ABSTRACT:
Voids in solder joints are largely a function of differential pressure between vapor pressure of the gases inside of the joint and environmental conditions. By entering joints still in their liquid state into decompression chambers, voids can be eliminated. Equipment has been developed to achieve void-free joints under these conditions utilizing modern condensation reflow technology.
Bio of the Speaker-

JB Byers is co-founder and managing partner of A-Tek Systems Group. He has more than 20 years experience in SMT manufacturing and is well versed in vapor phase reflow technology.

JB graduated in 1991 from Colorado Aero Tech with a degree in aviation electronics.

He is the primary liaison between Asscon Systemtechnik-Elektronik GmbH, the vapor phase equipment manufacturer and innovative technology leader, and the customer. He is well respected by his peers for his process knowledge and his customer service aptitude.

Upcoming Chapter meetings

Chapter Calendar for 2019:

July 24th 2019
Technical Symposium (Micro Care, Indium Corp, Weller.
Richardson Convention Center

September 23-25:
SMTAI

Oct 4th 2019
Chapter Meeting: Understanding the New IPC J-STD 001-G Amendment 1 Cleanliness Testing Standard

Dec; 6th
Membership appreciation party.
Presidents Message

It's so exciting to see what we've accomplished in the first half of 2019. Our SMTA Dallas Expo in March was a big success as usual, thanks in large part to the tireless efforts of our officers, the involvement of our exhibitors and all of you who came out to learn about what's new in the industry. We've already had several monthly chapter meetings where speakers have presented on topics ranging from Selective Solder Technology to LEDs best practices in Surface Mount assembly.

If you haven't subscribed to our newsletter, do it NOW so you don't miss out on our programming for the rest of the year. Also, join us on July 24th at the Richardson Civic Center for a day long Technical Symposium on Reliability in manufacturing, presented by MicroCare, Indium Corporation, and Weller.

Want to get more involved in your SMTA chapter? Want to include a friend in the learning, networking and fun we're having? Don't hesitate to contact me or any of your other SMTA Dallas Chapter officers!

Chintan Sutaria

Dallas Chapter Membership Rolls—103 Members!!

We welcome our newest members to the SMTA family:

Matt Turner Secure Components, LLC   Joe Colangelo JoJo Consulting,
Bharga Pandya UTA   David Hill, BAE Systems-Dallas

Corporate Members: 15   Corporate Participating members: 12
Individual Members: 47   Corporate user: 15
Global Participating Members: 6,
Associate/Student Members: 8   Lifetime members: 2   Professional:3

Dallas Chapter Corporate Member List - May 2019

- ASSET InterTech
- Barry Sales, Inc.
- BBM, Inc.
- Circuitronics
- Conecsus LLC
- CVInc.
- CR Assembly Corp
- DG Marketing Corporation
- Dragon Circuits
- E.T.S. Group, Inc.
- Electrolab Inc.
- EWD Solutions
- FHP Reps
- Fujitsu Network Comm.
- GSC (Garland Service Co.)
- JTAG Technologies
- Keysight Technologies
- Krypton Solutions
- Leemah Electronics
- Libra Industries
- Lockheed Martin
- Mek Americas LLC
- Morgan Newton Company
- National Circuit Assembly
- NPI Technologies, Inc.
- One Source Group
- PAC Global, Inc.
- Philips Entertainment
- Precision Technology, Inc.
- Roper Resources, Inc.
- Southwest Systems Technology Inc
- SPEA America
- Summit Interconnect
- Sunshine Global PCB Group
- SVTronics, Inc
- The IPS Group, LLC
- Techni-Tool, Inc.
- .Trilogy Circuits, Inc.
- Variosystems, Inc.
- VI Technology
Know your Customers Desires

Now, more than ever we need to pay special attention to our customers’ desires and idiosyncrasies.

Over the years of building parts for the same customer, a certain amount of additional knowledge about the customer generally gets amassed by the Fabricator. Things like special features on the artwork that would cause delays at other fabricators that are known as intentional features by a fabricator who has already asked the questions... It is therefore crucial that these small details are Documented and archived in a Customer specific requirements type database. Having said that, there are certainly times deviations from “what has been” and “what is” warrant that the question or questions be asked again. Here, it is good to have that background knowledge of previous dispositions so that the questions can be answered easily and with less delay.

Another example of this would be things not necessarily noted on a drawing or “read me” type file but again are known as customer special “Hot Buttons” or undocumented requirements. Even things like packaging and shipping requirements not noted by the drawing or P.O. with as many customers that are out there comparing fabricators these days and scrutinizing the way we deal with artwork or fabrication snags, The “Leg up” is to already have that undocumented knowledge DOCUMENTED so that the questions or concerns be quickly resolved.

This frequently means the difference between and “win” and a “loss” when quoting. More information on the quote response is needed UP FRONT at the time of the quote which means a more thorough analysis must be done prior to quote. Many times new customers provide only a drawing to quote by. This can end up with additional questions prior to fab that cause delays. As a Fabricator, We would always like to see the entire Output package and drawings prior to quote so that any questions that could potentially cause delays can be approached at the quote stage. Thus showing the customer the fab shop has “done their homework”.

Let me give you a few examples of this. Let us say the customer drawing has specific information Regarding controlled impedance structures and has not provided the Gerber data for the purpose of the quote. Without the benefit of reviewing the Gerber data the impedances cannot REALLY be verified. Often we see specific line sizes noted on drawings that do not exist on the artwork. Likewise we have seen specific call-outs on drawings for reference planes that either do not exist or were Changed prior to final release. In addition, Even if the Reference planes and line sizes are EXACTLY as depicted on a drawing, they can be co-planar coupled by having the copper pour on the Impedance layer too close to the Controlled trace.

Another example of special customer knowledge is a Customer of ours that denotes specific dielectrics. If this was a new customer to another fabricator the question would beg to be asked, “you have very specific dielectrics noted, is this for the purpose of controlled impedance? If so, where do the controlled signals exist? (On what layers) what line size(s) are they and what threshold and tolerance is associated with them?” In some cases these dielectric notes are vestiges or “left over’s” from many previous iterations of the job and no longer have any relevance to the current revision AT ALL.

Yet another example is a customer of ours whose designs are full of what a CAM analysis would call “Stubs” or un-terminated traces. In well over 90% of the time with this particular customer these “Stubs” are actually shields. Again, having this prior knowledge helps us when the question arises. We still VERIFY with the customer that that is the case. It just goes a lot faster having some prior knowledge of their structures.

In yet another Example, One of our customers allows “carte blanche” line resizing to meet impedances as their designs run very low voltage and we are not running the risk of drastically reducing their “Current carrying capacity” . This is HIGHLY un-usual and would NEVER be done with any other customer as we would be running the risk of changing the functionality of the part.

Additionally, Not documenting these customer special requirements or needs ultimately does not service the customer. If the questions never get asked and the customer goes elsewhere, when questions DO arise, the answer is frequently, “ Our other Fabricator never asked that question”. DON’T BE THAT FABRICATOR! Ask the questions, but ask them in a timely manner.

Karl Doebbert
Prototron Circuits
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REASONS TO JOIN YOUR LOCAL SMTA CHAPTER

- Do you have something to share such as new technologies or new products?
- Are you new in a sales territory – do you know all the players? Do they know you?

Be informed and involved on the Local Chapter level:
- Take advantage of technical information provided at local meetings
- Get to know colleagues in your local area
- Network for technical information and get to know companies and people in your local area
- Share information with colleagues on new products and services

THE MISSION OF SMTA

The Surface Mount Technology Association (SMTA) membership is a network of professionals who build skills, share practical experience and develop solutions in electronic assembly technologies and related business operations.

MEMBERSHIP DUES

 Participating: $50 - If your company (same location/division) holds a Corporate Membership, it’s employees are eligible to receive the full range of benefits at a discounted price.

 Individual: $75 - This membership is designed for individuals who wish to join SMTA to receive all the benefits independent of a Corporate Membership.

 Corporate: $550 - A corporate membership in SMTA provides discounts to employees located in the same location/division where the Corporate Membership is held.

 Student Membership—$20 The Student/Retiree Membership is available to all full-time post-secondary students and retirees.

HOW TO JOIN

On-line at www.smta.org