Other pumping solutions for the starch industry from Sulzer Pumps are AHLSTAR™ APP Process Pumps and CPT Advantage Process Pumps.

Both pump types can be equipped with the unique Dynamic Seal for leak-free shaft sealing. In the Dynamic Seal there are no narrow areas corresponding to the seal faces in mechanical seals, and no wearing parts. No sealing water and thus no sealing water systems are needed for the Dynamic Seal. Until now, conventional mechanical seals and stuffing boxes have been the most maintenance intensive components of centrifugal pumps used in the starch industry. Thanks to the Dynamic Seal, mechanical wear, leakage and the need for sealing liquid have been practically eliminated. More than 30.000 Sulzer pumps with Dynamic Seal are running in different applications around the world.

Sulzer Pumps' AHLSTAR™ series is designed according to ISO 5199 standards. Our CPT Advantage Process Pump series is designed according to ANSI/ASME B73.1 M standards. Both pump series are designed for continuous operation in process industries.

Let's make the best out of your process pumping!





Washing of Potatoes

Special features: abrasion

For waters containing potatoes

The AHLSTAR™ NPP/NPT non-clogging process pump with

- closed impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- unique dynamic shaft seal

For washing waters containing sand and mud

The AHLSTAR™ WPP/WPT wear and corrosion resistant process pump with

- wear-resistant closed impeller
- corrosion and wear resistant chromium iron ASTM A532 IIIA
- unique dynamic shaft seal

For clean and clarified waters

The AHLSTAR™ APP/APT process pump with

- high efficiency, low NPSHr closed impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- unique dynamic shaft seal

or

The ADVANTAGE PROCESS PUMP CPT (ANSI dimensional pump) with

- high efficiency, low NPSHr open impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- unique dynamic shaft seal

For dirty sump waters

The AHLSTAR™ WSP/WST wear resistant self priming gas removal pump with

- vortex impeller
- corrosion and wear resistant chromium iron ASTM A532 IIIA
- internal vacuum system





Potato Rasing

Special features: gas

For foaming rasped potato mixture

The AHLSTAR™ ASP/AST self priming gas removal process pump with

- high efficiency, low NPSHr open impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- internal vacuum system

The SALOMIX™ LV -agitator with

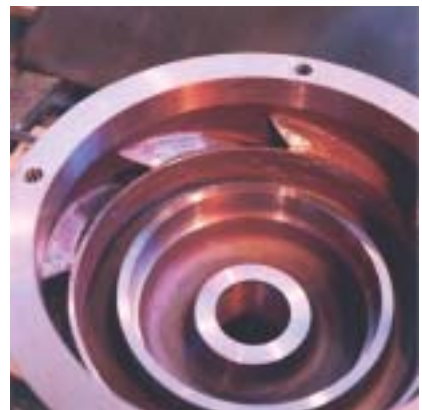
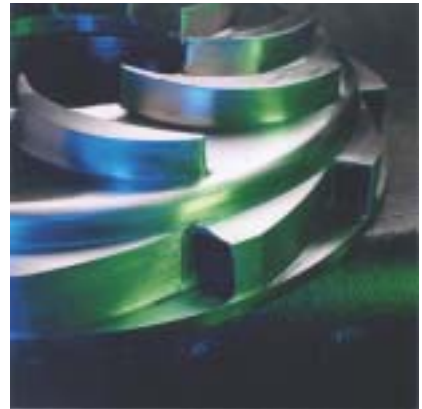
- versatile gear drive
- high axial flow paddle
- different seal options
- SS2343 material for parts in contact with liquid

Fiber Pulp Separation

For foaming starch and fruit juice

The AHLSTAR™ ASP/AST self priming gas removal process pump with

- high efficiency, low NPSHr open impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- internal vacuum system





Fruit Juice Separation

Special features: gas

For pumping between hydrocyclone stages

The AHLSTAR™ APP/APT process pump with

- high efficiency, low NPSHr closed impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- unique dynamic shaft seal

or

The CPT Advantage process pump (ANSI dimensional pump) with

- high efficiency, low NPSHr open impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- unique dynamic shaft seal

For gas containing starch and fruit juices

The AHLSTAR™ ASP/AST self priming gas removal process pump with

- high efficiency, low NPSHr open impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- internal vacuum system

The SALOMIX™ LV -agitator with

- versatile gear drive
- high axial flow paddle
- different seal options
- SS2343 material for parts in contact with liquid



Starch Washing

For starch and washing liquids

The AHLSTAR™ APP/APT process pump with

- high efficiency, low NPSHr closed impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- unique dynamic shaft seal

or

The CPT Advantage process pump (ANSI dimensional pump) with

- high efficiency, low NPSHr open impeller
- corrosion and wear resistant stainless steel ASTM A890 3A
- unique dynamic shaft seal

The SALOMIX™ LV -agitator with

- versatile gear drive
- high axial flow paddle
- different seal options
- SS2343 material for parts in contact with liquid



Other Utilities

Water transport

The B series of vertical line shaft pumps consist of BK, BS and BP ranges. They are primarily used in water lift, transfer and cooling water applications.

AHLSTAR™ NVP/NVT non-clogging vertical pumps are intended for all kinds of hard applications with waste water, slurries or waste stock.

SM/SMN single stage double entry pumps are used across a broad range of industries in liquid transport and transfer applications.

ZPP double suction pumps are designed for applications including cooling and circulating water pumping.

Boiler feed

The HPP/HPT high pressure multi-stage pumps are used for pumping clean or slightly contaminated liquids in high pressure applications in various industries.

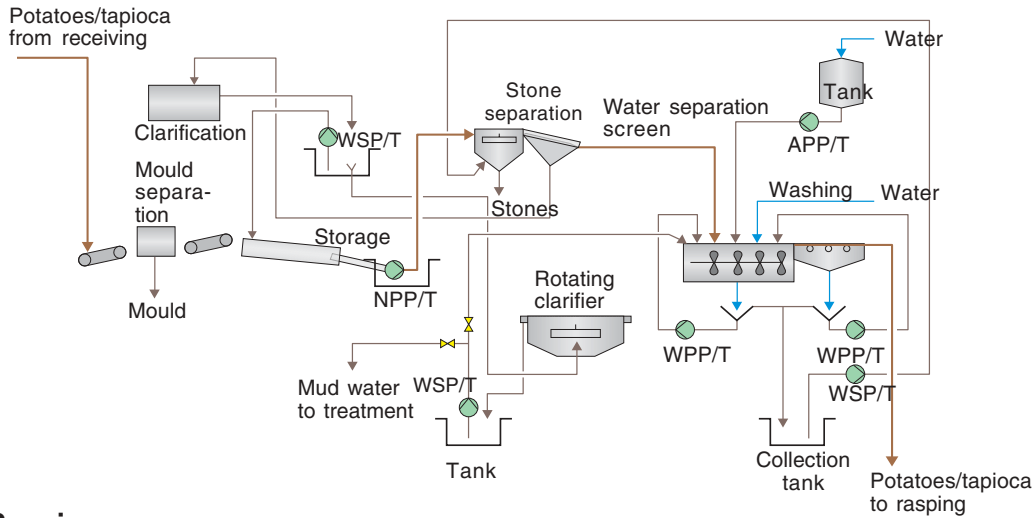
The M series of ring section multi-stage pumps consist of MB, MD and ME ranges. A wide range of common hydraulic components and bearing assemblies are used within the 4 standard pressure ranges.



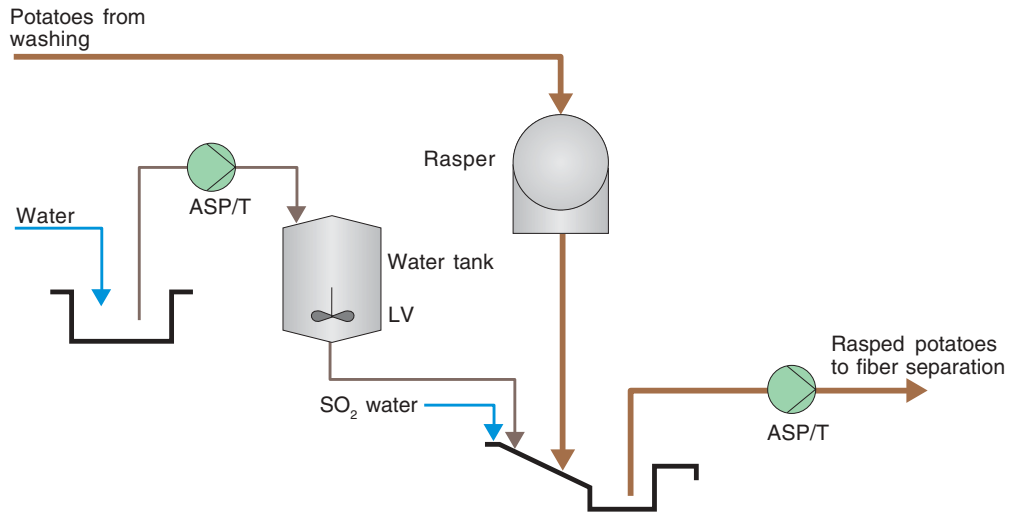
Potato Starch Process

General Flowsheets

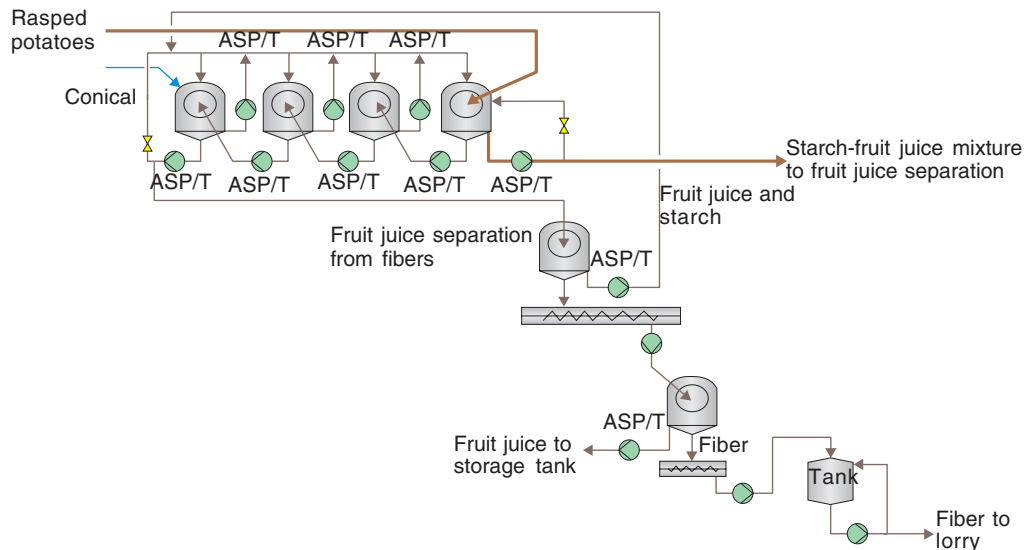
Potato Washing



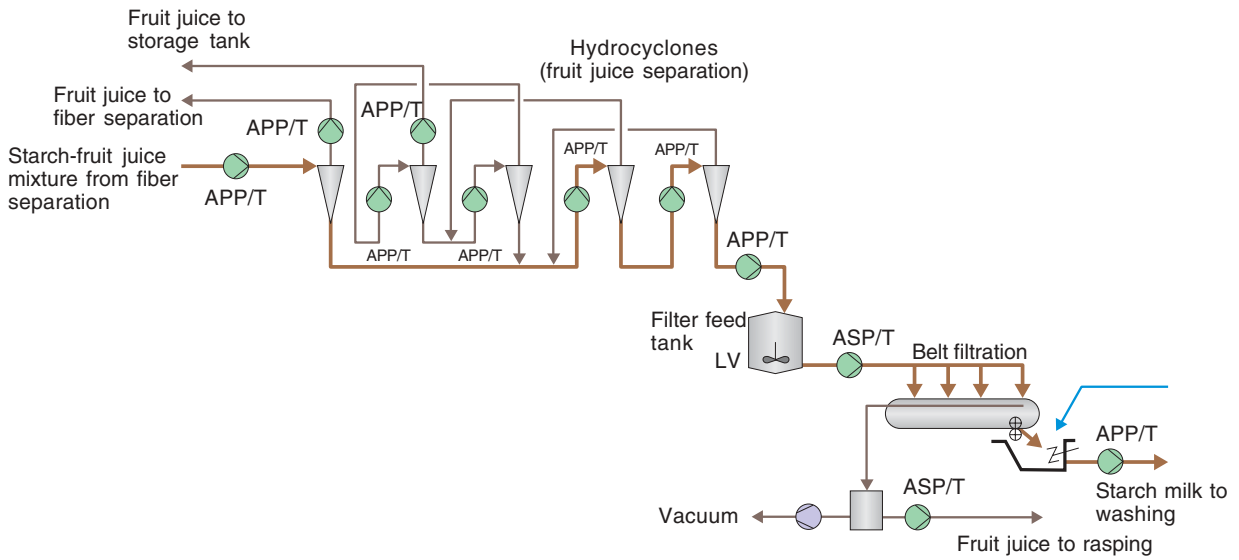
Potato Rasing



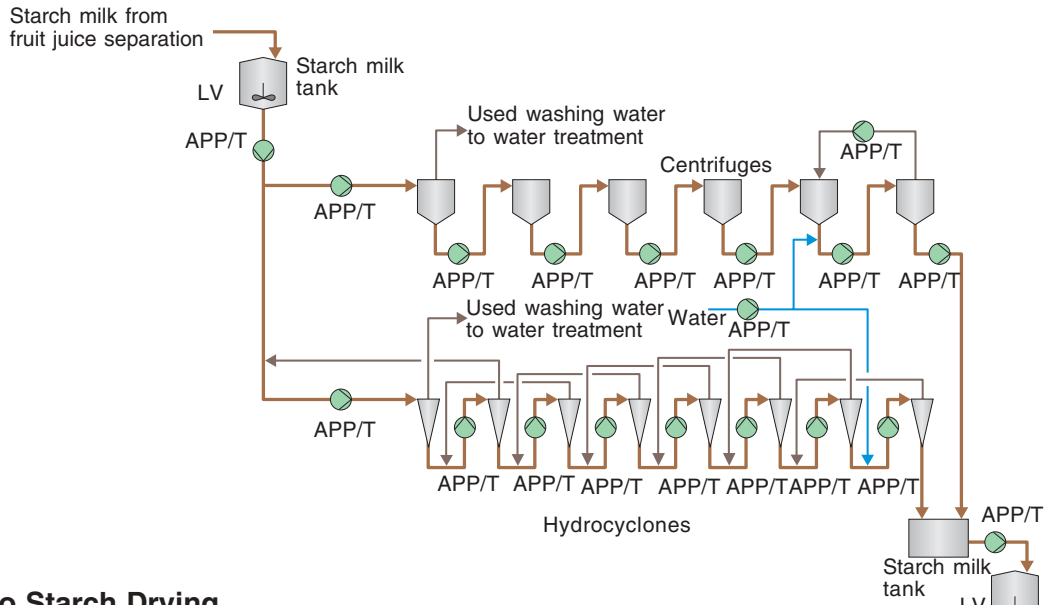
Potato Fiber Separation



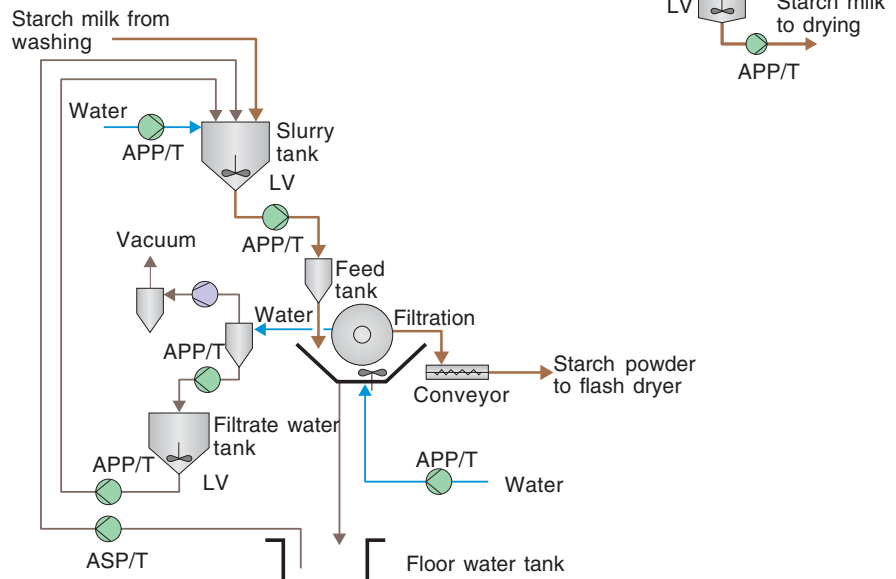
Fruit Juice Separation



Potato Starch Washing



Potato Starch Drying





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