

Tote Feasibility Study

Prepared By



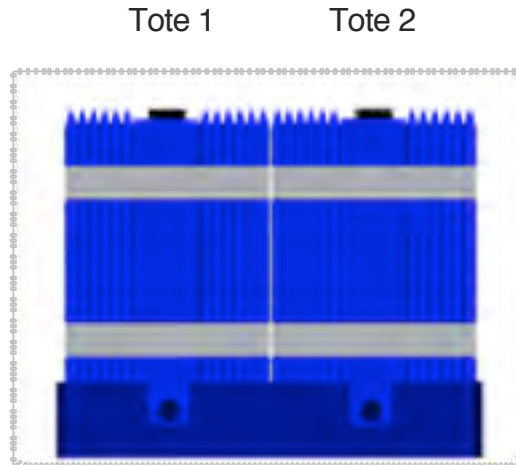
North America

Introducing the 1st Rigid, Contractible Intermediate Bulk Container

New Game Changing Technology Will Create A Sea Change In How Totes, Drums And Containers Of All Sizes Are Configured And Shipped, Affecting Many Industries

A Single Tote Container Is Adjustable To Holding 110, 220, 275, And 330 Gallon Sizes And Any Amount Within The Size Range

August, 2017



K-TECH FLEX - Bulk Liquid Packaging Container (empty)

Bulk Packaging/ Tote Systems for Shipping Liquid Products (Bulk Liquid Packaging) and Non - Hazardous Chemicals

Offering the highest quality in space-saving bulk containers, the K-TECH FLEX collapsible container is designed for multi-trip, hazardous and non-hazardous lading applications. It meets UN Standard 21HA1 for liquids in Packing Groups II and III with specific gravities up to 1.9.

The K-TECH FLEX containers replace large containers, totes, drums, pails, cans, bottles, tubes or packets, and significantly decrease disposal costs, minimize warehouse space, maximize freight efficiency, and increase productivity compared to all other rigid containers, all equating into savings for you and your customers. We listened to your needs and engineered the K-TECH FLEX container system to fit those needs. These totes are ideal for bulk liquid packaging.

These options include various top fill fitments and bottom evacuation configurations. Different barriers for bag liners address the needs of different packaging environments from aseptic to food grade standards. The combination of various packaging options along with strategic inventories allows K-TECH FLEX containers to ship orders quickly, thereby meeting the ever changing needs of our customers.



K-TECH FLEX - Bulk Liquid Packaging Container (filled and stacked)

K-TECH FLEX collapsible containers save space and are environmentally friendly for shipping liquids of food grade products, pellets, pellet-type materials non-hazardous chemicals, and other possible materials. And, they save space, weight and labor compared to all other rigid containers for the industrial manufacturer.

Features

- Available in 110, 220, 275 and 330 gallon sizes
- 2 to 1 space savings vs. rigid vessels
- Quality construction ensures of hundreds of trips; no metal parts to rust and leak
- K-TECH saves warehouse space
- Compact, durable construction reduces inbound freight costs
- Compact design allows, more product shipped per truck load
- Allows loading outbound loads quicker
- Speeds up filling time in production
- Reduces production time for other operations
- Recyclable reduces disposable costs
- Savings add up for the manufacturer and go to bottom line profits

Product Applications Bulk Liquid Packaging Containers

- Edible oils, sauces, dressings
- Liquid eggs, milk or other dairy products
- Viscous materials such as molasses, mayonnaise, relish, or fillings
- Purees, pastes and other aseptic processing
- Fruits & vegetables in brines or syrups
- Adhesives
- Paintings or Coatings
- Inks

- Surfactants & Specialty Chemicals
- Lubricants, Motor Oils, or Greases

Tote Material and additional specifications

- **Min. Wall Thickness:** 0.125-in.
- **Material:** High-molecular weight, high-density polyethylene (HDPE) extrusion blow molded inner container designed for multiple use.
- **Band / Strap Systems:** Bands run horizontally around the accordion folds to constrain or restrict containers, while straps may be used optionally across the top and / or bottom of containers. Under normal circumstances, straps will not be necessary. Bands and straps are commercially available.
- **Nominal Tare Weight:** 197.5 lbs.
- **Lid:** Optional 6-in. Solid Lid 6-in. Lid w/ 2-in. NPS Plug 6-in. Lid w/ 2-in. Vented NPS Plug 9-in. Solid Lid w/ Natural Rubber Gasket (Non-UN Rated)
- **Valve:** 2-in. Butterfly Valve w/ 2-in. NPT connection 2-in. Butterfly Valve w/ 2-in. Camlock connection 2-in. Cylinder Valve w/ 2-in. NPT connection 2-in. Cylinder Valve w/ 2-in. Camlock connection
- **Handling:** Pallet jack or forklift accessible.
- **Truckload Quantities:** 48-foot: 112 instead of the standard 56 units 52-foot: 120 instead of the standard 60 units.
- **Labeling:** Front and Rear: 14" x 14"

Container

- Fits 48x40 pallet
- 110 - 330 gallon
- Stackable
- Easy Assembly (Body & straps)
- Economical
As low as 9 cents per gallon
- Reusable
Up to a 30 year life
- Disposable Inner Liner
Cleaner, Safer, Faster
- Collapsible
2 to 1 Space Saving
- Warehouse and Return Freight
Waterproof
Indoor or Outdoor Storage
- Stackable & Nestable When Empty

Bag Liner

K-TECH FLEX CONTAINERS offer an optional, multi-layer inner bag liner. All liners are made from FDA, USDA food grade, Kosher approved, and IMS Dairy certified, approved materials. Specialty barrier films to meet specific requirements are available. Specific liners can be obtained for non-food uses.



Filling is accomplished through a 2" NPT fitting located at the center of the liner. The evacuation fitting is located on the side of the liner to be positioned through the evacuation hole of the corrugated body for end-user evacuation.

Packaging Options:

Cosmetic Bulk Packaging

K-TECH FLEX intermediate bulk containers (IBC) have lower up-front costs than rigid or stainless steel containers, plus producers can ship product in liquid bulk containers to other countries, then re-bottle and sell product locally, avoiding high import taxes and fees.

Edible Oils Packaging

K-TECH FLEX liquid containers create cost savings, waste reduction, and convenience for our valued customers for edible oils manufacturers and distributors.

Ink Packaging

K-TECH FLEX containers ship out the door as a clean package and must be consumed, recycled, and disposed of efficiently and quickly.

Wine Packaging

K-TECH FLEX containers are the perfect tool for finished wine storage with a flexible high oxygen barrier inner liner to keep wine's flavor profile intact.

Coffee & Tea Packaging

K-TECH FLEX containers feature a one-way disposable tote solution that has a multi-layered food grade bag liner that's easy to fill and assures users a clean, tamper evident package.

K-TECH FLEX containers are all ISTA Certified (International Safe Transit Authority) and NMFC (National Motor Freight Certified) for shipping non-hazardous liquids.

Our liners are made from FDA approved material and are Kosher & Dairy Certified.

K-TECH R & D Corporation stands behind its FLEX container products 100%.

Totes are sold in sizes of 110 up to 330 gallons, and feature different valve options. All pallets are plastic. Valve options are National Pipe Thread (NPT) or quick disconnect (cam-lock), and include different styles of valves by Schutz or Banjo to meet your exact specifications. In addition, customers also have the option between standard or UN rated totes.

Schutz Tote Valves--2" Fittings



Schutz 2" Ball. Quick
Connect Tote Valve

Schutz 2" Butterfly Quick
Connect Tote Valve

Schutz 2" Butterfly
Tote Valve

Schutz 2" Ball Tote Valve

Banjo Tote Valves--2" Fittings



Banjo 2" Quick Connect Tote Valve

Banjo 2" NPT Tote Valve

Tote Lids--6" Fittings



6" IBC Solid Tote Lid

6" IBC Tote Lid with 2" Bung

Savings Comparison:



Origin, Destination, & Route Information

From Irving, Texas 75061 to Richmond, Virginia 22220

Est. Distance: 1,280.00 Miles

60 empty totes (275 gallon totes) 52' flatbed needed

- Shipment Details: 60 empty totes (275 gallon totes) 52' flatbed needed. Full load. Each tote weighs approx 150 pounds. Pickup and delivery dates are flexible. Please give 24 hours notice at pickup and delivery so forklifts are ready.
- Packaging: Forklifts will load in Irving, TX and unload in Richmond, VA.
- Dimensions(s): Each tote: 42" x 48" x 46"
- Total Weight: 9000 lbs
- Preferred Truck or Trailer: flatbed or enclosed trailer
- Special Permit Required: No
- Just empty totes

Actual Bids on this Shipment- Marketplace Bids

\$2,400
\$2,400
\$2,489
\$2,200
\$2,221
\$2,225
\$2,225
\$2,225
\$2,592

60 standard totes travel 1,280 miles for the cost of \$2,200

Each empty standard tote cost \$28.22 to travel to the destination

Each K-TECH tote would cost \$14.11 to travel the same distance.

Plant floor space savings using \$5.00 per sq. ft.:

Each standard empty tote will occupy a 4 x 4 (16 sq. ft.) floor space. If the totes are stacked one on top of each other (2 high), the cost to store the two empty totes is \$40.00 each. If a K-Tech empty tote system is used, then 4 totes occupy the same space as two standard totes do, meaning the storage cost is \$20.00 for each K-TECH tote.

K-TECH's System Saves You More Money Than Any Other Container System

These savings come in several forms: initial cost, labor cost, inbound and outbound freight, and warehouse space. K-TECH Systems' competitive pricing creates economic savings without compromising strength or product protection. Our strength comes from a combination of a heavy wall in conjunction with our exclusive accordion fold technology and two exterior pre-set adjusted bands and optional ratchet straps.

Two empty containers are shipped collapsed inside a single plastic support pallet. The container only needs 1/2 the space of a standard tote when empty, so on inbound shipments you receive 2 times the potential shipping volume compared to standard totes. Labor costs are reduced through easy assembly, reduced filling time, and more efficient loading and unloading of product. Warehouse space is also saved because the units are stored two totes on a pallet, and then, the totes are stackable once filled.

K-TECH Is The Only Company That Can Offer You Massive Transportation Savings With Its New, Radical Container Systems

K-TECH Can Engineer Its Superior Containers To Suit Your Needs To Enable You To Recover Profits Lost To Inadequate Container Technologies

K-TECH's System Technologies Can Be Made Adaptable To All Container Sizes

K-TECH Owns The Only Collapsible, Rigid Technology That Covers:

- Containers of all sizes, including packets, tubes, bottles, drums, totes and ultra-large containers.

K-TECH Owns The Only Multi-Patented, Contractible Container Systems that cover:

◆ Accordion Fold Technology With Band /Strap Systems

K-Tech R & D Corporation US Patent: 7,600,653 B2; Patent Pending