

# **SERVOTECH BREAD DIVIDER**



- A new concept in dough dividing that combines the gentle dough handling of a ram and knife divider with the precise scaling of the latest servo control technology.
- Unique design for use with a wide range of doughs including specialty, whole wheat, rye, cinnamon raisin, and white.



## **SERVOTECH BREAD DIVIDER**

### **FEATURES & BENEFITS**

- · Precise scaling accuracy.
- Servo drives and recipe control logic allows the most accurate control of pressure inside dough chamber for
  various dough types. Ram and knife strokes can also be adjusted relative to scaling weight. This concept
  controls dough chamber volume and maintains first-in, first-out dough processing. The electronically
  controlled motions can also be customized for specific applications, and recalled by recipe management while
  using all standard mechanical components.
- Ram and knife electronic linear actuators replace cams, bushings, levers and grease points thus reducing maintenance, extending machine life and accuracy by eliminating backlash from wear.
- High pressure lubrication distribution system insures proper lubrication of surfaces while reducing oil consumption.
- Servo drives also provide electronic torque limiting functions to protect machines from foreign objects, individual axis forward/reverse jog function to clear obstruction, and single touch cleaning position for faster maintenance and sanitation.
- Stainless steel and plastic materials for dough contact surfaces and lighter ram and piston assemblies facilitate cleaning and handling.
- Automatic primary and secondary conveyor speed management maintain dough ball spacing at different operating rates.
- Rigid stainless steel frame and rear door design offers unmatched access in the volumetric divider for quick and complete sanitation.

### **ELECTRICAL FEATURES**

## Operator panel is stainless steel NEMA 4 rated and contains the following:

- Allen Bradley PanelView 600+ operator interface which displays:
  - Operation speed and product counter
  - Conveyor and sifter speed adjustments
  - Recipe selection, modification and addition
  - Status, alarm and history messages
- Allen Bradley push buttons for the following functions:
  - Start
  - Stop
  - Alarm acknowledge/reset
  - Emergency stop

#### **NEMA 12 remote enclosure (painted steel) including:**

- Main power disconnect
- Allen Bradley Compact Logix programmable logic controller
- Allen Bradley Kinetix 6000 servo drives for process motion axis
- Allen Bradley AC inverters for conveyors and flour sifters



### **MECHANICAL FEATURES**

#### Frame Assembly

- Stainless steel frame structure and guards with safety interlocks
- Clean-in-place ram and knife supports
- Easy access rear door
- All components located above the discharge conveyor for easy cleaning

#### **Conveyors and Sifters Assembly**

- AC variable speed primary and secondary conveyors
- Cantilevered conveyor support frames for easy belt removal and replacement
- AC variable speed, high capacity flour sifters



- Primary hopper
- Dough hopper high/low level monitor
- Sanitary stainless steel hopper, dough chamber and knife
- Plastic/stainless steel ram
- Servo controls and linear actuators replace main cams, dashpot assemblies and shear pin safeties
- Stainless steel division box with replaceable, low friction plastic wear plate and interchangeable pistons
- Ejector and piston stopper adjustments mechanically locked on heavy duty worm gears separated from the dividing head movement
- Adjustable dough ball deflector rollers
- Pressurized lubrication system with individual, adjustable, multipoint injection







Removable Sifter



**Primary Hopper** 



Divider Box and Ejector

### **OPTIONS**

- Closed loop weight regulator for process variation compensation
- Internal lighting kit
- Frame mounted swing beam and hoist

- NEMA 4X stainless steel main electrical enclosure
- Arc flash panel option
- Oiling system

### **SPECIFICATIONS**

#### **Throughput Range:**

Scaling range from 6 oz. to 54 oz. (170 g to 1531 g) at 65 lb./in³ dough density 6-30 strokes per minute 5, 6, 7, 8 pockets

#### **Electrical Requirements:**

**30 KVA** 

Standard voltage - 460 volts/3 phases/60 Hz (other voltages available)

PLC I/O Voltage: 24VDC in/120VAC out

Air Requirements - 5 SCFM at 90 PSIG

#### **Approximate Dimensions:**

84" L x 86" W x 66" H (2134 mm x 2184 mm x 1676 mm) Door clearance 44" (1118 mm) radius

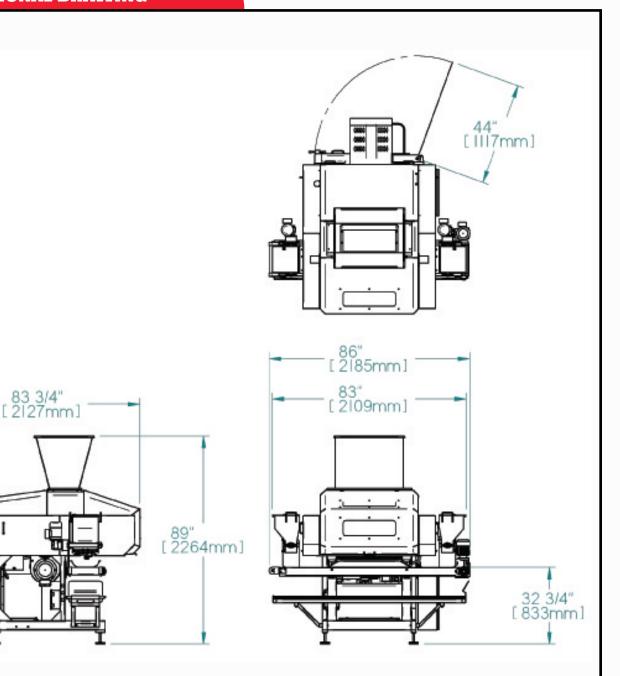
#### **Approximate Shipping Weight:**

4,350 lb. (1973 kg)



## **SERVOTECH BREAD DIVIDER**

## **DIMENSIONAL DRAWING**



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