Automated combination bread and roll make-up system - from dividing all the way through panning

Designed to produce bun, soft roll, and pan baked bread

Featuring state-of-the-art extrusion dividing technology

**FEATURES & BENEFITS**

**Design Innovations**
- Extrusion dividers offer the most accurate scaling available with superior product quality
- Hinged spiral tunnel rounder bars with gas spring assist for improved rounding symmetry and offering easier access for sanitation and maintenance while eliminating sticking
- Electronic synchronization between the divider and proofer allows accurate timing without high maintenance chain or shaft drives
- Non-stop magnetic pan indexing provide precision and durability for high speed production
- Four piece or six piece bread production process

**Design Flexibility**
- The Combo-Mat can handle a variety of production requirements including buns, soft rolls and pan baked bread
- The Combo-Mat is designed with OIT driven recipe management for quick product changeovers for buns, to rolls to bread

Shown with Optional Equipment
COMBO-MAT BREAD AND BUN MAKE-UP SYSTEM

MECHANICAL FEATURES

- AccuMax Extrusion Dough Divider
- Heavy duty stainless steel frame for durability and corrosion resistance
- Poly-slick rounder belt
- Hinged rounder bar frame with gas spring assist
- New spiral tunnel rounder bars
- Direct drive rounder belt
- Cantilevered rounder frame design for quick belt changes
- Adjustable feet with lagging capability
- Independently driven UHMW kicker roller
- UHMW zig-zag board and lane guides
- Pneumatic flapper gate dough ball transfer system
- Pneumatic pulse sifter with linear motion at zig-zag and moulder areas
- Stainless steel flour catch pan with integral design to zig-zag for flour containment and recycling
- Heavy duty proofer trays with stainless steel frame, non-stick analytic plastic snap-in trays
- 12’ (3658 mm) stacked or 24’ (7315 mm) stretched proofer configuration
- Punched stainless steel proofer side panels
- Hinged catch pans on underside of proofer with key latch
- Single action flapper gate controls the drop from the proofer into the sheeter
- 6” (152 mm) diameter sheeter rollers
- Open design sheeter drive for easy maintenance
- Cantilevered moulder belt frame design for easy belt access
- Synthetic/cotton-topped moulder belt for flour retention and stretch resistance
- Pneumatic driven hot dog gates with PLC control for on-the-fly adjustment
- Non-stop magnetic pan indexer

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Product</th>
<th>Speed Range*</th>
<th>Maximum Throughput*</th>
<th>Scaling Range*</th>
<th>Pan Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Width Range</td>
</tr>
<tr>
<td>Bun and Roll</td>
<td>80 to 600 ppm</td>
<td>6,000 lb./hr.</td>
<td>7/8 oz. to 5 oz.</td>
<td>13” - 33”</td>
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<tr>
<td></td>
<td></td>
<td>(2722 kg/hr.)</td>
<td>(25 g to 142 g)</td>
<td>(330 mm - 838mm)</td>
</tr>
<tr>
<td>Pan Baked Bread</td>
<td>20 to 100 lpm</td>
<td>6,000 lb./hr.</td>
<td>7 oz. to 36 oz.</td>
<td>13” - 20”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2722 kg/hr.)</td>
<td>(198 g to 1020 g)</td>
<td>(330 mm - 508mm)</td>
</tr>
</tbody>
</table>

*Throughput, speed and scaling range are dependent on several factors including dough condition, product configuration and other associated equipment.
**OPTIONS**

- Stainless steel remote electrical enclosure
- Reverse axis rounder
- Chilled rounder bed
- Servo rotary gate upgrade
- Additional proofer sections
- CE confirmed electrical package
- Allen Bradley PLC upgrade
- Second Allen Bradley PanelView 1000 operator interface at moulder
- Panel modem option
- Panel air conditioner
- 3’ (914 mm) infeed pan conveyor extension for hand feed
- 3’ (914 mm) discharge pan conveyor extension
- UHMW moulder board assemblies
- Twin roll cutter
- Zig-zag vacuum flour reclaim system with stainless steel flour catch pan with integral design to zig-zag for flour containment and recycling
- Pan dust collector
- Accupan four point flour reclaim system
- Magnetic pan pre-indexer conveyor
- Stainless steel proofer support legs
- Roll imprinters
- Pan shakers
- Bun seeders
- Tool kit
- Spare parts kit

**ELECTRICAL FEATURES**

The Combo-Mat is supplied with one NEMA 4 rated operator control station mounted on the side of the tower.

Allen Bradley PanelView 1000 keypad operator interface with alarm messages and recipe management on operator panel to control:
- Divider
- Rounder belt speed
- Rotary gate speed
- Pulse zig-zag flour sifter speed
- Proofer speed
- Sheeter roller speed
- Moulder belt speed
- Pulse moulder sifter speed
- Hot dog gate phasing and speed
- Pan indexer
- Flour recovery (if so equipped)

Allen Bradley pushbuttons on operator panel for:
- Two-button start
- Stop/Emergency stop
- MCR reset

Operator station at S/M/P with Allen Bradley button controls for:
- Pan gate control
- Pan indexer Auto/Stop/Jog
- Two-button start
- MCR reset
- Stop
- Emergency stop
- Sheeter/moulder belt/pan conveyor speed adjustment with LED readout

NEMA 12 remote enclosure (painted steel) including:
- Main disconnect switch
- Allen Bradley PLC control
- AC inverters