



## Reusable IBC Systems

*For Maximum Protection, Hygiene & Efficiency*



# Revolutionary packaging



**NEW!**



Buckhorn is pleased to introduce a wide range of Intermediate Bulk Containers (IBCs) for safe, sound and secure liquid material handling. The Buckhorn IBC selection is represented by two distinct lines: the new **Caliber™ Series**, and Buckhorn's original **Citadel™** and **Citadel-v™** line – providing a variety of choices for any application!

These injection and structural foam molded containers are compact, collapsible and designed to handle both fluid and dry products. Their clear advantages over traditional single trip, disposable alternatives include:

- Molded from FDA-approved materials
- Substantially lowers packaging costs and cost per trip with a returnable/reusable system
- Limited use of packaging materials (only the liner bag is disposable)
- Hygiene – containers do not rot or become corroded, and are easy to clean
- Safety – improved product protection and storage
- Easy to fill, discharge and transport
- Optimal space utilization – stackable and foldable
- Secure stacking up to five high with up to 3,000 lbs. of product\*
- Withstand temperature extremes
- Certified for rail shipping
- Tamper-evident features
- RFID and other identification options available
- Can be filled and shipped with hot liquids



**Improve Hygiene** Buckhorn IBCs reflect the highest standards of hygiene for handling requirements of food, pharmaceuticals, cosmetic materials and non-hazardous chemicals. Our Caliber and Citadel IBCs are constructed from materials approved for use with food and feature smooth, hygienic designs that are easy to keep clean. The IBCs' flexible liner bag, available from a variety of suppliers, is sterile and can be filled without introducing air into the container.



**Eliminate Waste** A reusable container system eliminates the need for large quantities of disposable packaging material – and the associated waste and costs for disposal. Collapsible bulk container systems save on return transport compared to a rigid system, and reusable plastic container systems in closed loop supply chains dramatically reduce environmental impact compared to other common systems for liquid handling.



**Maximize Safety** Buckhorn's Caliber and Citadel IBCs are designed to protect the quality of your products during extremely rough handling – from loading to unloading and return. Our IBCs are tested for transport by truck, rail and sea container. Particular consideration in design has been paid to railway transport, which can entail hard impacts, stresses and strains.



**Grow Your Bottom Line & Reduce Costs** Buckhorn IBCs are high performance, "bag-in-box systems" that save you money and time on transport, handling and storage. Buckhorn IBCs combine the benefits of a rigid returnable container system, with the simplicity of disposable products – without the added waste! The design features of Caliber and Citadel IBCs guarantee a long service life and the safe delivery of your products.

\* Capacity is dependent upon application and use environment. Check with Buckhorn for suitability in your application. Specifications subject to change without notice.

# solutions for liquid material handling...

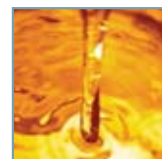


Ideal for a variety of industries to protect product quality & reduce supply chain costs...

**Food Processing**



**Cosmetics**



**Pharmaceuticals**



**Non-Hazardous Chemicals**



**Beverage**



## Buckhorn IBCs are designed for maximum logistics & handling efficiency...

### Quick Collapse & Return

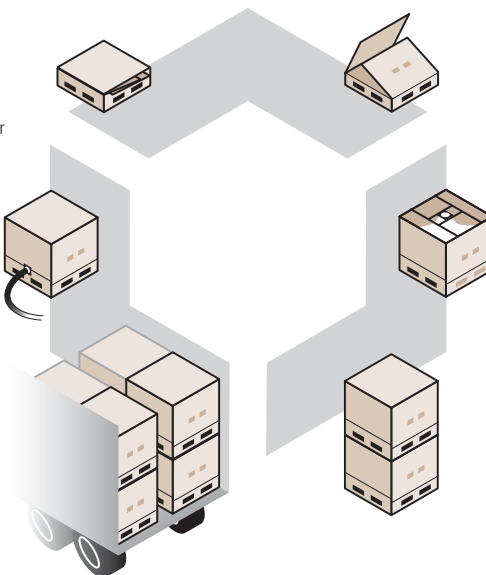
Remove the liner bag from the container, and one person can disengage and collapse the sidewalls. Collapsed IBCs require minimal storage space, and their efficient stacking and cubing of transport systems deliver substantial cost savings on return freight.

### Simple Discharging

Discharging product from Caliber and Citadel IBCs is easy: the liner bags expand when filled and contract when emptied. The bag contains no air so there is no risk of oxidation or skinning. Available in both top and bottom discharge styles.

### Cost-Saving Transport

The design of Caliber and Citadel IBCs maximizes space usage in all forms of transport, cubing trailers, railcars and sea containers. The low tare weight on the containers compared to most other material handling containers delivers lower transport costs.



### Easy Set Up

One person can easily prepare a Buckhorn IBC for use. The walls are raised and locked in place by hand. The liner bag is then installed inside the container with valves locked in place.

### Efficient Filling

Buckhorn Caliber and Citadel IBCs are designed for ease of use and compatibility with existing filling systems. A wide range of sterilized liner options are available for maximum hygiene.

### Secure Stacking & Storing

These strong and durable IBCs can be stacked up to five high when loaded. They are weather resistant and can be filled and stored outdoors for extended periods while maintaining superior product protection.



## Caliber™ Series Intermediate Bulk Containers

**Caliber IBCs** are injection molded of food grade polypropylene and have completely smooth surfaces to satisfy the strictest hygienic standards. They are collapsible, reusable, clean and cost-effective throughout the entire handling process. Their low tare rate helps minimize transport costs, and their durable construction tolerates temperature ranges from 0° to 140°F (-17.8° to 60°C). Available in three sizes: 270 gallons, 300 gallons and 315 gallons, Caliber IBCs can handle different fluids under varying conditions. Caliber can also be used for dry products such as powders, granulate and flakes.\*

- Designed to withstand the toughest demands, including filling under pressure, long-term outdoor storage, rail transport and hot fill applications
- Available in solid and bottom discharge versions
- Lids stack directly on top of each box when collapsed
- Compatible with form-fit and pillow style liners – sterile or non-sterile styles depending on your application

In designing this IBC, the operators' concerns have been top of mind. Simple handling is a basic principle, steering product development decisions and leading to the creation of this truly ergonomic, user-friendly system.



Caliber 270 IBCs provide complete utilization of available space in a sea container.

# Greater selection for total protection



### Lid Locking System

Secures lids at eight tamper evident locations on all Caliber IBCs

**NEW!**



### Reinforced Sidewalls

Embedded steel rods in the sidewalls and corners provide added strength

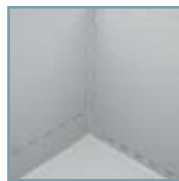
### True 4-Way Entry

A forklift compatible base allows efficient and secure handling from all four sides. Compatible with pallet jacks on 44" side only

Caliber 315  
Top Discharge  
BZ48444700

### Anti-Slip Feet

Each corner foot has an integrated rubber pad to prevent movement during transport



### FDA Approved Hygienic Design

Flat, smooth surfaces and rounded corners ensure the highest level of hygiene and ease of cleaning.



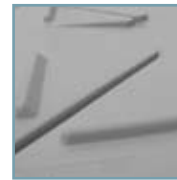
### Lid & Sidewall Hand Grips

Integrated hand grips on the lid make it easy to remove or place on the container.



### RFID Tracking

Caliber containers come standard with two RFID tags molded in each box (can be changed to suit customer specifications).



### Safe Stacking

Stacking ridges ensure the lid and base interlock when stacked and collapsed, allowing a safe, self-supporting column in storage and distribution.



### Liner

Fluid contents are filled into a specially designed sterile liner bag, which is well protected inside the container. Buckhorn IBCs are compatible with a variety of liner suppliers.



### Efficient Identification

Caliber containers have large areas for labeling and offer a number of identification options including serial numbers, bar code markings and RFID options. Contact Buckhorn for complete details.

\*Capacity is dependent upon application and use environment. Check with Buckhorn for suitability in your application. Specifications subject to change without notice.

# & added value in your operations...



### Secure Stacking & Outdoor Storage

Caliber containers can be securely stacked up to five high when filled – even for long-term, outdoor storage. Base and lids interlock to prevent shifting.



### Collapsible

Caliber containers can be easily and quickly collapsed when empty for space-saving storage and distribution. Up to 2.5:1 return ratio.



### Tamper Evidence

Tamper evident seals can be placed on the lid and on discharge openings.



### Sidewall Locking System Adds Strength

Post-and-pocket corner locking system on 270 and 315 models; corner rod locking system on 300 model. Locking systems ensure optimum strength for high pressure filling and rough rail transport.



### Bottom Discharge Styles

All Caliber IBCs feature built-in sloped discharge option that enables fast, unhindered flow for emptying.



AAR: GIS no. 695

### Caliber 270

■ 267 gallon capacity

### Caliber 300

■ 295 gallon capacity

### Caliber 315

■ 315 gallon capacity



### Stacked Collapsed Containers

Caliber lids stack directly on top of each container when collapsed



Caliber 300  
Bottom Discharge  
BZ484444V0



One Caliber = Nearly six 55-gallon barrels

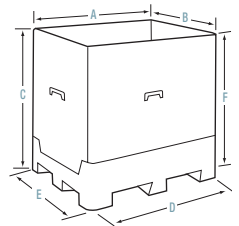
One Caliber 315 IBC container holds the equivalent liquid content of nearly six 55-gallon barrels in the same footprint taken up by four barrels.

Model No.	Description	Dimensions						Weight lbs.	Capacity*			Return Ratio	Recommended Max Stack				
		Outside		Inside		Weight	Volume		Height Filled	48'	53'						
		L"(A)	W"(B)	H"(C)	L"(D)	W"(E)	H"(F)	lbs.	Cu. Ft.	Gallon		Opened	Collapsed	Opened	Collapsed		
<b>S</b> BZ48444100	Caliber 270	48.6	44.7	41.9	44.9	40.9	33.5	205	3307	52.5	267	2.2:1	5	48	120	56	168
	Top Discharge	1235	1135	1064	1140	1040	852	93	1500	1.49	1011	—	—	—	—	—	—
<b>S</b> BZ484441V0	Caliber 270	48.6	44.7	41.9	44.9	40.9	33.5	205	3307	52.5	267	2.2:1	5	48	120	56	168
	Bottom Discharge	1235	1135	1064	1140	1040	852	93	1500	1.49	1011	—	—	—	—	—	—
<b>S</b> BZ48444400	Caliber 300	48.6	44.7	45.6	44.9	40.9	38.5	225	3307	57.3	295	2.4:1	5	48	120	56	168
	Top Discharge	1235	1135	1158	1140	1040	978	102	1500	1.62	1117	—	—	—	—	—	—
<b>S</b> BZ484444V0	Caliber 300	48.6	44.7	45.6	44.9	40.9	38.5	225	3307	57.3	295	2.4:1	5	48	120	56	168
	Bottom Discharge	1235	1135	1158	1140	1040	978	102	1500	1.62	1117	—	—	—	—	—	—
<b>S</b> BZ48444700	Caliber 315	48.6	44.7	48.0	44.9	40.9	40.9	225	3307	60.3	315	2.5:1	5	48	120	56	168
	Top Discharge	1235	1135	1120	1140	1040	1038	102	1500	1.7	1192	—	—	—	—	—	—
<b>S</b> BZ484447V0	Caliber 315	48.6	44.7	48.0	44.9	40.9	40.9	225	3307	60.3	315	2.5:1	5	48	120	56	168
	Bottom Discharge	1235	1135	1120	1140	1040	1038	102	1500	1.7	1192	—	—	—	—	—	—
<b>S</b> TQ48450300PF000	Replacement Lid	47.94	44.94	2.69	—	—	—	25	—	—	—	—	—	—	—	—	—
		1217	1141	70	—	—	—	11	—	—	—	—	—	—	—	—	—

\*Capacity is dependent upon application and use environment. Check with Buckhorn for suitability in your application. Specifications subject to change without notice. All dimensions are approximate.

**S** = In Stock Items

### Caliber IBC Series



■ Stock Color: Gray



## Citadel™ Intermediate Bulk Containers

With Citadel™ and Citadel-v™ collapsible Intermediate Bulk Containers, Buckhorn continues to set the standard for secure storage and transport of bulk liquid and semi-solid materials.

### The Citadel IBC:

- Structural foam construction
- Sized to handle 302 gal./3,000 lbs. capacity
- Steel rods embedded in sidewalls and corners enable Citadel IBCs to stack up to five high for long-term outdoor storage
- Reduces contamination from wood products and withstands the effects of sun, wind, rain, ice or snow

## Citadel Advantages



Greater protection and safety...



...Eliminating the dangers of protruding nails, splinters and sharp metal banding of other packaging types.



AAR: GIS no. 695

# ...Making Caliber & Citadel the versatile



### Spring-Loaded Lids

On both Citadel and Citadel-v, lids lock down to ensure they stay in place during transport

### Hand Grips

Assist panel set-up and collapse

Top Discharge  
BP48454600PF600\*\*\*

### True 4-Way Entry

Easy handling from any orientation



Contoured, channeled lid prevents the accumulation of water and debris. Lids fit flush with walls to prevent damage in transit.



For maximum volume capacity, Buckhorn recommends the use of form-fit liners that match the shape of the Citadel.

## Valuable Benefits

**Ergonomic:** Designed for safe operation. No sharp edges or exposed nails and splinters to injure workers or damage product

**Space Savings:** Efficiently cubes out warehousing space and transportation vehicles to reduce freight and handling costs

**Cost Effective:** Eliminates waste and costs associated with wood packaging and metal banding. Stands up to rough handling. Easy to setup and collapse. Completely recyclable

**Superior Quality:** Designed and tested under ISO 9001:2000 standards

**FDA-Approved Materials:** Safe for use in food environments

**Environmentally Friendly Packaging:** Reduces waste and disposal costs



### Secure, Efficient Stacking

- Interlocking lid and base – recessed lid channels accommodate base feet and runners for secure, interlocked stacking during transit and long-term storage
- Stack up to five containers high

# IBCs of choice to meet your challenges!



## Citadel-v™ Intermediate Bulk Containers

The Citadel-v™ is a bottom discharge IBC that incorporates the added feature of an easy-to-reach, recessed fitment port in its base. The discharge area has a unique, high-impact cover for added content security and protection from damage.

### The Citadel-v IBC:

- Suitable for many food processing, cosmetic, chemical, pharmaceutical and other non-hazardous liquid product handling applications
- Compatible with form-fit and pillow style liners from a variety of suppliers
- Eliminates one-way packaging and waste disposal costs
- 302 gal/3,000 lb. capacity
- The 48" x 45" x 46" footprint cubes out warehouses, trailers, and rail cars, reducing wasted storage space by up to 40%
- Structural foam construction
- HDPE material withstands temperatures from -20° to 120°F (-29° to 49°C)

The durable construction of Buckhorn's Citadel and Citadel-v IBCs ensures that they will withstand rough handling and shipping for long-term performance and savings, trip after trip.



*Citadel and Citadel-v containers collapse and stack with lids separately to eliminate unnecessary destacking and sorting time.*



Multiple lid locks



Bottom Discharge  
BQ484546V051600\*\*\*

Base Rails  
Allow efficient handling on conveyor systems



Smooth interior and exterior surfaces.



Easy, one-person set-up and fold down.



Multiple identification areas for cards and labels.



Built-in sloped discharge area enables fast unimpeded flow for emptying.

### Citadel-v Benefits:

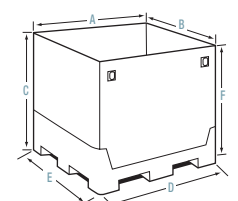
- Unique, high-impact cover protects fitment from damage and cross contamination
- Centrally located in base for ease of use
- Accommodates 2" valves

Model No.	Description	Dimensions						Weight lbs.	Weight lbs.	Capacity**			Return Ratio	Truck Capacity			
		Outside L"(A)	Outside W"(B)	H"(C)	L"(D)	Inside W"(E)	H"(F)			Volume Cu. Ft.	Gallon	Max Stack Height Filled		48" Opened	Collapsed	53" Opened	Collapsed
<b>S</b> BP48454600PF600***	Top Discharge	48.25	45.13	45.44*	44.63	41.63	37.56	276	3000	40.37	302	2.9:1	5	48	120	52	156
		mm/kg/l	1225	1146	1154	1133	1057	954	114	1361	1143	1143	—	—	—	—	—
<b>S</b> TP48450300PF000	Replacement Lid	47.94	44.94	2.69	—	—	—	25	—	—	—	—	—	—	—	—	—
			1217	1141	70	—	—	11	—	—	—	—	—	—	—	—	—
<b>S</b> BQ484546V051600***	Bottom Discharge	48.25	45.13	45.44*	44.63	41.63	37.56	276	3000	40.37	302	2.9:1	3	48	120	52	156
			1225	1146	1154	1133	1057	954	114	1361	1143	1143	—	—	—	—	—
<b>S</b> TQ48450300PF000	Replacement Lid	47.94	44.94	2.69	—	—	—	25	—	—	—	—	—	—	—	—	—
			1217	1141	70	—	—	11	—	—	—	—	—	—	—	—	—

\*46.75 w/Lid \*\*Capacity is dependent upon application and use environment. Check with Buckhorn for suitability in your application. Specifications subject to change without notice. \*\*\* Lid is included with container. All dimensions are approximate.

**S** = In Stock Items

### Citadel IBCs



- Option: Anti-skid rubber pads

# Caliber or Citadel - What are Your Needs?

Contact a Buckhorn Sales Representative for assistance in selecting the right IBC for your application. . .



Gallon Capacities	Three sizes: 267, 295, 315 gal.	302 gal.	302 gal.
Construction	High pressure injection molded	Structural foam	Structural foam
Material	Polypropylene	Polypropylene	High Density Polyethylene
Tare Weight with Lids	205 lbs. (270 model) 225 lbs. (300 & 315 models)	276 lbs.	276 lbs.
Base Style	Feet	Rails	Rails
Entry	4-way entry for forklifts, 2-way for pallet jacks	True 4-way entry	True 4-way entry
Stacking	Lids stack on top of each collapsed box	Lids stack separately	Lids stack separately
Fitment Cover	Disposable gland adapters and cap sold separately	Not applicable	Integrated
RFID	2 per container standard	Optional	Optional
Lids	Rotating locking handles	Spring latch and sliding locks, flush with container	Spring latch and sliding locks, flush with container
Bottom Discharge	Option on each model	Not applicable	Standard
Rail Certified	Yes	Yes	No
Operating Temperature	0° F to 140° F / -17° C to 60° C	0° F to 140° F / -17° C to 60° C	-20° F to 120° F / -29° C to 49° C

## IBC Accessories - Plus Custom Solutions!

Contact a Buckhorn Sales Representative for assistance with accessories...



### Liner Bag

A wide range of Liner Bags are available for Caliber and Citadel IBCs from a variety of suppliers. The Liner Bag can be made of different materials to provide desired performance.



### Tamper Evident Cap

The Tamper Evident Cap for bottom discharge Caliber 270, 300 and 315 models protects the discharge area during transportation and storage.



### Gland Adapter

The Gland Adapter for bottom discharge Caliber 270, 300 and 315 models easily attaches to liner bag to secure the bag's fitment valve to the container.



### Filling Bridge

The filling gland on the liner bag is connected to a Filling Bridge for easy filling. Available for both Caliber and Citadel IBCs.



### Tamper Evident Seal

The Tamper Evident Seal for Caliber 270, 300 and 315 is used to secure the eight locking handles on the lid.

## CUSTOM CONTAINERS

Let Buckhorn assist you with any custom container need for bulk liquid handling. Our consistent innovation, engineering excellence, multiple manufacturing processes and application expertise are unmatched in the industry!

For more details, call (800) 543-4454

[www.buckhorninc.com](http://www.buckhorninc.com)



**Packaging Your Future**

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