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Product Catalogue | **TLC Heavy Duty
Side Entry Agitator**



Key Uses

The Heavy-Duty Side Entry Agitator is designed for efficient mixing and circulation in large storage and process tanks. It is widely used in the food, dairy, beverage, chemical, cosmetic, and pharmaceutical industries to maintain product uniformity and stability.

The agitator ensures effective homogenization of low-viscosity liquids, prevents sedimentation and phase separation during storage, and supports continuous circulation to preserve consistent product quality. It also enhances heat transfer efficiency in heating and cooling processes, contributing to reliable and efficient production operations.

Design and Features

- Helical-bevel gearbox design providing high torque transmission, compact structure, and efficient power transfer.
- Direct shaft-to-gearbox connection ensuring strong mechanical stability and reliable operation in continuous industrial processes.
- Cartridge type mechanical seal system designed to provide secure sealing and reduce leakage risk in demanding applications.
- Bell housing structure protecting the sealing assembly and supporting long service life.
- Spacer coupling option allowing easier maintenance and mechanical seal replacement without major disassembly.
- Various impeller configurations available to optimize mixing efficiency according to tank geometry and process requirements.
- Different rotational speeds and motor configurations adaptable to specific mixing and circulation needs.
- Heavy-duty construction suitable for large storage tanks and continuous operation.
- ATEX compliant versions available for operation in potentially explosive environments (Zone 1 and Zone 2).
- Flexible installation options designed for side-entry mounting on large diameter tanks.

Materials

Gearbox Housing: Cast Iron

Motor Frame: Aluminum or Cast Iron

Agitator Shaft: Carbon Steel or Stainless Steel (AISI 304 / AISI 316)

Impeller: Carbon Steel or Stainless Steel (AISI 304 / AISI 316)

Mechanical Seal: Single or Double Mechanical Seal

Seal Faces: Carbon / Silicon Carbide / Tungsten Carbide

Seal Elastomers: EPDM, FKM (Viton) or NBR

Spacer Coupling: Carbon Steel or Stainless Steel

Bell Housing: Carbon Steel

Fasteners: Stainless Steel

Surface Protection: Industrial Epoxy Coating

Operating

The ALC Series Side Entry Agitator operates through a high-efficiency geared drive system that transmits torque from the motor to the agitator shaft and impeller, generating strong axial flow inside the tank. The rotating impeller creates continuous circulation and mixing of the stored liquid, ensuring uniform product consistency while preventing sedimentation and stratification in large storage tanks.

Operating Limits

Power Range: 2.2 – 55 kW

Rotation Speed: 190 – 340 rpm

Flow Rate: 1600 – 9000 m³/h

Mixer Sizes: 6 sizes available

Drive Type: Bevel gearbox drive system

Seal Options: Cartridge mechanical seal (with shut-off or spacer configuration available)

Operating Data

Model	kw	In (A)	RPM	m3/h	Mt [Nm]	Mf [Nm]	Fa [N]
TLC1 - 5,5 - S	5,5	11,3	280	2550	320	440	3000
TLC2 - 7,5 - S	7,5	14,4	280	3100	430	600	4000
TLC2 - 11 - S	11	20,9	280	3850	630	780	5000
TLC3 - 15 - S	15	28,3	195	5000	1000	1500	6600
TLC4 - 22 - S	22	41,1	300	4400	1000	2100	6600
TLC5 - 30 - S	30	52	300	6800	1600	2300	9500
TLC5 - 37 - S	37	65	265	6800	2200	3500	10500
TLC6 - 45 - S	45	78	340	7700	2000	2800	12500
TLC6 - 55 - S	55	93	300	7700	2800	4200	13500

APPLICATION AREAS & INDUSTRY SOLUTIONS

DAIRY INDUSTRY



The TLC Heavy Duty Side Entry Agitator provides efficient mixing and continuous circulation in large storage tanks used for liquid dairy products such as milk, cream, and whey.

Its optimized impeller design generates strong axial flow, maintaining product uniformity while preventing sedimentation and phase separation during storage.

With its robust industrial construction and reliable sealing system, it ensures stable and efficient operation in dairy processing applications.

FOOD PROCESSING & BEVERAGE APPLICATIONS



The TLC Heavy Duty Side Entry Agitator provides efficient mixing and circulation in large tanks used in food and beverage processing, including products such as oils, juices, syrups, and sauces. Its optimized impeller design maintains product homogeneity while preventing sedimentation during storage.

APPLICATION AREAS & INDUSTRY SOLUTIONS

PETROCHEMICAL & CHEMICAL PROCESSING



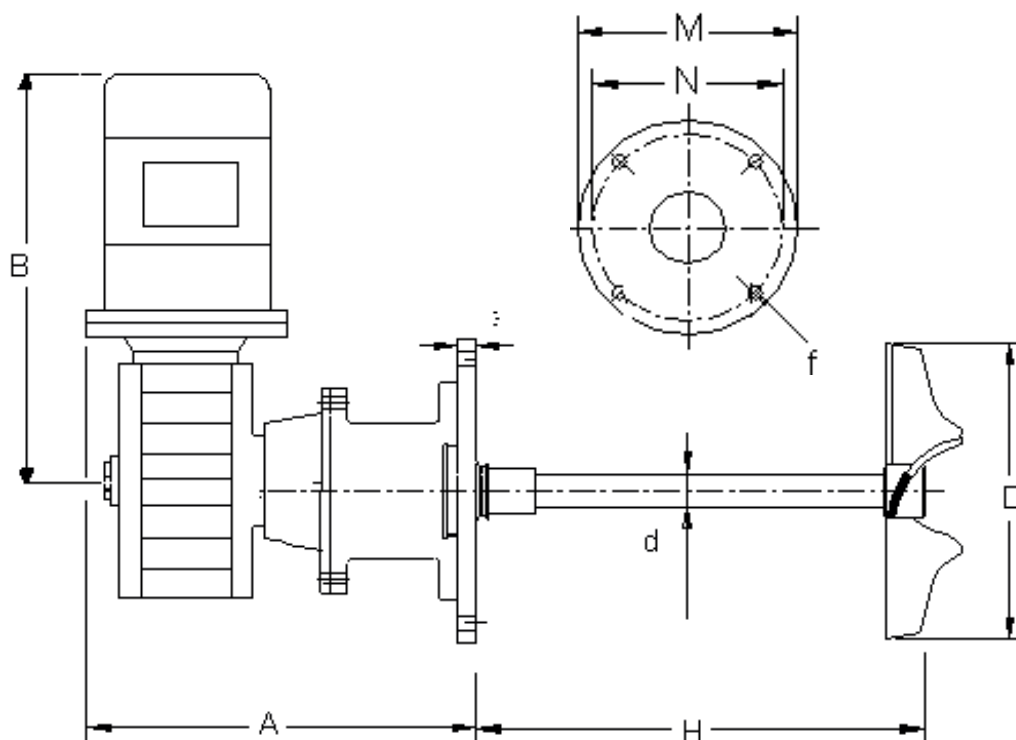
The TLC Side Entry Agitator is engineered to maintain consistent fluid conditions in large petrochemical and chemical storage tanks. By generating controlled circulation within the tank, it helps prevent settling, temperature gradients, and product separation in liquids such as hydrocarbons, fuels, and solvents. Its robust drive system and reliable sealing arrangement make it suitable for continuous operation in demanding chemical processing environments.

COSMETICS INDUSTRY



The TLC Side Entry Agitator provides reliable mixing and circulation in large storage tanks used for cosmetic liquids such as lotions, oils, and liquid formulations. It helps maintain product consistency and prevents phase separation during storage and processing.

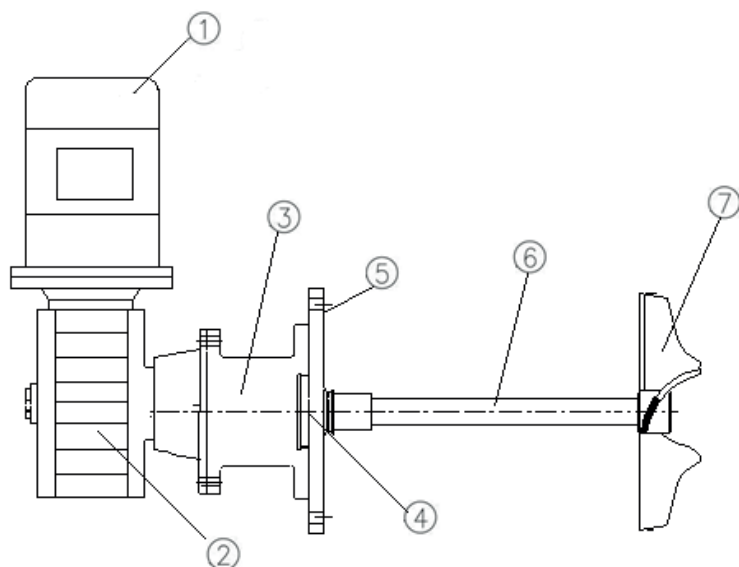
MEASUREMENTS AND WEIGHTS



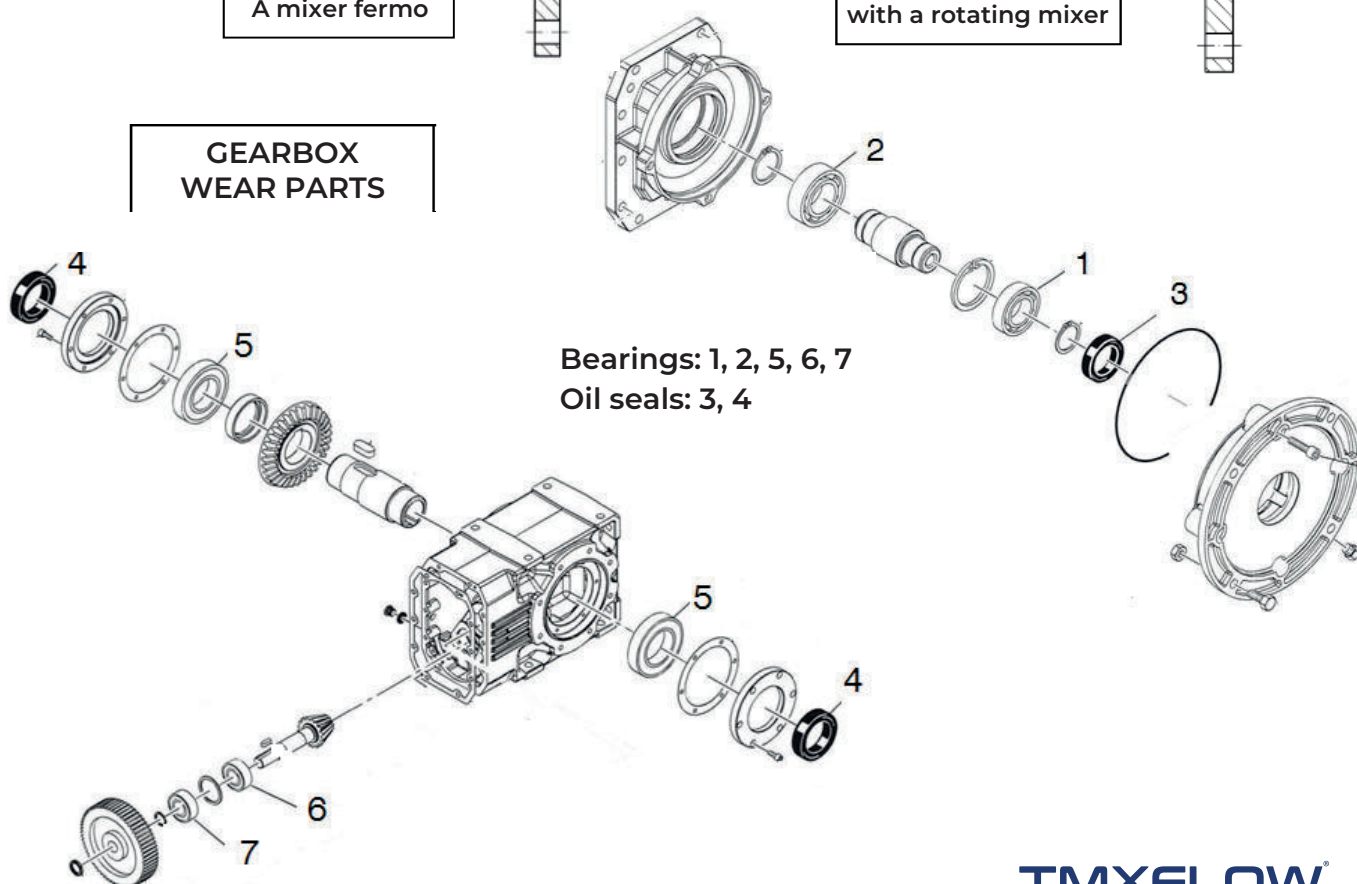
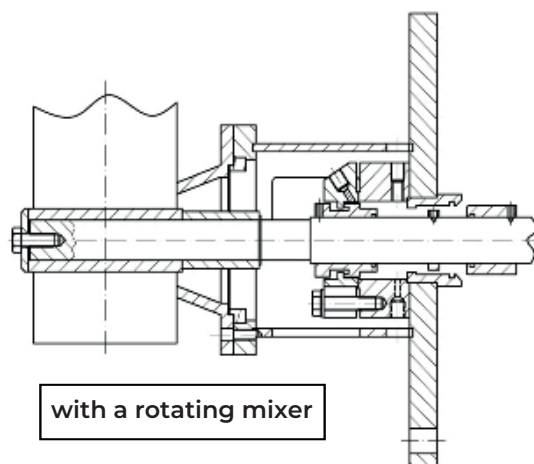
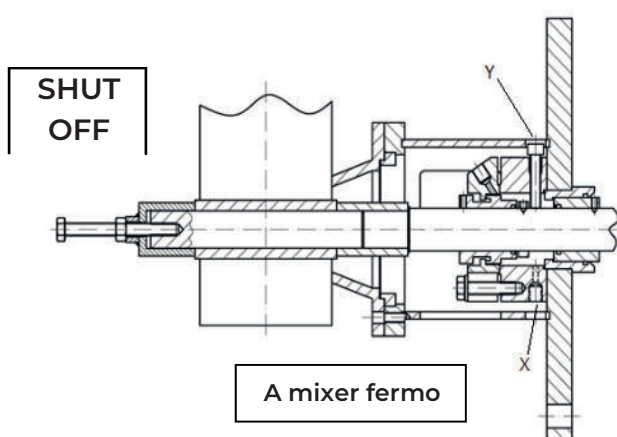
Model	A	B	D	d x H	Flange	Kg
TLC1 - 5,5 - S	460	600	F-620	45 x 700	DN150 PN10	160
TLC2 - 7,5 - S	550	660	F-660	55 x 800	DN250 PN10	225
TLC2 - 11 - S	550	780	F-710	55 x 800	DN250 PN10	265
TLC3 - 15 - S	600	850	C-800	70 x 950	DN300 PN10	320
TLC4 - 22 - S	650	1070	C-660	70 x 950	DN300 PN10	450
TLC5 - 30 - S	700	1200	F-840	80 x 1100	DN350 PN10	670
TLC5 - 37 - S	730	1280	C-800	80 x 1100	DN350 PN10	710
TLC6 - 45 - S	830	1320	F-840	90 x 1200	DN400 PN10	840
TLC6 - 55 - S	850	1430	C-800	90 x 1200	DN400 PN10	950

Flange				
DN	M	N	f	s
150	285	240	8 x 22	20
250	395	350	12 x 22	25
300	445	400	12 x 22	25
350	505	460	16 x 22	30
400	565	515	16 x 26	30

CONSTRUCTION AND MAIN COMPONENTS



TLC	
No	Description
1	Electric motor
2	Reducer
3	Bell housing
4	Cartridge seal
5	Flange
6	Shaft
7	Impeller





To contact TMXFLOW,
you can access the up-to-date contact information for all countries via our website.

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