

TECHNICAL DATA SHEET

T. ERNST

LIQUID HANDLING



INDUSTRY:

Food, Chemical, Cosmetic, Pharmaceutical

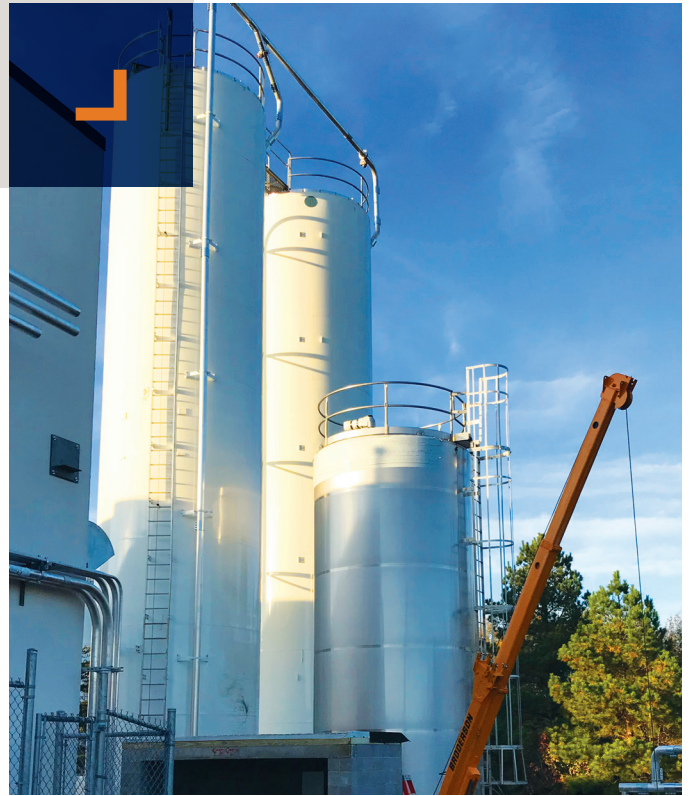
PRODUCT CATEGORY:

Bulk Liquid Handling

PRODUCT OVERVIEW

Liquid Handling

Bulk liquid handling systems store, transfer, condition, and package liquids for industries from food and beverage to chemicals, cosmetics, and pharmaceuticals. These integrated systems ensure safe, efficient, sanitary handling—whether viscous, temperature-sensitive, or reactive—while meeting strict quality and regulatory standards. Equipment includes bulk tanks, Clean-in-Place systems, heating/cooling units, mixers, melters, pail fillers, and tote/drum pumps. Together, they form a closed-loop process that preserves product integrity from receipt to packaging.



#1 BULK LIQUID TANKS

Store large volumes of raw or finished liquids in stainless steel, carbon steel, or food-grade polymer vessels.

UNIQUE FEATURES:

- Vertical or horizontal configurations
- Manways and level sensors

BENEFITS:

- Long-term product stability
- Reduced contamination risk
- Easy integration with other process equipment

LIQUID TANK TYPES

Installation Examples

01 Outdoor Temperature Controlled Tanks



02 Sanitary Welded Tanks



03 Polyresin Tanks 25,000 GAL



#2 LIQUID MIXING & MELTING

Blend liquids or melt solids into liquid form for downstream use.

UNIQUE FEATURES:

- High-shear mixers, propeller mixers, or agitators
- Heated kettles for melting fats, waxes, or shortening
- Variable speed drives for process flexibility

BENEFITS:

- Uniform blends for consistent quality
- Controlled melting for sensitive ingredients
- Reduced batch time and labor costs



#3 CLEAN-IN-PLACE (CIP)

Automatically clean interior surfaces of tanks, piping, pumps, and process lines without disassembly.

UNIQUE FEATURES:

- Recirculating detergent and rinse cycles
- Spray balls and rotary jets

BENEFITS:

- Reduced labor and downtime
- Consistent sanitation results
- Regulatory compliance (FDA, 3-A, HACCP)
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#4 HEATING COOLING SYSTEM

Blend liquids or melt solids into liquid form for downstream use.

UNIQUE FEATURES:

- High-shear mixers, propeller mixers, or agitators
- Heated kettles for melting fats, waxes, or shortening
- Variable speed drives for process flexibility

BENEFITS:

- Uniform blends for consistent quality
- Controlled melting for sensitive ingredients
- Reduced batch time and labor costs



INSTALLATION BENEFITS:

- Fast, Accurate, Fully Automated
- Dust-free, automated filling without extra filtration
- Bulk Pricing Advantage
- Cost savings via high volume storage & bulk purchasing
- Increases Efficiency:
- Seamless product flow and quick assembly
- Reduces Waste
- Powder-tight fabric prevents spoilage
- Improves Competitiveness
- Long-term, low-maintenance performance

APPLICATIONS

Food, Chemical, Cosmetics & Personal Care, Pharmaceutical

[Food] Edible oils (vegetable, canola, olive), syrups and sweeteners (corn syrup, sucrose solutions, honey blends), dairy products (milk, cream, condensed milk), sauces, dressings, marinades, juices, concentrates, beverage bases [Chemical] solvents, cleaning agents, detergent solutions, resin suspensions, liquid adhesives, specialty chemical blends [Cosmetics & Personal Care] lotions, creams, gels, liquid soaps, shampoos, perfume bases, fragrance concentrates, emulsions, serums [Pharmaceutical] liquid medicines, suspensions, active pharmaceutical ingredient. (API) solutions, nutraceutical drinks, supplements, sterile water, saline solutions



CONTACT US!

Address: 3475 Burr St, Gary, IN 46406

Phone: +01 219-923-1221

E-mail: accounts@ternst.net
www.Ternst.net