



AUTOMATED FLOUR BATCHING & CONVEYING SYSTEM

面粉自动配料与输送系统

Precision Weighing with Labor Savings / 精准称重与人工节省

This integrated automated system combines precision weight batching with continuous flour conveying, delivering exact ingredient quantities while eliminating manual material handling.

该集成自动化系统将高精度称重配料与连续面粉输送相结合，在提供精确物料份量的同时，彻底消除了人工物料搬运。

Engineered for grain-based food production, this solution dramatically reduces labor costs while ensuring consistent recipe accuracy and product quality.

本方案专为谷物食品生产设计，在显著降低劳动成本的同时，确保配方的精准一致与卓越的产品品质。

KEY FEATURES / 核心功能

Precision Weight Batching / 精准称重配料

- **Automated Weighing System: High-accuracy load cells for consistent recipe formulation.**
自动称重系统：高精度传感器确保配方精准一致。
- **Programmable Batch Sizes: Digital controls for pre-set weights for different products.**
可编程批次大小：数字化控制支持不同产品的预设重量。
- **Real-Time Weight Monitoring: Continuous feedback prevents over/under-batching.**
实时重量监控：持续反馈确保投料精确，防止误差。
- **Recipe Management: Store multiple formulations for quick changeovers.**
配方管理：存储多种配方，实现产品快速切换。
- **Tolerance Control: Adjustable accuracy parameters meet strict specifications.**
公差控制：可调精度参数满足严格的质量规范。

Full Process Automation / 全流程自动化

- **Eliminate Manual Handling: Removes the need for manual bag lifting and measuring.**
消除人工搬运：无需手动搬运、舀取和计量面粉。
- **Zero-Touch Operation: Complete material flow without operator intervention.**
零接触操作：从存储到加工的全自动化物料流转。
- **Consistent Feed Rate: Maintains steady supply to mixers and equipment.**
稳定给料率：为搅拌和加工设备提供持续稳定的供应。
- **Labor Cost Reduction: Minimizes workforce—the best way to reduce costs.**
降低人工成本：减少人员需求，是降低成本最有效的途径。

Hygienic & Efficient / 卫生与效率设计

- **Dust-Free Operation: Enclosed system reduces airborne flour particles.**
无尘操作：密闭式输送与配料系统减少粉尘。
- **Food-Grade Construction: Meets safety standards and simplifies cleaning.**
食品级结构：符合食品安全标准，简化清洁工作。
- **Continuous Production: Uninterrupted supply maintains optimal throughput.**
连续生产：不间断面粉供应保障最优生产吞吐。
- **Material Conservation: Precise batching eliminates measurement waste.**
物料节约：精准配料消除了测量误差带来的浪费。

SYSTEM COMPONENTS

Storage & Feed

- Large-capacity flour storage silos/hoppers
- Automated discharge gates
- Dust collection systems

Conveying System

- Pneumatic or mechanical conveyors
- Flexible routing to multiple stations
- Enclosed hygienic design

Batching System

- High-precision weighing hoppers
- PLC-controlled batch release
- Automated zero-point calibration

Control System

- Recipe management software
- Real-time monitoring & logging
- Plant automation integration

TECHNICAL ADVANTAGES / 技术优势

Accuracy Benefits / 精度优势

- **Consistent weights ensure uniform quality.**
一致的批次重量确保产品品质均匀。
- **Eliminates human error in measurement.**
消除了原料计量中的人为误差。
- **Maintains recipe specifications batch after batch.**
每一批次都能严格执行配方标准。
- **Reduces raw material waste through precise dosing.**
通过精确给料减少原材料浪费。

Automation Benefits / 自动化优势

- **Frees operators for higher-value quality control tasks.**
解放操作人员从事更高价值的质量控制工作。
- **Operates continuously without breaks or fatigue.**
不间断运行，无疲劳风险，提高生产稳定性。
- **Reduces workplace injuries from repetitive lifting.**
减少因重复性搬运和抬举造成的工伤风险。
- **Improves production scheduling predictability.**
提高了生产计划的可预测性和准时性。

IDEAL APPLICATIONS / 理想应用场景



Noodles & Pasta / 面条面食



Bakery / 烘焙制品



Dumplings / 水饺速冻



Snack Foods / 休闲食品

- **Bread, Pizza, Tortilla, Biscuit & Dumpling Lines.**
面包、披萨、薄饼、饼干、水饺及馄饨生产线。
- **Breakfast Cereal & Snack Food Extrusion.**
早餐谷物与休闲食品挤压生产。
- **Pet Food Manufacturing.**
宠物食品生产与配料。
- **Wheat, Rice, Corn, Rye & Specialty grain flours.**
小麦粉、米粉、玉米粉、黑麦及特种谷物粉。
- **Pre-mixed blends & Gluten-free alternatives.**
预混粉及无麸质替代粉。
- **Starch powders and modified flours.**
淀粉粉末与变性淀粉。

ROI ANALYSIS / 投资回报分析

Labor Savings / 人工节省:

Eliminates 2-4 handlers per shift; reduces supervision and overtime. / 每班减少2-4名搬运工；减少监管与加班需求。

Quality / 质量提升:

Improved consistency ensures brand standards and compliance. / 提升的一致性确保符合品牌标准与合规性要求。

Material Savings / 物料节省:

Reduces over-usage by 2-5%; eliminates spillage and rework. / 减少2-5%的过度消耗；消除洒漏损失与返工成本。

Efficiency / 运营效率:

24/7 operation and faster changeovers improve planning. / 支持24/7不间断运行，数字化程序缩短换线时间。

Note: Custom configurations available based on production capacity, layout, and integration requirements. / 注：可根据产能、厂房布局及集成需求提供定制化配置。

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Advanced Food Engineering Solutions