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A BETTER WORLD

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13 D 62: Waiting for you!

Belling machines BA BIAX for oriented and bi-oriented PVC pipes

IPM srl, leader in the manufacturing of machines for the extrusion and the processing of plastic pipes, has recently designed a new series of belling machines for PVC-O, ORIENTED or BI-ORIENTED pipes, ranging from diam. 50 mm up to diameter 630 mm.



What is PVC-O? PVC is a polymer whose molecules oriented at random. In PVC-O, under certain conditions of pressure-temperature-velocity, stretching the material results into the ordering of the molecules, thus forming a laminar (layered) structure that significantly improves the physical and mechanical properties of PVC, providing exceptional characteristics and additional extraordinary competitive advantages, while maintaining the characteristics of the raw material of origin.

In biaxially oriented PVC pipes, stretching occurs in two directions: radial and axial.

This results into a biaxially-oriented PVC system, which gives the pipe greater performance and strength (allowing significant savings in raw material when compared to a conventional PVC pressure pipe).

It is worth saying that the proven quality of PVC pressure pipes, their excellent technical-economic ratio, as well as their high durability, safety and recyclability, have made this type of pipe the ideal solution for the conducting all types of pressure fluids.

Fields of application:

- pressurized supply systems for drinking water
- irrigation systems
- pressurized sanification systems

- other underground applications for the use of non-potable water under pressure (reuse of recovered water, fire-fighting networks...)

The belling machine BA 630 BIAX for PVC-ORIENTED and BI-ORIENTED pipes

The belling cycle consists of several stages: the first and the second concern heating of the pipe end, the third one involves the forming and the cooling.

The heating takes place in special ovens equipped with short-wave heaters that start to heat the pipe instantly as soon as they are turned on.

The high-frequency heat waves pass through



the air without heating it, with no loss caused by air currents or heat rising. A special device allows optimization of heating by preserving the tube surface from burning and overheating. The result is a tube end, precisely and homogeneously heated to a temperature just above the glass transition temperature such that the tube can be formed, not losing bioremediation and its advantages.

The high-frequency heating waves pass through the air without heating it, thus without any loss caused either by air currents or heat rising.

A special device allows optimization of heating by preserving the pipe surface from burning and overheating.

The result is a precisely and homogeneously

heated pipe end.

The heating temperature is slightly above the glass transition temperature so that the socket can be shaped without any loss of the bi-orientation and its advantages.

The belling group is particularly heavy duty and reliable because of the remarkable deformation forces involved.

Thanks to the use of pressurized air and the cooling of the socket with water spray, it is possible to obtain a socket with a well-defined, dimensionally correct and stable profile while maintaining a high production capacity.

The BA 630 BIAx, like the entire range of BA BIAx, allows the processing of tubes produced according to EN 17176, Ansi/Awwa C909 and

Astm F1483, AS/NZS 4441, CAN/CSA -B137 and ISO 16422 standards.

Thanks to the use of pressurized air and of the cooling by water spray, the socket that is obtained has a well-defined, dimensionally correct and stable profile, while safeguarding a high production capacity of the belling machine.

The belling machine BA 630 BIAx, like the entire range of machines model BA BIAx, allows the processing of pipes produced according to standards EN 17176, Ansi/Awwa C909 and Astm F1483, AS/NZS 4441, CAN/CSA -B137 and ISO 16422.

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