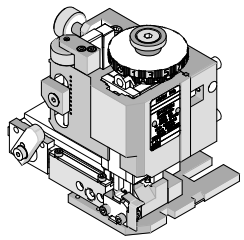
FineAdjust Applicator

molex®

Application Tooling Specification Sheet



Order No. 63903-2400

FEATURES

- 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 .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
- Directly adapts to most automatic wire processing machines

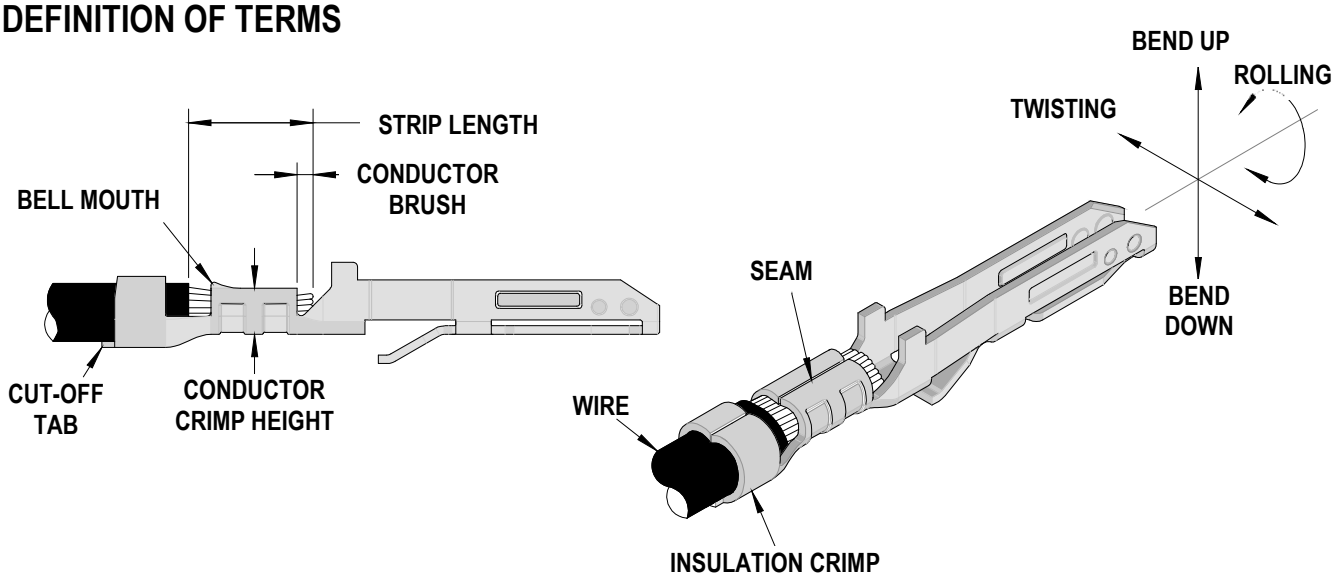
SCOPE

Products: Nano-Fit Terminals, 20-22 AWG, UL1061 insulation.

Terminal Series No.	Terminal Order No.	Wire Size		★Insulation Diameter		Strip Length	
		AWG	mm²	mm	In.	mm	In.
105300	105300-2100	20-22	—	1.05-1.60	.041-.063	2.50-3.50	.100-.140
	105300-2200						
	105300-2300						

★Use this insulation range to achieve IPC-A-620 Class 2 insulation crimps.
20 AWG crimps should use UL1061 wire; 22 AWG crimps should use UL1007 or UL1061 wire.

DEFINITION OF TERMS



CRIMP SPECIFICATION

Terminal Series No.	Bell Mouth		Cut-Off Tab Maximum		Conductor Brush	
	mm	In.	mm	In.	mm	In.
105300	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.	
105300	3	3	4	8	1.40	.055	1.80	.071	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^2	mm	In.	mm	In.	mm	In.	mm	In.	N	Lb.
105300	20	—	0.85-0.95	.033-.037	1.40	.055	1.7	0.067	1.9	0.075	58	13
	22	—	0.75-0.85	.030-.033	1.40	.055	1.6	0.063	1.9	0.075	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. Terminal Oiler (63801-7240) required when crimping to avoid terminal sticking and to improve tooling life. See 63800-4900 FineAdjust Manual.

PARTS LIST

FineAdjust Applicator 63903-2400				
Item	**Order No.**	**Engineering No.**	**Description**	**Quantity**
Perishable Tooling				
	63903-2470	63903-2470	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	63454-0146	63454-0146	Insulation Punch	1 Y
4	63456-0099	63456-0099	Insulation Anvil	1 Y
5	63443-0005	63443-0005	Cut-Off Plunger	1 Y
6	63443-0012	63443-0012	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	63443-2806	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	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	N/A	N/A	M3 by 6 Long SHCS	2**
28	N/A	N/A	M3 by 6 Long FHCS	1**
29	N/A	N/A	M3 by 8 Long SHCS	1**
30	N/A	N/A	M4 by 6 Long SHCS	2**
31	N/A	N/A	M4 by 12 Long BHCS	2**
32	N/A	N/A	M4 by 50 Long SHCS	2**
33	N/A	N/A	M5 by 12 Long SHCS	1**
34	N/A	N/A	#10-32 by 3/8"Long Flat Point SSS	1**
35	N/A	N/A	#10-32 Hex Jam Nut	1**
** Available from an industrial supply company.				

Assembly Drawing

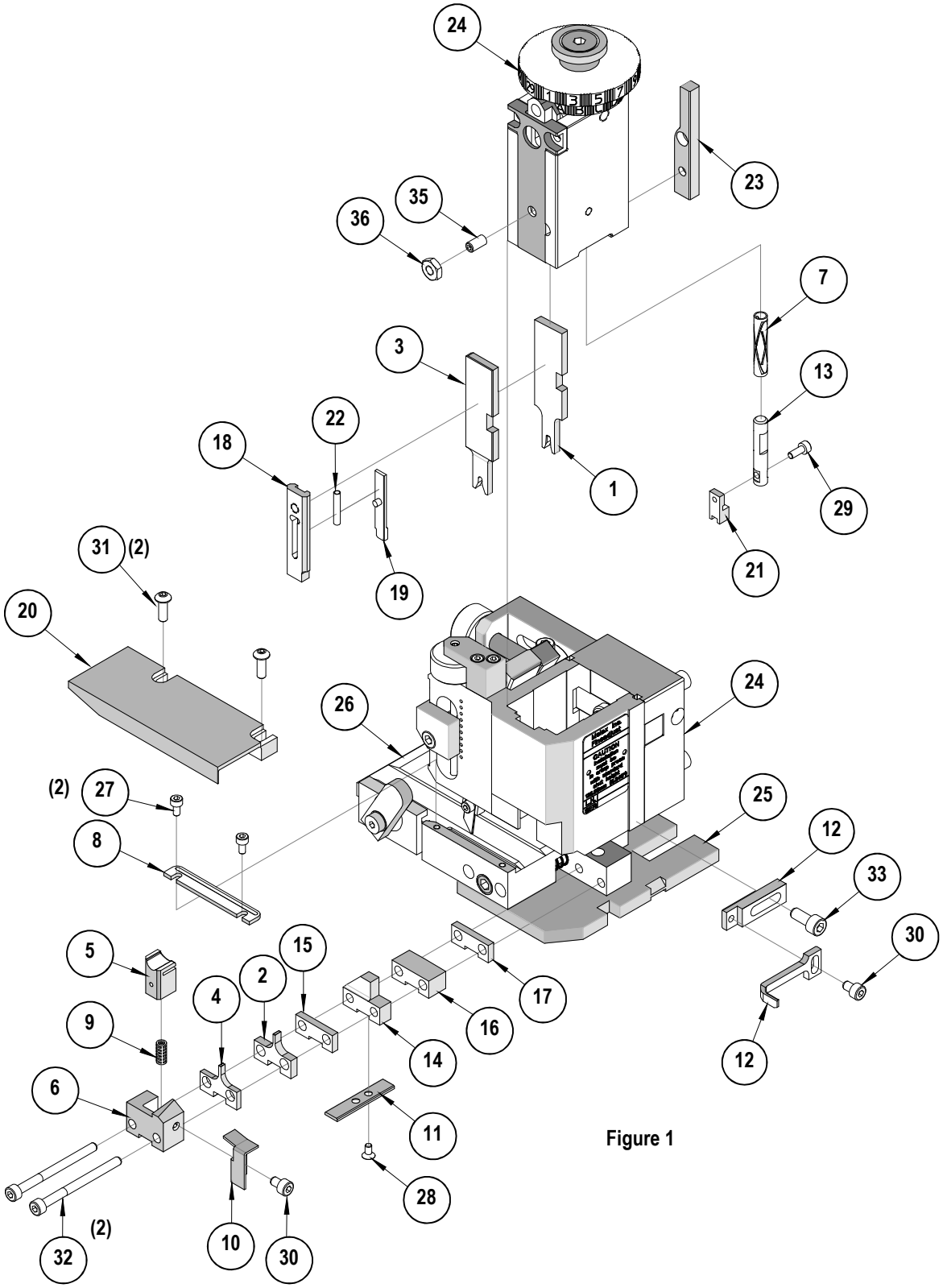


Figure 1

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

Phone: (402) 458-TOOL (8665)
E-Mail: applicationtooling@molex.com
Website: www.molex.com/applicationtooling

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.