

CHAPTER 1:

The Nightmare of Sticky Materials & Its Ultimate Solution

Transitioning from Constant
Downtime to Full-Speed Production

1.1 Why Your Production Line Stalls with Sticky Goods

For manufacturers handling fresh meat, marinated vegetables (like kimchi), and oily pet food, "stickiness" is the ultimate productivity killer. Traditional multihead weighers rely on electromagnetic vibration to move material. However, when products are wet, oily, or coated in sauces, their physical behavior changes drastically:

- The "Adhesion Effect": Material bonds to the vibratory pans like glue, remaining stationary regardless of the vibration intensity.
- The "Clumping Phenomenon": Instead of dispersing, vibration often forces wet materials to huddle together on the center cone.
- The Consequence: Constant "starvation" of the weigh buckets leads to massive weight inaccuracies. Consequently, you are forced to station 2–3 workers on high platforms to manually push the material—a process that is unhygienic, inconsistent, and expensive.

1.2 The Terminator: The Screw Feeder Multihead Weigher

To solve the "immobile material" problem, we introduce Positive Displacement Technology. The Screw Feeder Multihead Weigher replaces weak vibratory pans with powerful, independently driven screws.

- Physical Forced Feeding: The screw blades act as a constant mechanical "pusher." Therefore, no matter how sticky or oily the product is, it cannot remain on the feed pan.
- Precision Modulation: By controlling the exact rotation of each screw via a PLC, you can regulate the product flow like a faucet. As a result, you dramatically reduce "Product Giveaway" and maximize your yield.
- Ideal For: Fresh diced meat, marinated poultry, wet kimchi, and viscous prepared meals.

1.3 The Perfect Supporting Actor: The Belt Feeder Weigher

In the battle against stickiness, if the Screw Feeder is the "heavy tank," the Belt Feeder Multihead Weigher is the "precision infantry."

- For "Sticky but Fragile" Goods: Some items are sticky but delicate (e.g., sauced cooked meats or moist dried fruits). A screw might compromise their shape.
- Smooth Linear Transport: The belt feeder uses horizontal conveyor movement. Specifically, it overcomes stickiness through surface movement while treating the product with extreme gentleness.

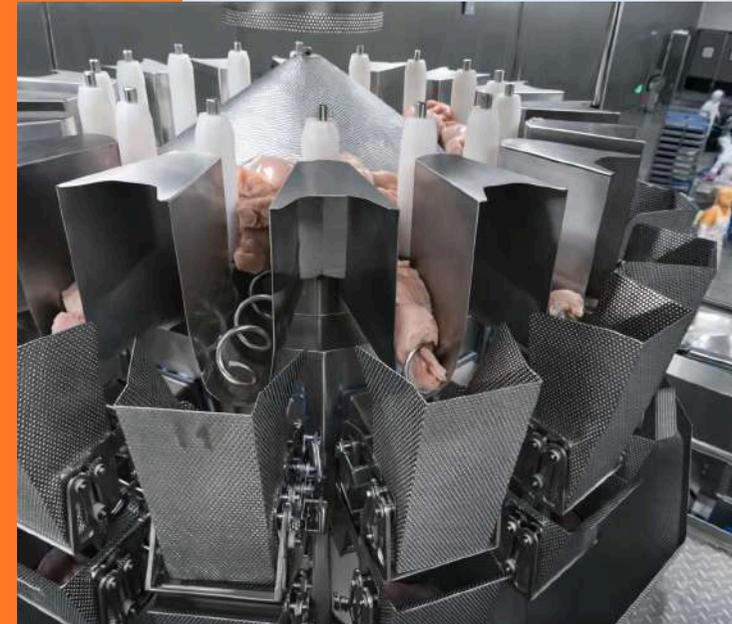
Contact Us

🌐 **Website**
www.fill-package.com

✉ **Email**
info@fill-package.com

📍 **Address**
123 Lieliu. Shunde .Foshan .China

2026 White Paper



Mastering Sticky & Challenging Material Packaging



CHAPTER 2:

The Evolution of Feeding:
Choosing the Right System for
Meat & Sticky Foods

2.1 Engineering the Flow: Moving Sticky Materials Effortlessly

In the processing of fresh meat, marinated poultry, and seafood, the biggest challenge isn't just weighing—it's getting the product to the weigher without loss of hygiene or speed. Traditional elevators are often avoided in this sector due to sanitation risks. Instead, two specialized technologies have emerged as the standard for high-performance lines.

2.2 The Industry Standard: Easy-Clean Inclined Belt Conveyors

As seen in high-output meat packaging lines [Referencing your site application], the Easy-Clean Inclined Belt Conveyor is the primary choice for transporting raw proteins to the Screw Feeder Multihead Weigher.

- **Hygiene-First Design:** The smooth, food-grade PU/PVC belt eliminates the crevices and links where bacteria typically thrive.
- **Large Capacity Cleats:** High-profile cleats (flights) securely carry large meat portions or bulk marinated vegetables up the incline without back-sliding.
- **Open-Frame Engineering:** Our "Quick-Wash" frame allows operators to spray down the entire belt surface and internal structure in minutes. Therefore, you minimize downtime between shifts and ensure 100% compliance with food safety audits.

2.3 The Specialist's Choice: Single Bucket Elevator

For specific layouts requiring steep vertical lifts or handling extremely delicate yet sticky items, the Single Bucket Elevator provides a unique advantage:

- **Centrifugal Flip Discharge:** Unlike conveyors that rely on a scraper, the Single Bucket system uses a controlled flipping motion to "fling" sticky material into the distribution cone. This ensures the bucket returns 100% empty, even with the most stubborn products.
- **Zero-Drip Transport:** The single, large-volume bucket acts as a secure container during the lift, preventing juices or sauces from dripping onto the factory floor. As a result, your workspace remains clean and safe.



2.4 Deep Integration: The "Smart Bridge" of PLC Signaling

The true power of a Fill-Package line is synchronization. Whether you utilize an Easy-Clean Conveyor or a Single Bucket Elevator, the system is fully integrated with your Screw Feeder Multihead Weigher:

1. **Demand Sensing:** The Screw Feeder's center sensor detects when material is needed.
2. **Automated Feed Request:** The PLC sends an instant signal to the conveyor/elevator.
3. **Balanced Replenishment:** The feeding system delivers the exact volume required. Consequently, the screws can modulate the flow perfectly without being overwhelmed by excess product. This synergy is what allows for a fully automated, hands-free packaging process.

CHAPTER 3:

Reducing Downtime by 50%
Through Rapid-Teardown Design

3.1 The Hidden Cost of Stickiness: Cleaning Downtime

When handling high-protein or high-fat materials, residue is not just an accuracy issue—it is a bacterial risk. However, traditional weighers are notoriously difficult to dismantle. Consequently, your expensive production line may spend 20% of its day in a non-productive "cleaning state."

3.2 The "Quick-Release" Revolution: Tool-Free Maintenance

Our Screw Feeder Multihead Weigher is built for high-frequency sanitation:

- **Tool-Free Dismantling:** Screw rods, feed troughs, and hoppers feature snap-on or quick-lock designs. Specifically, an operator can manually remove all contact parts in minutes without a single wrench or screwdriver.
- **IP65/IP67 Waterproofing:** The machine body is fully sealed stainless steel. Therefore, you can use high-pressure water hoses directly on the production line without risking the electronics.
- **U-Shaped Trough Design:** The screw troughs are designed with rounded arcs. As a result, water flow carries away all sauces and particles, leaving no "dead zones" for bacteria to grow.

3.3 Reliability & Food Safety Audit Compliance

By utilizing this screw-fed system, you easily satisfy the most rigorous safety audits (HACCP, BRC, SQF):

- **Material Integrity:** Full SUS304/316 Stainless Steel construction eliminates rust and contamination risks.
- **Independent Stepper Drives:** Each screw head is driven by an independent motor. Moreover, if one unit requires maintenance, the rest of the system remains operational, ensuring maximum uptime.



Contact Us

Ready to Future-Proof Your Factory? Don't let sticky materials slow your growth. Visit Fill-Package.com to request a technical layout or a free remote material test with our engineers today.