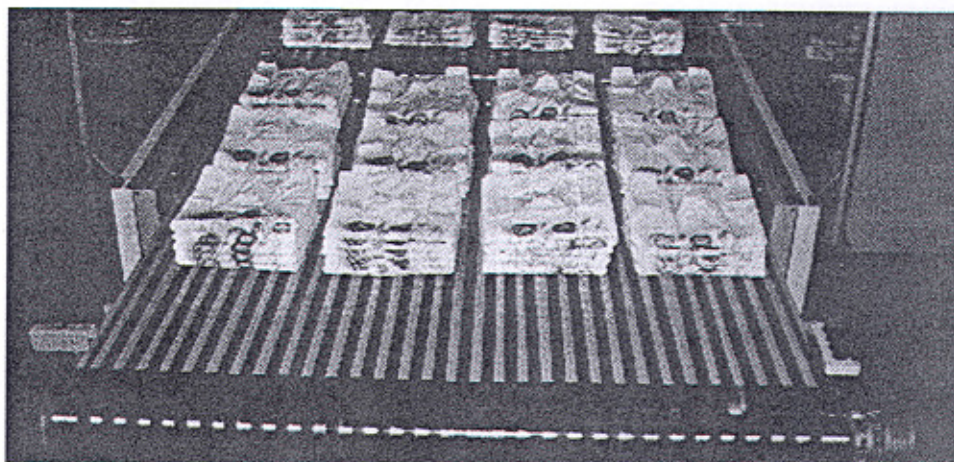


# HEAT SEALING MACHINES FOR PLASTIC FILM

The main class of products obtained by heat sealing a plastic film is undoubtedly represented by bags and sacks that now are available in a number of shapes, sizes and colours according to their final destination of use. If they are intended for containing tools of various types, for instance, their main feature will be mechanical resistance neglecting at the same time aesthetic and hygienic requirements. These latter, on the contrary are essential in boutique shopping bags or food packaging. These and many further aspects have to be considered not only by the producers of bags but also by the manufacturers of bagmaking machinery, whose evolution and trends are illustrated in these pages through some examples of recent applications offered by the several Italian companies operating in this field.

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The latest developments from Mobert in the field of heat sealing machinery for film are represented by two lines: the 3-track Roller 110 E/6M model for producing bottom welded bags on pre-cut tear-off roles and the V130 Delta 8 version for obtaining bag packs of up to 500 pieces and inserting them into a polyethylene package complete with dispenser or into the traditional cardboard boxes. A single operator can manage two lines with 4 tracks each maintaining anyway the possibility of producing packs of 50 or 100 bags. The first line is, according to the manufacturer, the only heat sealing machine in the world capable of running on 3 tracks for producing rolls made of classic 30-litre bags (500 x 600 mm), although it can also run on only 2 tracks for obtaining 110-litre bags. Compared with the previous models, the new design of automation permits an increase up to 25% in the production speed that can now reach 250 strokes per minute for a production of 750 bags with a speed of 150 m/min for material withdrawal from the reel. The line is made up of a shaftless self-centering reel holder raising the reel



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from the ground via two cones mounted on mobile arms. The compensator tool at the inlet is followed by the cutting/welding unit that divides the reel into two or three parts, depending on the selected size that can be changed quickly and easily. After this a gusseting unit provides for side folding and is followed by a welding group acting through two welders (fixed and mobile) fastening on both sides of the bag. The welding bars are water cooled for ensuring geometrical stability. Contrary to what usually happens on this kind of line, operating through a single welder on one side of the bag, the solution with 2 welding bars permits the use of high-width reels without affecting the production speed. The welding group is equipped with a punching and pre-cutting device with a cold toothed-edge blade. The penetration of this latter can be adjusted by using two small knobs marked with graduated values for carrying out an incision and establishing the knurling depth. At this point the line is provided with a rolling-up unit with three pairs of pincers fitted on a rotary drum. Each couple carries out its function in sequence: the first rolls-up the bags; the second tapes the roll down; the third unloads the final roll. The drive of the rolling-up unit was powered for increasing the number of changes per minute according to the increase of

production speed. The taping area permits the application of paper tapes both pre-pressed and printed with bar codes to the bag roll. Finally, the line is also arranged for inserting a polypropylene filament into each bag for closing it once filled. For this function three raffia reels are unwound and conveyed through a small tube into one of the film folds. In this way the machine pulls the material and the PP filament as well and a special signal warns the operator if the filament breaks. As for V130 Delta 8, the welding group is designed for an immediate variation of the kind of bag to be produced from the shopper type (with handles) to the open one without changing any machine tool but only selecting those to be used. The cooling of the welding element is obtained through a liquid in a closed loop circuit ensuring a perfect operation even with very thin film, whilst the cold cut is carried out using a toothed-edge blade. Finally, the line can reach a production speed of 300 strokes per minute.

for details: circle 3829

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Bags for boutiques today are part of those increasing applications for PE films acquiring an interest from both manufacturers and end users. First of all such bags are provided with a square bottom and side gussets in