

System Specifications

A) Drum Heater

- Electric or steam
- 14 gauge welded carbon steel exterior finished with acrylic enamel
- 12 gauge carbon steel interior with heat resistant silver
- Optional stainless steel construction
- 3" of heavy density (6#) mineral wool insulation
- Digital temperature control
- Optional air circulation blower
- Built-in spill containment

B) Column Dumper

- USDA accepted design
- Stainless steel T-304 construction
- Polished 10-gauge stainless steel shell
- Polished 3 inch stainless steel tube post
- Stainless steel drum carriage with bronze bushings
- Stainless steel dump cradle with safety latch
- Stainless steel hinges
- 2 HP brake motor
- CRS: Carriage Retention Safety Catch
- Secondary top sensor for overall shutdown
- Chute extension for dump cradle

C) Ice Chopper (C24)

- OSHA safe 32" tall inlet
- 12.5HP, 68 RPM 230/460 3-Phase keyed wash down duty gear motor
- Flanged inlet and discharge
- Special 48" inlet safety chute with cold temp on sensor.
- All construction materials T304 stainless steel.
- Speed range: 25-100 RPM.

D) Ice Disintegrator (M12A)

- 20HP, 1750 RPM 230/460 3-Phase motor
- 3:1 gearbox
- Flanged inlet and discharge
- 1 cubic foot inlet Hopper
- Shredder Screen
- Paddle Rotor,
- Angle Base
- Hinged Cover
- All materials of construction T304 stainless steel.
- Optional VFD drive

E) Thawing Tank (Conical Hopper)

- Tapered tank with tapered bottom and discharge port
- Low pressure water jacket
- TEFC shaft mounted gear motor
- Variable frequency drive in NEMA-4x enclosure
- All product contact components are type 316 stainless steel
- RTD Temperature Probe
- Standard Voltages - 208, 203, 460
- Glass bead blasted finish inside and outside
- All welds are continuous and ground smooth
- Lip seals in UHMW housing
- USDA approved design

F) Hot Water Set

- Hot water circulation pump
- Electric or steam hot water heater
- T304 stainless steel construction
- Sanitary clamp connections for water
- Stainless steel frame assembly
- Precise temperature control
- Water side valve assembly

G) Positive Displacement Pump (Progressive Cavity Pump or Sine Pump)

- Flowrate and discharge pressure depends on application
- 4" or 6" inlet
- 4" or 6" outlet
- Sanitary tri-clamp connection
- Stainless steel construction
- Mechanical seal
- Adjustable speed

H) Double Tube or Triple Tube Heat Exchanger (Ice Melter)

- Corrugated tube surface
- Removable headers
- Stainless steel construction
- Sanitary tri-clamp connection for both water and product
- Stainless steel media U-bends and jumpers
- Stainless steel frame assembly



Juice
Thawing System

Blentech's NEW

Juice Thawing System

Rapid particle size reduction, efficient heat transfer, uniform mixing, and simplicity of design/operation, are just a few of the ways in which the Blentech Fruit/Vegetable Juice Thawing System solves the issues commonly encountered with other juice thawing systems on the market today.

Supported by over a quarter century of experience engineering thawing/tempering equipment, Blentech offers a fully integrated fruit/vegetable juice thawing line that will handle pre-thawing, loading, 2-stage rapid particle size reduction, mixing, thawing, staging and pumping to downstream equipment. Our systems are smartly engineered for easy cleaning, efficiency, simplicity and are automated for minimal operator involvement.

Blentech. Excellence by Design.

Blentech Value

- Rapid particle-size reduction
- Efficient heat transfer
- Reduced cycle times
- Simplicity of design
- Product versatility
- Automation
- Uniform blending
- Small footprint
- Sanitary
- Easy cleaning
- Minimal maintenance
- Service & support
- Robust design

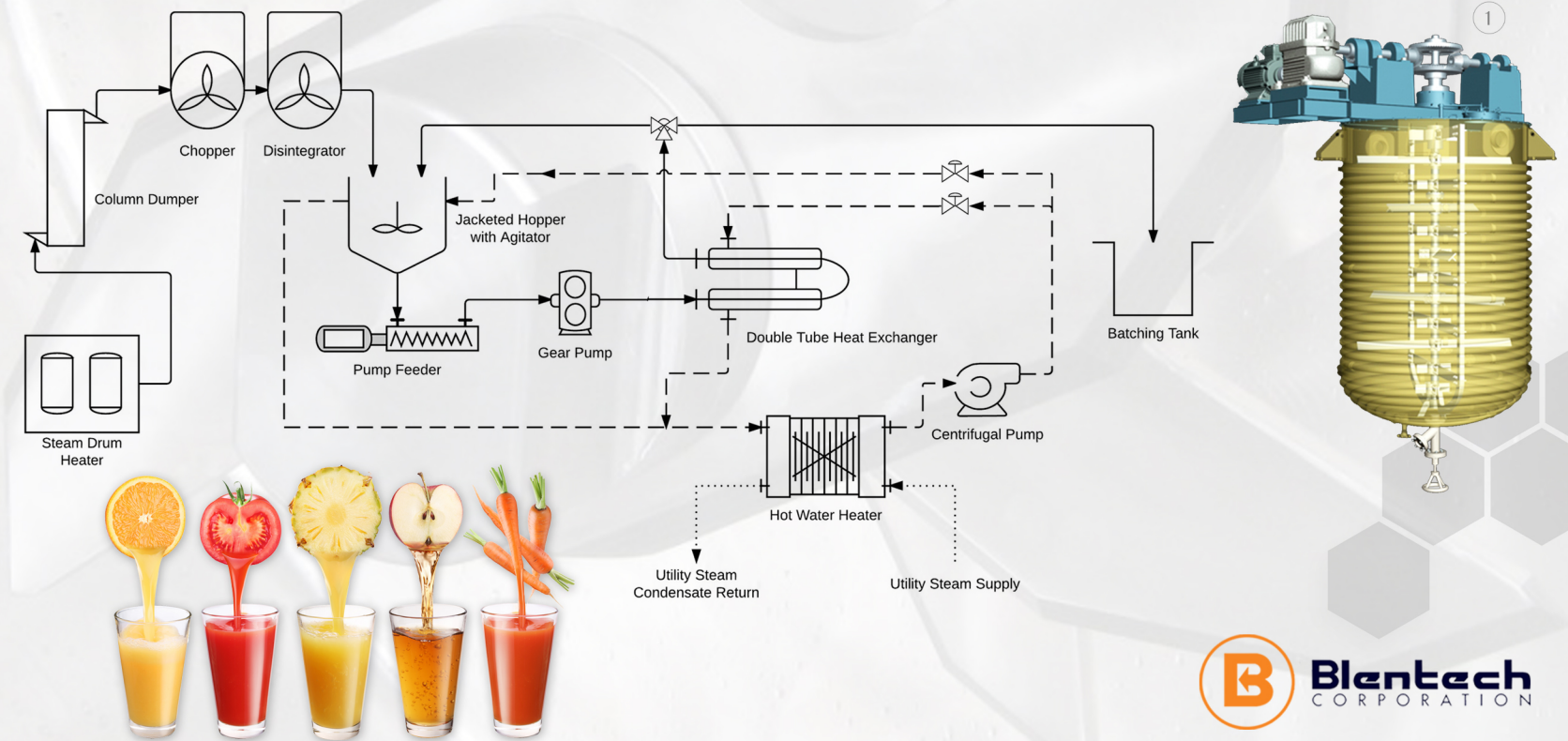


Technical Highlights

- Optional second heater converts batch process to batch-continuous.
- Specially designed agitator system for high viscosity, concentrated products.



- Crushing & disintegrating 55 gallon drum in less than one minute!



Process Overview

This system is designed to thaw frozen juice in 55 gallon drums at a throughput of 12 drums/hour or 20,000 liter/day (assuming 8 operation hours a day). The thawing process consists of the following steps:

Step 1: Pre-thaw

Frozen juice drums in electric drum heaters to thaw a thin layer of the ice, so it can be easily discharged from the drum. Two drum heaters allow a batch continuous process.

Step 2: Crushing

Frozen juice is loaded into the ice crusher by a column dumper and crushed to 4" diameter balls (1 drum every 5 minutes).

Step 3: Disintegrating

The disintegrator work in series with the crusher to further reduce frozen juice into 1/4" pieces and significantly increase the heat transfer area.

Step 4: Thawing

The frozen juice ice slurry is heated in a conical shaped hopper equipped with a hot water jacket and a specially designed agitator.

Step 5: Discharge

Product is discharged from cooker and transferred to surge vessel, where it is accurately maintained at the desired fill temperature.

Thawing Applications

- Frozen Single Strength Juices
- Frozen Juice Concentrate
- Frozen Pulp
- Frozen Slurry

System Capacity

Throughput

● 3 GPM ● 5.5 GPM ● 11 GPM ● >11 GPM

Processing Method

● 3 Drum Batch ● 6 Drum Batch ● 12 Drum Batch ● Continuous

Processing Time

● 1 Hour ● 1 Hour ● 1 Hour ● Continuous

*1 drum = 55 gallons

