

# ITALIAN PLASTICS & RUBBER PROCESSING MACHINERY INDUSTRY ~ NEWS

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PIATTAFORMA INDIA PROJECT

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UCIMU-SISTEMI PER PRODURRE



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## **TECHNOLOGICAL KNOW-HOW FOR THE EXTRUSION OF PP-R AND PP-RCT PIPES**

PP-R (Random) and PP-RCT (Random Crystallinity Temperature) pipes, copolymers of polypropylene, have rapidly established themselves on the market in recent years due to their unique chemical and mechanical properties and the associated benefits in terms of performance and low environmental impact. Also, on demand in multilayer glass fibre configurations, PP-R pipes are increasingly being used in applications ranging from the domestic to the industrial sector: in the construction of hot and cold water distribution and water purification systems, in heating systems, in the transport of compressed air, but also for the transport of chemical fluids. In this sense, BAUSANO & FIGLI enhances its expertise of more than 70 years with the development of extrusion lines dedicated to the production of this type of pipe.



Each line, depending on the production required, consists of one or more single-screw extruders, equipped with a specially designed screw, which allows maximum performance in the PP-R pipe machining process, thanks to optimum melt plasticisation, combined with good dispersion when using masterbatch. Integrated into the line, the calibration and cooling benches, made of stainless steel, ensure effective cooling, aimed at reaching the pipe size, while providing a flawless surface. Completing the line are the drive system for a continuous, vibration-free drive, the cutting unit and the packaging wrapper, which gives the plant a very high degree of automation. The latter is, in fact, an automatic system, capable of forming bundles of pipes of the predetermined number, from 16 to 125 mm in diameter and from 1 m to 6 m in length. Finally, thanks to Digital Extruder Control 4.0 on board the machine it is possible to constantly monitor the system, to control the different stages and analyse the collected data for higher efficiency.

Regarding the feeding system used, the presence of an advanced and extremely precise technology, such as the gravimetric dosing unit, brings considerable advantages, as it is a prerequisite for constant production, aimed at reducing overweight, while maintaining the diameter and thickness dimensions in accordance with the reference standards. In particular, this system is based on a load cell capable of measuring the weight of the material processed by the extruder in real time, sending continuous feedback to the Digital Extruder Control 4.0 (PLC), which calculates and determines the rotation speed of the extruder screw, depending on the mass detected. In turn, the extrusion speed is adapted according to this parameter while keeping the weight/metre of the pipe constant, a decisive feature in the event of any variations upstream in the machining process. In this way, BAUSANO lines allow each metre of pipe to be extruded to predefined specifications.

[www.bausano.com](http://www.bausano.com)

The project Piattaforma India has been promoted by UCIMU – Association of Italian Machine Tools Manufacturers and AMAPLAST – Italian Plastics and Rubber Processing Machinery and Moulds Manufacturers Association. The two associations agreed on the idea that promoting a network of associations and entrepreneurs who have developed knowledge and experience on the Indian market, can be useful in favoring of new paths of development for business. The Indian companies who are interested to form JV, cooperation, technical tie up, purchase machinery etc from/with Italian companies can contact below mentioned address for any assistance:

Contact information of Piattaforma India desk:

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