

PRESSIMA THC

TABLET PRESS MACHINE

PRESSIMA THC TOTAL HIGH CONTAINMENT

THE PRESSIMA THC IS A FORCE FEED TABLET PRESS MACHINE ENSURING HIGH FLEXIBILITY. THE MACHINE IS SUITABLE FOR R&D APPLICATIONS, PILOT BATCHES AND PRODUCTION SUPPORT. ADDITIONALLY IT HAS BEEN DESIGNED TO ALLOW THE TESTING OF HAPI (HIGHLY ACTIVE PHARMACEUTICAL INGREDIENTS).



ACCESSIBILITY AND EASY HANDLING

The production area has an excellent accessibility thanks to the large hood especially designed to make all the operations very easy. Also the mechanical area is fully accessible for maintenance by simply opening the external casing. Everything can be dismantled without tooling.



TURRET REMOVAL PHASES

- Product hopper, fillshoe and dust extraction unit are removed
- Upper cam is removed and upper punches are taken out
- The turret with the dies is lifted and slid out of the press compartment

A special turret version of 8 stations with 4 B and 4 D type tooling is available. Pre-pressure and main pressure rollers are designed for forces similar to production machines. This guarantees a good scale-up. Additionally the average pressure value can be displayed without instrumentation for R&D (option).



Dismantled fillshoe



CONTROL SYSTEM AND DATA ACQUISITION

The machine is completely automated and is operated through an integrated PC with a new HMI design for easier operation. All values are displayed on the control panel. The Pressima THC features the following automations:

- Lower compression force (upper compression force as an option)
- Ejection force (optional)
- Pre-compression force
- Tablet scraper force (optional)
- Upper and lower punch displacement (optional)
- Weight control (optional)
- Individual reject (samples and/or rejects)

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V-ring seals



DESIGN OF THE PROCESS AREA

The surfaces in contact with the product are limited separating the process and the mechanical areas by means of V-ring and O-ring seals.

The process area is enclosed inside an integrated hood with stainless steel structure and hinged doors, and includes the whole turret together with the compression rollers guaranteeing maximum accessibility for operator intervention.

A negative pressure inside the processing area guarantees both environment and operator safety. Access to the internal part of the machine is achieved by using the glove ports fitted on the machine doors.



Machine door: deflated seal



Machine door: inflated seal

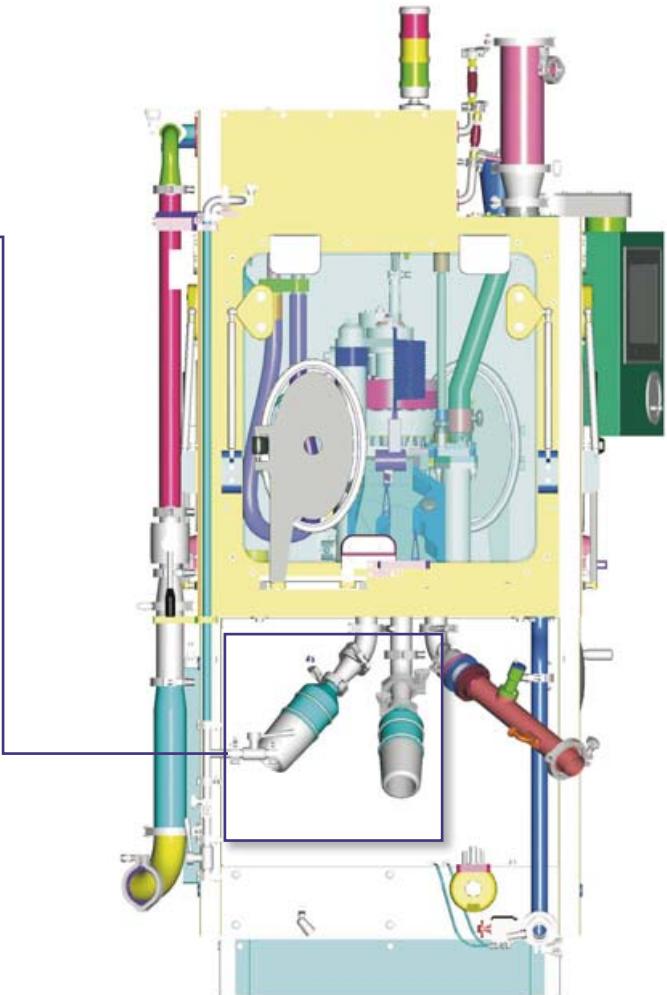


Product sampling

CONTAINED PRODUCT FEEDING AND EJECTION

The powder hopper is fitted with a tri-clamp connection giving the possibility to install a containment valve for safe product transfer from a container to the machine.

The exit chute has been designed with three channels, one for product sampling, one for rejected tablets and one for good tablets. An endless liner is available for contained sampling and rejected tablets, while a direct connection to an IBC is possible for good tablets.



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WASHING

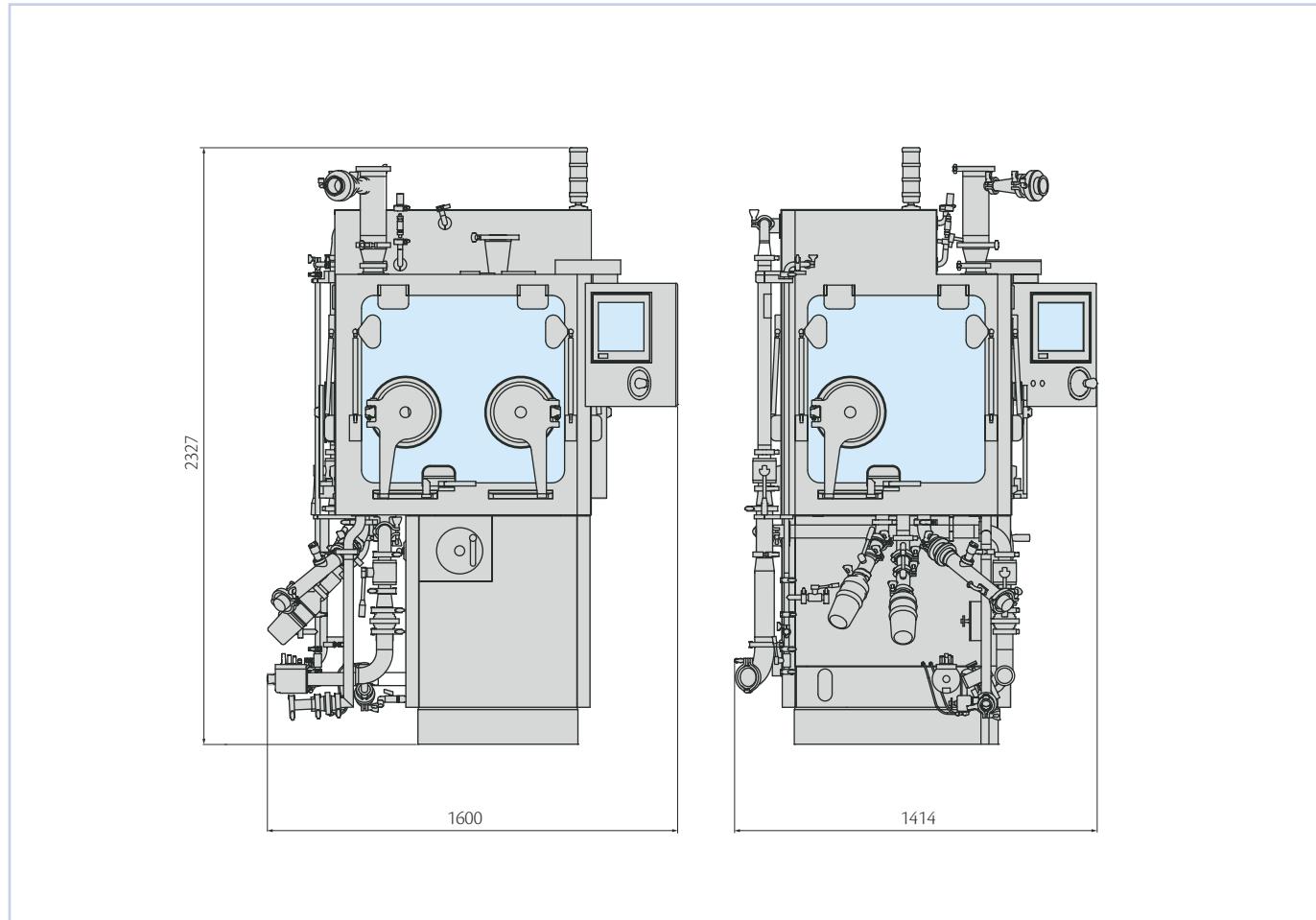
The internal angles of the isolator are curved to facilitate washing operations, additionally a lance is available for aspiration cleaning of the residual powder prior to the washing phase.

The preliminary wetting is carried out by a mobile spray gun placed inside the isolator and a spray nozzle positioned in the powder hopper, it is then possible to open the doors for final manual cleaning. Size parts can be dismantled and washed off-line.



Spray gun inside the process area

PRESSIMA THC TECHNICAL DATA



Number of press stations	8 (4+4)	8	13	16	19
Tool type (EU -and - TSM)	B+D	D	D	B	B
Die type	B+D	D	D	B	BB
Maximum tablet diameter (mm)	18 - 25	25		16 (18 for R&D)	13
Maximum die filling (mm)			18		
Maximum output (tablets/hour)	16,800	33,000	54,600	67,200	79,800
Revolution per minute (min^{-1})			10 - 75		
Maximum pre-compression force (kN)			10		
Maximum compaction force (kN)			50		
Maximum installed power (kW)			6.9		
Standard voltage			400 V (+/- 10%) - 50 Hz		
Pitch circle diameter (mm)			180		

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