



IPM FOCUSES ON ITS INNOVATIVE RANGE OF INJ AUTOMATIC INJECTION SOCKETING MACHINES TO BE INSTALLED IN LINE WITH THE EXTRUDERS OF DOUBLE WALL CORRUGATED PIPES

#### INJECTION SOCKETING MACHINES

# MEMORY EFFECT ELIMINATED

At K 2013, IPM focuses on its innovative range of INJ completely automatic socketing machines, working in the extrusion line for socket formation by injection directly on double wall corrugated pipes. An outstanding feature of these machines is versatility, as they are able to socket polyethylene or polypropylene indifferently, using the same socketing tool.

All this is part of an ambitious project which, after years of research and thanks to the collaboration with the University of Bologna (Italy), has allowed the development of new technology and relevant patents. The technology developed is able to cope with the fastest extrusion lines for corrugated pipes now available on the market, reaching output rates of 90 sockets/hour for outer diameter 110 mm and 25 sockets/hour for outer diameter 500 mm. But, above all, it is able to drastically reduce defects and waste, increasing the quality of the socket to the highest levels, and ensuring an absolute geometrical and dimensional stability over time. Currently, IPM produces 4 different models of such equipment - for pipes having large diameters and maximum length of 6,000 mm (or 12,000 mm on request) - which are: BA 500 INJ for OD (Outer Diameter) 110-500 mm, BA 680 INJ for OD 160-680 mm, BA 900 INJ for

OD 160-900 mm and BA 1200 INJ for OD 200-1,200 mm. The socket is manufactured using the same raw material, polyethylene or polypropylene, the pipe is made of. As a consequence, shrinkages and any other problem related to the so called "memory effect" are definitively eliminated. With this new process, it is possible to guarantee reliability, the absolute dimensional stability of the socket over time and, above all, the repetitiveness of the cycle, independently from the characteristics of the raw materials being used and from the different formulations.

Further advantages to be underlined are the lack of any influence on the socket and pipe ovalization, and the possibility to thicken the socket wall and customize its shape as desired, also by adding the customer's logo.

Tests and analysis carried out by means of electronic microscopes (and certified by the University of Bologna) show that injected sockets are even more resistant than pipes themselves. They are perfectly welded, mechanically solid and aesthetically nice with homogenous, smooth and regular surfaces. Besides socket formation in the extrusion line, these machines also allow double socket fittings with various lengths.

IPM produces machines and automatic customized plants for the extrusion of plastics pipes.



An IPM plant for packaging and palletizing pipes

In more than 25 years of activity, many have been the innovations brought to this field by IPM, from plants for the automatic bending of pipes, to wrapping, packaging and palletizing plants in extrusion lines, to the wide range of double extrusion machines; and again, from the RS Rieber System socketing machines for socketing and simultaneously inserting rubber gaskets, to the modern Multisocket, particularly suitable for very high output of pipes with lengths from 0,5 to 3-6 meters (for example, for 110 mm dia. pipes with 3 mm wall thickness, the output reaches 440 sockets per hour, using collapsible mandrels). ■

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