

ROLL COMPACTOR :

Description :

The process of compaction is used to increase the bulk density of fine powder particles. This is achieved by passing them between closely held rollers to form solid compact sheet. The compaction process can be affected by roll surface and diameter, peripheral speed, separating force or pressure capabilities, feed screw and basic compaction characteristics of the material being used. Powder material properties can be improved by addition of a suitable binder, which facilitates better bonding between particles and keeps the production of fines to the minimum.

Technical Specifications:

MODEL	RC-200/50 (PLAIN MODEL)	RC-200/75 (PLAIN MODEL)	RC-200/100 (PLAIN MODEL)
Output*	20 to 50 kgs / hour	75 to 100 kgs / hour	100 to 250 kgs / hour
Roll Size	200 mm (dia) x 50 (w)	200 mm (dia) x 75 (w)	200 mm (dia) x 100 (w)
Roll Speed (step pulley drive)	5 to 25 rpm	5 to 25 rpm	5 to 25 rpm
Roll Surface	(a) Smooth (b) Corrugated (c) Knurled (d) Briquetted	(a) Smooth (b) Corrugated (c) Knurled (d) Briquetted	(a) Smooth (b) Corrugated (c) Knurled (d) Briquetted
Feed screw speed (through ac variable frequency drive)	10 to 60 rpm	10 to 60 rpm	10 to 60 rpm
Roll drive motor	5 HP / 960 rpm / 415 V / 3 phase / 50 Hz	5 HP / 960 rpm / 415 V / 3 phase / 50 Hz	5 HP / 960 rpm / 415 V / 3 phase / 50 Hz
Feed screw drive motor	3 HP, 1440 RPM, 415 V, 3 PH, 50 HZ	3 HP, 1440 RPM, 415 V, 3 PH, 50 HZ	3 HP, 1440 RPM, 415 V, 3 PH, 50 HZ
Overall dimensions (in mm)	1060(W) x 1160(B) x 2030(H)	1060(W) x 1160(B) x 2030(H)	1060(W) x 1160(B) x 2030(H)
Net weight	1500 Kg	1500 Kg	1500 Kg
Case Dimension	1420 x 1520 x 2280 mm	1420 x 1520 x 2280 mm	1420 x 1520 x 2280 mm



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Salient Features :

- Design conformance to cGMP
- Very compact design available in Plain Model
- Feeder Screw is driven through AC variable drive & Safety clutch provided between gearbox and feed screw.
- Rolls drive through twin shaft gearbox with speed drive unit coupled to it using coupling, which ensures synchronization of the rolls with a steady torque loading.
- Pre-densifier screw comprises of cylindrical or conical shape, which is well polished and made of AISI SS-304 quality material.
- Compacting rolls sleeves are made out of Alloy steel, hardened to 55 HRC approximately and are keyed in to shafts and thus protected against axial slipping by thrust plates and bolts.
- The feed screw assembly can be lifted by hand-operated hydraulic pump. This facilitates ease in cleaning.
- Scrapper assembly also designed to dismantle for ease of cleaning.
- Pre-compression chamber guides the powder without any slippage or leakage.
- Control panel with swing arm consisting of ON/OFF Push Buttons, Forward/Reverse switch, Ammeter, RPM indicator for roll and feed screw, speed regulator for feed screw and emergency stop with all safety measures are provided. Extra power control panel is fitted on the machine with main switch.
- Machine supplied with corrugated roll surface as Standard.

Why to compact?

- To increase bulk density
- To achieve uniform particle sizes
- To improve solution and dispersion rates
- To achieve better granulation of sieve analysis
- To reduce process cost
- To control the production of dust
- To produce uniform blends or mixture

Optional Features :

- Water jacketed design for extremely heat sensitive products
- SS 316 made pre-densifier screw
- Flame proof motor
- Roll Surface – smooth / knurled and briquetted.

Note : Images Shown here are illustrative. As the design & manufacturing of Machines are subject to improvement, the product supplied will be as per our Techno-Commercial offer.