

Mixer Technology



Contents AWH Mixer Technology

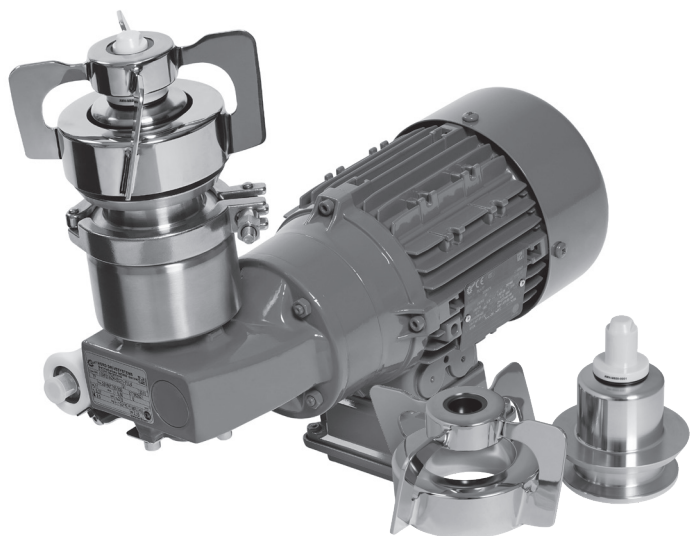
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* An asterisk in the pricing column means: on request

Product Description VPureMix® Magnetic Coupled Mixer

VPureMix® Magnetic Coupled Mixers for demanding and high-quality Processes



The VPureMix® magnetic coupled mixers were specially designed for applications with the most stringent demands in terms of safety and sterility.

A magnetic coupling eliminates the risks of conventional shaft penetration, such as leakage and contamination, and thus guarantees the highest level of product safety.

The optional magnetic field sensor also contributes to increasing process reliability, since the speed and direction of rotation can be continuously monitored, recorded and adjusted.

The mixing head of the VPureMix® magnetic coupled mixer is characterized by its open design, which allows for an optimal product flow and simplifies the cleaning and sterilization processes. The mixing head is mounted on high-performance ceramic made of zirconium dioxide (ZrO₂) and silicon carbide (SiC), which eliminates vibrations, and also ensures extremely low shear forces and smooth, short-term dry running.

Applications

Pharmaceutical and biotechnological applications:

- API and vaccine production
- Reserve and media production
- Plasma fractionation
- Bioreactors
- Process tanks in upstream and downstream areas
- Storage tanks
- and much more.

Food & beverage applications:

- Dairy products
- Breweries
- Soft drink and fruit juice production
- and much more.

Model Overview

Type	VPureMix® LS30	VPureMix® LS50	VPureMix® LS100	VPureMix® LS500	VPureMix® LS1000	VPureMix® LS2000	VPureMix® LS5000	VPureMix® LS10000	VPureMix® LS20000
Mixing volume* [L]	3 - 35	35 - 70	70 - 200	200 - 700	700 - 1,100	1,100 - 2,300	2,300 - 6,000	6,000 - 13,000	13,000 - 22,000
Voltage [V]	230/400	230/400	230/400	230/400	230/400	230/400	230/400	230/400	230/400
Nominal frequency [Hz]	50	50	50	50	50	50	50	50	50
Speed range [rpm]**	50 - 490	50 - 490	50 - 490	50 - 490	50 - 490	50 - 490	50 - 490	50 - 450	35 - 350
Motor power [kW]	0.12	0.12	0.12	0.37	0.55	0.75	1.5	2.2	2.2
Motor ratio	5	5	5	5	5	5	5	5	7.5
Mixing head diameter [mm]	82	96	120	142	160	184	190	225	273

* Mixing volume with dynamic viscosity of 1 mPas and density of 1,000 kg/m³

** Speed control in the mentioned speed range only possible by means of frequency converter. Frequency range about 9-90 Hz

Technical Data VPureMix® Magnetic Coupled Mixer

Technical Parameters

Mixing head with female bearing:	Mixing head:	Shape: Impeller Number of mixing blades: 4 Material: 1.4435 (AISI 316L), delta ferrite content $\leq 1\%$ Surface: polished and electro-polished $Ra \leq 0.5 \mu m$ (20 μin)
	Female bearing:	Material: Silicon carbide SSiC Surface: $Ra \leq 0.5 \mu m$
	Working temperature:	0 °C/32 °F to 150 °C/302 °F
Male bearing with gasket:	Male bearing:	Material: Zirconium dioxide ZrO_2 (Mg-PSZ), base 1.4435 Surface: $Ra \leq 0.5 \mu m$ Working temperature: 0 °C/32 °F to 150 °C/302 °F
	Gasket:	Shape: O-ring Material: EPDM (standard); FKM; FFKM, VMQ (optional)
Tank plate	Material:	1.4435 (AISI 316L), delta ferrite content $\leq 1\%$
	Surface:	polished and electro-polished $Ra \leq 0.4 \mu m$ (16 μin)
	Design pressure:	-1 bar/-14 psi to 7 bar/ 101.5 psi
	Design temperature:	-80 °C/176 °F to 200 °C/392 °F
Drive unit:	Worm gear IEC motor for frequency converter operation	
	Motor type:	Three-phase asynchronous motor
	Transmission:	Universal SMI worm gear unit
	Voltage:	230/400 V AC
	Frequency:	50 Hz
	Protection type:	IP66
	Efficiency class:	IE3
	Thermal motor protection:	PTC thermistor, 3x155 °C
	Paint:	RAL 4008 signal violet
Magnetic field sensor (optional):	Function:	Speed and direction of rotation query
	Connection:	Plug connector, M12x1
Area of application:	Viscosity range:	1 to 800 cP
	pH range:	1 to 14

Available certificates and measurement protocols for components in contact with the product:

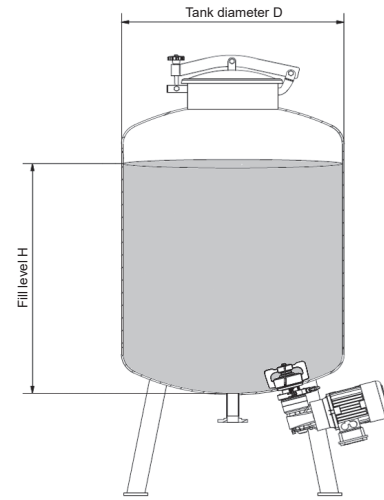
Acceptance test certificate according to DIN EN 10204-3.1 and restamping certificate
 Male bearing and female bearing: Biocompatibility according to USP Class VI
 O-ring elastomers: FDA, USP Class VI, 3-A Sanitary Standard
 Measurement protocols of delta ferrite content
 Measurement protocols of surface roughness

Technical Data VPureMix® Magnetic Coupled Mixer

Selection Guide

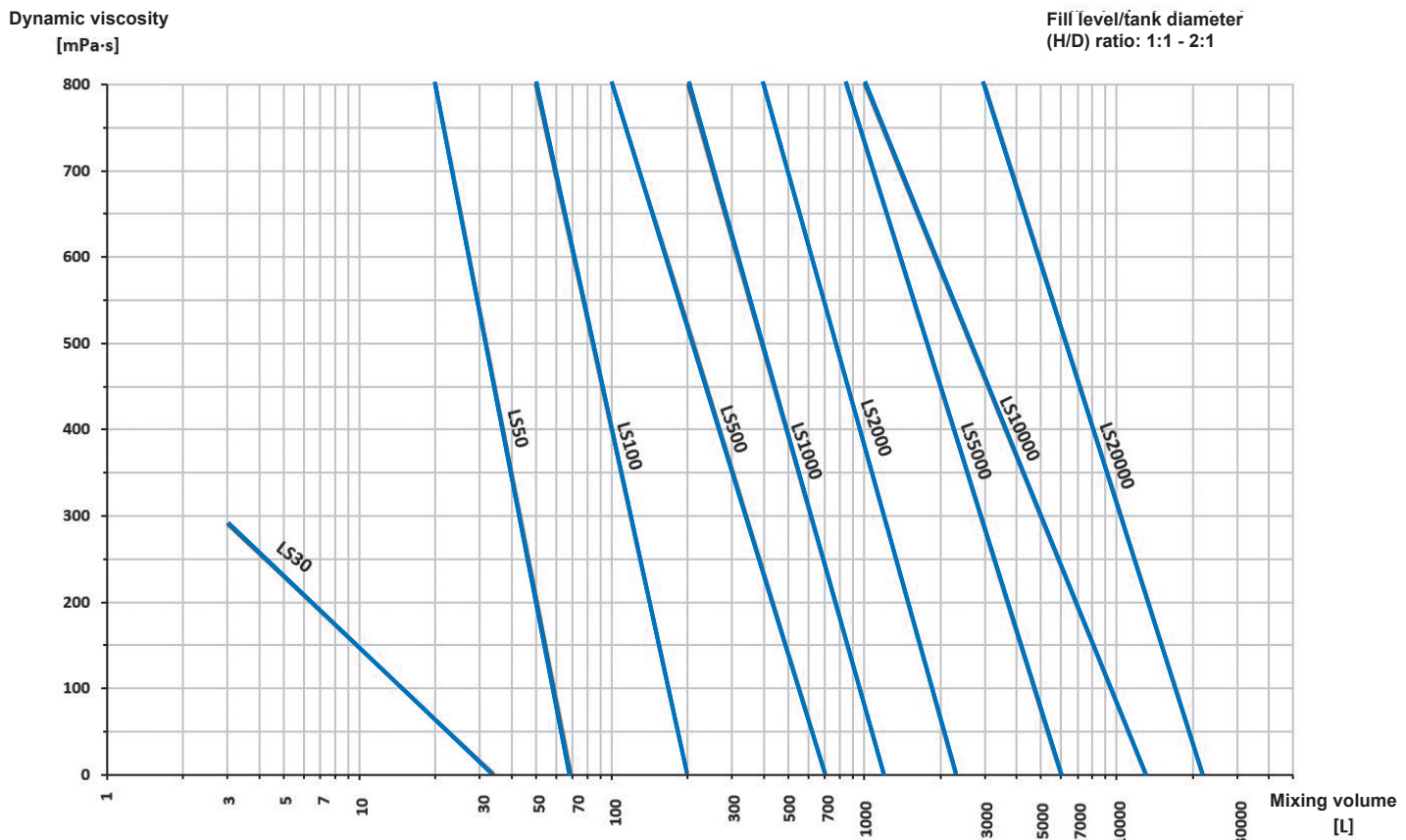
VPureMix® and VPureMix® ATEX magnetic coupled mixers can be used for mixing processes of low and medium viscosity media with a dynamic viscosity of 1 to 800 mPa·s depending on the mixing volume (3 to 22,000 L).

To ensure an optimal mixing process, a ratio between fill level and tank diameter of 1:1 to 2:1 is recommended.



As a selection guide, use the dynamic viscosity mixing volume diagram and the VPureMix® Configurator on www.awh.eu.

The VPureMix® Configurator enables you to calculate the right magnetic coupled mixer for your project by entering the mixing volume, the dynamic viscosity of the stirring medium and the intensity of the stirring process. Our software will not only help you to identify the appropriate magnetic coupled mixer, but also to optimize the tank diameter.



Questionnaire VPureMix® Magnetic Coupled Mixer

Specification for the Application (page 1/2)

Customer Contact Information	
Date	
Company	
Contact person	
Phone	
E-mail	
Country of use	
Project number/designation ¹⁾	

Operating Conditions	
ATEX requirements	☐ yes Zone: _____ ☐ no

Vessel Data	
Total volume [liters]	
Max. mixing volume [liters]	
Min. mixing volume [liters]	
Pressure [bar]	
Material	
Number of mixers	

Dimensions				
Bottom shape	☐ dished	☐ conical	☐ tulip	☐ other
Dimensions [mm]				
D1 =				
D2 =				
H1 =				
H2 =				
LH =				
R1 =				
R2 =				
A =				
Bottom insulation	☐ yes		☐ no	

¹⁾ The project number or project name you choose will be included in the offer.

Note

Dimensions and technical details correspond to the VPureMix® data sheet. The VPureMix® is suitable for temporary dry running during tank emptying as well as for operation with a frequency converter. The speed of the mixing head must be adapted to the product and the respective filling level.

Questionnaire VPureMix® Magnetic Coupled Mixer

Specification for the Application (page 2/2)

Fluid data	
Description	
Viscosity [mPa s/cP]	
Density [kg/l]	
Temperature [°C]	

Mixing Performance Specification			
Type of application	☐ heat transfer	☐ sensitive cell suspensions	☐ suspend solids
	☐ buffer/salt solution ²⁾	☐ blending miscible liquids	☐ emulsifying immiscible liquids
	☐ protein solution	☐ chemical reaction ²⁾	☐ powder introduction
	other application and/or known special features [Please describe]		
Product dependency	☐ not shear sensitive	☐ slight shear sensitive	☐ highly shear sensitive
Foaming products	☐ yes		☐ no
Required mixing intensity	☐ gentle	☐ general	☐ vigorous
Vortex required	☐ yes		☐ no
Speed sensor required	☐ yes		☐ no
Documentation	- Data sheet - Operating instructions - Welding instructions - Material certificate 3.1 EN 10204 for mixing head and tank plate - Declaration of conformity (FDA/USP Cl. VI) for elastomers - Declaration of conformity (FDA/USP Cl. VI) for ceramic bearings - EC Declaration for incorporation		
Optional documents	☐ Measurement report roughness mixing head ☐ Measurement report roughness of tank plate ☐ Measurement report Δ-ferrite content Mixing head ☐ Measurement report Δ-ferrite content Tank plate Other: _____		

²⁾ please indicate concentration and chemical compound

We are happy to provide you with a corresponding offer. Send the filled-out questionnaire to:

Armaturenwerk Hötensleben GmbH, Schulstr. 5 - 6, D-39393 Hoetensleben, Tel.: +49 39405 92 0, e-mail: info@awh.eu, www.awh.eu

Overview VPureMix® Magnetic Coupled Mixer

VPureMix® LS30, LS50, LS100

LS30

LS50

LS100



Mixing head with female bearing



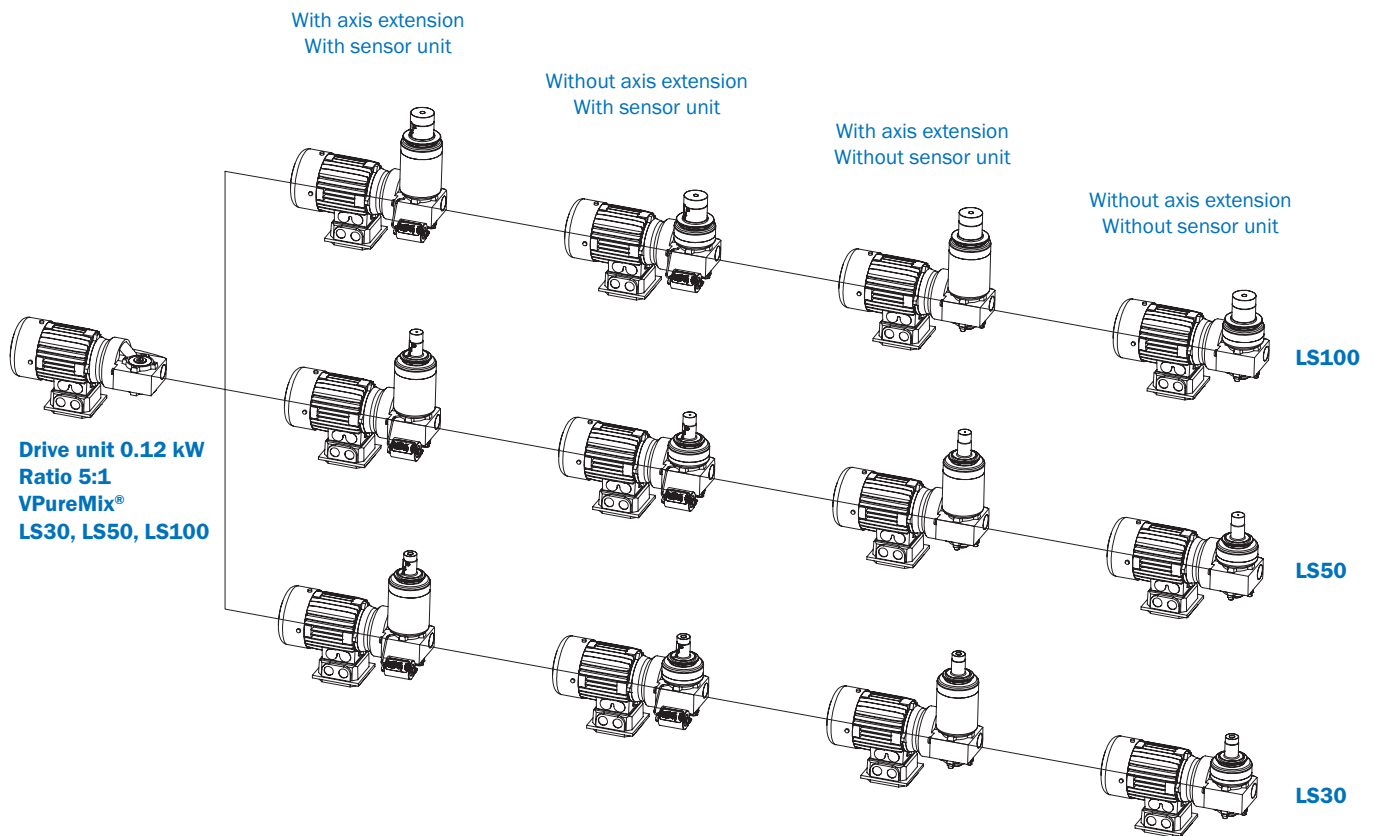
Male bearing Ø 12mm



O-ring gasket: EPDM (standard)
FKM, FFKM, VMQ (optional)



Tank plate



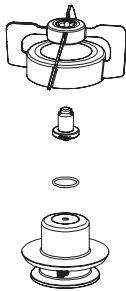
Overview VPureMix® Magnetic Coupled Mixer

VPureMix® LS500, LS1000, LS2000

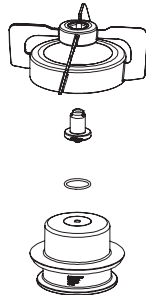
LS500



LS1000



LS2000



Mixing head with female bearing

Male bearing Ø 20 mm

O-ring gasket: EPDM (standard)
FKM, FFKM, VMQ (optional)

Tank plate

With axis extension
With sensor unit

Without axis extension
With sensor unit

With axis extension
Without sensor unit

Without axis extension
Without sensor unit

Drive unit 0.37 kW
Ratio 5:1
VPureMix® LS500

LS500

Drive unit 0.55 kW
Ratio 5:1
VPureMix® LS1000

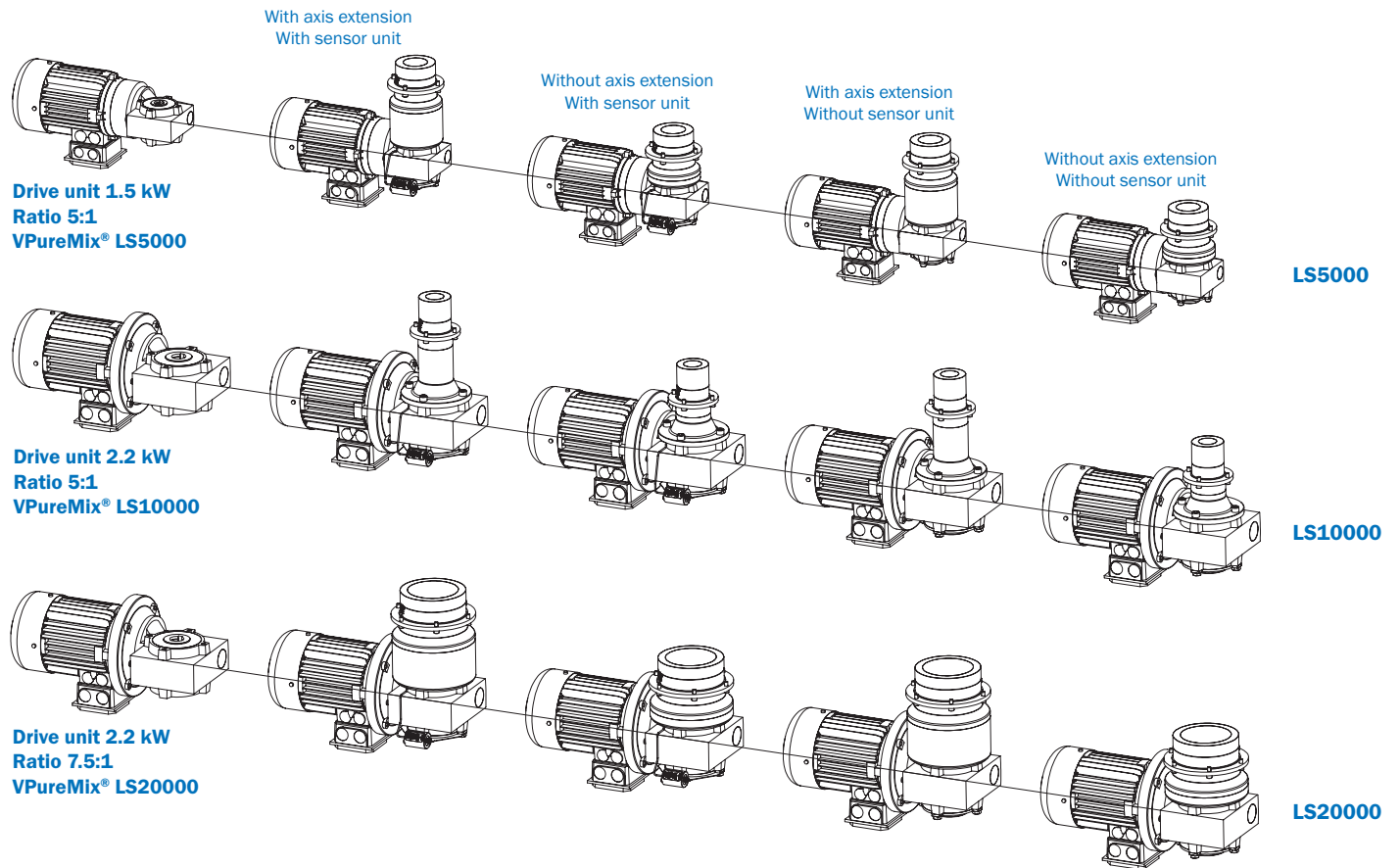
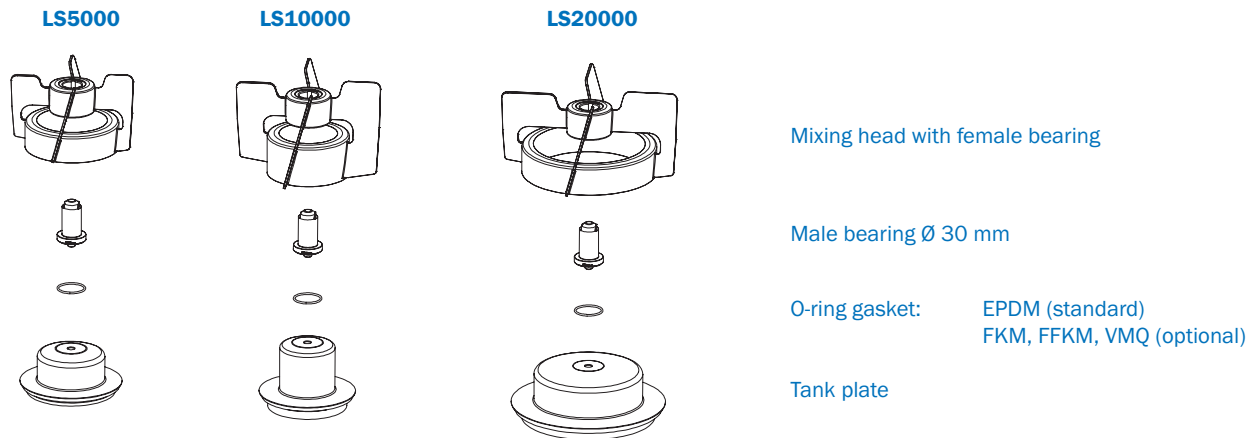
LS1000

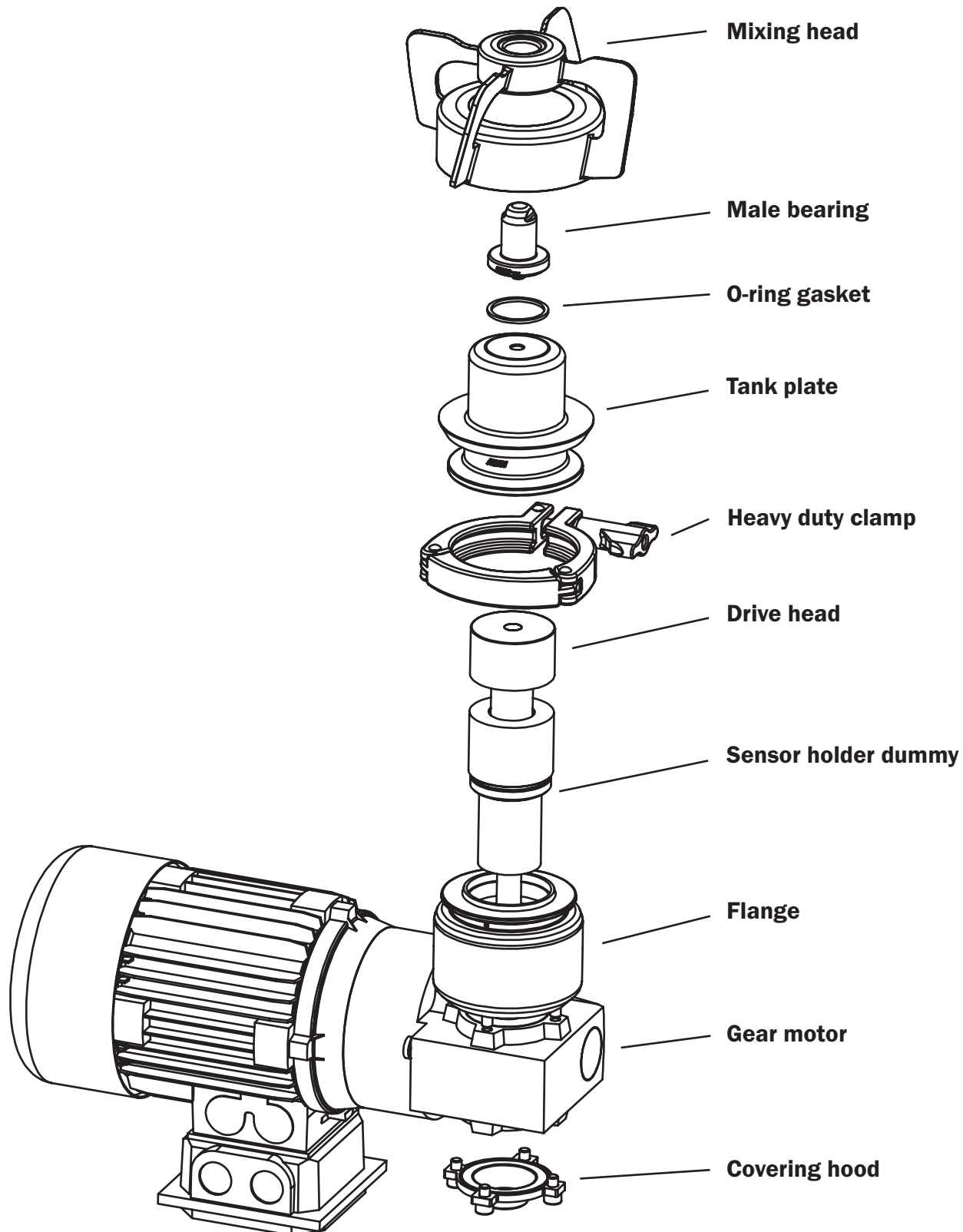
Drive unit 0.75 kW
Ratio 5:1
VPureMix® LS2000

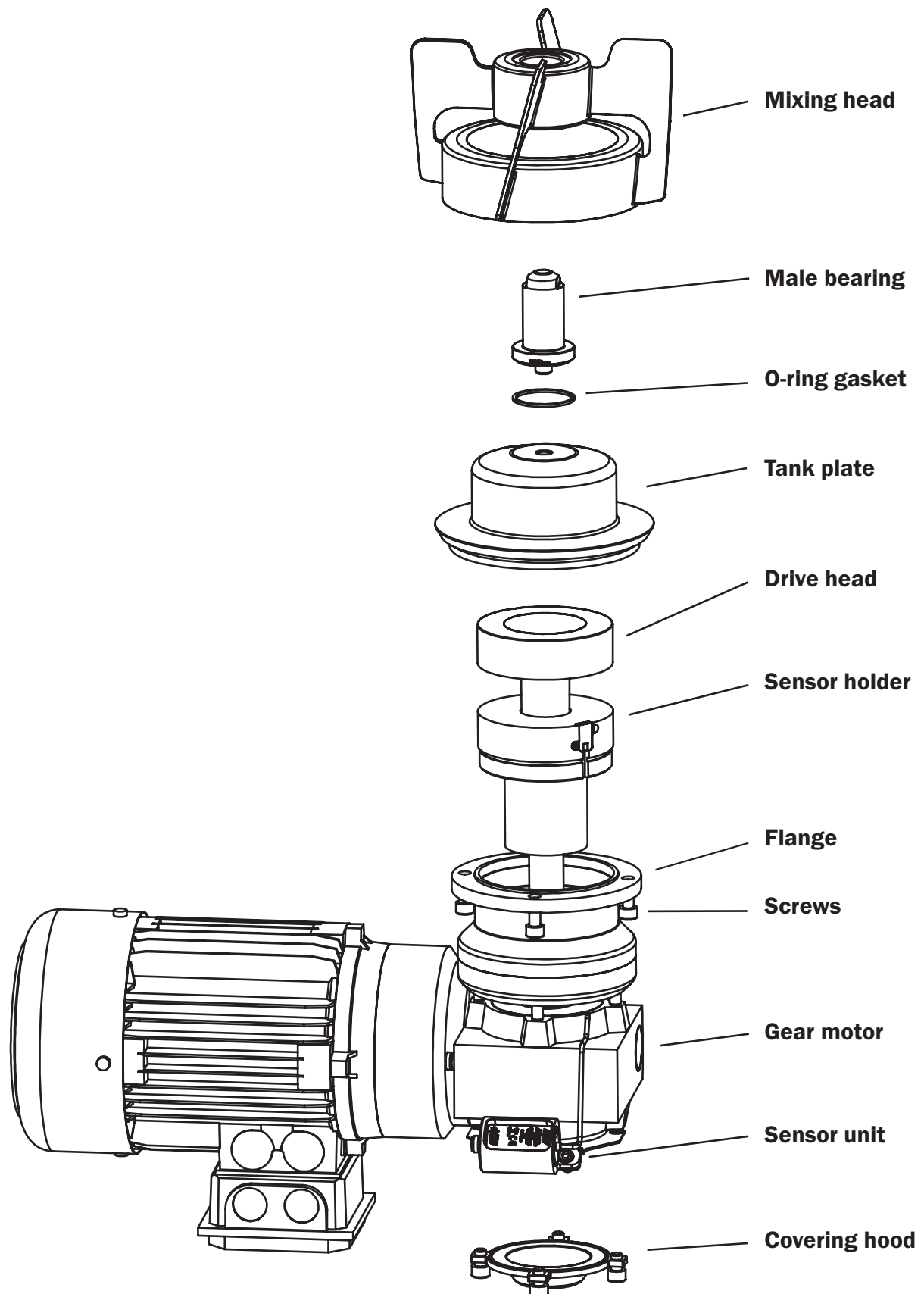
LS2000

Overview VPureMix® Magnetic Coupled Mixer

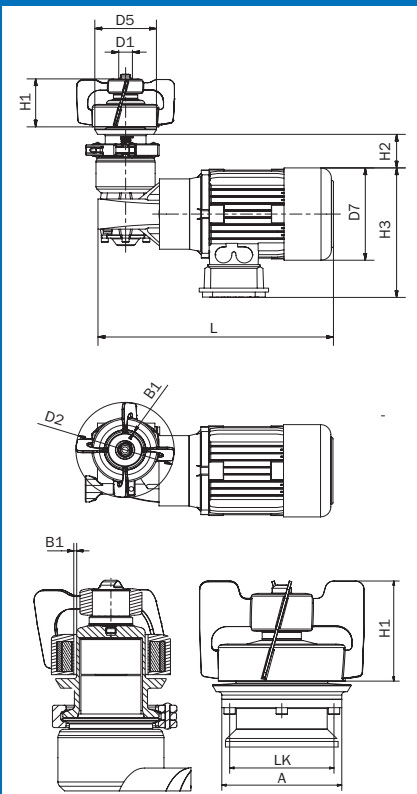
VPureMix® LS5000, LS10000, LS20000







VPureMix® Magnetic Coupled Mixer



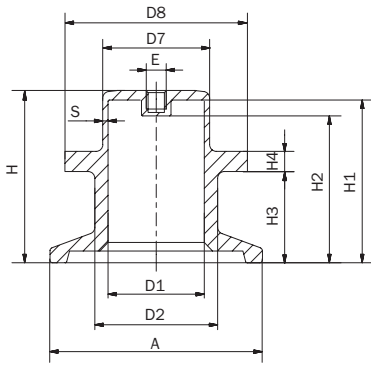
H2 long: extended axis (optional);
= H2 + 75 mm

VPureMix® Magnetic Coupled Mixer													
Type	A	B1	D1	D2	D5	D7	H1	H2	H2 long	H3	L	LK	Weight [kg]
LS30	64	2	12	82	55	123	39	49	124	178	319		9.2
LS50	64	2.5	12	96	59	123	52.5	48	123	178	319		9.5
LS100	77.5	2.5	12	120	84	123	52.5	49	124	178	319		10.6
LS500	77.5	2.5	20	142	89	138	71.5	50	125	193	341		15.6
LS1000	91	2.5	20	160	115	156	72.5	49	124	220	388		21.1
LS2000	106	2.5	20	184	125	156	72.5	53	128	220	388		22.4
LS5000	138	2.5	30	190	159	176	119	50	125	236	453	120	34.9
LS10000	123	2.5	30	225	150	194	150	55	130	267	542	105	59.6
LS20000	208	2.5	30	173	240	194	131	49	124	267	542	190	71.0

VPureMix® Magnetic Coupled Mixer

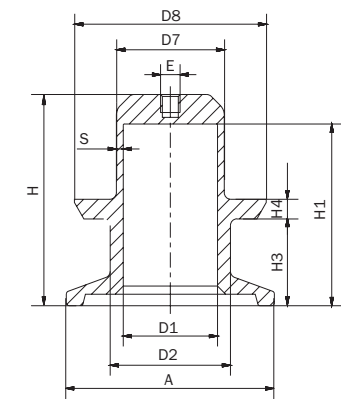
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Tank Plates, Welding Tools, Tank Plate Sets



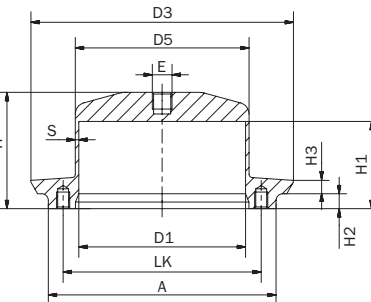
Tank Plate LS30

Type	A	D1	D2	D7	D8	E	H	H1	H2	H3	H4	S	Weight [kg]
LS30, TC64	64	29	37	32	55	M6	51	48	43.5	27	6	1.5	0.28



Tank Plate LS50 to LS2000

Type	A	D1	D2	D7	D8	E	H	H1	H3	H4	S	Weight [kg]
LS50, TC64	64	29	37	33	59	M6	64.5	55.5	26.5	6	2	0.34
LS100, TC77.5	77.5	51	59	55	84	M6	63.5	54.5	24.5	6	2	0.60
LS500, TC77.5	77.5	51	59	55	89	M8x1	76.5	66.5	24.5	8	2	0.73
LS1000, TC91	91	59	67	63	115	M8x1	81	70	27.5	8	2	1.20
LS2000, TC106	106	82	90	86	125	M8x1	85	73	32	8	2	1.50



Tank Plate LS5000 to LS20000

Type	A	D1	D3	D5	E	H	H1	H2	H3	LK	S	Weight [kg]
LS5000, FL138	138	101	159	105	M12x1.5	70	52.5	9	8	120	2	2.40
LS10000, FL123	123	82	150	86	M12x1.5	105	86.5	17	8	105	2	2.80
LS20000, FL208	208	165	240	169	M12x1	83.5	61.5	14.5	10	190	2	6.90

Tank Plates, Welding Tools, Tank Plate Sets

Tank Plate LS30

1.4435		
Type	Price/EUR	Article No.
LS30, TC64	230.00	961 TP0003 W0 2141

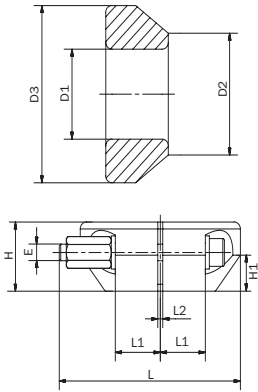
Tank Plate LS50 to LS2000

1.4435		
Type	Price/EUR	Article No.
LS50, TC64	230.00	961 TP0005 W0 2141
LS100, TC77.5	240.00	961 TP0010 W0 1141
LS500, TC77.5	260.00	961 TP0050 W0 1141
LS1000, TC91	280.00	961 TP0100 W0 1141
LS2000, TC106	300.00	961 TP0200 W0 1141

Tank Plate LS5000 to LS20000

1.4435		
Type	Price/EUR	Article No.
LS5000, FL138	350.00	961 TP0500 W0 1141
LS10000, FL123	420.00	961 TP1000 W0 1141
LS20000, FL208	550.00	961 TP2000 W0 1141

Tank Plates, Welding Tools, Tank Plate Sets

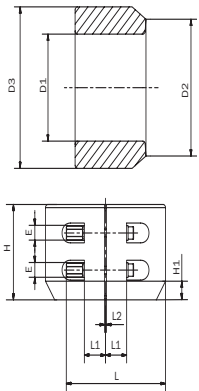


Welding Tool LS30 to LS2000

Type	D1	D2	D3	E	H	H1	L	L1	L2	Weight [kg]
LS30	32.5	44	64	M6	25	13	72.4	18	2	0.15
LS50	33.5	44	64	M6	35	15	72.4	18	2	0.20
LS100, LS500	55.5	67	87	M6	40	15	83.9	18	2	0.30
LS1000	63.5	87.5	107.5	M6	45	15	96.4	23	2	0.60
LS2000	86.5	107	130.5	M6	45	15	107.9	23	2	0.80

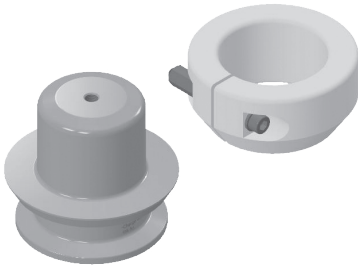
Welding Tool LS5000 to LS20000

Type	D1	D2	D3	E	H	H1	L	L1	L2	Weight [kg]
LS5000	105.5	129.5	149.5	M6	51	15	122.4	28	2	1.50
LS10000	86.5	130.5	130.5	M6	77	15	107.9	23	2	1.50
LS20000	169.5	213.5	213.5	M6	51	15	154.4	28	2	1.60



Tank Plate Set LS30 to LS20000

Type	Weight [kg]
LS30	0.43
LS50	0.54
LS100	0.93
LS500	1.10
LS1000	1.81
LS2000	2.25
LS5000	3.90
LS10000	4.30
LS20000	8.60



consisting of tank plate
and associated welding tool

Tank Plates, Welding Tools, Tank Plate Sets

Welding Tool LS30 to LS2000

	Aluminum		
Type	Price/EUR	Article No.	
LS30	81.00	961 TP0003 T02J10	
LS50	81.00	961 TP0005 T02J10	
LS100, LS500	88.00	961 TP0050 T02J10	
LS1000	88.00	961 TP0100 T02J10	
LS2000	115.00	961 TP0200 T02J10	

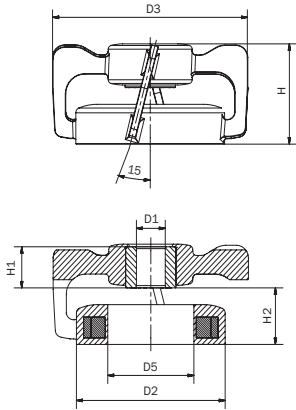
Welding Tool LS5000 to LS20000

	Aluminum		
Type	Price/EUR	Article No.	
LS5000	115.00	961 TP0500 T02J10	
LS10000	142.00	961 TP1000 T02J10	
LS20000	169.00	961 TP2000 T02J10	

Tank Plate Set LS30 to LS20000

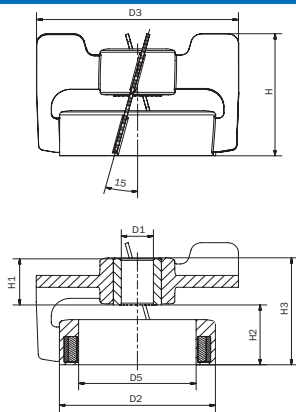
	1.4435 / Aluminum		
Type	Price/EUR	Article No.	
LS30	311.00	961 TP1S 011430	
LS50	311.00	961 TP2S 011430	
LS100	328.00	961 TP3S 011430	
LS500	348.00	961 TP4S 011430	
LS1000	368.00	961 TP5S 011430	
LS2000	415.00	961 TP6S 011430	
LS5000	465.00	961 TP7S 011430	
LS10000	562.00	961 TP8S 011430	
LS20000	719.00	961 TP9S 011430	

Spare Parts



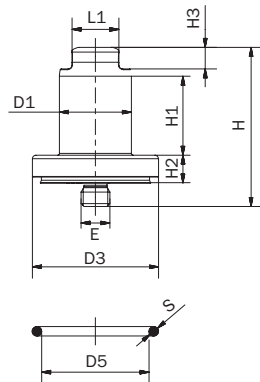
Mixing Head with female Bearing LS30 to LS2000

Type	D1	D2	D3	D5	H	H1	H2	Weight [kg]
LS30	12	62	82	36	39	16	22	0.36
LS50	12	69	96	38	52.5	16	35.5	0.61
LS100	12	94	120	60	52.5	16	35.5	0.90
LS500	20	96	142	60	71.5	22	48.5	1.50
LS1000	20	104	160	68	72.5	22	48.5	1.70
LS2000	20	127	184	91	72.5	22	49.5	2.00



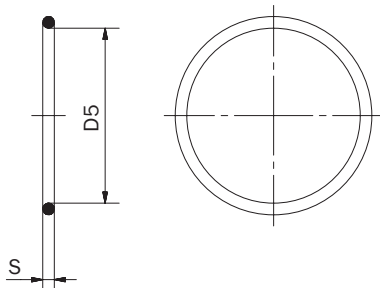
Mixing Head with female Bearing LS5000 to LS20000

Type	D1	D2	D3	D5	H	H1	H2	H3	Weight [kg]
LS5000	30	146	190	110	119	45	58.3	104.3	3.80
LS10000	30	128	225	91	150	45	130.3	84.3	4.90
LS20000	30	210	273	174	131	45	62.8	108.8	5.50



Male Bearing with O-Ring Gasket

Type	D1	D3	D5	E	H	H1	H2	H3	L1	S	Weight [kg]
D12	12	22	17.12	M6	33.4	16	5.9	6	7	2.62	0.30
D20	20	35	29.82	M8x1	44.4	22	7.8	6	13	2.62	0.10
D30	30	45	39.34	M12x1.5	75.9	46	9.9	10	22	2.62	0.30



O-Ring Seal for male Bearing

Type	D5	S	Weight [kg]
D12	17.12	2.62	0.001
D20	29.82	2.62	0.001
D30	39.34	2.62	0.002

Spare Parts

Mixing Head with female Bearing LS30 to LS2000

	1.4435 / SSiC		
Type	Price/EUR	Article No.	
LS30	2,903.00	961 MH1A03 1510	
LS50	2,833.00	961 MH2A03 1510	
LS100	2,977.00	961 MH3A03 1510	
LS500	3,246.00	961 MH4A03 1510	
LS1000	3,440.00	961 MH5A03 1510	
LS2000	3,649.00	961 MH6A03 1510	

Mixing Head with female Bearing LS5000 to LS20000

	1.4435 / SSiC		
Type	Price/EUR	Article No.	
LS5000	4,362.00	961 MH7A03 1510	
LS10000	5,237.00	961 MH8A03 1510	
LS20000	5,587.00	961 MH9A03 1510	

Male Bearing with O-Ring Gasket

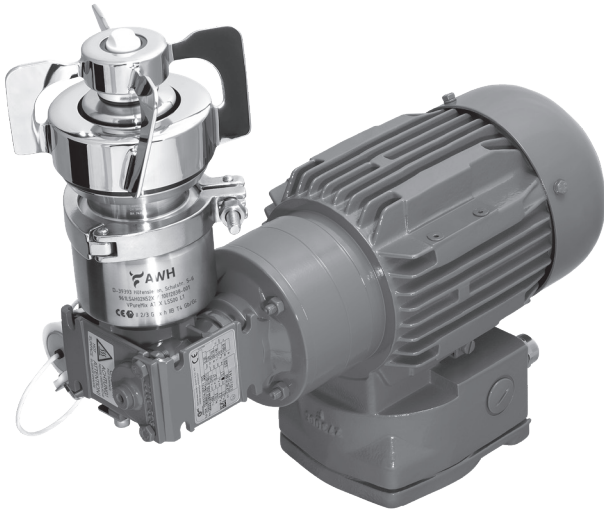
	ZrO ₂ / EPDM		ZrO ₂ / FFKM		ZrO ₂ / VMQ		ZrO ₂ / FKM	
Type	Price/EUR	Article No.	Price/EUR	Article No.	Price/EUR	Article No.	Price/EUR	Article No.
D12	1,228.00	961 MB0012 A01 C53	1,250.00	961 MB0012 A01 F53	1,234.00	961 MB0012 A01 D53	1,237.00	961 MB0012 A01 E53
D20	1,324.00	961 MB0020 A01 C53	1,355.00	961 MB0020 A01 F53	1,334.00	961 MB0020 A01 D53	1,332.00	961 MB0020 A01 E53
D30	1,565.00	961 MB0030 A01 C53	1,603.00	961 MB0030 A01 F53	1,574.00	961 MB0030 A01 D53	1,573.00	961 MB0030 A01 E53

O-Ring Seal for male Bearing

	EPDM		FFKM		VMQ		FKM	
Type	Price/EUR	Article No.	Price/EUR	Article No.	Price/EUR	Article No.	Price/EUR	Article No.
D12	3.64	1060 5115 BE7 OS2	49.44	1060 5115 BF7 2W2	36.72	1060 5115 BS7 2T2	16.61	1060 5115 BV8 OS2
D20	3.73	1060 5123 BE7 OS2	65.82	1060 5123 BF7 2W2	40.50	1060 5123 BS7 2T2	18.54	1060 5123 BV8 OS2
D30	3.89	1060 5129 BE7 OS2	82.32	1060 5129 BF7 2W2	43.50	1060 5129 BS7 2T2	21.06	1060 5129 BV8 OS2

Product Description VPureMix® ATEX Magnetic Coupled Mixer

VPureMix® ATEX Magnetic Coupled Mixers for potentially explosive Atmospheres



In addition to the standard VPureMix® magnetic coupled mixers, AWH also offers VPureMix® ATEX magnetic coupled mixers for use in potentially explosive atmospheres.

The use of an ATEX-compliant magnetic field sensor (optionally available) and type-tested gear motor enables the use of VPureMix® ATEX magnetic coupled mixers inside tanks with explosive atmosphere zone 1 (equipment category 2G) as well as zone 2 outside of tanks (equipment category 3G) according to directive 2014/34/EU.

II 2/3G Ex h IIB T4 Gb/Gc

Model Overview

Type	VPureMix® ATEX LS30	VPureMix® ATEX LS50	VPureMix® ATEX LS100	VPureMix® ATEX LS500	VPureMix® ATEX LS1000	VPureMix® ATEX LS2000	VPureMix® ATEX LS5000	VPureMix® ATEX LS10000	VPureMix® ATEX LS20000
Mixing volume* [L]	3 - 35	35 - 70	70 - 200	200 - 700	700 - 1,100	1,100 - 2,300	2,300 - 6,000	6,000 - 13,000	13,000 - 22,000
Voltage [V]	230/400	230/400	230/400	230/400	230/400	230/400	230/400	230/400	230/400
Nominal frequency [Hz]	50	50	50	50	50	50	50	50	50
rpm range** [rpm]	50 - 490	50 - 490	50 - 490	50 - 490	50 - 490	50 - 490	50 - 490	50 - 450	35 - 350
Motor power [kW]	0.12	0.12	0.12	0.37	0.55	0.75	1.5	2.2	2.2
Motor ratio	5	5	5	5	5	5	5	5	7.5
Mixing head diameter [mm]	82	96	120	142	160	184	190	225	273

* Mixing volume with dynamic viscosity of 1 mPas and density of 1,000 kg/m³

** Speed control in the mentioned speed range only possible by means of frequency converter. Frequency range about 9-90 Hz

Technical data VPureMix® ATEX Magnetic Coupled Mixer

Technical Parameters

VPureMix® ATEX magnetic coupled mixer ATEX label:

 II 2/3G Ex h IIB T4 Gb/Gc

Mixing head with female bearing:

Mixing head:	Shape: Impeller Number of mixing blades: 4 Material: 1.4435 (AISI 316L), delta ferrite content $\leq 1\%$ Surface: polished and electro-polished $Ra \leq 0.5 \mu m$ (20 μin)
Female bearing:	Material: Silicon carbide SSiC Surface: $Ra \leq 0.5 \mu m$
Working temperature:	0 °C/32 °F to 150 °C/302 °F

Male bearing with gasket:

Male bearing:	Material: Zirconium dioxide ZrO_2 (Mg-PSZ), base 1.4435 Surface: $Ra \leq 0.5 \mu m$ Working temperature: 0 °C/32 °F to 150 °C/302 °F
Gasket:	Shape: O-ring Material: EPDM (standard); FKM; FFKM, VMQ (optional)

Tank plate

Material:	1.4435 (AISI 316L), delta ferrite content $\leq 1\%$
Surface:	polished and electro-polished $Ra \leq 0.4 \mu m$ (16 μin)
Design pressure:	-1 bar/-14 psi to 7 bar/ 101.5 psi
Design temperature:	-80 °C/176 °F to 200 °C/392 °F

Drive unit:

Worm gear IEC motor for frequency converter operation	
Motor type:	ATEX three-phase asynchronous motor
Transmission:	Universal SI worm gear units
Voltage:	230/400 V AC
Frequency:	50 Hz
Protection type:	IP66
Thermal motor protection:	PTC thermistor
ATEX label:	 II 2G Ex de IIC T4
Ambient temperature:	-20 °C/68 °F to 40 °C/104 °F
Paint:	RAL 4008 signal violet

Magnetic field sensor (optional):

Function:	Speed and direction of rotation query
ATEX label:	 II 3 G Ex nA IIC T4 Gc  II 3 D Ex tc IIIC T100 °C Dc
Connection:	Plug connector, M12x1

Area of application:

Viscosity range:	1 to 800 cP
pH range:	1 to 14

Available certificates and measurement protocols for components in contact with the product:

Acceptance test certificate according to DIN EN 10204-3.1 and restamping certificate
Male bearing and female bearing: Biocompatibility according to USP Class VI
O-ring elastomers: FDA, USP Class VI, 3-A Sanitary Standard
Measurement protocols of delta ferrite content
Measurement protocols of surface roughness

Questionnaire VPureMix® ATEX Magnetic Coupled Mixer

For the Selection and Testing of explosion-proof Mixers according to EC Directive 2014/34/EC

Company:	Contact person:		
Address:			
Telephone:	Fax:	E-mail:	
Inquiry/order no.:			

Ex area in the tank	Atmosphere	Zone division			
	Gas (flammable gases/vapors) ☐	Zone 0 Cat.1 ☐	Zone 1 Cat.2 ☐	Zone 2 Cat.3 ☐	
	Dust (combustible dust) ☐	Zones 20 / 21 / 22 <i>not possible!</i>			
Ex-area outside the tank	Gas (flammable gases/vapors) ☐		Zone 1 Cat.2 ☐	Zone 2 Cat.3 ☐	
	Dust (combustible dust) ☐	Zones 21 / 22 <i>not possible!</i>			
Process data	Operating pressure [cash abs.]	min	bar	max	bar
	Operating temperature [°C]	min	°C	max	°C
Process media					
Temperature class:					Ignition temperatures: °C
☐ T1 (< 450 °C)	☐ T2 (< 300 °C)	☐ T3 (< 200 °C)	☐ T4 (< 135 °C)		
Ignition group gases (G):	☐ IIA	☐ IIB	☐ IIC		
Ambient temperature (site)?			min	°C	max °C
Direct solar radiation (device is behind a window)?			☐ yes	☐ no	
Outdoor installation?			☐ yes	☐ no	
Is the stirring medium electrically conductive?			☐ yes	☐ no	
Should a frequency converter control be provided?			☐ yes	☐ no	
Is the tank made of conductive material?			☐ yes	☐ no	
Chemical resistance tested?			☐ yes	☐ no	
Tank is open (The zone separation is the responsibility of the operator!)			☐ yes	☐ no	

Remarks:
Date / Signature of applicant

Overview VPureMix® ATEX Magnetic Coupled Mixer

VPureMix® ATEX LS30, LS50, LS100

ATEX LS30

ATEX LS50

ATEX LS100



Mixing head with female bearing



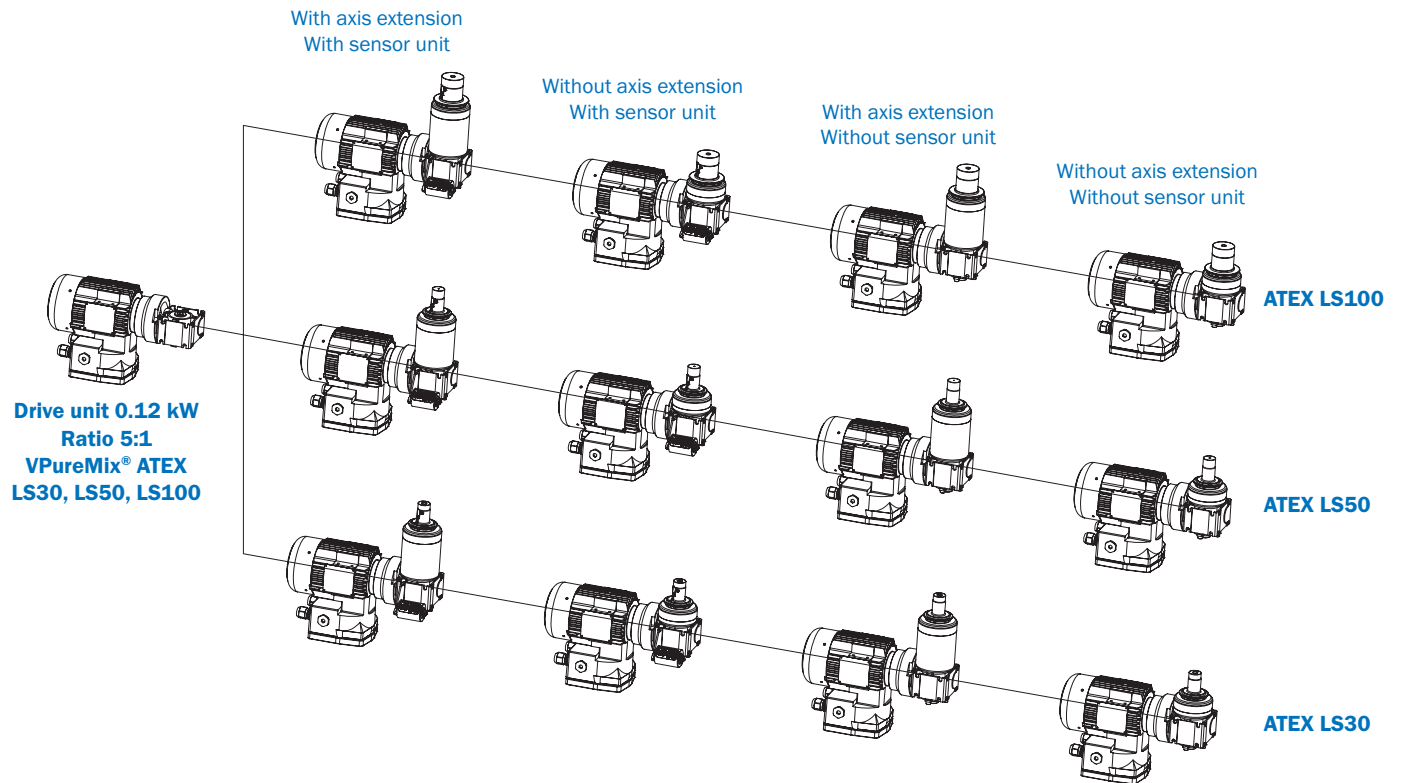
Male bearing Ø 12 mm



O-ring gasket: EPDM (standard)
FKM, FFKM, VMQ (optional)



Tank plate



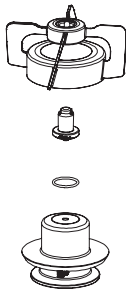
Overview VPureMix® ATEX Magnetic Coupled Mixer

VPureMix® ATEX LS500, LS1000, LS2000

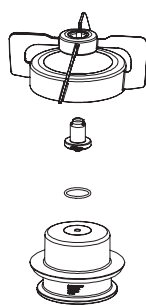
ATEX LS500



ATEX LS1000



ATEX LS2000



Mixing head with female bearing

Male bearing Ø 20 mm

O-ring gasket: EPDM (standard)
FKM, FFKM, VMQ (optional)

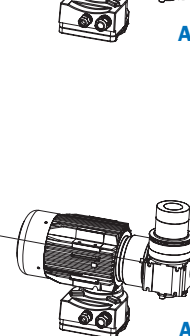
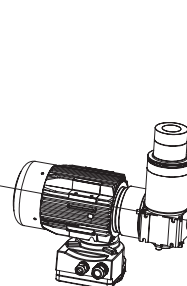
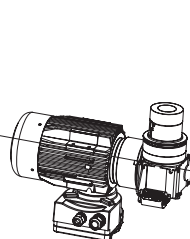
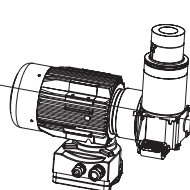
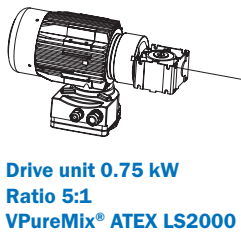
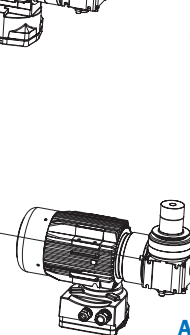
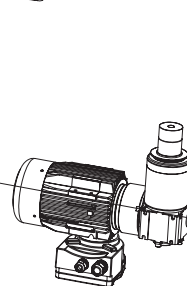
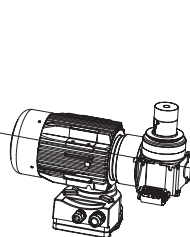
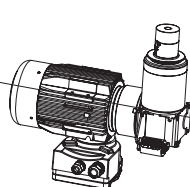
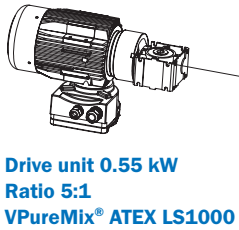
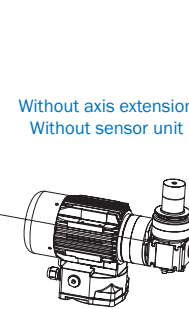
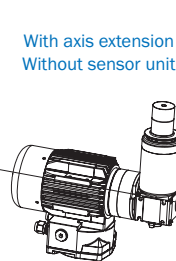
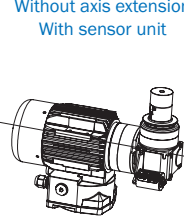
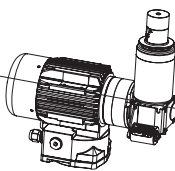
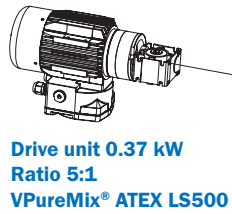
Tank plate

With axis extension
With sensor unit

Without axis extension
With sensor unit

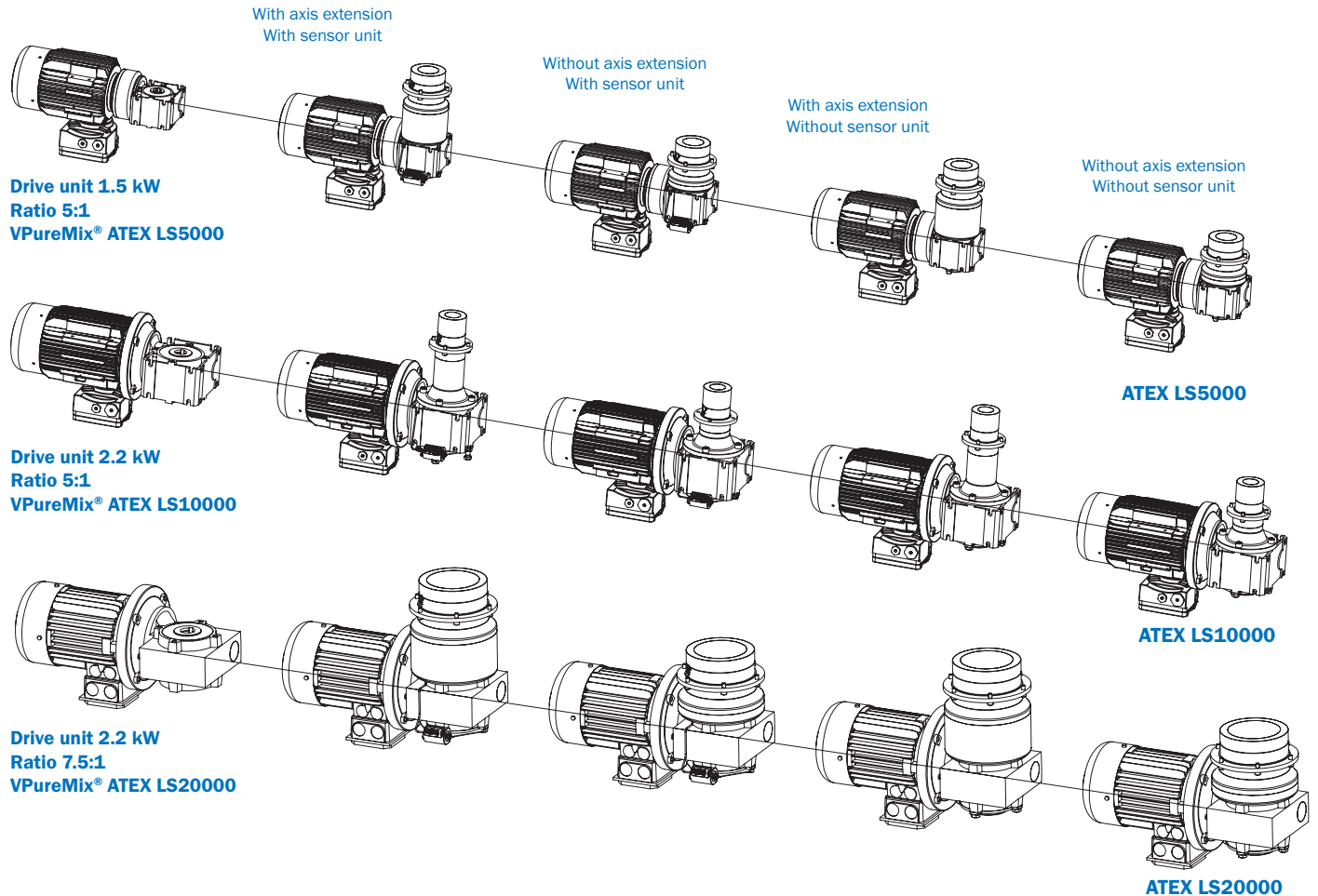
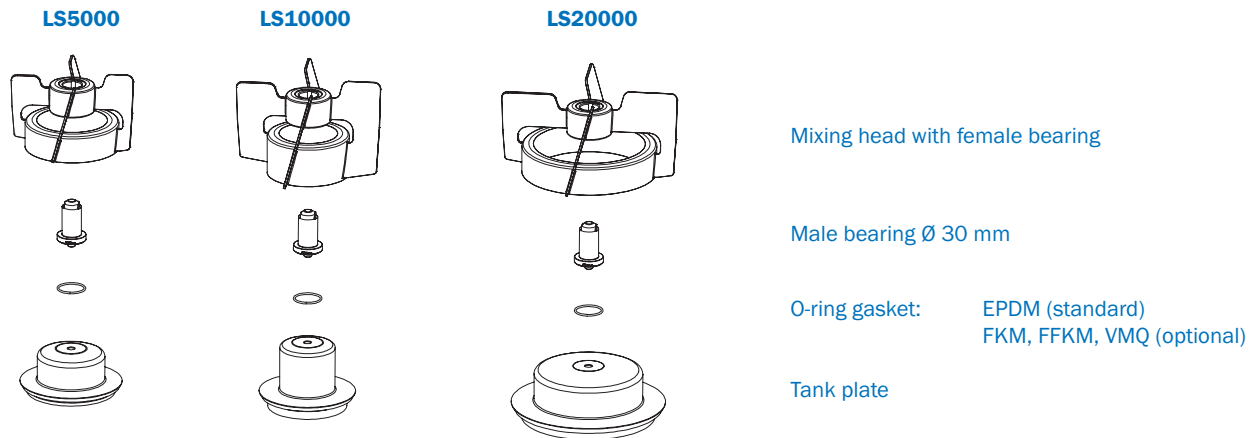
With axis extension
Without sensor unit

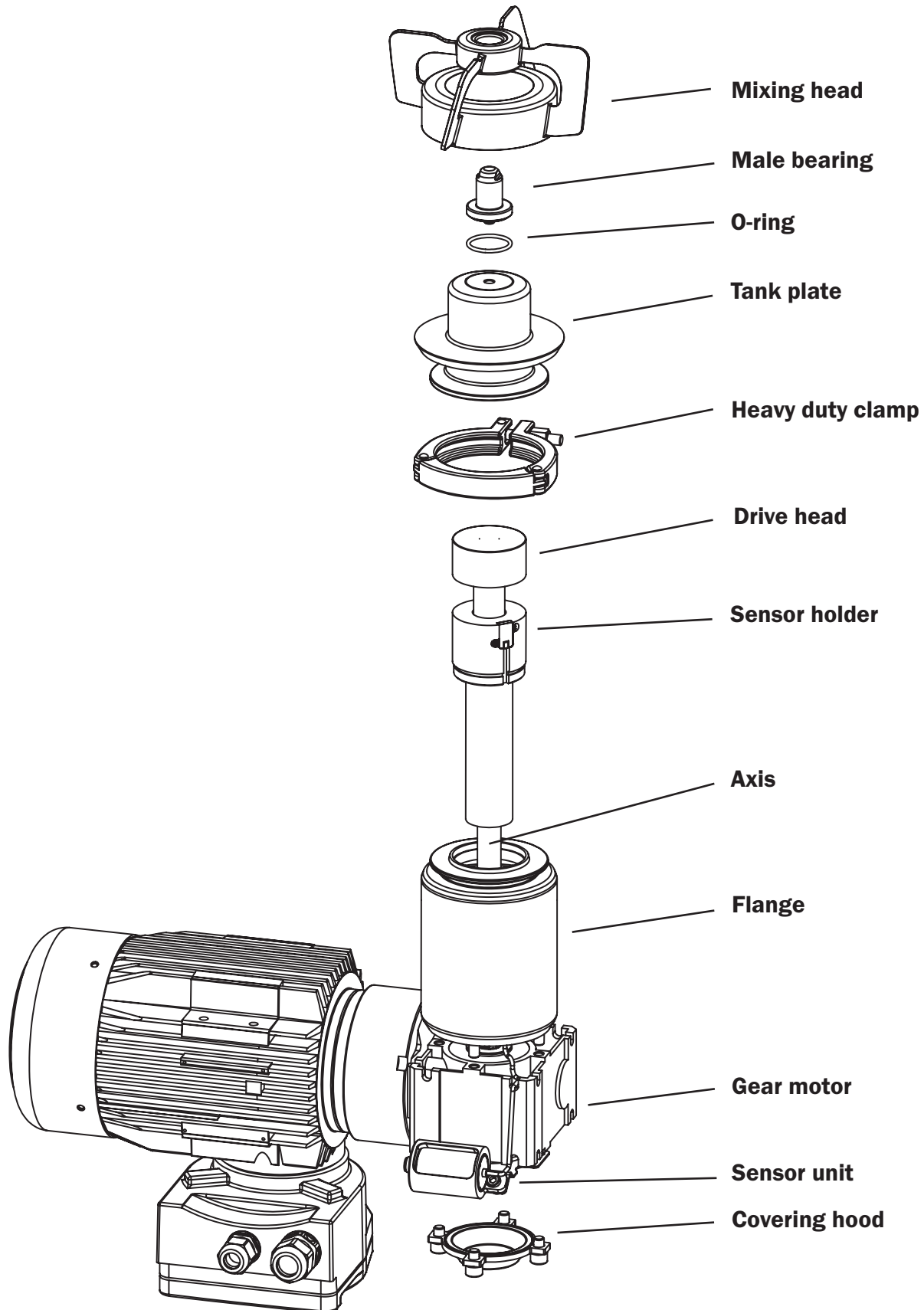
Without axis extension
Without sensor unit

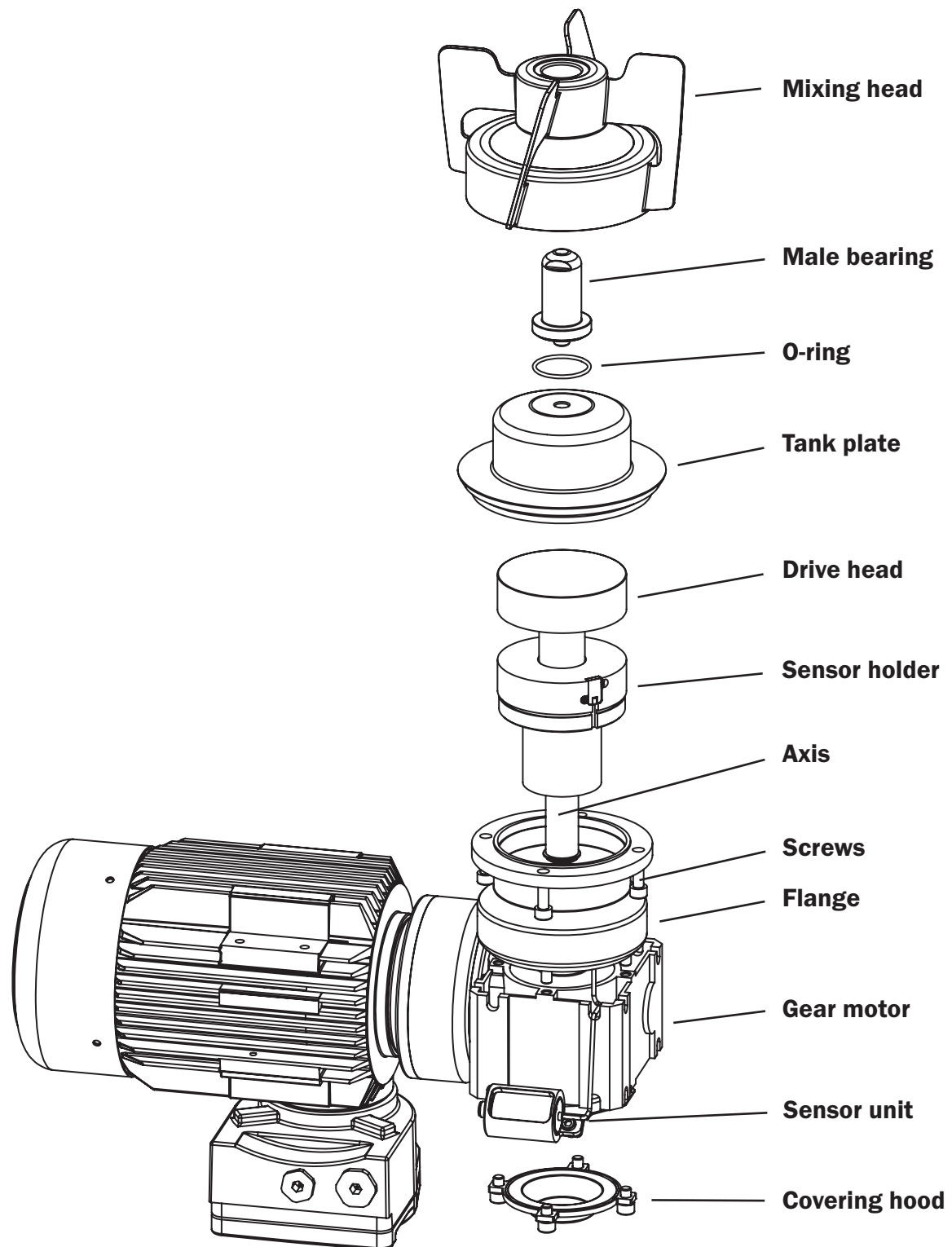


Overview VPureMix® ATEX Magnetic Coupled Mixer

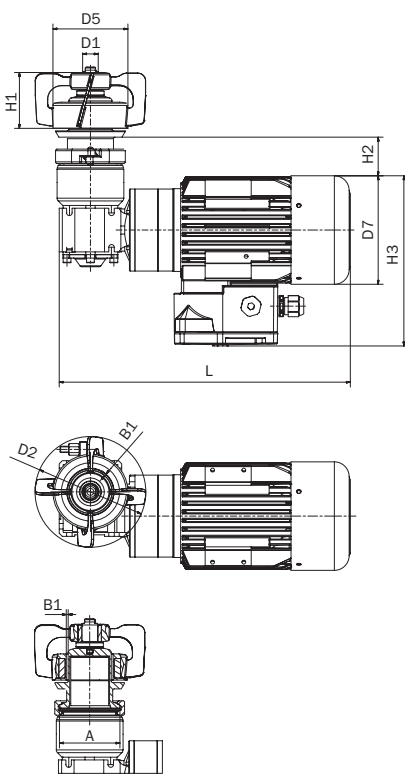
VPureMix® ATEX LS5000, LS10000, LS20000







VPureMix® ATEX Magnetic Coupled Mixer



H2 long: extended axis (optional);
= H2 + 75 mm

VPureMix® ATEX Magnetic Coupled Mixer

Type	A	B1	D1	D2	D5	D7	H1	H2	H2 long	H3	L	LK	Weight [kg]
LS30	64	2	12	82	55	124	39	48	123	212	342		17.7
LS50	64	2.5	12	96	59	124	52.5	48	123	212	342		18.0
LS100	77.5	2.5	12	120	84	124	52.5	49	124	212	342		19.0
LS500	77.5	2.5	20	142	89	139	71.5	50	125	218	373		22.0
LS1000	91	2.5	20	160	115	157	72.5	49	124	254	430		34.5
LS2000	106	2.5	20	184	125	157	72.5	53	128	254	430		37.8
LS5000	138	2.5	30	190	159	177	119	50	125	273	489	120	52.5
LS10000	123	2.5	30	225	150	195	150	82	157	288	594	105	73.4
LS20000	208	2.5	30	273	240	195	131	82	157	288	594	190	84.4

Tank Plate Set ATEX LS30 to LS20000

Type	Weight [kg]
LS30	0.43
LS50	0.54
LS100	0.93
LS500	1.10
LS1000	1.81
LS2000	2.25
LS5000	3.90
LS10000	4.30
LS20000	8.60

VPureMix® ATEX Magnetic Coupled Mixer

VPureMix® ATEX Magnetic Coupled Mixer

[illegible]

Tank Plate Set ATEX LS30 to LS20000

	1.4435 / Aluminum		
Type	Price/EUR	Article No.	
LS30	461.00	961 TP1S 01143X	For your safety in potentially explosive atmospheres, VPureMix® magnetic coupled mixers are only available in combination with ATEX tank plate sets.
LS50	461.00	961 TP2S 01143X	
LS100	478.00	961 TP3S 01143X	
LS500	498.00	961 TP4S 01143X	
LS1000	518.00	961 TP5S 01143X	The ATEX tank plate sets contain a tank plate, which has been subjected to an additional inspection by the AWH quality assurance department before dispatch, and a suitable welding tool, which ensures a smooth welding process of the tank plate.
LS2000	565.00	961 TP6S 01143X	
LS5000	615.00	961 TP7S 01143X	
LS10000	712.00	961 TP8S 01143X	
LS20000	869.00	961 TP9S 01143X	Dimensions of the tank plates and welding tools can be found in the chapter of the same name.



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