

EABS Newsletter

European Association for Brazing and Soldering

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A short note from the Chairman

Since circulation of the Spring 2009 Newsletter we have the following matters to report on:

1. We have received a further set of interesting statistics from Blackfoot Hosting in regards to the 'traffic' on the EABS Website. The details concerning the site activity provided to us by Blackfoot are given below.
2. With the Spring Technical Training Seminar in Maastricht scheduled for March 2009 being postponed due to lack of support, we have decided to hold one in Hanau, Germany, in March 2010. Comments on the event appear on pages 2 and 3 below
3. As you already know, the joint Johnson Matthey Metal Joining–EABS Seminar dealing with the brazing of Tungsten Carbide and PCD scheduled for May 2009 had to be re-scheduled to May 2010. Details of the programme for the 2010 event, which will include guest speakers, will be posted to the EABS website early in 2010.
4. The programme for the 9th Annual EABS-Solvay Aluminium Brazing Seminar in Hanover, Germany, scheduled for 1st and 2nd September 2009, also had to be cancelled due to a lack of support. However it has been agreed with Solvay Fluor GmbH that we will offer our joint seminar in September 2010. Details will be posted to the website as soon as the arrangements have been finalised.
5. It has been decided that we will be more pro-active in publicising EABS. The steps that have been put in place in respect of this matter already are described on Pages 3 and 4 below.

Website Statistics

The following Table make interesting reading!

Period	No. of unique visits	No. of visits made by the unique visitors	Number of pages visited by all visitors	Total number of hits
1st July 2007 - 30th June 2008				
Total	4644	6203	15514	37400
Monthly Average	387	517	1293	3120
1st July 2008 – 31st March 2009				
Total	3638	5557	12218	30684
Monthly Average	404	617	1358	3409
Forecast to 30th June 2009				
Total	4848	7404	16296	40908
Actually achieved by 30th June 2009				
Total	4803	7492	16813	42030
Monthly Average	400	624	1401	3502

It seems clear from the above Tables that the traffic through our website in the past year has continued to experience satisfactory growth. It is, of course, not easy to identify with any

guarantee of certainty what has driven this improved interest in our site, however a detailed analysis of the month-by-month figures showed that in the three months following the further changes that we made to the Home Page in April the total hits on the site improved by about 4%

Amongst the mass of data that we can obtain from the Blackfoot Hosting statistics of the activities that relate to the visits to our site we are also able to determine the countries from which our 'visitors' come. The top 12 Countries, in alphabetical order in the past twelve months were:

United Kingdom, USA, China, Germany, India, Russian Federation, Romania, The Netherlands, Sweden, Turkey, & Spain,

The visitors from each of these countries visited more than 100 pages of the website with the top 7 each visiting more than 430 pages A further 8 countries visited between 50 and 99 pages, and 878 pages on the site were visited by callers from a total of a further 66 countries. Clearly, from these results it seems that our website is receiving visits from people who have more than just a passing interest in the brazing process, and that such visitors represent a contact with EABS from 84 different countries from across the world. It is also interesting to note that the average time that visitors remain on the site is 2minutes 50 seconds, but with a total of 168 visitors remaining for a time between 30 minutes and 1 hour. Clearly, the overall pattern of visits to the site can be seen as the evidence that supports the view that the world 'out there' thinks that EABS has something that is unique, and that we are doing things that are of interest to them

EABS Spring Seminar- Hanau, (DE), March 2010

In common with the joint EABS-Solvay Fluor GmbH Aluminium Brazing Seminar in Hannover, the presentation of a Seminar in Maastricht by EABS had become an Annual event. The programme that we had arranged for the event in March 2009 included a total of six guest speakers, each of whom are recognised internationally as being a specialist in the area of brazing technology that each of them was to cover in their Paper.

As mentioned in the Spring 2009 Newsletter, The Secretariat received a number of e-mail messages from potential attendees to the March event that said that while they wanted to join the Seminar, the prevailing economic conditions had resulted in their employer refusing to agree to staff attending Training Courses that required them to travel from their usual place of employment.

While we were sorry that the 2009 event had to be cancelled, it gave us the time to consider what to do about this particular Seminar in future years. As you will all no doubt recall, both the Secretary and the Chairman had heard comments from delegates at the two previous Maastricht seminars that they had found travel to the far southeast of The Netherlands rather 'inconvenient'. This was also an experience that the Chairman had when KLM left his luggage in Amsterdam despite the fact that after his arrival in Amsterdam from Manchester he had nearly a two-hour wait for a connecting flight. On arrival in Maastricht, minus luggage, he was not amused to be told that to ensure that the luggage was on a connecting flight it was necessary to allow a 2½ hour 'change-over' in Amsterdam! Bearing this in mind, and checking the various locations from which delegates to all previous presentations of this Seminar have come, it was decided that a venue close to a major International Airport in Germany would be a better choice of venue. Consequently, the Seminar scheduled for March 2010 will be presented at the Hotel Villa Stokkum in Hanau/Steinheim.

As usual, the hotel will be the base for the seminar, and we have reserved a sufficient number of room for delegates to use should they need over-night accommodation. The Chairman has used this hotel on numerous occasions in the past and can strongly recommend it. The town of Steinheim dates from the Middle Ages, and has a wall around portions of it. The hotel is outside the wall, but the walk into the town takes about three minutes. Once there, delegates

will find a number of excellent local restaurants, all of which are no more than a five-minute walk from the hotel.

Hanau lies to the east of Frankfurt-am-Main, and is about a 35-minute trip on the S-Bahn from Frankfurt Airport; it is also conveniently located very close to the autobahn system. Consequently travel to the event should pose delegates, (and the Chairman!), with no major problems.

The format of inviting specialist guest speakers to our Spring Conference is one that is well advanced, and we are now very close to being able to finalise the programme. It is anticipated that the full details of the programme will be posted to our website in early November 2009, and its initial circulation to our mailing lists will be made early in December 2009. It is to be hoped that the 'green shoots' of the economic recovery that are now being reported in Europe will be showing enough growth to convince the companies from which the potential delegates will come that it would be a good idea for their people to join us in Steinheim!

Joint JMMJ-EABS tungsten carbide and PCD Brazing Seminar

This seminar had been due to be presented in Basle, Switzerland, in early June. Since our experience is that bookings for our events always show a surge in the last five weeks before the event, we always try to negotiate a contract with the hotel where the event is to be held that allows us to cancel the event up to 4 weeks before the event with incurring any cancellation charges. In this case the hotel concerned was only willing to concede the 'no charge' cancellation clause to within 10 weeks of the event. The rate of firm bookings was slow, but regular, but no-where near great enough to permit us to continue with the project unless an extension of the period when we could cancel the event without incurring any charges could be agreed. Unfortunately the Hotel would not grant an extension, and so the event has been postponed until June 2010.

The programme will be finalised early in March 2010, and details of it will be posted to the EABS and JMMJ websites in early April prior to it being circulated to our respective mailing lists

EABS Publicity

1. There is little doubt that users of the brazing process appreciate the fact that EABS is a Technical Society that is able to help them when they run into difficulties with their production brazing. This can be assumed because of the activity we see on our website, the number of e-mails that the Secretariat receives, and, in 'normal times', the rapid rate at which places on our various seminars are filled.

In the current climate we believe that it is important to keep our name and contact details even more visible in the market-place, and to that end we have obtained a modest supply of Memory Sticks that have been personalised to EABS. This figure shows the reverse side of the sticks that we have obtained. The 'front' of the stick, where the LED is situated, carries the wording ***'European Association for Brazing and Soldering'***



As is well known, we invariably provide delegates to our seminars with notes that cover In the past it has been our practice to provide delegates to our Seminars with the Course notes burnt onto a 700 MB CD. This has now ceased: and for all future Seminars and 'Tailor-made'

in-house training courses we shall load the notes onto an EABS 256MB Memory stick! The first Company to benefit from this change was Esterline Corporation to whom a specialised two-day in-house course dealing with the theory and practice of vacuum brazing was presented by Peter Walter on behalf of EABS on 7th and 8th July 2009.

2. As many Members will know the Chairman is the author of ***Industrial Brazing Practice***, a book published by Taylor & Francis in the USA towards the end of 2004. EABS has been able to arrange with the publisher to obtain a limited number of copies of the book at good discount **provided** that the purchaser is employed by a Corporate Member of EABS and places his Order through EABS. The Cover Price of the book, details of which are given below, is £110. However, with the discount, the Secretariat will be able to supply them at £82.50 per copy plus packaging and postal costs.

Any Member who is interested in buying a copy should contact the Secretariat

Details of the book: ***Industrial Brazing Practice***

During the past 30 years there have been dramatic changes in the application of 'brazing' as an industrial joining process. Because there are so few practitioners who now understand the finer points of the technology, many of the companies that use brazing as their preferred joining procedure are failing to use it to best effect.

One of the few books devoted to this branch of joining technology, ***Industrial Brazing Practice*** provides you with the help you may need when dealing with the day-to-day application of the brazing process in your production shop. It explains the six simple rules that need to be followed to obtain successfully brazed joints, and explains how these rules form the bedrock of problem-solving methods in the field of brazing technology.

Written by an expert who has over 45-years of practical trouble-shooting experience, this volume describes the wide range of technical possibilities that you may face, and contains the information needed to enable you to develop the 'best practice' solution to any brazing problem that you may encounter in your day-to-day work

Features of the book:

- Provides a reference that will help you to overcome day-to-day problems that you meet in your brazing shop.
- Discusses the fine points of the five heating methods that are commonly used for brazing.
- Details the procedures and processes that are used in the brazing of commonly used engineering materials, for example stainless steels, aluminium, and tungsten carbide
- Details the nine fundamental stages of the Process Analysis Procedure; a technique that if properly used *always* leads to the resolution of the brazing problem being analysed.

Contents

[392 pages covering the following items](#)

1. The fundamentals of brazing
2. Designing for Brazing
3. Brazing Filler Materials and fluxes
4. Fuel Gases and Burners
5. Brazing with flames
6. Induction and Resistance Brazing
7. Furnace Brazing
8. Brazing with Filler-Material Pastes
9. Brazing Aluminium
10. Brazing commonly-used parent materials
11. Question time
12. The Methodology of Process Analysis

Plus an Appendix of a series of Process Analysis Tables together with an Index to the content of the book..

Interfacial corrosion of joints brazed in stainless steels with low-temperature silver brazing alloys

In several of the documents that are to be found in [Area 3](#) of Members Area of the EABS Website the theory and practice of the protective atmosphere brazing of stainless steels is covered in fine detail. For the sake of completeness, and because the brazing of stainless steel is undergoing modest growth, in this article we will consider aspects of the interfacial corrosion of brazed stainless steel joints, a failure mode that is relatively common, yet one that is not widely understood in the brazing Industry.

This short paper considers aspects of the interfacial corrosion failure of joints brazed in stainless steels with silver containing low-temperature brazing filler materials. This is a failure mode that is relatively common, yet even though this problem has been recognised since the mid-1960's, experience from industry clearly demonstrates that this form of corrosion is neither understood nor, in the main, even considered as a possible cause of the joint failures that have occurred in brazed stainless steel assemblies. This may well be because detailed written information on the phenomenon is almost non-existent: this short Paper attempts to rectify this situation!

The complete document is filed as **Document 2.8** in the Members Area of this website.