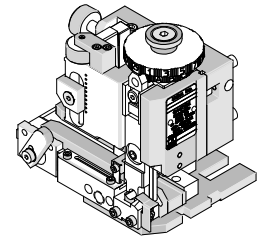




**Mini-Mac  
Applicator**

**Application Tooling  
Specification Sheet**



**Order No. 63891-9000**

**FEATURES**

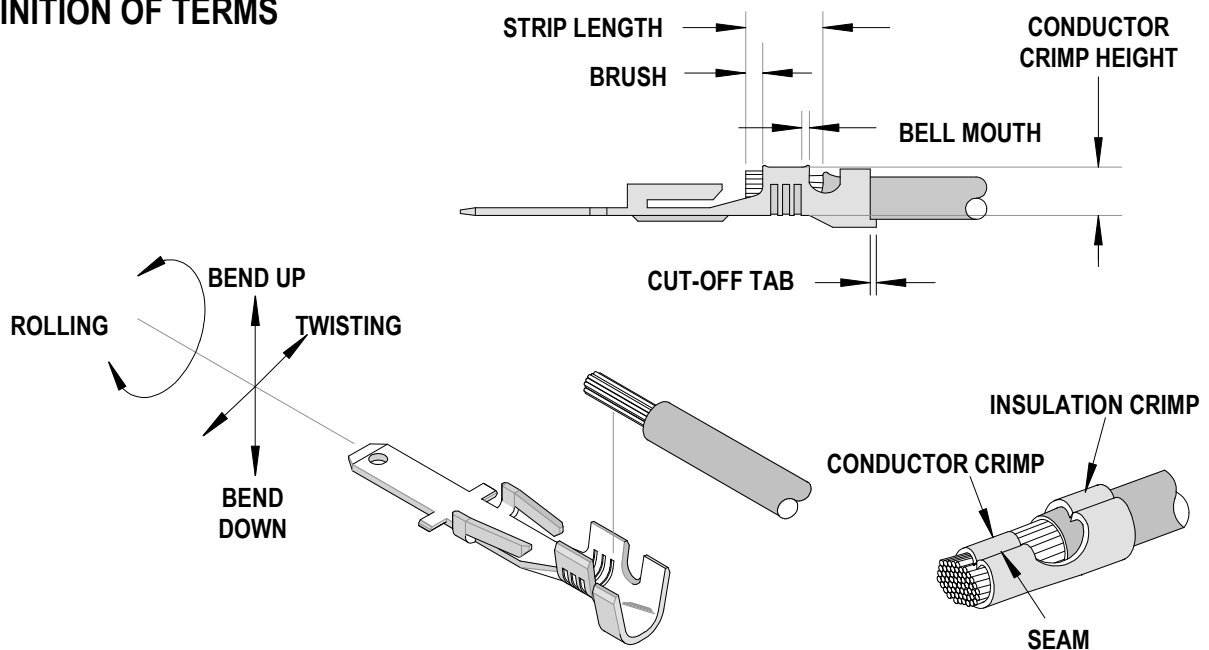
- Directly adapts to most automatic wire processing machines
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- Quick set-up time; plus the crimp height, track and feed adjustments can be set without removing the applicator from the press
- Fine adjustment allows 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: Sabre™ Male Flat Blade Crimp Terminal, 18 AWG.

| Terminal Series No. | Terminal Order No. |            |            | Wire Size |                 | Insulation Diameter |           | Strip Length |           |
|---------------------|--------------------|------------|------------|-----------|-----------------|---------------------|-----------|--------------|-----------|
|                     |                    |            |            | AWG       | mm <sup>2</sup> | mm                  | In.       | mm           | In.       |
| 43178               | 43178-1001         | 43178-1002 | 43178-1003 | 18        | 0.80            | 2.36-3.30           | .093-.130 | 3.96-5.54    | .156-.218 |
|                     | 43178-5001         | 43178-5002 | 43178-5003 |           |                 |                     |           |              |           |

**DEFINITION OF TERMS**



## CRIMP SPECIFICATIONS

| Terminal Series No. | Bell mouth |           | Cut-off Tab Maximum |      | Conductor Brush |      |
|---------------------|------------|-----------|---------------------|------|-----------------|------|
|                     | mm         | In.       | mm                  | In.  | mm              | In.  |
| 43178               | 0.25-1.00  | .010-.039 | 0.50                | .019 | 1.50            | .059 |

| Terminal Series No. | Bend up | Bend down | Twist  | Roll | Punch Width (Ref) |      |            |      | Seam<br><br>Seam shall not be open and no wire allowed out of the crimping area |
|---------------------|---------|-----------|--------|------|-------------------|------|------------|------|---------------------------------------------------------------------------------|
|                     |         |           |        |      | Conductor         |      | Insulation |      |                                                                                 |
|                     | Degree  |           | Degree |      | mm                | In   | mm         | In   |                                                                                 |
| 43178               | 3       | 3         | 4      | 8    | 3.20              | .126 | 4.30       | .169 |                                                                                 |

After crimping, the conductor profile should measure the following.

| Terminal Series No. | Wire Size |                 | Crimp Height |           | Pull Force Minimum |      |
|---------------------|-----------|-----------------|--------------|-----------|--------------------|------|
|                     | AWG       | mm <sup>2</sup> | mm           | In.       | N                  | Lb.  |
| 43178               | 18        | 0.80            | 1.78-1.88    | .070-.074 | 88.9               | 20.0 |

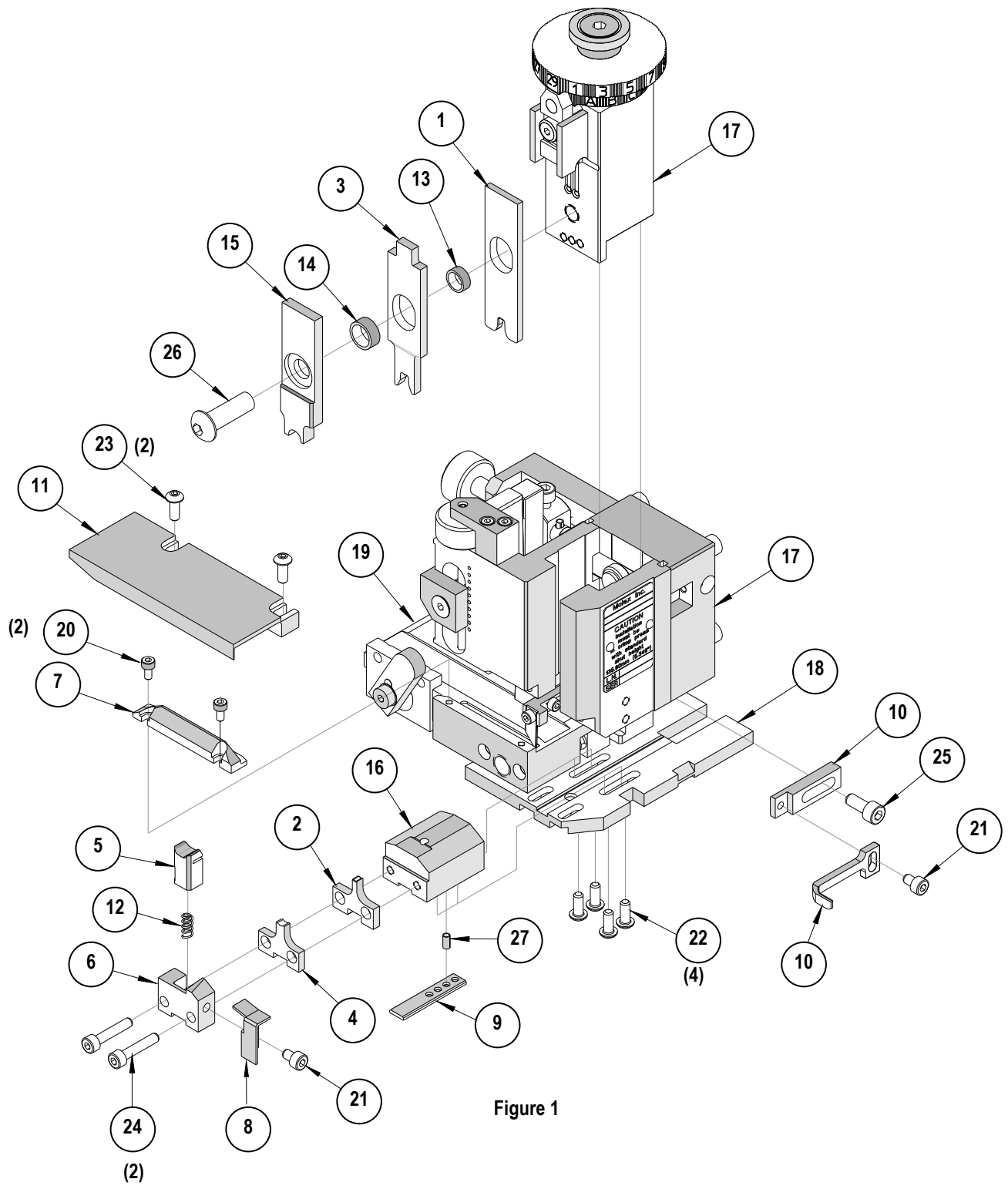
### Tool Qualification Notes:

1. Pull Force should be measured with no influence from the insulation crimp.
2. The above specifications are guidelines to an optimum crimp..

**PARTS LIST**

| <b>Mini-Mac Applicator 63891-9000</b>                                        |                 |                        |                                   |                 |
|------------------------------------------------------------------------------|-----------------|------------------------|-----------------------------------|-----------------|
| <b>Item</b>                                                                  | <b>Order No</b> | <b>Engineering No.</b> | <b>Description</b>                | <b>Quantity</b> |
| <b>Perishable Tooling</b>                                                    |                 |                        |                                   |                 |
|                                                                              | 63891-9070      | 63891-9070             | Tool Kit (All "Y" Items)          | REF             |
| 1                                                                            | 11-18-5413      | 60842A106              | Conductor Punch                   | 1 Y             |
| 2                                                                            | 63445-3262      | 63445-3262             | Conductor Anvil                   | 1 Y             |
| 3                                                                            | 11-18-5419      | 60843A108              | Insulation Punch                  | 1 Y             |
| 4                                                                            | 63445-4322      | 63445-4322             | Insulation Anvil                  | 1 Y             |
| 5                                                                            | 63443-0047      | 63443-0047             | Front Cut-Off Plunger             | 1 Y             |
| 6                                                                            | 63443-0012      | 63443-0012             | Cut-off Plunger Retainer          | 1 Y             |
| <b>Other Components</b>                                                      |                 |                        |                                   |                 |
| 7                                                                            | 11-18-5442      | 60843A123              | Front Cover                       | 1               |
| 8                                                                            | 63443-0009      | 63443-0009             | Scrap Shield                      | 1               |
| 9                                                                            | 63443-0021      | 63443-0021             | Lower Tooling Key                 | 1               |
| 10                                                                           | 63443-0090      | 63443-0090             | Wire Stop                         | 1               |
| 11                                                                           | 63443-6121      | 63443-6121             | Rear Cover                        | 1               |
| 12                                                                           | 63700-0539      | 63700-0539             | Heavy Duty Cut-off Plunger Spring | 1               |
| 13                                                                           | 63803-5118      | 63803-5118             | Conductor Bushing                 | 1               |
| 14                                                                           | 63830-3005      | 63830-3005             | Tooling Washer                    | 1               |
| 15                                                                           | 63830-3006      | 63830-3006             | Front Plunger Striker             | 1               |
| 16                                                                           | 63830-4002      | 63830-4002             | Anvil Mount                       | 1               |
| <b>Frame</b>                                                                 |                 |                        |                                   |                 |
| 17                                                                           | 63801-3201      | 63801-3201             | Top                               | 1               |
| 18                                                                           | 63801-3282      | 63801-3282             | Base                              | 1               |
| 19                                                                           | 63801-6550      | 63801-6550             | Track                             | 1               |
| <b>Hardware</b>                                                              |                 |                        |                                   |                 |
| 20                                                                           | N/A             | N/A                    | M3 by 6 Long SHCS                 | 2**             |
| 21                                                                           | N/A             | N/A                    | M4 by 6 Long SHCS                 | 2**             |
| 22                                                                           | N/A             | N/A                    | M4 by 8 Long BHCS                 | 4**             |
| 23                                                                           | N/A             | N/A                    | M4 by 12 Long BHCS                | 2**             |
| 24                                                                           | N/A             | N/A                    | M4 by 25 Long SHCS                | 2**             |
| 25                                                                           | N/A             | N/A                    | M5 by 12 Long SHCS                | 1**             |
| 26                                                                           | N/A             | N/A                    | M8 by 20 Long BHCS                | 1**             |
| 27                                                                           | N/A             | N/A                    | 3MM by 6 Long Roll Pin            | 1**             |
| ** Available from an industrial supply company such as MSC (1-800-645-7270). |                 |                        |                                   |                 |

### Assembly Drawing



## 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 Mini-Mac 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.

## Contact Information

For more information on Molex application tooling please contact Molex at 1-800-786-6539.

Visit our Web site at <http://www.molex.com>