



Cast Polyurethane Industrial Processing A New Generation of Low Pressure Dispensing Machines

Baulé®







A new concept

As the requirements for quality parts are rising, the industrialization of any manufacturing process represents the ultimate solution to guaranty an even production. Cast polyurethane elastomers part production is no exception to this market assessment. The use of a low-pressure processing machine will therefore play a decisive part in securing an optimized production, and will be a potential game-changer for our clients.

To those who have the means to widen their scope of actions, to those who have to rely on themselves every step of the way to make their business a sustainable enterprise, we design the most customized solutions.

Faithful to its background, Covestro Elastomers has once more challenged itself in order to come up with the most beneficial and effective ideas to answer the market's ever-rising expectations.

Creating your perfect match

A new approach to custom-made machinery

Throughout its history, Covestro Elastomers has proven to answer to its clients' needs and circumstances in the best possible way. Today, it is with the same intent that a new concept is born, one that will allow our customers to access a machine that will meet their current and future requirements.



Covestro's technical sales representatives will make it their mission to assist our customers during the creation of their machine. With this fully flexible method, our clients will be able to access a large number of features on their current model.

With the evolution of their business, our customers see their needs changing at sometimes unexpected speeds. Their requirements suddenly vary from what they were at the time of the purchase.

What if your machine was able to flexibly evolve with your needs?

As an answer to this recurring situation, Covestro Elastomers came up with a new concept that will allow our customers to specify which features they want on their machine, and to keep on adjusting it to their needs as their circumstances evolve.

New needs: same machine

It is no longer necessary to go for a new machine: the fully customizable and scalable design enables one to alter and refine the profile of a previously owned machine, or to create the exact tool you have in mind to match your needs.

Covestro machines: features and principles

Covestro machines are designed to fit molders' requirements regardless of the systems processed, the working environment or the application field. Their technology is based on the following key principles:

Flexible machinery for fast-moving industry

- Upgradeable design
- Custom-tailored capabilities
- Versatile formulation processing

Optimized processing for enhanced productivity

- Full shift efficiency
- Consistent process quality
- Limited waste of material

Reliability and process data management

- Reduced maintenance
- Accurate metering
- Process parameter control

User-friendly design for effortless handling

- Intuitive and smart interface
- Convenient daily operation
- Easy maintenance access

New perspectives

Everything you have known just got even better

While maintaining such high expectations, our new concept allows for an even wider outreach thanks to the two main paths our customers can choose to walk.

Baulé® alpha machines

The alpha approach allows our clients to pick from a wide range of configurations in order to end-up with the machine they need at the moment of their purchase, with the possibility of easily upgrading their model according to their evolving needs.

In a precisely elaborated frame, a great number of combinations can be made to suit both the means and needs of every customer.

Thanks to an output ranging from 2 to 30 kg per minute, to a material tank that can go up to 400 liters, and to the possibility of choosing 2 to 4 components, Baulé® alpha machines offer a comprehensive range of options in the designs and features they present.

Baulé® omega machines

With the omega approach, the only limit is the one our customers hold themselves to. Clear of the usual restrictions, Baulé® omega machines allow our customers to design their machine beyond any boundaries.

Thanks to our senior engineering team, any viable combination of features is possible. This customized approach has been designed to meet the most demanding and specific requests in order to meet our customers requirements.



Innovation with a purpose

Finest metering accuracy: auto-calibration

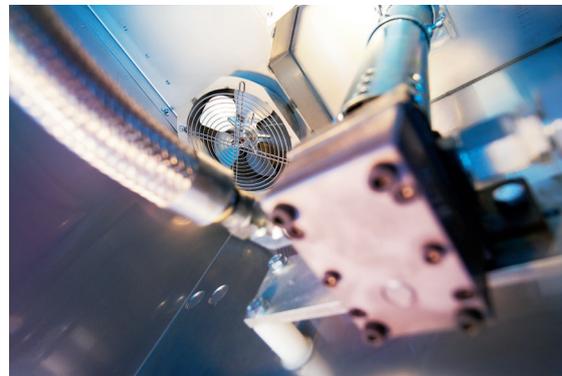
Calibration is an essential step which, through accuracy, guarantees a regular and perfected production. As a manual process, it does require a daily investment of time, effort and precision. Although helpful and effective, this method requires an advanced mastery of the various steps in order to obtain accurate results.

The purpose of this innovation is to have a fully automated, error-free and highly accurate calibration method. Besides Baulé®'s flowmeters solution, Baulé® Auto-calibration guarantees the best accuracy on the market thus far, regardless of what the molding parameters might be.

The invention works in conjunction with software functions that allow a full recording and analysis of the machine's calibration, while giving the operator the appropriate recommendations for an optimal adjustment of the machine's working pressure.

Rendering this process an automatic one, allows:

- A complete and adapted calibration of the machine without time-loss
- Avoids manual operations and possible mistakes
- Grants key calibration data storage for quality records.



Enhanced operator-machine interactions: new HMI

Because of the advanced software developed to enhance Baulé® Machines, a highly perfected digital interface was necessary in order to ensure that our clients would see their work simplified by the tool instead of finding it too complex to comprehend at first sight.

Baulé®'s Human-Machine Interface has been redesigned to become a most dynamic, intuitive and interactive asset for operators. Displaying the machine's manufacturing data in real time, this new version provides a smooth browsing experience thanks to its seamless and effective layout.

Numerous options are now available to our clients who wish to cross, compare or compile chosen data that can also be translated into dynamic curves, control panels, or flow sheets. Such information will allow our customers to

provide their own clientele with a customized casting report which will stand as a reliable quality guaranty.



Optimized for our clients' convenience, the screens allow a clear view of any potential irregularities on the machine, while making it a quick and a simple formality to enter all processing values for precisely calibrated results.

Increased heating speed: HPO

Electrical heating, initially promoted by Covestro, is today commonly used due to its numerous advantages versus fluid heating systems, such as a cleaner and easier maintenance.

It is still true that heating with electrical ovens takes more time than fluid-based heating systems do. It may be difficult to use a new batch of product during the same shift due to the heating time that may vary depending on the material's characteristics.

Baulé®'s High Performance Oven (HPO) comes as an answer to this issue. With a heating speed that is twice as fast as the previous ovens', for an unchanged consumption of energy, the HPO relies on a powerful heating system.

The HPO relies on an innovative way to manage the heated air flow. Compared to classical designs, the heating time of the material is divided by two for an unchanged consumption on energy.



While almost eliminating all drawbacks arising from electrical heating, the Baulé® High Performance Oven continues to be at the forefront of this technology.

Improved operator safety: LEO

Safety first is a motto that is heavy with meaning and intent for Covestro. It is also a main concern for Covestro Elastomers to ensure our clients' safety and well-being while handling our products and machines.



Through constant analysis and assessment, Covestro Elastomers came up with a solution to further perfect the machines' ovens' design. Thanks to Covestro Elastomers' Low Exposure Oven (LEO), opening the machine's oven now requires to follow a quick, predefined routine, in order to submit all operators to higher safety standards.

This procedure requires of the operator to put in a request to open the oven door on the machine's Human-Machine Interface. The machine will ensure that all ongoing operations are halted, and that the air inside is drained and evacuated before signaling to the operator that the oven door can be opened.



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