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Product Catalogue | **TLS Tank Mixing
Side Entry Agitators**



Key Uses

The TLS Tank Mixing Side Entry Agitators is designed to provide homogeneous mixing in medium and large storage tanks, ensuring consistent product quality throughout the process. It is particularly suitable for hygienic applications in the food and beverage industry, including wine and fermented products. The agitator enables gentle mixing for sensitive liquids by maintaining low shear conditions, making it ideal for delicate processes. Suitable for low and medium viscosity liquids in both storage and process tanks. Additionally, it supports continuous mixing without interrupting tank operations, improving overall process efficiency.

Design and Features

The TLS Tank Mixing Side Entry Agitators features a side-entry design that enables efficient mixing in large tanks while optimizing flow patterns. Its direct drive configuration eliminates the need for a gearbox, reducing maintenance requirements and operational complexity. The integrated sealing system is positioned within the product area, ensuring compactness and reliability, while high-quality mechanical seals made of graphite and carbide provide long-lasting performance. An optional bearing housing (lantern) can be included to extend seal life. For smaller sizes, a compact and economical design is available, maintaining performance while reducing cost. The agitator can also be equipped with a foldable impeller for easy installation and removal when the tank is empty. Flexible connection options such as DIN or Garolla ensure easy integration into different systems, and ATEX-certified versions are available for operation in hazardous environments.

Materials

Motor: Direct Drive Electric Motor (No Gearbox)

Lantern Housing: Aluminum Casting (Optional, depending on configuration)

Agitator Shaft: Oversized Steel Shaft

Impeller: Fixed or Foldable Impeller (depending on application)

Mechanical Seal (Standard Version): Internal Mechanical Seal

Seal Faces (Standard): Graphite / Carbon

Mechanical Seal (-W Version): High Reliability Mechanical Seal

Seal Faces (-W Version): Graphite / Carbide

Bearing System: Thrust Bearing Integrated in Lantern (where applicable)

Radial Seals: Double Radial Seals

Process Connection: Flanged Connection (DIN / PN10 Options Available)

ATEX Version: Available for Zone 1 and Zone 2 Applications

Operating

The TLS Tank Mixing Side Entry Agitators uses a direct drive system for efficient, low-maintenance operation. Its impeller creates horizontal flow to ensure continuous mixing and prevent sedimentation. The side-entry design enables effective mixing in large tanks, while the mechanical seal ensures hygienic performance.

Operating Limits

Power Range: 0.12 – 11 kW

Rotation Speed: 680 – 960 rpm

Flow Capacity: Up to 1358 m³/h

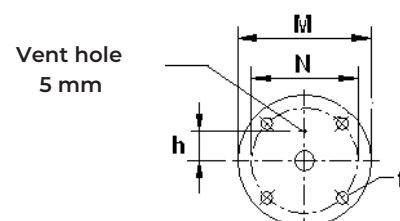
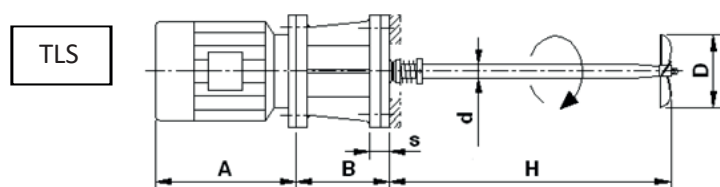
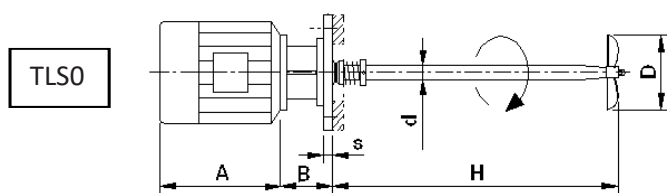
Tank Height: Up to 14 m

Drive Type: Direct Drive (No Gearbox)

Seal Configuration: Internal Mechanical Seal

Operating Data

Model	kw	In (A)	RPM	D	d x H	Flange	kg	m3/h	Vol (Hl)	H (m)
TLS 0-0,12/8-W	0,12	0,7	700	130	20 x 400	DN50 PN10	9	45	50	2,8
TLS 0-0,25/8-W	0,25	1,2	680	160	25 x 450	DN80 PN10	15	84	130	3,8
TLS 0-0,37/6-W	0,37	1,4	910	160	25 x 450	DN80 PN10	15	112	200	4,5
TLS 0-0,75/8-W	0,75	2,3	710	220	30 x 500	DN100 PN10	35	221	550	6,1
TLS 0-1,5/8-W	1,5	4,0	720	280	35 x 550	DN100 PN10	40	569	2100	9,5
TLS 1-0,37/6-W	0,37	1,4	910	160	25 x 450	DN80 PN10	28	112	200	4,5
TLS 1-0,55/8-W	0,55	1,9	690	220	25 x 500	DN80 PN10	34	220	550	6,1
TLS 1-1,1/6-W	1,1	2,6	920	220	30 x 500	DN80 PN10	35	294	800	6,9
TLS 2-1,5/8-W	1,5	4,0	720	280	30 x 500	DN100 PN10	52	569	2100	9,5
TLS 3-3/8	3	7,3	720	300	35 x 600	DN150 PN10	102	700	2800	10,5
TLS 3-5,5/6	5,5	11,7	950	300	40 x 600	DN150 PN10	110	923	4200	12
TLS 4-7,5/6	7,5	14,8	960	320	40 x 650	DN150 PN10	158	1132	5800	14,5
TLS 4-11/6	11	21,4	960	340	45 x 650	DN150 PN10	200	1358	7200	14,5



b = Minimum hole to be made in the tank flange for the seal passage

APPLICATION AREAS & INDUSTRY SOLUTIONS

FOOD PROCESSING & BEVERAGE APPLICATIONS



In food and beverage production, TLS side-entry agitators are ideal for mixing low-viscosity products such as milk, fruit juices, syrups, and liquid sweeteners. They ensure uniform consistency, prevent phase separation, and maintain product quality during storage and processing, while operating gently to preserve the natural properties of sensitive ingredients.

PHARMACEUTICAL & COSMETIC INDUSTRY



In the pharmaceutical and cosmetic industries, TLS side-entry agitators are used for mixing low-viscosity formulations such as liquid medications, lotions, tonics, and cosmetic solutions. They provide gentle and uniform blending, helping maintain product stability, consistency, and ingredient integrity throughout the production and storage processes.

APPLICATION AREAS & INDUSTRY SOLUTIONS

PETROCHEMICAL & CHEMICAL PROCESSING



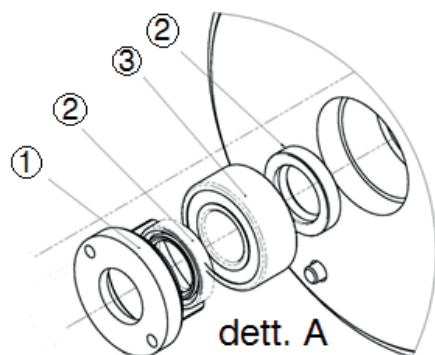
In chemical and petrochemical processes, TLS side-entry agitators are used for blending and homogenizing low-to-medium viscosity fluids such as solvents, fuels, and chemical solutions. They enhance mass and heat transfer, prevent sedimentation, and ensure consistent product quality during storage and processing, even in large-volume tanks.

WATER AND WASTEWATER TREATMENT APPLICATIONS

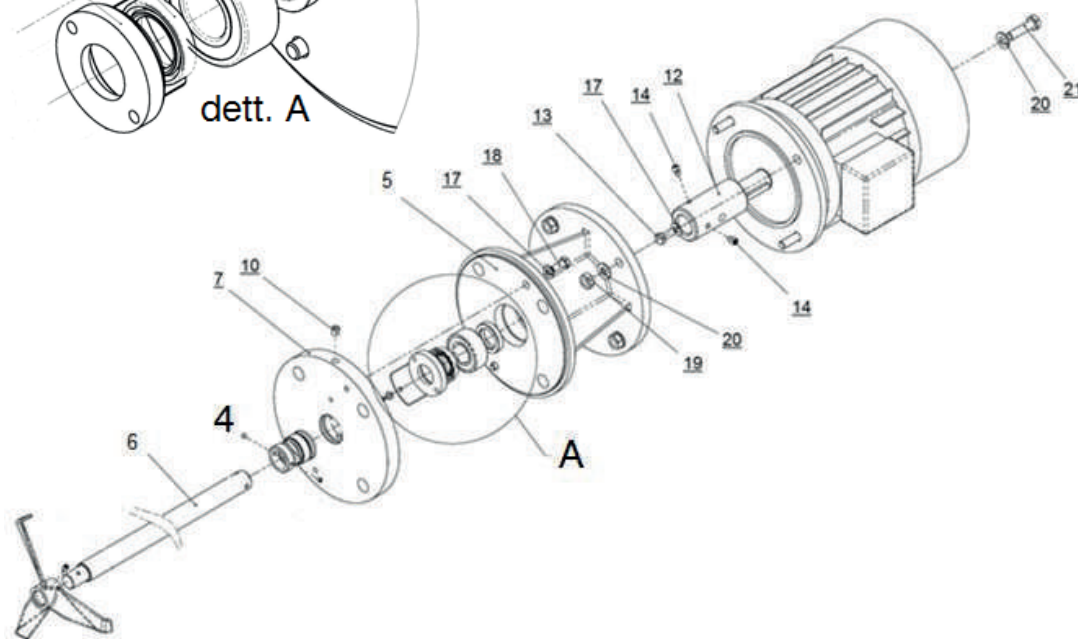


In water and wastewater treatment systems, TLS side-entry agitators are used for mixing and maintaining the uniformity of liquids in tanks such as equalization, neutralization, and storage units. They help prevent sludge settling, improve chemical dispersion, and ensure efficient treatment performance with low energy consumption.

MEASUREMENTS AND WEIGHTS



Wear Parts		
Pos	Description	Pcs
1	Ring Nut	1
2	Radial Seal	2
3	Bearing	1
4	Mechanical Seal	1



Model	Dimensions (mm)								Dynamic Loads		
	A	B	M	N	f	h	b	s	Mt [Nm]	Mf [Nm]	Fa [N]
TLS 0-0,12/8-W	215	48	165	125	4 x 18	45	40	20	1	3	400
TLS 0-0,25/8-W	240	70	200	160	4 x 18	45	50	20	2	7	640
TLS 0-0,37/6-W	240	70	200	160	4 x 18	45	50	20	3	12	680
TLS 0-0,75/8-W	325	106	220	180	8 x 18	45	55	20	10	30	1000
TLS 0-1,5/8-W	325	106	220	180	8 x 18	45	65	20	35	85	1580
TLS 1-0,37/6-W	240	170	200	160	4 x 18	45	50	35	4	10	680
TLS 1-0,55/8-W	280	170	200	160	4 x 18	45	50	35	10	40	600
TLS 1-1,1/6-W	280	170	200	160	4 x 18	45	55	35	16	32	1190
TLS 2-1,5/8-W	330	320	220	180	8 x 18	45	55	40	32	54	1280
TLS 3-3/8	425	370	285	240	8 x 22	65	65	40	50	100	900
TLS 3-5,5/6	425	370	285	240	8 x 22	65	65	40	80	150	1700
TLS 4-7,5/6	500	370	285	240	8 x 22	65	70	40	120	210	1900
TLS 4-11/6	540	370	285	240	8 x 22	65	80	40	160	260	2400



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

For more detailed information, please visit www.tmxflow.com