Multi-Tube Feeder Platform
For the GSM® Platform and other Universal odd form assembly equipment

Multi-Tube Feeders (MTFs) from Universal Instruments Corporation are designed for fast and reliable placement of odd form components packaged in tubes. They are ideal for medium-to-high volume applications, and are fully compatible with Universal’s GSM Platform and other Universal odd form assembly machines.

The MTF platform automates both through hole and surface mount odd form components. It is available in three models to accommodate a broad range of components, based on tube size:

- **Low Profile MTF**: For tubes up to 25.4mm (1.0”) wide. It takes only 2 feeder slots and is 40mm (1.6”) wide. Conserves feeder space and allows for gang picking.
- **Expanded MTF**: For tubes up to 45.7mm (1.8”) wide. It takes 3 feeder slots and is 60mm (2.4”) wide. Allows processing of larger components.
- **Wide Body MTF**: For tubes up to 115mm (4.5”) wide. It takes 6 feeder slots and is 140mm (5.5”) wide. Handles the widest tubes for edge-stacked components.

The platform design of the MTF allows for rapid component changeover on the manufacturing floor. Each MTF model can be easily re-tooled from one component type to another, within a given range of tube sizes, as production requirements change. This is done by simply changing the feeder application tooling—the track and the pusher—preserving your investment in the base feeder. The result is a cost-effective solution for today’s ever-changing production environment.

The MTF platform is controlled by its own PLC and interfaces to the standard Universal feeder bank with wireless connections for power and communication, and an automatic connection to the pneumatic supply.

A positive pusher drive advances components from the tube to the track and up to the pick point, rather than relying on vibration or gravity. This advanced design provides extremely high reliability.
**Expands the component range of Universal placement equipment**

- The Multi-Tube Feeder plugs directly into the Universal odd form assembly machine’s feeder interface, allowing components normally placed manually to be placed with the speed and reliability of automation.
- Users benefit from the productivity and quality improvements inherent in automation, as well as the financial benefits of higher machine utilization.

**Handles a wide range of components**

- The platform design of the Multi-Tube Feeder, and the availability of three models for different-sized tubes, allows it to be tooled and re-tooled for a variety of components. Here is just a sampling of the many types of components that Universal MTFs have handled:
  - D-Subs
  - Mini-DINs
  - USBs
  - Transformers
  - PLCC Sockets
  - Relays
  - MICTORS

- Each MTF model has a platform base, which accepts different tracks tooled for specific components. When component requirements change, a new track can be easily substituted for the previous one, simplifying product changeover while preserving your investment in the base feeder.

**Rear tube loading**

- Each Multi-Tube Feeder model is easily loaded from the rear, so it is not necessary to stop the GSM Platform or other Universal odd form assembly machine during component replenishment.

**Optional features**

- Lead registration tooling can be added as an option when vision placement is not desired or not possible.
- Lead forming can be provided. Consult your local Universal Sales Engineer.
- Bar code scanning is available to automate component selection/verification.

**Offered in three feeder profiles**

The Multi-Tube Feeder is available in three models, based on the width of the feeder itself and the size of the tubes in which the components are packaged:

<table>
<thead>
<tr>
<th>Multi-Tube Feeder Model</th>
<th>Feeder Width</th>
<th>Tube Reservoir</th>
<th>Component Tube Length</th>
<th>Component Tube Width</th>
<th>Component Tube Height</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Space Slots</td>
<td>Max</td>
<td>Min</td>
<td>Max</td>
<td>Min</td>
</tr>
<tr>
<td>Low Profile MTF</td>
<td>40mm (1.6&quot;)</td>
<td>2</td>
<td>216mm (8.5&quot;)</td>
<td>610mm (24&quot;)</td>
<td>482mm (19&quot;)</td>
</tr>
<tr>
<td>Expanded MTF</td>
<td>60mm (2.4&quot;)</td>
<td>3</td>
<td>406mm (16&quot;)</td>
<td>610mm (24&quot;)</td>
<td>406mm (16&quot;)</td>
</tr>
<tr>
<td>Wide Body MTF</td>
<td>140mm (5.5&quot;)</td>
<td>6</td>
<td>216mm (8.5&quot;)</td>
<td>610mm (24&quot;)</td>
<td>406mm (16&quot;)</td>
</tr>
</tbody>
</table>

*The Multi-Tube Feeder can feed a wide variety of components...*

*...and is fully compatible with the GSM Platform.*

*The Low Profile MTF takes up only two feeder slots.*

*The Expanded MTF processes components packaged in larger tubes.*

*The Wide Body MTF feeds edge-stacked components packaged in wide tubes.*

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