



**NOTE**

All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Unless otherwise specified, dimensions have a tolerance of  $\pm 0.13$  [ $\pm .005$ ] and angles have a tolerance of  $\pm 2^\circ$ . Figures and illustrations are for identification only and are not drawn to scale.

**1. INTRODUCTION**

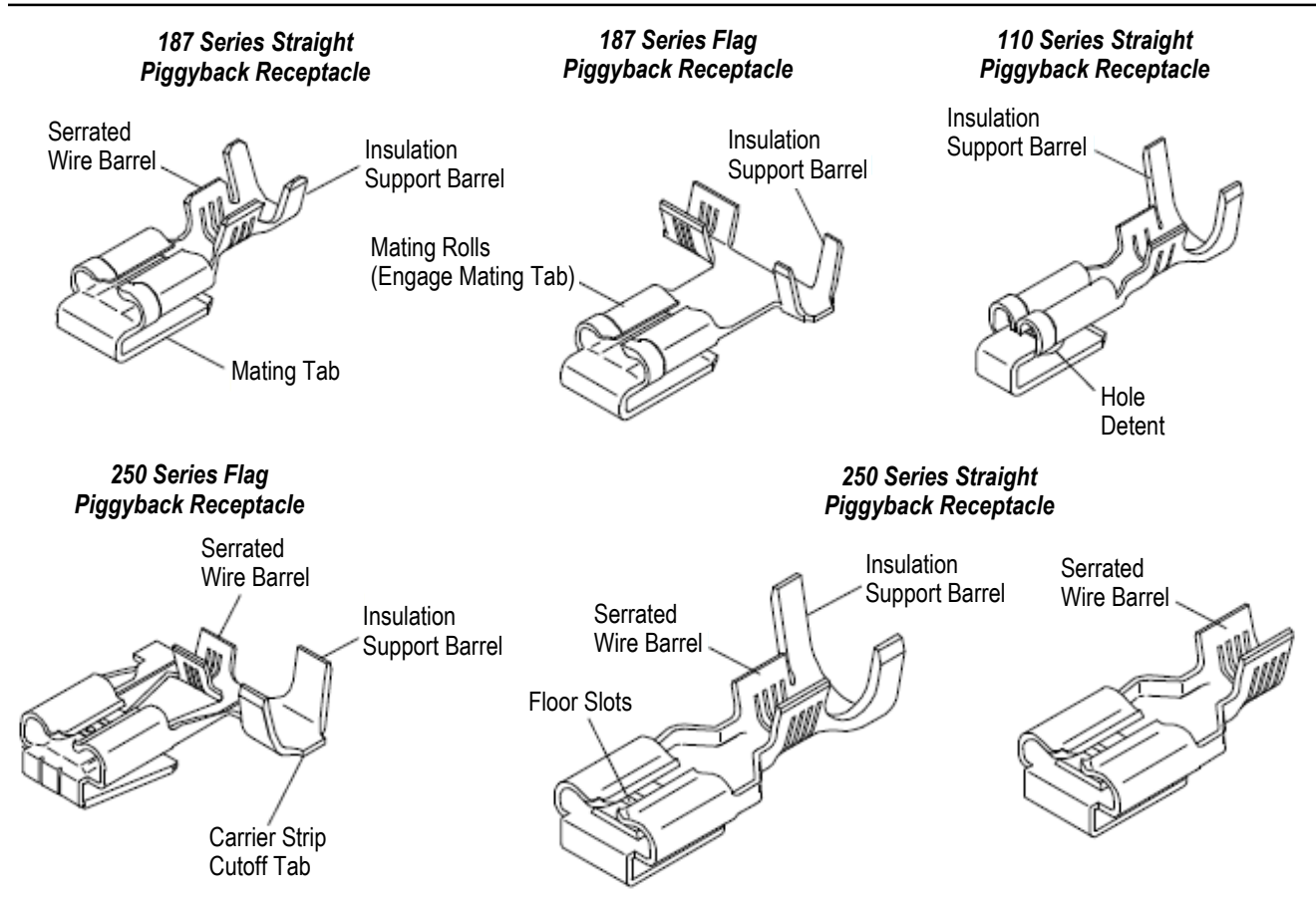
This specification covers requirements for application of FASTON\* piggyback receptacles used where stacking of terminals is required. The receptacles are available in three mating configurations: premier, economy, and commercial. These configurations are available in three series: 250, 187, and 110. The series designates the width of the mating tab. Some receptacles have two standard tab thickness of 0.81 mm [.032 in.] and 0.51 mm [.020 in.].

The premier has resilient rolls and a double slotted floor to allow maximum compliance toward mating tabs. Each receptacle is thermally stress relieved to help resist the effects of overstressing often caused by the manufacturing process.

The economy has a large, flared lead-in, and the low profile of the mating end rolls provide for relatively low average insertion forces.

The commercial has an abbreviated roll construction which conserves stock material. These receptacles have generally higher insertion forces and a somewhat lower tolerance for abuse allowing use in applications where undisturbed connections over long periods of time are common.

When corresponding with TE Connectivity (TE) Personnel, use the terminology provided in this specification to facilitate your inquiries for information. Basic terms and features of this product are provided in Figure 1.



**Figure 1**

## 2. REFERENCE MATERIAL

### 2.1. Revision Summary

Revisions to this application specification include:

- ◆ Updated document to corporate standard format.
- ◆ Updated wire and crimping requirements for 18 – 14 AWG wire range on 187 Series Commercial Straight Terminals.

### 2.2. Customer Assistance

Reference Product Base Part Number 62109 and Product Code 1103 are representative of FASTON\* piggyback receptacles. Use of these numbers will identify the product line and help you to obtain product and tooling information when visiting [www.te.com](http://www.te.com) or calling the number at the bottom of page 1.

### 2.3. Drawings

Customer drawings for product part numbers are available from [www.te.com](http://www.te.com). Information contained in the customer drawing takes priority.

### 2.4. Specifications

Application Specifications (114-series) provide product description and application requirements. Documents available which pertain to this product are:

- [114-2028](#) FASTON\* 110 Series Flag Receptacles
- [114-2032](#) FASTON\* Reversible Flag Receptacles
- [114-2036](#) FASTON\* Straight Receptacles with F-Crimp Feature
- [114-2070](#) FASTON\* AMPLIVAR\* Contact Tab
- [114-2078](#) FASTON\* Flag Receptacles with Tab Lock Feature
- [114-2079](#) FASTON\* Flag Receptacles with F-Crimp Feature
- [114-2126](#) FASTON\* F-Crimp Center-Strip Flag Receptacles

### 2.5. Instructional Material

Instruction sheets (408-series) provide product assembly instructions or tooling setup and operation procedures and customer manuals (409-series) provide machine setup and operating procedures. Instructional material that pertain to this product are:

- [408-3295](#) Preparing Reel of Contacts for Applicator Tooling
- [408-7235](#) Hand Crimping Tools 90165-1 and 90166-1
- [408-7424](#) Checking Terminal Crimp Height or Gaging Die Closure
- [408-7432](#) Force Gage 92-100505
- [408-8039](#) Heavy Duty Miniature Quick-Change Applicators (End-Feed Type)
- [408-8040](#) Heavy Duty Miniature Quick-Change Applicators (Side-Feed Type)
- [408-8053](#) Miniature (Mini) and Quick-Change Applicators
- [408-8059](#) General Preventative Maintenance for Applicators
- [408-8322](#) Heavy Duty Industrial (HD-I) Side-Feed Type Applicator
- [408-8547](#) CERTI-CRIMP\* II Straight Action Hand Tool 91541-1
- [408-9640](#) Crimp Quality Monitor Applicators for Side-Feed and End-Feed Applications
- [408-9816](#) Handling of Reeled Products
- [409-5128](#) AMP-O-LECTRIC\* Model "K" Terminating Machine 565435-5
- [409-5842](#) AMP-O-LECTRIC\* Model "G" Terminating Machine 354500-[ ]
- [409-5852](#) AMPOMATOR\* CLS III-G Lead-Making Machine 122500-[ ]

- 409-5866 AMPOMATOR\* CLS IV Lead-Making Machine 217500-1, -2
- 409-5878 AMPOMATOR\* CLS IV+ Lead-Making Machine 356500-[ ]
- 409-10016 Entry Level Terminator (ELT) Machine 1338600-3, -4
- 409-10027 Stripping Modules 1490500 and 1490502
- 409-10029 Stripping Modules 1490501 and 1490503



**NOTE**

A complete list of instruction sheets available for FASTON\* products cannot be maintained in this document. Contact PRODUCT INFORMATION at the number at the bottom of page 1 for information on these documents.

**3. REQUIREMENTS**

**3.1. Safety**

Do not stack product shipping containers so high that the containers buckle or deform.

**3.2. Storage**

**A. Ultraviolet Light**

Prolonged exposure to ultraviolet light may deteriorate the chemical composition used in the product material.

**B. Reeled Receptacles**

When using reeled receptacles, store coil wound reels horizontally and traverse wound reels vertically.

**C. Shelf Life**

The product should remain in the shipping containers until ready for use to prevent deformation to components. The product should be used on a first in, first out basis to avoid storage contamination that could adversely affect performance.

**D. Chemical Exposure**

Do not store product near any chemical listed below as they may cause stress corrosion cracking in the material.

Alkalies	Ammonia	Citrates	Phosphates	Citrates	Sulfur Compounds
Amines	Carbonates	Nitrites	Sulfur Nitrites		Tartrates



**NOTE**

Where the above environmental conditions exist, phosphor-bronze contacts are recommended instead of brass if available.

**3.3. Wire Preparation**

The receptacles will accept wire sizes 22 to 10 AWG with an insulation outside diameter range of 1.52 to 5.08 mm [.060 to .200 in.] (larger for receptacles without an insulation support barrel). Wire insulation ranges, wire criteria, and available receptacle sizes and series are provided in Figure 2.

Strip the individual wire insulation per the dimensions given in Figure 2.



**CAUTION**

Care must be taken not to nick, scrape, or cut any part of the wire during the stripping operation.

Note: Not to Scale

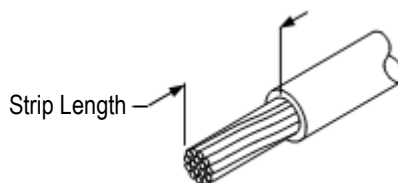


Figure 2 (continued)

RECEPTACLE	WIRE		
	SIZE RANGE [AWG]	INSULATION DIAMETER RANGE	STRIP LENGTH
250 Series Economy Without Insulation Support Barrel	18 – 10	N/A	5.08 [.200]
250 Series Economy With Insulation Support Barrel	22 – 18	1.52 – 2.54 [.060 – .100]	
	18 – 14	3.05 – 4.32 [.120 – .170]	
	14 – 10	3.81 – 5.08 [.150 – .200]	
250 Series Flag	18 – 14	3.56 – 5.08 [.140 – .200]	5.72 [.225]
187 Series Commercial Straight	20 – 16	1.52 – 2.79 [.060 – .110] or 2.29 – 3.30 [.090 – .130]	4.32 [.170]
		18 – 14	
187 Series Commercial Flag	20 – 16	2.29 – 3.30 [.090 – .130]	4.57 [.180]
110 Series With Insulation	22 – 18	1.52 – 2.54 [.060 – .100] or 2.03 – 3.05 [.080 – .120]	4.32 [.170]

Figure 2 (end)

### 3.4. Crimp Requirements

Locate the receptacle to be crimped in the appropriate tooling according to the instructions packaged with that tooling. Perform the crimping operation. Figure 3 shows a typical receptacle as it should appear after crimping.



#### CAUTION

Wire insulation must NOT be cut or broken during the crimping operation. Exercise of reasonable care by tooling operators should be sufficient to provide undamaged terminations.

#### A. Wire Barrel Crimp

The crimp applied to the wire portion of the receptacle is the most compressed area and is most critical in ensuring optimum electrical and mechanical performance of the crimped receptacle. The crimp height must be within the dimensions provided in Figure 3.

#### B. Conductor Extension

The conductor must not extend beyond the wire barrel to the limit given in Figure 3.

#### C. Wire Barrel Seam

The wire barrel seam must be closed with no evidence of loose wire strands visible in the seam as shown in Figure 3.

#### D. Effective Crimp Length

Effective crimp length is defined as that portion of the wire barrel, excluding bellmouth(s), fully formed by the crimping tool. For optimum crimp effectiveness, the crimp must be between the bellmouths as shown in Figure 3.

#### E. Bellmouths

Front and rear bellmouths must be evident and conform to the dimensions given in Figure 3.

#### F. Cutoff Tab

The cutoff tab must be cut to the dimensions shown in Figure 3.

### G. Burr

The cutoff burr must not exceed the dimensions shown in Figure 3.

### H. Wire Barrel Flash

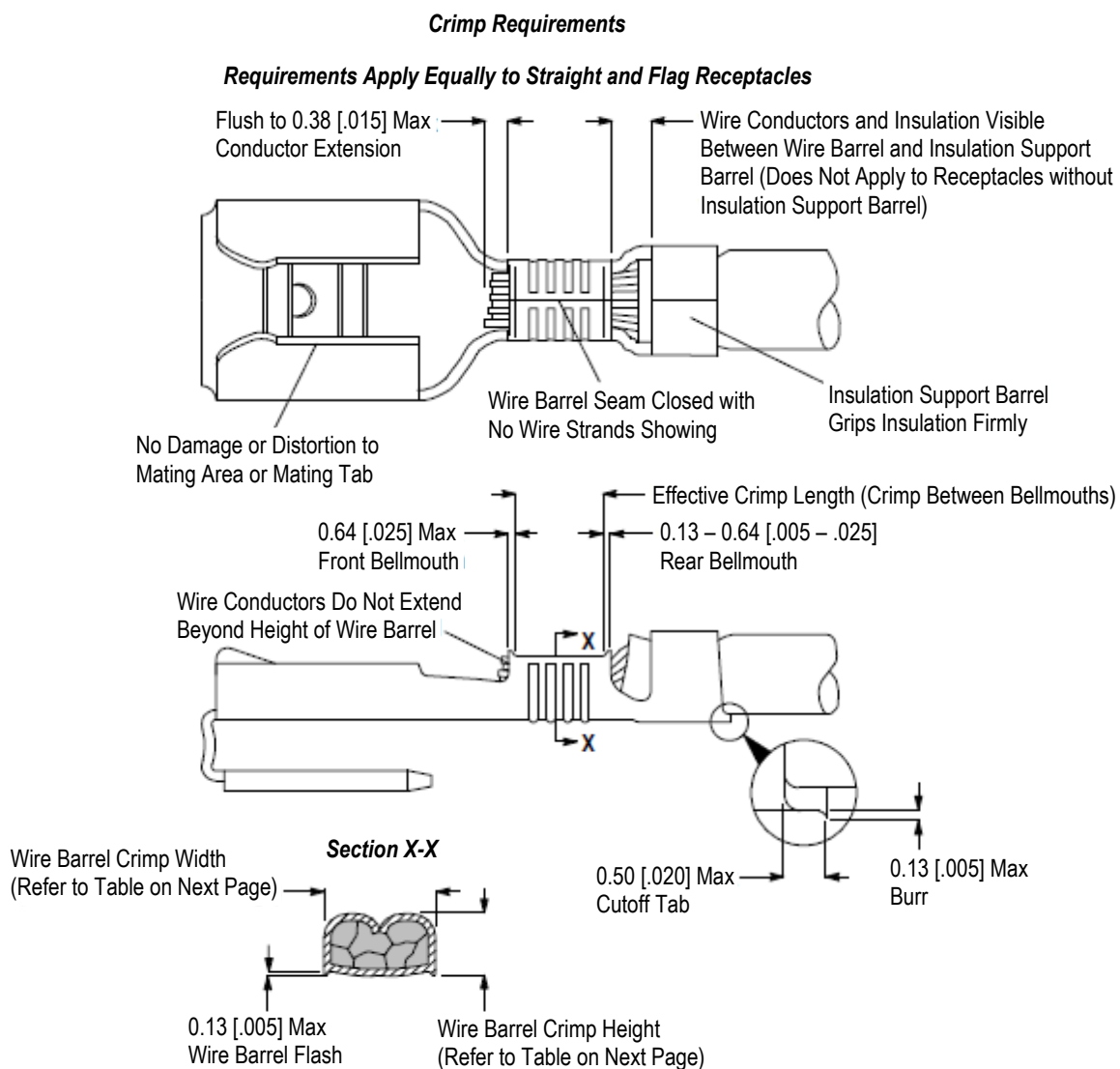
The wire barrel flash must not exceed the dimensions shown in Figure 3.

### I. Insulation Support Barrel Crimp

The insulation support barrel must grip the insulation firmly. A slight cut in the insulation by the insulation barrel is permissible as this causes no problems in actual use. Insulation crimp must comply to the width provided in Figure 3.

### J. Wire Location

The wire conductor and insulation must be visible in the transition area between the wire and insulation barrels as shown in Figure 3.



**Figure 3 (continued)**

RECEPTACLE	WIRE SIZE [AWG] APPLIED	WIRE BARREL		INSULATION SUPPORT CRIMP WIDTH (Ref)
		CRIMP HEIGHT RANGE	CRIMP WIDTH (Ref)	
250 Series Economy Without Insulation Support Barrel	18	1.32 – 1.42 [.052 – .056]	2.79 [.110]	N/A
	16	1.47 – 1.57 [.058 – .062]		
	14	1.73 – 1.83 [.068 – .072]		
	14	1.96 – 2.06 [.077 – .081]	3.30 [.130]	
	12	2.26 – 2.36 [.089 – .093]		
	10	2.77 – 2.87 [.109 – .113]		
250 Series Economy With Insulation Support Barrel	22	1.09 – 1.19 [.043 – .047]	2.29 [.090]	3.05 [.120]
	20	1.14 – 1.24 [.045 – .049]		
	18	1.27 – 1.37 [.050 – .054]		
	18	1.40 – 1.50 [.055 – .059]	2.79 [.110]	
	16	1.55 – 1.65 [.061 – .065]		
	14	1.78 – 1.88 [.070 – .074]		
	14	1.96 – 2.06 [.077 – .081]	3.30 [.130]	
	12	2.26 – 2.36 [.089 – .093]		
	10	2.77 – 2.87 [.109 – .113]		
	12	2.16 – 2.26 [.085 – .089]	3.56 [.140]	
10	2.64 – 2.74 [.104 – .108]			
250 Series Flag	18	1.42 – 1.52 [.056 – .060]	2.79 [.090]	4.57 [.180]
	16	1.58 – 1.68 [.062 – .066]		
	14	1.80 – 1.90 [.071 – .075]		
187 Series Commercial Straight	20	1.19 – 1.30 [.047 – .051]	2.29 [.090]	3.56 [.140]
	18	1.30 – 1.40 [.051 – .055]		
	16	1.50 – 1.60 [.059 – .063]		
	18	1.42 – 1.52 [.056 – .060]	2.29 [.090]	
	16	1.60 – 1.70 [.063 – .067]		
	14	1.85 – 1.95 [.073 – .077]		
187 Series Commercial Flag	20	1.17 – 1.27 [.046 – .050]	2.29 [.090]	3.56 [.140]
	18	1.30 – 1.40 [.051 – .055]		
	16	1.47 – 1.57 [.058 – .062]		
110 Series With Insulation	22	0.89 – 0.99 [.035 – .039]	1.78 [.070]	3.56 [.140]
	20	0.97 – 1.07 [.038 – .042]		
	18	1.12 – 1.22 [.044 – .048]		

Figure 3 (end)

### 3.5. Twist and Roll

There must be no twist, roll, deformation, or other damage to the mating portion of the crimped receptacle that will prevent proper mating.

### 3.6. Straightness

The force applied during crimping may cause some bending between the wire barrel and wire. Such deformation is acceptable within the following limits.

#### A. Up and Down

The crimped portion excluding the cutoff tab and burr must not be bent beyond the limits shown in Figure 4.

#### B. Side to Side

The crimped portion excluding the cutoff tab and burr must not be bent from one side to the other beyond the limits shown in Figure 4.

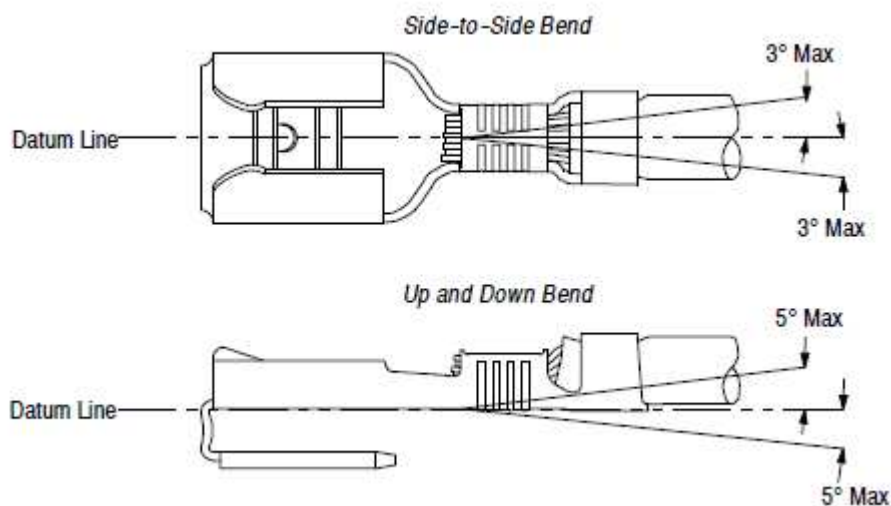


Figure 4

### 3.7. Crimp Pull-Out Test

Crimped receptacles must not be separated from their wires when subjected to forces specified in Figure 5.



**NOTE**

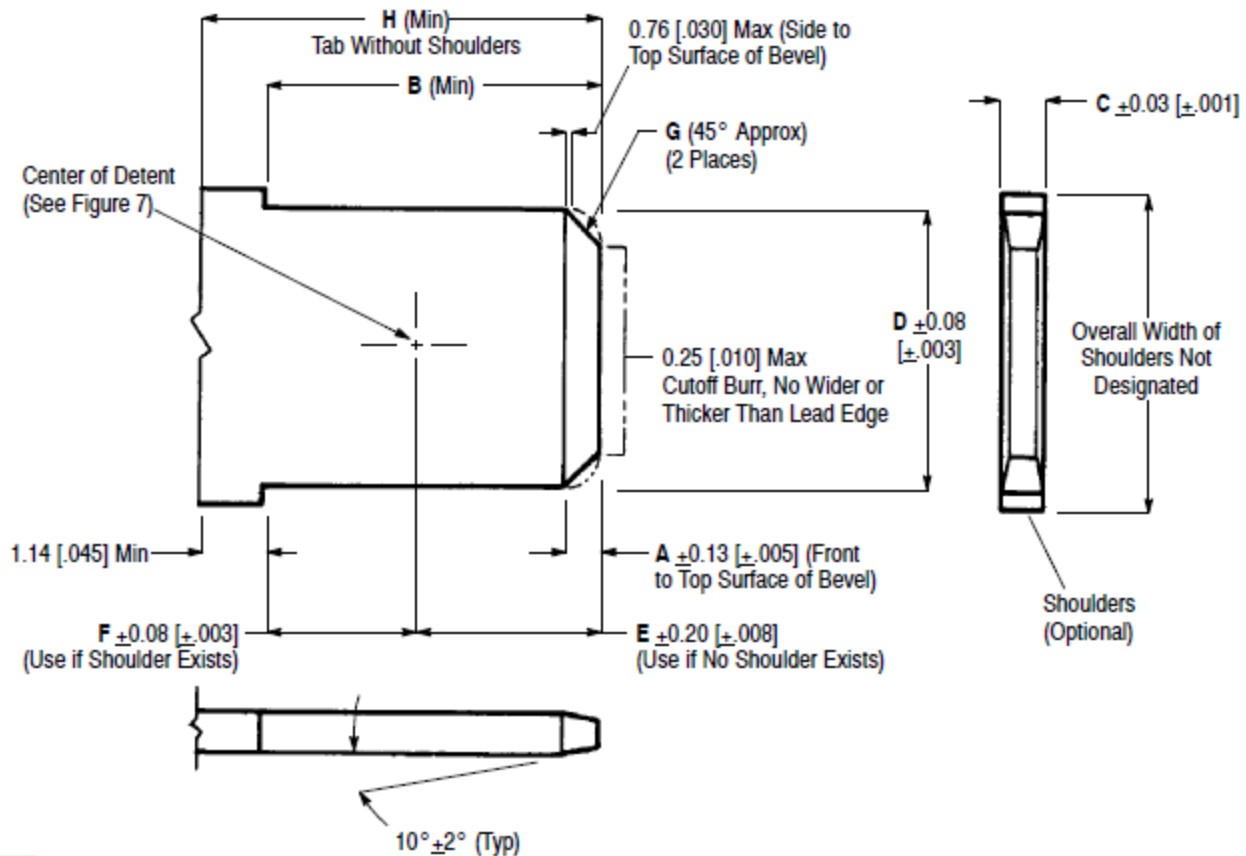
Tensile testing machine must be adjusted for head travel of 25.4 mm [1 in.] per minute. Force must be applied directly and gradually for 1 minute.

WIRE SIZE (AWG [mm <sup>2</sup> ])	MINIMUM FORCE (N [lb])
22 [0.32]	35.58 [8]
20 [0.52]	57.82 [13]
18 [0.82]	88.96 [20]
16 [1.30]	133.44 [30]
14 [2.10]	222.40 [50]
12 [3.30]	311.36 [70]
10 [5.30]	355.84 [80]

Figure 5

### 3.8. Mating Tab Dimensions

Features and dimensional requirements for the mating tab terminals are shown in Figure 6.



#### NOTES

- (1) Bevel may be a straight line or a radius with Dimension G  $\pm 0.51$  [ $\pm .020$ ].
- (2) Tab shall be flat (0.03 mm/mm [0.001 in./in.]) and free from burrs greater than 10% of tab thickness or raised plateaus, except for testing as described in Paragraph 3.8.
- (3) Measurements shall not include plating, burrs, or flatness tolerance.

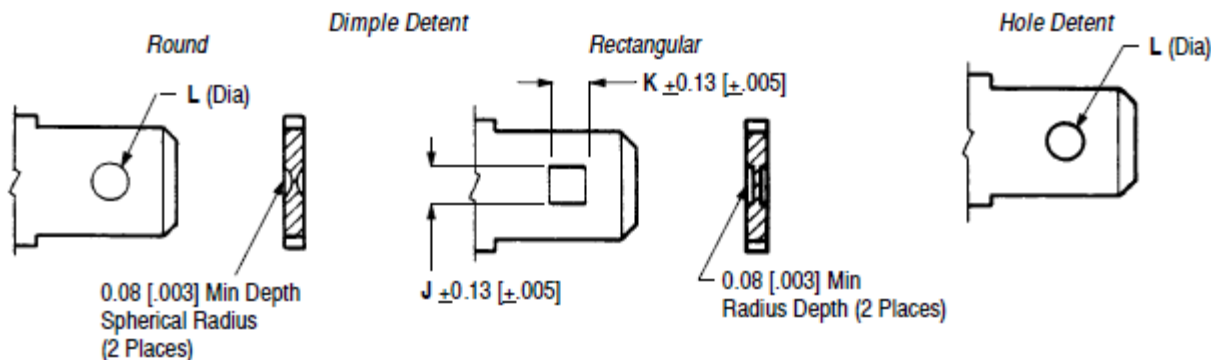
MATING TAB WIDTH AND THICKNESS (Nominal) AND DETENT TYPE	DIMENSION							
	A	B	C	D	E	F	G	H
6.35 X 0.81 [.250 X .032] With Dimple	0.89 [.035]	7.80 [.307]	0.81 [.032]	6.35 [.250]	3.86 [.152]	4.06 [.160]	1.27 [.050]	8.94 [.352]
6.35 X 0.81 [.250 X .032] With Hole	0.89 [.035]	7.80 [.307]	0.81 [.032]	6.35 [.250]	4.52 [.178]	3.40 [.134]	1.27 [.050]	8.94 [.352]
4.75 X 0.51 [.187 X .020] With Dimple	0.76 [.030]	6.22 [.245]	0.51 [.020]	4.75 [.187]	2.54 [.100]	3.81 [.150]	1.14 [.045]	7.37 [.290]
4.75 X 0.51 [.187 X .020] With Hole	0.76 [.030]	6.22 [.245]	0.51 [.020]	4.75 [.187]	3.18 [.125]	3.18 [.125]	1.14 [.045]	7.37 [.290]
2.79 X 0.51 [.110 X .020] With Dimple or Hole	0.51 [.020]	6.98 [.275]	0.51 [.020]	2.79 [.110]	1.57 [.062]	5.54 [.218]	0.89 [.035]	8.13 [.320]
2.79 X 0.51 [.110 X .032] With Dimple or Hole	0.51 [.020]	6.98 [.275]	0.81 [.032]	2.79 [.110]	1.57 [.062]	5.54 [.218]	0.89 [.035]	8.13 [.320]

Figure 6



### 3.9. Mating Tab Detent

A mating tab having no locking feature may be used for applications where low mating retention forces are desirable. Where higher forces are sought, a mating tab with a detent meeting the requirements shown should be used. Holes provide the greatest retention forces, while dimples provide acceptable medium-range forces. Refer to Figure 7.



MATING TAB WIDTH (Nominal)	RECTANGULAR DIMPLE DETENT DIMENSION $\pm 0.13$ [.005]		ROUND DIMPLE OR HOLE DETENT DIAMETER ■
	J	K	L
6.35 [.250]	2.36 [.093]	1.90 [.075]	1.78 +0.25/-0.13 [.070 +.010/- .005]
4.75 [.187]	1.57 [.062]	1.37 [.054]	1.40 $\pm 0.13$ [.055 $\pm$ .005]
2.79 [.110]	1.57 [.062]	1.22 [.048]	1.22 $\pm 0.08$ [.048 $\pm$ .003]

■ Hole or dimple detents may be at the same location on the longitudinal centerline if no shoulder or obstruction is present at the base of the tab.

Figure 7

### 3.10. Mating Overcycle and Testing

The force must be measured using a testing device capable of holding the reading. It must also provide accurate alignment with slow and steady mating and unmating of the test tab and receptacle. Force Gage 92-100505 is available (refer to Instruction Sheet 408-7432). The forces required to mate and unmate a test mating tab and receptacle are given in Figure 8.



**NOTE**

Testing may be done using a gage as described in *Electrical Quick Connect Terminals UL310*. Test tabs must be dimensioned as shown in Figure 6 (except that the “C” dimension shall have a tolerance of  $\pm 0.008$  mm [ $\pm 0.0003$  in.] for brass tabs  $\pm 0.013$  mm [ $\pm 0.0005$  in.] for steel) and raised plateaus around detents shall be limited to a total of 0.025 mm [.001 in.] for both sides.

TAB SIZE	NEWTON (N [lb-FORCE])				
	FIRST MATING (maximum) INDIVIDUAL	FIRST UNMATING (minimum)		SIXTH UNMATING (minimum)	
		AVERAGE	INDIVIDUAL	AVERAGE	INDIVIDUAL
<b>TEST TAB AND UNPLATED RECEPTACLE</b>					
6.35 [.250]	80.06 [18]	26.69 [6]	17.79 [4]	22.24 [5]	17.79 [4]
4.75 [.187]	66.72 [15]	22.24 [5]	13.34 [3]	13.34 [3]	8.90 [2]
2.79 [.110]	53.38 [12]	13.34 [3]	8.90 [2]	8.90 [2]	4.45 [1]
<b>TEST TAB AND TIN-PLATED RECEPTACLE</b>					
6.35 [.250]	75.62 [17]	22.24 [5]	13.34 [3]	17.79 [4]	13.34 [3]
4.75 [.187]	66.72 [15]	22.24 [5]	13.34 [3]	13.34 [3]	8.90 [2]
2.79 [.110]	53.38 [12]	13.34 [3]	8.90 [2]	8.90 [2]	4.45 [1]

Figure 8

### 3.11. Repair

These receptacles are not repairable once a termination has been made. Damaged or defective receptacles must be removed, discarded, and replaced.

## 4. QUALIFICATION

FASTON\* piggyback receptacles meet Underwriters Laboratories (UL)–310 specification for quick–connect terminals. They are Listed in UL Component Listing Program Electrical File E–66717 and Certified to CSA International C22.2 No. 153 in Files LR 49710 and LR 36371–4. These products also meet NEMA DC–2 mechanical requirements standard for quick- connect receptacles.

**NOTE**

*UL does not qualify this type of terminal for application to wire size 24 AWG and smaller or wire size 8 AWG and larger.*

## 5. TOOLING

This section provides a selection of tools for various application requirements. Modified designs and additional tooling concepts may be available to meet other application requirements. A list of tooling recommendations and instructional material packaged with the tooling covering the full wire size range is provided in Figure 9.

**NOTE**

*For assistance in setting up prototype and production line equipment, contact Product Information at the number at the bottom of page 1.*

### 5.1. Applicator

Applicators are designed for the full wire size range of strip-fed, precision formed receptacles, and provide for high volume, heavy duty production requirements. The applicators can be used in bench or floor model power units.

**NOTE**

*Each applicator is shipped with a metal identification tag attached. DO NOT remove this tag or disregard the information on it. Also, a packet of associated paperwork is included in each applicator shipment. This information should be read before using the applicator; then it should be stored in a clean, dry area near the applicator for future reference. Some changes may have to be made to the applicators to run in all related power units. Contact Product Information at the number at the bottom of page 1 for specific changes.*

### 5.2. Power Unit

A power unit is an automatic or semi-automatic device used to assist in the application of a product. Power unit includes the power source used to supply the force or power to an applicator.

### 5.3. Hand Tool

Hand crimping tools are designed for prototype, low-volume applications, and repair.

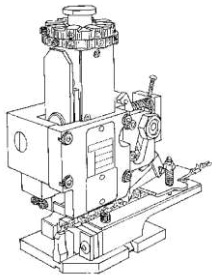
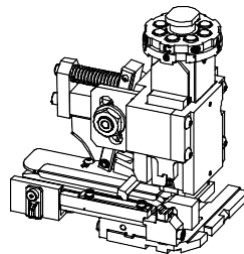
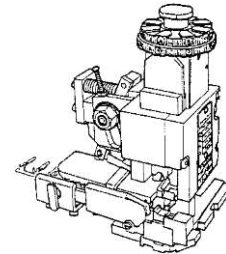
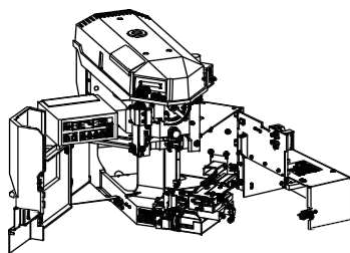
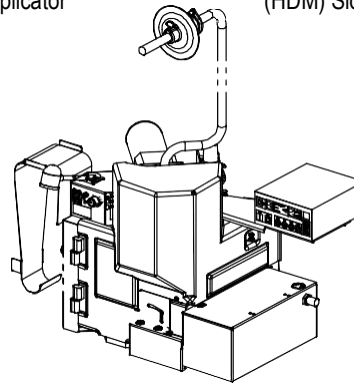
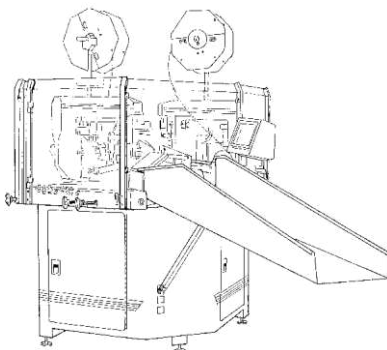
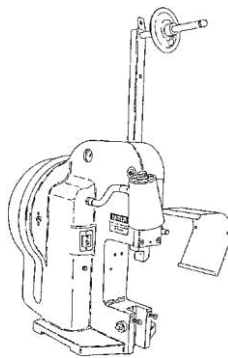
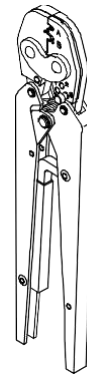
RECEPTACLE	WIRE		APPLICATOR (Document)	POWER UNIT (Document)	HAND TOOL (Document)
	SIZE RANGE [AWG]	INSULATION DIAMETER			
250 Series Straight With Insulation Support Barrel	22 – 18	1.52 – 2.54 [.060 – .100]	466500-1 (408-8040)	122500-2, -3 (409-5852)	90166-1 (408-7235) or 91514-1 (408-8547)
				217500-1, -2 (409-5866)	
				356500-1, -2 (409-5878)	
			466500-2 (408-8040)	354500-1 (409-5842)	
				565435-5 (409-5128)	
				1338600-3, -4 (409-10016)	
			466500-3 (408-8040)	354500-[ ] (409-5842)	
				1338600-[ ] (409-10016)	
			18 – 14	3.05 – 4.32 [.120 – .170]	
	217500-1, -2 (409-5866)				
	356500-1, -2 (409-5878)				
	466502-2, -3 (408-8040)	354500-1 (409-5842)			
		565435-5 (409-5128)			
		1338600-3, -4 (409-10016)			
	466052-5 (408-8040)	354500-[ ] (409-5842)			
		1338600-[ ] (409-10016)			
	567624-1 (408-8040)	122500-2, -3 (409-5852)			
		217500-1, -2 (409-5866)			
		356500-1, -2 (409-5878)			
	14 – 10	3.81 – 5.08 [.150 – .200]			466017-1 (408-8040)
			217500-1, -2 (409-5866)		
			356500-1, -2 (409-5878)		
			466017-2 (408-8040)	354500-1 (409-5842)	
				565435-5 (409-5128)	
1338600-3, -4 (409-10016)					
1426166-1, 1426166-6, 7-1426166-1, 7-1426166-6 (408-8322)			122500-2, -3 (409-5852)		
			217500-1, -2 (409-5866)		
			356500-1, -2 (409-5878)		
			1426166-2, 7-1426166-2 (408-8322)	354500-[ ] (409-5842)	
1338600-[ ] (409-10016)					
12 – 10	3.56 – 5.08 [.140 – .200]	1852211-1, 1852211-6	122500-1 (409-5852)	—	
			1852211-2		
		1852211-3			

Figure 9 (continued)

RECEPTACLE	WIRE		APPLICATOR (Document)	POWER UNIT (Document)	HAND TOOL (Document)
	SIZE RANGE [AWG]	INSULATION DIAMETER			
250 Series Straight Without Insulation Support Barrel	18 – 14	N/A	466116-1 (408-8040)	122500-2, -3 (409-5852)	—
				217500-1, -2 (409-5866)	
				356500-1, -2 (409-5878)	
			466116-2 (408-8040)	354500-1 (409-5842)	
				565435-5 (409-5128)	
				1338600-3, -4 (409-10016)	
	14 – 10	N/A	466512-2 (408-8040)	354500-1 (409-5842)	
				565435-5 (409-5128)	
				1338600-3, -4 (409-10016)	
			567698-1 (408-8040)	122500-2, -3 (409-5852)	
			217500-1, -2 (409-5866)		
			356500-1, -2 (409-5878)		
250 Series Flag	18 – 14	3.05 – 4.32 [.120 – .170]	1385241-1 (408-8039)	122500-2, -3 (409-5852)	—
				217500-1, -2 (409-5866)	
				356500-1, -2 (409-5878)	
			1385241-2 (408-8039)	354500-1 (409-5842)	
				565435-5 (409-5128)	
				1338600-3, -4 (409-10016)	
187 Series Straight	20 – 16	1.52 – 2.79 [.060 – .110]	687966-1 (408-8040)	122500-2, -3 (409-5852)	—
				217500-1, -2 (409-5866)	
				356500-1, -2 (409-5878)	
			687966-2 (408-8040)	354500-1 (409-5842)	
				565435-5 (409-5128)	
				1338600-3, -4 (409-10016)	
	2.29 – 3.30 [.090 – .130]	466503-3 (408-8040)	122500-2, -3 (409-5852)		
			217500-1, -2 (409-5866)		
			356500-1, -2 (409-5878)		
		466503-4 (408-8040)	354500-1 (409-5842)		
			565435-5 (409-5128)		
			1338600-3, -4 (409-10016)		
187 Series Flag	20 – 16	2.29 – 3.30 [.090 – .130]	466026-1 (408-8039)	122500-2, -3 (409-5852)	—
				217500-1, -2 (409-5866)	
				356500-1, -2 (409-5878)	
			466026-2 (408-8039)	354500-1 (409-5842)	
				565435-5 (409-5128)	
				1338600-3, -4 (409-10016)	

Figure 9 (continued)

RECEPTACLE	WIRE		APPLICATOR (Document)	POWER UNIT (Document)	HAND TOOL (Document)
	SIZE RANGE [AWG]	INSULATION DIAMETER			
110 Series With Insulation Support Barrel	22 – 18	1.52 – 2.79 [.060 – .110] or 2.03 – 3.05 [.080 – .120]	466501-1 (408-8040)	122500-2, -3 (409-5852)	—
				217500-1, -2 (409-5866)	
				356500-1, -2 (409-5878)	
			466501-2 (408-8040)	354500-1 (409-5842)	
				565435-5 (409-5128)	
				1338600-3, -4 (409-10016)	


 Typical Heavy Duty Mini  
(HDM) End-Feed Applicator

 Typical Heavy Duty  
Industrial (HDI) Applicator

 Typical Heavy Duty Mini  
(HDM) Side-Feed Applicator

 AMP-O-LECTRIC\* Model "G" Terminating  
Machine 354500-[] with  
Optional Stripping Module 1490501-[]

 ELT Machine 1338600-[] with  
Optional Stripping Module 1490500-[]

 AMPOMATOR\* CLS Lead-Making Machines  
122500-[] , 217500-[] , and 356500-[]

 AMP-O-LECTRIC\* Model "K"  
Terminating Machine 565435-5

 Hand Crimping  
Tool

 CERTI-CRIMP\* II  
Hand Crimping Tool

**Figure 9 (end)**

## 6. VISUAL AID

The illustration below shows a typical application of FASTON\* piggyback receptacles. This illustration should be used by production personnel to ensure a correctly applied product. Applications which do not appear correct should be inspected using the information in the preceding pages of this specification and in the instructional material shipped with the product or tooling.

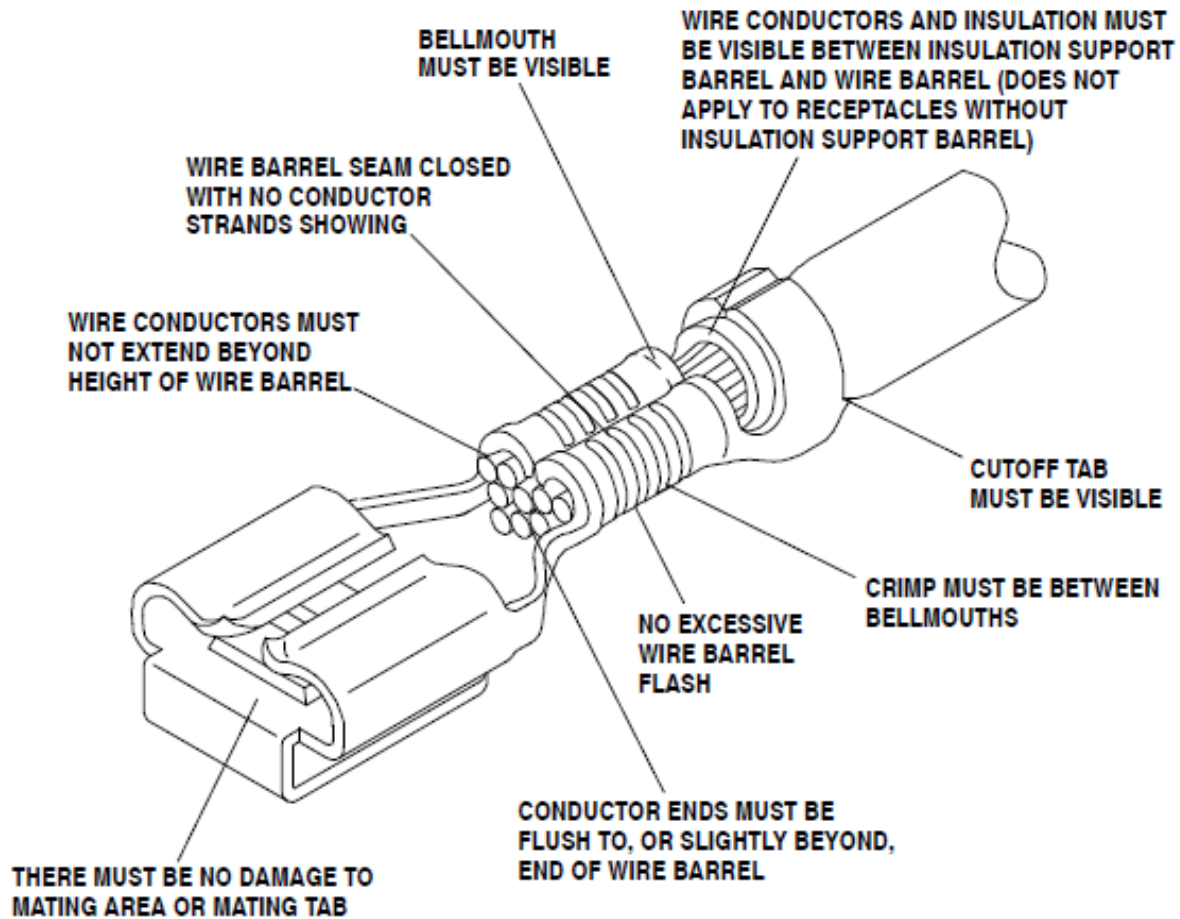


Figure 10: Visual Aid