MANESTY
BB4

DOUBLE SIDED ROTARY TABLET PRESS

for medium batch tablet production

THE BB4 FOR MEDIUM BATCH TABLET PRODUCTION

All round sound reducing guards, interlocked to prevent the machine being operated unless the guards are closed.

Large paint free tabletting zone with plenty of space for ease of cleaning – absence of corner pillars.

Lower punch seals.

Manual grease lubrication to punch heads.

Ease of access to all main controls & lubrication through hinged front & rear panels.

Magnetic upper guard catches

Adjustable upper punch penetration as standard.

Feeders
non mechanical
feeders (open) fitted as standard –
mechanical feeders available

Double sided take off

Interlocked handwheel guard.

Anti-vibration mounts.

Feeding of Material

SIMPLICITY OF OPERATION – ACCURACY – RELIABILITY – these are the features of the BB4 feeders.

Quick release feeder clamping screws facilitate easy feeder removal for cleaning between product changes, whilst effective feeder levelling ensures that the feeder bases can be easily set and maintained at the correct height. Subsequent feeder removal for cleaning can be made without the need to reset the feeder bases.

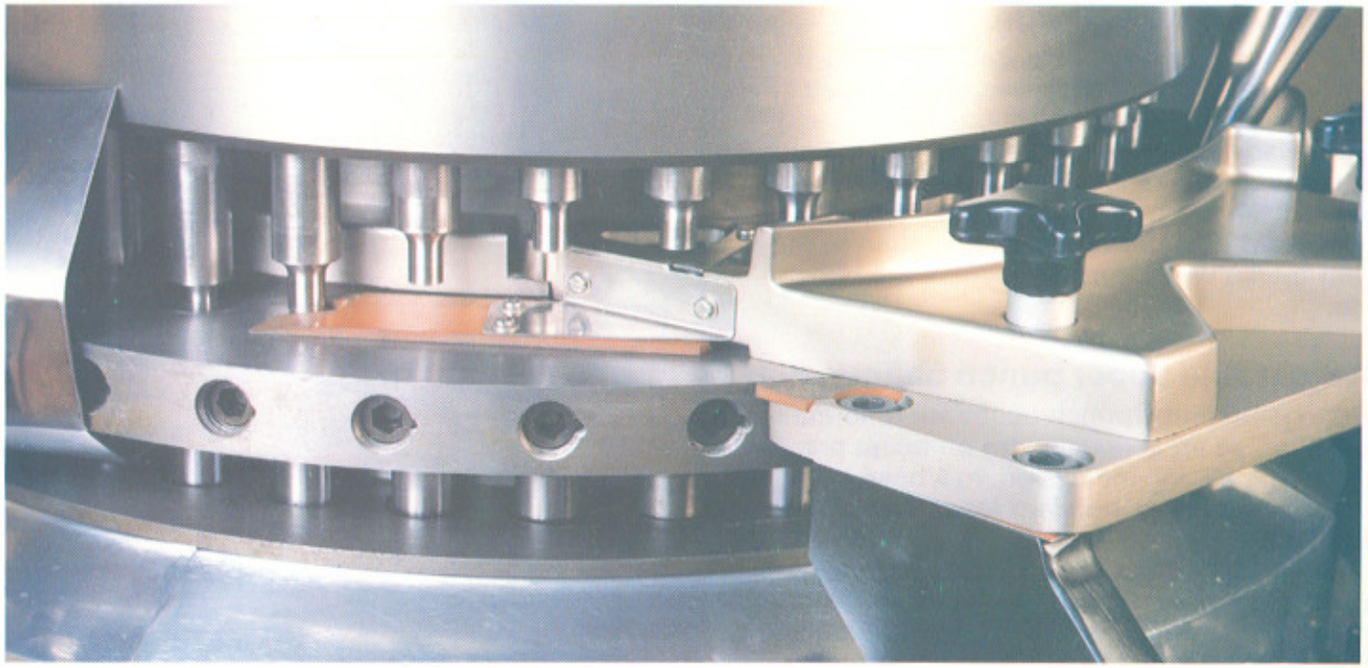
Design improvements to achieve higher tablet output

The powder recirculating band, which is fitted to the feeder as a standard feature, keeps powder losses to an absolute minimum. This is a distinct advantage in a machine capable of making over a ¼ million tablets per hour.

An extended tail over die ensures that the die fill is covered until the moment of compression thereby assisting higher tablet output with greater weight consistency.

Powder inlet setting

The powder inlet setting is adjustable from the hopper support bracket obviating the need to shut down the machine and open the guards before making any adjustment.



Optional rotary feeders

Although the BB4 is supplied with open feeders (non-mechanical) as standard, rotary feeders (mechanical), controlled by selector switches from the front panel, can be supplied as an optional extra. The independent motors are pre-set at a fixed speed both to prevent alteration during operation and to give the optimum paddle speed for a wide range of products.

Improved cam design

The greatly improved cam track design with smooth cam angles improves upper punch entry, facilitates tablet ejection and significantly reduces punch head wear. An additional feature which is of particular benefit when irregular shaped tooling is being used, is the manual grease lubrication to the cam tracks which further extends the punch life.

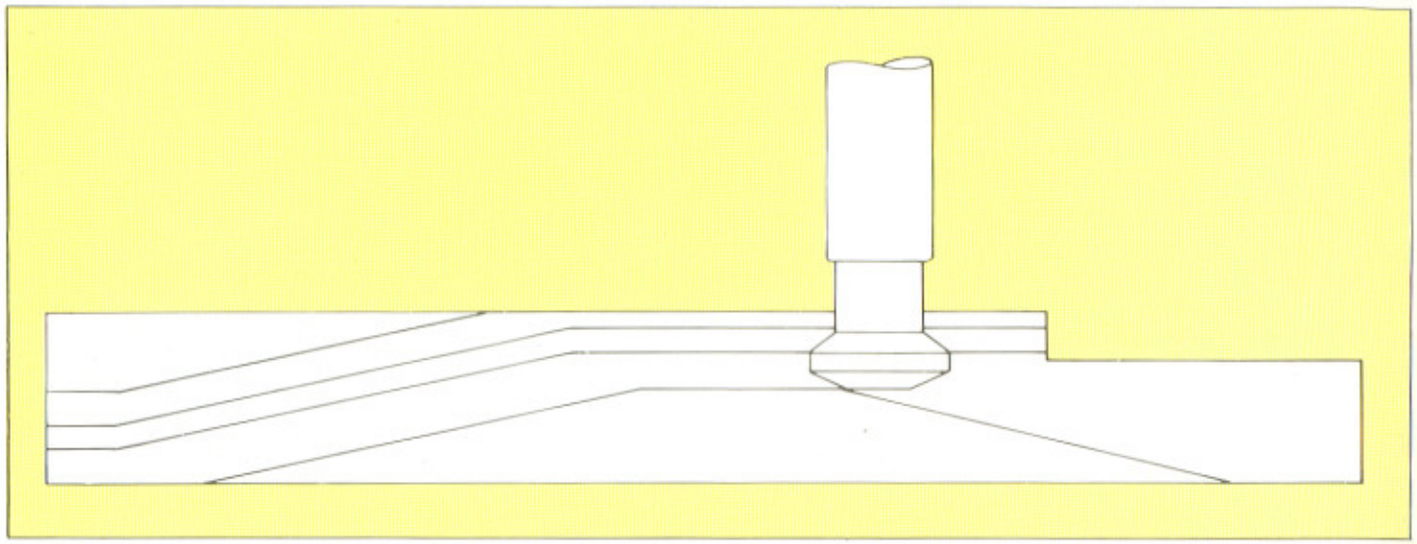
Adjustable upper punch penetration

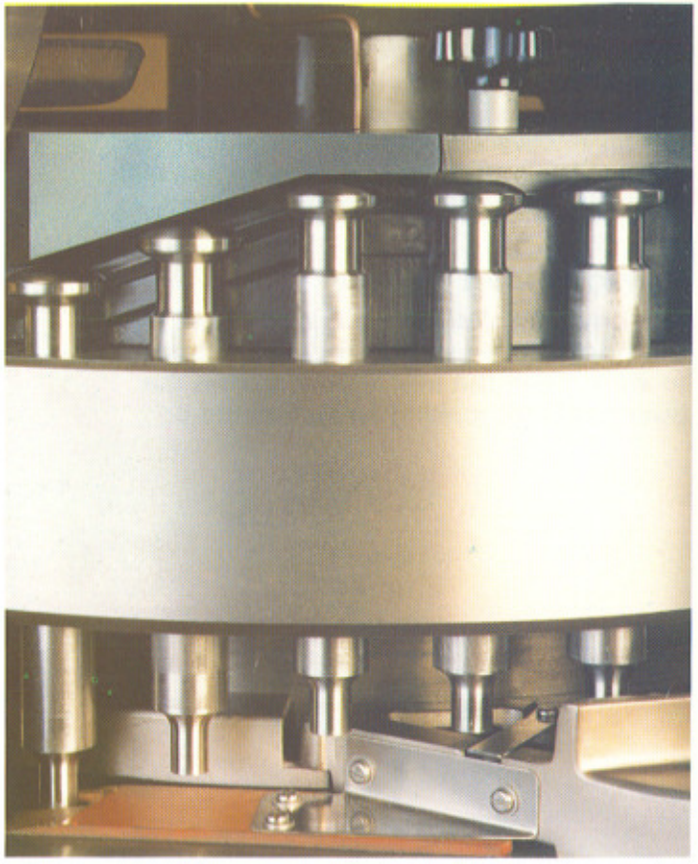
Adjustable upper punch penetration normally supplied as an optional extra on tablet presses of this economy and design, has been incorporated as a standard feature on the BB4.

Adjustable upper punch penetration allows variation in the position at which the tablet is made in the die. This assists the production of two layer tablets, and will also prove highly beneficial when tabletting difficult products or making very shallow tablets. Its use can reduce ejection loads leading to extended punch head life. Extended die life can also be obtained by reversing the dies.

Lower punch scraper seals

The lower punch guides are protected by scraper seals which minimise the possibility of tight lower punches caused by the possible ingress of powder into the punch guide holes. This results in reduced wear and extended tool life in addition to enabling the machine to run for longer periods between cleandowns.





Cleanability

Good manufacturing practice was firmly borne in mind during the design of the tabletting zone resulting in a completely paint free tabletting area.

The removal of the corner pillars and the wide upper guards gives excellent access to the area for cleaning purposes, whilst the relocation of a large majority of the usual fittings minimises the number of inaccessable dust traps, thus facilitating not only easy but more thorough cleaning. This gives the benefits of reducing the danger of cross contamination and faster cleaning times.

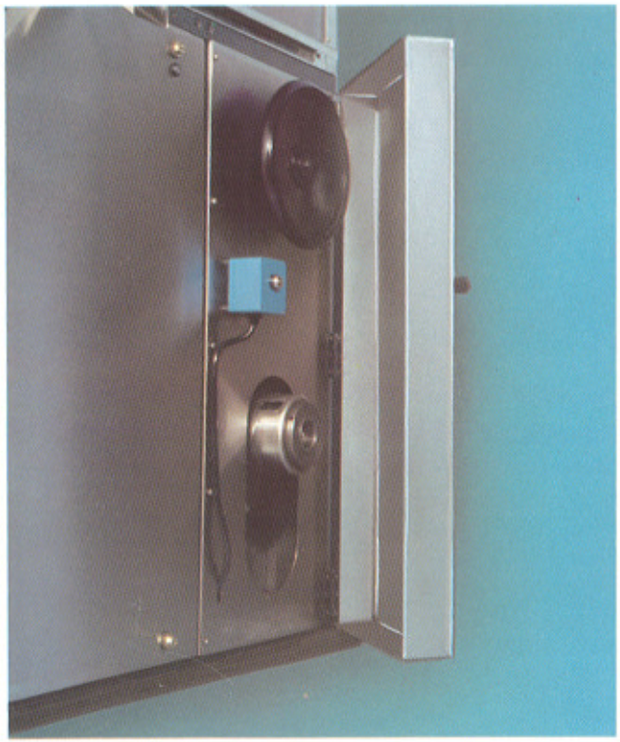
Obviating dust hazards

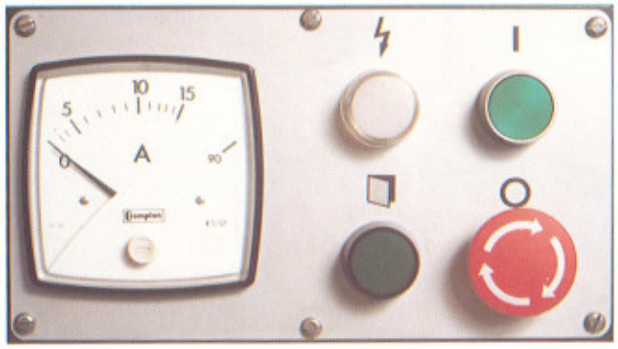
Because efficient dust extraction is essential in high speed tabletting, the BB4 has been fitted with screened air inlet ducts on top of the cabinet to ensure a controlled air flow through the cabinet to the dust extraction nozzles.

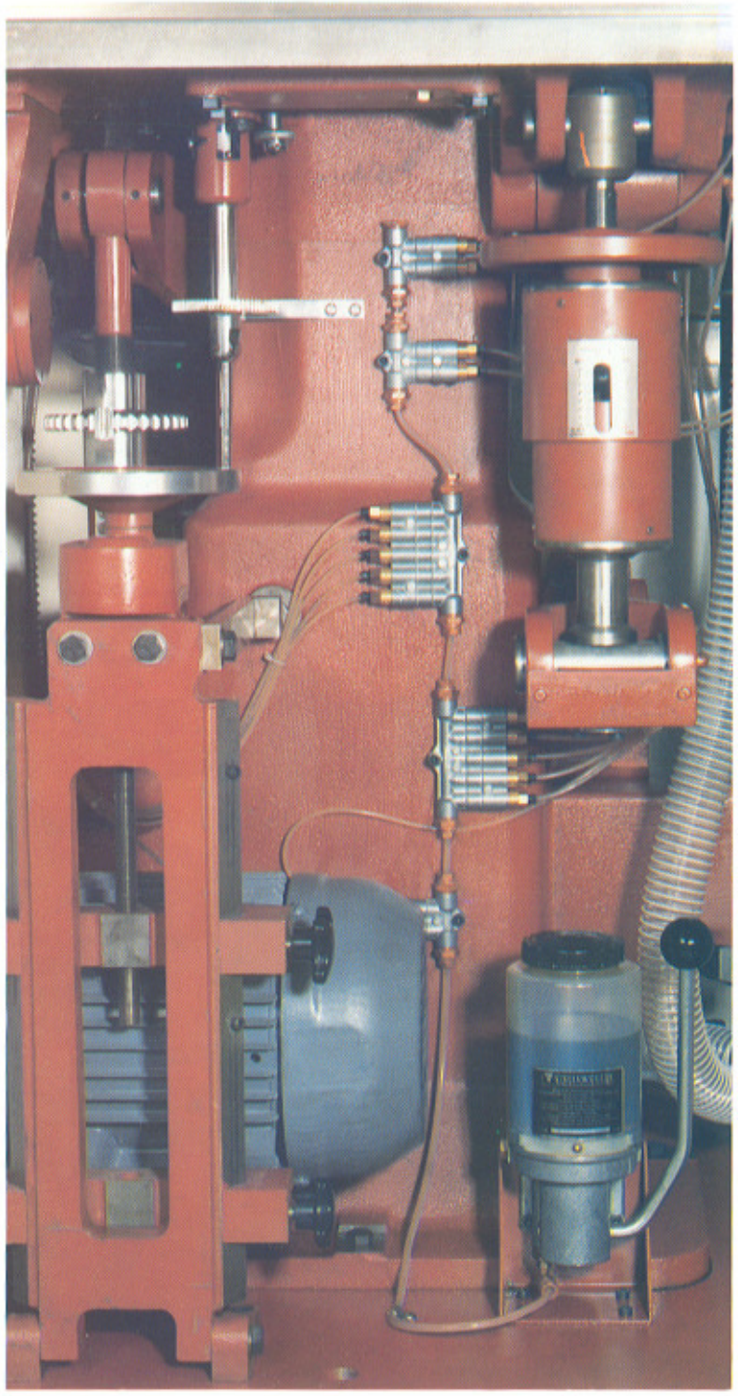
Suitable dust extraction units can be supplied for fitting to the BB4 when a centralised system is not available.

Operator safety

With safety in mind, all upper guards and the handwheel guard have been fitted with interlock switches, ensuring that if a guard is opened whilst the machine is running, the machine will immediately switch off. A guard operating light is incorporated into the machine control panel.







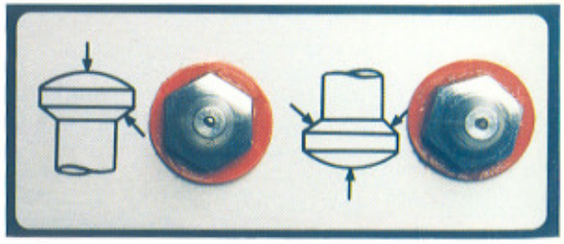
Maintenance

Hinged front and rear panels allow full access to all major controls and the one-shot lubrication system. These are not interlocked, there being no moving parts in this area, and all major adjustments may be carried out safely while the machine is running.

The one-shot lubrication system delivers oil to all major lubrication points, whilst grease to the punch heads is made by means of the grease nipples set in the apron of the machine.

Overload pressure release

The overload pressure release is in effect the safety valve of the machine and has been fitted to both the lower pressure rolls. Easily adjusted from the lower cabinet the overload pressure release should always be adjusted to relieve the pressure with the minimum of effort consistent with the diameter and hardness of the tablets being made. This system if properly set and maintained will prevent serious damage to both the machine and punches that could occur from overloading.



Drive Arrangement

The turret is driven by means of a precision phosphor bronze worm fitted to a bearing mounted wormshaft, which is driven by a vee belt and vari-speed pulley mounted on the motor shaft. Speed adjustment is achieved by raising or lowering the motor on its slide by means of a handwheel.

Small adjustments may be made to the engagement between the worm and wormwheel to allow for any slight wear that may occur during the life of the machine.

The machine life is extended by the ability to make minor adjustments between the worm and wormwheel to allow for any slight variations that are caused by wear.

Motor Overload

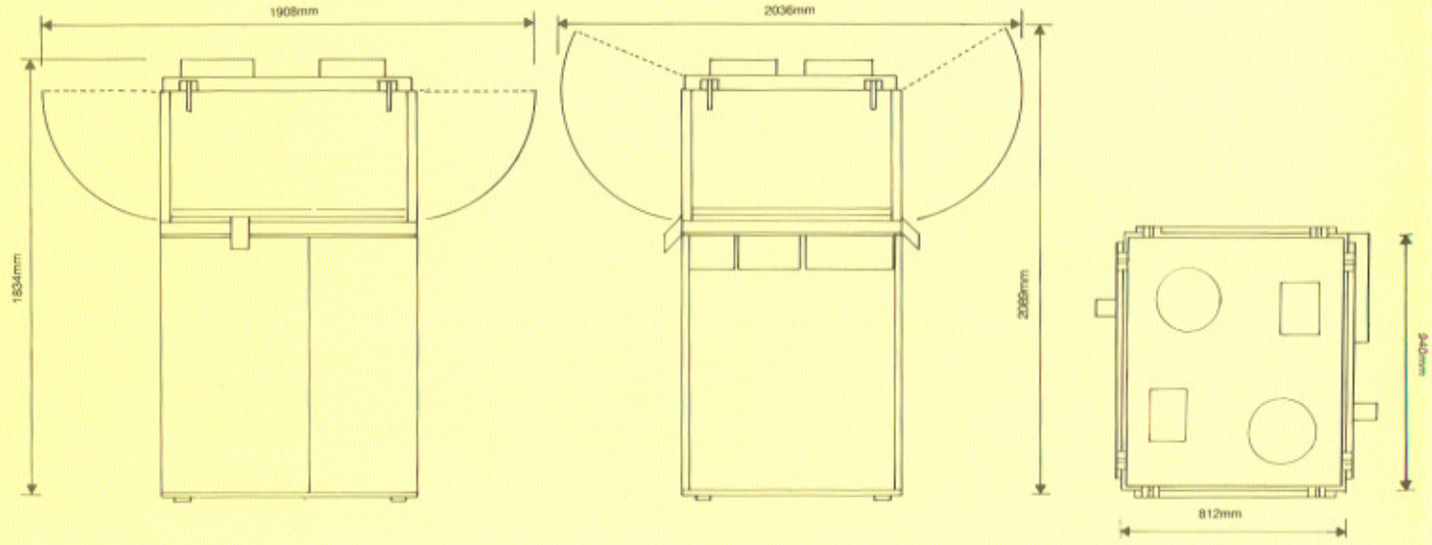
An ammeter is fitted to the control panel to indicate any appreciable motor overload that might occur, for example, through tight punches. When the machine is running normally making tablets the amperage should be noted and if any increase occurs the machine should be stopped and the fault investigated.

Additional optional features

- rotary feeders
- two layer parts
- restrictor plates for use with recessed dies
- light overload springs
- tachometer
- hydraulically operated overload pressure indicators
- shallow fill cams
- hopper vibrators
- slotted upper punch guides
- doubled sided lifting cams
- deduster mounting brackets

No. of Stations	27		35		45	
Output — Tablets per hour	54,000-162,000		70,000-210,000		90,000-270,000	
Maximum Tablet Diameter	5/8"	16mm	5/8"	16mm	7/16"	11mm
Maximum Depth of Fill	11/16"	17.5mm	11/16"	17.5mm	11/16"	17.5mm
Maxium Tablet Thickness*	11/32"	8.5mm	11/32"	8.5mm	11/32"	8.5mm
Upper Punch Entry	1/16-5/16"	1.5-8mm	1/16-5/16"	1.5-8mm	1/16-5/16"	1.5-8mm
Maximum Tabletting Pressure						
— Standard Spring	6½ Tons	6604Kg	6½ Tons	6604Kg	6½ Tons	6604Kg
— Light Spring	2 Tons	2032Kg	2 Tons	2032Kg	2 Tons	2032Kg
Pressure Roll Diameter	8"	203mm	8"	203mm	8"	203mm
Punch Pitch Circle Diameter	15 1/8"	384mm	15 1/8"	384mm	15 1/8"	384mm
Turret Speed	17-50r.p.m.		17-50r.p.m.		17-50r.p.m.	
Die Type	B		B		BB	
Die Diameter	1 3/16"	30.1mm	1 3/16"	30.1mm	.945"	24mm
Die Height	7/8"	22.22mm	7/8"	22.22mm	7/8"	22.22mm
Upper/Lower Punch Length	5¼"	133mm	5¼"	133mm	5¼"	133mm
Punch Body Diameter	¾"	19.05mm	¾"	19.05mm	¾"	19.05mm
Main Motor						
Power 1500 r.p.m. 50Hz	4HP	3KW	4HP	3KW	4HP	3KW
Power 1800 r.p.m. 60Hz	5HP	3.75KW	5HP	3.75KW	5HP	3.75KW
Electric	3 Phase		3 Phase		3 Phase	
Shipping Data:	Net Weight: 2520lb 1143kg Gross Weight: 3086lb 1400kg Case Dimensions: 119 × 123 × 236cm					

* Figures calculated for product with compression ratio of 2:1



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