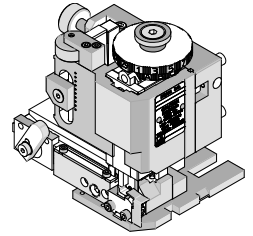# Order Number
226045-1600

molex®

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

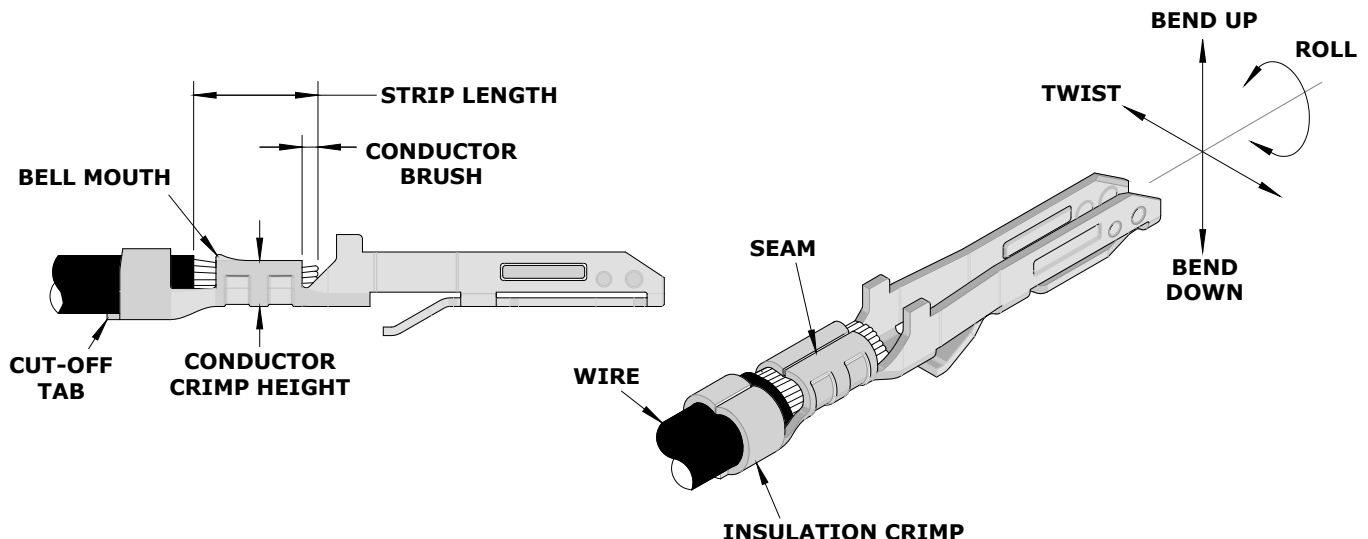**Products:** Nano-Fit Receptacle Terminal, 20AWG and 22AWG Wires, UL1569/UL1007 Insulation.

Terminal Series No.	Terminal Order No.		Wire		Insulation Diameter (2)		Strip Length	
			AWG	Wire Style (1)	mm	In.	mm	In.
226471	226471-3111 226471-3212 226471-3214	226471-3121 226471-3213 226471-3224	20-22	UL1569 UL1007	1.50-1.80	.059-.071	2.50-3.50	.100-.140

(1) 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.
(2) To achieve IPC/WHMA-A-620 insulation crimps, use this Insulation Diameter range.
Note: Oiler (63801-7240) required to crimp terminals. See 63800-4900 FineAdjust manual.

DEFINITION OF TERMS

STRIP LENGTH

CONDUCTOR BRUSH

BELL MOUTH

CUT-OFF TAB

CONDUCTOR CRIMP HEIGHT

BEND UP

ROLL

TWIST

SEAM

BEND DOWN

WIRE

INSULATION CRIMP

CRIMP SPECIFICATION

Terminal Series No.	Bell Mouth		Cut-Off Tab Maximum		Conductor Brush	
	mm	In.	mm	In.	mm	In.
226471	0.25-0.50	.010-.020	0.17	.007	0.25-1.00	.010-.040

Terminal Series No.	Bend Up	Bend Down	Twist	Roll	Punch Width (Ref)				Seam
					Conductor		Insulation		
	Degree Max.		Degree Max.		mm	In.	mm	In.	
226471	3	3	4	8	1.40	.055	1.90	.075	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 (Max)		Crimp Width (Max)			
	AWG	mm	In.	mm	In.	mm	In.	mm	In.	N	Lb.
226471	20	0.85-0.95	.033-.037	1.40	.055	2.20	.087	2.00	.079	58	13
	22	0.75-0.85	.030-.033	1.40	.055	2.00	.079	2.00	.079	36	8

Tool Qualification Notes

1. Pull force should be measured with no influence from the insulation crimp.
2. The above specifications are guidelines to an optimal crimp.
3. Crimping high strand count wire (greater than 10 strands) may result in uncrimped wire strands and/or strands outside the conductor crimp. Removing the Wire Hold-Down Plunger and Compression Spring (items 19 and 22 in the assembly drawing on page 4) may eliminate or reduce strands outside the conductor crimp.
4. Terminal Oiler (63801-7240) required when crimping to avoid terminal sticking and to improve tooling life. See 63800-4900 FineAdjust Manual.

PARTS LIST

| Item	Order No.	Engineering No.	Description	Quantity
**FineAdjust Applicator 226045-1600**				
**Perishable Tooling**				
	226045-1670	226045-1670	Tool Kit (All "Y" Items)	REF
1	63457-1403	63457-1403	Conductor Punch	1 Y
2	63445-1431	63445-1431	Conductor Anvil	1 Y
3	200220-1907	200220-1907	Insulation Punch	1 Y
4	200221-1905	200221-1905	Insulation Anvil	1 Y
5	63443-0005	63443-0005	Cut-Off Plunger	1 Y
6	63443-0151	63443-0151	Front Plunger Retainer	1 Y
**Other Components**				
7	11-17-0022	1739-21	Compression Spring	1
8	11-18-4083	60707-8	Feed Guide	1
9	11-24-1067	11-24-1067	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	63443-2305	63443-2305	Fine Spacer (3.25mm)	1
18	63443-2802	63443-2802	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	Compression Spring	1
23	63820-7820	63820-7820	Feed Cam - Special	1
**Frame**				
24	63800-4901	63800-4901	Top	1
25	63801-3281	63801-3281	Base	1
26	63801-4650	63801-4650	Track	1
**Hardware**				
27	—	—	M3 by 6 Long SHCS	2*
28	—	—	M3 by 6 Long FHCS	1*
29	—	—	M3 by 8 Long SHCS	1*
30	—	—	M4 by 6 Long SHCS	2*
31	—	—	M4 by 12 Long BHCS	2*
32	—	—	M4 by 50 Long SHCS	2*
33	—	—	M5 by 12 Long SHCS	1*
34	—	—	#10-32 by 3/8"Long Flat Point SSS	1*
35	—	—	#10-32 Hex Jam Nut	1*
* Available from an industrial supply company.				

ASSEMBLY DRAWING
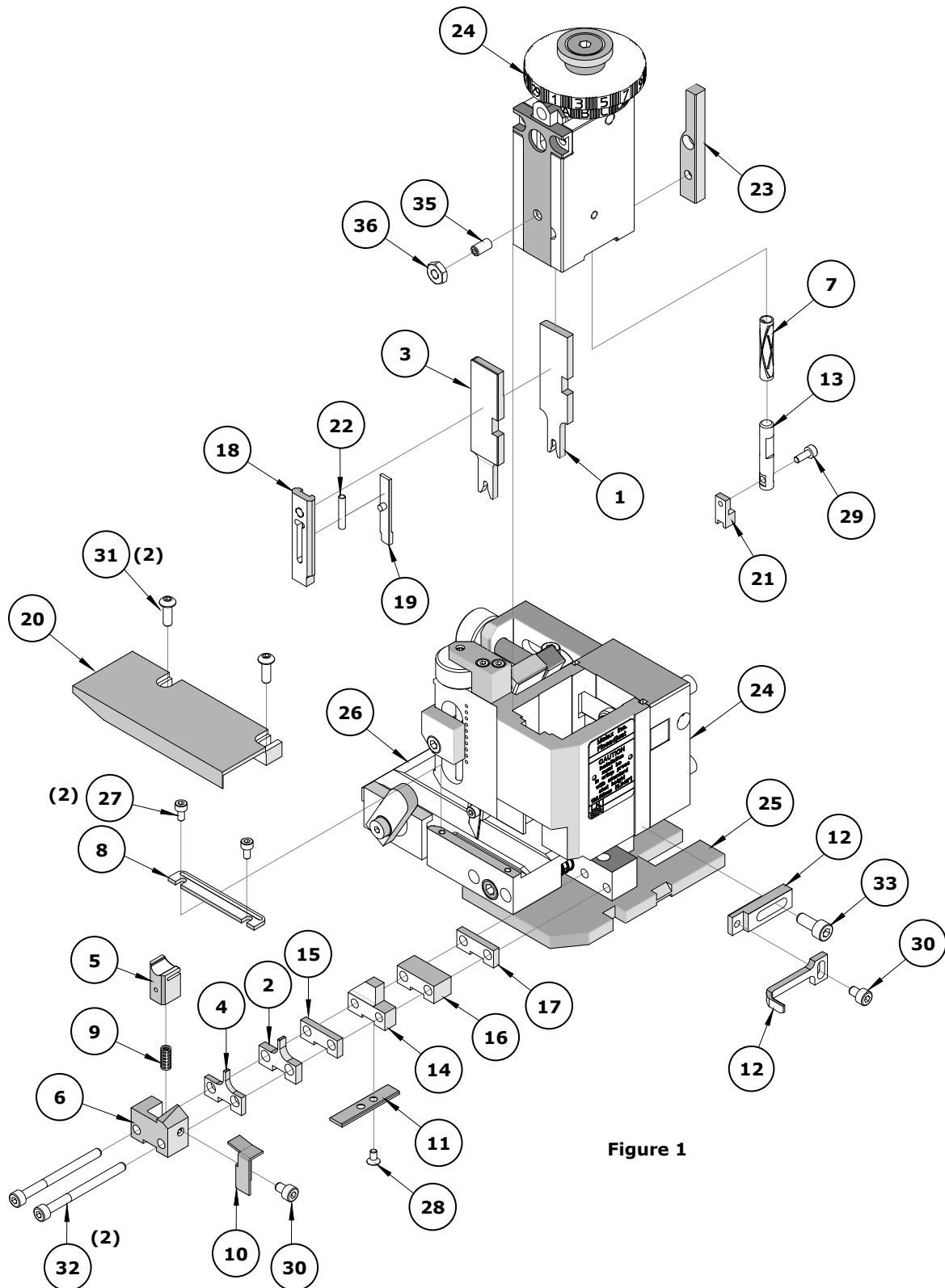
Figure 1

NOTES

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 the 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.

Application Tooling Support

E-Mail: toolingsupport@molex.com
Website: www.molex.com/applicationtooling