

Automatic Capsule Filling Machine CFK 1500



UPMACH's automatic capsule filling machine can accurately fill powder or pellets for capsule sizes ranging from #00 to #5. The newly designed CFK series fully automatic capsule filling machines fill between 90,000 to 210,000 capsules per hour. Automatic capsule filling machines are designed and manufactured in accordance with GMP standards. The whole machine functions using an intermittent rotary mechanism with tamping filling. CFK series automatic capsule fillers have a beautiful appearance with stable, easy operation, low noise, and cleaning.

With the renewal of pharmaceutical machinery, how to improve the automation and production efficiency of pharmaceutical equipment has become an urgent requirement. In order to meet the needs of production and development of large, medium and small pharmaceutical plants, UPMACH has successfully developed the CFK Series Automatic Capsule Filling machines that are based on the original filling machines of **NJP Series Automatic Capsule Filler**. The CFK Series Automatic Capsule Filling Machines produced by our factory, combine the essence of past technology with modern innovation and improvements. The CFK series Capsule Filling Machines have been enhanced in terms of technical design, station transmission, cleaning, control systems and more. The technical

features of our Automatic Capsule Filling machines have surpassed the international standards of similar products around the world. CFK Series Automatic Capsule Filling machines are high-tech products that masterfully integrate mechanics, electricity and air. What's more, it is also the most ideal and perfect filling equipment for capsule medicine.

Features:

- 3 models (CFK1500, CFK2500 and CFK3500) can be chosen meeting different production capacities from 90,000 capsules per hour to 210,000.
- The machine is able to handle a wide range of capsule sizes ranging from #00 to #5.
- The machine is able to fill capsules with powder or pellets. The capsule filling machine comes with a powder dosing system and a pellet filling device is an option.
- Quick changeover time between different capsule sizes increases production efficiency. UPMACH also offers detailed tutorials of tooling change, a step by step guide without any steps skipped!
- Only 1 operator is required to operate the machine, thus saving labour costs.
- Siemens PLC and touch screen control. Intuitive 10-inch HMI operation system that can easily control all the processes.
- The enclosed main turntable is beneficial for simple cleaning and maintenance.
- Material level sensors are equipped for powder and capsules which make the capsule filling machine user friendly.
- Tooling module cleanup by means of vacuum in each cycle.
- Bearings are original from Japan which can guarantee the capsule fillers to work stabler and consistently.
- Safety measures are strictly applied on our CFK series automatic capsule filling machines – fit with an emergency stop button, automatic shut off switch on 4 doors.
- UPMACH has a large stock of spare parts as well as custom parts and can timelessly ship them to customers .
- CFK Series Capsule Fillers are strictly designed and manufactured by the guidance of GMP requirements.
- 3 models are CE marked.
- The UPMACH originally created double RU110 indexing drives that are adapted on the CFK series automatic capsule filling machine to improve the stability and service life of the machine.
- The drive cam of all stations has improved. The inner groove wheel transmission is made of high-quality special steel, which eliminates the disadvantages of easy fatigue and fracture of spring pulling, and it is wear resistant and stable in operation.

- All CFK series capsule fillers utilize the totally enclosed turntable design. The upper segments adopt two shafts to move up and down circumferentially and use high-quality imported seals to reduce powder feeding into the turntable. The lower segments adopt two shafts to move in and out circumferentially and also use imported seals to reduce powder dragging due to the back-and-forth expansion of the moving shaft. The double shafts are made of gland, which is convenient for disassembly and cleaning. It is not necessary to open the turntable to replace the sealing ring, so as to avoid the disadvantages of tedious installation after disassembling the turntable.
- Taking the lower plane of the dosing plate as the benchmark, the three-dimensional adjusting mechanism is adopted to eliminate the natural deformation of the dosing plate and the bronze plate. The gap between dosing plate and bronze plate is uniform. The phenomenon of powder leakage is reduced and the cleaning is convenient whilst filling accuracy is ensured.
- Uses a double row silicon rubber pad so no air source is required, and the capsule discharge device does not result in dust flying.
- The capsule vacuum positioning and separating mechanism can make the capsule loading rate more than 98%.
- The capsule control switch which is added is safer and more convenient.
- JOG control system is added to facilitate the humanized operation in production and cleaning.
- The modular closed powder filling mechanism is adopted, which is easy to assemble and disassemble and easy to clean.
- The 10-inch Siemens touch screen can alarm automatically when the capsule filling machine lacks capsules, powder or has a vacuum failure and the machine door releases.
- The capsule filling machine has an automatic timing lubrication system.
- The secondary dehumidification device of humidity in the filling room can be installed to solve the problem of poor dehumidification effect of filling workshop system and the operator's physical endurance limit. (option).
- The second dehumidification device in the filling chamber which can be added to solve the problem of poor dehumidification in the operation room (option).
- The segments cleaning and blowing structure can be added to solve the problems associated with separating capsules due to the strong adhesive powder deposition in the segments plane and segments cavity during production, which greatly improves the capsule loading rate. (option).
- The mechanical transmission part of the new layout design is replaced by the "inner cam" with the traditional "workbar" filling transmission mechanism that increases the filling force

and makes the machine run more quietly and smoothly. It is rare in the same class of products.

- The all-new redesigned mechanical transmission part uses “inner cam” to replace the traditional “work bar”, which increases the filling force and makes the capsule filling machine run more quietly and smoothly.
- Increasing multi-curved surface adjustable powder retaining structures, lateral oblique and side-inclined feed structures uniformly distribute the powder in the powder storage chamber allowing for the correct flow direction with smooth flow velocity is and an accurate loading precision.
- The capsule closure cleaning device is added, whereby having been locked the capsule, the capsule closure cleaning block works to remove the fine dust raised during locking.
- The newly designed powder feeding device has a compact structure, which is convenient to disassemble and assemble, and is easy to clean.

Technical Parameters:

Model	CFK1500	CFK2500	CFK3500
Max. Capacity (capsules/h)	90000	150000	210000
No. of segment borings	11	18	25
Suitable for capsule	000#; 00#; 0#-5#		
Main voltage	380/220V 3 pH 60/50 HZ		
Power (kw)	motor: 2.2; vacuum: 3; dust collection: 2.2		motor: 2.2; vacuum: 4; dust collection: 2.2
Vacuum requirements	72m3/h; (-0.03) to (-0.05) Mpa		120m3/h; (-0.03) to (-0.05) Mpa
Dust collection	20Kpa; 210m3/h		
Weight (kg)	1400	1650	2500
Overall size (mm)	1230×1175(+382)×1955		1435(+550)×1248(+280)×1960