



RCB

Vertical Mixer for Battery Industry

The **Vertical Mixer for Battery Industry (RCB)** represents the synthesis of years of experience in the process of lithium materials Cathode and Anode in the battery sector. Conceived with a special design able to transfer all the energy necessary to the products to be mixed, while maintaining a delicate treatment of the material, guaranteeing a perfect ingredientisation of the Lithium and the additives.

PRINCIPLE OF OPERATION

During the loading phase, the blades rotate at a reduced speed, then the speed is automatically increased by the Software Control until the perfect homogenization of the product is obtained.

To avoid degradation of the product, the mixing chamber and optionally the blades are cooled with a closed water circuit.



MAIN FEATURES

EASY AND FAST CLEANING

Thanks to the internal design with larger vessel radius, without product stagnation points, and the fully openable lid with the possibility of positioning it outside the machine and opening it vertically, the mixer can be cleaned in a very short time.

HIGH PERFORMANCE

Innovative design of the mixing tools, based on the principle of mechanical fluidization of the product engineered to optimize the mixing processes.

This ensures that ingredients with different particle sizes and bulk densities are mixed perfectly and with high precision within the shortest possible time.

Robust construction, entirely manufactured in AISI 304 stainless steel to prevent any contamination of material with magnetic fragments.

MANY SIZES

RCB mixers are available in several sizes (from 500 Lt to 3000 Lt) to best fit the lithium mixing process requirements.

INSTALLATIONS

All CACCIA MyX are fully tested in house before shipping. In addition they can be equipped, as an option, with PLUG and PLAY configuration, where all cables are supplied with the equipment at an agree length, therefore the installation is an easy step.

CONTROL SYSTEM & INDUSTRY 4.0

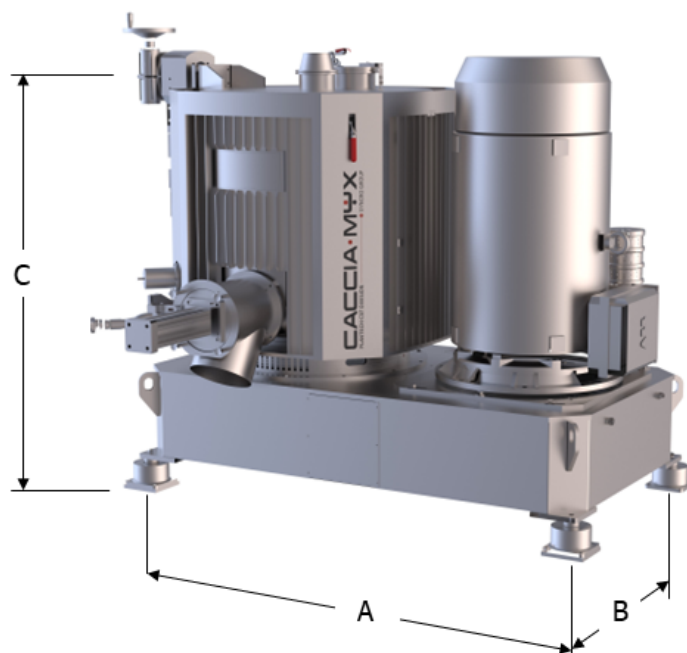
All the control systems are state of the art and intellectual property of CACCIA MyX.

The PLC is supplied with OPC/UA protocol embedded, which makes each mixer control ready for industry 4.0. The controls are equipped with a user-friendly HMI touch screen (7"-9"-15,6").

AVAILABLE OPTIONS

- Available in ATEX, NEMA UL/CSA versions.
- Nitrogen inerting
- Tyger Cloud Remote control.
- JF - Jet Filters
- Extensive range of additional equipment for individual adaptation to customer requirements.

TECHNICAL DATA

**Configuration**

- Standard configuration of the vessel is: AISI 304 internal and external wall
- HVOF sprayed coating over discharge chamber, and internal of the vessel lid
- Mixing tool technologies for distributive and dispersive mixing
- Extra-large diameter for discharge valve
- Extra-large bearing
- Large radius of the vessel bottom to reduce the internal cleaning time

Option

- Water cooled blades
- Tungsten carbide coating on the internal wall over AISI 304
- Ceramic tiles coating on the internal wall over AISI 304
- Internal vessel wall manufactured in Duplex type Stainless Steel

Technical Data

- Motor sizes: from 22 kW till over 600 kW
- Motor Servo ventilation : on request
- Water cooled motor: on request
- Motor Class standard: IP55
- Motor Efficiency standard: IE 4
- Voltage 230 - 690 / 3 / 50 – 60 HZ.
- Option mid voltage up to 6.000 Volt

RCB Sizes	Usable Volume Liter	Weight for Batch Kg range		Power kW Drive rating kW		A	B	C	Weight Kg
		Bulk density: 0.7 Kg/Lt	Bulk density: 1,6 Kg/Lt	Standard	Reinforced				
RCB 500	300	210	480	75	132	2750	1250	1830	2850
RCB 1000	600	420	960	200	450	2980	1450	2050	5250
RCB 2000	1200	840	1920	450	500	3700	1850	2560	8350
RCB 2500	1500	1050	2400	560	610	3700	1850	2850	9780
RCB 3000	1800	1260	2880	560	700	3700	1850	3500	10250
Special sizes and other configurations are available on request									
NOTE: The data in the table are given merely by way of example and will have to be confirmed by CACCIA MyX									