SARTURIUS

Product Datasheet

Flexsafe® for Magnetic Mixer¹

Flexsafe® for Magnetic Mixer Offers Powerful Mixing Performances for Media and Buffer Formulation



Description

Flexsafe® for Magnetic Mixer is based on a compact and non-invasive single-use mixing system (no shaft through, no dynamic seal). Its impeller rotates up to 300 RPM on inert bearing assembly, designed to allow high mixing efficiency from 50 L to 3,000 L.

The strong vertical vortex combined with the baffle effect of the cubical design allows instant downward movement and efficient dissolution of floating powders such as media powders or diatomaceous earth powder used in dynamic body feed filtration applications.

In addition, the impeller high torque offers efficient mixing of high concentration or viscous powders such as buffer powders.

¹ Magnetic Mixer uses Pall patented Magnetic Mixer technology. All information on patents can be found at Pall.com/patents.

Features and Benefits

Using Flexsafe® for Magnetic Mixer in your process steps provide you with:

- Powerful Mixer:
 - Fast powder dissolution and time saving during your buffer & media preparation
- Unique in-line monitoring and control:
 Consistent quality and process efficiency while meeting
 PAT and cGMP requirements
- Intuitive handling:
 Quick start-up and simplified operations of your mixing bags in its Palletank®
- Large scale mixing offering:
 Similar mixing technology for all your process and cGMP production scales

Technical Specifications

Product Specifications

The Flexsafe® for Magnetic Mixer comprises three main components:

- 1. Flexsafe® Bag for Magnetic Mixer
- 2. Palletank® for Mixing
- 3. Magnetic Mixer drive unit





1. Flexsafe® Bag for Magnetic Mixer

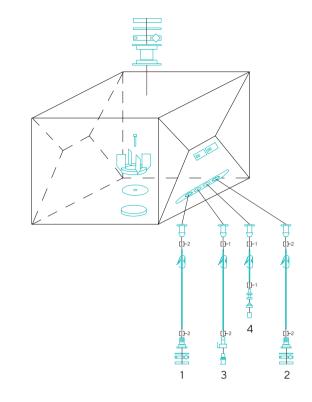
1.1 Flexsafe® Bag for Magnetic Mixer 50 – 1,000 L

The Flexsafe® Bag for Magnetic Mixer contains an in center magnetic impeller assembly. Its unique sided K-weld design simplifies installation and facilitates the unfolding and folding of the bag during filling and draining operations. The 8 inches top port provides robustness avoiding contact of the impeller with the film during transport. It also offers a large diameter port for powder transfer.

Standard Flexsafe® Bags for Magnetic Mixer Specifications

Bag chamber	S80 multi-layer film
	Contact layer: LLDPE (Linear Low Density Polyethylene)
	Core layer: EVOH
	(Ethylene Vinyl Alcohol)
	External layer: LLDPE
	(Linear Low Density Polyethylene)
	400 μm thickness
Impeller position	Bottom centered
Impeller size (50 - 1,000 L)	161 mm (6.35")
Tubing material Silicone	Silicone Tuflux® tubing
Number of ports	8" top port, 4 front bottom ports
Outlet fittings	CPC quick coupler,
	Tri-clamp 1½" sanitary flange,
	needless sampling port
Volumes	50 L 100 L 200 L 400 L 650 L
	1,000 L
Nominal filling volume	Minimum² – Maximum volume
50 L	30 L - 65 L
100 L	40 L - 120 L
200 L	60 L - 225 L
400 L	120 L - 420 L
650 L	160 L - 720 L
1,000 L	170 L – 1,050 L
Operating Temperature Range	5 - 40 °C
Sterilization	Gamma irradiation

² Minimum volume under aseptic conditions with closed bag



Line 1	Filling	½" ID Silicone Tuflux® 1.5 m (60") +½" Tri-Clamp 1½" sanitary flange with gasket, cap & union
Line 2	Draining	½" ID Silicone Tuflux® 1.5 m (60") +½" Tri-Clamp 1½" sanitary flange with gasket, cap & union
Line 3	Addition	3/8" ID Silicone Tuflux® 1.5 m (60") + MPC female + sealing cap
Line 4	Sampling	1/4" ID Silicone Tuflux® 0.1 m (4") + Clave needleless sampling port

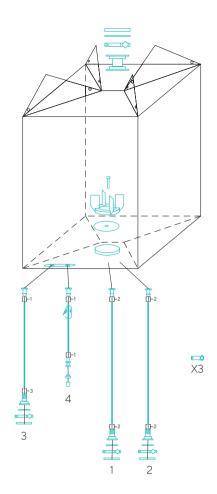
1.2 Flexsafe® Bag for Magnetic Mixer 1,500 – 3,000 L

Flexsafe® Bag for Magnetic Mixer contains off centered magnetic impeller assembly and of a 4" top port for powder transfer. Its bottom K-weld facilitates the bag installation as well as the filling | emptying operations.

Standard Flexsafe® Bags for Magnetic Mixer Specifications

Bag chamber	S80 multi-layer film
	Contact layer: LLDPE
	(Linear Low Density Polyethylene)
	Core layer: EVOH
	(Ethylene Vinyl Alcohol)
	External layer: LLDPE
	(Linear Low Density Polyethylene)
	400 µm thickness
	400 µm triickness
Impeller position	Bottom off centered
Impeller size (50 - 1,000 L)	161 mm (6.35")
Tubing material Silicone	Silicone Tuflux® tubing
Number of ports	4" top port, 4 front bottom ports
Outlet fittings	Tri-clamp 1½" sanitary flange,
	needless sampling port
Volumes	1,500 L 2,000 L 2,500 L 3,000 L
Nominal filling volume	Minimum² – Maximum volume
1,500 L	100 L - 1,550 L
2,000 L	100 L - 2,050 L
2,500 L	100 L - 2,550 L
3,000 L	100 L - 3,050 L
Operating Temperature Range	5 - 40°C
Sterilization	Gamma irradiation

² Minimum volume under aseptic conditions with closed bag



Line 1	Filling	1" ID Silicone Tuflux® 3 m (119") + 1" Tri-Clamp 1½" sanitary flange with gasket, cap & union
Line 2	Draining	1" ID Silicone Tuflux® 3 m (119") + 1" Tri-Clamp 1½" sanitary flange with gasket, cap & union
Line 3	Addition	3/4" ID Silicone Tuflux® 1.5 m (60") + 3/4" Tri-Clamp 11/2" sanitary flange with gasket, cap & union
Line 4	Sampling	1/4" ID Silicone Tuflux® 0.5 m (20") + Clave needleless sampling port

2. Palletank® for Mixing

The Palletank® for Mixing is a stainless steel cubical container designed to perfectly fit with the Flexsafe® Bag for Magnetic Mixer with its integrated impeller. It includes a railed port for coupling the mobile Magnetic Mixer drive unit with the Palletank® and a clamp holder to facilitate powder transfer.

The Palletank® for Mixing from 50 L to 3,000 L are available standard either with a heat exchange jacket and or with integrated loadcells and weight indicator.

2.1 Palletank® for Mixing

Description	Volumes	Technical Specification
Volumes		50 L 100 L 200 L 400 L 650 L 1,500 L 2,000 L 2,500 L 3,000 L
Main construction materials	50 L to 3,000 L 50 L to 1,000 L	Stainless Steel 304L Windows made of PC and EPDM sealing
Surface finish	50 L to 3,000 L	Acid cleaned, stainless steel bead blasted and passivated
Door	50 L to 400 L 650 L and 1,000 L 1,500 L to 3,000 L	Front hinged door and PC windows Front hinged doors and PC windows Front and lateral hinged doors
Bag tubing gate	50 L to 3,000 L	Front bottom port for bag lines sensor access
Port	50 L to 3,000 L	Railed port for drive unit coupling
Mobility	50 L to 1,000 L 1,500 L to 3,000 L	Mounted on stainless cart with four clean room wheels and push handles Mounted on stainless cart with four clean room fixed feet
Minimum door height	1,500 L to 3,000 L	1,550 mm
Minimum ceiling height	1,500 L 2,000 L 2,500 L 3,000 L	3,000 mm 3,500 mm 4,000 mm 4,500 mm
Operating temperature	50 L to 3,000 L	0°C to 50°C

Integrated Weighing

Description	Technical Specification	
Scale Indicator	Minebea Combics 1	
Material of construction	Stainless Steel 304	
Keyboard	6 keys	
Display	14 segments 20 mm weight readout	
Interface	RS232	
Connection to printer	Additional cable available as an option	
IP protection rate	IP69K	
Operating temperature range	-10°C to 40°C	

Minebea Novego
304 and 4418 (sensor)
IP68 + IP69
High overload protection
Resistance against oscillations (IEC 68-2-6 Fc); 20 g, 100 h, 10 to 150 Hz
In accordance with European Hygienic Engineering and Design Group (EHEDG) guidelines
Lift-off protector and anti-wobbling mechanism

Weighing Characteristics

Volumes	Maximum net capacity	Resolution	Accuracy
50 L	60 kg	20 g	60 g
100 L	110 kg	20 g	60 g
200 L	220 kg	20 g	60 g
400 L	450 kg	50 g	150 g
650 L	750 kg	50 g	150 g
1,000 L	1,100 kg	100 g	300 g
1,500 L	1,750 kg	100 g	300 g
2,000 L	2,200 kg	200 g	600 g
2,500 L	2,750 kg	200 g	600 g
3,000 L	3,300 kg	200 g	600 g

Dimensions & Weight

Palletank® for Mixing

Volume	Dimensions (approx.) W × D × H	Weight
50 L	785 × 705 × 989 mm	78 kg
100 L	785 × 705 × 1,094 mm	86 kg
200 L	785 × 705 × 1,194 mm	105 kg
400 L	1,031 × 873 × 1,344 mm	142 kg
650 L	1,181 × 1,008 × 1,454 mm	175 kg
1,000 L	1,296 × 1,157 × 1,654 mm	256 kg
1,500 L	1,733 × 1,076 × 2,444 mm	465 kg
2,000 L	1,733 × 1,076 × 2,944 mm	528 kg
2,500 L	1,733 × 1,076 × 3,445 mm	592 kg
3,000 L	1,733 × 1,076 × 3,945 mm	656 kg





Palletank® for Mixing with Weighing

Volume	Dimensions (approx.) W × D × H	Weight
50 L	878 × 705 × 1,018 mm	81 kg
100 L	921 × 705 × 1,115 mm	90 kg
200 L	981 × 705 × 1,194 mm	108 kg
400 L	1,159 × 873 × 1,344 mm	145 kg
650 L	1,311 × 1,008 × 1,454 mm	178 kg
1,000 L	1,426 × 1,157 × 1,654 mm	259 kg
1,500 L	1,860 × 1,076 × 2,444 mm	469 kg
2,000 L	1,860 × 1,076 × 2,944 mm	533 kg
2,500 L	1,860 × 1,076 × 3,445 mm	596 kg
3,000 L	1,860 × 1,076 × 3,945 mm	660 kg





2.2 Palletank® Jacketed

Description	Volumes	Technical Specification	
Version		PED (for Europe, Asia and NEMA)	ASME (for North America)
Volumes		50 L 100 L 200 L 400 L 650 L 1,500	L 2,000 L 2,500 L 3,000 L
Main construction materials	50 L to 3,000 L	Stainless Steel 304L, Perlit Balls (insulation)	Stainless Steel 304L, Foam Glass and Ceramic Fiber (insulation)
Surface finish	50 L to 3,000 L	Acid cleaned, stainless steel bead blasted a	nd passivated
Door	50 L 100 L 200 L 400 L 650 L to 3,000 L	No door Front insulated hinged door Front insulated hinged doors	
Bag tubing gate	50 L to 3,000 L	Hinged PTFE bottom door	Hinged UHMW bottom door
Port	50 L to 3,000 L	Railed port for drive unit coupling	
Mobility	50 L to 1,000 L 1,500 L to 3,000 L	Mounted on stainless cart with four clean ro Mounted on stainless cart with four clean ro	
Minimum door height	1,500 L to 3,000 L	2,070 mm	
Minimum ceiling height	1,500 L 2,000 L 2,500 L 3,000 L	3,000 mm 3,500 mm 4,000 mm 4,500 mm	
Operating temperature	50 L to 3,000 L	0°C to 50°C	
Inlet pressure maximum	50 L to 3,000 L	6 bar	10 bar
Pressure loss maximum	50 L to 3,000 L	0,4 bar	0,4 bar
Test pressure	50 L to 3,000 L	9 bar	13 bars
Compliance	50 L to 3,000 L	PED	Heat exchanger ASME certified From heat exchanger : designed and build under ASME code
Insulated	50 L to 3,000 L	On all sides, the bottom and the lids	
Jacketed	50 L and 100 L 200 L to 1,000 L 1,500 L to 3,000 L	4 sides and bottom 3 sides and bottom 3 sides and bottom for 1,500 L base, modul	e and top insulated only
Inlet outlet of heat transfer fluid	50 L to 3,000 L	DN20 with flange nozzles 50.5 mm Ball valve DN20 PN64	Connector Male NPT

Dimensions & Weight

Palletank® for Mixing Jacketed PED Version (for Europe, Asia and NEMA)

Volume	Dimensions (approx.) W × D × H	Weight
50 L	847 × 817 × 1,045 mm	118 kg
100 L	878 × 817 × 1,150 mm	178 kg
200 L	949 × 969 × 1,250 mm	238 kg
400 L	1,158 × 1,186 × 1,399 mm	347 kg
650 L	1,242 × 1,319 × 1,509 mm	456 kg
1,000 L	1,376 × 1,435 × 1,710 mm	592 kg
1,500 L	1,822 × 1,135 × 2,530 mm	791 kg
2,000 L	1,822 × 1,135 × 3,050 mm	933 kg
2,500 L	1,822 × 1,135 × 3,570 mm	1,076 kg
3,000 L	1,822 × 1,135 × 4,090 mm	1,218 kg





Palletank® for Mixing Jacketed ASME Version (North America)

Volume	Dimensions (approx.) $W \times D \times H$	Weight
50 L	847 × 817 × 1,045 mm	118 kg
100 L	878 × 817 × 1,150 mm	178 kg
200 L	949 × 969 × 1,250 mm	238 kg
400 L	1,158 × 1,186 × 1,399 mm	347 kg
650 L	1,242 × 1,319 × 1,509 mm	456 kg
1,000 L	1,376 × 1,435 × 1,710 mm	592 kg
1,500 L	1,822 × 1,135 × 2,530 mm	791 kg
2,000 L	1,822 × 1,135 × 3,050 mm	933 kg
2,500 L	1,822 × 1,135 × 3,570 mm	1,076 kg
3,000 L	1,822 × 1,135 × 4,090 mm	1,218 kg

Palletank® for Mixing Jacketed with Weighing PED Version (for Europe, Asia and NEMA)

Volume	Dimensions (approx.) W × D × H	Weight
50 L	970 × 817 × 1,058 mm	121 kg
100 L	1,013 × 817 × 1,150 mm	181 kg
200 L	1,112 × 969 × 1,250 mm	241 kg
400 L	1,287 × 1,186 × 1,399 mm	350 kg
650 L	1,412 × 1,319 × 1,509 mm	459 kg
1,000 L	1,511 × 1,435 × 1,710 mm	595 kg
1,500 L	1,949 × 1,135 × 2,530 mm	794 kg
2,000 L	1,949 × 1,135 × 3,050 mm	936 kg
2,500 L	1,949 × 1,135 × 3,570 mm	1,079 kg
3,000 L	1,949 × 1,135 × 4,090 mm	1,221 kg





Palletank® for Mixing Jacketed with Weighing ASME Version (North America)

50 L 970 × 817 × 1,058 mm 121 kg 100 L 1,013 × 817 × 1,150 mm 181 kg 200 L 1,112 × 969 × 1,250 mm 241 kg 400 L 1,287 × 1,186 × 1,399 mm 350 kg 650 L 1,412 × 1,319 × 1,509 mm 459 kg 1,000 L 1,511 × 1,435 × 1,710 mm 595 kg 1,500 L 1,949 × 1,135 × 2,530 mm 794 kg 2,000 L 1,949 × 1,135 × 3,050 mm 936 kg 2,500 L 1,949 × 1,135 × 3,570 mm 1,079 kg			
100 L 1,013 × 817 × 1,150 mm 181 kg 200 L 1,112 × 969 × 1,250 mm 241 kg 400 L 1,287 × 1,186 × 1,399 mm 350 kg 650 L 1,412 × 1,319 × 1,509 mm 459 kg 1,000 L 1,511 × 1,435 × 1,710 mm 595 kg 1,500 L 1,949 × 1,135 × 2,530 mm 794 kg 2,000 L 1,949 × 1,135 × 3,050 mm 936 kg	Volume	Dimensions (approx.) W × D × H	Weight
200 L 1,112 × 969 × 1,250 mm 241 kg 400 L 1,287 × 1,186 × 1,399 mm 350 kg 650 L 1,412 × 1,319 × 1,509 mm 459 kg 1,000 L 1,511 × 1,435 × 1,710 mm 595 kg 1,500 L 1,949 × 1,135 × 2,530 mm 794 kg 2,000 L 1,949 × 1,135 × 3,050 mm 936 kg 2,500 L 1,949 × 1,135 × 3,570 mm 1,079 kg	50 L	970 × 817 × 1,058 mm	121 kg
400 L 1,287 × 1,186 × 1,399 mm 350 kg 650 L 1,412 × 1,319 × 1,509 mm 459 kg 1,000 L 1,511 × 1,435 × 1,710 mm 595 kg 1,500 L 1,949 × 1,135 × 2,530 mm 794 kg 2,000 L 1,949 × 1,135 × 3,050 mm 936 kg 2,500 L 1,949 × 1,135 × 3,570 mm 1,079 l	100 L	1,013 × 817 × 1,150 mm	181 kg
650 L 1,412 × 1,319 × 1,509 mm 459 kg 1,000 L 1,511 × 1,435 × 1,710 mm 595 kg 1,500 L 1,949 × 1,135 × 2,530 mm 794 kg 2,000 L 1,949 × 1,135 × 3,050 mm 936 kg 2,500 L 1,949 × 1,135 × 3,570 mm 1,079	200 L	1,112 × 969 × 1,250 mm	241 kg
1,000 L 1,511 × 1,435 × 1,710 mm 595 kg 1,500 L 1,949 × 1,135 × 2,530 mm 794 kg 2,000 L 1,949 × 1,135 × 3,050 mm 936 kg 2,500 L 1,949 × 1,135 × 3,570 mm 1,079	400 L	1,287 × 1,186 × 1,399 mm	350 kg
1,500 L 1,949 × 1,135 × 2,530 mm 794 kg 2,000 L 1,949 × 1,135 × 3,050 mm 936 kg 2,500 L 1,949 × 1,135 × 3,570 mm 1,079 l	650 L	1,412 × 1,319 × 1,509 mm	459 kg
2,000 L 1,949 × 1,135 × 3,050 mm 936 kg 2,500 L 1,949 × 1,135 × 3,570 mm 1,079 l	1,000 L	1,511 × 1,435 × 1,710 mm	595 kg
2,500 L 1,949 × 1,135 × 3,570 mm 1,079 l	1,500 L	1,949 × 1,135 × 2,530 mm	794 kg
	2,000 L	1,949 × 1,135 × 3,050 mm	936 kg
3,000 L 1,949 × 1,135 × 4,090 mm 1,221 k	2,500 L	1,949 × 1,135 × 3,570 mm	1,079 kg
	3,000 L	1,949 × 1,135 × 4,090 mm	1,221 kg

2.3 Powder Bag Holders

Description	Powder bag holder 50 L to 200 L	Powder bag holder 400 L to 1,000 L	Powder bag holder 1,500 L to 3,000 L
Construction material	Stainless Steel 304 and Nylon	Stainless Steel 304 and Nylon	Stainless Steel 304 and Nylon
Surface finish	Bead Blasted	Bead Blasted	Bead Blasted
Dimensions	660 × 1,360 mm	960 × 1,360 mm	860 × 1,360 mm
Weight	14 kg	16 kg	14 kg
Height above Palletank®	1,349 mm	1,349 mm	1,349 mm
Filling weight, maximum	30 kg	30 kg	30 kg
Ambient Conditions	+2°C - +30°C	+2°C - +30°C	+2°C - +30°C



2.4 Tubing Holder

Description	Туре	Outer tube diameter	Material	Surface finish	Dimensions	Weight
Tubing Holder Single %"	Single	5/8"	Stainless Steel 304 and TPE	Bead Blasted	139 × 68 mm	423 g
Tubing Holder Twin %"	Twin	5/8"	Stainless Steel 304 and TPE	Bead Blasted	150 × 113 mm	465 g
Tubing Holder Triple %"	Triple	5/8"	Stainless Steel 304 and TPE	Bead Blasted	150 × 158 mm	506 g
Tubing Holder Quattro %"	Quattro	5/8"	Stainless Steel 304 and TPE	Bead Blasted	150 × 205 mm	546 g
Tubing Holder Single ¾"	Single	3/4"	Stainless Steel 304 and TPE	Bead Blasted	139 × 77 mm	427 g
Tubing Holder Twin ¾"	Twin	3/4"	Stainless Steel 304 and TPE	Bead Blasted	150 × 132 mm	474 g
Tubing Holder Triple ¾"	Triple	3/4"	Stainless Steel 304 and TPE	Bead Blasted	150 × 188 mm	518 g
Tubing Holder Quattro ¾"	Quattro	3/4"	Stainless Steel 304 and TPE	Bead Blasted	150 × 243 mm	559 g
Tubing Holder Single 1"	Single	1"	Stainless Steel 304 and TPE	Bead Blasted	139 × 86 mm	434 g
Tubing Holder Twin 1"	Twin	1"	Stainless Steel 304 and TPE	Bead Blasted	160 × 151 mm	510 g
Tubing Holder Triple 1"	Triple	1"	Stainless Steel 304 and TPE	Bead Blasted	160 × 216 mm	571 g
Tubing Holder Quattro 1"	Quattro	1"	Stainless Steel 304 and TPE	Bead Blasted	160 × 281 mm	626 g
Tubing Holder Single 11/8"	Single	11/8"	Stainless Steel 304 and TPE	Bead Blasted	146 × 86 mm	445 g
Tubing Holder Twin 11/4"	Twin	11/8"	Stainless Steel 304 and TPE	Bead Blasted	160 × 151 mm	510 g
Tubing Holder Triple 11/4"	Triple	11/8"	Stainless Steel 304 and TPE	Bead Blasted	160 × 216 mm	570 g
Tubing Holder Quattro 11/8"	Quattro	11/8"	Stainless Steel 304 and TPE	Bead Blasted	160 × 281 mm	627 g
Tubing Holder Single 1%"	Single	13/8"	Stainless Steel 304 and TPE	Bead Blasted	156 × 89 mm	454 g
Tubing Holder Twin 1%"	Twin	13/8"	Stainless Steel 304 and TPE	Bead Blasted	171 × 157 mm	527 g
Tubing Holder Triple 1%"	Triple	13/8"	Stainless Steel 304 and TPE	Bead Blasted	171 × 225 mm	595 g
Tubing Holder Quattro 1%"	Quattro	13/8"	Stainless Steel 304 and TPE	Bead Blasted	171 × 293 mm	657 g



2.5 Filter Holder

Description	Туре	Filter diameter	Material	Surface finish	Dimensions	Weight
Filter Holder Short 55 mm	Short	55 mm	Stainless Steel 304 and TPE	Bead Blasted	100 × 55 mm	596 g
Filter Holder Long 55 mm	Long	55 mm	Stainless Steel 304 and TPE	Bead Blasted	500 × 55 mm	1519 g
Filter Holder Short 75 mm	Short	75 mm	Stainless Steel 304 and TPE	Bead Blasted	100 × 75 mm	672 g
Filter Holder Long 75 mm	Long	75 mm	Stainless Steel 304 and TPE	Bead Blasted	500 × 75 mm	1596 g
Filter Holder Short 100 mm	Short	100 mm	Stainless Steel 304 and TPE	Bead Blasted	100 × 100 mm	735 g
Filter Holder Long 100 mm	Long	100 mm	Stainless Steel 304 and TPE	Bead Blasted	500 × 100 mm	1658 g
FT HOLDER SHORT H 75 mm	Short	75 mm	Stainless Steel 304 and TPE	Bead Blasted	100 × 75 mm	672 g
FT HOLDER SHORT H 55 mm	Short	55 mm	Stainless Steel 304 and TPE	Bead Blasted	100 × 55 mm	596 g
FT HOLDER SHORT H 100 mm	Short	100 mm	Stainless Steel 304 and TPE	Bead Blasted	100 × 100 mm	735 g



2.6 pH Reader Holder and pH Bag Holder

Description	Material	Surface finish	Dimensions	Weight
Palletank® for Mixing pH Reader Holder	Stainless Steel 304 and elastomer	Bead Blasted	245 × 170 × 181 mm	1,499 g
Palletank® for Mixing pH Bag Holder	Stainless Steel 304 and elastomer	Bead Blasted	160 × 181 × 212 mm	1,519 g





3. Magnetic Mixer drive unit

The Magnetic Mixer drive unit generates the rotation of the single-use magnetic impeller rotating onto non-shedding ceramic bearing. The drive unit is mobile, cart-mounted and designed to interface with Palletank® for Mixing of different types and volumes.

Description	Technical Specification
Facility	
Dimensions (W × L × H)	Docking position: 426 mm × 1,245 mm × 888 mm 17" × 49" × 34.9" Storage position: 426 mm × 1,291 mm × 515 mm 17" × 50.8" × 20.3"
Weight	DU010: approx. 32.2 kg 70.99 lbs DU011: approx. 32.4 kg ~71.4 lbs
Materials of Construction	Control box, cart & drive unit cabinets: 304 Stainless Steel
Surface finish	Control box, cart & drive unit cabinets: Brushed At least 0.89 µm Ra / 35 µin Ra
Operational footprint	Max. 426 mm × 1,245 mm 17" × 49"
IP Rating	Control box: IP55 Motor: IP66
Noise (at operator position)	<70 dB
Max humidity	85%, avoid condensation
Ambient temperature	0 - 35°C
Utilities	
Electrical supply	DU010: Single phase 200 V - 240 V AC, 50 Hz DU011: Single phase 100 V - 120 V AC, 60 Hz
Amperage	DU010: 1.7 A DU011: 2.7 A

Less than 180 Watts

Description	Technical Specification
Control system	
Control architecture	Local: Speed Control Potentiometer and Speed Display Unit. Remote: Speed Control Signal and Speed Feedback Signal.
Plug type options	DU010: Bulgin connector for 230 V, (bulgin cable available for EU, UK, AU, CN, CH, to be ordered separately) DU011: Fixed US poxer cable
Remote Control Connector	Hummel M23, 12-pin. Remote Local; Start Stop; Speed In: 4 - 20 mA; Speed Out: 4 - 20 mA; Alarm Out.
Mixing	
Impeller type	Vertical bladed 'Rushton' type impeller
Speed range (rpm)	20 to 300 RPM
Electrical safety	
CE	EC in accordance with: Machinery Directives: 2006/42/EC EMC Directive: 2014/30/EU
UL	UL 61010-1: 2012 and 61010-2-051:2019 Standard for Safety Electrical Equipment for Measurement, Control and Laboratory



Motor power

Ordering Information

1. Flexsafe® Bags for Magnetic Mixer

Part Number	Volume	Description	Qty/Box
FMS301053	50 L	Std Flexsafe® Magnetic Mixer 50 L	1
FMS301054	100 L	Std Flexsafe® Magnetic Mixer 100 L	1
FMS301055	200 L	Std Flexsafe® Magnetic Mixer 200 L	2
FMS301056	400 L	Std Flexsafe® Magnetic Mixer 400 L	2
FMS301057	650 L	Std Flexsafe® Magnetic Mixer 650 L	1
FMS301058	1,000 L	Std Flexsafe® Magnetic Mixer 1,000 L	1
FMS301059	1,500 L	Std Flexsafe® Magnetic Mixer 1,500 L	1
FMS301060	2,000 L	STD Flexsafe® Magnetic Mixer 2,000 L	1
FMS301061	2,500 L	STD Flexsafe® Magnetic Mixer 2,500 L	1
FMS301062	3,000 L	STD Flexsafe® Magnetic Mixer 3,000 L	1

2. Palletank® for Mixing

All Palletank® for Mixing are delivered with adaption set and clamp holder

2.1 Palletank® for Mixing

Part Number	Description
FXC301951	Palletank® for Mixing 50 L
FXC301952	Palletank® for Mixing 100 L
FXC301953	Palletank® for Mixing 200 L
FXC301954	Palletank® for Mixing 400 L
FXC301955	Palletank® for Mixing 650 L
FXC301956	Palletank® for Mixing 1,000 L
FXC301958	Palletank® for Mixing 1,500 L
FXC301959	Palletank® for Mixing 2,000 L
FXC301960	Palletank® for Mixing 2,500 L
FXC301961	Palletank® for Mixing 3,000 L
	-

Palletank® for Mixing with Weighing

Part Number	Description
FXC301962	Palletank® for Mixing with Weighing 50 L
FXC301963	Palletank® for Mixing with Weighing 100 L
FXC301964	Palletank® for Mixing with Weighing 200 L
FXC301965	Palletank® for Mixing with Weighing 400 L
FXC301966	Palletank® for Mixing with Weighing 650 L
FXC301967	Palletank® for Mixing with Weighing 1,000 L
FXC301968	Palletank® for Mixing with Weighing 1,500 L
FXC301969	Palletank® for Mixing with Weighing 2,000 L
FXC301970	Palletank® for Mixing with Weighing 2,500 L
FXC301971	Palletank® for Mixing with Weighing 3,000 L

2.2 Palletank® for Mixing Jacketed

Palletank® for Mixing Jacketed PED (for Europe, Asia and NEMA)

Part Number	Description
FXC301930	Palletank® for Mixing Jacketed 50 L PED
FXC301931	Palletank® for Mixing Jacketed 100 L PED
FXC301932	Palletank® for Mixing Jacketed 200 L PED
FXC301933	Palletank® for Mixing Jacketed 400 L PED
FXC301934	Palletank® for Mixing Jacketed 650 L PED
FXC301935	Palletank® for Mixing Jacketed 1,000 L PED
FXC301936	Palletank® for Mixing Jacketed 1,500 L PED
FXC301937	Palletank® for Mixing Jacketed 2,000 L PED
FXC301938	Palletank® for Mixing Jacketed 2,500 L PED
FXC301939	Palletank® for Mixing Jacketed 3,000 L PED

Palletank® for Mixing Jacketed with Weighing PED (for Europe, Asia and NEMA)

Part Number	Description
FXC301940	Palletank® for Mixing Jacketed with Weighing 50 L PED
FXC301941	Palletank® for Mixing Jacketed with Weighing 100 L PED
FXC301942	Palletank® for Mixing Jacketed with Weighing 200 L PED
FXC301943	Palletank® for Mixing Jacketed with Weighing 400 L PED
FXC301944	Palletank® for Mixing Jacketed with Weighing 650 L PED
FXC301945	Palletank® for Mixing Jacketed with Weighing 1,000 L PED
FXC301946	Palletank® for Mixing Jacketed with Weighing 1,500 L PED
FXC301947	Palletank® for Mixing Jacketed with Weighing 2,000 L PED
FXC301948	Palletank® for Mixing Jacketed with Weighing 2,500 L PED
FXC301949	Palletank® for Mixing Jacketed with Weighing 3,000 L PED

Palletank® for Mixing Jacketed ASME U (North America)

Part Number	Description
FXC301994	Palletank® for Mixing Jacketed 50 L ASME U
FXC301995	Palletank® for Mixing Jacketed 100 L ASME U
FXC301996	Palletank® for Mixing Jacketed 200 L ASME U
FXC301997	Palletank $^{\circ}$ for Mixing Jacketed 400 L ASME U
FXC301998	Palletank $^{\circ}$ for Mixing Jacketed 650 L ASME U
FXC301999	Palletank® for Mixing Jacketed 1,000 L ASME U
FXC302000	Palletank® for Mixing Jacketed 1,500 L ASME U
FXC302001	Palletank® for Mixing Jacketed 2,000 L ASME U
FXC302002	Palletank® for Mixing Jacketed 2,500 L ASME U
FXC302003	Palletank® for Mixing Jacketed 3,000 L ASME U

Palletank® for Mixing Jacketed with Weighing ASME U (North America)

Part Number	Description
FXC302004	Palletank® for Mixing Jacketed with Weighing 50 L ASME U
FXC302005	Palletank® for Mixing Jacketed with Weighing 100 L ASME U
FXC302006	Palletank® for Mixing Jacketed with Weighing 200 L ASME U
FXC302007	Palletank® for Mixing Jacketed with Weighing 400 L ASME U
FXC302008	Palletank® for Mixing Jacketed with Weighing 650 L ASME U
FXC302009	Palletank® for Mixing Jacketed with Weighing 1,000 L ASME U
FXC302010	Palletank® for Mixing Jacketed with Weighing 1,500 L ASME U
FXC302011	Palletank® for Mixing Jacketed with Weighing 2,000 L ASME U
FXC302012	Palletank® for Mixing Jacketed with Weighing 2,500 L ASME U
FXC302013	Palletank® for Mixing Jacketed with Weighing 3,000 L ASME U

2.3 Powder Bag Holders

Part Number	Description
FXA304216	Powder bag holder 50 L to 200 L
FXA304217	Powder bag holder 400 L to 1,000 L
FXA304218	Powder bag holder 1,500 L to 3,000 L

2.4 Tubing Holder

Part Number	Description
FXC301562	Tubing Holder Single %"
FXC301563	Tubing Holder Twin 5/8"
FXC301564	Tubing Holder Triple %"
FXC301565	Tubing Holder Quattro %"
FXC301566	Tubing Holder Single ¾"
FXC301567	Tubing Holder Twin ¾"
FXC301568	Tubing Holder Triple ¾"
FXC301569	Tubing Holder Quattro ¾"
FXC301570	Tubing Holder Single 1"
FXC301571	Tubing Holder Twin 1"
FXC301572	Tubing Holder Triple 1"
FXC301573	Tubing Holder Quattro 1"
FXC301574	Tubing Holder Single 11/8"
FXC301575	Tubing Holder Twin 11/6"
FXC301576	Tubing Holder Triple 11/8"
FXC301577	Tubing Holder Quattro 11/8"
FXC301578	Tubing Holder Single 1%"
FXC301579	Tubing Holder Twin 1%"
FXC301580	Tubing Holder Triple 1%"
FXC301581	Tubing Holder Quattro 1%"

2.5 Filter Holder

Part Number	Description	
FXC301582	Filter Holder Short 55 mm	
FXC301583	Filter Holder Long 55 mm	
FXC301584	Filter Holder Short 75 mm	
FXC301585	Filter Holder Long 75 mm	
FXC301586	Filter Holder Short 100 mm	
FXC301587	Filter Holder Long 100 mm	
FXA304200	FT HOLDER SHORT H 75 mm	
FXA304201	FT HOLDER SHORT H 55 mm	
FXA304202	FT HOLDER SHORT H 100 mm	

2.6 pH Reader Holder and pH Bag Holder

Part Number	Description
FXA304214	Palletank® for Mixing pH Reader Holder
FXA304215	Palletank® for Mixing pH Bag Holder

3. Magnetic Mixer drive unit

Part Number	Description
DU010	Magnetic Mixer drive unit, 200 – 240 V, without plug
DU011	Magnetic Mixer drive unit, 100 – 120 V, US plug
LT-SVSP365	US Power cord
LT-SVSP366	European Power cord
LT-SVSP367	Australian Power cord
LT-SVSP368	Swiss Power cord
LT-SVSP369	UK Power cord

Germany

Sartorius Stedim Biotech GmbH August-Spindler-Strasse 11 37079 Goettingen Phone +49 551 308 0

For further contacts, visit www.sartorius.com

19 551 308 0

USA

Sartorius Stedim North America Inc. 565 Johnson Avenue Bohemia, NY 11716 Toll-Free +1 800 368 7178