

EXTRUSION

System solutions



ZERO LOSS

THE PARTNER FOR YOUR INDUSTRY.

Our core competencies.



EXTRUSION

For cables, tubes and profiles. High-quality dosing and mixing systems that deliver superior precision and consistency for the continuous production of films, cables, tubes and profiles.



INJECTION MOULDING

For everyday products. Complex, end-to-end systems or individual units for the automotive, electronics, household goods and healthcare industries as well as for cleanroom production.



BLOW MOULDING

For bottles and containers. Reliable conveying, dosing and mixing systems for high-volume production of bottles and other containers.



COMPOUNDING

For masterbatches and more. Dosing and mixing systems for challenging, continuous production processes, such as masterbatches.

The motan group is a leading global provider of peripheral units and systems for the handling of bulk solids. We deliver solutions for a wide range of markets.

Our offering is based on in-depth expertise, spanning the entire process chain. We develop solutions for plastics manufacturers and processors as well as for the chemicals industry. And our systems are tailored to real-world applications, helping to improve our customer's efficiency, productivity and competitiveness.

Our organisation is both global and local, with a structure that means we are always exactly where you need us: close at hand. Furthermore, you benefit from systems engineered to meet your specific challenges. We go far beyond conventional materials handling solutions. Find out what motan can do for your process chain!

motan group

motan was founded in 1947, and Colortronic has been part of the motan group since 2006. In 2021, Bolder Automation was incorporated into the group. Today, we have a clear two product brand strategy. These consists of the brands „motan“ as a premium brand for customised system solutions and „swift“ for individual products with short delivery times as well as for standard solutions in the systems business.

ZERO LOSS

A close-up photograph of industrial machinery. On the left, a circular extruder head is shown from a top-down perspective, with a stream of small, blue, cylindrical granules falling from its central opening onto a flat metal surface below. On the right, a larger, angled extruder head is shown, with a thick, continuous stream of small, yellow, irregularly shaped granules falling from its opening. The background is a plain, light-colored wall. The overall scene depicts a manufacturing process for plastic granules.

INTELLIGENT SYSTEM SOLUTIONS for the automation of extrusion processes

Our systems support you in the continuous production of semi-finished and finished parts made from thermoplastics and thermoplastic elastomers in the form of granules, regrind and flakes. You will also find specialized products for powders and liquids in our product portfolio.

motan offers application optimised dosing and mixing systems for mono and coextrusion with single or twin-screw extruders. As one of the world's only providers of end-to-end solutions, we employ both analogue and digital load cell technology. This allows us to implement cost-optimised and individual solutions, from volumetric, gain-in-weight (GIW) to high-precision loss-in-weight (LIW) systems.

With the modular control technology of motan extrusion engineering gmbh, our dosing and mixing systems are networked with higher-level machine controls. If required, existing lines

can be modernized with the retrofitting of new controls. Complex materials with very narrow processing parameters can be managed with high process reliability.

Our range of services are rounded off by comprehensive systems engineering for drying and conveying through your process chain.

You benefit from an application-oriented system solution that increases your energy efficiency, conserves resources, and optimizes process reliability. In short: A solution with added value - throughout the entire life cycle.

GRAVImaster 231 for Monoextrusion

The GRAVImaster 231 controls the throughput of an extruder or a feeder screw. It uses gravimetric throughput measurement with the aid of a weigh-hopper to precisely set the throughput of an extruder. The throughput measurement method is based on loss-in-weight measurement over a time interval. The GRAVImaster 231 supplies the weigh-hopper and in turn records the weight signal, even over a greater distance with little interference. The GRAVImaster 231 is characterized by a clear and easy-to-operate user interface.

A special feature of this operation is that the extruder can be started up via the speed and gravimetric control can be activated at the operating point. This means that everything is still under manual control when starting up the system and can be operated by a modern touch display.

GRAVImaster 321 for Coextrusion

The GRAVImaster 321 is designed to operate an extrusion line with weight-per-meter control. It can control up to two extruders and one haul-off. The GRAVImaster 321 can be integrated into existing automation systems and use processing machine signals.

Important values and ratios for production can be taken from the user interface. The entire line can be changed to a new working value via the master value. This is particularly helpful when starting up the line by starting the motors individually and then accelerating all of them proportionally to the production speed.

Both GRAVIMaster controls use Siemens S7 technology and offer numerous diagnostic options and trend displays. The use of the latest technology and interfaces allows extensions and the implementation of specific customer requirements at any time. This also includes the networking of several GRAVImaster 321 controls with associated visualization via the WinCC.

BTW Weigh-hopper

The BTW weigh-hopper is designed for gravimetric measurement of the throughput of free-flowing bulk materials such as granules, regrind and powder. It is available in numerous hopper sizes for throughputs from 1 to 1500 kg/h and is suitable for use on mono- and coextrusion lines or in combination with feeders. The weigh-hopper is used to measure the weight of the material entering the extruder. The weight decrease over time is the measure of the throughput. In this way, continuous and precise monitoring and control of the extruder can be carried out.

The weighing platform is securely fixed to the base frame and can be mounted directly on the extruder's machine feed or on a customized platform. Due to its compact and modular design, the BTW can be used in combination with screw feeders. Thus, it can be optimally adapted to different applications.



GRAVICOLOR for Extrusion

GRAVICOLOR doses and mixes up to six materials precisely and with the highest recipe accuracy. These modular, gravimetric dosing and mixing units are specially designed for the fields of blow molding and extrusion with throughput rates of up to 2200 kg/h. To meet the industry-specific requirements of extrusion, higher regrind processing is guaranteed.

For extrusion applications the GRAVICOLOR can be offered with either the Codesys based GRAVInet GC control or with the Siemens S7 based GBB control. The GRAVInet GC control, manages and monitors a GRAVICOLOR unit with up to six material components. The IntelliBlend software gives you complete process control and maximum recipe fidelity through self-optimisation and automatic material calibration.

With the GBB control, dosing of up to four material components is possible. Precise dosing is ensured by the „Siwarex“ module which offers an intelligent calculation of the dosing times. This module was specially developed for the use of high-precision weight measurement and processing and is characterized by fast pre-processing of the signals.



SPECTROPLUS

SPECTROPLUS is a gravimetric & volumetric synchronous dosing & mixing unit for a wide range of materials - from granules, regrinds or powders to liquids and flakes. A wide selection of dosing elements enabled dosing from 0.8 l/h up to 4400 l/h per dosing unit.

The modular design of the SPECTROPLUS with only one frame size and up to 8 dosing module positions makes it one of the most flexible overall systems in the motan product world. In addition to the gravimetric and volumetric versions, the SPECTROPLUS can also be used in combination (gravimetric and volumetric dosing modules). This makes it highly variable and ideal for individual applications and complex end products.

The unit can be used for both overfed extrusions and underfed compounding lines. Here, the unit can be supplemented with stand-alone dosing modules on side feeders.



DOSING AND MIXING.

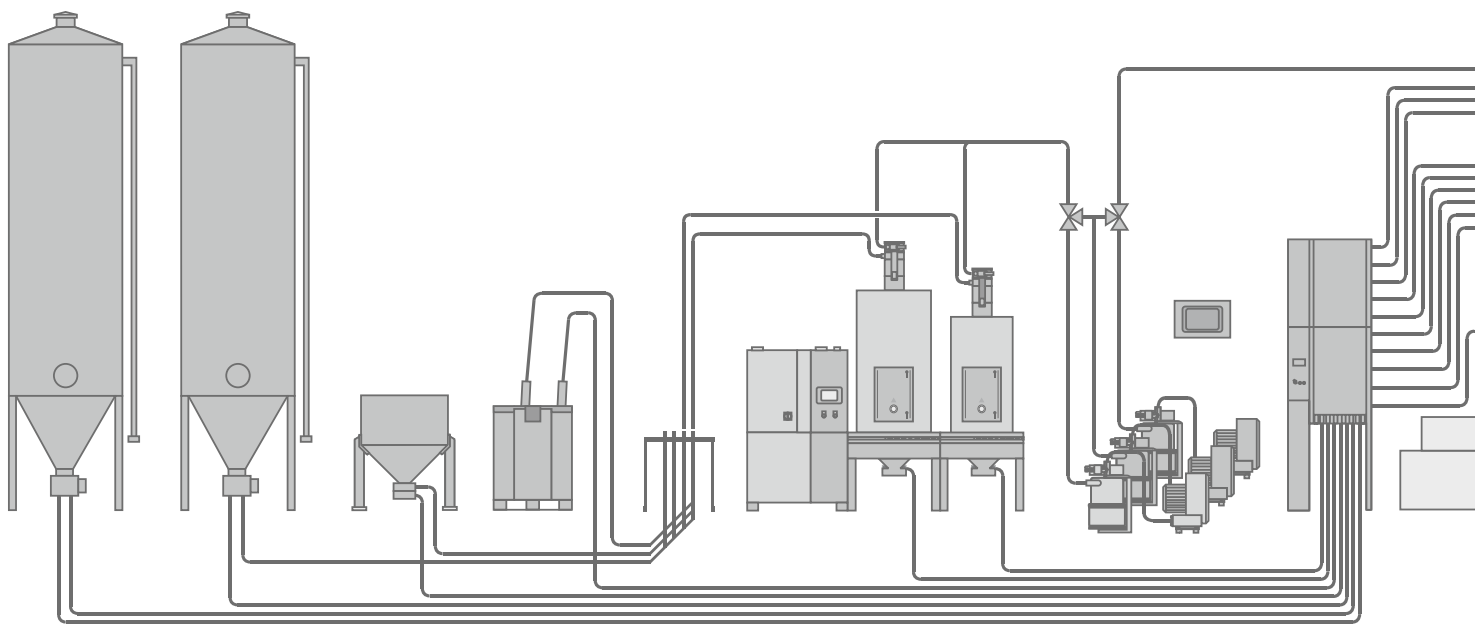
With highest consistency and accuracy.



VOLUMETRIC

FOR SIMPLE EXTRUSION PROCESSES.

Reliable, cost-effective solutions for simple recipes with high dosing rates and consistent bulk density of the powder.



STORAGE

SOPHISTICATED STORAGE SOLUTIONS, EFFICIENT UTILISATION OF RAW MATERIALS.

From small portable containers to large scale outdoor silos, motan provides the right storage solution for your materials handling needs – saving you space, raw materials and reducing the effort and cost of transportation.



DRYING

LOWER COSTS, HIGHER-QUALITY DRYING.

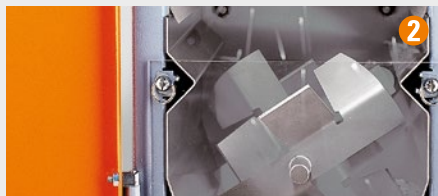
motan drying systems are designed to be energy efficient. Patented ETA plus® technology helps you reduce energy consumption by up to 64 percent and thanks to the DryingOrganizer, you can be sure of excellent results each time.



CONVEYING

AUTOMATIC CONVEYING, GREATER PRODUCTIVITY.

Our conveying systems optimise your materials flow, reduce waste and boost the productivity of your production line. We offer integrated, end-to-end conveying systems and individual units.



GAIN-IN-WEIGHT

FOR PRECISE DOSING.

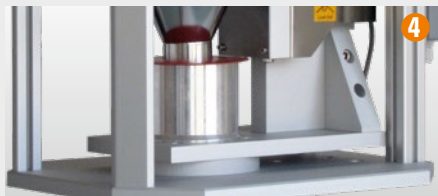
High-quality gravimetric solutions for flood-fed single-screw extrusion where high dosing precision is required.



LOSS-IN-WEIGHT

FOR BLEND ACCURACY AND HOMOGENEITY.

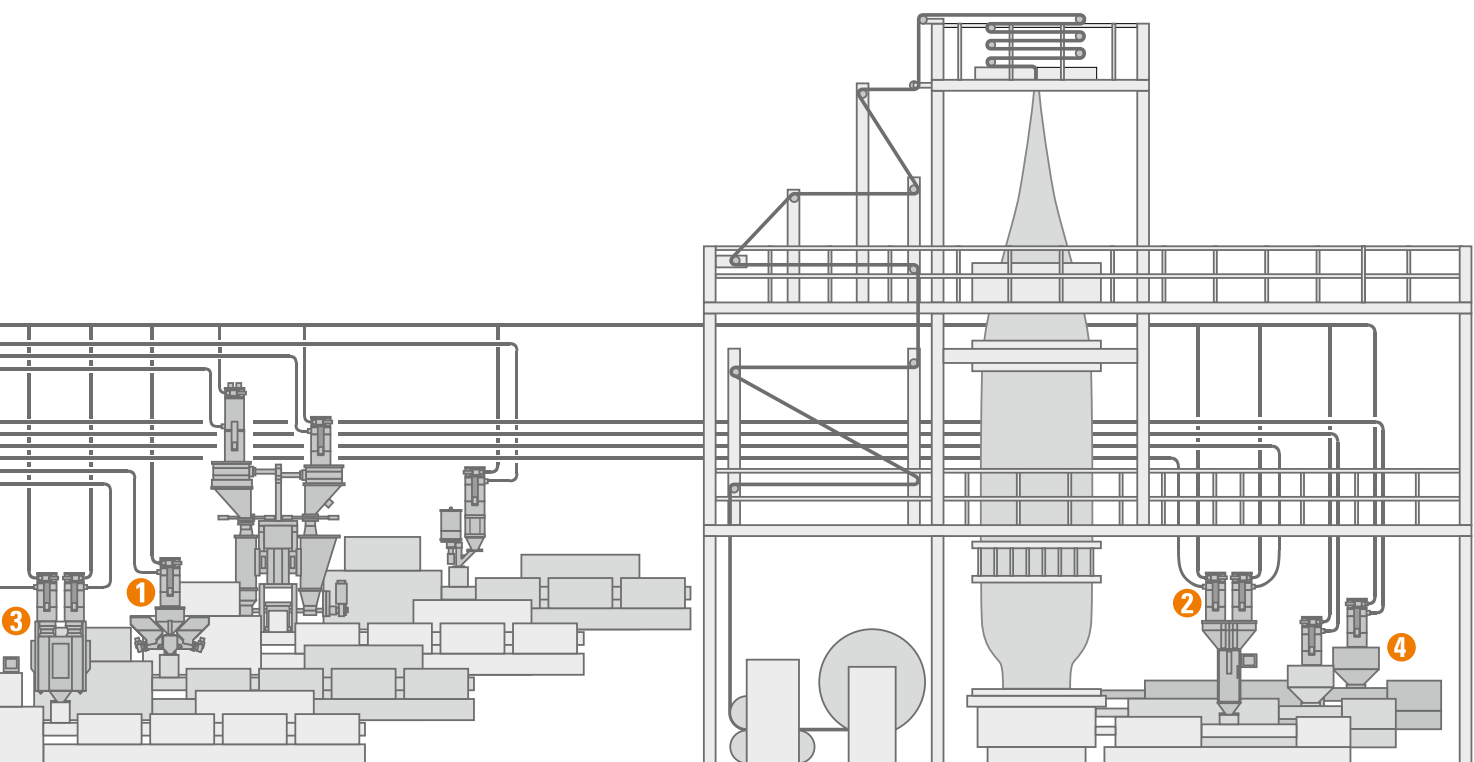
State-of-the-art gravimetric dosing and mixing system for all flood-fed single-screw processes and starve-fed twin-screw processes requiring superior blend accuracy and homogeneity.



THROUGHPUT CONTROL

CONSISTENT QUALITY AND REPEATABILITY.

The gravimetric throughput measurement determines the output of the extruder. The control system can maintain the specified setpoint by adjusting the extruder speed.



DOSING AND MIXING

PERFECTLY MIXED,
CONSISTENT QUALITY.

Our product range includes gravimetric and volumetric units for dosing and mixing granules, flakes, powder, or liquids especially for extrusion processes. This wide range is ideally suited for individual applications and the consistently high quality of the results is one of your competitive advantages on the market.



CONTROLS

INTELLIGENT CONTROL NETWORK,
OPTIMAL MONITORING.

A modular design of the individual controls allows the integration of the individual processes into a central control software. Thus, all process steps from material conveying, dosing & mixing to a mono- or co-extrusion control can be optimally coordinated and managed.

Tech Center

PROJECT-SPECIFIC TESTING.

At our tech centers.

In each of our sales regions, the motan group operates dedicated Tech Centers, providing customers with testing services for their specific process applications, whatever the task. Our Tech Centers around the world play a key role in ensuring you receive the best possible solution, guaranteeing reliable, efficient system operation.

SUSTAINABLE SOLUTIONS.

Protecting resources.

Our systems and units optimise material flow and increase efficiency and reliability of supply across the entire process chain – whether through ease-of-use or energy-efficient deployment of raw materials, consumables and utilities. This is exactly what we mean by sustainable solutions.

OUTSTANDING SERVICE.

For all your needs.

The great thing about our organisation is that we are both global and local: wherever you are, we're there too. We are present in all our key markets. Our services and solutions range from comprehensive advice and assistance for all your materials management questions, to commissioning your systems, to after-sales services. We support you every step of the way, and are always available to carry out maintenance and other services. Rapidly and reliably.







BRANDS THAT BENEFIT FROM OUR SERVICES AND SOLUTIONS.

Selected names.



HOW MAY WE HELP YOU?

SO WHERE CAN YOU FIND US?

WORLDWIDE.



- = motan company with production
- = motan company
- = sales & service partner

AFRICA • ASIA • EUROPE • NORTH AMERICA • SOUTH AMERICA • OCEANIA