

GUZZINI ENGINEERING CRESCERE CON LE IDEE

History.

Guzzini Engineering is a commercial division of Acrilux SRL one of the Companies belonging to the Guzzini family. It is an Italian industrial group established in 1912 by Fratelli Guzzini: a rather unique story that began with the production of articles made of ox horn and characterized by the subsequent use of various synthetic materials.

A history of development and ongoing technological research that has led the company to acquire a unique understanding of thermoplastic materials.

Acrilux was created in 1966 and grew in this cultural and industrial context. During the forty years of activity the company developed, for its internal production needs, several technological instruments that in 1994 started to sell to the market with a specific commercial division: Guzzini Engineering

Production.

Since more than twenty years Guzzini Engineering produces and sell with its own commercial network, hot runners, and more in general, technology for the injection molding.

"Crescere con le idee": (Growing up with Ideas) is Guzzini Engineering's philosophy. This philosophy base its existence on the development of new advances technologies to improve both the production efficiency and quality

Guzzini Engineering is actually trying to put this philosophy into practice to become a miles stone for whoever wish to be in the forefront on the plastic industry



EasyBalance Molding System

Balancing - Repeatability - Accuracy

A new way
to Mold



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EasyBalance Molding System

THE SOLUTION TO THE BALANCING PROBLEMS WITH DIFFICULT MATERIALS

In multicavity injection molding of traditional thermoplastics a perfectly balanced injection system is not always a sufficient condition to ensure a perfect balancing of the weight between the different cavities, this because, of the possible differences in temperature levels. Sometimes even few degrees of difference between the cooling zones can lead to a weight mismatch between the parts.

This is one of the reasons why after the Injection phase is always used a maintaining phase. Keeping under pressure a flowable material inside a series of communicating cavities involves, in fact, a nearly complete balance of their filling.

Unfortunately, in Injection Molding is not always possible to use a maintaining phase after the injection. Some materials, in fact, cannot be compacted due to their characteristics. This is the case, for example, of those polymers filled with blowing agents or, in the field of thermosetting, the case of liquid silicone rubber (LSR).

To allow a correct molding also in all those cases where the balance of the cavities in a multicavity mold is not an easy task, Guzzini Engineering has developed "EasyBalance" Molding System

EasyBalance LSR

EASYBALANCE MOLDING SYSTEM IS PARTICULARLY WELL SUITED TO PROCESS LIQUID SILICONE RUBBER (LSR) WHERE THE PROBLEMS OF BALANCING BETWEEN CAVITIES, PRECISION AND REPEATABILITY ARE VERY IMPORTANT.

CARATTERISTICHE DI EASYBALANCE

- Cold or Hot distribution and injection system for different types of materials, able to be installed in a mold or on an assembly line.
- The system is able to dose in volumetric mode and transfer into the cavity the amount of material exactly required in the production of the part. This is done through a series of dosing tanks.
- Both the filling and the emptying of the dosing tank takes place following a FIFO (First in First out) logic. In practice the first material that enter the tank is the first to be injected, this decrease to the minimum the permanence of the material inside the tank and reduce the risk of degradation or vulcanization
- Each dosing tank is connected to a low-pressure feeding system and to a masterbatch feeding system. This way every single cavity may have a different color from the other.
- The system can adapt to changes in production requirements by decreasing the number of cavities to be fed and managing required material volumes even setting different volumes for each cavity with a precision of 0.1 cc.
- The system does not require the use of the injection barrel of the injection molding machine, in fact, can be fed also by a low pressure feeding system. This makes possible, for example, the molding of LSR on a thermoplastics injection molding machine.
- The system is driven by brushless servo drive with ball bearing screw and controlled by a control cabinet, with touchscreen keyboard.
- The control allows setting all the parameters needed for proper molding including: Injection torque, Dosing torque, Shut-off runners opening and closing time, Cooling Time, Injection and dosing speed and more.

EASYBALANCE ADVANTAGES

- PERFECT BALANCING BETWEEN CAVITIES REGARDLESS OF THE NUMBER OR ARRANGEMENT OF THE THEM.
- CONTEMPORARY MOLDING OF X. PRODUCTS WITH DIFFERENT WEIGHT, THICKNESS AND COLOR.
- DOES NOT REQUIRE THE USE OF THE INJECTION UNIT OF THE PRESS AND THUS MAKES POSSIBILITY TO MOLD THERMOSETS ON THERMOPLASTIC PRESSES AND VICE VERSA.
- STRICT PROCESS REPEATABILITY



CONTROL USER INTERFACE



PROCESSABLE MATERIALS

- LIQUID SILICONE RUBBER (LSR).
- INDUSTRIAL WAXES.
- THERMOPLASTICS POLYMERS.
- OTHER THERMOSETTING RESINS.