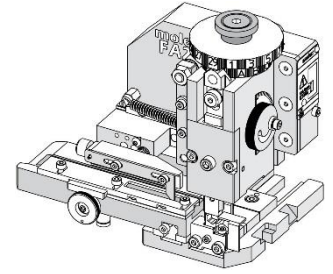


**Order Number**  
**63808-3300**

**molex**<sup>®</sup>

## Application Tooling Specification



### FEATURES

- 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 .025mm (.001") for insulation height
- Fine adjustment of the bend is achieved using the bend adjust dial
- 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

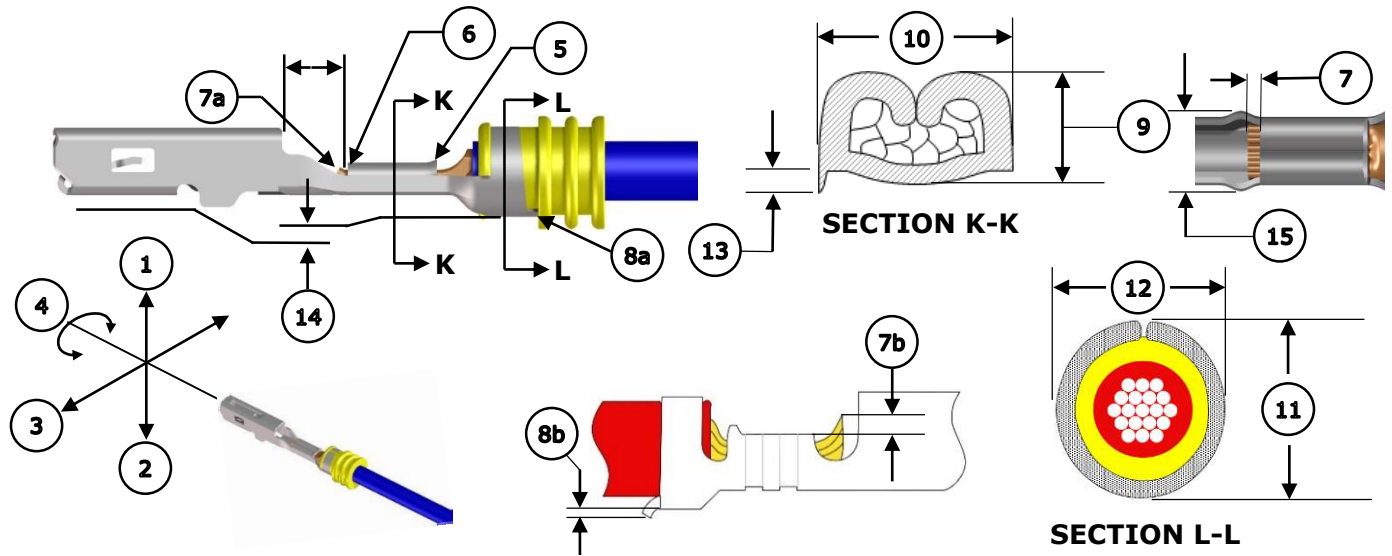
### SCOPE

**Products:** MX150 14 Grip Wire Seal Receptacle for 14 AWG, 16 AWG, 1.5mm<sup>2</sup> and 2.0mm<sup>2</sup> wire.

Terminal Series No.	Terminal Order No.	Wire		Insulation Diameter		Strip Length	
		Wire Type	Size	mm	In.	mm	In.
34081 34083 34751	34081-3003 34081-5001 34083-3001 34751-1001	AVSS	2.0 mm <sup>2</sup>	2.54-2.70	.100-.106	4.70-5.60	.185-.220
		M1L-126A1	1.5 mm <sup>2</sup>	2.10-2.54	.083-.100	4.70-5.60	.185-.220
		FLR91X-A-XLPO	1.5 mm <sup>2</sup>	2.10-2.54	.083-.100	4.70-5.60	.185-.220
		TXL	16 AWG	2.10-2.54	.083-.100	4.70-5.60	.185-.220
		UTX	14 AWG	2.54-2.70	.100-.106	4.70-5.60	.185-.220
		TXL	14 AWG	2.54-2.70	.100-.106	4.70-5.60	.185-.220

PENDING  
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**DEFINITION OF TERMS**



**CRIMP SPECIFICATIONS**

The following crimp specifications are based on document AS-34083-002 Rev. B2:

Feature	Requirement					
1. Bend Up	3° Max					
2. Bend Down	3° Max					
3. Twist	3° Max					
4. Roll	3° Max					
5. Bell Mouth Rear	0.30-0.70mm (.012-.028")					
6. Bell Mouth Front	Not Applicable					
7. Conductor Brush	a. 0.40mm (.016") Max			b. 0.40mm (.016") above conductor crimp		
8. Cut-Off Tab	a. 0.50mm (.020") Max			b. 0.30mm (.012") Max curl		
Conductor Crimp	Wire Type	Wire Size	9. Crimp Height		10. Crimp Width	
	AVSS	2.0 mm <sup>2</sup>	1.55-1.65mm	.061-.065 in.	2.35-2.55mm	.093-.100 in.
	M1L-126A1	1.5 mm <sup>2</sup>	1.35-1.45mm	.053-.057 in.	2.35-2.55mm	.093-.100 in.
	FLR91X-A-XLPO	1.5 mm <sup>2</sup>	1.35-1.45mm	.053-.057 in.	2.35-2.55mm	.093-.100 in.
	TXL	16 AWG	1.30-1.40mm	.051-.055 in.	2.35-2.55mm	.093-.100 in.
	UTX	14 AWG	1.60-1.70mm	.063-.067 in.	2.35-2.55mm	.093-.100 in.
Insulation Crimp	Wire Type	Wire Size	11. Crimp Height		12. Crimp Width	
	AVSS	2.0 mm <sup>2</sup>	3.85-4.05mm	.152-.159 in.	3.55-3.75mm	.140-.148 in.
	M1L-126A1	1.5 mm <sup>2</sup>	3.70-3.90mm	.146-.154 in.	3.55-3.75mm	.140-.148 in.
	FLR91X-A-XLPO	1.5 mm <sup>2</sup>	3.70-3.90mm	.146-.154 in.	3.55-3.75mm	.140-.148 in.
	TXL	16 AWG	3.70-3.90mm	.146-.154 in.	3.55-3.75mm	.140-.148 in.
	UTX	14 AWG	3.70-3.90mm	.146-.154 in.	3.55-3.75mm	.140-.148 in.
TXL	14 AWG	3.85-4.05mm	.152-.159 in.	3.55-3.75mm	.140-.148 in.	

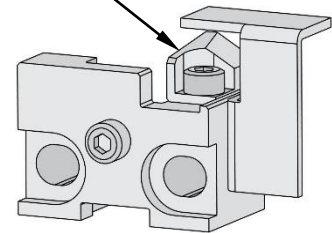
Pull Force	Wire Type	Wire Size	Minimum Force		To be measured with no influence from the insulation crimp.			
	AVSS	2.0 mm <sup>2</sup>	180 N	40.5 lb.				
	M1L-126A1	1.5 mm <sup>2</sup>	150 N	33.8 lb.				
	FLR91X-A-XLPO	1.5 mm <sup>2</sup>	150 N	33.8 lb.				
	TXL	16 AWG	120 N	27.0 lb.				
	UTX	14 AWG	180 N	40.5 lb.				
	TXL	14 AWG	180 N	40.5 lb.				
<b>13. Conductor Anvil Flash</b>	0.10mm (.004") Max not to extend below lowest point of conductor crimp							
<b>14. Insulation Grip Step</b>	0.80-1.00mm (.031-.039")							
<b>15. Crimp Bulge</b>	2.62mm (.103") Max within crimp/transition area							
Misc.	Wire Type	Wire Size	Wire Seal Position on Wire (REF)		Wire Seal Position on Terminal		Wire Seal Color	Wire Seal No.
	AVSS	2.0 mm <sup>2</sup>	0.20-0.40mm	.008-.016 in.	1.10mm Min	.043in. Min	Gray	7158-3033-40
	M1L-126A1	1.5 mm <sup>2</sup>	0.20-0.40mm	.008-.016 in.	1.10mm Min	.043in. Min	Yellow	E-1644-02
	FLR91X-A-XLPO	1.5 mm <sup>2</sup>	0.20-0.40mm	.008-.016 in.	1.10mm Min	.043in. Min	Yellow	E-1644-02
	TXL	16 AWG	0.20-0.40mm	.008-.016 in.	1.10mm Min	.043in. Min	Yellow	E-1644-02
	UTX	14 AWG	0.20-0.40mm	.008-.016 in.	1.10mm Min	.043in. Min	Yellow	E-1644-02
	TXL	14 AWG	0.20-0.40mm	.008-.016 in.	1.10mm Min	.043in. Min	Gray	7158-3033-40

**NOTES**

**Applicator Notes**

- This applicator is for automatic wire processor use only.
- This applicator does not include a cutting insert.
- Installing a cutting insert will cause jamming in this applicator.

**CUTTING INSERT**



**Specification Notes**

- It is very important that the brush length is consistently within specification for this sealed connector system to work properly.
- This applicator should only be run in a properly set up wire processor to consistently achieve the brush length.

**General Notes**

1. Molex recommends that an extra perishable tooling kit be maintained at your facility.
2. Verify tooling alignment by hand 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 FA2 manual (TM-638080200).
6. Molex recommends crimping standard copper wire only.
7. Lubrication must be used when crimping gold and select gold terminals to prevent terminals from sticking in the conductor punch. Use 63801-7240 oiler or equivalent.

**PARTS LIST**

<b>Applicator 63808-3300</b>				
<b>Item</b>	<b>Order No.</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63808-3370	63808-3370	Tool Kit (All "Y" Items)	Ref
1	63454-3602	63454-3602	Insulation Punch	1 Y
2	63457-2401	63457-2401	Conductor Punch	1 Y
3	63456-3401	63456-3401	Insulation Anvil	1 Y
4	63455-2401	63455-2401	Conductor Anvil	1 Y
5	63443-0141	63443-0141	Front Plunger	1 Y
6	63443-0128	63443-0128	Front Plunger Retainer	1 Y
<b>Non-Perishable Components</b>				
7	63700-0539	63700-0539	Cut-Off Plunger Spring	1
8	63443-0117	63443-0117	Front Scrap Shute	1
9	63443-7507	63443-7507	Anvil Mount	1
10	63443-0090	63443-0090	Wire Stop	1
11	63443-3601	63443-3601	Front Plunger Striker	1
12	63443-3702	63443-3702	Wire Hold Down Plunger	1
13	63600-5776	63600-5776	Nose Hold Down	1
14	63600-5775	63600-5775	Nose Hold Down Shank	1
15	63443-4759	63443-4759	Terminal Guide	1
16	63808-0220	63808-0220	Hold Down Block	1
17	63808-0229	63808-0229	Bend Adjust Dial	1
18	63600-4387	63600-4387	Dial Indicator Plate	1
19	63443-4407	63443-4407	Feed Cam	1
<b>Frame</b>				
20	63808-0200	63808-0200	Applicator Core	1
21	63808-0197	63808-0197	Mechanical Feed Assembly	1
22	63890-2300	63890-2300	Track	1
23	63890-2303	63890-2303	Carrier Cover	1
24	63890-2301	63890-2301	Drag Pad	1
<b>Hardware</b>				
25	—	—	M2.5 x 4 SHCS	1*
26	—	—	M3 Flat Washer Hard	1*
27	—	—	M3 Inner Tooth Lock Washer	1*
28	—	—	M3 x 3 SSS	2*
29	—	—	M3 x 6 BHCS	2*
30	—	—	M3 x 12 SHCS	4*
31	—	—	M4 x 6 SHCS	1*
32	—	—	M4 x 6 SSS	1*
33	—	—	M4 x 8 SHCS	2*
34	—	—	M4 x 50 SHCS	2*
35	—	—	M5 x 12 SHCS	1*
36	—	—	#10-32UNF x .25" SHCS	1*
*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.				

**ASSEMBLY DRAWING**

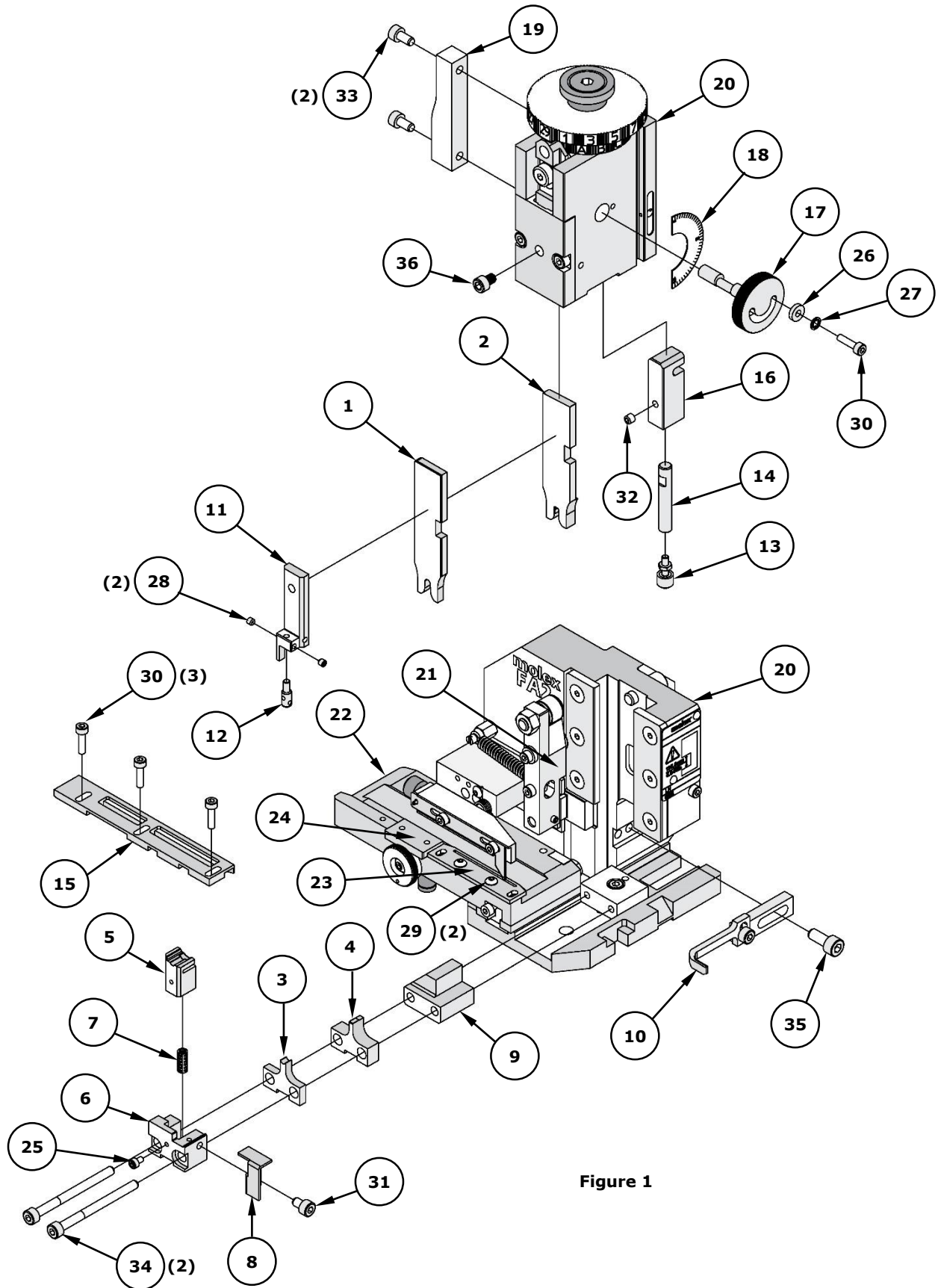


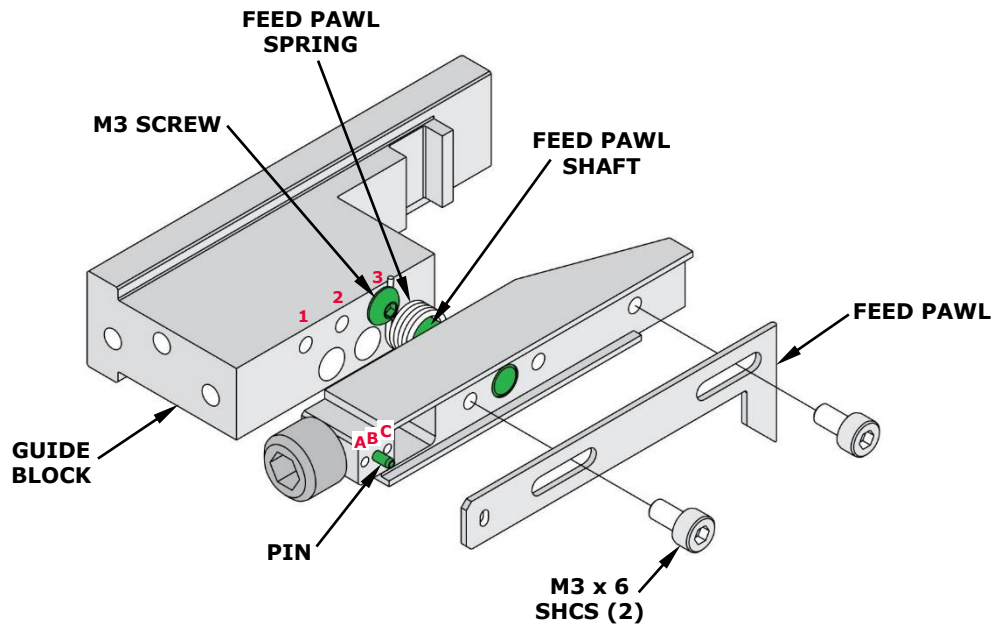
Figure 1

## FACTORY SETTINGS

### Feed Pawl Assembly

The FA2 applicator number 63808-3300 ships with the following factory settings. See Figure 2:

- The feed pawl shaft and M3 screw that holds the feed pawl spring are in position 3.
- The pin is in position B.



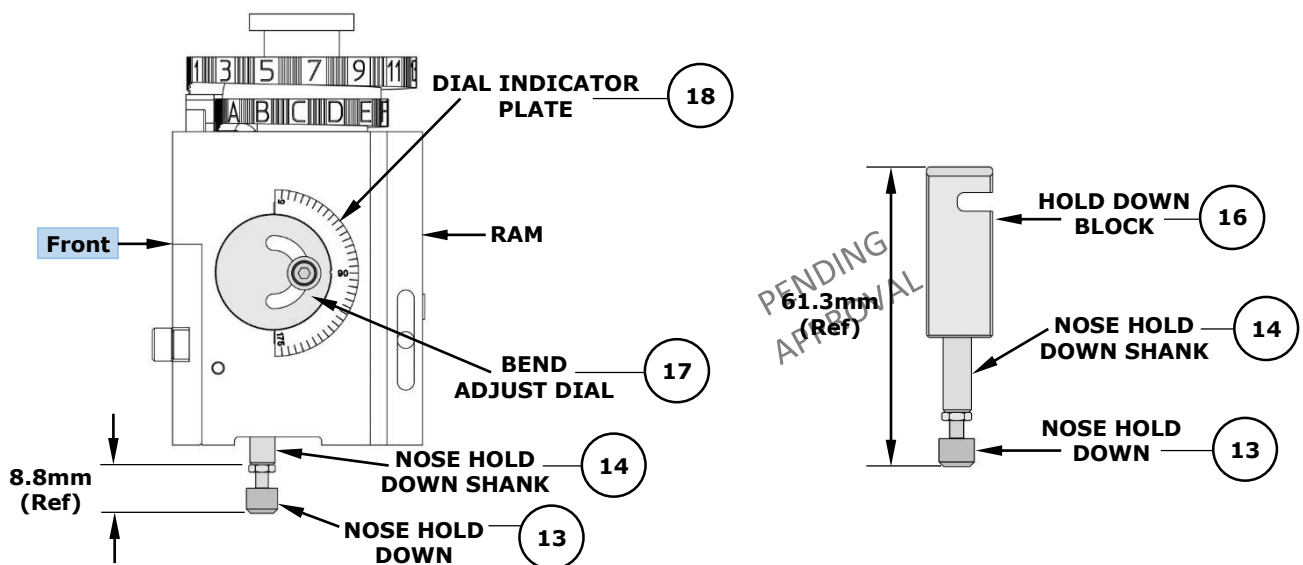
**Note**

Figure 2

This information is included as a reference only. Each applicator is configured and tested by Molex prior to shipping, and the above settings were used to produce the included sample crimps.

### Third Dial/Ram Assembly

○ Indicates item number on the Parts List and Assembly Drawing



## WARNINGS

**CAUTION:** This applicator must be installed in a press with a standard 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 tooling crimp specifications are valid only when used with Molex terminals and tooling manufactured by Molex and sold by Molex or authorized distributors ("Molex Tooling"). When using tooling other than Molex Tooling with Molex-specific connector systems listed in our ATS documents, the Molex Tooling qualification does not apply, and the responsibility for full qualification of the connector system is that of the customer. Molex accepts no liability for connector performance or tooling support where tooling other than Molex Tooling is used or where Molex Tooling is modified.

PENDING  
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### Application Tooling Support

**Phone:** (402) 458-TOOL (8665)

**E-Mail:** [applicationtooling@molex.com](mailto:applicationtooling@molex.com)

**Website:** [www.molex.com/applicationtooling](http://www.molex.com/applicationtooling)

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