



LGP Series – Roller Compactor



The roller compactor is an advanced, eco-friendly granulation machine developed after the "one-step granulation" method. It compresses powder into granules, making it ideal for pharmaceutical, chemical, and food industries. This process is particularly suited for powders sensitive to moisture and heat, with granules ready for packaging, tablet pressing, or capsule filling.

LGP Series Roller Compactor is a new model successfully developed by China Canaan through extensive absorption and digestion of advanced foreign technologies, combined with our national conditions. The power components are spatially isolated from parts that come into contact with materials, and all components in contact with materials are easy to disassemble and clean. The application of various advanced technologies has greatly improved the range of materials that can be processed, as well as the quality and yield of the granules. The implementation of multiple automatic control technologies has further increased the degree of automation of the machine. Additionally, the design, from layout to details, is meticulously crafted to effectively prevent cross-contamination of materials, and measures to reduce the purification area fully comply with GMP requirements for pharmaceutical production.

Working Process

1. **Mixing:** The dry materials are mixed thoroughly to ensure uniform composition.
2. **Charging Material:** The mixed dry material is charged to the top receiving port using a specific charger, either by vacuum or lifter.
3. **Transfer to Pressure Chamber:** The material is then transferred to the pressure chamber by a conveyor screw (optional item for vacuum charging or lifter).
4. **Compaction into Slabs:** In the pressure chamber, two high-pressure rollers exert force on the material, extruding it into high-density slices.
5. **Cutting System:** The high-density slices pass through a cutting system, which cuts them into uniform-sized granules.
6. **Milling System:** The cut granules then undergo processing through two-level milling systems to ensure uniformity in size.

7. Final Product: The resulting granules have a uniform size, significantly increased bulk density, and good appearance and flow ability for easy storage and transfer.
8. Temperature Control: Throughout the entire process, the material compression time is short, and the temperature is strictly controlled to protect active components. This process is particularly suitable for thermosensitive and humidity-sensitive products.

Features

1. Follow the regulations of c GMP, PIC/S GMP, FDA.
2. Double screw feeding system, greatly improves density and yield.
3. Vacuum system for screw feeder.
4. All the parts contact with material can be disassembled completely and cleaned easily.
5. Casting extrusion box, prevent deformation under pressure and ensure roller working precision.
6. Both rollers have three-side adjustable scraper (USA Patented)

Parameter

型号	LGP200/85 II
压辊尺寸Roller SIZE $\phi \times W$ (mm)	200 × 85
颗粒大小Granularity (目mesh)	80-10
生产能力Output (kg/h)	40-350*
最小批量 (kg)	2*
工作压力Maximum Forming Pressure (bar)	240
螺杆转速Screw Feeding Rotating Speed (rpm)	20-220
压辊转速Roller Rotating Speed (rpm)	4-40
整粒转速Granulating Rotating Speed (rpm)	20-210
真空脱气压力Vacuum Relidf Pressure (bar)	负0.2 ~ 0.5
压辊温度Rolling Temperature(℃)	小于40
总功率Total Power (kw)	20.6
总重量Weight (T)	2.2