Welcome to Cask Brewing Systems Inc.

March, 2013
Cask Brewing Systems

Cask Brewing Systems has been working with the Craft Brewing industry since the early 1980’s when we started supplying brewing equipment and ingredients.

In 1999 there was a large decline in the craft brewing industry due to over supply. The industry declined from 1800 craft brewers to 1300 over three years.
Small brewers who had made capital intensive investments in their brewing equipment were left with excess capacity. They were looking for creative and economical ways to increase sales.

We realized that there was a need in the market place to solve that problem and our solution was to utilize the aluminum can to increase sales.

We started building small manual and automated systems.
Cask Brewing Systems

We started marketing them at the Craft Brewers Conference in Cleveland in 2002. We were told by one attendee that it was the “dumbest idea” he had ever heard! “Nobody in the craft brewing industry would put their beer in cans.”

Now we offer affordable canning solutions for the craft brewing industry and small scale packagers worldwide.

We are the official supplier of the world’s largest producer of aluminum cans, Ball Corporation, for the supply of printed aluminum cans to our Craft Brewing customers.
Oskar Blues started the Canned Beer Apocalypse

In 2002 Oskar Blues became our first customer in the craft brewing industry.

They started canning their beer with a manual canning system.

They had great success with aluminum cans and in 2004 we designed and built an automated canning system for them (ACS 1.0).

- 85,750 in 2012
- 128,000 for 2013 Projected
Our Customers

To date, we have installed over 180 canning lines in 18 different countries throughout the world.
Benefits
Benefits

• Low capital cost to enter the packaging market for cans
• Easy to operate
• Small footprint
• Compact design and flexibility of orientation
• Low dissolved oxygen
Current Systems
Manual Canning System (MCS 4.1)

- Two head can filler with automatic shut off
- Compact design
- Low capital cost
- Easy to operate
- Cans per minute: 8
- Number of fill heads: 2
- Number of operators: 3
Semi-Automated Manual Canning System (SAMS 1.0)

- Automated filling and seaming
- Three head can filler
- Compact design - operational space about 8 sq. feet
- Cans per minute: 15
- Number of fill heads: 3
- Number of operators: 1
Automated Canning System 4.2 (ACS 4.2)

- Available gravity fed can pre-rinser and depalletizer
- Electronic production metrics
- Cans per minute: 35
- Number of fill heads: 5
- Number of operators: 2
ACS Small and Flexible Footprint

Automatic Canning System

With:

• In-line Shaker Table Unload

35 CPM
ACS Small and Flexible Footprint

Automatic Canning System

With:

- In-line Shaker Table Unload
- 90 Degree Arrangement

35 CPM
ACS Small and Flexible Footprint

Automatic Canning System

With:

• In-line Depalletizer

35 CPM
ACS Small and Flexible Footprint

Mirror Image Canning System

With:

- Depalletizer
- Collection Table

70 CPM
ACS Small and Flexible Footprint

Mirror Image Canning System

With:

• Depalletizer
• Collection Table
• Hi-Cone Binder

70 CPM
ACS Small and Flexible Footprint

Mirror Image Canning System

With:

• Depalletizer

• Collection Table

• Plastic Carrier Applicator

70 CPM
1st ACS – Oskar Blues
Cask Brewing Systems
We invented micro-canning

Can to Filler

www.cask.com
Affordable Canning Solutions
Manual Depalletizer - Loading the Shaker Table

• Position cans as close as possible and parallel to the right side or rear of shaker table.

• Slide the blue plastic divider and carefully slide can layer onto tabletop.
Manual Depalletizer

- Cans are extremely unstable until packed together by vibration from shaker motor.

- Raise the table to move the cans down to the filler/seamer.

- Fill conveyer all the way up to the gate below filler tubes.
Automated Depalletizer (AD)

Operations:
• Put pallet in and depalletizer takes top frame off
• Moves pallet up and slides cans on to conveyer
• Conveyer belt moves cans from depalletizer to interior can rinser
• Removes and stores tier sheets
• Measures tier sheets so there is no need to adjust for can size
• Advances 4 hours of continuous can supply with no further operator intervention

Benefits:
• Reduces need for forklift for daily operations
• Reduces labour costs
• Reduces footprint
Filling

Cask Brewing Systems
We invented micro-canning

www.cask.com
Affordable Canning Solutions
Fill Head Manifold
5 head filler, 5 head CO2 pre-evac

- The cans are held so they are spaced properly to accommodate the five fill heads.
- There are 10 cans under the fill head. The first five in the count of 10 are purged with CO2 as the last five (already purged) are filled with beer.
- After the fill is complete the head retracts to the up position and the gate opens. The sensor immediately upstream of the gate counts 5 cans before re-closing the gate and beginning the next fill cycle.
Fill Head Manifold

- The fill sensors are adjustable.
- They determine the height of the product in the can.
Filling

- Flow controlled fill in CO2 purged can
- 5 head filler, 5 head CO2 pre-evac
- Lowest air pickup in the industry – 8 to 10 ppb
- Cap on foam
We invented micro-canning

PLC Panel

Top Up, Foam Valves

Main Screen has integrated timers for better production monitoring while filling

Lid Dispenser

Shaker Table Vibrator
Lid Dispense
Lid Dispenser

- Lid housing holds one sleeve of 552 lids
- Lid automatically drops when can seamed
- Slide holds 7 lids
- Lids can be manually dispensed
Lid Dispenser

- CO2 is dispensed beneath the lid to purge air from under the lid.
Lid Dispenser

- Angle of lid dispenser optimum for can contact
- Leading edge of can grabs and pulls lid out
- CO2 is dispensed through the bottom of the slide to make sure the top surface of the product is covered with a layer of CO2
Seaming
Seamer

- Titanium seaming rolls
- Easy, accurate can seam calibration
Seamer Lift Table

- Lift table raises the can to the seaming chuck
- The seaming chuck spins the can
Seamer

• Seaming roll A curls the cover around and underneath the can body “flange”

• Seaming roll B compresses seam

A. Seaming Roll #1
B. Seaming Roll #2
C. Seaming Chuck
D. Seaming Roll Spindle
E. Pivot Arm
Seamer

- Lift table drops
- Seamed can moved off by the next can to be seamed
Seamer

Control all seamer functions
Test Cycles - 1st & 2nd operation
Die 1 & 2 in-out
Table Up/Down
Push Cylinder #1 & 2
Seamer Motor Control
Double Seam

- We use industry standard tolerances and require the same quality control through continuous seam measurements.
- Recommend can breakdown and measurement before each use.
CIP (Clean in Place)
ACS CIP (Clean in Place) System

- The system is designed to be relatively maintenance-free. With simple, regular cleanings it should run properly. It is critical to ensure the equipment is thoroughly cleaned after every shift.
- A proper cleaning should focus on all the splash areas, including the seaming station, fill location and under the lid dispense tray.
- Use a hose to spray down the whole system and then compressed air to dry as much as possible.
- What can’t be dried with air should be wiped down with paper towel or a clean, dry cloth.
System Periodic Maintenance

The ACS system is designed to be relatively maintenance-free. With the Planned Maintenance Service and simple, regular cleanings, it should run efficiently.

Daily
- Clean canning system with a sanitizing solution.

Quarterly
- Check drive belt for wear and tear.
- Inspect seam bearings.
- Nut and bolt torque checks.

Annually
- Clean air regulator filter bowls.
- Replace beer lines and beer valve o-rings.
Service

• Cask Brewing maintains an online manual at our website that details all aspects of maintenance and repair.

• With local parts and servicing our service and maintenance costs are a small fraction of what you’d pay on imported equipment.

• Help is a phone call away, and our technicians are available at a moment’s notice.
Packaging Formats
Packaging Formats

Aluminum can formats
- Filling flexibility - changes from 12 oz. to 16 oz. cans in 15 minutes
- 8 oz. energy drinks, 24 oz. cans and other formats also available

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New Product – Alumi-Tek®

New Alumi-Tek® Bottles
- Sun King and Oskar Blues introduced Alumi-Tek® bottles
- Fill and purge using the Cask manual canning system
New Product – Alumi-Tek® Bottles
Markets

- Beer
- Energy drinks
- Cider
- Wine
- Mead
- Low carbonation pop/soft drinks
Customer Spotlights
Intuition Ale Works is the first craft brewery in the state of Florida to sell their product in cans

Owner, Ben Davis, says it was an easy decision to choose cans instead of bottles.

“Cans preserve the quality of beer better than bottles because they are airtight and keep out light.

They are also better suited to the Florida climate and lifestyle as they cool down more quickly and are better for taking on a boat, etc. since you don’t have to worry about broken glass.”

Davis also cites environmental advantages.
Red Hare Brewing Company is the first craft brewery with cans in the state of Georgia

Long Day Lager (their flagship brand) is a beer geared towards drinkers of light American lagers.

“We think the lager will be the product that will sustain us,” owner, Roger Davis said.

They are situated in a 11,000-square-foot warehouse that serves as Red Hare’s offices, brewhouse and tasting room.

They are canning using our ACS.
Baxter Brewing, ME, bought a second ACS, a depalletizer and an automated post packaging unit

Luke Livingston, the 27-year-old CEO, founded Baxter Brewing two years ago. The brewery set itself apart by distributing its product only in cans.

All of their beer is strictly in metal containers – 12 oz aluminum cans and stainless steel kegs.

They are believed to be the first brewery in the country to brew more than 5,000 barrels of beer in their first full calendar year of production (2011).

In 2012 they added a second Cask automated canning system, a Cask automated depalletizer and automated their post packaging with an ITW Hi-Cone unit.
Blue Blood Brewing Co., Lincoln, NE, automates their canning to meet demand

They opened in December, 2011. They debuted their product in kegs and cans using a Cask manual canning system.

In February 2012 they doubled their brewing capacity and purchased a Cask automated canning line. “We had no idea we’d need Cask’s automated canning system (ACS) so soon,” laughs owner, Brian Podwinski. “We were able to quickly sell our manual system and are pleased with how easy it is to use the ACS which requires a lot less labour.”

According to the owner, they contribute their sales success to good pre-planning - working with the distributor before they opened. People were already interested and draft accounts had been pre-sold in anticipation of the product release.
Hauser Estate Winery, PA, “Greens Up” their apple cider by switching to cans

“Cans are greener than glass – period. They are lighter and therefore their carbon footprint both in storage and transportation is far less than glass.

The can and the canning technology allow us to get the product into a container with less oxygen pickup, to a greater degree than in a bottle” states Jonathan Patrono, owner.

The cans and lids require a thicker interior coating to deal with the acidity of the cider. Jack’s Hard Cider is available in PA, MD, GA and is continuing to expand.
Thunderhead Brewery, NE, moves production to a new factory brewery and automates canning

To meet rising demand, the owners of Thunderhead Brewery, in Kearney, NE, made a transition from being a pub brewery to running a factory brewery.

Trevor Schaben, head brewmaster and co-owner of Thunderhead Brewery, states “We needed space and needed to expand the brewing capacity. We also worked into the expansion the space to automate the canning. Before, we canned all the beer by hand.

We were very pleased with how smoothly the Cask ACS was installed and up and running. We continue to get consistent fill levels and low dissolved oxygen rates which ensures the quality of our beer.”
Mother Earth Brewing, NC – Peace, Love and Beer – brewed using sustainable practices

Co-owner, Trent Mooring explains, "Being green can be easy, and making educated decisions during our design phase was critical to our objective of a low-impact brewery."

A six-kilowatt solar array on the roof provides enough energy to power the tap room. Blue jean insulation was used to insulate the walls.

And they added cans to their packaging formats. Mooring explains "cans are lighter to transport, but it really gets down to taste - some enthusiasts simply prefer the taste of canned beer, believing cans preserve flavor and carbonation better than bottles."
Anderson Valley Brewing, CA, integrates second Cask automated canning system

Located in Boonville, California, Anderson Valley Brewing Company opened the doors to its brewpub in late 1987.

They were one of the first craft brewers in CA.

In 2009, after 22 years using their traditional packaging format of 22 oz bottles, they added aluminum cans.

In 2011 the brewery produced just over 36,000 barrels of beer. In 2012 they added a second Cask automated canning system with our new depalletizer.
Butternuts Beer and Ale, NY, builds a beer empire
From 0 to #50 in 6 years

“Butternuts is now the 50th-largest microbrewery in the nation (out of over 2000),” states owner, Williamson.*

Established in 2005, Butternuts is located in an old dairy barn in Upstate New York. They bought the dairy barn and a Cask automated canning system and the rest is history.

“We weren’t expecting the kind of volumes we’re doing now,” Williamson said of the beer that is distributed in 14 states. To deal with that demand, Williamson is planning to open a high-volume production facility within the year.

They also bought the Cooperstown Brewing Company in 2011 to expand beer offerings and purchased the golf course around the corner from Butternuts brewery, reformatting it to include a brew pub.

*Based on the May 2012 New Brewer production survey.
Sustainable beer: Wildwood Brewing begins production in Stevensville, MT

The brewery is certified organic by the USDA and the Montana Department of Agriculture.

The owner, Jim Lueders, said the decision to make organic beer is part of a larger philosophy.

“The way we traditionally put pesticides and fertilizers on food is a system of diminishing returns. Because you have to keep adding more and more of it, as pests become resistant to things.”

He began canning in October and already has enough capacity to distribute to most of Montana.
Maryland-based Flying Dog released its first canned beer last year

The first canned beer, the hoppy light lager Underdog Atlantic, was in stores in April 2012.

The launch came as the brewer, the state's largest, planned its most ambitious rollout since it purchased its Maryland base in 2006. Last year, it debuted 20 new beers.

Spokesperson, Erin Biles, said they see cans as an additional platform for their beer. To accommodate the canning process, the brewer added a second production shift.

In 2011, the company produced 85,000 barrels up from 78,000 the year before.
SanTan Brewing, AZ, $6 million expansion

They purchased their first Cask ACS in 2010. Since then, their four core brands have exploded in sales.

The growth in distribution reached over 300% in 2011 with 40% of that volume in canned beer sales.

They have the highest volume SKU in the Chandler, AZ Walmart.

Their 2013 Expansion plans include: $6 million investment, 35k sq. ft, 36k+ bbl capacity.
Morgan Street Brewery has 2nd LARGEST Canning System in St. Louis MO

Morgan Street underwent a recent expansion in order to ramp up product for local distribution. With this expansion, they made the decision to can their beer. They added a Cask manual canning system.

“Now we have the second largest beer canning system in St. Louis!” laughs brewmaster, Dustin Chalfant.

"We rival Anheuser Busch which started in St. Louis in 1864!” “Mind you, we won’t be canning 2000 cans per minute like them! But we will start canning our Gold Pilsner and build distribution and awareness of our first beer in a can. We are excited about the new market opportunities that this will give us.”
It’s a global renaissance - Craft beer in a Can

Breweries around the globe are putting their craft beer in cans with our ACS.

ENGLAND

Camden Town Brewery – London, England – Opened in 2010 and ready to double capacity

Camden Town Brewery grew 65% in 2012 and has invested to enable 50% growth year-on-year for the next two years. “We’ve been at our capacity for over a year and have had to say no to too many people who want to take Camden Town beer,” says Jasper Cuppaidge, founder of Camden Town Brewery.

The expansion includes four 120-hectolitre tanks, upgrades to the bottling line, filter and keg filler, plus a new laboratory for increased quality control. This spring will also see the arrival of their Cask automated canning line with depalletizer, which will make Camden Town the first independent brewery in the UK to have canning facilities and the first UK craft can in the market.
It’s a global renaissance - Craft beer in a Can

AUSTRALIA

The Australian Hotel and Brewery – Sydney, Breaking with tradition and adding cans

Established in July 2010, the Australian Brewery is an iconic venue in the community providing locals and tourists with family friendly food, entertainment and sporting facilities.

Building on their hand crafted beer success, they are entering the next stage and have three beers and a cider ready for packaging. Breaking with tradition in Australia, they are adding cans. They decided on cans because they are less susceptible to oxygen during the filling/seaming process and leave a smaller environmental footprint.
It’s a global renaissance - Craft beer in a Can

NEW ZEALAND

Harrington’s Breweries – Christchurch, New Zealand – Thanks to earthquakes, building a bigger brewery and adding cans

Harrington’s Breweries have been brewing beers in Christchurch since 1991. They are family owned and operated and employ 65 staff.

They brew over 30 different styles of beer at their current site which in 2011 was struck by a 6.3 earthquake which severely damaged the building. With more than 11,000 aftershocks in the last 2 years they have continued to brew but recently decided to build a new 2000 sq. meter brewery and warehouse. It will contain an automated canning line to service their local, national and international export markets.
KOREA

7 Brau – Seoul, Korea - First new Korean brewery in 70 years

Today, there are two main macro-breweries in Korea supplying beer to the masses. However, more customers want a unique beer brewed with tender care as opposed to mass-produced. Thus the age of craft beer is beginning in Korea.

Up until last year there were very restrictive laws that prohibited small brewers from distributing their beer outside of places they owned.

7 Brau is the newest beer to hit the scene and they promote themselves as the first new Korean brewery in 70 years. This microbrewery in Gangwon-do (home of the 2018 Winter Olympics) offers three types of beer: an IPA, stout, and pilsner.
JAMAICA

Razz Breweries – New brewery in downtown Kingston, Jamaica

Razz Breweries is located on premises once occupied by Big City Brewing Company. They purchased the brewery, they’re expanding production and adding our automated canning system. Big City was one of our original customers to buy a manual canning system back in 2003.
Benefits of Canning

Cask Brewing Systems
We invented micro-canning

Affordable Canning Solutions
Why are brewers canning?

**New markets**

- Putting your beer in a can isn’t like adding another package size or beer style which may cannibalize some of your existing beer sales.

- It puts your beer in entirely different markets where your beer was never available before (ie. golf courses, marinas, airlines, beaches, hiking, outdoor events, etc.).

- That results in REAL sales increases.
Why are brewers canning?

Safety – cans don’t shatter

- They’re safer: in your brewery, when you ship them, when your customers handle them.
- Empty cans can’t be hurled like missiles onto the playing field or concert stage.
- That’s why event coordinators ban glass - but not cans.
Why are brewers canning?

Maintain quality

- Beer in cans lasts longer and tastes better.
- Extremely low oxygen pickup during the canning process helps extend beer shelf-life.
- Cans offer 100% protection from UV light.
- Craft beer will taste just as fresh as it did from a keg.
Why are brewers canning?

Customer convenience

• Cans are lighter and easier to handle, transport and recycle.

• A 6-pack of cans is “the ultimate grab and go” retail package catering well to the impulsive consumer.

• Pack ‘em in, pack ‘em out.
Why are brewers canning?

Environmentally friendly

- The average aluminum can is made from 44% recycled aluminum can.
- It is the most recycled package in the world.
  - Aluminum can recycling rate: 65%
  - Glass beer and soft drink bottle recycling rate: 41%
- It costs a fraction of the energy to produce, to ship, and to recycle than glass.
Why are brewers canning?

Product differentiation

• The craft beer shelves are increasingly crowded with 12 oz bottles.

• Canned craft beer gets noticed and, with all these benefits, makes for a great story!
Financing programs for the craft brew industry

Brewery Finance

Rick Wehner
615 Commerce Street, #101
Tacoma, WA 98402
Email: rickw@breweryfinance.com
Direct: 303.800.1063
Toll Free: 800.930.0570
Fax: 800.821.5903
http://www.breweryfinance.com

Heartland Business Credit, a subsidiary of Heartland Bank (MO)

Dan Dittmar
Email: ddittmar@heartlandbc.com
Phone: (949) 369-8514
Fax: (949) 606-7048
Cell: (714) 328-2181
www.heartlandbc.com
Cask Brewing Systems
We invented micro-canning

Our Customers

www.cask.com Affordable Canning Solutions
A Special Thanks to Some of Our Customers

Thank you for donating beer to serve at the beer stations.

Avery Brewing
Baxter Brewing Co.
Crazy Mountain Brewing Company
Hangar 24
Maui Brewing Co.
A Special Thanks to Some of Our Customers

Thank you for donating beer to serve at the beer stations.

[Logos of Mother Earth, Muskoka, Oskar Blues, Red Hare breweries]
A Special Thanks to Some of Our Customers

Thank you for donating beer to serve at the beer stations.
We’ve enjoyed working with craft brewers for the last 30 years and look forward to continuing to provide innovative canning solutions for the next 30.

Cask Brewing Systems Inc.