

# SANITARY AGITATORS FOR THE DAIRY INDUSTRY



Chemical Plant & Engineering designs and manufactures the high efficiency RTF4 agitator suitable for dairy processing applications.

The RTF4 is used extensively throughout the dairy industry, in particular where low shear is required during the mixing process to protect the quality and integrity of the product.

What sets the RTF4 above all other agitators is the unique geometry of the four (4) bladed hydrofoil. The RTF4 was developed to reduce power consumption by maximizing flow and minimizing turbulence (or shear). This is achieved by transferring the available energy into pure axial flow without turbulence at the impeller.

The result is a high efficiency, low shear agitator making the RTF4 the choice for sanitary mixing applications.

<b>FONTERRA</b>	<b>NESTLE</b>	<b>PARMALAT</b>	<b>KRAFT</b>	<b>BEGA CHEESE</b>
<b>MURRAY GOULBURN</b>	<b>TATURA MILK</b>	<b>LION FOODS</b>	<b>CADBURY SCHWEPPE</b>	<b>WARRNAMBOOL CHEESE &amp; BUTTER</b>

# SANITARY SIDE & BOTTOM ENTRY AGITATORS

## KEY FEATURES:

- Sanitary tank flange supplied with agitator.
- Agitator shaft is machined to take screwed impeller.
- O-rings are used between mating surfaces.
- Precision machining ensures O-ring is compressed to produce a profile for easy CIP
- Mechanical seal – dairy finish
- Wetted surfaces are polished to 180 grit

## TRAPPING POINTS

A true sanitary design where all potential trapping points for bacteria are minimized or designed to allow CIP exposure.

## VARYING TANK OPERATING LEVELS

Ability to operate within a range of tank levels without inducing excessive vibration and premature seal wear. Side and bottom entry agitators are prone to suffer load fluctuations due to varying liquid levels. CPE's agitator design incorporates a bearing in the base of the pedestal to substantially reduce the loads and stresses on the mechanical seal.

## CORROSION AND FOULING MINIMIZATION

In dairy operations, condensation is inevitable. CPE sanitary agitators have a modified pedestal which allows any condensation to drain.

The benefit of this feature is that it minimizes the risk of corrosion. In addition, all CPE bottom entry sanitary agitators include a bearing shroud to protect the stainless steel bearing from fouling in the event the tank leaks its contents.



# SANITARY TOP ENTRY AGITATORS

CPE offers sanitary top end agitators for a vast number of dairy and food applications.

## KEY FEATURES:

- Shroud can be included beneath the gearbox to prevent potential oil leak from contaminating the product.
- Food grade lubricants used in all sanitary top end agitators
- Agitators can be designed to provide effective mixing without tank baffles.
- Cantilever designs can be offered which do not rely on steady bearings to support the shaft. This feature further enhances the sanitary design and avoids the need to enter the vessel to maintain the bearing bush.
- Wetted ends can be fully welded and polished to 180 grit.
- For existing tanks where entry is restricted sanitary screwed designs can be offered to allow the wet end to be assembled in the tank. O-rings are used to ensure sanitary connection. Precision machining ensures O-ring is compressed to produce a profile which is easy to CIP.

## CHEMICAL PLANT & ENGINEERING

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