

Order No. 63903-9100

# **Application Tooling Specification Sheet**

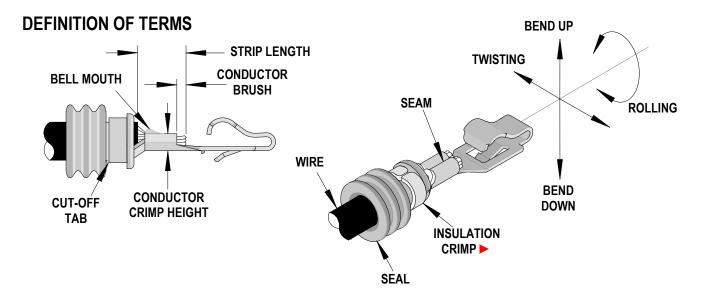
## **FEATURES**

- 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 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

<u>Products</u>: Sealed Single Contact Terminal for S8 and T20 Socket, AVS 0.50mm<sup>2</sup> & 0.85mm<sup>2</sup> and FLRY-A 0.75mm<sup>2</sup>.

		Wire Size a	ad Typa	Insulatio	n Diameter	Strip Length		
Terminal Series No.	Terminal Order No.	Wile Size al	iu i ype	Terminal (1)		Strip		
		Туре	mm²	mm	ln.	mm	ln.	
		AVS	0.5	2.0 – 2.1	.078 – .083			
49869	49869-9702	9702 FLRY-A 0.75 1.7 – 1.9 .067 – .075 5.0 – 5.	5.0 - 5.5	0.20 - 0.22				
		AVS	0.85	2.2 - 2.3	.087 – .091			
(1) Overall insulation OD specification for terminal.								



Doc No: ATS-639039100 Release Date: 01-29-16 Revision: B Revision Date: 02-26-16

## INSULATION CRIMP FORM

This crimp terminal is designed for miniaturization; therefore, each dimension of insulation crimp portion appears small as compared to the terminal material thickness. In order to avoid insulation piercing the crimp



forms by the insulation barrel, coining is provided inside of the insulation barrel. For this reason, various crimp forms will occur at the tip of the insulation crimp barrel shown in the figure below.

These crimp forms maybe changed completely by a small change in the wire, insulation punch, or terminal.

These crimp forms are satisfactory for original function of the insulation crimp portion and it is confirmed that all of these forms below are acceptable insulation crimps.

#### **CRIMP SPECIFICATION**

Terminal Series No.	Bell n	nouth	Cut-off Tak	Conduct	Conductor Brush	
Terminal Series No.	mm	ln.	mm	ln.	mm	ln.
49869	0.30-0.60	.012024	0.25	.010	0.30-0.80	.012031

	Bend up Bend down		Twist Roll		Punch Width mm (Ref)				Seam
Terminal Series No.					Conductor		Insulation		
	Degree		Degree		mm	In	mm	ln	Seam shall not be open
49869	3	3	3	5	2.10	.083	4.30	.169	and no wire allowed out of the crimping area

After crimping, the conductor profile should measure the following.

Terminal Series No.	Wire S	ize	Conductor C	rimp Height	Pull Force Minimum		
Terminal Series No.	Type	mm <sup>2</sup>	mm In.		N	Lb.	
	AVS	0.50	1.35-1.45	.053057	88.5	19.9	
49869	FLRY-A	0.75	1.45-1.50	.057059	105.0	23.6	
	AVS	0.85	1.45-1.55	.057061	127.5	28.7	

Tarminal	Wire S	·i	Inquiatio	n Diameter	Single Wire Seal		Seal Crimp			
Terminal Series No.	wile 3	lze	ilisulatio	ii Diailletei			Crimp Height		Crimp Width	
Series No.	Type mm <sup>2</sup> mm In. Order No.		Order No.	Color	mm	ln.	mm	ln.		
	AVS	0.50	2.0-2.1	.078083						
49869	FLRY-A	0.75	1.7–1.9	.067075	49454-9002	Red	4.00 (Max.)	.157 (Max.)	4.20-4.40	.165173
	AVS	0.85	2.2-2.3	.087091						

#### **Tool Qualification Notes:**

1. Pull Force should be measured with no influence from the insulation crimp.

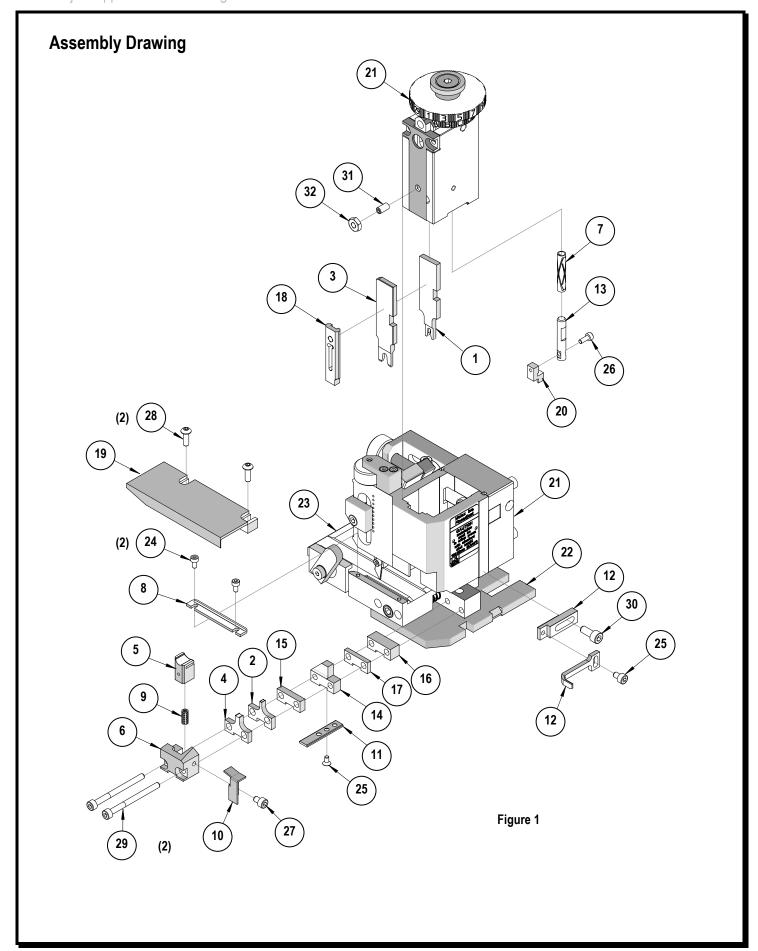
2. The above specifications are guidelines to an optimum crimp.

Doc No: ATS-639039100 Release Date: 01-29-16 **UNCONTROLLED COPY** Page 2 of 5 Revision: B Revision Date: 02-26-16

# **PARTS LIST**

	FineAdjust Applicator 63903-9100									
Item	Order No Engineering No. Description									
		Perish	nable Tooling							
	63903-9170	63903-9170	Tool Kit (All "Y" Items)	REF						
1	63457-2103	63457-2103	Conductor Punch	1 Y						
2	63445-2149	63445-2149	Conductor Anvil	1 Y						
3	63454-4301	63454-4301	Insulation Punch	1 Y						
4	63456-4304	63456-4304	Insulation Anvil	1 Y						
5	63443-0037	63443-0037	Cut-Off Plunger	1 Y						
6	63443-0038	63443-0038	Front Plunger Retainer	1 Y						
		Oth	er Components							
7	11-17-0022	1739-21	Terminal Hold Down Spring	1						
8	11-18-4083	60707-8	Feed Guide	1						
9	63700-0539	63700-0539	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	Terminal Hold Down Shank	1						
14	63443-1720	63443-1720	Height Spacer (19.00mm)	1						
15	63443-2205	63443-2205	Coarse Spacer (5.00mm)	1						
16	63443-2209	63443-2209	Coarse Spacer (9.00mm)	1						
17	63443-2310	63443-2310	Fine Spacer (3.45mm)	1						
18	63443-2804	63443-2804	Front Plunger Striker	1						
19	63443-6125	63443-6125	Rear Cover	1						
20	63443-7130	63443-7130	Terminal Hold Down	1						
			Frame							
21	63800-4901	63800-4901	Тор	1						
22	63801-3281	63801-3281	Base	1						
23	63801-4650	63801-4650	Track	1						
			Hardware							
24	N/A	N/A	M3 by 6 Long SHCS	2**						
25	N/A	N/A	M3 by 6 Long FHCS	1**						
26	N/A	N/A	M3 by 8 Long SHCS	1**						
27	N/A	N/A	M4 by 6 Long SHCS	2**						
28	N/A	N/A	M4 by 12 Long BHCS	2**						
29	N/A	N/A	M4 by 50 Long SHCS	2**						
30	N/A	N/A	M5 by 12 Long SHCS	1**						
31	N/A	N/A	#10-32 by 3/8"Long Flat Point SSS	1**						
32	N/A	N/A	#10-32 Hex Jam Nut	1**						
**	** Available from an industrial supply company such as MSC (1-800-645-7270).									

Doc No: ATS-639039100 Release Date: 01-29-16 **UNCONTROLLED COPY** Page 3 of 5 Revision: B Revision Date: 02-26-16



Doc No: ATS-639039100 Revision: B Release Date: 01-29-16 Revision Date: 02-26-16

# **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 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.

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

Doc No: ATS-639039100 Release Date: 01-29-16 **UNCONTROLLED COPY** Page 5 of 5 Revision: B Revision Date: 02-26-16