Alice™ Depositor & Extruder

A top flexible solution for confectionery and bakery products

Welcome to our world

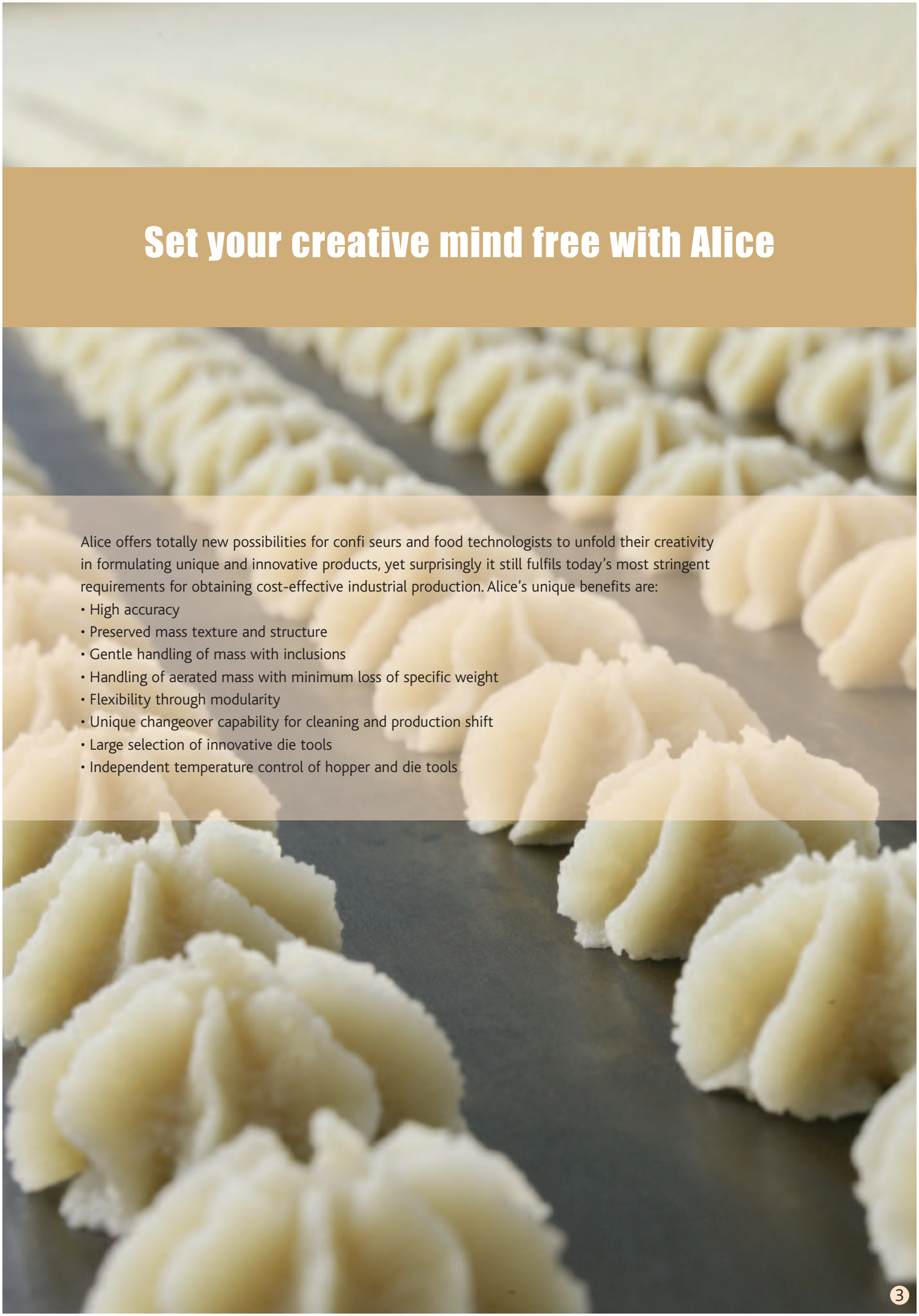
Alice - the gentle extruder and depositor – realizes your dream products

Alice provides you with entirely new possibilities for creating the finest and most unique confectionery products you have only ever dreamed about. Based on a brand-new innovative concept, Alice guarantees unsurpassed, gentle handling of the mass from input to output. Applying a minimum of work and shear to the product passing through the machine, control of the total process remains in your hands. Alice is designed to follow your directions, not vice versa.
Alice offers you yet another breakthrough too, allowing mass with large inclusions to be handled.

Alice is fully integrable with any enrobing, decoration and moulding line as well as existing or new process equipment.
Alice brings you a fully modular system - for example, you can start with a mono-head solution and add extra modules onto your basic Alice production unit later on.

The absolute cream of our experience as a market leader in chocolate depositing and moulding technology for nearly 90 years has been built into Alice – all to the benefit of your confectionery production!

Set your creative mind free with Alice



Alice offers totally new possibilities for confi seurs and food technologists to unfold their creativity in formulating unique and innovative products, yet surprisingly it still fulfils today's most stringent requirements for obtaining cost-effective industrial production. Alice's unique benefits are:

- High accuracy
- Preserved mass texture and structure
- Gentle handling of mass with inclusions
- Handling of aerated mass with minimum loss of specific weight
- Flexibility through modularity
- Unique changeover capability for cleaning and production shift
- Large selection of innovative die tools
- Independent temperature control of hopper and die tools

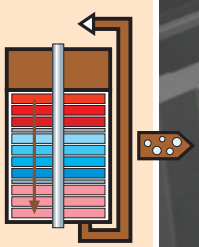
Production equipment around Alice

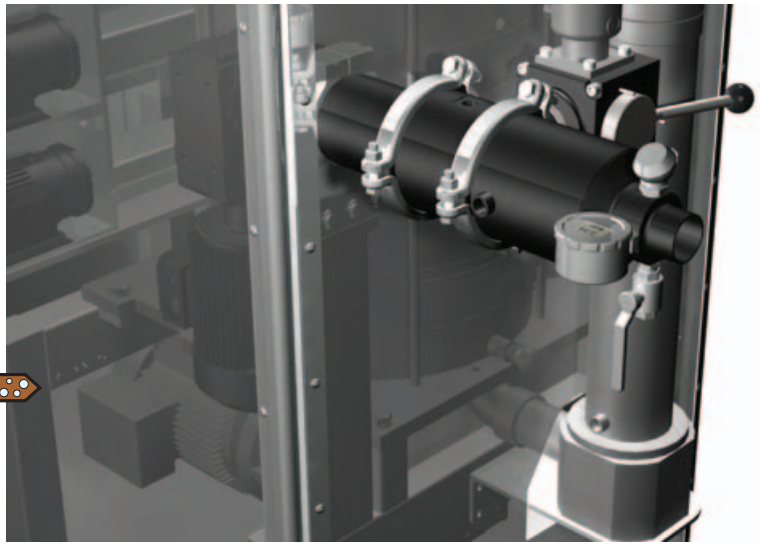
Optimum production line solution from Aasted-Mikroverk for enrobing of extruded centres with chocolate. Alice is supplied with aerated, tempered mass from an AMC SuperNova Aeration and the enrober is supplied with tempered chocolate from another AMC SuperNova CTS. All units deliverable from Aasted-Mikroverk.

Alice on movable C-frame

Alice - enrobing line set-up

AMC SuperNova Aeration





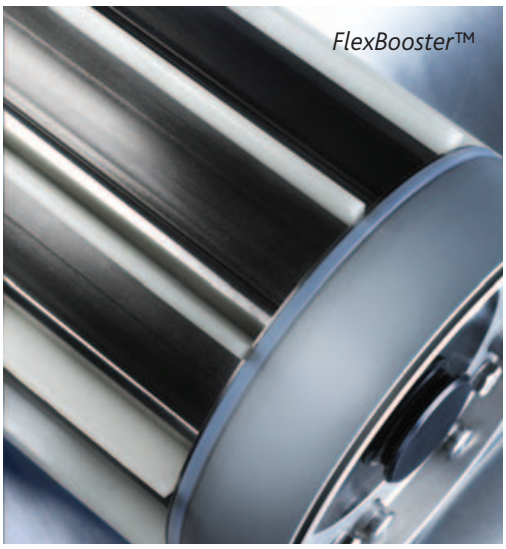


Innovative new thinking – a gateway to new products



Our goal is to give the you full freedom to achieve the finest possible products by minimizing impact on the mass texture and inclusions. After numerous tests with traditional solutions our R&D engineers realized that these had to be rejected and a totally new, innovative line of thought applied in order to achieve our goal. The convincing result was the birth of the astonishing twins – the FlexBooster™ and the CamRotor™ - which combine to secure the gentleness and effectiveness achieved in Alice™.


CamRotor™


FlexBooster™


QuickShift die plate

Seeing is believing at the AM Technology Centre

We invite you to try out your new concepts! For many years, we have been working with clients in close and confidential relationships, and we hope that you will join in as well. Having access to large pools of practical knowledge and innovative know-how, we are ready to turn your creative ideas and dreams into reality.

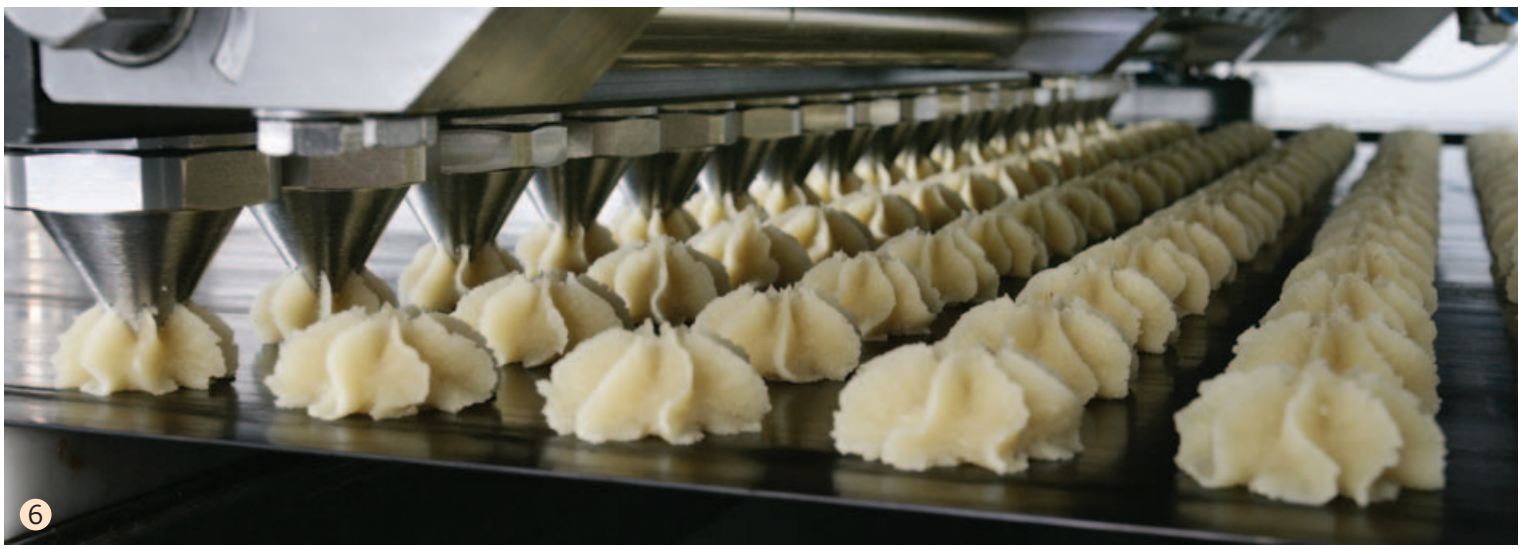


Alice makes them all

Based on its superb modular design and the huge variety of masses that can be handled, Alice presents an exhaustive list of applications for extruding bars and centres for enrobed products as well as depositing centre fillings for moulded products by single-, one- or triple shot:

- **Marzipan and almond paste**
- **Nougat**
- **Gianduja**
- **Centre mass for pralines**
- **Peanut butter**
- **Centre fillings**
- **Aerated fillings**
- **Caramel**
- **... and much, much more.**

All parts of Alice - from hopper to die plate – are optionally temperature-controlled and fully flexible to accommodate any one of a variety of fillings.



The extruder and depositor in detail

A substantial improvement in high-performance extruders and depositors requires innovative thinking and implementation of new ideas both in the detail and in the overall concept. Below we present a flavour of the innovations introduced with Alice™.

Durability

Simplicity and surprisingly few moving parts are the route to Alice's™ gentle, robust and reliable operation.

Materials

We apply exclusively FDA-approved materials and coatings. Further stainless steel is an option for specific or demanding applications.

Hygienic design

Fewer moving parts and an extruding CamRotor™ manufactured from one-piece stainless steel not only reduce contamination and downtime for cleaning, but also ensure superior results for the actual cleaning process.

Feed roller

The function of a small feed roller is to gently guide the mass to the main feed roller – the FlexBooster™.

FlexBooster™

The innovative FlexBooster™ effectively captures the mass in the hopper. With unforeseen gentleness, major volumes of mass are guided towards the CamRotor™ at the bottom.
The unique combination of flexible lamellas and the large diameter of the FlexBooster™ further ensures that:
– booster speed is significantly reduced compared to traditional solutions,
– shearing and smearing of inclusions in the mass are minimized, and mass return-run circulation to the hopper is also eliminated, thereby satisfying the First in – First out principle.

Effective suction lift

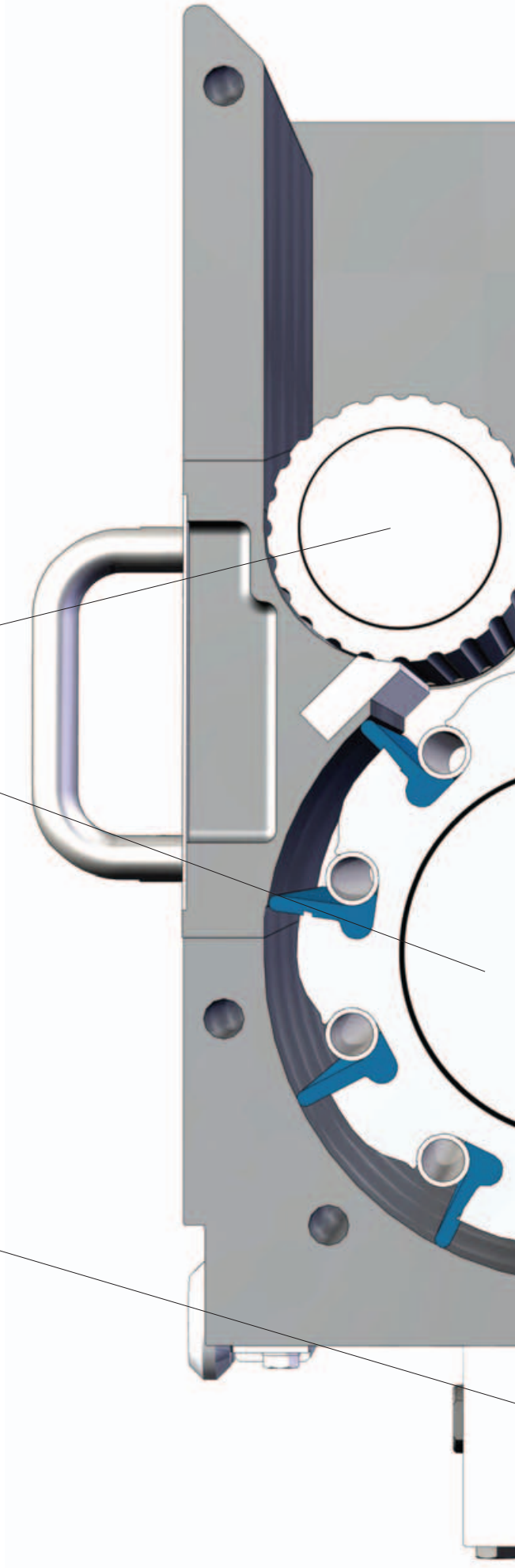
The CamRotor™ provides a gentle yet efficient suction lift to the mass fed from the FlexBooster™, thus reducing the feeding pressure – another reason why shear and rheological changes are kept at a minimum.

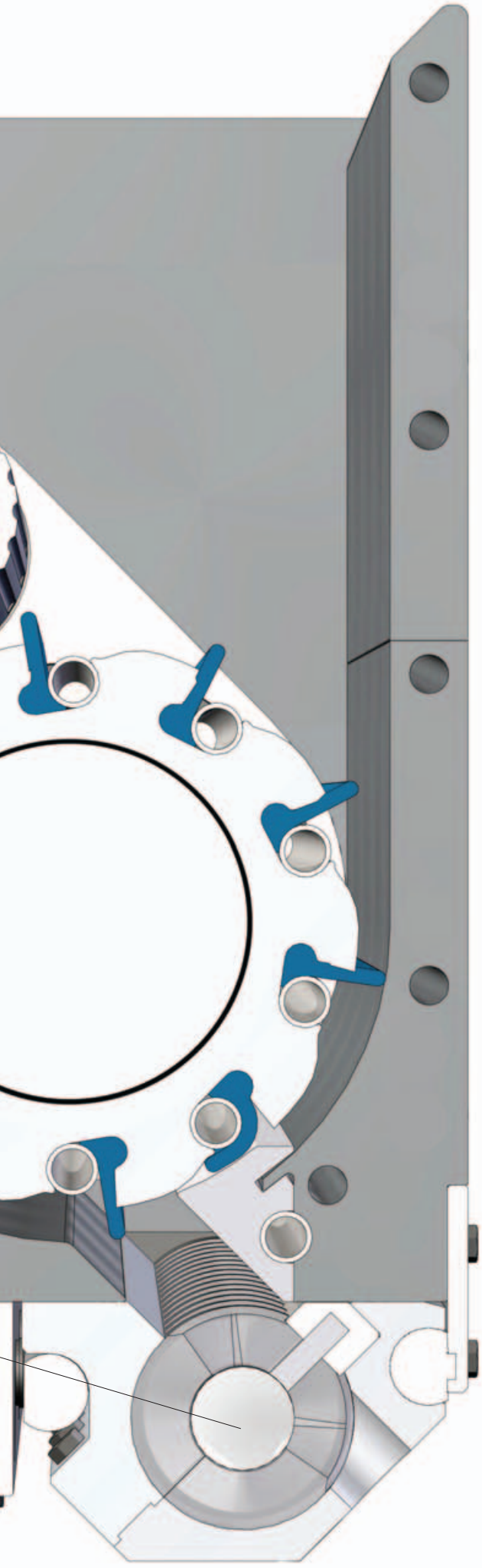
Flexibility

CamRotor™ is the key to the modular concept of Alice™. By combining one or more CamRotors™, your Alice™ can be optimized from dedicated mono machines to highly flexible multiple depositors and extruders. Every die opening is provided with an independent CamRotor™ to ensure optimum accuracy across the full width of the machine.
Fast change-over and a huge selection of die plates and tools open up a world of opportunities with Alice™.

Accuracy

Servo motors are fitted to all motions in Alice™, with individual controls for free programming of the mass settings in question, making for total precision and memory for reproducibility.





Alice™ structure

Exclusive, unique design ensures "straightforward" and unambiguous separation of the entire extruder and depositor head unit from a separate drive block, for simple maintenance and cleaning such as by hose-down. Unique advantage with immediate changeover of productions by applying two hoppers.

Drive block

All motions are CAM servo driven; all motors are assembled in one separate drive block and fully integrated with the electrical control system, adding unseen flexibility to the machine.

Clutch

The separate drive block is automatically clutched to the extruder and depositor head providing unique instant disassembly for off-line function and cleaning. Subsequent assembly for resumed production is also performed instantly.

One-sided operation

It is our philosophy that Alice™ should be operated from one side only, with easy access to all adjustment points. This includes substitution of die plates, tools and pump housings - and off-line rolling of the machine.

Off-line function

Stainless steel wheels allow for easy off-line rolling of the complete extruder and depositor head to a service and cleaning trolley or production changeover.

Hopper walls

The hopper walls are made of aluminium prepared for water tempering (standard) and easy cleaning of the smooth surface.

CamRotor™ housing

High-precision CNC-machined parts ensure optimal accuracy and robust design of the CamRotor™ housings. These are easily and quickly exchanged by a snap function operated by air cylinders.

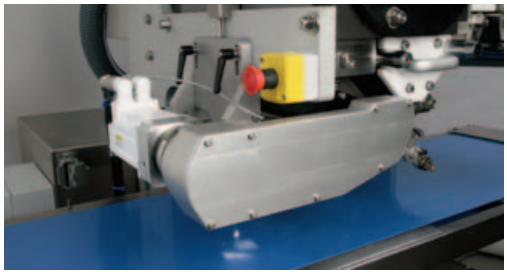
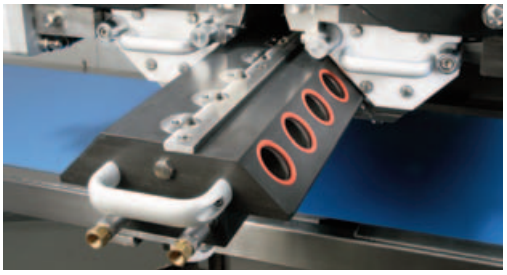
Die plates

A large selection of die plates is available to meet your expectations. The compact design enables even very sophisticated die plates to be held, within a reasonable weight, to facilitate cleaning and production changes. The plates are easily and quickly exchanged by a snap function with 180-degree rotation of two eccentric shafts. Water jacket and stainless steel are options.

Alice™ support unit

For continuous mass extrusions and wire-cutting, Alice™ is mounted to a fixed stationary support unit. For products where the underlying transport unit has to be followed at synchronized speed, a movable support unit supports Alice™ so that movements along the X (follow) and Z (up-down) axis are made possible by drives supplied by independently controlled servo motors.

CamRotor™ and FlexBooster™ are patent-protected.


Create your own favourite machine

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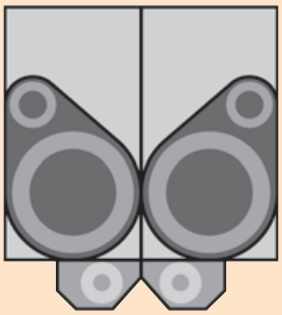

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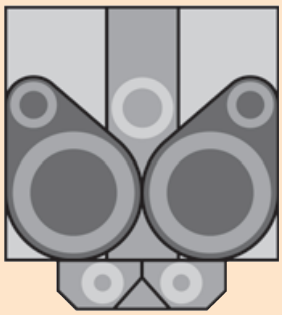


We have given you a completely free hand to adapt Alice to your specific wishes and requirements. A wide range of possibilities is offered, from mono-head to triple-head versions, with auxiliary equipment such as wire cutters and die plates – so we certainly create tailor-made equipment to meet your demands !

1) Mono-head version
For straightforward extrusion and/or depositing.

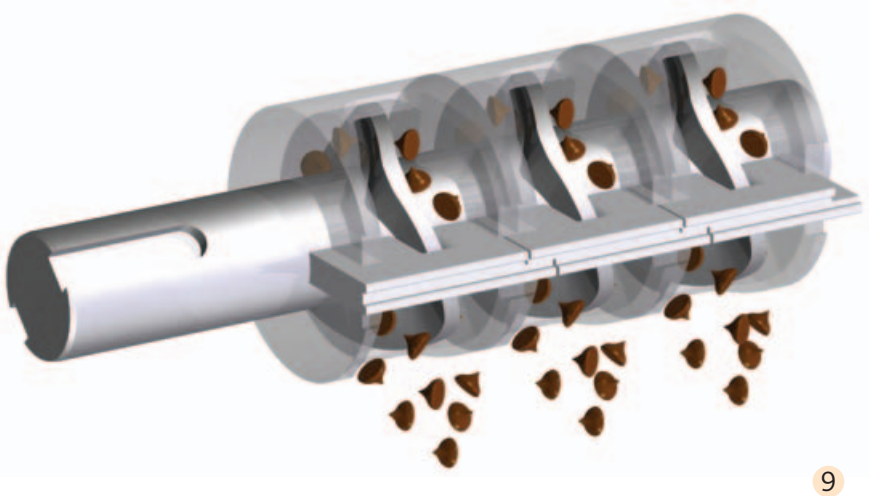
2) Double-head version
For co-extrusion, sandwich extrusion, sequence depositing, double-row extrusion and more.

3) Triple-head version
For multiple extrusion and depositing – to create sophisticated and innovative products by combining different masses and fillings. Advanced opportunities to lead your market.

Manifold solutions
High-precision solutions for direct connection to aerating equipment.

CamRotor™ - a gentle revolution

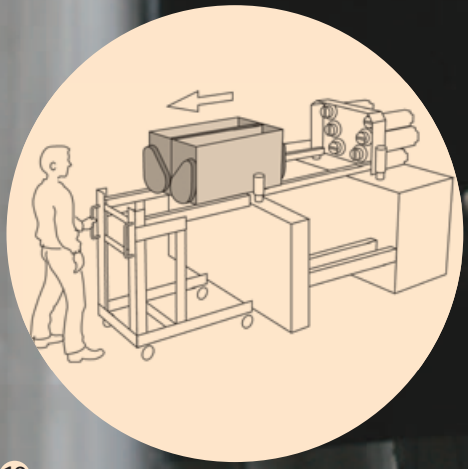
R&D have rejected traditional pistons, toothed pumps, screws and other sensitive features, creating instead a surprisingly innovative and simple, softly shaped three-dimensional impeller – we call it the CamRotor™. Together with the FlexBooster™, this produces a unique combination that moves shear-sensitive masses gently forward in a pulse-free flow – with or without inclusions. The CamRotor™ rotates continuously, for high-precision extrusion, or intermittently in reverse, for depositing with suck-back function to avoid tailing.

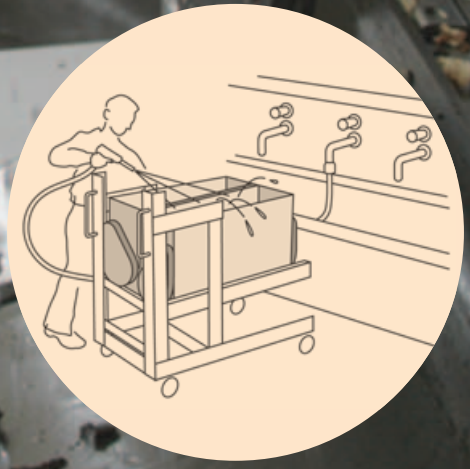


Forget strenuous cleaning and cumbersome production shifts

Forget about cleaning in the traditional sense. A top-priority issue during the entire development project was to achieve unforeseen easy cleaning and changeover of productions. We are pleased to announce that we have succeeded with Alice™. All parts are lightweight, easy to handle, and easily released and disassembled with the unique all-in-one drive block and automatic clutching features. Furthermore, Alice™ is – to our knowledge - the first modern extruder and depositor that allows complete hosing-down off-line.

If you want to retain Alice™ in-line during cleaning, Aasted-Mikroverk has created a number of dedicated tools that are available to assist the cleaning process.





Innovate with us

Our team of R&D experts is always cooking up creative new solutions. They are busy, and the working environment in our Technology Centre is fiercely innovative and very exciting. Focus on development is an important part of our philosophy, and we believe that by working with one eye on the future, we are fully capable of helping our customers to get ahead of the competition – and stay there. Please feel free to take the first step in that development process together with us. By joining forces, we shall achieve the solutions ideal for you. Why not offer your thoughts and let us take on the future together.

Since the 1920s the chocolate division at Aasted-Mikroverk has enjoyed access to a forward-looking, innovative development department – just think of the famous Jensen™ and Eriksen™ lines and the FrozenCone™ technology for shell making, as well as today's AMC SuperNova tempering technology! This has led to a huge number of patents and other IP rights, many of which have become standard-setters within our field.

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