

**FineAdjust  
Applicator**

**Application Tooling  
Specification Sheet**

**Order No. 63903-6900**

**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 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

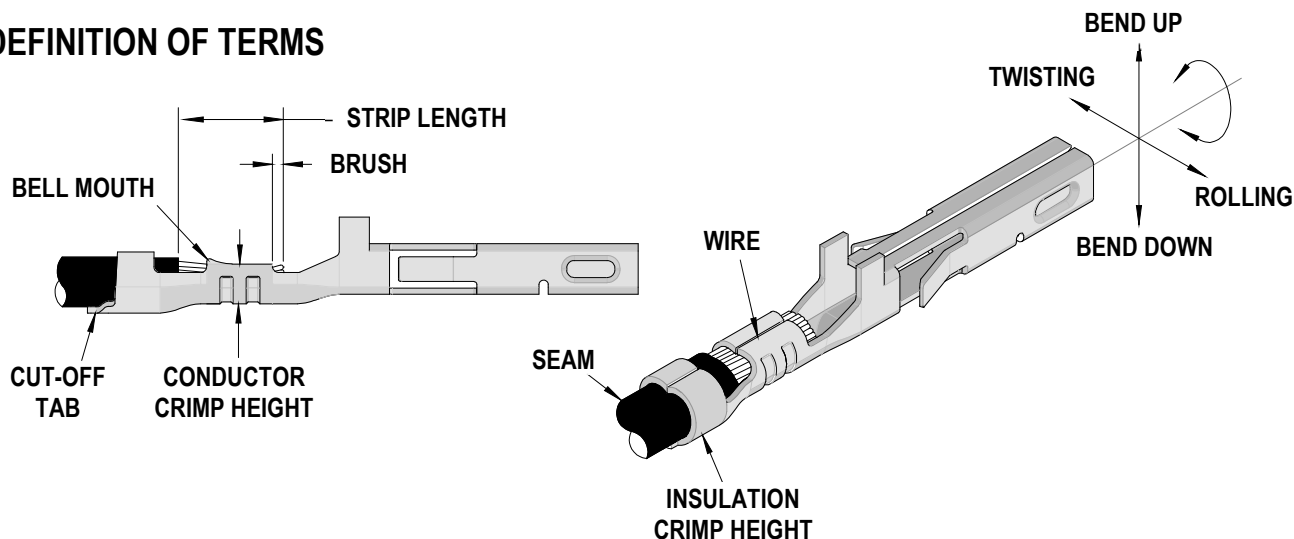
**SCOPE**

Products: Mini-Fit TPA 2.0 Crimp Terminals, 0.50mm<sup>2</sup>, 0.75 mm<sup>2</sup> and 18-20 AWG wires.

Terminal Series No.	Terminal Order No.	Wire Size		Insulation Diameter				Strip Length	
		AWG	mm <sup>2</sup>	IPC/WHMA-A620 (1)		Terminal (2)		mm	In.
				mm	In.	mm	In.		
172718 172765	172718-3111	18	—	1.42-2.10	.056-.083	1.42-2.10	.056-.083	3.20-3.80	.126-.150
	172718-3121	—	0.75	1.42-2.10	.056-.083	1.42-2.10	.056-.083	3.20-3.80	.126-.150
	172765-3121	20	—	1.42-2.10	.056-.083	1.42-2.10	.056-.083	3.20-3.80	.126-.150
		—	0.50	1.42-2.10	.056-.083	1.42-2.10	.056-.083	3.20-3.80	.126-.150

(1) To achieve optimum IPC-A620 insulation crimps, use this insulation OD range.  
 (2) Overall insulation OD specification for terminal.

**DEFINITION OF TERMS**



### CRIMP SPECIFICATION

Terminal Series No.	Bell Mouth		Cut-Off Tab Maximum		Conductor Brush	
	mm	In.	mm	In.	mm	In.
172718	0.20-0.70	.008-.028	.30	.012	0.20-0.80	.008-.032
172765	0.20-0.70	.008-.028	.30	.012	0.20-0.80	.008-.032

Terminal Series No.	Bend Up	Bend Down	Twist	Roll	Punch Width (Ref)				Seam
					Conductor		Insulation		
	Degree (Max)		Degree (Max)		mm	In.	mm	In.	
172718	3	3	3	5	1.50	.059	1.90	.075	Seam shall not be open and no wire allowed out of the crimping area
172765	3	3	3	5					

After crimping, the conductor profile should measure the following:

Terminal Series No.	Wire Size		Conductor				Pull Force Minimum	
			Crimp Height		Crimp Width (Ref)			
	AWG	mm <sup>2</sup>	mm	In.	mm	In.	N	Lb.
172718	18	—	1.05-1.15	.041-.045	1.57	.062	89.0	20.0
	—	0.75	1.05-1.15	.041-.045	1.57	.062	89.0	20.0
	20	—	0.93-1.01	.037-.040	1.55	.061	57.9	13.0
	—	0.50	0.90-0.98	.035-.038	1.55	.061	57.9	13.0
172765	18	—	1.05-1.15	.041-.045	1.57	.062	89.0	20.0
	—	0.75	1.05-1.15	.041-.045	1.57	.062	89.0	20.0
	20	—	0.93-1.01	.037-.040	1.55	.061	57.9	13.0
	—	0.50	0.90-0.98	.035-.038	1.55	.061	57.9	13.0

Terminal Series No.	Wire Size		Insulation			
			Crimp Height (Ref)		Crimp Width (Ref)	
	AWG	mm <sup>2</sup>	mm	In.	Mm	In.
172718	18	—	2.60	.102	2.05	.081
	—	0.75	2.40	.095	2.05	.081
	20	—	2.30	.091	2.00	.079
	—	0.50	2.20	.087	1.97	.078
172765	18	—	2.60	.102	2.05	.081
	—	0.75	2.40	.095	2.05	.081
	20	—	2.30	.091	2.00	.079
	—	0.50	2.20	.087	1.97	.078

#### 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>FineAdjust Applicator 63903-6900</b>				
<b>Item</b>	<b>Order No.</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63903-6970	63903-6970	Tool Kit (All "Y" Items)	REF
1	63457-1501	63457-1501	Conductor Punch	1 Y
2	63455-1501	63455-1501	Conductor Anvil	1 Y
3	63446-1930	63446-1930	Insulation Punch	1 Y
4	63456-1901	63456-1901	Insulation Anvil	1 Y
5	63443-0005	63443-0005	Front 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	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	Front Scrap Chute	1
11	63443-0024	63443-0024	Key	1
12	63443-0090	63443-0090	Wire Stop	1
13	63443-0093	63443-0093	Shank	1
14	63443-1722	63443-1722	Height Spacer (19.20mm)	1
15	63443-2215	63443-2215	Spacer (15.0mm)	1
16	63443-2307	63443-2307	Spacer (3.35mm)	1
17	63443-2803	63443-2803	Front Plunger Striker	1
18	63443-2911	63443-2911	Striker Plunger	1
19	63443-6117	63443-6117	Rear Cover	1
20	63903-6905	63903-6905	Terminal Hold Down	1
21	63600-1057	63600-1057	Striker Plunger Spring	1
<b>Frame</b>				
22	63800-4901	63800-4901	Top	1
23	63801-3281	63801-3281	Base	1
24	63801-4650	63801-4650	Track	1
<b>Hardware</b>				
25	N/A	N/A	M3 by 6 Long SHCS	2**
26	N/A	N/A	M3 by 6 Long FHCS	1**
27	N/A	N/A	M3 by 8 Long SHCS	1**
28	N/A	N/A	M4 by 6 Long SHCS	2**
29	N/A	N/A	M4 by 12 Long BHCS	2**
30	N/A	N/A	M4 by 50 Long SHCS	2**
31	N/A	N/A	M5 by 12 Lg SHCS	1**
32	N/A	N/A	#10-32 by 3/8" Long Flat Point SSS	1**
33	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

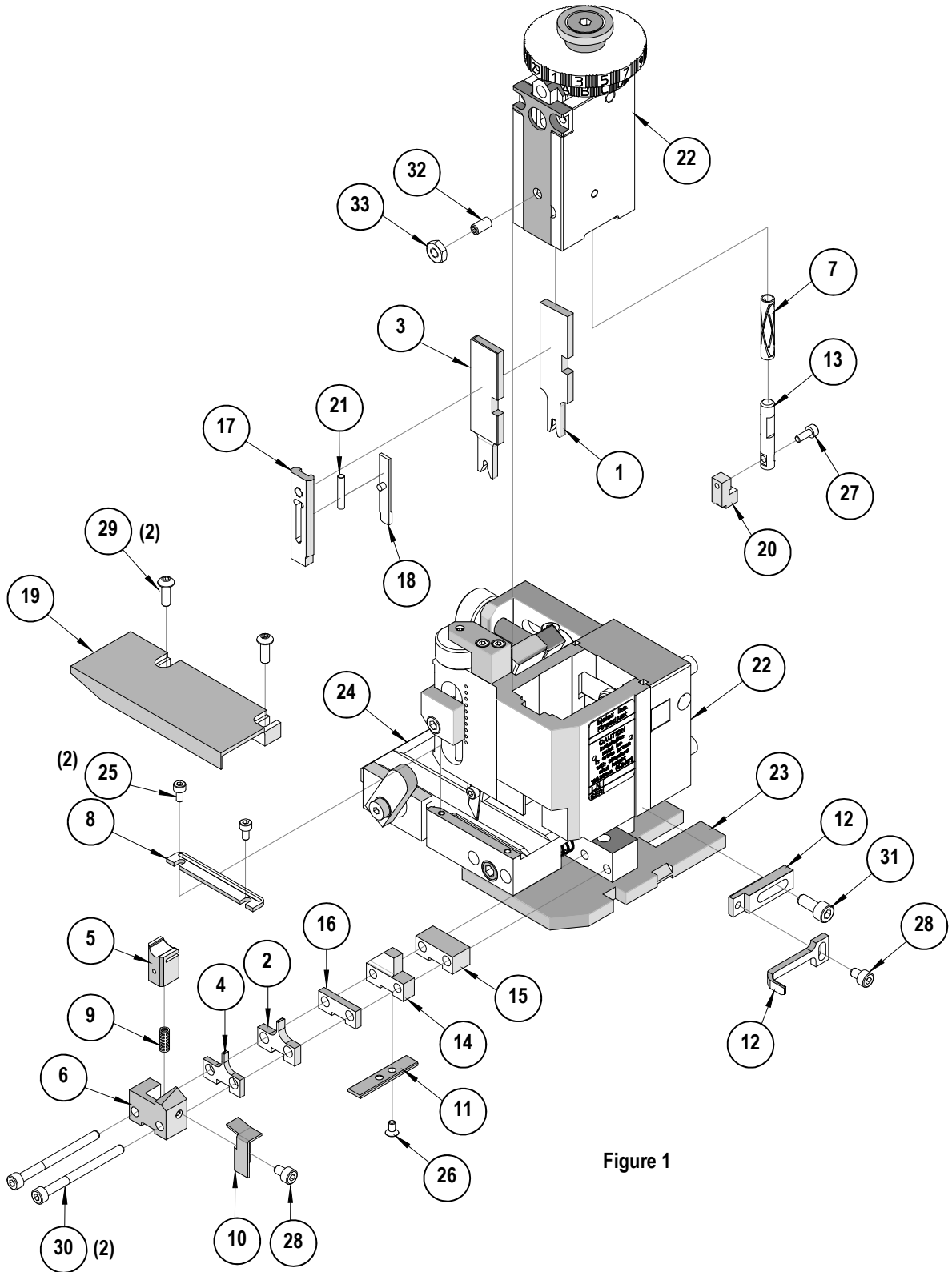


Figure 1

## NOTES

1. Molex recommends 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 135.8mm (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

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