PARTS DESCRIPTION

The Frenzon TKM-100 is a versatile and durable key machine.

Please read all the following information and instructions thoroughly.

The proper use of the TKM-10 Tumbler Key Machine will prove to be invaluable for your keycutting procedures. This machine is designed to accommodate a variety of key cutting tasks.

Key cutting procedures are performed by aligning the key blank within the machine and positioning the key with respect to the cutting head. The TKM-100 offers a range of cutting head positions to accommodate different key profiles.

Set vertical depth at # 7 for ward cuts.
Set side depth at # 4 for master cuts.
Set side depth at # 8 for standard cuts.

Use # Spacing Plate.

- 6
- 7
- 8
- 9
- 10

No. cuts: 0
Drop: 0
No. steps: 0
Key blank No.: 0
Key diameter: 0
Mfg: 0

The TKM-100 is ideal for use in a variety of environments, including locksmiths and commercial facilities.

Figure 1
Figure 2
Figure 3
**Spindle Assembly** - The spindle assembly consists of the spindle and spindle chuck.

The spindle lever will lock the housing when its position is engaged with the spindle. The lock lever is located at the upper left of the spindle.

**Spindle Cam** - The spindle cam has six different positions. They are as follows:

1. 0
2. 2
3. 4
4. 6
5. 8
6. 9

**Set Vertical Depth at**, **Cut for Weld Cuts**: Set up the vertical depth at the cut for weld cuts.

**Set Side Depth at**, **Cut for Weld Cuts**: Set up the side depth at the cut for weld cuts.

**Set Side Depth at**, **For Master Cuts**: Set up the side depth for master cuts.

**Set Side Depth at**, **For Standard Cuts**: Set up the side depth for standard cuts.

**Use** - Spacing Plate:

- 0
- 1
- 2
- 4
- 5
- 7
- 8
- 9

**N° of Cuts**:

- 0
- 2
- 4
- 5
- 7
- 8
- 9

**N° of Steps**:

- 0
- 2
- 4
- 7
- 8
- 9

**Key Blank No.**:

- 0
- 1

**Key Diam.**:

- 0

**Mfr.**:

- 0

When the indicator needle moves to a direction, lock the spindle cam. If the spindle cam is not lock, it will not be rotated. Once the correct setting is made, the indicator needle moves to the correct number. Which sets the side depth of the cut for different diameter keys.

The spindle cam ("g") is used to adjust the key blanks to the correct diameter and the correct height. This ensures that the two piece collet and the conical wise forces both have a correct cam. When lumen broken, you will find the collet wise forces both have a point.
## TUMBLER DATA

<table>
<thead>
<tr>
<th>Code</th>
<th>Chicago</th>
<th>American</th>
<th>Fort</th>
<th>Dominion</th>
<th>Unican</th>
<th>Zipf</th>
<th>Lab</th>
<th>Segal</th>
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<tbody>
<tr>
<td>0</td>
<td>(185)</td>
<td>.180</td>
<td>185 - X</td>
<td>.175</td>
<td></td>
<td>.203</td>
<td>.204</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.2025</td>
<td>.180</td>
<td>.202 - 0</td>
<td>.200 - 0</td>
<td>.200</td>
<td>.203</td>
<td>.204</td>
<td></td>
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<td>.195</td>
<td>.218 - 1</td>
<td>.216 - 1</td>
<td>.218</td>
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<td>.220</td>
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<td>.225</td>
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<td>.248 - 3</td>
<td>.250</td>
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<td></td>
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<tr>
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<td>.204 - 4</td>
<td>.204 - 4</td>
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<td>.264</td>
<td>.264</td>
<td>.26U</td>
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<td>.280 - 5</td>
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<td>.296 - 8</td>
<td>.296 - 8</td>
<td>.296 - 8</td>
<td>.295</td>
<td>.294</td>
<td>.300</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>(311)</td>
<td>.311 - 7</td>
<td>.312 - 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dia.**
- 0.078
- BSHG: 0.185
- DRVR: varies

**unbeknownst**
- .077
- .185
- .175

**.078**
- .079
- .176
- .125

**.077**
- .125
- .170

**.094**
- .180
- .141

**.094**
- .180
- .141

Groenwald: similar to Chicago; codes to CR8000 all odd, CR9000 even cuts.

Dynalock: appears like Unican; not verified.
Figure 14: Cutters - The cutters! turned with the

Figure 13: Depth Cams - Depth cams are provided

Figure 12: The specia! pieces are placed over the

Figure 11: The pieces are placed on the universal plate.

Figure 10: The pieces are placed on the universal plate.

Figure 9: The pieces are placed on the universal plate.

Figure 8: The pieces are placed on the universal plate.

Figure 7: The pieces are placed on the universal plate.

Figure 6: The pieces are placed on the universal plate.

Figure 5: The pieces are placed on the universal plate.

Figure 4: The pieces are placed on the universal plate.

Figure 3: The pieces are placed on the universal plate.

Figure 2: The pieces are placed on the universal plate.

Figure 1: The pieces are placed on the universal plate.

Figure 0: The pieces are placed on the universal plate.
Set the end of the indicator tip in the cut and push the indicator head against the blade. The reading will give you the depth of cut. You can also use the chart on the back of this page to determine the depth of cut. The reading on the chart agrees with the depth on the indicator. The reading and the chart diameter in inches at different side depths must determine the size of key and manufacturer for proper decoding keys.

**NOTE:** Use indicator reverse readings for our depths.

<table>
<thead>
<tr>
<th>Size of Cut</th>
<th>Depth of Cut</th>
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<tbody>
<tr>
<td>3.00</td>
<td>0.025</td>
</tr>
<tr>
<td>3.050</td>
<td>0.025</td>
</tr>
<tr>
<td>5.00</td>
<td>0.137</td>
</tr>
<tr>
<td>7.00</td>
<td>0.375</td>
</tr>
<tr>
<td>10.00</td>
<td>0.75</td>
</tr>
<tr>
<td>12.50</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Key Cutting:**

- The key indicator is supplied for decoding keys. You can use the depth chart to determine the size of key and manufacturer for proper decoding keys.

**Decoding Keys:**

- The key in the back of the chart is the correct one for each size of cut. The depth of cut is marked on the spacing circles.

**Figure 25**

**Figure 24**

**Figure 23**

- The key is in the cutting position on the chuck. The key is placed on the end of the chuck. The depth of the cut is controlled by the key.

- The key is in the cutting position and the blade is in the correct position. The key is in the correct position and the blade is in the correct position.

- The depth of the cut is marked on the spacing circles.
### CUTS - VARIOUS KEYS

<table>
<thead>
<tr>
<th>Code</th>
<th>Chicago</th>
<th>Greenwald</th>
<th>American</th>
<th>Fort</th>
<th>Dominion</th>
<th>Dynalock</th>
<th>Unican</th>
<th>Segal</th>
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<td>X</td>
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<td>.05</td>
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<td>.026</td>
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<td>.030</td>
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<td>.033</td>
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<td>.025</td>
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<td>.046</td>
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<td>.074</td>
<td>.075</td>
<td>.079</td>
<td>.080</td>
<td>.075</td>
<td>.075</td>
<td>.086</td>
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<tr>
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<td>.095</td>
<td>.096</td>
<td>.100</td>
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<td>7</td>
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<td>.125</td>
<td>(.125)</td>
<td>(.125)</td>
<td>.125</td>
<td>.125</td>
</tr>
</tbody>
</table>

#### BASIC OPERATION

The chuck is mounted vertically on the slide block. The first position is the farthest position where the chuck is released against the slide block. The second position is the set position where the bank is released against the depth cam. The set pin is released fully engaged. The second position is the set position. The second position is the set position. The lock pin is fully engaged.

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As for the depth control, it is recommended that you use the KM-10C to cut any depth required in the blanks. The depth control by the spacing plates and side depth is controlled by the sliding plates and side depth. These motions cover all the requirements needed for cut tubular keys.
6. Place the depth cam so the #3 depth aligns with the index mark on the hub (Fig. 21).

7. Turn to position #1 (Fig. 20). The chuck and spacing plate can now be rotated by hand. The chuck locking pin so that the chuck can be pulled out of the chuck locking pin. See Page 19 for diagram. This is the position for the standard Chicago depth cam.

4. Set the spacing cam to the #1 position as indicated in the nut. See Page 19 for diagram. This is the position for the #1 position with the display window under the cam.

5. Release the chuck closer and insert the key into the keyway: See Page 19 for diagram. This is the position for the #1 position with the display window under the cam.

2. Loosen the chuck closer and insert the key into the keyway: See Page 19 for diagram. This is the position for the #1 position with the display window under the cam.

Cutting Procedure

Use for depth cam.
**Note:** Dyalock uses reverse drilling for all depths.

<table>
<thead>
<tr>
<th>N. of cut</th>
<th>7</th>
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<tbody>
<tr>
<td>Dryp</td>
<td>0.95</td>
</tr>
<tr>
<td>N. of steps</td>
<td>6</td>
</tr>
<tr>
<td>Key shank</td>
<td>1.137</td>
</tr>
<tr>
<td>Key diameter</td>
<td>3.75</td>
</tr>
<tr>
<td>Dynalock</td>
<td>0.175</td>
</tr>
</tbody>
</table>

![Image](image-url)

The proper combination is known.

If the key is not inserted or if the key is removed, insert the key into the lock. If the key is removed, turn the key to the right, then turn it to the left. If the key is inserted, remove the key from the lock.

1. Release the lock by pressing the lock button.
2. Turn the key to the right, then turn it to the left.
3. Release the lock by pressing the lock button.

**To cut the master:**

- Turn the lock to the right, then turn it to the left.
- Release the lock by pressing the lock button.

**To cut the sample:**

- Turn the lock to the right, then turn it to the left.
- Release the lock by pressing the lock button.

**To make the second cut:**

- Release the lock by pressing the lock button.

**To make the third cut:**

- Release the lock by pressing the lock button.
Set side depth at position #1 for water cuts.
Set side depth at position #2 or master cutter.
Set side depth at position #1 for standard cutter.

Use Chicago depth cam.

Use #1 spacing plate.

| No. of Cuts | Drop | No. of Steps | Key Shank | Key Diameter | 3-75 | 1-015 | Chicago/Anc
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
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<td>3-01</td>
<td>0.375</td>
<td>1-030</td>
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<tr>
<td>6-0.75</td>
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<td>2-0.96</td>
<td>1-037</td>
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</tr>
<tr>
<td>3-0.465</td>
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<td>2-021</td>
<td>1-013</td>
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<td></td>
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<tr>
<td>4-0.95</td>
<td></td>
<td>1-015</td>
<td>0.375</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1.0-0.9</td>
<td></td>
<td>2-045</td>
<td>0.375</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Warranty**

This warranty is valid only to the original purchaser. This warranty does not cover cutters. We feel our cutters are returned without proper permission.

This warranty is subject to a period of one year from the date of purchase. The purchaser must show Framon Manufaturing a copy of the invoice or receipt with the date of purchase. We will repair or replace any product returned within this period. We will not accept any product returned without our written consent.

The Framon KM-100 carries the same warranty as other products.

**Lubrication**

- Slide block - The slide block requires a light amount of lubrication.
- Cam hub - A little oil on the cam and on the other units.

**Caution**

When not using the machine, keep the machine clean and free of excess oil and grease.

**Note**

Or a short lubrication is recommended.
The shop screw knot (0.005 x 2 sides of key = 0.005).

Turn the shop screw clockwise to make the stop screw come in contact with the stop mark.

NOTE: Use UH-V025 Depth Cam.
Set side depth at position #5 for ward cusp.
Set side depth at position #7 for master cusp.

Use #1 Spacing Plugs.

No. of cusp:
No. of steps:
Key blank No.
Key measurement:
MI#: Chicago/Master

Adjustments:

Depth Adjustment: If the machine is not cutting proper depths, adjust the 0.004 tool depth.

NOTE: Cor uses reverse reading for cut depths.
Set side depth at position #5 for ward cusp.
Set side depth at position #7 for master cusp.
When it is too shallow, correct the depth of the work with the drift. If the drift is slightly deeper, remember that corrections should be made to the distance to be drilled and D of 3.5 to 1.0 of D 1 measurement across the width of the drift. All measurements should be set with a 1.37 cm key. This chart is provided to check accuracy of cut keys and

<table>
<thead>
<tr>
<th>Width</th>
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<th>3.00</th>
<th>2.85</th>
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