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Micro-Examiner

DETROIT CHAPTER

JANUARY 2001

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PAST PRESIDENTS/ NATIONAL OFFICERS NIGHT Mon., Feb. 12

Vladimir's
28135 Grand River,
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Social Hour 5:45 p.m.
Price w/reservation \$17.00

Dinner 6:30 p.m.
Later reservations &
all non-reservation \$19.00

Meeting 7:00 p.m.
Students w/I.D. card \$ 5.00

Reservations must be
phoned to our ASM
Chapter office,
810-573-0700, by noon
on Friday, Jan. 5

Next meeting: Jan. 8

Visit the
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for up-to-date info at
www.asm-detroit.org

Hot Metal Gas Forming (HMGF)

A Thermally Enhanced Intelligent Low Pressure Forming Technology with Integral Selective Heat Treatment

January 8th ASM-Detroit is pleased to welcome **George Pfaffmann, Vice President of Technology at TOCCO, Inc.**, and also a very good friend of ASM-Detroit as our guest speaker. George Pfaffmann has over forty years of experience in heat treating and induction technology development, including extensive work in management, engineering and marketing. He holds more than 25 U.S. and foreign patents, improving induction heating technology and materials processing.

George attended Michigan Technological University, holds a Bachelor of Science degree in Electrical Engineering from the University of Michigan, and a Masters of Business Administration from Baldwin-Wallace College. He has also conducted numerous technical seminars and presentations in Europe, Japan and China for ASM, the Materials Engineering Institute, and the Society of Manufacturing Engineers. Writing credits include numerous technical articles, handbook contributions, and editorial comments for Industrial Heating, Advanced Materials & Processes, and Manufacturing Engineers. George is also a very active ASM-Detroit member.

George Pfaffmann will introduce us to HMGF, which is designed to compete with stamping plus welding and hydro forming for manufacture of automotive body and structural components of both steel and aluminum. This concept is being developed and validated as a project co-funded by the National Institute of Standards and Technology (NIST) under the advanced technology program and a consortium of 17 member companies with a unique range of distinctive competencies. The project objective is to develop a low cost, more efficient manufacturing process capable of providing greater product design flexibility and component performance. The challenges that this technology is directed to meet fall in three primary areas: 1) improved material formability (2) thermal treatment for enhanced strength (3) greater flexibility in component design capability.

The system is arranged to be capable of in-line process integration at elevated production rates exceeding those used in existing processes. The system uses a number of innovative techniques including induction heating coils in the forming dies to provide a profiled dynamic heating pattern to intelligently compliment the forming process. George Pfaffmann will provide the background technology that launched this concept and will outline the ongoing development work and progress to date and future anticipated capabilities.



*George Pfaffmann
Vice President of Technology
TOCCO, Inc.*

TECHNICAL CHAIRMAN
*Donna Walker, FASM
Stressolvers, Inc.*



CHAIRMAN'S MESSAGE

Happy New Year!

By now, everyone should be well rested from the holidays and looking forward to a new year in the new millennium. We've all had a fresh encounter with our Michigan winter wonderland this past month. Having just spent three days working away at the "white stuff", I am less than jubilant over this winter season. Wish I had taken a class in small engine repair. Looking on the bright side, the snow skiing should be great this year.

The Chapter will also celebrate a great start to the new year with our January meeting, featuring our own George Pfaffmann, VP of Technology, TOCCO, Inc. George has been a long-standing, highly supportive, respected member of the Detroit chapter. Please join us for a look at this new concept known as HMGF (hot metal gas forming) and the potential of this technology.

The Detroit community has vast technical talent that the Chapter can draw upon, as demonstrated with this month's speaker. Monthly technical meetings present a unique opportunity to network with people representing all facets of our materials community, and the talks are designed to give you a peek at what's new in our industry. Have you taken advantage of this opportunity?

I would like to also take this opportunity to acknowledge the many people who volunteer their time and talents to our chapter. There are too

many to recognize individually, but include those who serve on the executive board, the many committee members, and those who have been especially active in serving the chapter in the past. ASM-Detroit committees work very hard to provide our membership a wide spectrum of programs and activities. The Detroit chapter is recognized by ASM International as a leader among the chapters, due to the selfless contributions made over the years by our members and the unfailing industry support we have so fortunate to maintain. Thank you all for your efforts.

While industry support continues to be high, more leaders are needed as we plan for the future. In order to generate new ideas and maintain a certain level of continuity, we need capable members who are committed to our chapter and interested in helping set our course well into the 21st century. Each of you has something to offer ASM-Detroit. Please take some time to examine the possibilities. The personal, professional, and business rewards that come from serving the chapter are incalculable. If you're interested, let me know at one of the meetings, or contact Caryn at the chapter office. Even if you're not, think about attending at least one meeting this year and see what ASM-Detroit has to offer. You may be surprised!

See you at Vladimir's!

Rick Gundlach



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Technical Program

JANUARY 8, 2001

Hot Metal Gas Forming
George Pfaffman
V.P. Technology, TOCCO, Inc.

FEBRUARY 12, 2001

PAST PRESIDENTS/NATIONAL OFFICERS NIGHT
Stress Corrosion Cracking of Stainless & High Alloys
Dr. Aziz Ashphahani
ASM International President

FEBRUARY 21 - APRIL 4, 2001

Lightweight Materials Seminar
ESD Headquarters, Southfield

MARCH 15, 2001

Joint American Foundrymen Society
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APRIL 9, 2001

SUSTAINING MEMBERS NIGHT
Metallurgy in Sports Equipment
Robert Luetje
V.P. Research & Development, Kolene Corp.

MAY 14, 2001


OLD TIMER'S NIGHT
Life as a Submarine Commander in the Cold War
Dr. Michael DeHaemer
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Spotlight on Sustaining Members



The Sustaining Members of the Detroit Chapter are major supporters of the Chapters programs. Most are regular prize donors for our annual golf outing. Many are social hour sponsors. An even greater number are advertisers in our Yearbook & Buyer's Guide. Needless to say, our Chapter could not provide the programs we do without the support of this very special group.

This month, and in the remaining months of the 2000-2001 season, we will highlight our Sustaining Member companies.

Please take note of these companies, look for their website links, and thank their representatives when you meet them during business or at our technical meetings.

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ASM-Detroit Educational Opportunity

The Detroit Chapter will offer a Light Weight Materials Seminar Series at ESD Headquarters beginning February 21, 2001. Lectures on a new topic will be held weekly. The topics to be covered include: Austempered Ductile Iron, Advanced High Strength Steels, Aluminum, Magnesium, Metal Matrix Composites and Painting Automotive Plastics. Participants can attend any combination of lectures at \$40.00 per lecture or save and attend all for \$200.00. For more information, see the enclosed program brochure or contact the Detroit Chapter office at (810) 573-0700.

Are you a Sustaining Member?

Sustaining Members play a critical role in the success of ASM-Detroit. They provide both a continued core presence at Chapter activities, and an increased level of financial support. In return, Sustaining Members enjoy the goodwill and camaraderie, and the satisfaction of helping to educate and promote young material professionals. Sustaining Members also enjoy an array of benefits available only to them. They include:

- ▲ Listing on ASM-Detroit's web site, and a link to your companies web site.
- ▲ A company profile in the Micro Examiner advertising your products and services.
- ▲ Special recognition in two sections of our Yearbook & Buyer's Guide.
- ▲ Recognition at our Sustaining Members Night in April, including the honor of providing the Sustaining Members Meritorious Scholarship also awarded in April.
- ▲ Company will receive a plaque to be displayed at your place of business.
- ▲ An engraved brass-on-walnut plaque which is displayed at our Technical meetings.
- ▲ Opportunity to advertise with your own insert in our Micro Examiner (a fee does apply).

The cost of a Sustaining Membership is only \$45 more than an individual membership, and it includes an individual membership as well! Becoming a Sustaining Member can only increase your visibility in the materials community. The first step is to contact Caryn at the chapter office at (810)573-0700. Sustaining Membership has its privileges, call today!



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Members In the News

ASM-Detroit is proud to announce that Dr. Jack Simon, FASM, Executive Director, ERIM will receive ESD's Gold Award, awarded annually by ESD's Affiliate Council. The Gold Award is presented to a distinguished individual who demonstrates outstanding professional achievement and community service. Dr. Simon was nominated by ASM-Detroit due to his many years of service and numerous contributions to the materials community. The 2001 Gold Award will be presented on Wednesday, February 21, 2001 at the ESD Affiliate Society Gold Awards Banquet, which will be held at the Somerset Inn in Troy. Our heartfelt congratulations to Dr. Jack Simon, FASM for this distinguished award.




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Judges Needed Michigan Regional Future Cities Competition

The Regional Future Cities Competition is coordinated by ESD and is part of the National Engineers Week Future Cities Competition. The winning teams from the three regions in Michigan will go on to Washington D.C. to participate in the National Future Cities Competition February 19th thru the 25th.

ASM-Detroit is asking for volunteers to be judges January 30th at the Spirit of Ford in Dearborn. This is a great opportunity to see the engineers of tomorrow in action. If you are interested contact Mike Vinarcik at (313)337-8377.

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The Detroit Chapter is proud to be participating in a membership drive in cooperation with ASM International. The target is to obtain 2001 new members by 2001. Do you have a co-worker who might benefit from membership in ASM? In addition to programs put on by the Detroit Chapter, membership in ASM International has many other benefits available to our membership. For a full listing of benefits, visit our website at www.asm-detroit.org. Need a membership application? Call Caryn at the chapter office or call ASM International at 1-800-336-5152. And remember 2001 by 2001!

Ticket Books Available

Ticket books for dinner at our Technical meetings at Vladimir's are available for purchase at \$150 for 10 tickets. You can buy a book for yourself, or share with a friend and enjoy the Detroit Chapter programs for the 2000-2001 season. To order, contact Caryn at the chapter office at (810)573-0700 or you can purchase them at the door at Vladimir's. When you use your prepaid dinner tickets, please continue to make reservations by contacting the chapter office by the Friday before the meeting.

Discount Tickets Available North American Auto Show

ASM-Detroit is offering discounted tickets for the North American International Auto Show to be held at Cobo Center January 13th through the 21st. Any day passes are available through the chapter office for \$6.00, a savings of \$4.00 off the regular admission price of \$10. Tickets must be ordered by January 5th. Phone the chapter office at (810)573-0700 to order.

Micro-Examiner

The 2000-2001 programs of the ASM Detroit Chapter come to you through the courtesy of the sponsors whose advertisements appear in this newsletter. The Chapter extends its thanks for their support.

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