



BlendSave[®]

Automated Resin Management and Blending System

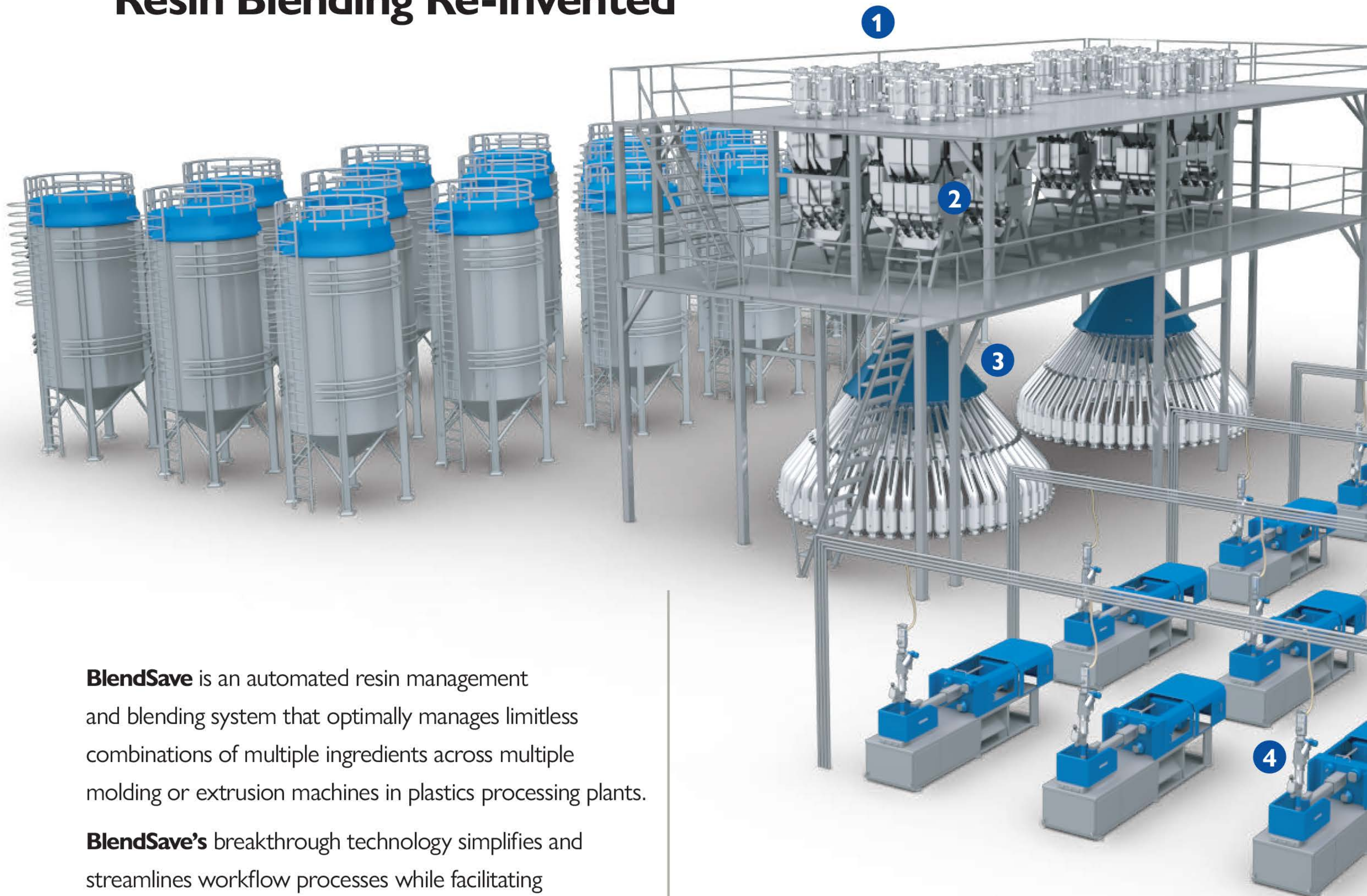
Optimally managing combinations of ingredients across
multiple processing machines in plastics plants



AMPACET
Plastics Reimagined™

BlendSave

Resin Blending Re-invented



BlendSave is an automated resin management and blending system that optimally manages limitless combinations of multiple ingredients across multiple molding or extrusion machines in plastics processing plants.

BlendSave's breakthrough technology simplifies and streamlines workflow processes while facilitating "lights-out" operations.

BlendSave offers a unique solution that eliminates many manufacturing challenges when working with a variety of resins, recycled plastics (regrind and PCR resins), and other types of raw materials such as compounds and additives.

BlendSave enhanced batch consistency and ensured higher throughput, guaranteeing increased profits and a competitive advantage in manufacturing.

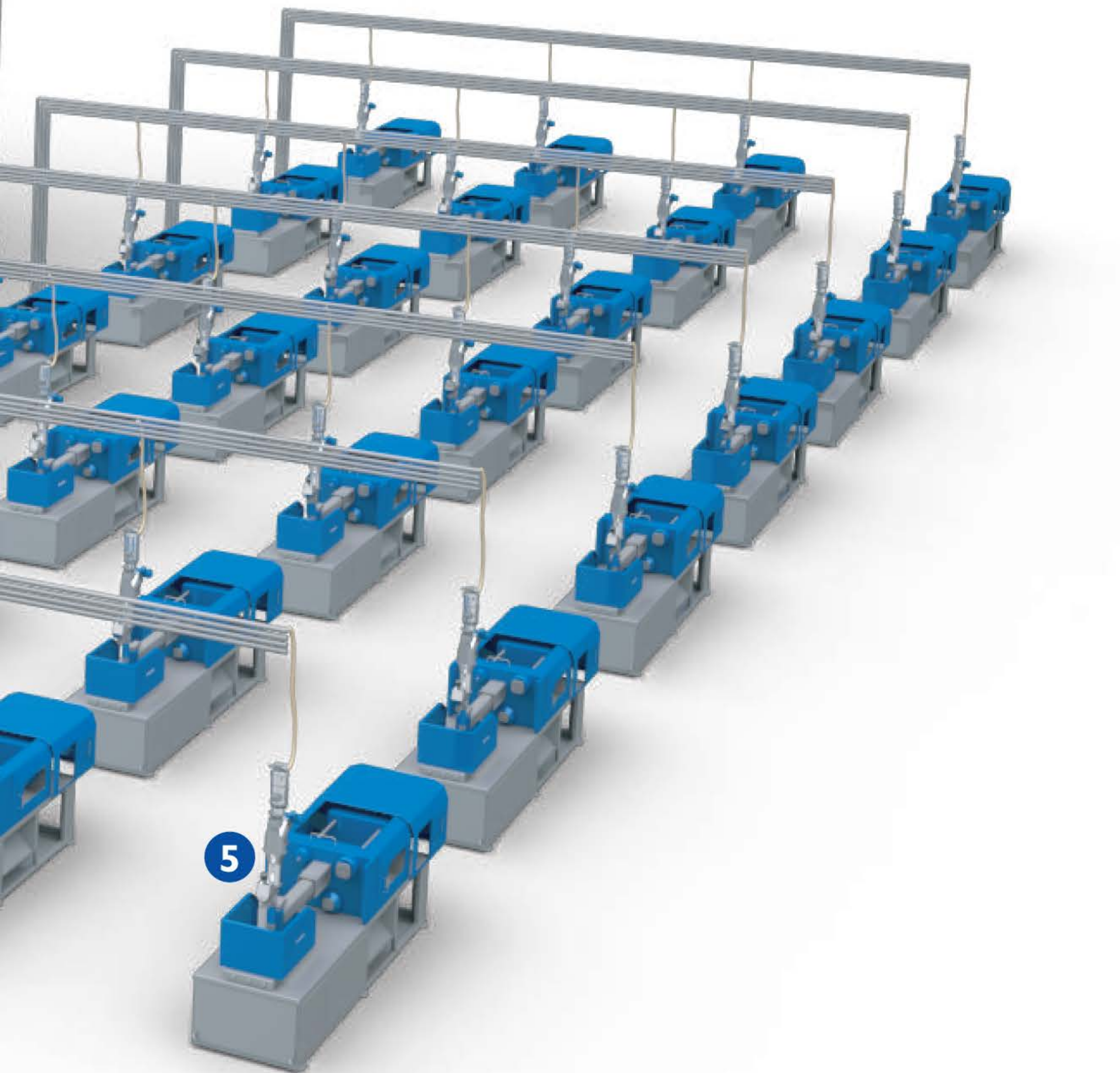
BlendSave's modular design is suitable for a wide array of plastics processing plants. Plants using a limited number of raw materials with a small number of machines and those using a wide variety of raw materials with large numbers of machines.

BlendSave Workflow

Raw materials are fed from silos, gaylords, or other sources and then simultaneously weighed and combined in batches according to predetermined formulas for each machine. The automated OctoBatch™'s dust-tight distributor distributes weighed batches into buffer bins directly linked to the machines. Upon receiving a signal, the contents of the linked buffer are conveyed to the machine. An optional mixer at the machine's inlet eliminates the risk of segregation of blends and ensures superior batch uniformity.

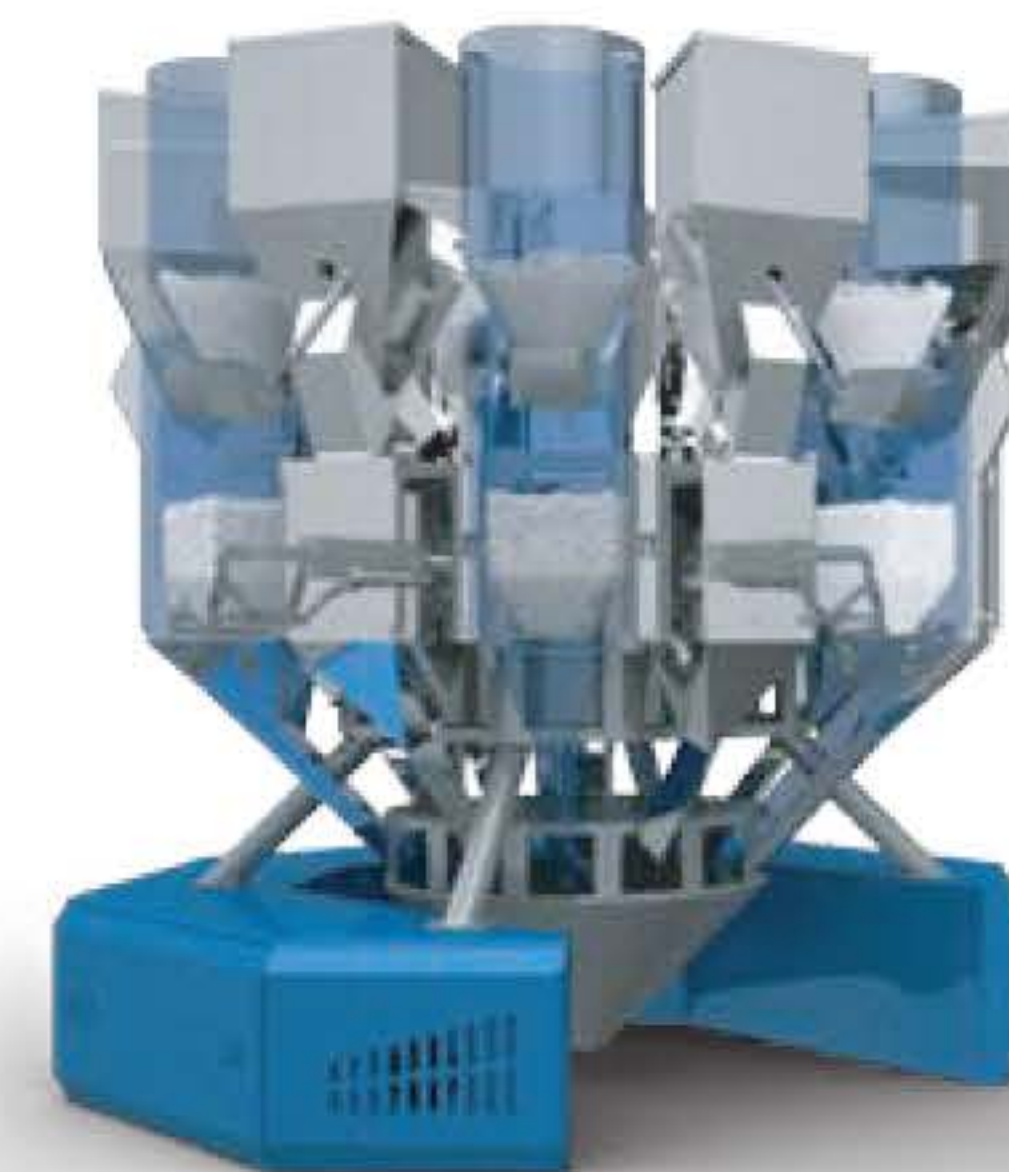
BlendSave Unique Features:

- Dedicated weighing chambers eliminate the risk of cross-contamination.
- Multiple BlendSave systems can intercommunicate to multiply the number of machines being supplied.
- Weighing in parallel allows for using smaller load cells, affording superior batch accuracy at greater throughputs.

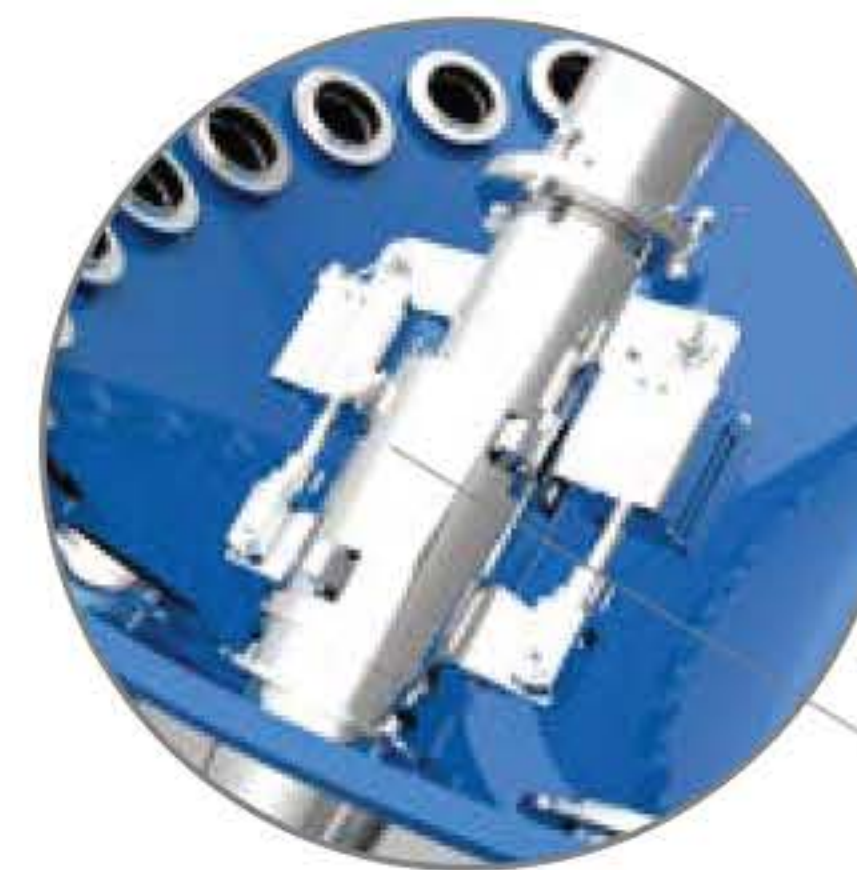


- BlendSave significantly simplifies raw material flow, meaning a reduced investment in conveying equipment, less waste, and fewer person-hours.
- Integration of LIAD's ColorSave precision dosing unit on the machine provides significant savings in the cost of additives and colors. It also enables quick color changes without the threat of contamination.
- BlendSave Comprehensive Management PC Software controls and provides job status, jobs management, material traceability, batch documentation and more. The software can be linked to the plant's ERP/MES.

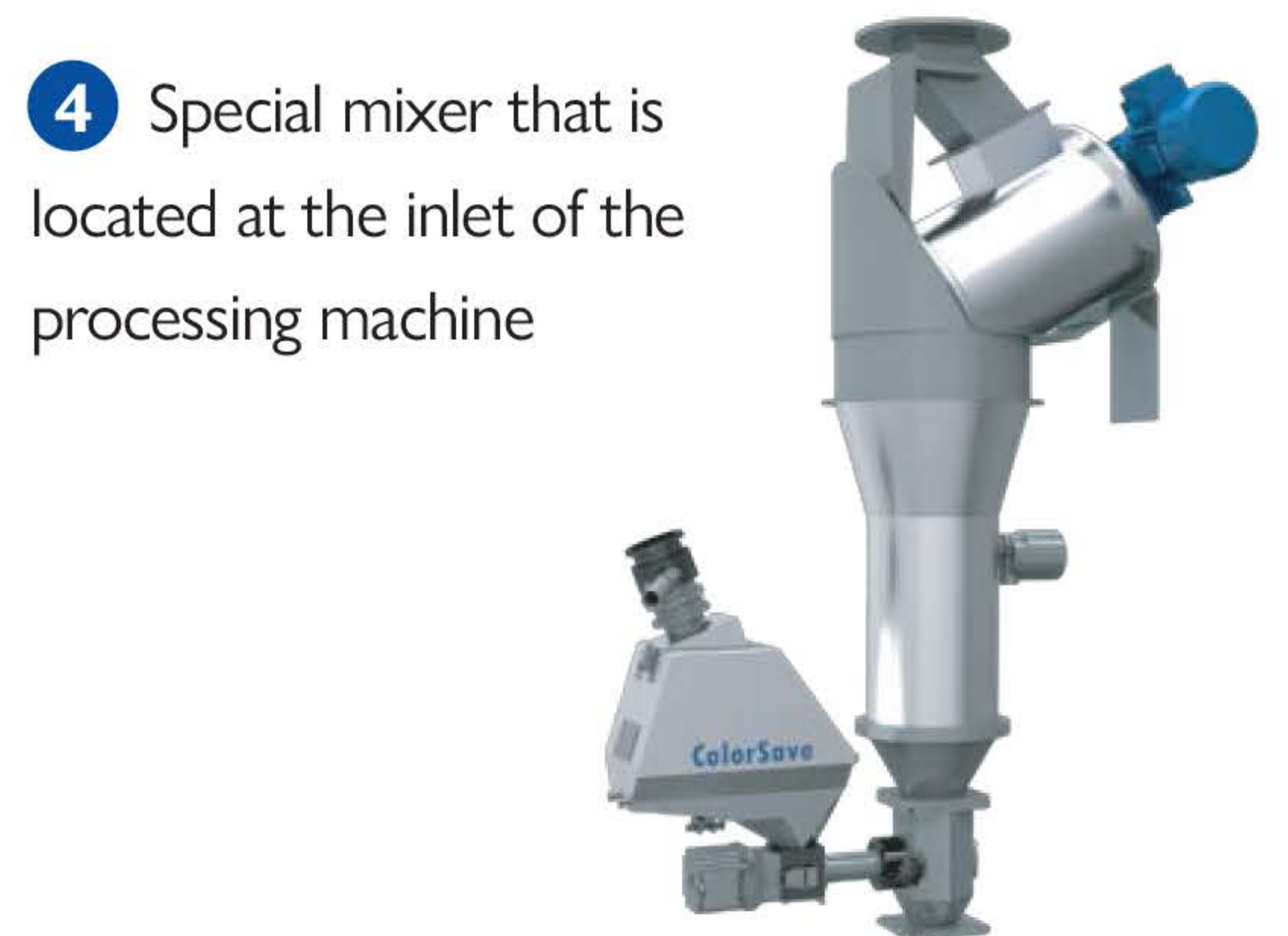
- 1** BlendSave's vacuum receivers feed dedicated weighing chambers



- 2** BlendSave is an automated resin management and blending system with a potential throughput of up to 5 tons per hour



- 3** OctoBatch dispensing manifold with a rotating arm and up to 50 buffer bins



- 5** ColorSave 1000 – additive / masterbatch gravimetric feeder

Packaging Leader Polipak Meets Sustainability and Industry 4.0 Goals with BlendSave Resin Management, Blending and Distribution System



Polipak, a leading producer of multi-layer polyethylene foil bags in Central and Eastern Europe, was faced with the challenge of efficiently and accurately combining blends of various recycled materials with virgin resins and delivering them to the numerous extruders in the plant. Each extruder might have its own unique blend of resins (PCR and virgin), according to each film layer's strength requirements.

At the beginning of 2022, Polipak moved from two older, inefficient plants to a new state-of-the-art production plant based in Poland. In the older plants, manual labor was used for every aspect of the production process. Plant engineers were responsible for providing production instructions for these blends for each extruder for every run around the clock.

‘Lights-out’ Operation

BlendSave solution to automate the complexity of blending of any batch from the selection of 40 different resins and PCR materials and deliver individual blends automatically to each of the 100 extruders.



LIAD's BlendSave Solution for Polipak

To meet Polipak's specifications, LIAD engineered two BlendSave systems, each consisting of four basic BlendSave units, and with each unit consisting of 10 weighing channels; each BlendSave system accommodates 40 individual weighing chambers. Polipak's 40 grades of resins, regrind, and PCR are now fed directly from silos to each of the dedicated 40 BlendSave intermediate hoppers, which then feed each dedicated weigh hopper, eliminating any threat of contamination. Each of the two BlendSave systems has an OctoBatch distributor that automatically channels each individual blend to 50 dedicated buffers, which in turn deliver the blends to the individual extruders in the plant. The process is entirely digitally managed; one employee operates the two systems, which include 100 dedicated blending channels serving 100 extruders.



How it Works

Polipak's technologist/ERP production coordinator uses Polipak's MES software and LIAD's managing software to transfer the recipes for the 100 extruders to the appropriate BlendSave PLC. The two PLCs transmit all the job's historical data via LIAD's software to the MES. According to predetermined recipes destined for predetermined extruders, each BlendSave unit simultaneously and accurately weighs the recipe's raw materials and combines them as a batch. Each batch is distributed via the OctoBatch distributor to a buffer linked to one dedicated extruder. Once a signal is received from the extruder's vacuum receiver, material from the linked buffer is transferred via a delivery pipe to the extruder. In each buffer, a level sensor signals to the PLC to refill it.

Double Success: Sustainability and Industry 4.0 Technology

The result has been a significant step forward in achieving a total Industry 4.0 plant environment, with dramatic increases in overall plant efficiency and greater quality control as well lower labor and maintenance costs.



BlendSave Flexibility

Whether you work with only a few ingredients, or 50 or more, a small number of machines, or 50 or more, BlendSave delivers the blending flexibility you need for today's plastics processing operations.



BlendSave Compact

- Ideal for new and existing operations
- Any combination of up to 40 materials, up to 10 machines and 3,300 lbs/hr throughput
- Compact design – only 6' x 6' floorspace and 14' ceiling required

About LIAD Smart

Ampacet LIAD pioneered the single component gravimetric feeder for injection molding machines and is the leading developer of innovative feeders, blenders and real-time quality control color solutions for the plastics industry.



Look for the LIAD Smart label to ensure the highest quality accuracy.

For more information and to schedule a free demo,
email LIADSmart@ampacet.com

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