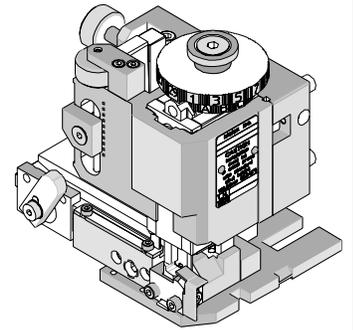




# FineAdjust Applicator Specification Sheet Order No. 63900-4200



## FEATURES

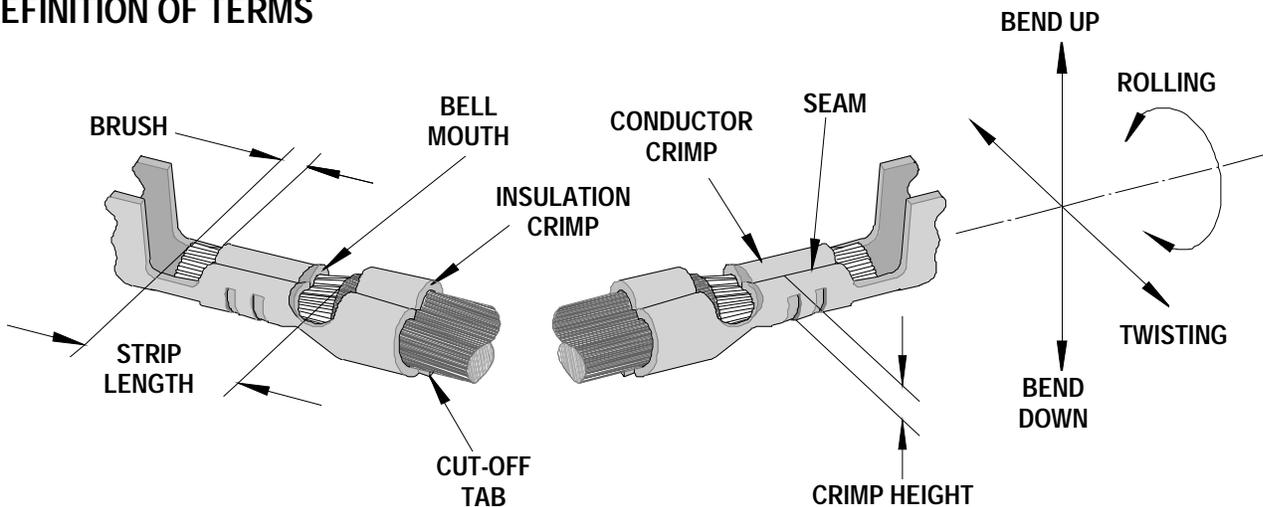
- Directly adapts to most automatic wire processing machines
- Quick punch removal with the push of a button for fast and easy tooling change
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- Quick set-up time; plus the crimp height, track and feed adjustments can be set without removing the applicator from the press
- Fine adjustment allows users to achieve target with little effort by adjusting in increments of .015mm (.0006") for conductor crimp height and .063mm (.0025") for insulation height
- Independent adjustment rings allow users to quickly adjust the conductor or insulation crimp height without affecting each other

## SCOPE

Products: 1.25mm (.049") Pitch Board-In, Wire-to-Board, and Wire-to-Wire Crimp Terminal, 26-32 AWG.

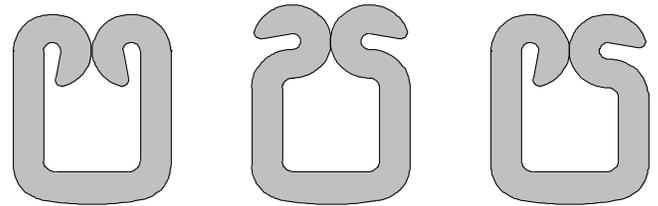
| Terminal Series No. | Terminal Order No. |            | Wire Size |                 | Insulation Diameter |           | Strip Length |           |
|---------------------|--------------------|------------|-----------|-----------------|---------------------|-----------|--------------|-----------|
|                     |                    |            | AWG       | mm <sup>2</sup> | mm                  | In.       | mm           | In.       |
| 50061               | 50061-8000         | 50061-8028 | 28-32     | 0.08-0.03       | 0.50-1.00           | .020-.039 | 1.40-1.90    | .055-.075 |
|                     | 50061-8018         | 50061-8099 |           |                 |                     |           |              |           |
| 50080               | 50080-8000         |            | 26-28     | 0.12-0.08       | 0.50-1.00           | .020-.039 | 1.40-1.90    | .055-.075 |
| 50125               | 50125-8000         |            | 26-28     | 0.12-0.08       | 0.50-1.00           | .020-.039 | 1.40-1.90    | .055-.075 |
| 50133               | 50133-8000         |            | 28-32     | 0.08-0.03       | 0.50-1.00           | .020-.039 | 1.40-1.90    | .055-.075 |

## DEFINITION OF TERMS



The above terminal drawing is a generic terminal representation. It is not an image of a terminal listed in the scope.

### INSULATION CRIMP FORM



This crimp terminal is designed for miniaturization; therefore, each dimension of insulation crimp portion appears small as compared to the terminal material thickness. In order to avoid insulation piercing the crimp forms by the insulation barrel, coining is provided inside of the insulation barrel. For this reason, various crimp forms will occur at the tip of the insulation crimp barrel shown in the figure below.

These crimp forms maybe changed completely by a small change in the wire, insulation punch, or terminal.

These crimp forms are satisfactory for original function of the insulation crimp portion and it is confirmed that all of these forms below are acceptable insulation crimps.

### CRIMP SPECIFICATION

| Terminal Series No. | Bell mouth |      | Cut-off Tab Maximum |      | Conductor Brush |           |
|---------------------|------------|------|---------------------|------|-----------------|-----------|
|                     | mm         | In.  | mm                  | In.  | mm              | In.       |
| 50061               | None       | None | 0.15                | .006 | 0.00-0.70       | .000-.028 |
| 50080               | None       | None | 0.15                | .006 | 0.00-0.70       | .000-.028 |
| 50125               | None       | None | 0.15                | .006 | 0.00-0.70       | .000-.028 |
| 50133               | None       | None | 0.15                | .006 | 0.00-0.70       | .000-.028 |

| Terminal Series No. | Bend up | Bend down | Twist | Roll | Punch Width mm (Ref) |      |            |      | Seam  |
|---------------------|---------|-----------|-------|------|----------------------|------|------------|------|---|
|                     |         |           |       |      | Conductor            |      | Insulation |      |   |
|                     | Degree  | Degree    | mm    | In   | mm                   | In   |            |      |   |
| 50061               | 8       | 0         | 4     | 13   | 0.80                 | .031 | 0.80       | .031 | Seam shall not be open and no wire allowed out of the crimping area |
| 50080               | 8       | 0         | 4     | 13   | 0.80                 | .031 | 0.80       | .031 |   |
| 50125               | 2-8     | 0         | 4     | 10   | 0.80                 | .031 | 0.80       | .031 |   |
| 50133               | 2-8     | 0         | 4     | 10   | 0.80                 | .031 | 0.80       | .031 |   |

After crimping, the conductor profile should measure the following.

| Terminal Series No. | Wire Size |                 | Conductor Crimp Height |           | Pull Force Minimum |      |
|---------------------|-----------|-----------------|------------------------|-----------|--------------------|------|
|                     | AWG       | mm <sup>2</sup> | mm                     | In.       | N                  | Lb.  |
| 50061               | 28        | 0.08            | 0.48-0.54              | .019-.021 | 9.78               | 2.20 |
|                     | 30        | 0.05            | 0.47-0.52              | .018-.020 | 4.89               | 1.10 |
|                     | 32        | 0.03            | 0.44-0.49              | .017-.019 | 2.94               | 0.66 |
| 50080               | 26        | 0.12            | 0.59-0.64              | .023-.025 | 9.78               | 2.20 |
|                     | 28        | 0.08            | 0.55-0.60              | .022-.024 | 9.78               | 2.20 |
| 50125               | 26        | 0.12            | 0.59-0.64              | .023-.025 | 9.78               | 2.20 |
|                     | 28        | 0.08            | 0.55-0.60              | .022-.024 | 9.78               | 2.20 |
| 50133               | 28        | 0.08            | 0.48-0.54              | .019-.021 | 9.78               | 2.20 |
|                     | 30        | 0.05            | 0.47-0.52              | .018-.020 | 4.89               | 1.10 |
|                     | 32        | 0.03            | 0.44-0.49              | .017-.019 | 2.94               | 0.66 |

Pull Force should be measured with no influence from the insulation crimp.

The above specifications are guidelines to an optimum crimp.

**PARTS LIST**

| <b>FineAdjust Applicator 63900-4200</b>                                      |                 |                        |                                    |                 |
|--|-----------------|------------------------|------------------------------------|-----------------|
| <b>Item</b>  | <b>Order No</b> | <b>Engineering No.</b> | <b>Description</b>                 | <b>Quantity</b> |
| <b>Perishable Tooling</b>  |                 |                        |                                    |                 |
|  | 63900-4270      | 63900-4270             | Tool Kit (All "Y" Items)           | REF             |
| 1  | 63444-0802      | 63444-0802             | Conductor Punch                    | 1 Y             |
| 2  | 63445-0806      | 63445-0806             | Conductor Anvil                    | 1 Y             |
| 3  | 63446-0805      | 63446-0805             | Insulation Punch                   | 1Y              |
| 4  | 63445-0805      | 63445-0805             | Insulation Anvil                   | 1 Y             |
| 5  | 63443-0003      | 63443-0003             | Cut-Off Plunger                    | 1 Y             |
| 6  | 63443-0012      | 63443-0012             | Front Plunger Retainer             | 1 Y             |
| <b>Other Components (REF 003750)</b>   |                 |                        |                                    |                 |
| 7  | 11-18-4083      | 60707-8                | Feed Guide                         | 1               |
| 8  | 11-24-1067      | 4996-4                 | Cut-Off Plunger Spring             | 1               |
| 9  | 11-40-4039      | 8302-5                 | Plunger Striker                    | 1               |
| 10   | 63443-0009      | 63443-0009             | Front Scrap Chute                  | 1               |
| 11   | 63443-0024      | 63443-0024             | Key                                | 1               |
| 12   | 63443-0090      | 63443-0090             | Wire Stop                          | 1               |
| 13   | 63443-1703      | 63443-1703             | 17.30mm Height Spacer              | 1               |
| 14   | 63443-2217      | 63443-2217             | 17.00mm Coarse Spacer              | 1               |
| 15   | 63443-2306      | 63443-2306             | 3.30mm Fine Spacer                 | 1               |
| 16   | 63443-6111      | 63443-6111             | Rear Cover                         | 1               |
| <b>Frame</b>   |                 |                        |                                    |                 |
| 17   | 63800-4901      | 63800-4901             | Top                                | 1               |
| 18   | 63801-3281      | 63801-3281             | Base                               | 1               |
| 19   | 63801-4650      | 63801-4650             | Track                              | 1               |
| <b>Hardware</b>  |                 |                        |                                    |                 |
| 20   | N/A             | N/A                    | M3 by 6 Long SHCS                  | 2**             |
| 21   | N/A             | N/A                    | M3 by 6 Long FHCS                  | 1**             |
| 22   | N/A             | N/A                    | M4 by 6 Long SHCS                  | 2**             |
| 23   | N/A             | N/A                    | M4 by 12 Long BHCS                 | 2**             |
| 24   | N/A             | N/A                    | M4 by 45 Long SHCS                 | 2**             |
| 25   | N/A             | N/A                    | M5 by 12 Long SHCS                 | 1**             |
| 26   | N/A             | N/A                    | #10-32 by 3/8" Long Flat Point SSS | 1**             |
| 27   | N/A             | N/A                    | #10-32 Hex Jam Nut                 | 1**             |
| ** Available from an industrial supply company such as MSC (1-800-645-7270). |                 |                        |                                    |                 |

# Assembly Drawing

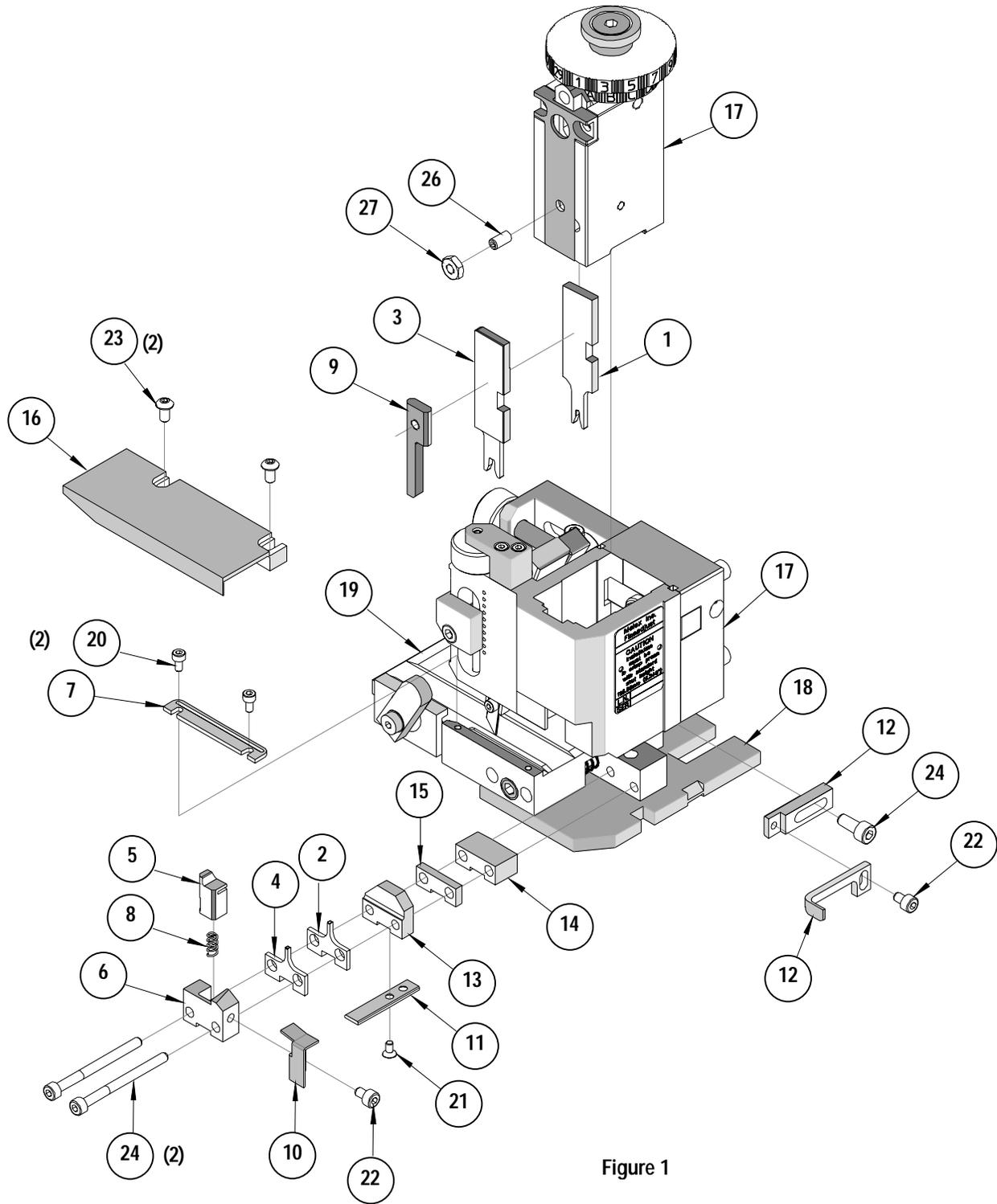


Figure 1

## NOTES

1. Molex recommends an extra perishable tooling kit be maintained at your facility.
2. Verify tooling alignment by manually cycling the press and Applicator before crimping under power. Check that all screws are tight.
3. Slugs, Terminals, Dirt and Oil should be kept clear of work area.
4. Wear safety glasses at all times.
5. For recommended maintenance refer to the FineAdjust Manual.

**CAUTION:** This applicator should only be used in a press with a shut height of 135.80 mm (5.346"). Tooling damage could result at a lower setting.

**CAUTION:** To prevent injury never operate this Applicator without the guards supplied with the press or wire-processing machine in place. Reference the press or wire processing manufacturer's instruction manual.

**CAUTION:** Molex crimp specifications are valid only when used with Molex terminals, applicators and tooling.

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