MULTI-PRODUCT FILLING MACHINE DPV

A REALLY FLEXIBLE MACHINE TO DOSE AND INJEC DOUGHS WITH A HUGE RANGE OF DENSITIES/VISCOSITIES WHICH HAVE SOLID PARTICLES INCLUDED (OR NOT).











FRUIT FILLINGS • SAUCE • DELICATE FILLINGS SUCH AS MOUSSE • SALAD DRESSINGS • SOUPS • QUICHE

DAIRY PRODUCTS • PLUM-CAKE • PURÉE • BRANDED • CAKE • MUFFINS • COMPLEX DOUGH • BROWNIES

 $\texttt{PRECOOKED} \cdot \texttt{YOGHURT} \cdot \texttt{CAKE} \cdot \texttt{CROQUETTES} \cdot \texttt{RATATOUILLE} \cdot \texttt{RUSSIAN} \; \texttt{SALAD} \cdot \texttt{BOLOGNAISE} \cdot \texttt{CAKE} \; \texttt{DECORATION}$



GENERAL FEATURES

- It stands out in terms of speed, precision and ease of operation.
- Easy and quick change of the different accessories for multi-product work.
- · Wide dosage range, from 10cc to 1150 cc.
- · Foot pedal, trigger button or photocell operation.
- Made of AISI304 stainless steel and materials suitable for processing food products.
- For manual, semi-automatic or more automated productions as it can be coupled to a conveyor belt or production line.
- The standard machine is a tabletop one and is supplied with a pedal, a dosing nozzle and a piston and cylinder assembly of your choice.



PNEUMATIC OR SERVOMOTOR DOSAGE

- The volume and speed of dosage are independent and adjustable.
- The **dosing system do not punish the dough** and gives us the possibility to **work with a wide variety of products**, allowing also the passing of solids.
- The DPV multi-product filling machin offers volumetric dosing in its **different versions**, both for the **DPVA (pneumatic)** and for the **DPVS (with servo motor)** versions. The following table compares the main advantages of using a servo motor.

DPVS DOSING WITH A SERVO MOTOR

The volumetric **dosing** is **regulated through the touch screen**. Servo motor dosing replaces the mechanical stops and pneumatic adjustments, making the machine **faster**, **smoother and more precise during operation**. Thanks to the servo motor, the user can control countless parameters electronically with a high level of reliability and efficiency.

DIFFERENCES BETWEEN DOSAGES	DPV (PNEUMATIC)	DPVS (WITH SERVO MOTOR)
Control of the dosing parameters by touch screen	No	Yes
Number of dosing programmes (recipes)	0	999
Dose change regulation	Mechanical (manual by wheel and counter)	Electronic by display (very accurate)
Loading speed control	Pneumatic (manual adjustment)	Electronic by display (very accurate)
Unloading speed control	Pneumatic (manual adjustment)	Electronic by display (very accurate)
Pedal signal	Pneumatic	Electronic
Dose repetition in the same mould by schedule (for large doses)	No	Yes
Photocell signal	No	Yes
External signal	No	Yes
Attachable to direct conveyor belt (conveyor stop)	No	Yes
Time control between doses	No	Yes
Self-cleaning programme	No	Yes
Sequential dosing (pattern)	No	Yes
Suitable for	Single product	Multi-product and multi-dose





MODEL WITH LIFT MODEL WITH FIXED SUPPORT

HMI PANEL FOR INTELLIGENT PRODUCTION MANAGEMENT

Through the touch screen we can control all of the machine's functions:

- · Multi-user.
- · Alarm list.
- · Verification of movements.
- · Maintenance: input and output control.
- · Forward movement of containers, being positioned for filling and exiting upon completion.
- · Independent conveyor function.
- Single-dosing function for weight adjustment.
- · Multi-dosing function: dosing is repeated in the same position on the tray.
- · Self-cleaning function.
- · Posibilidad de crear patrones de dosificado para ajustarlas a las diferentes salidas.
- · Electronic control of container presence
- · Recipe programming (create, rename, delete, duplicate).



SUPPORTS

The different supports are attached to the tabletop machine.

Various supports can be combined depending on the product to be manufactured.

Their ease of assembly and disassembly also helps with cleaning tasks.



MOULD-HOLDER SUPPORT Tray attached to the machine outlet to support the mould or tray while dosing is taking place. It attaches directly to the tabletop machine.



SUPPORT WITH LIFT
By means of a pneumatic device, the tabletop machine can be lowered to load the hopper. Once it has been filled, the device is activated so that the doser returns to the working height.



MOULD CONVEYOR Conveyor belt synchronised with the doser, once positioned the osingis done automatically.



TRANSFER PUMP
Facilitates the transfer of the product
from a mixing tank to the hopper,
allowing for constant production.



HEIGHT-ADJUSTABLE SUPPORT WITH WHEELS
The machine can be set at an adjustable height from 70 to 100 cm.









OUTLETS

The outlet is chosen according to the product to be dosed.

Needles for injection. Different lengths, diameters, number of needles, etc. can be manufactured according to the client's needs. Their ease of assembly and disassembly also helps with cleaning tasks.



OUTLET EXTENSION
Extension of the doser line to move the doser outlet farther away.



HOSE AND HAND GUN
Hose with electrically or
pneumatically operated mobile
doser outlet, to manually control
the point where the product is
dosed. For liquid and semi-liquid
products.



DOSER HEAD FOR SAUCES Circular doser outlet in the form of a sprinkler with small holes suitable for spreading sauces or creams.



ROTARY CUTOFF NOZZLE Special nozzle for elastic and/or sticky dough in which the passage of the dough is done by a rotating valve. For soft, heavy and aerated semi-liquid products.



VERTICAL VALVE For liquid, semi-liquid and aerated products.



HORIZONTAL VALVE For soft, heavy and aerated products.



INJECTION NEEDLES
Different lengths, diameters,
number of needles, etc. can be
manufactured according to the
client's needs

CYLINDER/PISTON

A cylinder and piston unit is included with the tabletop depositor.

A doser machine can have several units. Each unit can dose between a maximum and a minimum.

The larger the piston diameter, the less precision there is in small doses.



SMALL PISTON AND CYLINDER UNIT



MEDIUM PISTON AND CYLINDER UNIT



LARGE PISTON AND CYLINDER UNIT

HOPPER

The standard hopper is conical and has a capacity of 30 litres

Hoppers with other capacities and different shapes can be attached.

Heating blankets can be made to keep the hopper warm.

A stirrer can be attached to cylindrical hoppers.



STANDARD HOPPER: 30L



CYLINDRICAL HOPPER WITH SILICONE LID For aerated dough.



HOPPER WITH DOUGH SEPARATOR To make products with two different flavours/colours (marbled).

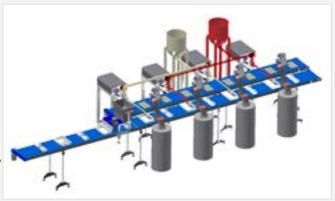
EXAMPLES OF MULTI-PRODUCT DOSING MACHINE INTEGRATED INTO A WORKING LINE

Línea de producción para hacer lasañas.

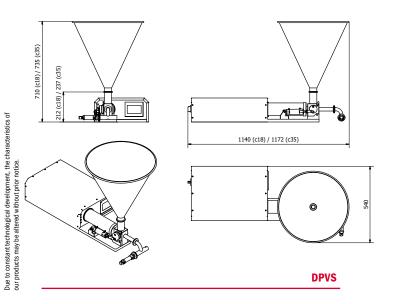
Compuesta de:

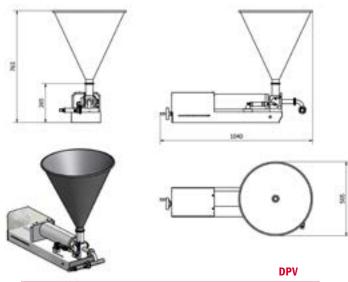
- Dos transportadores situados en paralelo, uno para las láminas de pasta y otro para los moldes de la lasaña.
- Cuatro DPVS35, dos para el pisto y dos para la bechamel, situadas de forma alternada.
- Un dosificador de queso hilado situado al final del transportador de moldes.
- Cuatro robots colaborativos de tecnología Omron con pinzas con ventosas para la manipulación de las láminas de pasta.

La lasaña se recoge en su molde con sus respectivas capas de pasta, pisto, bechamel y queso por encima al final de la cinta.



DATA SHEET			
MODEL DPV (pneumatic)	C18	C35	
MINIMUN-MAXIMUM DOSE*			
Small piston Ø 25mm	10 cc - 96 cc		
Medium piston Ø 50mm	40 cc - 392 cc	30 cc - 295 cc	
Large piston Ø 100mm		120 cc - 1150* cc	
Air consumption	100 L/m		
Dosing speed*	maximum 2 seconds/cycle		
Dimension W x L x H**	104 x 50,5 x 76,5 cm DPV table top with horizontal spray gun and 30L tank		
Tank capacity	32 ó 50 L		
Drive	by pedal, switch or photocell		
MODEL DPVS (with servo)	C18	C35	
MINIMUN-MAXIMUM DOSE*			
Small piston Ø 25mm	7 cc - 72 cc		
Medium piston Ø 50mm	30 cc - 295 cc	30 cc - 295 cc	
Large piston Ø 100mm		120 cc - 1150* cc	
Electric consumption	500 W		
Air consumption	30 L/m		
Dosing speed*	until 120 cycles/minute		
Dimension W x L x H**	114 x 54 x 71 cm 117,2 x 54 x 73,5 cm DPV table top with horizontal spray gun and 30L tank		
Tank capacity	32 ó 50 L		
	by pedal, switch or photocell		





- * According to type of dough, consistency and quantity of dose.
- ** The measurements vary depending on the caliber, the tank, the gun and whether the elevator or the table is incorporated.



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