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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.

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• Unique design for use with a wide range of doughs including specialty, whole wheat, rye, cinnamon raisin, and white.

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FEATURES & BENEFITS

- Scaling accuracy of ±1% on most doughs.
- 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 Kinetics 6000 servo drives for process motion axis
- Allen Bradley AC inverters for conveyors and flour sifters



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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

Division and Scaling System

- Sanitary stainless steel hopper, dough chamber and knife
- Plastic/stainless steel ram with pressurized lubrication
- 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, multi-point injection



Removable Sifter



Divider Box and Ejector



OPTIONS

- Primary hopper
- Dough hopper high/low level monitor
- Closed loop weight regulator for process variation compensation
- Lube oil tank and low level monitor
- Frame mounted swing beam and hoist
- NEMA 4X stainless steel main electrical enclosure

SPECIFICATIONS

Throughput Range:

Scaling range from 6 oz. (170 g) to 54 oz. (1531 g) at 65 lbs./ft³ 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) Control Power - 24 VDC inputs/120 VAC outputs Air Requirements - 10 SCFM at 80 PSIG

Approximate Dimensions:

78" L x 69" W x 67" H (1981 mm x 1753 mm x 1702 mm) Door clearance 37" (940 mm) radius

Approximate Shipping Weight: 2,350 lbs. (1066 kg)



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DIMENSIONAL DRAWING





AMF's focus on continuous improvement may result in changes to machinery specifications without notice.