

Making and Evaluation of O-Crimp for CCJ contact with 3*8AWG Wires.

1. INTRODUCTION

This specification covers the requirements of the crimping spec for CCJ contact with 3*8AWG wires. Include the parameters of the crimp termination, like crimp height and width and the cross section criteria, and crimping machine information.

2. MATERIAL

CCJ contact Part number: 2204042-2. Sleeve Part number: 2204043-1.
Raw cable Part number: 1760457-4 and 1655610-1 Black color. 1760457-5 and 1-1655610-7, Red color.
Hydraulic Crimp Machine: AT-66, PN 528050-5 (Europe) and 528050-6 (US).

3. CRIMPED CONTACT REQUIREMENTS.

A. Crimping height.

The crimp applied to the wire portion of the contact is the most compressed area and is most critical in ensuring optimum electrical and mechanical performance of the crimped contact. The crimp height must be with the dimensions provided in Figure1 in section A-A. (Unit: mm)

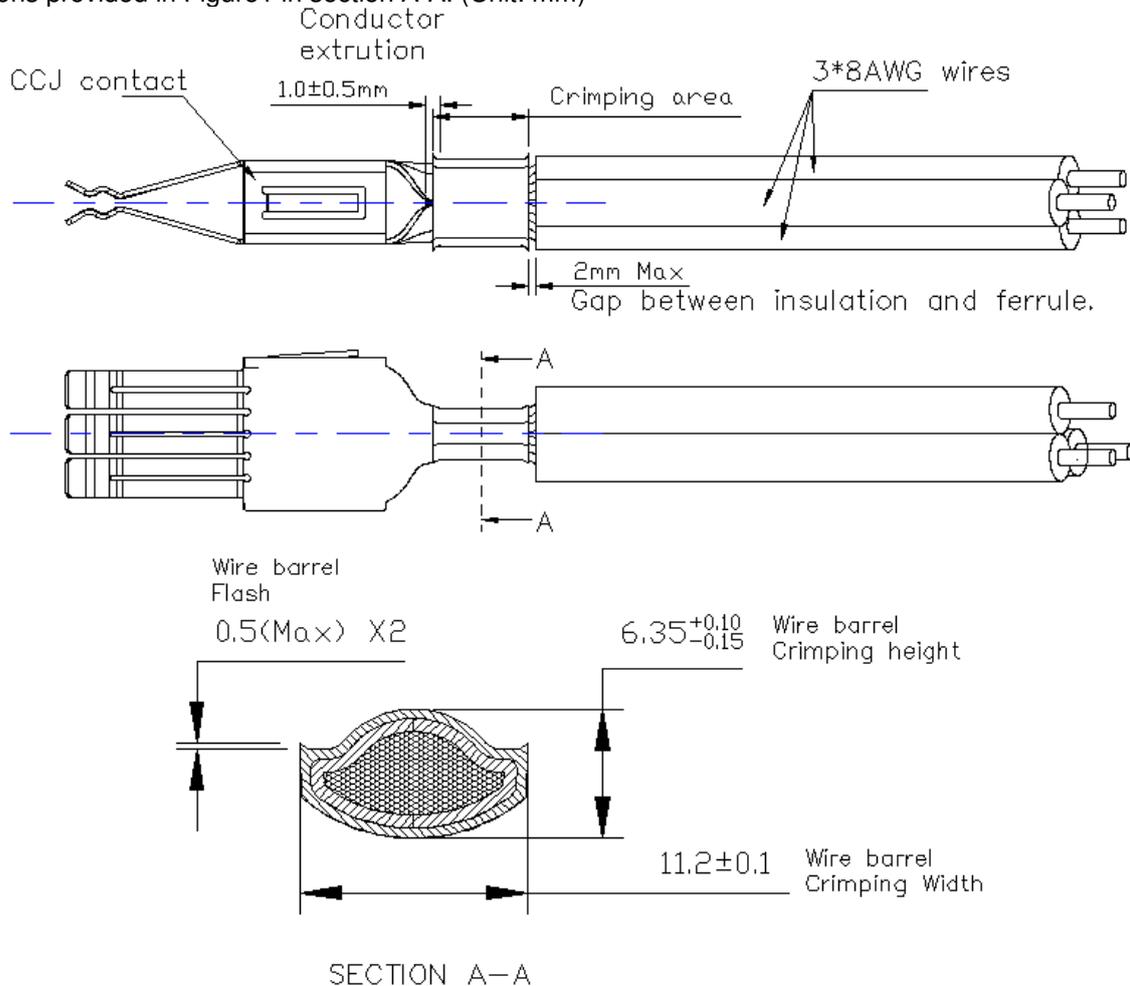


Figure 1.

B. Wire Barrel Flash

The wire barrel flash shall not exceed the dimensions shown in Figure 1 in Section A-A.

C. Wire and Conductor Location

The wire and conductor shall in the right location show as Figure 1.

D. Straightness.

The force applied during crimping may cause some bending between the crimped wire barrel and the mating portion of the contact. Such deformation is acceptable within the following limits. Figure 2.

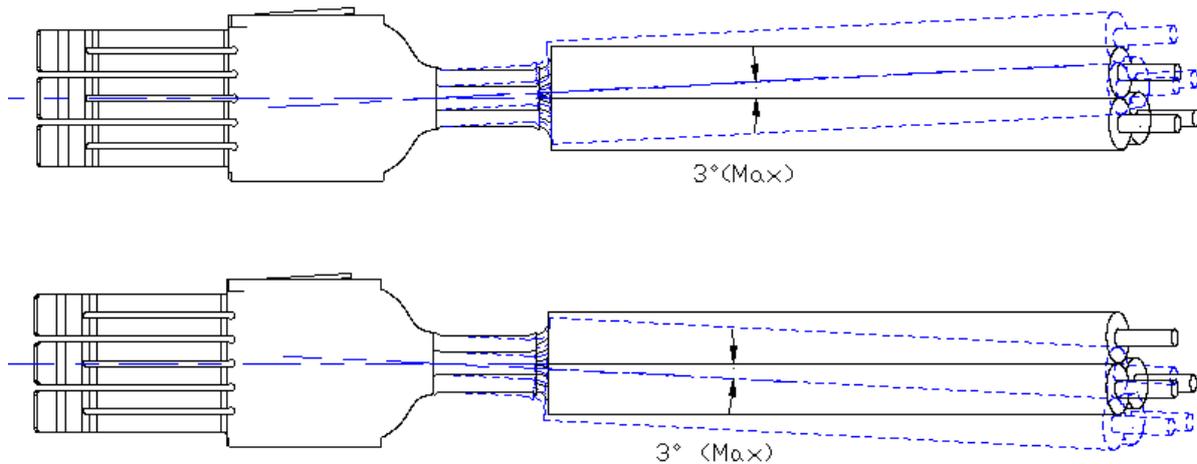


Figure 2.

E. CCJ Contact is not allowed to deform and scratch after crimping.

4. MAKING OF CROSS SECTIONS

Cross sections for evaluating of O-crimp contacts have to be made perpendicular to the long axis in the middle and of the crimp barrel, but avoiding being inside of a serration.

A clear outline and good separation of the crimp barrel and the single strands has to be obtained by polishing and etching the section surface. Figure 3~8.

Crimping height: 6.45mm, Width: 11.2mm, Compression rate: 13%



Figure 3.

Crimping height: 6.4mm, Width: 11.2mm, Compression rate: 14%

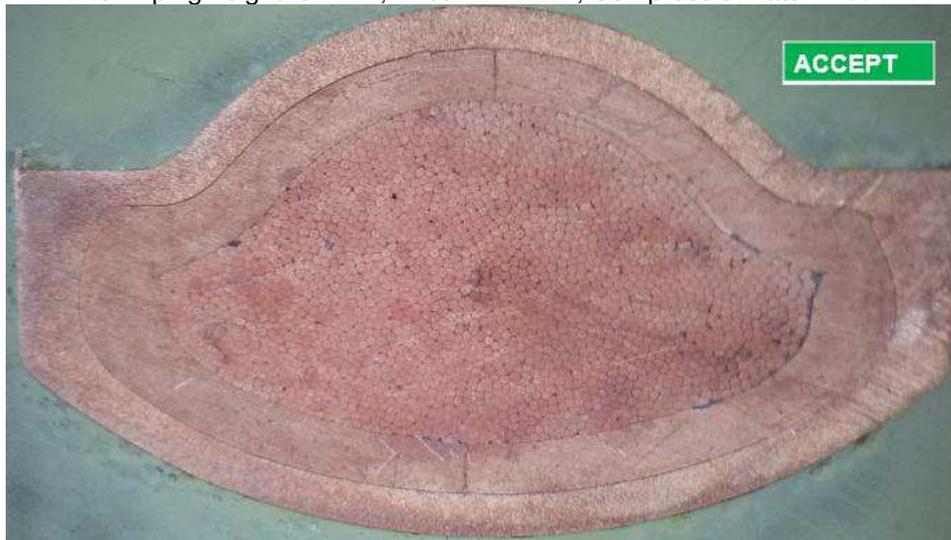


Figure 4.

Crimping height: 6.35mm, Width: 11.2mm, Compression rate: 15%

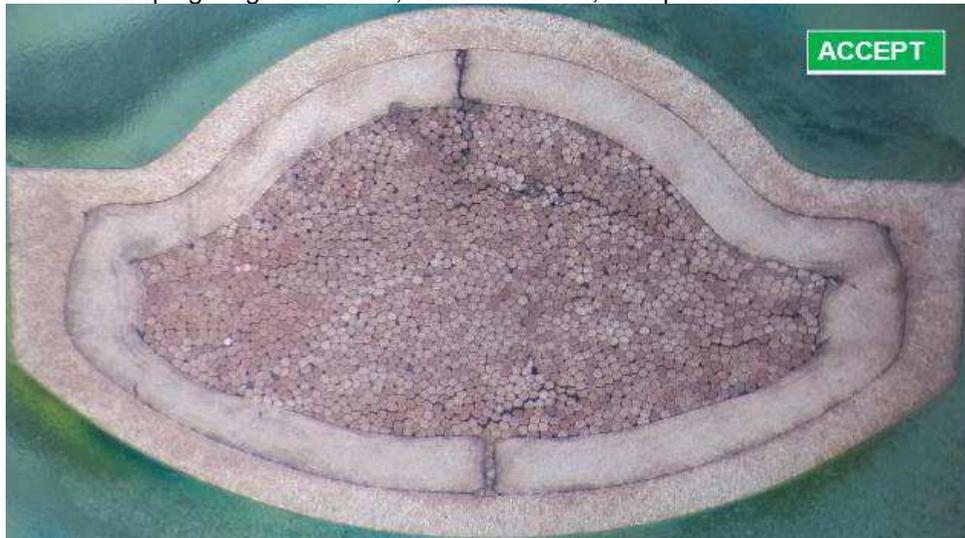


Figure 5.

Crimping height: 6.3mm, Width: 11.2mm, Compression rate: 16%

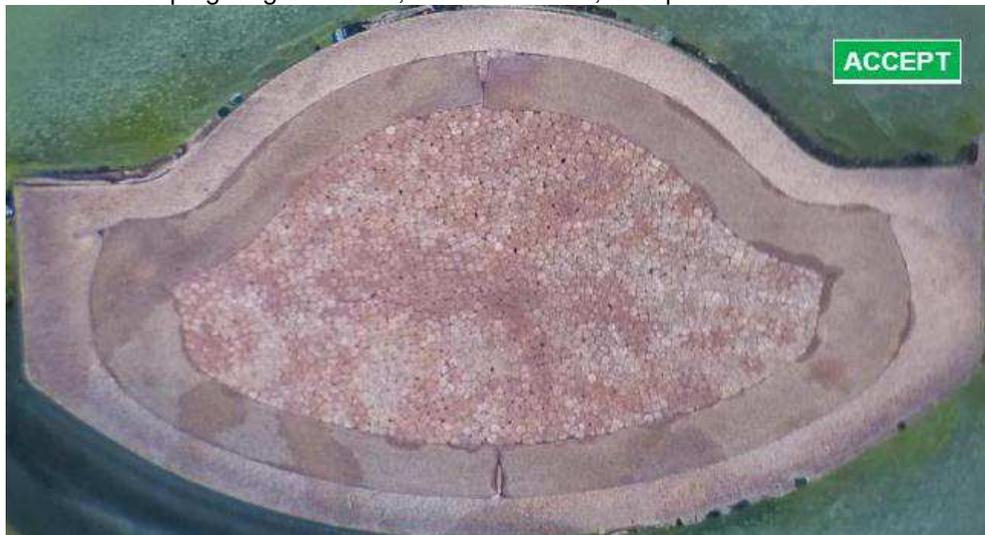


Figure 6

Crimping height: 6.25mm, Width: 11.2mm, Compression rate: 17%

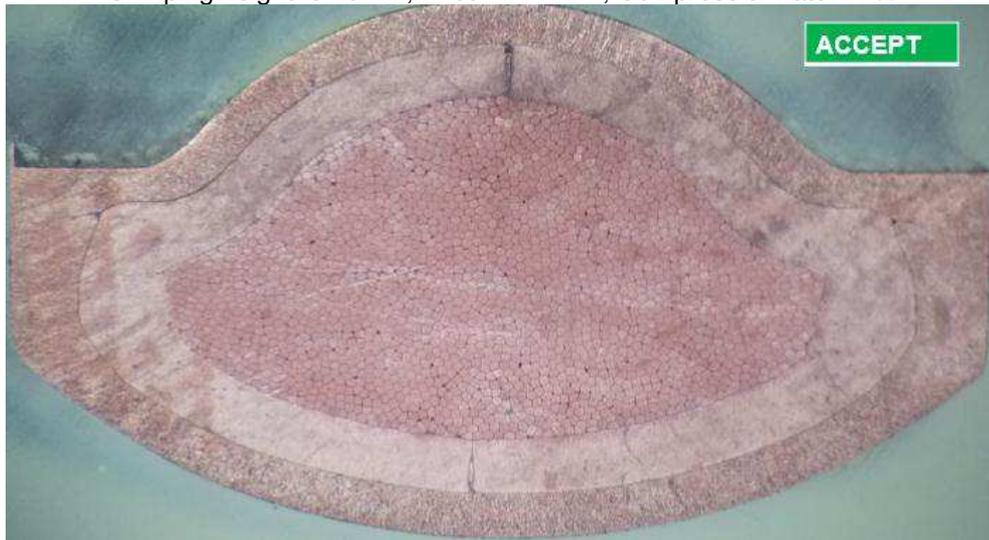


Figure 7.

Crimping height: 6.20mm, Width: 11.2mm, Compression rate: 18%



Figure 8.

4.1 Common errors at cross section preparation.

The strands are not complete deformed. Low compression is needed. Figure 9.

Crimping height: 6.50mm, Width: 11.2mm, Compression rate: 12%

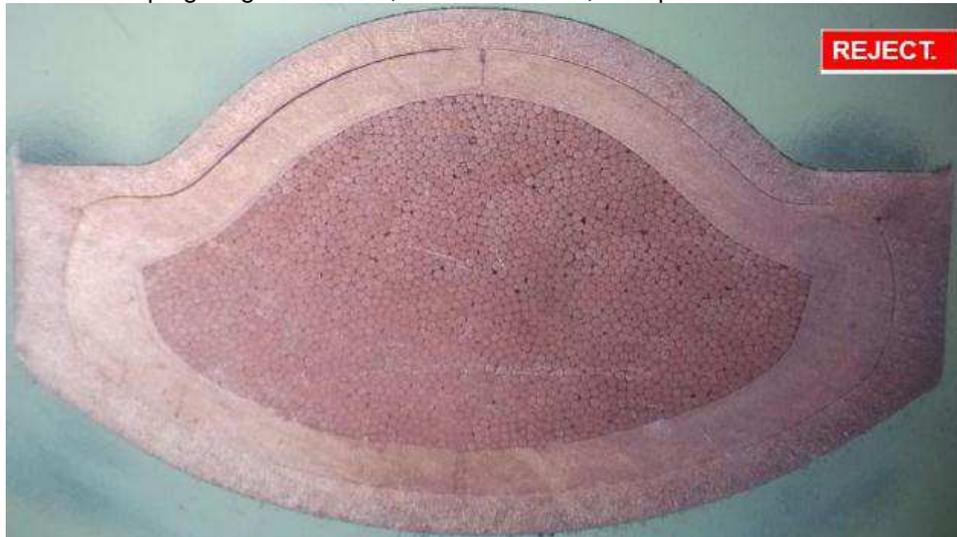


Figure 9.

5. HYDRAULIC CRIMP MACHINE: AT-66.PN 528050-5 (EUROPE) AND 528050-6 (US).

5.1 CRIMP MACHINE OUTLINE. Figure 10.



Figure 10.

5.2 Crimp Tool and Fixtures. Figure 11.

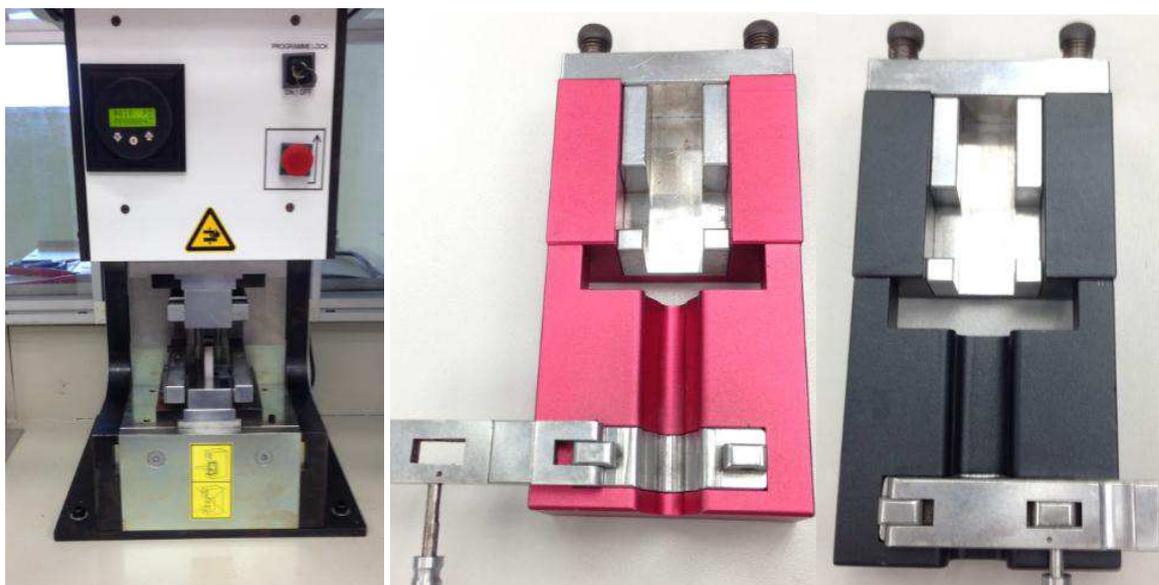


Figure 11.

Red fixture to fix 3 pcs red color wires, and ensure the Red wires arrangement is correct as single wire on the bottom area. Figure 12.



Figure 12

Black fixture to fix 3 pcs black color wires, and ensure the Black wires arrangement is correct as single wire on the top area. Figure 13.



Figure 13

The end