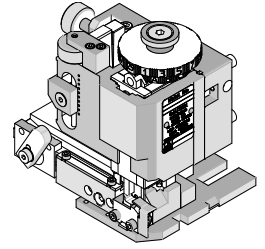


**Order Number**  
**63903-4800**



## Application Tooling Specification



### FEATURES

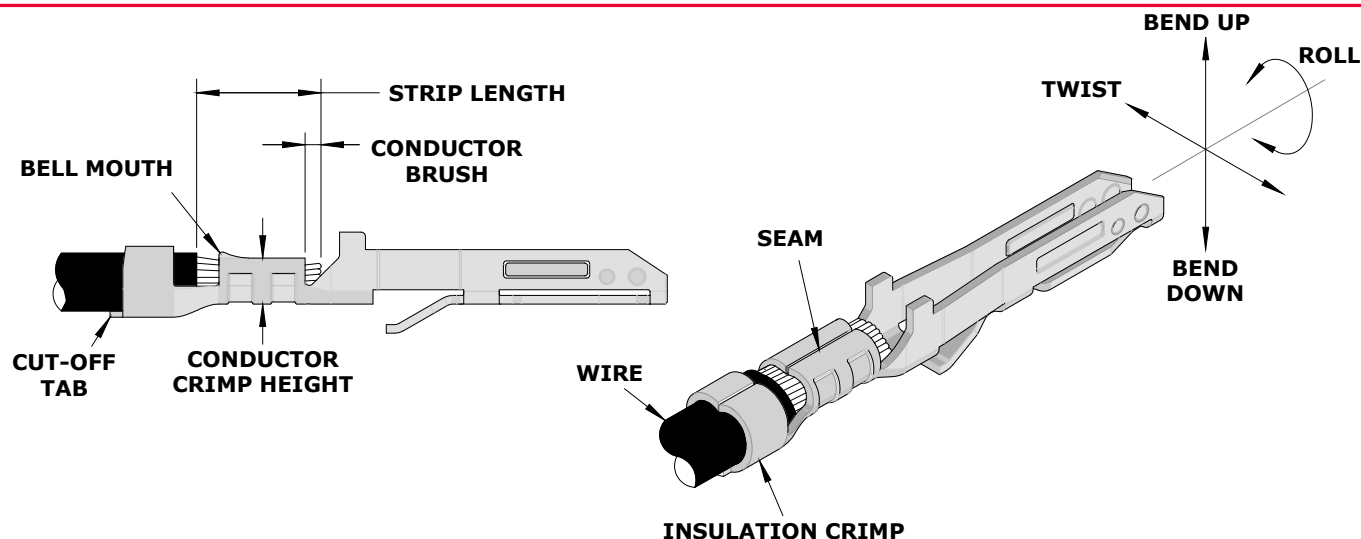
- Directly adapts to most automatic wire processing machines
- Quick punch removal with the push of a button for fast and easy tooling change
- Applicator designed to industry-standard mounting and 135.80mm (5.346") shut height
- Quick setup time; plus, the crimp height, track and feed adjustments can be set without removing the applicator from the press
- Fine adjustment allows users to achieve target with little effort by adjusting in increments of 0.015mm (.0006") for conductor crimp height and 0.063mm (.0025") for insulation height
- Independent adjustment rings allow users to quickly adjust the conductor or insulation crimp height without affecting each other.

### SCOPE

**Products:** Nano-Fit Receptacle Terminals, 24-26 AWG, UL1569/UL1007 Insulation.

Terminal Series No.	Terminal Order No.	Wire		Insulation Diameter (2)		Strip Length	
		AWG	Wire Style (1)	mm	In.	mm	In.
105300	105300-1100 105300-1200 105300-1300 105300-1400 105300-1810	24-26	UL1569 UL1007	1.20-1.45	.047-.057	2.50-3.50	.098-.138
226471	226471-2111 226471-2121 226471-2212 226471-2213 226471-2214 226471-2224	24-26	UL1569 UL1007	1.28-1.48	.050-.058	2.50-3.50	.098-.138
<p><b>(1)</b> Wire style shown was used to validate the crimp tooling. It is the responsibility of the end user to choose the wire style that is appropriate for their needs. Other wire styles may not meet the same range for IPC/WHMA-A-620.</p> <p><b>(2)</b> To achieve IPC/WHMA-A-620 insulation crimps, use this Insulation Diameter range.</p> <p>Applicator 63903-2500 should be used for wires with smaller insulation diameter (such as UL1061).</p> <p><b>Note:</b> Oiler (63801-7240) required to crimp terminals. See 63800-4900 FineAdjust manual.</p>							

## DEFINITION OF TERMS



## CRIMP SPECIFICATION

Terminal Series No.	Bell Mouth		Cut-Off Tab Maximum		Conductor Brush	
	mm	In.	mm	In.	mm	In.
105300 and 226471	0.15-0.30	.006-.012	0.17	.007	0.25-1.00	.010-.039

Terminal Series No.	Bend Up	Bend Down	Twist	Roll	Punch Width (Ref)				Seam
					Conductor		Insulation		
	Degree Max.	Degree Max.	mm	In.	mm	In.			
105300 and 226471	3	3	4	8	1.10	.043	1.60	.063	Seam shall not be open and no wire allowed out of the crimping area

After crimping, the crimp profiles should measure the following:

Terminal Series No.	Wire Size		Conductor				Insulation				Pull Force Minimum	
			Crimp Height		Crimp Width (Ref)		Crimp Height (Ref)		Crimp Width (Ref)			
	AWG	mm <sup>2</sup>	mm	In.	mm	In.	mm	In.	mm	In.	N	Lb.
105300 226471	24	—	0.70-0.75	.028-.030	1.10-1.20	.043-.047	1.65-1.75	.065-.069	1.60-1.80	.063-.071	22.3	5
	26	—	0.65-0.70	.026-.028	1.10-1.20	.043-.047	1.60-1.70	.063-.067	1.60-1.80	.063-.071	13.4	3

### 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.
3. Oiler (63801-7240) required when crimping to avoid terminal sticking and to improve tooling life. See 63800-4900 FineAdjust Manual.

**PARTS LIST**

<b>FineAdjust Applicator 63903-4800</b>				
<b>Item</b>	<b>Order No.</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63903-4870	63903-4870	Tool Kit (All "Y" Items)	REF
1	63457-0107	63457-0107	Conductor Punch	1 Y
2	63455-0131	63455-0131	Conductor Anvil	1 Y
3	63454-0153	63454-0153	Insulation Punch	1 Y
4	63456-0103	63456-0103	Insulation Anvil	1 Y
5	63443-0005	63443-0005	Cut-Off Plunger	1 Y
6	63443-0012	63443-0012	Front Plunger Retainer	1 Y
<b>Other Components</b>				
7	11-17-0022	1739-21	Terminal Hold-Down Spring	1
8	11-18-4083	60707-8	Feed Guide	1
9	11-24-1067	4996-4	Cut-off Plunger Spring	1
10	63443-0009	63443-0009	Scrap Chute	1
11	63443-0025	63443-0025	Key	1
12	63443-0090	63443-0090	Wire Stop	1
13	63443-0093	63443-0093	Shank, Terminal Hold-Down	1
14	63443-1720	63443-1720	Height Spacer (19.00mm)	1
15	63443-2203	63443-2203	Coarse Spacer (3mm)	1
16	63443-2213	63443-2213	Coarse Spacer (13.00mm)	1
17	63443-2306	63443-2306	Fine Spacer (3.30mm)	1
18	63443-2806	63443-2806	Front Plunger Striker	1
19	63443-2907	63443-2907	Wire Hold-Down Plunger	1
20	63443-6108	63443-6108	Rear Cover	1
21	63443-7112	63443-7112	Terminal Hold-Down	1
22	63600-1057	63600-1057	Wire Hold-Down Spring	1
<b>Frame</b>				
23	63800-4901	63800-4901	Top	1
24	63801-3281	63801-3281	Base	1
25	63801-4650	63801-4650	Track	1
<b>Hardware</b>				
26	—	—	M3 by 6 Long SHCS	2*
27	—	—	M3 by 6 Long FHCS	1*
28	—	—	M3 by 8 Long SHCS	1*
29	—	—	M4 by 6 Long SHCS	2*
30	—	—	M4 by 12 Long BHCS	2*
31	—	—	M4 by 50 Long SHCS	2*
32	—	—	M5 by 12 Long SHCS	1*
33	—	—	#10-32 by 3/8" Long Flat Point SSS	1*
34	—	—	#10-32 Hex Jam Nut	1*

\* Available from an industrial supply company.



## NOTES

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1. Molex recommends that 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 135.80mm (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.

### Application Tooling Support

**E-Mail:** [toolingsupport@molex.com](mailto:toolingsupport@molex.com)  
**Website:** [www.molex.com/applicationtooling](http://www.molex.com/applicationtooling)

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