Magnetic

MIXING SYSTEMS

Single-use mixing technology

Features and benefits

- Accommodates scaling from 6 to 3000 L
- Interchangeable with LevMixer™ system technology (same containers)
- Strong track record and reliability since 2006
- Drive unit flexibility (fits all container sizes)
- Ergonomic, easy to operate, and control
- Simple and quick single-use installation
- Data transfer and control options via Allegro™ MVP single-use system (SUS) or a control box

Applications

- Buffer preparation
- Media preparation
- High viscosity mixing (up to 1200 cP)
- Heavy powder loads
- Product hold
- Downstream applications

Overview

The Magnetic Mixer system is a well-established single-use mixing system ideal for solid to liquid applications requiring efficient mixing. It is a mobile, flexible, and modular mixing system that provides reproducible single-use mixing from 6 to 3000 L in a wide range of biopharmaceutical applications, and is particularly suited for buffer and media preparation. This system is designed for use with single-use mixing systems which are manufactured in ISO 7 (in operation) cleanrooms.

The Magnetic Mixer system consists of an interchangeable magnetic drive unit and proprietary magnetic-impeller single-use mixing system fitted into either plastic tanks located on a trolley or stainless steel (SS) tanks. The drive motor is enclosed on a portable cart that can be easily disconnected from the system and reconnected to another single-use mixing system. This allows mixing in multiple single-use mixing systems of various sizes with a single drive unit.

Fig 1. Magnetic Mixer system.

Additionally, the plastic and SS tanks are interchangeable with the LevMixer system technology, allowing process flexibility and CAPEX savings. Coupling the drive unit with single-use mixing systems and their containers is simple and quick to complete.

The Magnetic Mixer system utilizes single-use mixing biocontainers made from Allegro bioprocess film. The product-contacting layer of Allegro film is produced under cleanroom conditions. It is then laminated to create a gas barrier film of exceptional cleanliness, strength and clarity that is animal derived component free (ADCF) and complies fully with USP Class VI requirements.

The system is simple and efficient. If any data transfer or control is desired, it can be paired with the control box or Allegro MVP system allowing Code of Federal Regulations (CFR) Title 21, Part 11 compliance, and fully automated and documented process steps. Recent additions on standard manifolds—accessories like the automation/control box and inflation box—have enhanced the flexibility and modularity of the mixer portfolio.

Technical specifications

Parameter	Single-use impeller
Type	Radial flow
Number of blades	Four (4)
Material	USP Class VI, ADCF, gamma stable high density polyethylene (HDPE)
Maximum speed	300 rpm
Impeller biocontainer location	Center, off-center

Parameter	Magnetic Mixer drive unit
Power	Single phase 115 or 230 V, 50/60 Hz
Input wattage	< 180 W
Drive unit footprint	43 × 128 cm (16.8 × 50.3 in.)
Drive unit height	52 cm (20.3 in.)
Drive unit weight	32.2 kg (70.99 lbs)
Hardware	SS frame, 2 cleanroom wheels
IP rating	IP 55
Remote control	Start/stop, speed 4 to 20 mA

Fig 2. Magnetic Mixer impeller.

Ordering information

Magnetic Mixer drive unit and power cords

Product	Product code
Power cord Australia (required accessory for DU010)	LT-SVSP367
Power cord China (required accessory for DU010)	LT-SVSP480
Power cord Europe (required accessory for DU010)	LT-SVSP366
Power cord Switzerland (required accessory for DU010)	LT-SVSP368
Power cord United Kingdom (required accessory for DU010)	LT-SVSP369
Magnetic Mixer drive unit, 100 to 120 V, fixed US plug	DU011
Magnetic Mixer drive unit, 200 to 240 V, exchangeable plug	DU010

Magnetic Mixer standard SUS, round

Product	Product code
30 L round, 2 in. powder port, Allegro film	6404-1242C
50 L round, 4 in. powder port, Allegro film	6404-1102F
100 L round, 4 in. powder port, Allegro film	6404-1241W
200 L round, 4 in. powder port, Allegro film	6404-1155G
350 L round, 4 in. powder port, Allegro film	7404-1105Q
500 L round, 4 in. powder port, Allegro film	7404-0998R
1000 L round, 4 in. powder port, Allegro film	6404-1221Y
2000 L round, 4 in. powder port, Allegro film	6404-1221L

Magnetic Mixer standard SUS, cubical

Product	Product code
50 L cubical, 4 in. powder port, Allegro film	7404-1105M
100 L cubical, 4 in. powder port, Allegro film	6404-1156Z
200 L cubical, 4 in. powder port, Allegro film	7404-0999B
400 L cubical, 4 in. powder port, Allegro film	6404-1127L
650 L cubical, 4 in. powder port, Allegro film	7404-0998T
1000 L cubical, 4 in. powder port, Allegro film	6404-1129H
1500 L cubical, 4 in. powder port, Allegro film	6404-1349T
2000 L cubical, 4 in. powder port, Allegro film	6404-1285S

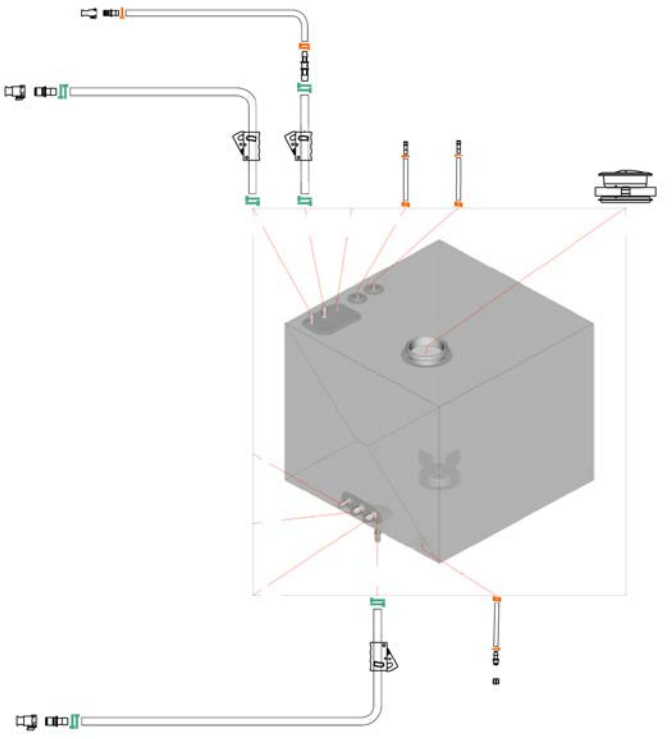

Fig 3. Standard cubical design (also applicable to standard round) for standard mixing applications with 2 inlets, powder port, bottom drain and sample valve.

Representative drawing only. For more detailed drawings please contact Cytiva.

Magnetic Mixer standard SUS, general use

Product	Product code
50 L cubical general use design, 4 in. powder port, Allegro film	7404-1357C
100 L cubical general use design, 4 in. powder port, Allegro film	7404-1358B
200 L cubical general use design, 4 in. powder port, Allegro film	7404-1358J
400 L cubical general use design, 4 in. powder port, Allegro film	7404-1360A
650 L cubical general use design, 4 in. powder port, Allegro film	7404-1360B
1000 L cubical general use design, 4 in. powder port, Allegro film	7404-1360E
1500 L cubical general use design, 4 in. powder port, Allegro film	7404-1483S
2000 L cubical general use design, 4 in. powder port, Allegro film	7404-1367C

Magnetic Mixer standard SUS, filtered product

Product	Product code
50 L cubical filtered product, sanitary outlet design, Allegro film	7404-1445V
100 L cubical filtered product, sanitary outlet design, Allegro film	7404-1452G
200 L cubical filtered product, sanitary outlet design, Allegro film	7404-1445S
400 L cubical filtered product, sanitary outlet design, Allegro film	7404-1442P
650 L cubical filtered product, sanitary outlet design, Allegro film	7404-1452F
1000 L cubical filtered product, sanitary outlet design, Allegro film	7404-1443B
1500 L cubical filtered product, sanitary outlet design, Allegro film	7404-1483P
2000 L cubical filtered product, sanitary outlet design, Allegro film	7404-1453F
3000 L cubical filtered product, sanitary outlet design, Allegro film	7404-1443D

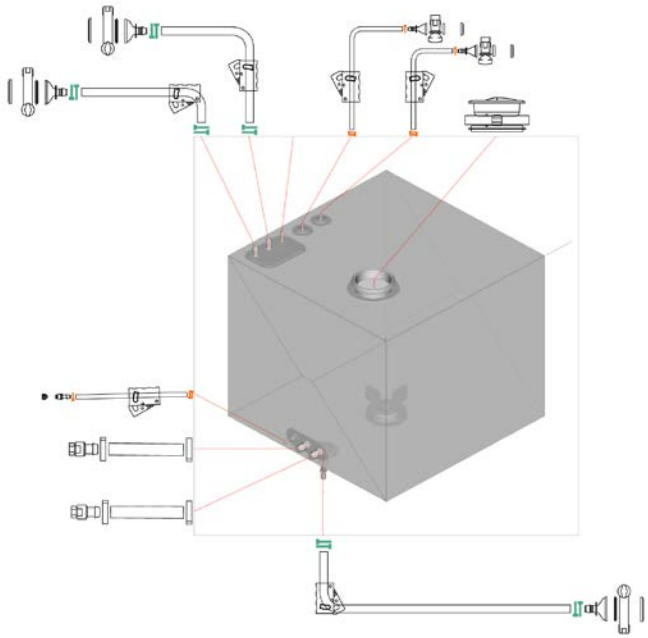

Fig 4. Example standard general use design, for open processing with vendor agnostic/universal sanitary flange connections. General use designs have 2 main inlets, 2 side inlets, powder port, sampling port, 2 sensing ports and a bottom drain. The design is made to be as universal as possible and it is ideally suited for sensing, pH adjustment and media prep applications among others.

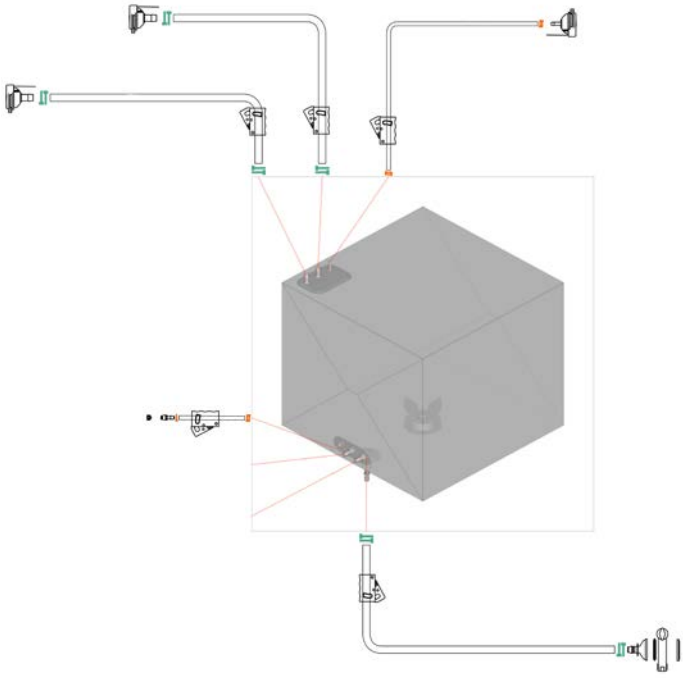

Fig 5. Example standard filtered product sanitary outlet design. The filtered product line is designed for closed processing (e.g. no powder port). It has Kleenpak™ Presto sterile connector on all ports except on the outlet. Here, the design has a sanitary flange outlet for direct connection to sterile filters.

Product	Product code
50 L cubical filtered product design, Allegro film	7404-1444F
100 L cubical filtered product design, Allegro film	7404-1451Y
200 L cubical filtered product design, Allegro film	7404-1401R
400 L cubical filtered product design, Allegro film	7404-1401T
650 L cubical filtered product design, Allegro film	7404-1452E
1000 L cubical filtered product design, Allegro film	7404-1444L
1500 L cubical filtered product design, Allegro film	7404-1483H
2000 L cubical filtered product design, Allegro film	7404-1453E

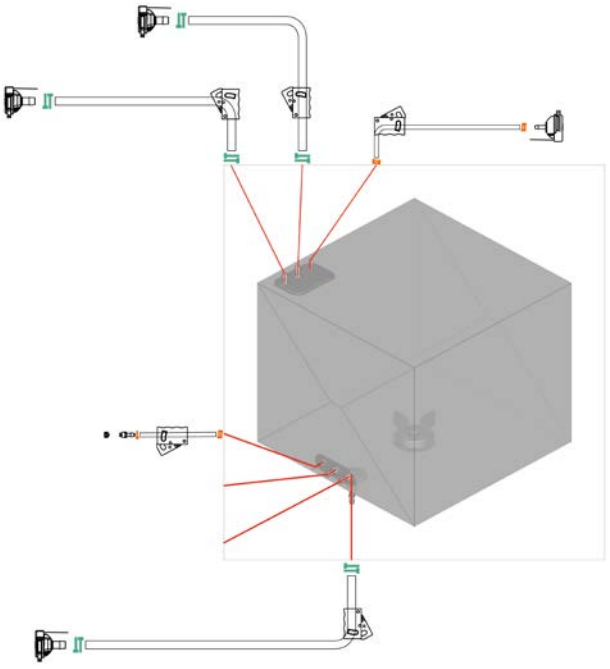

Fig 6. Example standard filtered product design. The filtered product line is designed for closed processing (e.g. no powder port). The biocontainers have 2 main inlets, a smaller side inlet, and a bottom outlet, all with Kleenpak Presto sterile connectors for closed processing. It also contains a sampling port.

In addition to the above standard Allegro mixer systems, we can also offer single-use customized systems with the Advanced Central Management System (ACMS). For further information and drawing requests, please contact Cytiva.

Mixing tanks

The tanks or containers for the single-use biocontainers can be made out of plastic, which offer a price advantage, or SS. The SS variants are available with load cells and/or thermal control jacket (available with ASME certification). Both, plastic and SS tanks can be used with the Magnetic Mixer or the LevMixer technologies and their associated biocontainers.

Plastic tanks

Product	Product code
30 L round medium density polyethylene (MDPE) mixing container	LEV30PR
50 L round MDPE mixing container	LEV50PR
100 L round MDPE mixing container	LEV100PR
200 L round MDPE mixing container	LEV200PR
350 L round MDPE mixing container	LEV350PR
500 L round MDPE mixing container	LEV500PR

Magnetic Mixer dolly (for plastic tanks)

Product	Product code
Dolly full handle, compatible with probe support LT-SVSP471	LM-DBMC037
Dolly partial handle, compatible with probe support LT-SVSP471	LM-DBMC038

Fig 7. Plastic container on dolly (LEV500PR tank and LM-DBMC037 dolly).

Stainless steel (SS) tanks

(Suitable for Magnetic Mixer and LevMixer systems)

Standard tanks

Product	Product code
50 L, SS cubical container	LM50NCN-B4N
100 L, SS cubical container	LM100NCN-B4N
200 L, SS cubical container	LM200NCN-B4N
400 L, SS cubical container	LM400NCN-B4N
650 L, SS cubical container	LM650NCN-B4N
1000 L, SS cubical container	LM1000NCN-B4N
1500 L, SS cubical container	LM1500NCN-B4N
2000 L, SS cubical container	LM2000NCN-B4N
3000 L, SS cubical container	LM3000NCN-B4N

Standard tank with load cells

Product	Product code
50 L, SS cubical container, with load cells	LM50NCMA-B4N
100 L, SS cubical container, with load cells	LM100NCMA-B4N
200 L, SS cubical container, with load cells	LM200NCMA-B4N
400 L, SS cubical container, with load cells	LM400NCMA-B4N
650 L, SS cubical container, with load cells	LM650NCMA-B4N
1000 L, SS cubical container, with load cells	LM1000NCMA-B4N
1500 L, SS cubical container, with load cells	LM1500NCMA-B4N
2000 L, SS cubical container, with load cells	LM2000NCMA-B4N
3000 L, SS cubical container, with load cells	LM3000NCTA-B4N

Jacketed tank (non ASME)

Product	Product code
50 L, SS cubical container, jacketed	LM50JCN-B4N
100 L, SS cubical container, jacketed	LM100JCN-B4N
200 L, SS cubical container, jacketed	LM200JCN-B4N
400 L, SS cubical container, jacketed	LM400JCN-B4N
650 L, SS cubical container, jacketed	LM650JCN-B4N
1000 L, SS cubical container, jacketed	LM1000JCN-B4N
1500 L, SS cubical container, jacketed	LM1500JCN-B4N
2000 L, SS cubical container, jacketed	LM2000JCN-B4N
3000 L, SS cubical container, jacketed	LM3000JCN-B4N

Jacketed tank with load cells (non ASME)

Product	Product code
50 L, SS cubical container, jacketed, with load cells	LM50JCMA-B4N
100 L, SS cubical container, jacketed, with load cells	LM100JCMA-B4N
200 L, SS cubical container, jacketed, with load cells	LM200JCMA-B4N
400 L, SS cubical container, jacketed, with load cells	LM400JCMA-B4N
650 L, SS cubical container, jacketed, with load cells	LM650JCMA-B4N
1000 L, SS cubical container, jacketed, with load cells	LM1000JCMA-B4N
1500 L, SS cubical container, jacketed, with load cells	LM1500JCMA-B4N
2000 L, SS cubical container, jacketed, with load cells	LM2000JCMA-B4N
3000 L, SS cubical container, jacketed, with load cells	LM3000JCTA-B4N

Jacketed tanks ASME certified

Product	Product code
50 L, SS cubical container, jacketed (ASME)	LM50JCN-B4A
100 L, SS cubical container, jacketed (ASME)	LM100JCN-B4A
200 L, SS cubical container, jacketed (ASME)	LM200JCN-B4A
400 L, SS cubical container, jacketed (ASME)	LM400JCN-B4A
650 L, SS cubical container, jacketed (ASME)	LM650JCN-B4A
1000 L, SS cubical container, jacketed (ASME)	LM1000JCN-B4A
1500 L, SS cubical container, jacketed (ASME)	LM1500JCN-B4A
2000 L, SS cubical container, jacketed (ASME)	LM2000JCN-B4A
3000 L, SS cubical container, jacketed (ASME)	LM3000JCT-B4A

Jacketed tanks, ASME certified with load cells

Product	Product code
50 L, SS cubical container, jacketed (ASME), with load cells	LM50JCMA-B4A
100 L, SS cubical container, jacketed (ASME), with load cells	LM100JCMA-B4A
200 L, SS cubical container, jacketed (ASME), with load cells	LM200JCMA-B4A
400 L, SS cubical container, jacketed (ASME), with load cells	LM400JCMA-B4A
650 L, SS cubical container, jacketed (ASME), with load cells	LM650JCMA-B4A
1000 L, SS cubical container, jacketed (ASME), with load cells	LM1000JCMA-B4A
1500 L, SS cubical container, jacketed (ASME), with load cells	LM1500JCMA-B4A
2000 L, SS cubical container, jacketed (ASME), with load cells	LM2000JCMA-B4A
3000 L, SS cubical container, jacketed (ASME), with load cells	LM3000JCTA-B4A

Power cords for mixers with load cells

Product	Product code
US power cord (required accessory for load cells)	LT-SVSP365
Europe power cord (required accessory for load cells)	LT-SVSP366
Australian power cord (required accessory for load cells)	LT-SVSP367
Switzerland power cord (required accessory for load cells)	LT-SVSP368
United Kingdom power cord (required accessory for load cells)	LT-SVSP369
Chinese power cord (required accessory for load cells)	LT-SVSP480

Fig 8. Example tanks: 1000, 400 and 200 L (shown with load cells).

Technical specifications

Stainless steel tanks

General specifications

General category	Parameter	Specification
Facility	Materials of construction	304 stainless steel Wheels: Polyamide
	Surface finish Ra	Brush polished: ≤ 0.89 µm (35 µin)
Load cells	Type	50 to 400 L: Minebea PR6211 650 to 2000 L: Minebea PR6212
	Quantity	3 (4 for 1500 to 2000 L)
	Range	Nominal volume of size container
	Accuracy	0.3% of maximum nominal volume
	Indicator type	Midrics 2
	Indicator output	4 to 20 mA
	Indicator connector	Female PG7 Binder (3 pole) 
	Ingress protection rating	Junction box: IP65 Load cell indicator: IP65
	Electrical supply	Single phase 115 to 230 V AC, 50/60 Hz
	Cable (6 m/20 ft)	US: NEMA 5 to 15  EU: CEE7/7 
	Electrical safety	CE
	Printer	Cleanroom compatible printer available on request
Jacket	Type	Dimple jacket
	Insulation	Rockwool or Superwool Plus 2 in. thick
	Temperature range	-5/90°C (23/194°F)
	Jacket connections	1½ in. sanitary connection
	Jacket pressure rating	Max 6.2 bar/90 psi
	Regulatory compliance	Pressure equipment directive (PED) 2014/68/EU
	Regulatory compliance ASME variant	ASME BPVC Section VIII Div.1 Code Certification Stamp: U

Tank operating volumes and dimensions

	Operating volumes	Magnetic Mixer drive
50 L mixer tank	Maximum	50 L
	Agitation (minimum)	6 L
	Mixing (minimum)	17 L
	Sensing (minimum)	13 L
	Dimensions (weight)	**Width × length × height**
	LM50NCN (58 kg/128 lbs.)	74.5 × 78.9 × 93.9 cm (29.3 × 31.1 × 37.0 in.)
	LM50JCN (99 kg/218 lbs.)	72.3 × 78.4 × 94.1 cm (28.5 × 30.9 × 37.0 in.)
	LM50NCMA (80 kg/177 lbs.)	74.6 × 92.2 × 139.3 cm (29.4 × 36.3 × 54.8 in.)
	LM50JCMA (127 kg/280 lbs.)	75.0 × 92.2 × 139.3 cm (29.5 × 36.3 × 54.8 in.)
100 L mixer tank	Maximum	100 L
	Agitation (minimum)	9 L
	Mixing (minimum)	24 L
	Sensing (minimum)	17 L
	Dimensions (weight)	**Width × length × height**
	LM100NCN (83 kg/183 lbs.)	84.9 × 86.0 × 105.4 cm (33.4 × 33.9 × 41.5 in.)
	LM100JCN (130 kg/287 lbs.)	80.3 × 84.4 × 105.6 cm (31.6 × 33.2 × 41.6 in.)
	LM100NCMA (150 kg/331 lbs.)	85.5 × 126.6 × 158.0 cm (33.7 × 49.8 × 62.2 in.)
	LM100JCMA (204 kg/450 lbs.)	85.5 × 126.6 × 158.0 cm (33.7 × 49.8 × 62.2 in.)
200 L mixer tank	Maximum	200 L
	Agitation (minimum)	14 L
	Mixing (minimum)	37 L
	Sensing (minimum)	25 L
	Dimensions (weight)	**Width × length × height**
	LM200NCN (107 kg/236 lbs.)	80.7 × 86.0 × 115.8 cm (31.8 × 33.9 × 45.6 in.)
	LM200JCN (179 kg/395 lbs.)	85.0 × 87.9 × 116.0 cm (33.5 × 34.6 × 45.7 in.)
	LM200NCMA (176 kg/388 lbs.)	85.5 × 126.6 × 158.0 cm (33.7 × 49.8 × 62.2 in.)
	LM200JCMA (255 kg/562 lbs.)	85.8 × 126.6 × 158.0 cm (33.8 × 49.8 × 62.2 in.)
400 L mixer tank	Maximum	400 L
	Agitation (minimum)	23 L
	Mixing (minimum)	60 L
	Sensing (minimum)	40 L
	Dimensions (weight)	**Width × length × height**
	LM400NCN (156 kg/344 lbs.)	98.3 × 109.0 × 130.8 cm (38.7 × 42.9 × 51.5 in.)
	LM400JCN (262 kg/578 lbs.)	101.6 × 105.9 × 131.0 cm (40.0 × 41.7 × 51.6 in.)
	LM400NCMA (215 kg/474 lbs.)	95.0 × 126.6 × 158.0 cm (37.4 × 49.8 × 62.2 in.)
	LM400JCMA (336 kg/741 lbs.)	101.6 × 126.6 × 158.0 cm (40.0 × 49.8 × 62.2 in.)
650 L mixer tank	Maximum	650 L
	Agitation (minimum)	31 L
	Mixing (minimum)	82 L
	Sensing (minimum)	55 L
	Dimensions (weight)	**Width × length × height**
	LM50NCN (198 kg/437 lbs.)	111.0 × 115.4 × 144.7 cm (43.7 × 45.4 × 57.0 in.)
	LM50JCN (368 kg/811 lbs.)	115.2 × 122.1 × 144.4 cm (45.4 × 48.1 × 56.9 in.)
	LM650NCMA (299 kg/659 lbs.)	113.1 × 147.8 × 153.7 cm (44.5 × 58.2 × 60.5 in.)
	LM650JCMA (468 kg/1032 lbs.)	115.2 × 147.8 × 153.7 cm (45.4 × 58.2 × 60.5 in.)

	Operating volumes	Magnetic Mixer drive
1000 L mixer tank	Maximum	1000 L
	Agitation (minimum)	41 L
	Mixing (minimum)	108 L
	Sensing (minimum)	73 L
	Dimensions (weight)	**Width × length × height**
	LM1000NCN (257 kg/567 lbs.)	124.7 × 129.6 × 160.2 cm (49.1 × 51.0 × 63.1 in.)
	LM1000JCN (484 kg/1067 lbs.)	128.9 × 129.9 × 159.9 cm (50.8 × 51.1 × 63.0 in.)
	LM1000NCMA (357 kg/787 lbs.)	121.7 × 152.8 × 160.3 cm (47.9 × 60.1 × 63.1 in.)
	LM1000JCMA (583 kg/1285 lbs.)	129.1 × 153.3 × 159.9 cm (50.8 × 60.4 × 63.0 in.)
1500 L mixer tank	Maximum	1500 L
	Agitation (minimum)	44 L
	Mixing (minimum)	117 L
	Sensing (minimum)	79 L
	Dimensions (weight)	**Width × length × height**
	LM1500NCN (771 kg/1700 lbs.)	132.0 × 155.6 × 216.9 cm (52.0 × 61.3 × 85.4 in.)
	LM1500JCN (858 kg/1892 lbs.)	139.0 × 155.6 × 216.9 cm (54.7 × 61.3 × 85.4 in.)
	LM1500NCMA (790 kg/1742 lbs.)	132.0 × 162.3 × 216.9 cm (52.0 × 63.9 × 85.4 in.)
	LM1500JCMA (877 kg/1933 lbs.)	139.0 × 162.3 × 216.9 cm (54.7 × 63.9 × 85.4 in.)
	Height with the hoist lowered	189.4 cm (74.6 in.)
2000 L mixer tank	Maximum	2000 L
	Agitation (minimum)	44 L
	Mixing (minimum)	117 L
	Sensing (minimum)	79 L
	Dimensions (weight)	**Width × length × height**
	LM2000NCN (937 kg/2066 lbs.)	132.0 × 155.6 × 266.9 cm (52.0 × 61.3 × 105.1 in.)
	LM2000JCN (1058 kg/2332 lbs.)	139.0 × 155.6 × 266.9 cm (54.7 × 61.3 × 105.1 in.)
	LM2000NCMA (956 kg/2108 lbs.)	132.0 × 162.3 × 266.9 cm (52.0 × 63.9 × 105.1 in.)
	LM2000JCMA (1077 kg/2374 lbs.)	139.0 × 162.3 × 266.9 cm (54.7 × 63.9 × 105.1 in.)
	Height with the hoist lowered	239.4 cm (94.3 in.)
3000 L mixer tank	Maximum	3000 L
	Agitation (minimum)	45 L
	Mixing (minimum)	119 L
	Sensing (minimum)	80 L
	Dimensions (weight)	**Width × length × height**
	LM3000NCN (1226 kg/2703 lbs.)	156.1 × 133.0 × 357.9 cm (61.4 × 52.4 × 140.9 in.)
	LM3000JCN (1399 kg/3084 lbs.)	156.1 × 133.0 × 357.9 cm (61.4 × 52.4 × 140.9 in.)
	LM3000NCTA (1283 kg/2829 lbs.)	156.1 × 133.0 × 357.9 cm (61.4 × 52.4 × 140.9 in.)
	LM3000JCTA (1456 kg/3210 lbs.)	156.1 × 133.0 × 357.9 cm (61.4 × 52.4 × 140.9 in.)
	Height with the hoist lowered	330.4 cm (130.1 in.)

Minimum working volumes for each single-use mixer

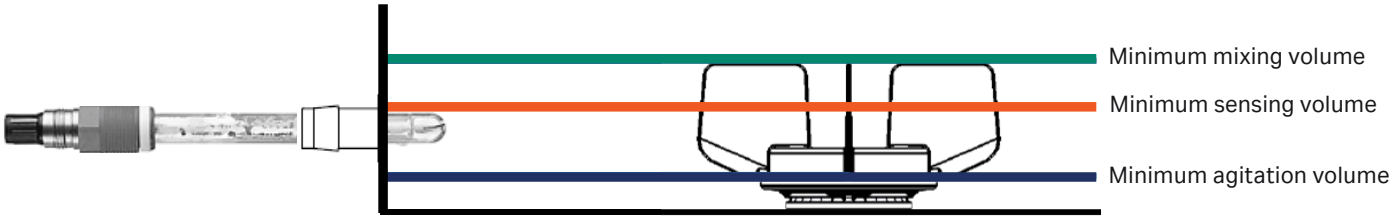

Fig 9. Minimum volume criteria for single-use mixers.

Minimum mixing volume: the volume required to completely immerse the impeller blades at rest where liquid-liquid mixing is effective; mixing may not be adequate for some applications (e.g., challenging solid-liquid mixing).

Minimum sensing volume: the lowest volume that allows for the sensor probe to be fully immersed.

Minimum agitation volume: the lowest feasible working volume of the mixer defined as the volume required to reach the lowest parts of the impeller blades at rest.

Automation

For data transfer and/or control via an external control system (decentralized control system [DCS] or supervisory control and data acquisition [SCADA] system), we can offer the control box along with the Magnetic Mixer drive unit for automated applications (product code: MMG403). The control box allows data transfer and external control via DCS or SCADA system. It is available in 2 variants, the basic and the advanced version.

Product	Product code
Magnetic Mixer drive unit Gen IV – CE/UL	MMG403

Basic control box:

Product	Product code
Basic controller – temperature and weight; PLC – CE version (230 V)	CBG401B
Basic controller – temperature and weight; PLC – UL version (120 V)	CBG402B

The basic control box provides the following functionality:

- RJ45 ethernet socket via ethernet cable for S7/S7 PLC interface (for the Allegro MVP system interface)
- RJ45 ethernet socket data access via OPC/UA (for DCS/SCADA interface)
- Weight 4 to 20 mA (when connected to an appropriate tank including load cells)
- Temperature cable and PT100

Fig 10. Left: Basic control box for drive unit, temperature and load cell integration. **Right:** For automation integration designed Magnetic Mixer drive unit MMG403.

Advanced control box:

Product	Product code
Advanced control box – pH, conductivity, temperature, weight; PLC – CE (230 V)	CBG401A
Basic controller – temperature and weight; PLC – UL version (120 V)	CBG402A

The advanced control box provides the following functionality:

- RJ45 ethernet socket via ethernet cable for S7/S7 PLC interface (for the Allegro MVP system interface)
- RJ45 ethernet socket data access via OPC/UA (for DCS/ SCADA interface)
- Weight 4 to 20 mA (when connected to an appropriate tank including load cells)
- Temperature cable and PT100
- Mettler-Toledo M300 transmitter for integration of on-line pH and conductivity via digital ISM sensors

Fig 11. Advanced control box for drive unit, temperature, pH, conductivity and load cell integration.

Fig 12. Magnetic Mixer drive unit MMG403 with advanced control box CBG401A and 400 L SS tank.

Fig 13. Magnetic Mixer (or LevMixer) system can be paired with the Allegro MVP system for full automation without the need for a local SCADA or DCS system.

Standalone automation

If you do not have an DCS or SCADA system but you still need data transfer for regulatory requirements (e.g. Code of Federal Regulations (CFR) Title 21, Part 11 compliance), we can help. The Allegro MVP system offers amongst many other features full local control and automation for mixing systems without the need for any external control system.

The full mixing experience

Whenever there are mixing applications, there are often powder handling, temperature (need for a temperature control unit), inflation, liquid handling or sterile filtration requirements. Cytiva is able to deliver a complete mixing experience.

Fig 14. Powder bags and powder bag lift.

Fig 15. Temperature control unit from Lauda, which can be offered in a one-stop-shop package for mixing – allowing trouble-free integration and time-savings.

Fig 16. Inflation box for the optional inflation of mixing biocontainers. This allows mixing down to the above-mentioned agitation volume.

For more information, on our inflation box, temperature control units, transfer/storage/filtration sets and other questions, please contact Cytiva.

cytiva.com

For local office contact information, visit cytiva.com/contact

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