



Guaranteed Pharmaceutical Machinery

MANESTY UNIPRESS **DIAMOND**
SPECIFICATION SHEET - #SS18.0599

DESCRIPTION	:	MEDIUM-OUTPUT, SINGLE-SIDED, TABLET PRESS WITH ONE STAGE OF STRAIN-GAUGED PRE-COMPRESSION			
APPLICATION	:	RESEARCH & DEVELOPMENT, PILOT PLANT AND MEDIUM OUTPUT PRODUCTION			
SPECIFICATIONS	:				
Number Of Stations	:	16(B)	20(D)	27(B)	34(BB)
Tablet Output Range(Per Hr.)	:	17,143 to 120,000	21,429 to 150,000	28,929 to 202,500	98,400 to 247,200
Pre Compression Maximum	:	1 Ton (10kN)	1 Ton (10kN)	1 Ton (10kN)	1 Ton (10kN)
Main Compression Maximum	:	6½ Tons (65kN)	10 Tons (100kN)	6½ Tons (65kN)	6½ Tons (65kN)
Depth of Fill Maximum	:	11/16" (18mm)	13/16" (21mm)	11/16" (18mm)	11/16" (18mm)
Upper Punch Entry	:	1-6mm	1-6 mm	1-6 mm	1-6 mm
Tablet Diameter	:	5/8" (16mm)	1" (25.4mm)	5/8" (16mm)	7/16" (11mm)
Capsule Major Axis	:	3/4" (19mm)	1" (25.4mm)	3/4" (19mm)	19/32" (15mm)

DIMENSIONS	:		
Floor Space	:	38" x 51"	(.95m x 1.3m)
Chute Extension	:	5.6"	(.140m)
Height, Top of Hopper	:	79.2"	(1.98m)
Height, Open Guards	:	83.4"	(2.08m)
Guards Horizontal	:	81" x 81"	(2.03m x 2.03m)
Net Wgt./Shipping Wgt	:	4400lbs/4730lbs	(2000kg/2150kg)

UTILITIES	:	
Main Motor	:	7.5HP (5.65KW)
Voltage	:	230 or 460V, 3 Phases, 60 Hz
Electrical Supply	:	25 amps @ 460V, 32 amps @ 230V and below
Compressed Air	:	80 psi
Dust Extraction	:	95 CFM @ 13.1" W.G. (One Stub, 1-3/4", Bottom Entry, One Stub, 1-3/4" Top Entry.)

NOTE :

All models of the Unipress are designed and manufactured to operate at compaction forces up to and including 100kN(10 tons). However, Unipress 27 and 34 station machines are offered as standard with a 65kN(6.5 ton) tie bar as this provides greater sensitivity for Sentinel use.

The figure of 65kN(6.5 tons) relates to the rating of the strain gauged tie bar and overload mechanism. These give good sensitivity down to 5kN(0.5 tons). For tablets made below 5kN(0.5 tons) compaction force, a 20kN(2 tons) maximum load tie bar and overload mechanism are recommended for increased sensitivity.

Conversely, for greater compaction forces, e.g. 80kN(8 tons), a correspondingly rated tie bar and overload spring needs to be used.

However, no matter which overload mechanism and tie bars are used, the maximum compaction force will be dictated by the compressive strength or the punch tip diameter of the tooling, whichever is the lowest.



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FEATURES

General

- Mechanite turret with slotted upper punch guides and lower punch scraper seals.
- Paint-free tableting zone with no pillars to restrict access; stainless steel insulated lower cabinet; 20mm thick, acrylic, sound reducing guarding around tableting zone. All guards are electrically interlocked for safety.
- Removable interlocked weight adjustment unit allows 5 lower punches to be removed/inserted before indexing turret. By removing a retaining band, one third of the upper punches may be removed.
- Four fill cams: 4, 8, 13 and 18mm, (6, 11, 16 and 21mm for "D" presses.)
- Adjustable upper punch penetration at pre and main compression with gauges to show exact penetration.
- Hydro-pneumatic main compression overload with digital controls.
- Upper punch guard system protects upper punches and cams from the ingress of dust by drawing through the dust extraction system with a downward flow to the dust extraction nozzles at pre and main compression.
- Single station strain-gauged pre and main compression
- Quick-release catches on turret guards, feeder, upper punch guard, hopper and powder inlet connector.
- Reject chute controlled by preset timer for automatic diversion of start-up and shut-down tablets.

Drive

- Variable speed, 3 phase induction motor, VFD controlled and directly connected to the turret via a timing belt, worm reduction gear, and internal helical reduction gear.
- Pneumatic brake for increased operator safety.

Lubrication

- Compression roll bearings are sealed and permanently lubricated.
- Automatic grease lubrication to the upper and lower cam tracks and oil lubrication to the punches. Adjustable settings through the LCD control panel.

Feeders

- Three-paddle, fast change, variable speed, rotary feeder with direct powder inlet. Tool-less assembly and disassembly.
- Stainless steel hopper with sight window and butterfly-type shut off valve.

Controls

- The flush mounted LCD control panel with wipe-clean S.S. touch-sensitive keyboard is situated above the tableting zone.
- 24V circuitry
- Turret speed increase/decrease and digital TPM display.
- Overload increase/decrease and digital tonnage display.
- Alarms: lubrication pump overload; guards open; pre/main compression overload; air/oil pressure low, tight punch; emergency stop; weight module missing; feeder/turret drive tripped, brake release fail, power watchdog fail, low hopper level; tablet chute jam.
- Feeder speed; feeder on/off/jog.
- Upper and lower cams fitted with Tight Punch Detection System, pre-set through the operator panel. When a tight punch is detected the machine stops and an alarm is activated.

Documentation

Two operator's manuals and six training workbooks in English are included.

OPTIONS

Auger Feeder

Auger transport of granulation to feeder inlet, with level control.

208v Voltage

208v/3Ph/60Hz motor and electrics instead of 230/460.

Deduster

Model 25, variable speed, stainless steel rotating cylinder with dust extraction; floor-mounted on pedestal.

Deduster Bracket

Allows side-mounting of the deduster to the tablet press.

Autofil

Vacuum conveying of granulation to hopper.

Upper Punch Seals

Removable upper punch seals and retaining plates for extended run time without cleaning upper punches.

Spare Parts Kit

A collection of wear parts.

All specifications are subject to change without notice

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