



Alfa Laval Top mounted agitators, type ALTB

Efficient Mixing and Agitation

Applications

Application	Typical examples
Maintain media homogeneous	Milk storage tanks, cream tanks, mixed product tanks, UHT product storage tanks, etc.
Mixing and Solutions (dissolves)	Fluid and fluid mixing, i.e. drinking yoghurt and fruit mix tanks, flavoured milk mix tanks, syrup mix tanks, etc.
Solid Dispersion	Powder protein + oil mix tanks, micro salt + milk product mix tanks, etc.
Suspension	Fluids with particles, i.e. juice tanks, crystallising tanks etc.
Heat transmission	Circulation of media in tanks with dimple jacket (cooling or heating)
Dairy Fermentation (break coagula + mixing)	Yoghurt tanks, cheese culture tanks, crème fraîche, etc.



TECHNICAL DATA

Motor

Motor size and speed as required for duty. As standard with IEC motor IP55. Optional: IP66
As standard painted RAL5010.

Voltage and frequency

As standard for 3x380 to 420V, 50Hz - 3x440V to 480V, 60Hz. All motor voltages and frequencies are available.

Gears

Different gear types available according to configuration.

As standard filled with food approved oil. As standard painted RAL5010.

Ordering

The following information is required to ensure correct sizing and configuration for ordering:

- Tank geometry
- Product properties
- Task of agitator
- Enquiry forms are available
- End-user country

Product wetted surface finish

Industrial, shot peened Ra < 3.2 µm
Hygienic, polished Ra < 0.8 µm

PHYSICAL DESIGN

Materials

Available materials:

Steel parts: AISI 316L (standard)
Other materials on request.

Seal rubber parts

(O-rings or bellows): EPDM
FPM
FPM/FEP (only for stationary O-rings)
Other materials on request.

Mechanical seal parts: Carbon
Carbon (FDA)
Silicon carbide

Wear bushings (on shaft)

(bottom steady bearing): PEEK

Temperature

During operation: Max 90 °C
CIP Max. 95 °C
SIP Max. 150 °C

Pressure Full vacuum - 10 barg (145 psi) depending on configuration.

Material certificate - option

3.1 Material certificates/FDA conformity statement according to 21 CFR177 on steel/elastomer parts in contact with media

Dimensions

Standard propeller diameter range: \varnothing 125 mm to 1900 mm. Specific dimensions on the drive unit and propeller(s) will depend on the actual configuration selected.

Standard design

The Alfa Laval range of top mounted propeller agitators with bottom steady bearing is designed to meet almost every customer requirement. Type ALTB agitators are characterised by having a shaft support inside the tank called a bottom steady bearing. Standard type ALTB agitators are less costly than agitators without internal shaft support. Due to their modular build, the agitators can be designed to suit every kind of application within hygienic industry. The modular construction is designed with the aim to meet both European and American standards and regulations, such as EHEDG, USDA, FDA, 3A etc.

Please note that Alfa Laval also offer other agitator solutions:

- Type ALT, top mounted agitators
- Type ALS, side mounted agitators
- Type ALB, bottom mounted agitators

For more information please see separate Product Data Sheets.

Configurable design

Type ALTB agitator design is fully configurable divided in the following elements:

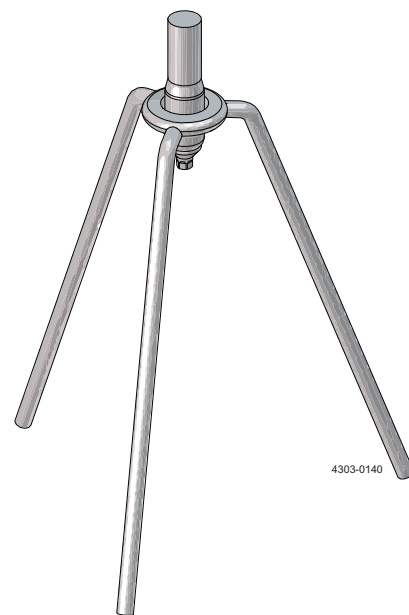
- Drives (drive + shaft support + shaft diameter)
- Seal arrangements (oil trap + shaft seal type)
- Shaft (length)
- Energy Saving Foils (propeller type + surface finish)
- Bottom steady bearings (type + surface finish)
- Options

Each element has a broad range of different characteristics which make it possible to size the agitator for all applications and requirements. Type ALTB configuration, please see next page.



















Advantageous and profitable design

Each configuration offers a number of advantages, which are shown in the examples below:

Operation features	Due to
Low energy consumption	the wide range of high efficiency propellers and drive units makes it possible to design for low operational costs
Gentle product treatment	the wide range of high efficiency propellers makes it possible to design for low shear operation
Hygienic features	Due to
Connections inside the tank (risk zones) can be avoided	propellers can be welded onto the shaft
Good drip off properties	no plane surfaces or grooves on internal parts
Easy cleaning	no interior shadow sides between the blades and smooth surfaces
Maintenance features	Due to
Easy bottom bearing replacement	wear bushings can be replaced without dismantling the agitator drive



BS3P

Type ALTB	Configuration		Top mounted agitators with bottom steady bearing			
Drives						
	TD 528-014	TD 528-015				
Shaft diameter = yy	-ME-GR-yy	-ME-GP-yy				
Description	Right angle gear drive, shaft	Parallel shaft gearbox,				
(power, speed and shaft diameter	mounted in hollow shaft of	shaft mounted in hollow				
depending on application)	gearbox (for very low head	shaft of gearbox				
	room applications)					
Seal arrangements						
	TD 528-009	TD 528-010	TD 528-011	TD 528-012		
Description	F-R-	LF-R-	LF-S/LF-S3	LF-D-		
(lower flange and seal material	Seal flange with O-ring seal	Lantern (spacer), seal flange	Lantern (spacer), seal	Lantern (spacer), seal		
depending on application)	against tank flange, drain,	with O-ring seal against tank	flange with O-ring seal	flange with O-ring seal		
	oil trap and shaft seal: radial	flange, drain, oil trap and	against tank flange, drain,	against tank flange, drain,		
	seal for atmospheric tanks	shaft seal: radial seal for	oil trap and shaft seal:	oil trap and shaft seal:		
		atmospheric tanks	single mechanical dry	double mechanical seal for		
			running seal for high/low	high pressure applications		
			pressure applications	and aseptic use		
Shaft						
Length = IIII	-SIII-					
Description	SS shaft, length according					
(material depending on application)	to application					
Energy Saving Foils						
Number =n	TD 528-001	TD 528-001	TD 528-001a	TD 528-002	TD 528-002	TD 528-002a
Diameter =vvv						
(125 mm to 1900 mm)						
Description	-nPvvvD3P	-nPvvvD3PE	-nPvvvD3G	-nPvvvD2P	-nPvvvD2PE	-nPvvvD2G
(material depending on application)	3 - bladed propeller,	3 - bladed propeller,	3 - bladed propeller,	2 - bladed propeller,	2 - bladed propeller,	2 - bladed propeller,
	finish: polished	finish: polished and	finish: shot peened	finish: polished	finish: polished and	finish: glass shot peened
		electro polished			electro polished	
	Standard: Ra <0.8 µm	Standard: Ra < 0.8 µm		Standard: Ra <0.8 µm	Standard: Ra < 0.8 µm	
Bottom steady bearing						
Description	-BS3P	-BS3G				
(material depending on application)	Hygienic bottom steady	Bottom steady bearing with				
	bearing with PEEK bushing	PEEK bushing on shaft.				
	on shaft.					
	finish: polished	finish: shot peened				
	Standard: Ra < 0.8 µm	Standard: Ra < 3.2 µm	3.2 µm			
Optional				S		
	TD 528-005	TD 528-005				
	Welding flange	Blind flange	Cover for	Spare part kit		
Description	Incl. mounting pin nuts	Incl. seal O-ring	motor / gear motor	Standard spare part kit		
	and bolts		Stainless steel cover -			
			comes in different shapes			
			according to drive type			

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Contact details for all countries
are continually updated on our website.
Please visit www.alfalaval.com to
access the information direct.