



THE INJECTION MOULDING MACHINE

ULTRA HIGH INJECTION SPEED



eKW **HP.** SERIES

HP, THE NEW SERIES FOR PACKAGING

OUR EXPERIENCE IN THE WORLD OF PACKAGING AT YOUR DISPOSAL

With the new series of packaging machines, BMB is the indispensable partner for those who want to make a difference.

Already a leader in machines dedicated to the moulding of thin-walled products but with the "HP" series, BMB becomes the reference of the sector.

Speed and precision without compromise.

This is the HP series.

Building packaging machines does not only mean satisfying productivity, sometimes with tremendous demands, but it also means guaranteeing performance for a long time. This means making machines that are very fast, but ultra resilient. This means reducing the vibrations to the minimum whilst maximising the opening and closing speeds, but maintaining dampening in the starting and ending phases. It means increasing the proportions to guarantee stability; it means designing a custom-built vehicle where nothing is left to chance.



IML food container



Thin-wall containers



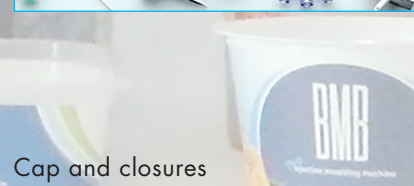
Industrial packaging



Medical products

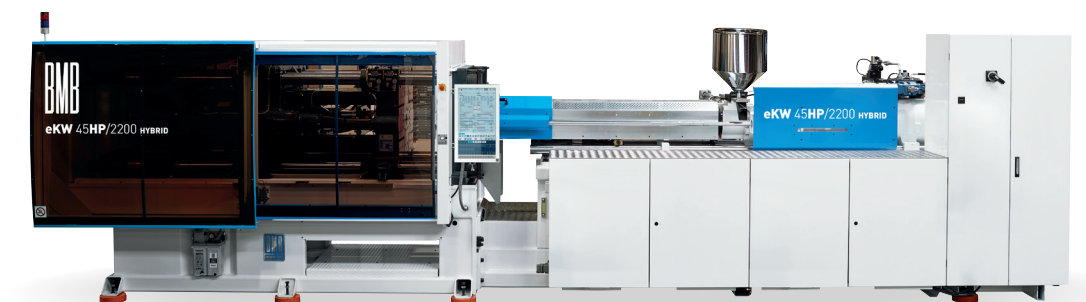


Floriculture products



Cap and closures

eKW HP SERIES



The HP series is part of the evolution of BMB hybrid machines, where the electric drives of the closing and plasticizing units ensure precision, quietness, cleanliness and energy saving. The hydraulic injection system, controlled by two parallel servo valves, guarantees high acceleration values, high injection rates and accurate control during the filling and maintenance phases.

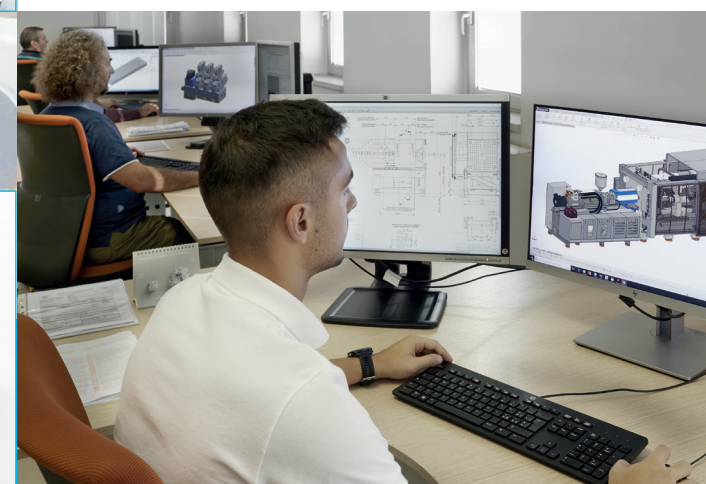


ULTRA HIGH INJECTION SPEED

THE HP SERIES, THE ULTIMATE HYBRID

The key features of the HP series are:

- Closing force from 160 to 1150 tons.
- Reduced dry cycle time.
- Possibility of housing large moulds, thanks to the wide opening strokes and the generosity of the maximum mould thickness.
- Maximum performance for all injection groups.
- Numerical Control with recovery of the kinetic energy of braking for ever greater energy savings.



20 REASONS TO CHOOSE eKW HP SERIES CLOSING GROUP

FAST CYCLES AND PRECISION

eKW **HP.** SERIES



The KW closing system eliminates platen deflection, ensures perfect parallelism and allows particularly long opening strokes.

The movement of the platen takes place through special satellite roller screws, with balanced roller bearings, which ensure greater load capacity and better performance.

The reliability and rationality of the machine is enhanced by reduced longitudinal dimensions, liquid-cooled electric drive motors and optimum cleanliness of the mould area.



1 Opening, closing with direct motors and recirculating roller screws.



2 New 21.5" touch screen control panel.



3 KW toggle system for perfect parallelism between the platen and central thrust.



4 Liquid cooled motors, screws and bearings.



5 Thread rolled tie bars combined with bronze nuts to prevent breakage problems.



6 Oil and lubrication recovery of screws and bearings.



7 Continuous control and self-regulation of the tonnage for greater reliability in the closure and care of the mould.



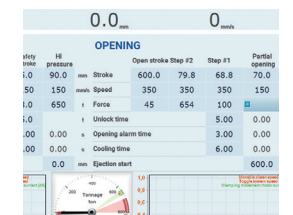
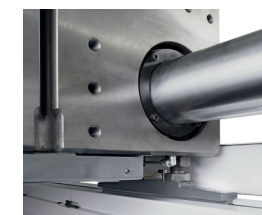
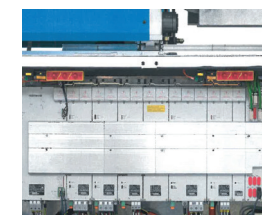
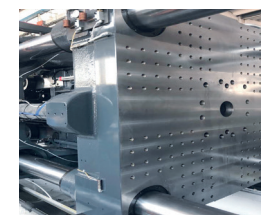
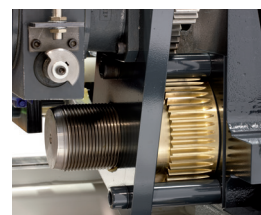
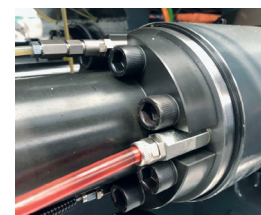
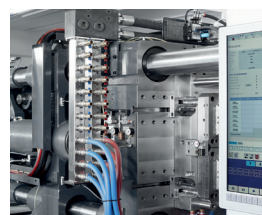
8 Latest generation electric drives with kinetic energy recovery to further reduce energy consumption.



9 Encapsulated moving platen guide shoes.



10 CNC controller to guarantee positioning of the axes with centesimal precision.



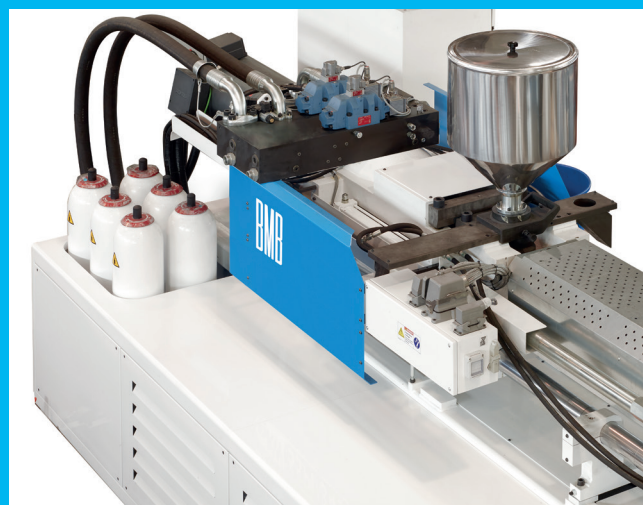
INJECTION GROUP

MODULARITY AND FLEXIBILITY

eKW HP. SERIES

Thanks to the modular design of the injection units it is possible to customize the machine, optimizing it for the different individual production requirements.

Depending on the applications, the possibility of combining different clamping units with various injection units and screw diameters allows the creation of a machine with the best performance for any application.



The plasticizing movement is achieved by means of a Torque motor directly coupled to the plasticizing screw, without intermediate transmission parts. In this way the contact is free of thrust bearings, avoiding loss of efficiency and ensuring maximum performance.

The motors are liquid cooled for rapid, precise cycles and total repeatability without overheating.



11 Double servo valve and closed loop control.



12 Accumulators to guarantee high flow rates and rapid movements.



13 No belt return: the Torque motor is coupled directly to the plasticizing screw.



14 Fan-less cooling of the electrical panel to avoid contamination with external environment.



15 Modular combinations of closing and injection units.



16 Quick change of screw and barrel.



17 Thermal insulation of the injection unit for increased energy saving.



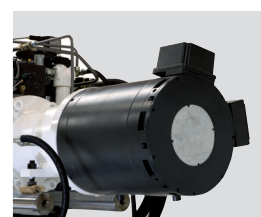
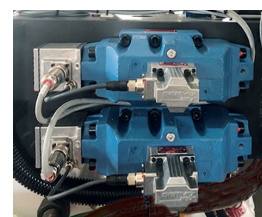
18 Screws designed by BMB suitable for the type of moulding material and made with specific treatments.



19 Hydraulic nozzle: opening is also possible during the closing phase.



20 Teleservice for easy connection of the machine to the BMB service center.



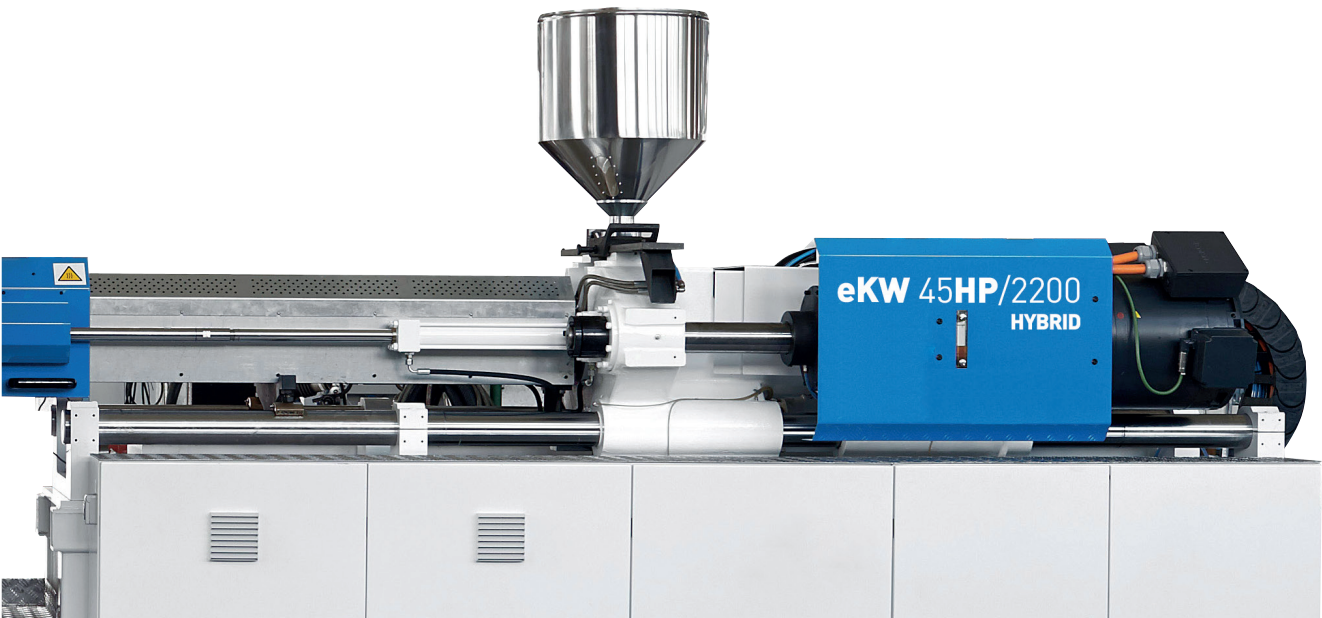
DOUBLE PERFORMANCE

HIGH SPEED, HIGH PRECISION

The new injection units increase their performance thanks to the management of two servo valves in parallel and closed-loop control.

The fundamental contribution of the double servo valve is that it enables a faster acceleration ramp and higher speeds to reduce mould filling times.

All injection units have the first screw with 2500 bar of specific pressure.



CNC, NEW TECHNOLOGY, NEW STYLE

HEART, MUSCLES AND BRAIN

To guarantee high-level performance, you need a strong heart, muscles and brain.

After analyzing the real need to be able to inject quickly, at the same time guaranteeing consistency and precision, the faster opening and closing, relative to the traditional “Full Electric” and “Hybrid” series, meant that a significant review of the control system could not be over looked, an increasingly more important component with today’s the ever evolving technologies.

The new HP series is equipped with a control system designed to guarantee simple and intuitive operation, but at the same time it is capable of satisfying all the needs that have arisen with the entry into the field of process digitization.

Here we emphasise the design choice to use the EtherCAT platform on the new HP machine series, considered today the most advanced communication platform in the world.

The EtherCAT field bus facilitates the external communication of the machine, whilst at the same time it offers constructive simplification of the electrical and electronic parts, thanks to the distributed I/O management system.



The innovations made to the BMB controller are relevant and important, both at the hardware level and at the software level.

If on the one hand the BMB research and development department has dedicated itself to improving the performance of the machine through a CNC control system that is capable of processing every single value set or detected and processing it to meet the most extreme requirements, on the other hand they have also improved the hardware components, with operator interface optimization for really user friendly control.

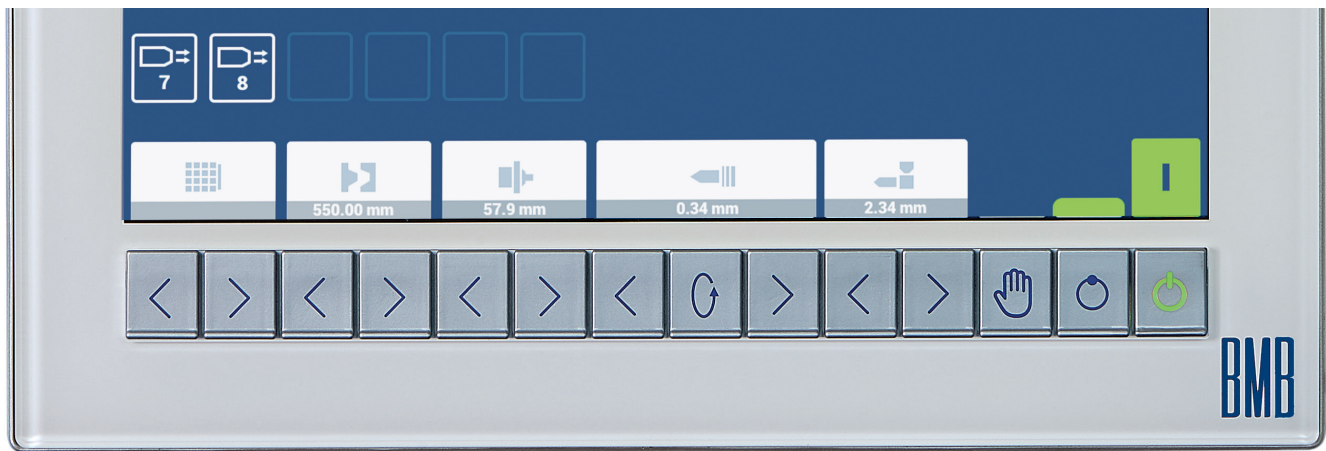
User interface	PLC functions
<ul style="list-style-type: none">• 21.5 "touch screen.• Multi-touch display with manager up to 10 simultaneous pressures points.• Visualization and programming through icons of new and more intuitive graphic generation.• 3 external USB communication ports.	<ul style="list-style-type: none">• CPU even more efficient than in the past with implementation of the algorithms.• EtherCAT field bus with distributed I/O for simplified diagnostics and system optimization.• Universal interfacing to the outside for data transfer, interconnections with auxiliary equipment, data remote control to mobile supports.

CNC, NEW TECHNOLOGY, NEW STYLE

HEART, MUSCLES AND BRAIN

In addition to the countless touch functions of the large 21.5" display, the typical needs of the moulding department have not been neglected, where frequent pressures in production environments impose the resistance of mechanical keys.

Following on to this practical requirement, the new controller is equipped with activation and deactivation mechanical keys located in the lower part of the display for the frequently used functions.



THE COMPLETE RANGE HP

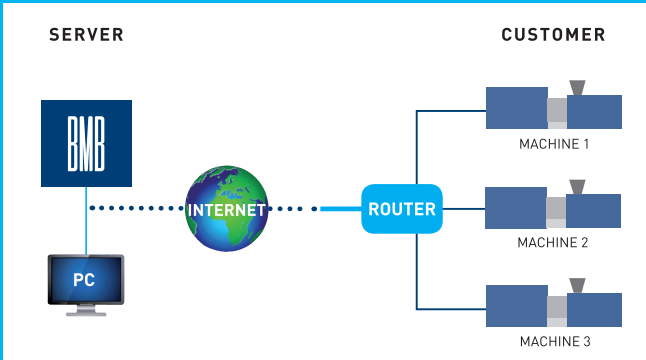
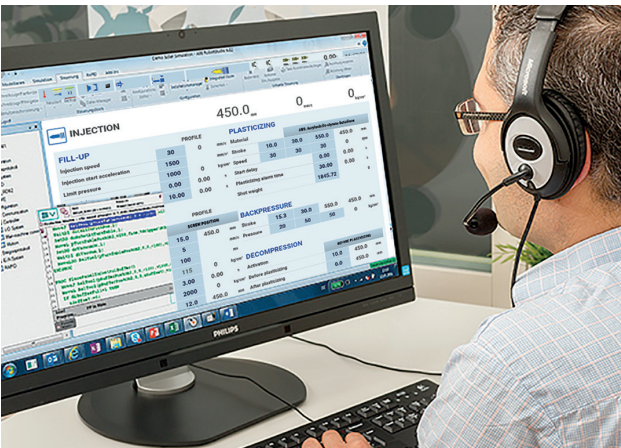
MANY COMBINATIONS FOR EVERY NEED

eKW HP (type)	Distance between tie-bars (mm)	injection group / screw diameter																							
		700			1300			2200			3450			5500			7000			8500			12500		
		40	45	50	50	55	60	60	65	70	70	75	80	80	90	100	90	100	110	90	100	110	110	120	130
16 HP	510 x 510																								
18 HP	510 x 510																								
20 HP	560 x 560																								
22 HP	560 x 560																								
25 HP	630 x 630																								
28 HP	630 x 630																								
35 HP	730 x 730																								
38 HP	730 x 730																								
45 HP	800 x 800																								
48 HP	800 x 800																								
55 HP	860 x 860																								
55 PL HP	1020 x 1020																								
65 HP	920 x 920																								
70 HP	920 x 920																								
85 HP	1120 x 1000																								
1000 HP	1250 x 1120																								
1150 HP	1250 x 1120																								

REMOTE ASSISTANCE

AT ALL TIMES AT THE SIDE OF THE CUSTOMER

All HP machines can be networked thanks to 4.0 technology, which allows access to the web. The encrypted and protected transmission of data allows the BMB technical assistance service to support the operator remotely, guiding the end user in setting the molding parameters or searching for any anomalies.





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www.bmb-spa.com