The Moline DonutKing Depositor is designed to continuously and uniformly cut and drop cake donut batter into a fryer kettle. The depositor consists of the following assemblies and systems: the hopper, the cutter head (and plunger) drive system, the bridge lifting system, the pneumatic system, and the electrical control system. Product size is easy to regulate by turning the cutter head adjustment knob.

Batter is placed in the hopper and forced, by gravity, toward the plungers. As the batter moves down, an electrically signaled mechanical drive system opens and closes the plungers, “cutting” the batter into a row of product in the fryer flight pocket. The DonutKing is electronically synchronized with the fryer so that each cut falls into a flight pocket and is recorded on the fryer control panel.
**Depositor Features**

**Operation:**
- Rolls into position over the fryer, is easily aligned with precision locating pins and is ready for operation in minutes.
- The “dual cam” drive design provides reliable and durable operation for high volume production.
- Maximize production rates by selecting the optimum cutting plate for your fryer (see diagrams on page 4).
- Vary product quantity as desired with a wide range of forming cylinders and plungers.
- The new cutter head design (with individual cutter head clutches) allows only the affected head to disengage if a jam occurs -- production can continue until the remaining batter is gone, thus eliminating inefficient shutdowns.
- Utilities: 208,240,380,460 volt, 50 - 60 hertz, 1.2 kw. Air supply: 60 PSI (4 BAR)

**Construction:**
- Severe duty construction with TY-304 stainless steel frame and cast aluminum cutter heads.
- Stainless steel user-friendly control panel.

**Sanitation:**
- Washdown duty components.
- Quick and easy disassembly for sanitation.

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**Cutting System**

The DonutKing cutting system consists of two parts: the forming cylinder and the plunger. When operating, the plunger slides up and down through the forming cylinder, cutting batter into product with each plunger cycle. Cutter assemblies are stainless steel and consist of a plunger, a forming cylinder and a cylinder clamp (each component is sold separately). The depositor must have a compatible cylinder plate (also sold separately) for the type of cutter to be used.

Plunger/forming cylinder combinations include: plain, star, French cruller, mini donut, ball, bar/stick, kringle, old fashioned and others. A plain donut cutter is shown at right.

Cutting System

Durable stainless steel plungers available in a variety of shapes and sizes.

Cutter assemblies are easy to remove from the depositor and can be quickly disassembled for sanitation.
**Cutter / Donut Size Table**

<table>
<thead>
<tr>
<th>Plunger/Cylinder Dia. (d)</th>
<th>*Approx. Raw Wt./Piece ounces</th>
<th>*Approx. Fried Wt./Piece ounces</th>
<th>Approx. Fried Size O.D. inches</th>
<th>Approx. Fried Size O.D. mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/8”</td>
<td>.25</td>
<td>.32</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>1”</td>
<td>.38</td>
<td>.48</td>
<td>1-1/4</td>
<td>32</td>
</tr>
<tr>
<td>1-1/8”</td>
<td>.50</td>
<td>.62</td>
<td>1-3/8</td>
<td>35</td>
</tr>
<tr>
<td>1-1/4”</td>
<td>.65</td>
<td>.80</td>
<td>1-1/2</td>
<td>38</td>
</tr>
<tr>
<td>1-3/8”</td>
<td>.80</td>
<td>1.00</td>
<td>1-5/8</td>
<td>41</td>
</tr>
<tr>
<td>1-1/2”</td>
<td>.95</td>
<td>1.18</td>
<td>1-7/8</td>
<td>48</td>
</tr>
<tr>
<td>1-5/8”</td>
<td>1.10</td>
<td>1.38</td>
<td>2-1/4</td>
<td>57</td>
</tr>
<tr>
<td>1-3/4”</td>
<td>1.25</td>
<td>1.56</td>
<td>2-5/8</td>
<td>67</td>
</tr>
<tr>
<td>1-7/8”</td>
<td>1.50</td>
<td>1.88</td>
<td>3</td>
<td>76</td>
</tr>
<tr>
<td>2”</td>
<td>1.75</td>
<td>2.18</td>
<td>3-3/8</td>
<td>86</td>
</tr>
<tr>
<td>2-1/8”</td>
<td>2.00</td>
<td>2.50</td>
<td>3-3/4</td>
<td>95</td>
</tr>
<tr>
<td>2-1/4”</td>
<td>2.25</td>
<td>2.80</td>
<td>4-1/8</td>
<td>105</td>
</tr>
</tbody>
</table>

* Weight range is approximately -5% for donuts with Star Plungers and +5% for donuts with Plain Plungers.

The new cutter head design (with cam follower bearing) is more efficient, more durable and promotes longer component life.

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**5-Step Cutting Principle**

1) **Home Position**

2) **Open Position**

3) **Charge Cylinder With Batter**

4) **Form Donut**

5) **Cut and Deposit Donut**

Due to the Moline policy of continuous improvement, specification are subject to change without notice.
## Plunger Styles and Sizes

### Depositor Configuration

**Plunger Style**

<table>
<thead>
<tr>
<th>Depositor Configuration</th>
<th>Plain</th>
<th>Star</th>
<th>French</th>
<th>Mini</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moline DonutKing MC/MS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belshaw MS, MSPF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sizes Available for Plunger Dia. (d) in 1/8” Increments**

<table>
<thead>
<tr>
<th>Deposition Style</th>
<th>Min.</th>
<th>Max.</th>
<th>Assy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belshaw MD, MDD</td>
<td>7/8</td>
<td>7/8</td>
<td>A</td>
</tr>
<tr>
<td>Moline DonutKing</td>
<td>7/8</td>
<td>7/8</td>
<td>B</td>
</tr>
<tr>
<td>Belshaw MS, MSPF</td>
<td>7/8</td>
<td>7/8</td>
<td>C</td>
</tr>
</tbody>
</table>

**Cutter Assembly A**

- Single Stem
- Single Plunger

**Cutter Assembly B**

- Double Stem
- Triple Plunger

**Cutter Assembly C**

- Single Stem
- Double Plunger

**Forming Cylinder**

**Cylinder Clamp**

**Multi-Spaced Cutter Assemblies**

*Due to the Moline policy of continuous improvement, specifications are subject to change without notice.*
Maximize production rates by selecting the optimum cutting plate for your fryer (see diagrams below). Multiple cutting patterns can be achieved with a variety of cutting plates, plungers and cylinders.

DK-6/8/9/12
* Capacity: 500 dozen/hour

DK-10/12/15/20
* Capacity: 1400 dozen/hour

DK-8/10/12/16
* Capacity: 850 dozen/hour

DK-12/15/18/24
* Capacity: 2500 dozen/hour

* Capacities are nominal based on a single cut assembly producing 2-ounce cake donuts. Output will vary significantly with product size, fry time and fryer configuration. Contact Moline Customer Service for specific capacity information.