



MIX S.r.l.

MIXING SYSTEMS AND
COMPONENTS FOR PLANTS

www.mixitaly.com

Mixing Division

Laboratory Mixers



Quality and Innovation

MIX PRODUCTS AND SOLUTIONS

The laboratory mixer series was developed to focus on the needs of R&D laboratories, research institutes and small pilot plants.

The main characteristics are:

- ✓ Versatility
- ✓ Easy disassembly and cleaning
- ✓ Repeatability of the results obtained and scale up of the process on industrial mixers
- ✓ Plug and play solution

THE PRINCIPLE OF THE THREE-DIMENSIONAL MECHANICAL FLUIDISATION

The working principle of the horizontal ploughshare-mixer is based on the “three-dimensional mechanical fluidisation” (with a centrifugal vortex) of products. This work is obtained with ploughshare-shaped mixing tools, which cause a high turbulence and give fast and exact penetration / homogenization of the different ingredients in the mixing process (regardless of their physical characteristics).

Process Specific Solutions

MIXER

with possible injection of liquids. The MIX technology guarantees a perfect mixing, an excellent emptying, as well as a complete sealing of the discharge outlet.



GRANULATOR

Machine suitable for transforming powder particles into granules, by injection of liquids. The granules are obtained in the required size and eventually dried in the machine.



REACTOR / DRYER

Machine suitable for mixing processes with a chemical or physical reaction, in vacuum or in overpressure, with heat exchanger for cooling or heating of the product.



Technical features

MX.0002-05

MODEL	Load capacity (liters)	
	MIN	MAX
MXCM0002	0,7	1,4
MXCM0005	1,5	3



STANDARD

- mixing chamber in AISI 304
- 1 loading/unloading port with safety block, manual rotation of the chamber according to the working phase
- overhung rotor shaft with ploughshare tools
- mechanical rotor shaft seal
- removable chamber for easy cleaning with safety block
- 1 cover reconstructing the shape of the mixing chamber
- 1 container for loading/unloading of product
- electric control panel with inverter
- suitable for applications in atmospheric pressure

OPTIONALS

- heat exchanger
- isolation of the chamber
- liquid injection kit
- chopper
- internal chamber in AISI 316
- rotorshaft with paddle or ribbon tools
- suitable for processes in vacuum or overpressure
- ATEX certification according to 2014/34/EU
- Declaration of conformity for 1935/2004/CE and 2023/2006/CE
- Certification for PED 2014/68 /EU
- touch screen

MX.0012-30

MODEL	Load capacity (liters)	
	MIN	MAX
MXCM0012	3,5	7
MXCM0030	10	20



STANDARD

- mixing chamber in AISI 304
- loading port with safety
- front hatch with safety
- manual discharge port
- overhung rotor shaft with ploughshare tools
- flushed rotor shaft seal with packing
- 1 side chopper
- 1 predisposition for liquid injection kit
- 1 filter bag
- electrical control panel with inverter
- compressed air control line
- mild steel frame
- suitable for application in atmospheric pressure

OPTIONALS

- heat exchanger
- isolation of the chamber
- liquid injection kit
- chopper
- internal chamber in AISI 316
- rotorshaft with paddle/ribbon tools
- suitable for processes in vacuum or overpressure
- ATEX certification according to 2014/34/EU
- Declaration of conformity for 1935/2004/CE and 2023/2006/CE
- Certification for PED 2014/68 /EU
- touch screen

MX.0075

MODEL	Load capacity (liters)	
	MIN	MAX
MXCM0075	10	65



STANDARD

- mixing chamber in AISI 304
- loading hatch with safety
- front hatch with safety
- pneumatic discharge port
- overhung rotor shaft with ploughshare tools
- flushed rotor shaft seal with packing
- 1 side chopper
- 1 predisposition for liquid injection kit
- 1 filter bag
- electrical control panel with inverter
- pneumatic control panel
- mild steel frame
- suitable for application in atmospheric pressure

OPTIONALS

- heat exchanger
- isolation of the chamber
- liquid injection kit
- chopper
- internal chamber in AISI 316
- rotorshaft with paddle or ribbon tools
- suitable for processes in vacuum or overpressure
- ATEX certification according to 2014/34/EU
- Declaration of conformity for 1935/2004/CE and 2023/2006/CE
- Certification for PED 2014/68 /EU
- touch screen

Tabletop Laboratory Mixer 02-05

Laboratory mixer type MXC for BATCH production processes with ploughshare mixing tools. Possibility to remove the mixing chamber for a thorough cleaning. Polishing treatment on the inside of the chamber, shot blasting treatment on the outside.



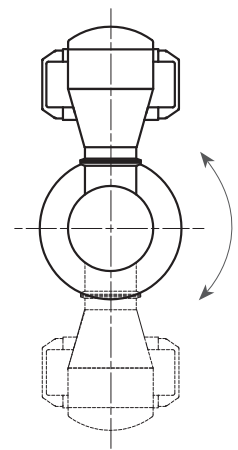
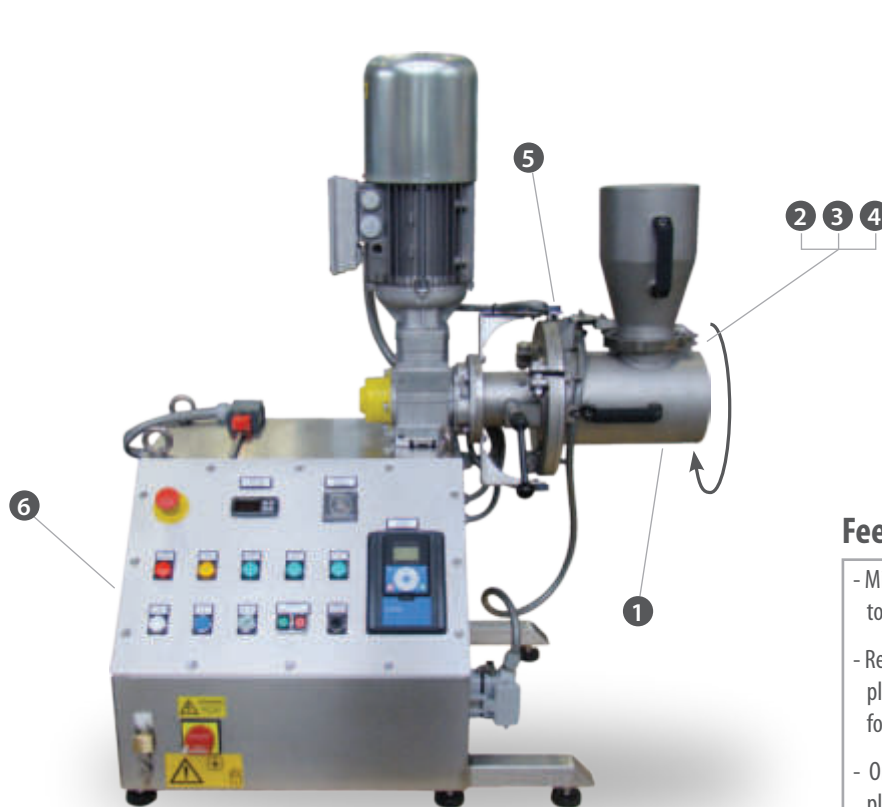
1 Internal chamber with welded ploughs, and polishing treatment



2 Container for product feeding/unloading



3 Closure plug for the feeding door

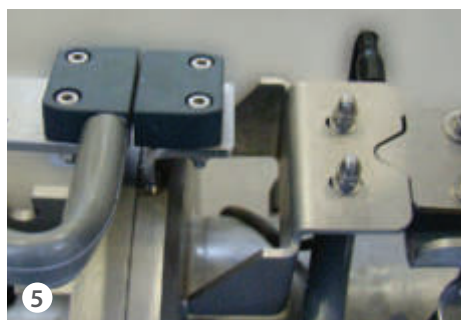


Feeding / unloading door

- Mixing chamber with upward facing port, to feed the product from a container
- Replace the container with a closure plug / chopper / liquid injection nozzle for the start of the process
- Once the process has finished, replace the closure plug with the container again, and turn upside-down the mixing chamber, to unload the product.



4 Upside-down turning, to unload product



5 Magnetic sensor, as accident-prevention device



6 Control panel

Laboratory Mixer 12-30

Laboratory mixer type MXC for BATCH production processes with ploughshare mixing tools. Polishing treatment on the inside of the chamber, shot blasting treatment on the outside.



1 Internal chamber with welded ploughs, and polishing treatment



2 Mixing chamber complete with heat exchanger on the cylindrical part (optional)



3 Chopper



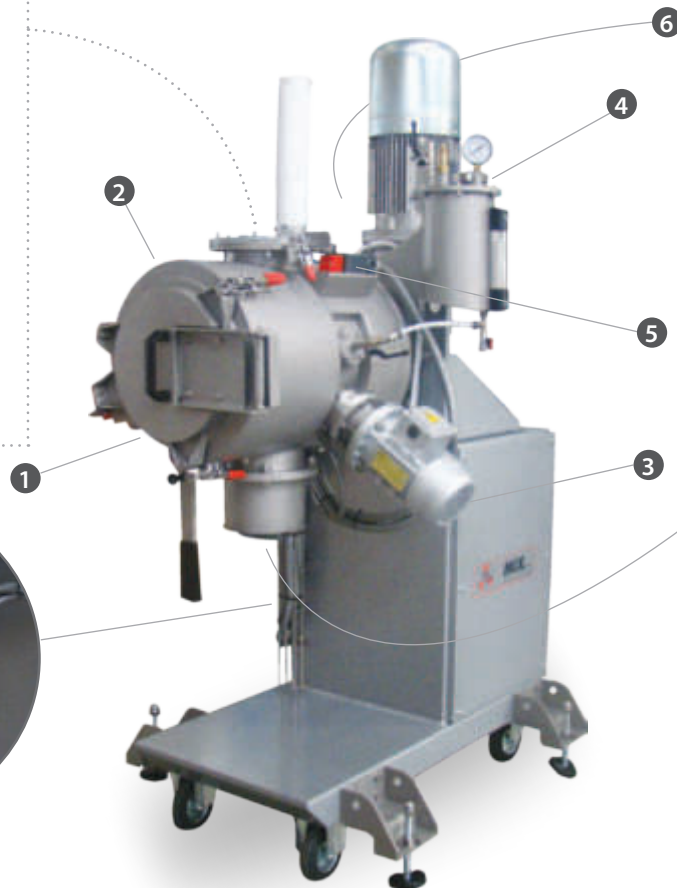
Funnel for loading



Closure plug, with viewing glass and filter sleeve



Electromechanical control panel (standard)



Unloading port with manual opening and safety grid



4 Tank for liquid injection (as an option)



5 Accident-prevention electric lock



6 Touch screen (optional)

Laboratory and Production Mixer 75

Laboratory mixer type MXC for BATCH production processes with ploughshare mixing tools. Polishing treatment on the inside of the chamber, shot blasting treatment on the outside.



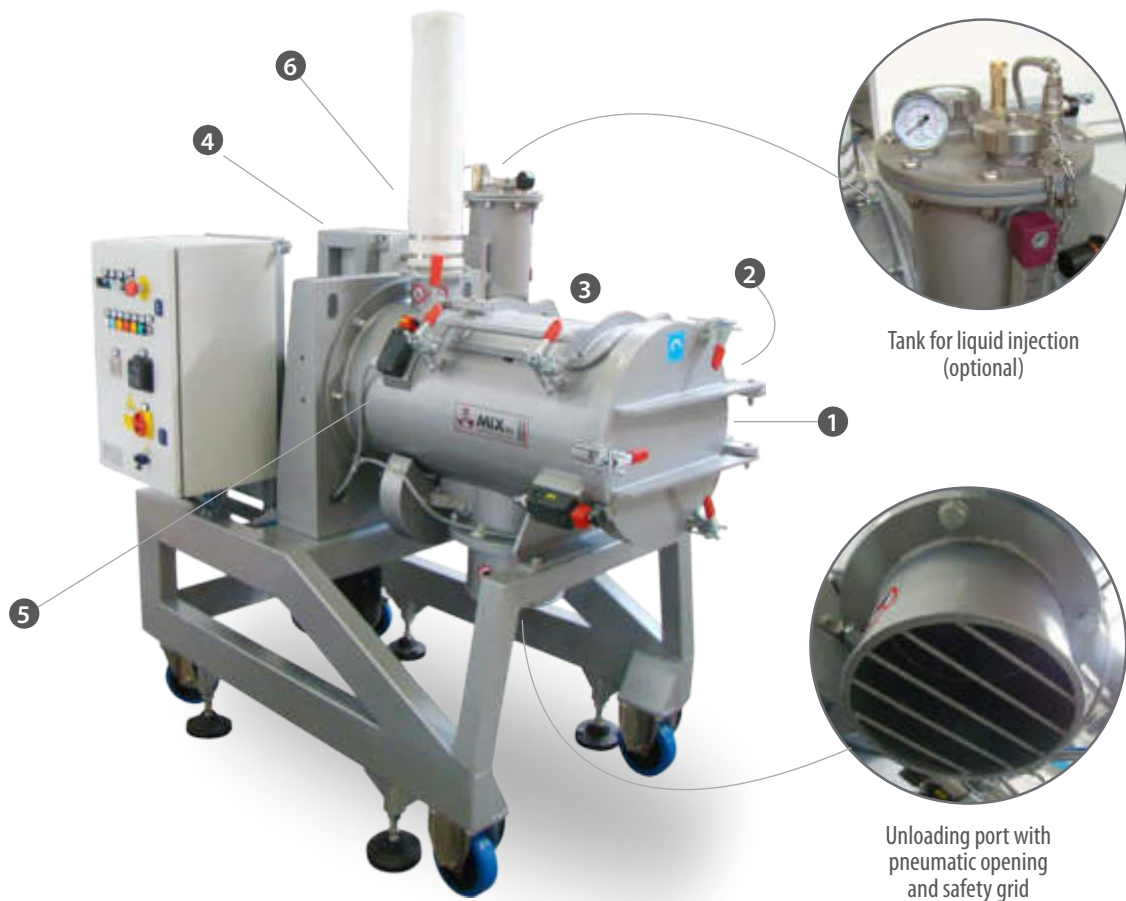
1 Front hatch with safety block



2 Chopper and liquid injection



3 Loading and inspection hatch with safety block



4 Pneumatic control panel



5 Safety electro block



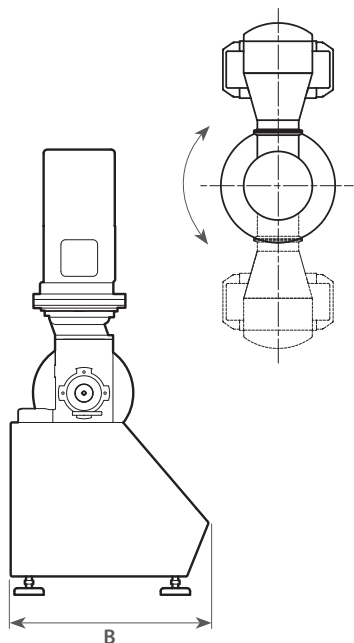
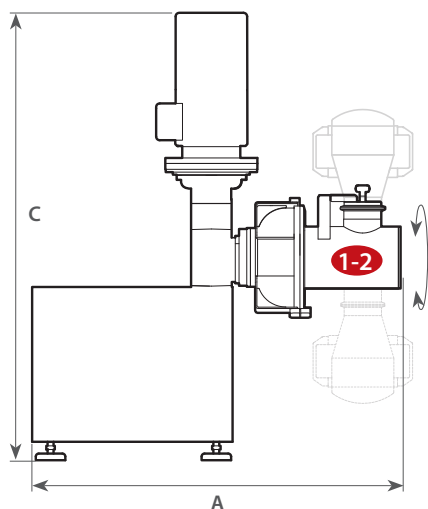
6 Touch screen (optional)

Technical Data Sheets

MX.0002

MX.0005

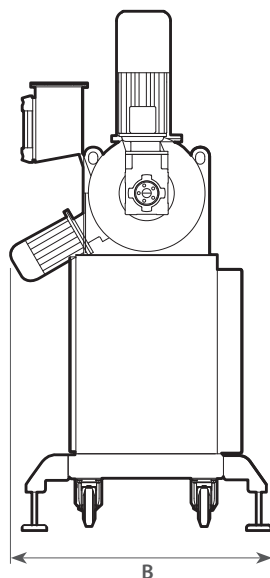
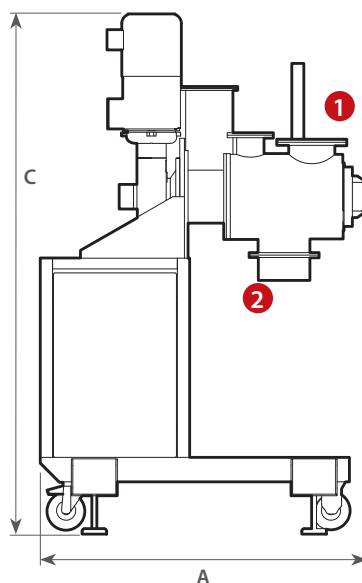
1-2 Door for product feeding/
unloading



MX.0012

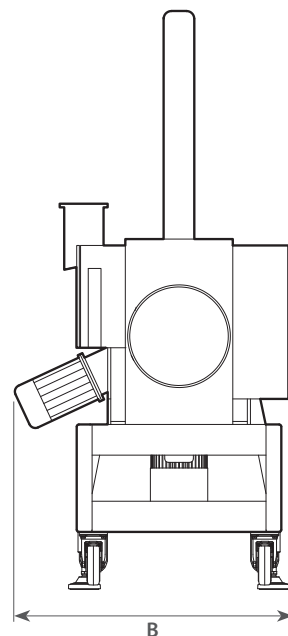
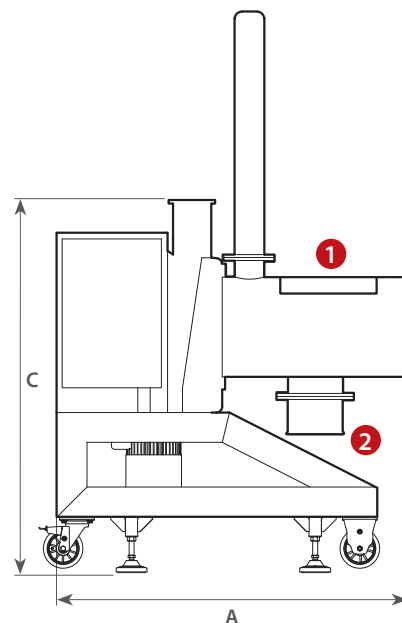
MX.0030

1 - Feeding door
2 - Unloading door



MX.0075

1 - Feeding door
2 - Unloading door



							Capacity liters of work	
STD	ATEX	TYPE	A	B	C	kg	MIN.	MAX
N-	A-	MXC0002	1000	600	1350	170	0,7	1,4
N-	A-	MXC0005	1000	600	1370	180	1,5	3
N-	A-	MXC0012	1020	650	1450	270	3,5	7
N-	A-	MXC0030	1120	700	1520	320	10	20
N-	A-	MXC0075	1600	1200	1550	750	10	65

NOTE: Height expressed in mm, if not specified otherwise. The company MIX reserves the right to make changes without prior notice. All sizes shown are approximate. The values are intended with tolerances resulting from normal production fluctuations. In special cases, and for precise values, our written confirmation is required.

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QUALITY
SERVICE
TECHNOLOGY
INNOVATION

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