



SCANDI BREW® Hygienic agitator/Yeast mixer Type 30

Yeast storage

Application

The hygienic agitator/yeast mixer is used for conditioning and mixing of harvest yeast in large scale storage tanks obtaining a homogeneous slurry with uniform temperature and consistency. Optional facility to aerate or acid wash through propeller nozzles is available. The mixer is designed for mixing yeast slurry with a wet solids content of 25-50 vol/vol%.

Design

The mixer comprises gear motor, gear console with separate entry for air and CIP and CIP pipe with spray ball penetrated by the hollow mixer shaft with propeller unit. Shaft end with CIP nozzles.

The type 30 mixer has as standard a sanitary tripod support welded into the tank bottom. This support is fully cleaned by the shaft end CIP nozzles. For larger tanks more propellers are used to ensure correct homogenisation.

During cleaning there are no CIP shadow areas caused by the propeller shaft or propeller blades as these parts are integrated in the cleaning.

The benefits of the yeast mixer are:

- Integrated cleaning of mixer with no CIP shadow areas
- Individual mixer design as per tank details
- Propeller blade designed for optimal mixing
- Low rotation speed ensuring careful and non-destructive treatment of the yeast slurry
- Optional aeration through shaft end nozzles
- Optional acid washing through shaft end nozzles
- Improved tank cooling-efficiency

Working principle

For low viscous yeast optimal mixing efficiency is obtained by interval agitation. In order to minimize mechanical stress of the yeast cells and oxygen pick-up, the agitation should normally be restricted to the cooling down period and prior to pitching. During storage agitation is only needed once in a while to keep the suspension homogeneous.

If equipped with the optional aeration valve, it is possible to aerate through the shaft end nozzles when agitating. Due to the efficient agitation, this facility may also be employed for pH lowering of the yeast suspension through acid washing.



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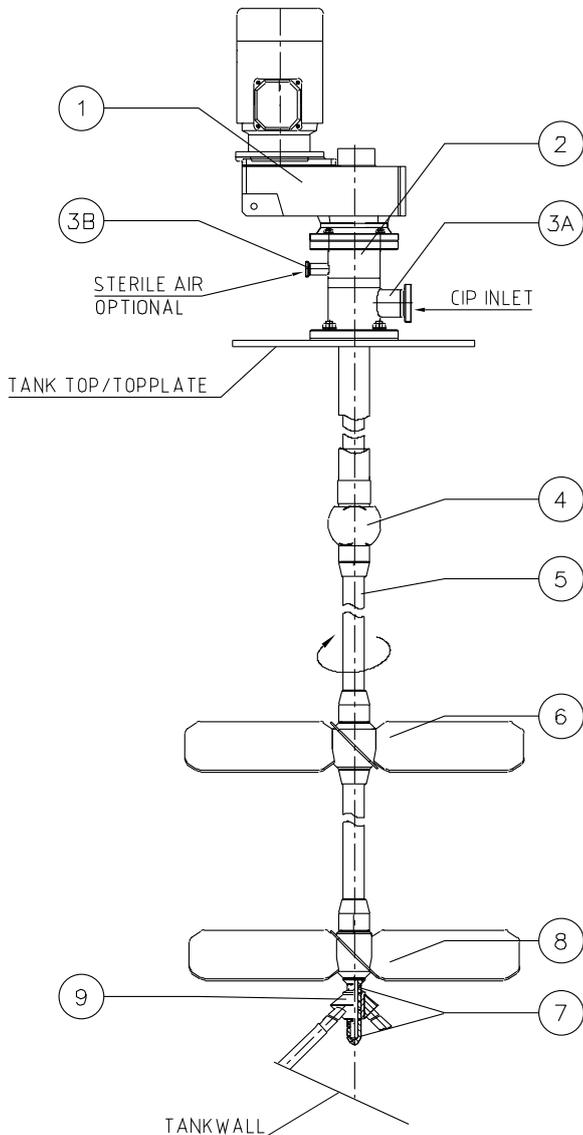
Please observe that the mixer must never run dry i.e. without yeast or CIP liquid.

Mounting

The SCANDI BREW® top-entry mixer is mounted either as a stand alone equipment on the tank top or alternatively as an integrated part of the top plate. To ensure optimum mixing it is recommended to install the mixer slightly off centre (175 mm).

At the tank bottom the mixer shaft is guided by a sanitary bottom tripod welded onto the tank cone.

Detailed mounting instructions and installation tools for leveling of bottom console are required for correct mounting.



Cleaning/Sterilization

Hot caustic cleaning (approx. 65°C) is recommended. Max. cleaning temperature is 70°C when mixer is running. During cleaning the main part of liquid is lead through the CIP-pipe to the spray ball while a smaller amount is lead through the hollow shaft to the shaft end nozzles. The shaft is cleaned outside from a slot in the spray ball bearing. In this way a proper cleaning of the mixer shaft in- and outside as well as the propeller and the bottom console is ensured. The mixer should always run during CIP.

If required, the arrangement is steam or hot water sterilisable as well, during this procedure the mixer must stand still.

Specifications

Materials:	Stainless steel EN 1.4404/AISI 316L (standard). All other parts in contact with product are FDA approved.
Standard propeller speed:	70 - 75 rpm (or acc. to customer specification)
Power supply:	400 V, 50 Hz (standard)
Motor size:	2.2 or 3 kW
CIP supply:	Capacity and inlet pressure: 25 m ³ at 2 bar (29 psi)

Optional equipment

- A) Built-in aeration valve for aeration/acid washing
- B) Propeller shaft with extra intermediate propeller unit for larger tanks
- C) Split coupling for detachable propeller shaft in case of insufficient free height
- D) Worm gear in case of limited free height above tank

- Pos. 1 Gearmotor
- Pos. 2 Gear console
- Pos. 3a CIP entry
- Pos. 3b Aeration entry
- Pos. 4 Spray ball with shaft bearing
- Pos. 5 Hollow mixer shaft
- Pos. 6 Extra propeller included if necessary
- Pos. 7 Shaft end nozzles for CIP, air or acid
- Pos. 8 Propeller blades
- Pos. 9 Mixer shaft guide (Bottom tripod with legs welded into the tank cone)

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com