

Weighing Solution for Modified Degradable Materials



Pain Points in Biodegradable Material Production and Batching

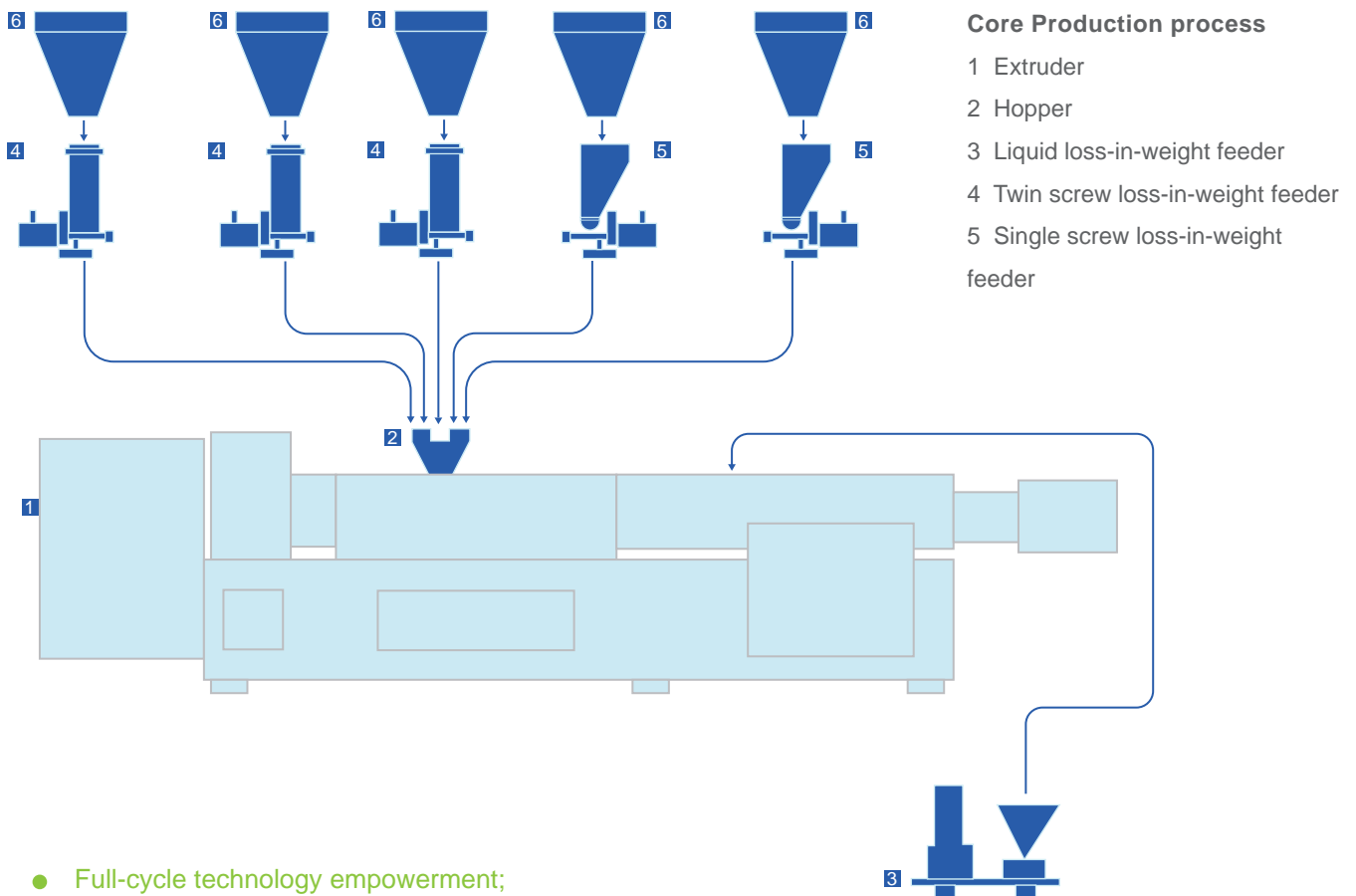
In the production of biodegradable materials, the end-use scenarios of modified materials vary, leading to diverse requirements for raw material formulations. The production process demands stringent precision in key indicators such as batching accuracy. Traditional manual batching is not only labor-intensive but also prone to affecting the quality of the final product due to insufficient metering precision.

Transcell Technology's products possess core advantages of stability, safety, and reliability. Transcell engineers participate throughout the entire project design process, from the initial design stages to installation and commissioning, providing comprehensive technical support. This enables automated production lines and controllable on-site feeding, ensuring consistent and stable product performance and providing strong support for efficient and stable production line operation. It effectively improves quality management, optimizes product quality, and increases production efficiency.



Biodegradable Plastics | Loss-in-weight Feeder Application Cases

Transcell Technology has customized loss-in-weight feeders for biodegradable plastic production lines to precisely address the challenges of formulating and metering biomass raw materials such as biodegradable resins and starches.



- Full-cycle technology empowerment;
- Real-time monitoring of feed volume to form closed-loop control;
- Compatible with various biodegradable raw materials;

The equipment boasts a wider range of feeding adaptability and features an integrated gearbox, resulting in a streamlined structure and easy maintenance. Simultaneously, its optimized cleaning and maintenance design significantly reduces cleaning time, making material switching and maintenance more efficient and convenient. It is well-suited to the modern production needs of high-frequency material changes, including for biodegradable materials and other diverse products.

Single/Twin screw Loss-in-weight Feeder



- Modular design, stable conveying, various material types.
- Easy to clean, standard OEB2.
- Various screws and barrels options are available, and special solutions can be customized for special materials.
- All feeding screws are manufactured using stamping process, ensuring uniform screw lead, low runout, and accurate discharge.
- Main components are independently designed and manufactured, with a full range of spare parts available and short replacement cycles.
- The self-developed controller features high computing speed, strong anti-interference capability, and reliable communication.
- The operating system is designed with an industrial PC, enabling intelligent recipe management and automatic matching between material and feeder

Liquid Loss-in-weight Feeder



- Diaphragm pumps, piston pumps, and gear pumps can be selected according to the materials.
- Modular design, mobile metering workstation design.
- Suitable for various of liquid materials: silanes, DCP, BDP, white oils, wax oils, etc.
- Two heating options are available: temperature controller heating and electric heating.
- Key components are designed and manufactured in-house, with a full range of spare parts and a short replacement cycle.
- Independently developed controller boasts high processing speed, strong anti-interference capabilities, and high communication reliability;
- Operating system adopts an industrial computer design, featuring intelligent formula management of material and feeder compatibility Automatic determination;

| Design Data | | | | | | |
|---------------------|-----------------------------------|-------------|-------------|-------------|------------------------|-----------------------------------|
| Name | Loss-in-weight Feeder | | | | | Liquid Loss-in-weight Feeder |
| Model | TG-LW-SS80U | TG-LW-SS80U | TG-LW-ST40U | TG-LW-ST40U | TG-LW-ST20U | TG-LW-LF50W |
| Material Name | PBAT granule | PLA granule | Talco | Starch | Mixed auxiliary powder | Glycerol |
| Flow Rate | 50-400kg/h | 10-100kg/h | 20-200kg/h | 20-200kg/h | 1-20kg/h | 10-100kg/h |
| Metering Bin | 120L | 120L | 55L | 55L | 15L | 50L |
| Feeding Motor | 1KW | 1KW | 1KW | 1KW | 0.4KW | 1.1KW |
| Contact Material | SS304 | | | | | SS304 |
| Soft connection | Silicone rubber/soft fabric cover | | | | | Silicone rubber |
| Horizontal stirring | Yes | | | | | / |
| Stirring Motor | / | | | | | / |
| Material Temp | / | | | | | Just metering bin need to heating |
| Others | / | | | | | / |

Note: For details, please configure according to specific requirements.



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