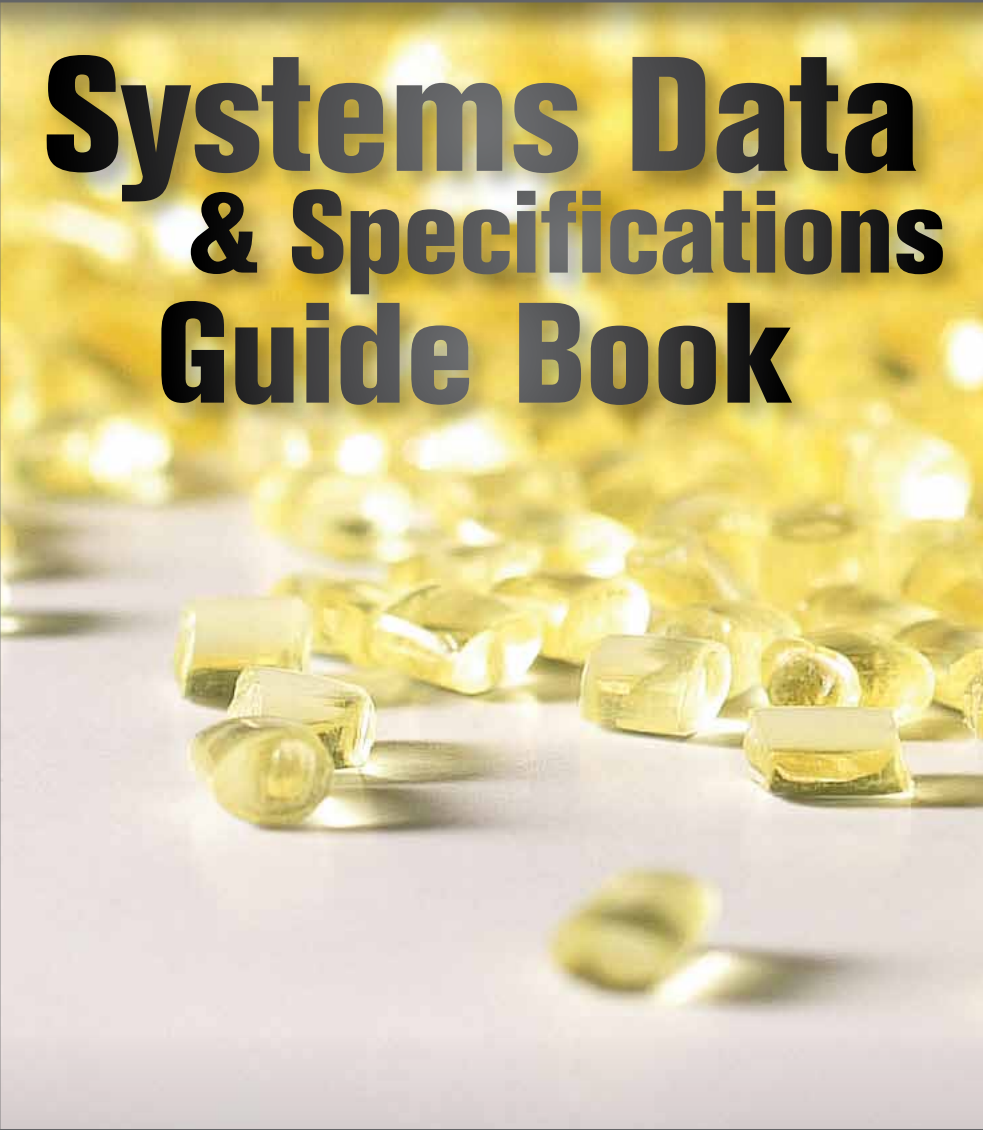


Automated Bulk Filling & Discharging Systems

Systems Data & Specifications Guide Book



Forward Thinking. Real Results.

NATIONAL BULK EQUIPMENT

Bulk Material Handling Systems for Packaging & Processing Operations

NBE dry bulk material handling equipment and automated material processing systems deliver accurate, repeatable, long-lasting, and safe operation to packaging and processing operations, regardless of material characteristics, line speed requirements, or process complexity. NBE material handling equipment and automated process systems include: bulk bag dischargers, bulk bag fillers, container dischargers, conveyance systems, material storage, material mixing and blending, weighing systems, and complete systems automation control design and manufacturing.

- **Bulk Bag & Container Dischargers:** NBE process-integrated bulk bag and container discharging systems provide a total material process flow advantage; improving material introduction efficiency and ensuring accurate downstream material supply.

- **Bulk Bag Fillers:** NBE bulk bag filling systems provide stable, accurately filled, dust-free bulk bags by managing application requirements such as material characteristics, fill rates, feeding equipment, and other process demands.

- **Material Mixing & Blending:** NBE material mixing and blending systems range from pilot-scale batch mixers to full-scale, continuous blenders for fast and complete mixing of virtually any dry bulk solid material.

- **Material Storage:** NBE material storage systems range from in-line agitator hoppers to larger capacity silos designed to enable processing operations to profitably manage procurement, supply, and line introduction of bulk materials.

- **Weigh Systems:** NBE weigh systems include NTEP-certified weighing systems to ensure accuracy of plus/minus 0.5%. NBE weigh system controls integrate with upstream systems to provide automated operation.

- **Integrated Automation:** NBE built, and UL listed, integrated automation controls include system-wide sensing, monitoring, communication, and operation. NBE integrated automation manages a complete processing operation from a single, menu-driven, touch screen interface.

Bulk Bag Filling Systems

8 gpm Hydraulic Height Adjustment

Increased speed and control versus ball screws

UL Listed Panels, Designed & Built by NBE

508A or Class I, Div. 1 & 2, Group A-D, F & G

1,125 lbs./ft. Capacity Heavy-duty Conveyor

Speeds bag indexing into and out of station

3 Gs of Vertical Force from Base

Densify entire bag content, from bottom to top

4,500 lb. Bag Capacity

Easily keeps pace with high-capacity fill lines

Custom PLC & HMI Programming

Ethernet, PROFIBUS, & more; reduce installed costs

NTEP-certified Weight Validation

Ensures accurate, repeatable final bag weight



Integrated Automation: Bulk Bag Filling

NBE automated bulk bag filling systems fully integrate with upstream material processing operations to ensure accurate and repeatable bag filling. From construction to custom PLC and HMI programming, NBE process automation reduces error, speeds line throughput, and improves final package quality.

Bulk Bag Discharging Systems

8 in. I-Beam Hoist Support

4,000 lb. capacity, .070"
deflection with bag

6" x 4" x 5/16" Structural Tubing

Withstands harsh
environments & duty cycles

14,600 lbs. of Paddle Pressure

Ensures discharge of
hard-packed material

175 lbs. of Spout Stretch Force

Creates taut, open spout;
speeds discharge

UL Listed Panels, Designed & Built by NBE

508A or Class I, Div. 1 & 2,
Group A-D, F & G

Custom PLC & HMI Programming

Ethernet, PROFIBUS, & more;
reduce installed costs



Integrated Automation: Bulk Bag Discharging

NBE automated bulk bag discharging systems easily integrate with packaging and processing operations to optimize line throughput and increase batch accuracy. NBE custom PLC and HMI programming centralizes multiple process controls into a single, menu-driven controller interface, improving system-wide communication and monitoring.

Container Discharging Systems

Custom-designed Discharge Hood

Prevent contamination;
discharge all material

2,500 lb. Lift Carriage Capacity

Ensure sufficient production
material supply

Hydraulic Track Bar & Cam Rollers

Enables smooth container lift;
no side racking

4 in. Cylinder Bore, 24 in. Cylinder Stroke

Ensures control & balance
of loaded containers

Material-specific Conveyor Systems

Gently convey packets,
pouches, raw materials

Steel-backed bearings with PTFE wear surface

Withstand harsh environments
and operation

UL Listed Panels, Designed & Built by NBE

508A or Class I, Div. 1 & 2,
Group A-D, F & G

Custom PLC & HMI Programming

Ethernet, PROFIBUS, & more;
reduce installed costs



Integrated Automation: Container Discharging

NBE automated container discharging systems integrate with upstream and downstream equipment to ensure packaged or raw material is provided without degradation, and without interruption to packaging or processing operations. NBE custom PLC and HMI programming centralizes systems communication and monitoring, optimizing process rates.





Visit: **nbe-inc.com** Call: **616.399.2220**

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