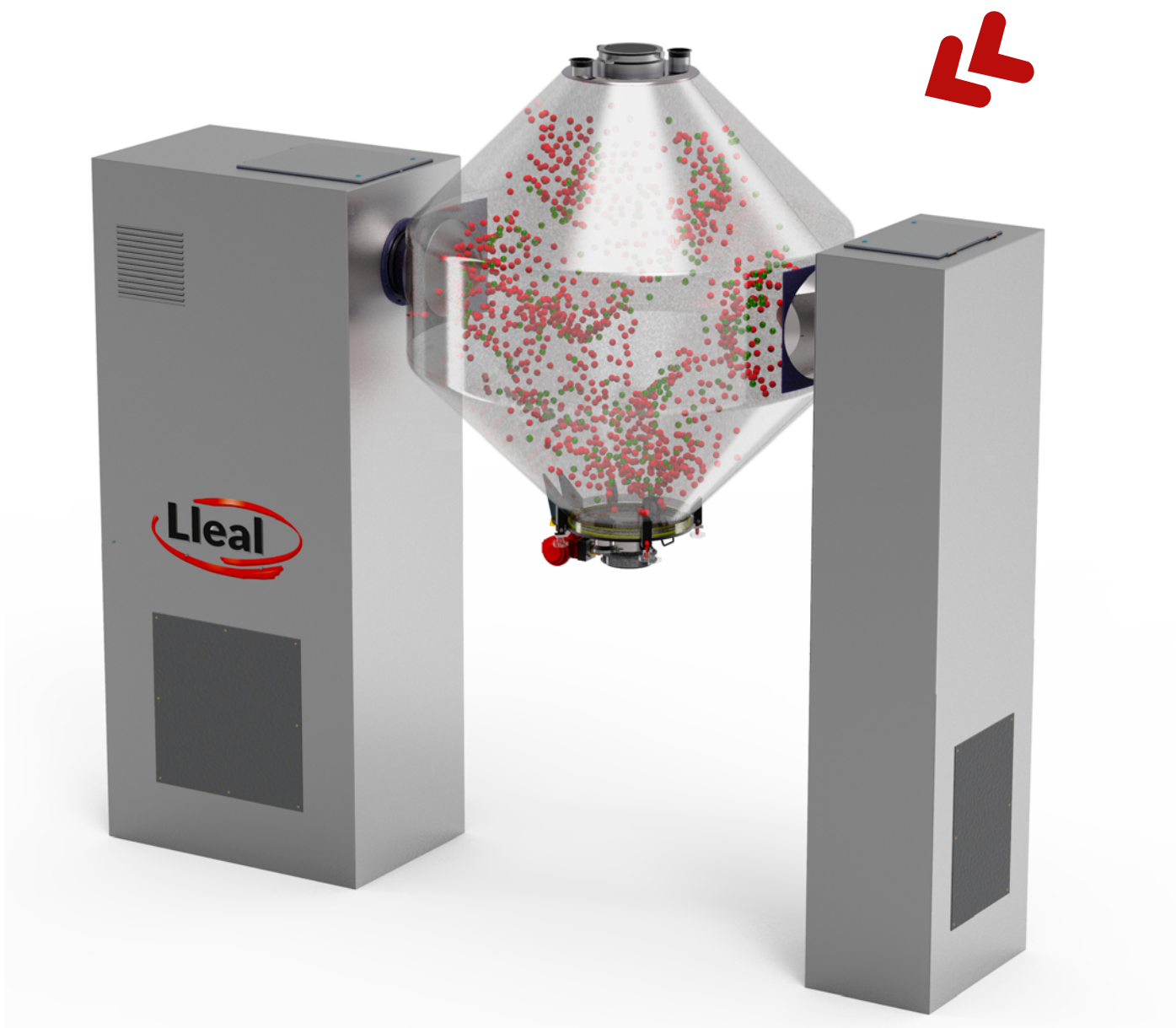


# BICONICAL SOLID BLENDER BC



# LABORATORY UNIVERSAL MIXER

MIBL

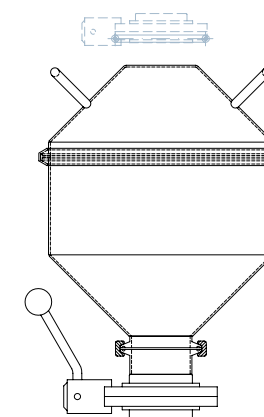


For gentle mixing of solids in small batches for research in R&D laboratories, Lleal has designed an interchangeable body mixer. This mixer enables the use of BIN type drums, "V" shaped bodies or biconical bodies, with a capacity range between 1 and 35 L in total.

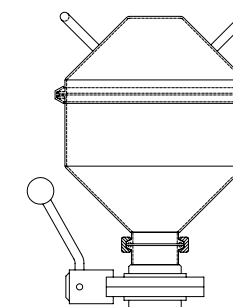
It consists of a bedplate in which the drive unit and the electrical panel are housed. It has an arm to support and rotate the mixing bodies, coupled to the drive shaft by means of a clamp.

For safety, the mixing body is surrounded by a tilting polycarbonate protection cabinet.

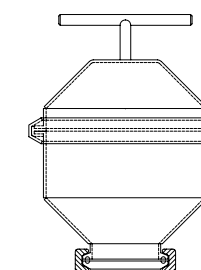
In order to facilitate the transport of the equipment as a whole, the bedplate is equipped with a base with wheels and a carrying handle.



10 L



5 L



1 L



contigo, paso a paso

The BC BICONICAL MIXER develops a mixing and homogenizing process with smoothness and without shearing. It mixes solids/solids and solids/liquids, in powder, flake or granulate form.

This mixer consists of a biconical body formed by two inverted cones welded to the central cylindrical body. The double cone is supported by two horizontal half-shafts on two vertical bedplate; a reduction gear is also included connected to the driving shaft which rotates for mixing of the product.

Due to its characteristic shape and by spinning at a critical speed, the product is tossed inside generating gentle sliding currents with gentle crossings as the horizontal section changes constantly from circular to elliptic. The result is a uniform mixture without deflecting blades or any other mechanical devices.



BC-2300 biconical mixer with a useful capacity of 1,500 liters, in pharma execution.



BC-4200 biconical mixer, designed for the manufacture of pharmaceutical products and installed in a clean room.

Its main application is for non-intensive mixing, for batch homogenization and, in general, for all those processes requiring a gentle mixing of solids avoiding particle and agglomerate breakage.

### CARACTERÍSTICAS

- » It is built in stainless steel AISI-304 and AISI-316L, and other materials with special coatings on the customer's request.
- » The biconical body is fitted with two openings (inlet and outlet) at the vertices of the cones.
- » Loading and cleaning inlet, provided with cover with hand-wheel lock.

» Discharge mouth, provided with a butterfly valve.

» It incorporates an intensifier mechanism designed to break up lumps, homogeneously disperse the load and shorten mixing times.

» Possibility of incorporating percentages of sprayed liquids through the intensifier.

» Interior mirror polished finish and exterior with different polishing grains according to requirements.

» Motors and electrical panels in protections: IP-55 or ATEX.

» Possibility of installing frequency converters so as to regulate the speed of rotation of the mixing body and the intensifier mechanism.

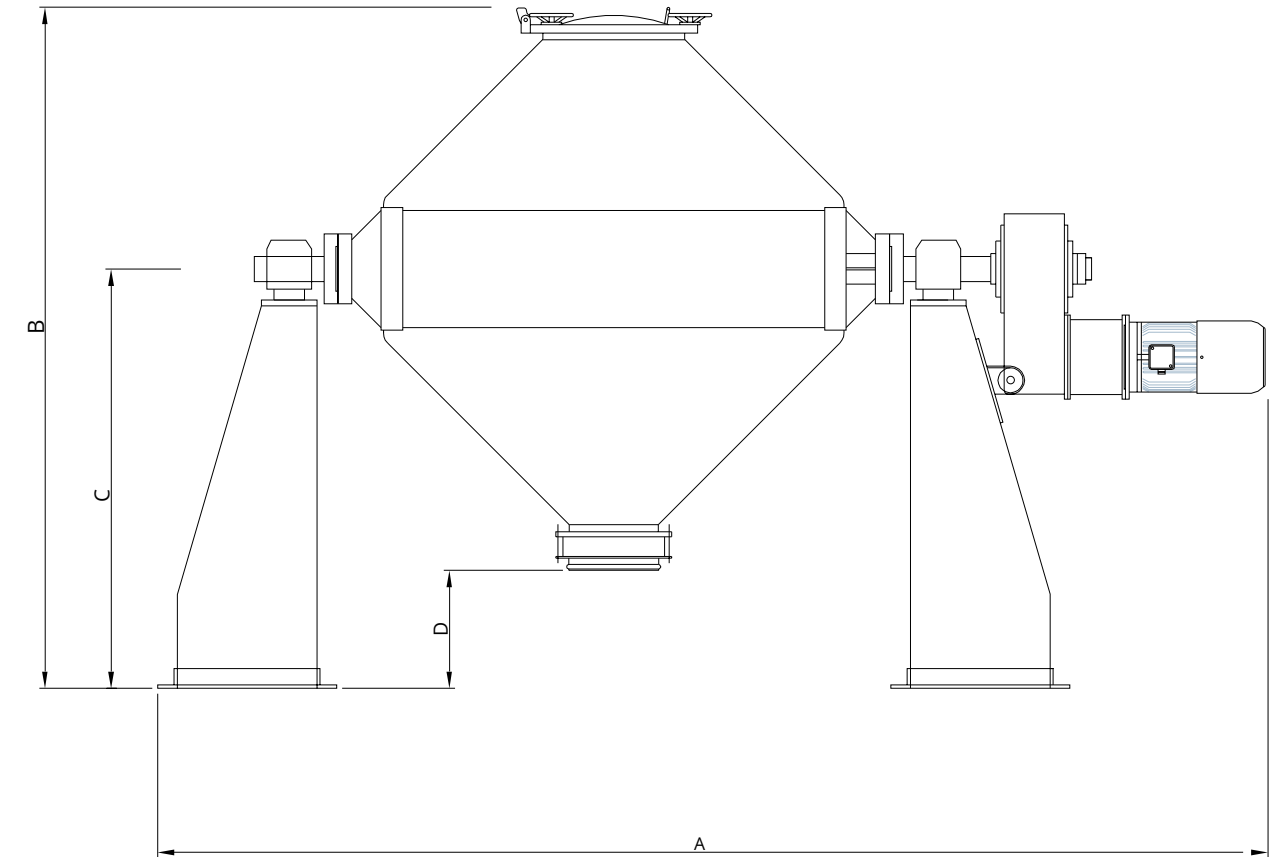
BC-5000 biconical mixer, with automatic discharge valve and extensible bellows to be coupled to the inlet of an S-50-T bagging machine, prepared for open-mouth bags.







## Technical data

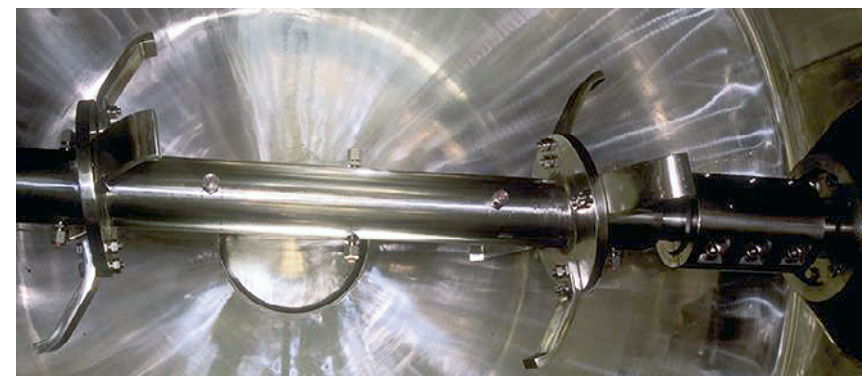


Model	Volume		Diameter of central cylindrical body (mm)	Diameter of loading inlet (mm)	Dimensions (mm)			
	Useful	Total			A	B	C	D
BC-50	32	50	470	200	1,275	1,410	1,030	650
BC-100	65	100	600	200	1,840	1,510	1,040	570
BC-250	165	250	800	300	2,325	1,635	1,050	465
BC-400	260	400	950	350	2,460	1,720	1,050	380
BC-600	390	600	1,100	400	2,685	1,835	1,060	285
BC-1000	650	1,000	1,300	400	3,210	2,375	1,500	625
BC-1400	910	1,400	1,450	400	3,450	2,470	1,500	530
BC-2000	1,300	2,000	1,650	500	3,735	2,590	1,500	410
BC-3300	2,145	3,300	1,950	500	4,440	2,860	1,510	160
BC-4200	2,730	4,200	2,100	500	4,675	2,910	1,540	170
BC-8000	5,200	8,000	2,600	500	5,400	3,440	1,890	190
BC-12000	7,700	12,000	2,966	550	6,440	3,653	1,905	32

## Optional accessories

This mixer offers the possibility of mounting an **INTENSIFIER SHAFT** enabling to break the lumps, favoring the mixing, and shortening the process times. It is made up of a horizontal bar, installed inside the mixer body, equipped with small percussion hammers, and rotating independently of the mixer body. It acts as an intensive agitator, thereby reducing the time and increasing the quality of the mixture. Furthermore, it destroys and crushes all types of agglomerates or granules and disperses small doses of additives, colorants, vitamins, etc. with great efficiency.

The BC biconical mixer may also incorporate a **LIQUID INJECTOR** allowing small doses to be added to the solids in the mixing process. The liquid is injected through the intensifier bar which, in this case, is equipped with spray nozzles, distributing the liquid homogeneously. It can be fed by means of a peristaltic pump or through a pressurized tank.



Detail of the intensifier shaft

**AUTOMATIC LOADING AND UNLOADING SYSTEMS.** The equipment can incorporate a system for loading and unloading solids by installing an extensible bellows in the unloading spout by means of a support fixed to the bedplate, or directly in the loading or unloading spouts of the auxiliary equipment. This bellows is driven by two pneumatic cylinders with flange and sealing coupling gasket, operated by a rotary mechanism enabling the entry of compressed air for the extension of the bellows and the opening of the automatic discharge valve

This system is operated from the push buttons installed in the electrical panel.

**AUTOMATIC STOP POSITIONER.** Electronic system enabling to program the mixer stop positions for loading and unloading.



View of three bi-conical mixers models BC-1000 and BC-600, with pneumatic valves mounted on the two mixer mouths and extendable bellows for product discharge.