

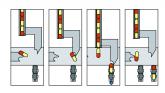
LOW-MEDIUM SPEED CAPSULE FILLING MACHINES



ZANASI WORKING CYCLE



ZANASI CAPSULE FILLING MACHINES OFFER MAXIMUM VERSATILITY IN TERMS OF THE COMBINED DOSING OF VARIOUS PRODUCTS WITHIN THE SAME CAPSULE, DEPENDING ON MACHINE CONFIGURATION AND INSTALLED DOSING UNITS.



1 CAPSULE INFEED AND OPENING

The capsules arriving from the infeed hopper are accurately positioned and inserted into the bushings where the cap is removed from the body by means of a vacuum.



2

AVAILABLE FOR SIZE CHANGE-OVER OR PRODUCT DOSING UPON REQUEST

This station can be used for product dosing upon request, alternatively it is available for size change-over.



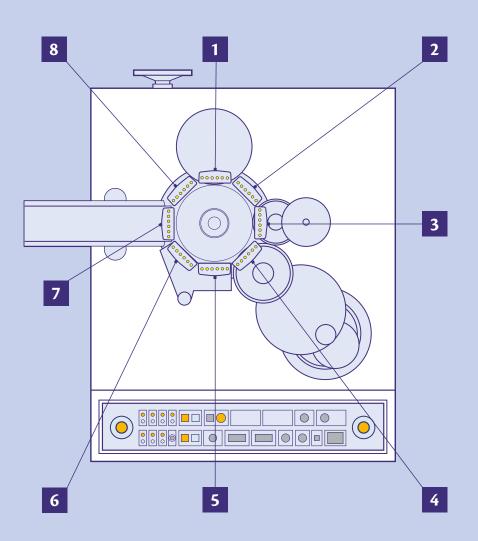
3 PELLETS/

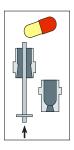
MICROTABLETS, TABLETS OR LIQUIDS DOSING



4

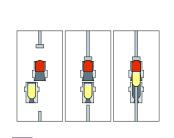
POWDER OR PELLETS/ MICROTABLETS DOSING





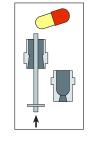
5 UNOPENED CAPSULE SELECTION AND REMOVAL OR PRODUCT DOSING UPON REQUEST

This station can be used for product dosing upon request or to reject any unopened capsules by means of appropriate pushers.



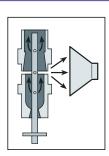
6 CAPSULE CLOSING

The bushings containing the capsule bodies realign themselves with the corresponding capsule caps, the capsule is then closed by appropriate pushers.



7 CAPSULE DISCHARGE

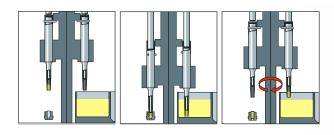
Closed capsules are discharged by the combined action of pushers and compressed air. A conveyor chute transports the capsules towards the finished product container.



8 BUSHINGS CLEANING

Upper and lower bushings are cleaned of any residual dust by means of compressed air and aspiration nozzles.

ZANASI DOSING UNITS



POWDER DOSING UNIT

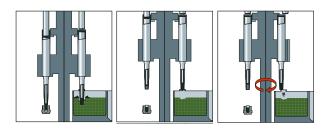
Dosators are mounted on one block and are sited on two opposite segments.

1. The block moves down and the dosators on the first segment penetrate the powder bed, inside the product bowl, whilst the opposite ones are positioned above the capsule bodies.

 The pistons of the first segment compress the powder forming slugs; the opposite ones eject the powder slugs into the capsule bodies.
The block moves up and turns; dosators with slugs are positioned over the next capsule bodies, whilst the empty ones are positioned over the product bowl and the cycle begins once more.



IN ADDITION TO THE ROTARY BOWL FITTED ON STANDARD MACHINES, THE IMA PATENTED VACUUM BOWL CAN BE SUPPLIED FOR POWDER PRE-COMPACTING FOR THE DOSING OF VERY FINE POWDERS.



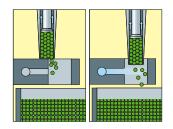
PELLET/MICROTABLETS DOSING UNIT

Dosators are mounted on one block and are sited on two opposite segments.

1. The block moves down and the dosators on the first segment penetrate the powder bed, inside the product bowl, whilst the opposite ones are positioned above the capsule bodies.

2. The pistons of the first segment create the dosing volume and vacuum force pellets to fill it; the opposite ones eject the pellets into the capsule bodies, the vacuum is released.

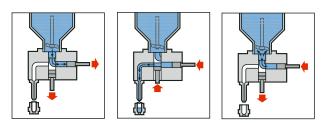
3. The block moves up and turns; dosators with pellets are positioned over the next capsule bodies, whilst the empty ones are positioned over the product bowl and the cycle begins once more.



Excess pellets can be removed either mechanically or by a jet of air. The latter system is particularly suited for pellets with a delicate coating.

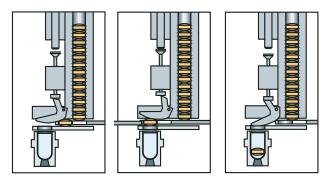






LIQUID DOSING UNIT

The group uses an extremely precise volumetric dosing system composed of a series of syringes, drawing liquid from the container and pushing it into the capsules bodies, and by a series of sliding valves connecting the syringes with the container or the outlet tubes. The liquid container can be fitted with a mixer and a heating and temperature control system, so that thixotropic or heat sensitive products can be dosed as well as oily substances.



TABLET DOSING UNIT

The unit can introduce one or more tablets into the capsule body in one stroke, using a blade and suitably shaped feeding tubes. The filling phase is electronically monitored by a sensor which checks the tablet presence whilst dosing and the tablet absence upon blade return. In case of any malfunction is detected, the machine stops.

ZANASI

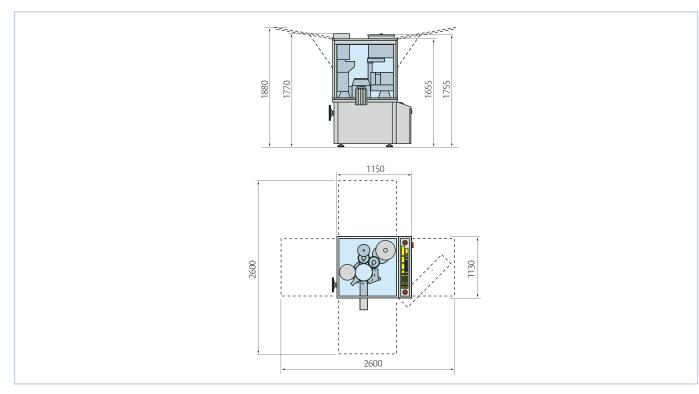
ALL ZANASI MACHINES ARE PREARRANGED TO BE EQUIPPED WITH A STATISTIC WEIGHT CHECKING UNIT FOR PRODUCTION MONITORING. THE GROUP IS PREPARED FOR 21 CFR PART 11 COMPLIANCE.





ZANASI TECHNICAL DATA





	ZANASI 6	ZANASI 12	ZANASI 25	ZANASI 40
Maximum output (capsules/hour)	6,000	12,000	25,000	40,000
Number of capsules per cycle	1	2	4	6
Capsule size	000-5, supro A-E, DB, DBAA			
Maximum installed power (kW)	10			
Aspiration	3,850 litres/minute 2,500 mm H ₂ O			
Compressed air	30 dm³/min – 6 bar		50 dm³/minute – 6 bar	100 dm³/minute – 6 bar
Vacuum	40 m³/h – 3 mbar		100 m³/h – 3 mbar	
Standard voltage	230/400 V (±10%) – 50/60 Hz			
Weight (kg)	1,000			

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