

Technical Bulletin

ET4001 Tapered Crimp Solution

Eaton has found that certain ET525 collets designed for use with the ET4001 crimp machine can cause a tapered appearance to the crimped fitting. This means that there will be differences in the crimp diameter if the measurement is taken toward the top of the crimped fitting vs taking the measurement toward the bottom of the crimped fitting. Please refer to Figure 1, which shows an image of a tapered crimp fitting. In comparison, Figure 2 shows a crimped fitting with no taper and a crimp diameter that falls within tolerance at both the top and bottom of the crimped fitting.



Figure 1



Figure 2

Affected Part Numbers

The following collet part numbers may be affected, if received after the shipping dates shown below.

- ET525DC-4Z (shipped after 12/10/2018)
- ET525DC-6Z (shipped after 12/16/2018)
- ET525DC-8Z (shipped after 12/16/2018)
- ET525DC-10Z (shipped after 2/25/2019)
- ET525DC-12Z (shipped after 1/6/2019)
- ET525DC-16Z (shipped after 1/4/2019)

Use of Spacer Ring

If you have an issue with tapered crimps when using the collets identified above, the issue is resolved by use of a spacer ring with a 2.562" center hole. The spacer ring should be placed flat side down. Use of the spacer ring offers better coverage on the top surface of the dies and prevents them from camming up and out of position during the crimp cycle.

Any of the following spacer rings can be used:

- ET4000SR-M050D • T-410-10 • T-440-78R
- ET4000SR-M100A • T-410-11 • T-440-79R
- ET4000SR-M190D • T-410-39
- ET4000SR-M215B • T-410-40
- ET4000SR-M280A • T-410-41
- ET4000SR-M340D • T-410-42

Crimp Diameter Measurements

The following table shows crimp diameter measurements taken after completing a crimp with an affected collet. Note that measurements taken when no spacer ring was used show a larger tapered effect. See Figure 3 for approximate measurement locations. If the difference in your measurements are less than .012, this is considered an acceptable taper. Note that use of a spacer ring with 2.562" ID yields results within this acceptable limit.

*Crimp is only acceptable if crimp diameter measurement taken at the center of the fitting falls within tolerance.



Figure 3

No Spacer Ring				
Top of Crimp	1.265	1.261	1.261	1.266
Bottom of Crimp	1.229	1.233	1.233	1.228
Taper	0.036	0.028	0.028	0.038
Crimped with Spacer Ring w/2.562" ID				
Top of Crimp	1.246	1.244	1.243	1.247
Bottom of Crimp	1.236	1.237	1.237	1.237
Taper	0.010	0.007	0.006	0.010

For further questions and support, please contact Eaton Technical Support at 1-888-258-0222 or fpgproductsupport@eaton.com.