

# Piovan: innovation and sustainability al K2019

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***From drying to temperature control, and from traceability of materials to solutions for Industry 4.0 and circular economy. Here are the new developments being unveiled at K 2019 by this Italian group***

**by Anna Dal Miglio**

Innovation and Sustainability have been the key themes for the Piovan Group (Pad 9, Booth B60) in 2019, and at this year's K fair it presents a raft of new developments. First and foremost is the Group's new brand identity, but it is also presenting numerous technological solutions designed to support fundamental issues such as sustainability, Industry 4.0, traceability and system integration. It is also strongly committed to the concept of circular economy, as shown by its development of systems and solutions for energy saving and for the use of recycled materials, starting with post-consumer PET, and bioplastics.



*Piovan's highlights at K show include equipment for the medical sector*

## **Complete and integrated solutions for PET and rPET**

Düsseldorf provides the stage for the world premiere of the new GenesysNext, a drying system characterised by self-adaptive technology that is now also optimised for the processing of recycled PET. The new dryer automatically manages the dehumidification process, acting on all the critical parameters: process airflow, dewpoint, dwelling time and temperature, keeping optimal operating conditions even in the presence of changes in the hourly output rate, and in the initial temperature and moisture content of the plastic granules. The innovations this machine introduces include greater intuitive control and self-adjustment efficiency. Furthermore, significant improvements have been made to the AIPC (Automatic Injection Pressure Control) technology, which minimizes the production cost per preform, not only by



reducing energy consumption as a variable per se, but also by optimising the entire preform production process, the aim being to increase the end product quality and reduce rejects. Remaining in the field of PET solutions, visitors to the fair can check out the user-friendliness of the new range of tools for analysing the quality of preforms; these devices make it possible to measure, in an easy and intuitive way, fundamental parameters, such as the level of acetaldehyde in the preforms.

## Blenders for injection moulding and extrusion



*The new mould temperature control unit models of the Easytherm range has been awarded this year's IF Design Award in the category Product Design*

The Group displays, for the first time, a new micro-blender that can feed machines even with just a single granule at a time, while maintaining the very high accuracy necessary to meet the demands coming from, in particular, high-tech sectors, such as the medical sector and precision micro-moulding. The medical range is completed by machines that can be used in clean rooms; these include the Pureflo receiver, which requires neither compressed air nor maintenance, and the emission-free DPA dryer. There are new developments for extrusion, too. One of the Group's companies, Fdm, based in Troisdorf (Germany), specialised in the production of plastic processing systems used in extrusion applications, launches GDS 5, a new gravimetric blender optimised to allow the mounting of up to five granulate stations, while still featuring compact dimensions; the blender is equipped with a new Siemens PLC control system.

### New adiabatic dry-cooler

Aquatech, the Piovan Group company dedicated to industrial cooling and temperature control technologies, will present Aryacool+, the adiabatic dry-cooler that completes the Flexcool solution for cooling processes, as well as the new mould temperature control unit models that have been added to the Easytherm range, which has been awarded this year's IF Design Award in the category Product Design. There are also interesting innovations in terms of the features offered by the DigtimpEvo series of water-cooled thermochillers that guarantee high performances whilst keeping energy consumption levels very low.

On the subject of chillers, we certainly cannot overlook the Easycool+ line of extremely compact chillers that, being conceived, designed and engineered to meet the specific refrigeration needs of industrial plastics processors, are highly efficient.

#### About the Piovan Group

Headquartered in Santa Maria di Sala (Venice, Italy), the Piovan Group works, through eight subsidiaries, four of which are located abroad (Brazil, China, Germany and USA), under the following brand names: Piovan (auxiliary equipment), Universal Dynamics (auxiliaries, USA), FDM (conveying, feeding and dosing for plastics extrusion), Aquatech (chillers and refrigeration systems) and Penta (automation systems for the plastic and food processing industries). The Group, which has been listed on the Milan Stock Exchange since October 2018, closed 2018 with a consolidated turnover of almost 246 million euros, up by more than 15% on the previous year. It is also expected to record positive results for 2019, a year full of important milestones, like the opening of new branch in Morocco and the takeover of Toba in Korea (automation systems for industrial processes in the plastic materials sector and powder conveying and storage equipment) and of Fea Process & Technological Plants in Italy (automation systems for the food industry).

## Powder and granulate conveying systems

Penta is the Piovan Group company that designs and produces large systems for storing, conveying and dosing polymers in either powder or granules, proposes the latest innovations applicable to the sectors of production of tubes and cables for managing additives in the compounding sector. The company exhibits Vakupulse, a system for conveying materials

in the dense phase. This system is ideal for the treatment of delicate raw materials, at low speeds and low flow rates over short distances. Also on display Handlink+, the manual coupling station by Piovan equipped with a new joints that allows easier pipe connection, even when working one-handed. To avoid the risk of contamination it has no seals; in this way the plastic granulate comes into contact only with the stainless steel.

Another highlight of this coupling station is the new RFID (Radio Frequency Identification) tagging system which checks that the match between sources and destinations is correct. In an error occurs, the conveying system does not activate the loading cycle, thus avoiding any risk of contamination between different materials. A system of LEDs, which can also be duplicated on a dedicated display, guides the operator. The LEDs change colour as the conveying pipes are coupled, enabling active connections to be checked at a glance.

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