

Fully Automatic Capsule Filling Machines



DCF-Series



Dumra Machines' DCF series is a Fully Automatic Capsule Filling Machines for filling powders, pellets and tablets in hard gelatin capsules. Other combination such as powder+pellets, pellets+pellets, powder+tablets, pellets+powder+pellets can also be offered under customised machines.

A large variety of powder formulation can be filled into hard gelatin capsules. This machine uses a **Tamping Process** to form a slug that is inserted into the empty capsule. Pellet filling and tablet filling devices are available as an optional attachment.

The process of capsule filling ensures automatic capsule alignment, separation, filling, capsule closing, ejection of unseparated capsule and discharge of filled capsules. These versatile machines with several outstanding features can fill the entire range of hard gelatin capsules sizes from '00' to '4' with high filling accuracy.

The machines are designed to give an output of 25000 capsules [DCF 25k], 40000 capsules [DCF 40k] and 90000 capsules [DCF 90k] per hour. The actual output depends on the quality of capsules, characteristic of the filling material and ambient temperature condition.

The machine control is by PLC with users friendly HMI. The machines fulfills cGMP standards with various safety features and minimal cleaning.

Salient Features:

- cGMP compliance model.
- Simple to operate and easy to maintain.
- Easy and simplified changeover of Capsule.
- Size and powder with Special purpose gauges.
- High accurate Filling by Tamping Process.
- Fine adjustment of gap between Dosing Disc and Tamping Plate ensures minimum spillage of powder.
- Auto shut off for any malfunction.
- High yield due to higher filling accuracy and less powder wastage.
- Fills powder/pellets/tablets/micro-tablets.
- Level sensor in powder tub ensure continuous flow of powder.
- VFD for main motor for speed adjustment
- PLC with user friendly HMI enables Audio visual Message display of the operating parameters Auto shut off for any malfunction.

FILLING POSSIBILITIES AND COMBINATION



Technical Specification:

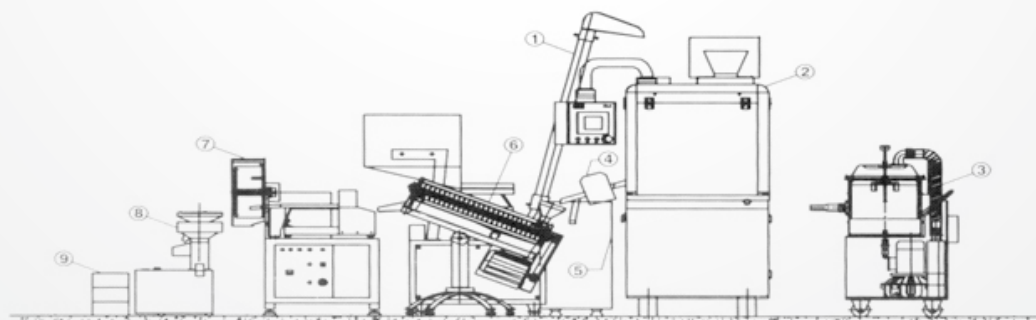
Model	DCF - 25K	DCF - 40K	DCF - 90K
Max. Output	25000/hour	40000/hour	90000/hour
Power Supply	415 V, 3 Phase, +N +E, 50 Hz AC [or according to Customer Specification]		
Main Motor	1.1 KW[1.5 HP]	1.5 KW[2.0 HP]	1.5 KW[2.0 HP]
Powder feed Motor	0.18 KW[0.25HP]	0.18 KW[0.25HP]	0.18 KW[0.25HP]
Vacuum for Capsule Separation	1000 LPM of 18”Hg	1000 LPM of 18”Hg	1100 LPM of 18”Hg
ADU for cleaning	2800 LPM at 4” of Hg	2800 LPM at 4” of Hg	2800 LPM at 4” of Hg
Compressed Air	225 LPM at 6 kg/cm2	225 LPM at 6 kg/cm2	300 LPM at 6 kg/cm2
Connected Load Machine:	approx 1.5 KW [2.0 HP]	approx 2.0 KW [3.0 HP]	approx 2.0 KW[3.0 HP]
Machine+Vacuum pump+ADU:	approx 7.5 KW[10.0 HP]	approx 8.0 KW [11.0 HP]	approx 8.0 KW[11.0 HP]
Dimension [LxBxH] in mm	1000 x 900 x1900	1210 x 955 x1900	1560 x 1290 x2050

Environment: Humidity and room temperature are very important parameters to ensure proper flow of capsules and product powder. Failure to control this parameter can result in the malfunction of the orientation system leading to jamming of the capsules.

Room Temperature :20°C to 25°C

Relative Humidity:40 to 50 % RH

Automatic Capsule Filling Machine with online equipments.



1. Empty capsule sorter elevator DSE- 100
2. Automatic capsule filling machine DCF- 40k
3. Air displacement unit ADU -200
4. Metal Detector
5. Auto sampling check weigher
6. Polishing machine DCP-100
7. Mini Capsule sorter DCS-100
8. Unfilled Capsule Separator DUCS-100
9. Capsule ready for blister packing (Drum)

Dumra MACHINES

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