



YOUR PARTNER IN PLASTIC INDUSTRY

FINNISH PLASTIC INDUSTRY PIONEER EXTRON-MECANOR IN A NUTSHELL



TECHNOLOGY SUPPLIER FOR THE MANUFACTURERS OF PLASTIC PIPES, BLOWN FILMS AND PLASTIC COATING



PRODUCTS: RAW MATERIAL SYSTEMS, GRAVIMETERS, EXTRUDERS, WINDERS, PIPE SOCKETING, RING INSERTING AND PACKAGING AUTOMATION



NET SALES ABOUT 5-8 MILLION EUROS



WE ARE ABOUT 20 FULL-TIME PROFESSIONALS WORKING FOR EXTRON-MECANOR



WE HAVE MORE THAN 30 DELIVERED PROJECTS ANNUALLY



WE OPERATE GLOBALLY, BUT WE ARE BASED IN 1 LOCATION IN AKAA



WE STARTED OUR OPERATIONS IN 1991 (EXTRON ENGINEERING OY) AND IN 1975 (MECANOR OY)



EXTRON-MECANOR IS AN IOS-9001 CERTIFIED COMPANY



CUSTOMISED EXTRUDERS AND DIES

Extruders, designed by Extron-Mecanor with decades of experience, are applicable to blown film, pipe and coating extrusion. An extruder designed according to the customer's wishes guarantees high output, exact temperature and excellent homogeneity. The diameters of single-screw extruders range from 18 to 160 mm and output range

from 5 to 1500 kg/hour. Dies are calculated individually according to customer use. Together with customer Extron-Mecanor carry out detailed demand analysis which act as a base to the project.

MODERNISATION

We modernise pipe and blown film lines by replacing electrical and automation components, thus substantially extending the lifetime of the production line. In addition to the availability of spare parts, modernisation makes it easier to run and track the line and integrate it with different information systems of the plant. Adding completely new equipment can also be part of the modernisation project. Modernisation enables more efficient utilization of the product line and the data from its usage as well as measuring the energy consumption, process monitoring and troubleshooting. We implement modernisation with the help of our skilled personnel after cooperating with the customer to define the objectives of the renewal.

WIPIAK OY, TAPANI LEHTONEN

When the old blown film line needed renewing, Extron-Mecanor was a natural choice to handle the modernisation. Tapani Lehtonen from Wipak Oy says that the previous cooperation project proved Extron-Mecanor to be a reliable operator that handles the projects within the limits of the agreed schedule and budget. Their ability to professionally manage challenging modernisation processes is superb. Tapani was pleased to find that the modernisation was carried out according to the set objectives. He particularly praises Extron-Mecanor for extremely successful communication and project management. "The renewal improved the operational reliability of our blown film line considerably, making the reliability of our deliveries better as well," says Tapani Lehtonen.



PIPE EXTRUSION LINES

With more than 30 years of experience, Extron-Mecanor is a professional supplier for delivering an entire pipe extrusion line from raw material silos to end-product packaging. Offering includes a wide range of high-performance extrusion lines for producing pipes for fresh water, gas, sewage and cable protection applications. Extron-Mecanor constantly develop new solutions and collaborate

closely with leading pipe manufacturers to ensure the outstanding quality of our products. In addition to pipe extrusion technology, delivering downstream equipment such as socketing, ring inserting and packaging machines are part of product range equally to existing or new manufacturing lines.

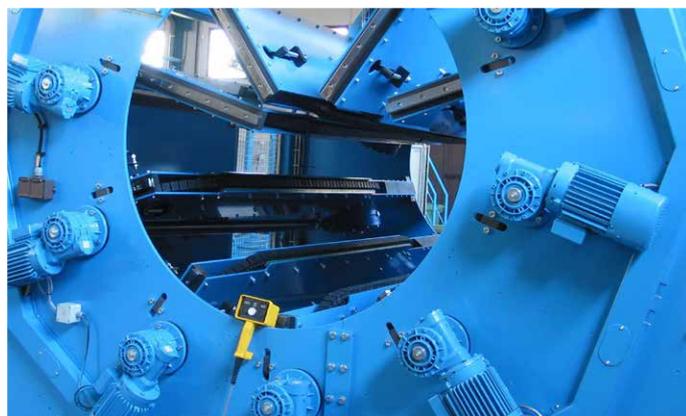
PIPE PROFILE AND FITTING SOLUTIONS

We are pioneers in pipe socketing: MECABELL socketing machines are compatible with a wide range of pipe applications. The energy-efficient circulated air heating system secures steady temperature and high socketing quality. MECARING ring inserting machines are for the automatic installation of all types of seals to pipes and pipe fittings. Ring inserting machines are easy to integrate with fitting molding cells and pipe socketing machines. The latest MECARING DW model applies to installation of external seals in corrugated pipes.

Good packaging protects products from damage and dirt during storage and transport. MECABAG packaging machine carries out bundling and packaging of pipes, rain gutters and profiles. MECABAG, MECATURN (pipe turning and stacking machine) and MECASTRAP (bundling and strapping machine) are also equally compatible with new or existing extrusion lines.

UPONOR OY, JARI MYLLÄRI, DIRECTOR OF TECHNOLOGY

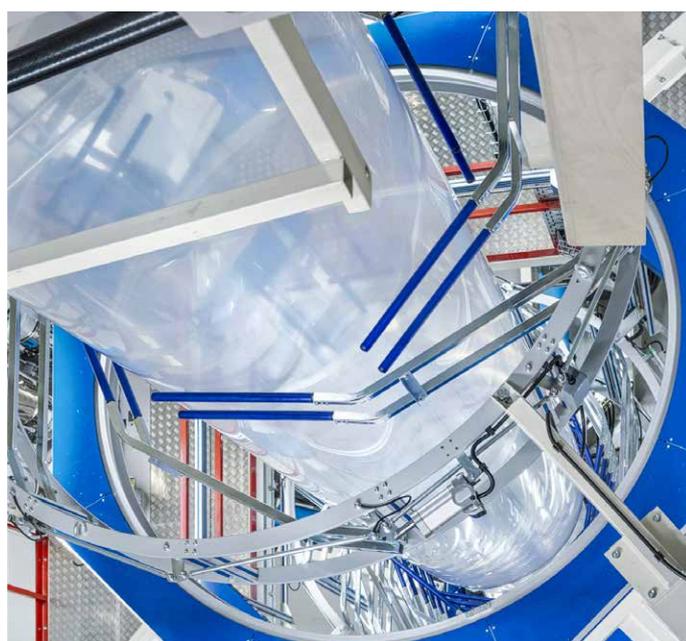
Uponor Infra Oy Technology (previously KWH Pipe Oy Technology) has worked in co-operation with Extron-Mecanor for more than 20 years. Extron-Mecanor has delivered extrusion technology to our projects in Latin America, the Middle East, Asia, the CIS countries and Europe. The most recent delivery was to France, and a project to Turkey is now under way. The co-operation has been fruitful and mutually supportive. The automation expertise of Extron-Mecanor and the related extrusion have been highly important in our projects.



BLOWN FILM LINES

Extron-Mecanor have been a pioneer in the manufacture of blown film lines: manufacturing the world's first 10-layer blown film line. Strong experience in multilayer blown film lines can be used to make anything from thin masking films to packaging films and sack films.

The blown film lines designed and manufactured by Extron-Mecanor can be used to fabricate plastic films with the thickness of micrometers, especially suited for food packaging.



EXTRUSION COATING AND LAMINATION

Coating and laminating based on extrusion is applicable to the coating of paper, boxboard and aluminium foil. Extron-Mecanor has experience in the implementation of extensive coating lines from raw material storage and transfer systems to highly precise track coating. Coating technology between winders and unwinders is based on strong extrusion expertise and in-house equipment, process, electricity and automation design. Coating lines are delivered with a turnkey principle, assisting with implementation and taking care of user training.



METSÄ BOARD, HUSUM SWEDEN

Extron-Mecanor delivered an extensive PE-coating line with a turnkey principle to the Metsä Board mill in Husum, Sweden. Extron-Mecanor supplied all the technology required for PE extrusion coating starting from the pre-treatment of boxboard to two-sided coating and post-treatment. Project also included the electrification and automation of the coating line as well testing, start-up and training for the personnel of Metsä Board.

Massive in scope, the project was an outstanding success. Extron-Mecanor was able to supply the Husum mill a reliable and efficient coating line. Its innovative solutions enable the line to perform with high quality and minimal interruptions, thus improving the profitability of Metsä Board.

RAW MATERIAL TRANSFER SYSTEMS AND GRAVIMETERS

Extron-Mecanor delivers raw material transfer and storage systems that improve the production processes of customers from the first steps of the process. An automated transfer system streamlines and enhances the production process by improving the output capacity.

Extron-Mecanor's loss-in-weight gravimetric control system is applicable to pipe, blown film and coating extrusion, ensuring the correct dosing of raw materials according to the customer's recipes. The automated system measures the round output of the extruder and doses raw materials accordingly. Gravimeters are suited for up to eight raw materials: the primary material and seven additives. The

system includes a feed hopper, weighting hopper, metering valve, frame, automatics with an interface and the necessary measurements and controls. An easily maintained system designed out of standard components and integrated with an extruder can even be expanded afterwards.



OY PRIMO FINLAND AB, HANNU INKI, PRODUCTION MANAGER

For Oy Primo Finland Ab, Extron-Mecanor delivered an automatic raw material transfer system. Hannu Inki, Production Manager from Oy Primo Finland Ab Vaasa, says that the raw material transfer system delivery was exemplary. The project management at Extron-Mecanor was carried out professionally and everything went smoothly. Hannu also praises the implementation and training of the equipment and says it was conducted with a practical and positive attitude. According to Hannu Inki, the new raw material transfer system has significantly increased the productivity of the site. The fully automated system has made the production considerably faster and easier by eliminating several manual work stages.

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