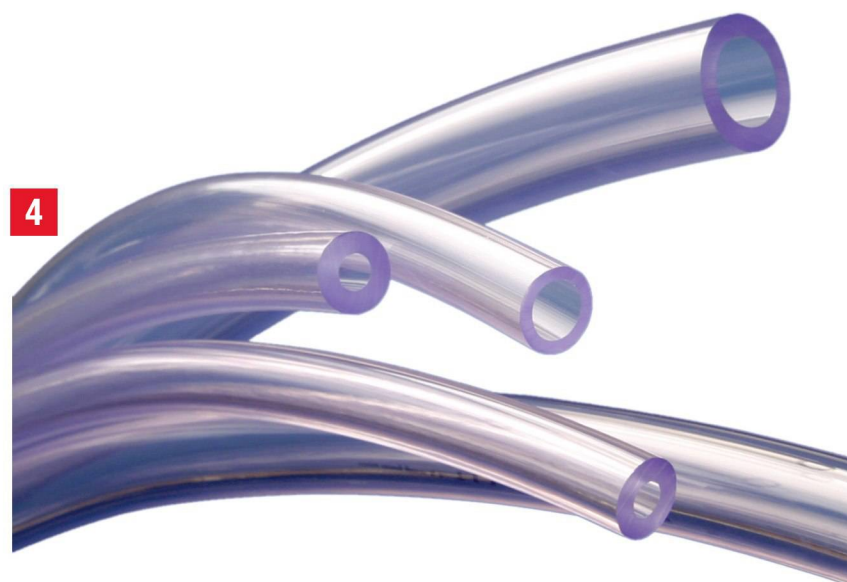


FOOD & BEVERAGE

PRODUCT SPOTLIGHT



1 | CORROSION INHIBITOR

The Cortec VpCl vapor phase corrosion Inhibitor prevents equipment damage and food contamination. It can protect cans, water tank containers, and exteriors of installations made with carbon and galvanized steel, concrete or wood. This non-toxic “green” filming inhibitor is especially efficient against corrosion in the presence of disinfectants and does not hydrolyze during the application. With active ingredients sodium salt of fatty amino acids and amino alcohol, tests show film persistency and stability in a wide temperature range.

Cortec Corporation
www.cortecvci.com

► 522

2 | BEVERAGE SCREEN KIT

The 3M Microbial Luminescence System UHT Beverage Screen Kit was designed for ultra high temperature and extended shelf life beverages. Using bioluminescence technology, it detects adenosine triphosphate, an energy molecule universally present in all living organisms. This technology allows the kit to have faster time-to-result than traditional pH or agar tests, and to more reliably detect a broad range of microorganisms than traditional methods. Following a sample pre-incubation time, it provides a result in less than 30 minutes.

3M
www.3m.com

► 523

3 | SANITIZER FOR SHELL & HATCHING EGGS

BioSafe Systems’ SaniDate 5.0 is designed to overcome high levels of organic contamination in poultry hatchery and egg production operations. Its expanded EPA label includes applications for the sanitation of shell eggs and hatching eggs as well as organic and Kosher production. Made in the U.S., the highly stabilized product has 5 percent peroxyacetic acid formulation. Like the company’s other products, it is sustainable and meets industry standards.

BioSafe Systems
www.biosafesystems.com

► 524

4 | ANTIMICROBIAL TUBING

NewAge Industries’ Clearflo Ag-47 antimicrobial tubing protects liquids from harmful bacteria that can result in taste transfer, odors and illnesses. It is now available in seven new sizes, up to 1-inch inside diameter. Its antimicrobial properties are throughout the tubing, not only on the inside. It is especially effective in applications with infrequent use of fluids in warm or humid conditions when the tubing does not have an opportunity to dry thoroughly between uses.

NewAge Industries
www.newageindustries.com

► 525

nbe-inc.com/automate



Watch all 19 NBE equipment profiles in action at: nbe-inc.com/automate

Bulk Bag Discharging

System Profile:

- An integrated process solution for dust-free handling of severely agglomerated, caustic, dry powder.
- Processing requires bulk bag unloading, material conditioning, and transport to downstream mixer.
- Closed-cycle design, from bag unloading to mixer discharge, eliminates dusting and protects operator.

Performance-proven Construction:

- 6"x4"x5/8" tubing exceeds ASME B30.11-2004 for bag weights to 4,000 lbs.; heavy gauge sheet and plate.
- Integrated bag conditioning uses hydraulic paddles and rams for up to 28,000 lbs. of bag impact force.
- 304-2b stainless steel conveyor with food-grade, flex-trough bottom; 18,000 lbs./hr. transfer rate.

Integrated Automation:

- All process controls, sensing, monitoring, and reporting integrate to a UL listed panel, designed and built by NBE.
- NBE automation engineering integrated legacy upstream and downstream equipment to the central NBE HMI.
- Rigorous NBE risk assessment procedures reduce operator hazards; improve physical ergonomics.



▶ Watch this equipment in action: nbe-inc.com/dischargers

DISCHARGE

Bulk Material Storage

System Profile:

- A self-contained material transfer station for the re-packaging of material for inventory or processing.
- Free-flowing material is re-packaged from bulk bag to tote, or tote to tote, depending on process need.
- Custom discharge/fill assembly speeds container mating, eliminates material contamination and dusting.

Performance-proven Construction:

- 4,000 lb.-rated framework capacity; 304-2b stainless steel, continuous-weld material contact surfaces.
- Air-actuated discharge/fill assembly automatically aligns tote flanges/inlets; speeds material transfer.
- Integrated weigh system signals control valve to meter material flow; fill weight accuracy to +/- 1.0 lbs.

Integrated Automation:

- A single, menu-driven HMI, designed and built by NBE, simplified operation, reduced labor allocation.
- NBE integrated automation optimized bulk storage stage from commodity to process-critical operation.
- Sensor-actuated valve controls, with bulk and dribble flow settings; ensured fast and accurate tote filling.



▶ Watch this equipment in action: nbe-inc.com/storage

STORE

Bulk Material Conveying

System Profile:

- A fully automated material handling system for the conveying and sorting of highly fragile food product.
- 12,000 lbs./hr. of material are vertically conveyed in totes, tilt unloaded, and laser sorted through 2 stages.
- Sorted product is conveyed into storage totes; totes are weighed to NTEP-certified weights of +/- .01%.

Performance-proven Construction:

- 4-1/2" bore hydraulic mast cylinder and load-rated lifting mechanism lift tote to 23-foot unload height.
- 2-stage, high-speed image sorting ensures material maintains original characteristics during processing.
- Reverse-tilt filling uses optical sensors to ensure material load drop distance does not exceed 5 inches.

Integrated Automation:

- Process controls and automation, designed and built by NBE, are integrated to central controls architecture.
- Optical sensors limit material drop distance to less than 5 inches per 150° rotation during tote unloading.
- NTEP-certified weigh system, integrated to controller, assures filled tote weight is accurate to +/- .01%.



▶ Watch this equipment in action: nbe-inc.com/convey

MOVE

Bulk Bag Filling

System Profile:

- A complete bulk bag filling process; fills (12), 2,000 lb. bags/hr.; bulk material is irregular and cohesive.
- Process stages include: pallet feed, bulk bag filling, material metering, weighing, and outfeed conveying.
- Operator interaction; optimal physical ergonomics, are essential to ensure total process optimization.

Performance-proven Construction:

- Pneumatic actions bring fillhead and rear bag hooks well into operator reach for ideal operator posture.
- 8 GPM hydraulic fillhead lift; safe and fast fill cycles exceed speed and weight capacity of ball screw style.
- 20-pallet magazine extends operating time between reload; reduces operator interaction, labor allocation.

Integrated Automation:

- NTEP-certified, automated bulk bag filling with weigh accuracy to +/- .01%; operator-monitored from HMI.
- Bag densification cycle intensity and frequency are operator-controlled from the central system HMI.
- High-speed, system-wide process communications and monitoring from UL listed panel, built by NBE.



▶ Watch this equipment in action: nbe-inc.com/fillers

FILL

Bulk Material Mixing & Blending

System Profile:

- An integrated bulk mixing operation to blend multiple, sluggish materials for downstream supply.
- Process stages include: gaylord dumping, vacuum transfer to mixer, high-volume mix, process supply.
- Stringent process recipe parameters require reliable, accurate supply of thorough, homogenous blend.

Performance-proven Construction:

- 2,500 lb.-capacity dumper with dust-tight, custom hood; dual hydraulic lifts for high-speed duty cycles.
- Material transfer hopper, with integrated pull-style agitator, pre-conditions material prior to mixer feed.
- 10,000 lb./hr. blend rate mixer; custom broad-throw paddles and auger infeed scoops reduce cycle times.

Integrated Automation:

- NBE integrated automation controls supply container dumping, mix auger sequencing, and level sensing.
- UL listed control panel and HMI, designed and built by NBE, centralize process operations and reporting.
- Rigorous NBE risk assessment procedures worked to prevent hazards and improve physical ergonomics.



▶ Watch this equipment in action: nbe-inc.com/mixing

MIX

Bulk Material Weighing

System Profile:

- A self-contained, automated reclamation system for transfer, metering, and converting of metal flake.
- Multiple, highly abrasive, non free-flowing, metal flake materials enter system from separate hoppers.
- Material supply to briquetter occurs through three infeed lines; feed rates are controlled by weight.

Performance-proven Construction:

- Large-capacity, V-shaped hopper with integrated, 9-inch, variable frequency drive, live bottom discharge.
- 40° incline, 29-foot run, boxed-cleat conveyor; 3 HP, TEFC gearmotor and VFD drive; 60 FPM drive speed.
- Material-specific loss-in-weight feeders, with variable frequency drives, ensure accurate downstream feed.

Integrated Automation:

- Process automation and controls, designed and built by NBE, integrate with existing system architecture.
- NBE expertise identified, applied, and met applicable equipment codes, standards, and regulations.
- Automated weighing provides assurance that metered weights are accurate; improves reliability.



▶ Watch this equipment in action: nbe-inc.com/weighing

WEIGH



Forward Thinking. Real Results.

NATIONAL BULK EQUIPMENT

Visit: nbe-inc.com • Call: 616.399.2220 • Email: sales@nbe-inc.com