

New Developments in Sheet Metal Forming

New Developments in Hydroforming

2020

Published by
Mathias Liewald



INSTITUTE FOR METAL FORMING TECHNOLOGY
OF THE UNIVERSITY OF STUTT GART

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IMPRINT

Publisher:

Institute for Metal Forming Technology
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of the University of Stuttgart, in cooperation with:
Forschungsgesellschaft Umformtechnik mbH (FGU, Stuttgart / Germany)

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Conference Proceedings of selected papers prepared for the
International Conference on “New Developments in Sheet Metal Forming”
intended to be held in Fellbach, Germany, on **May 12th-13th, 2020**.
Due to regulations directed by local authorities to avoid further spread of the COVID-19
virus, the organisers of the venue were not allowed to hold this conference in 2020.

All contributions included in this conference proceedings are published as written by
indicated authors. Contents and orthography of contribution do belong into scope of
responsibility of respective author or authors.

ISBN 978-3-947085-03-3



Preface

The International Conference “New Developments in Sheet Metal Forming” in Stuttgart / Germany is organized every second year alternating with the International Conference “New Developments in Forging Technology”. Main goal of both conferences is to join engineers and specialists in metal forming technologies from industry and scientists from universities on a common communication platform. Debates and discussions revealing diverging opinions and perspectives on newest trends in metal forming technology, analyses of current state of the art as well as targets to be reached in research and development in the field of sheet metal forming technologies are highly appreciated during both days of this year’s conference.

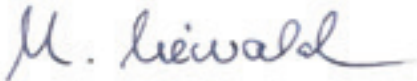
The Institute for Metal Forming Technology (IFU / Stuttgart / Germany) annually organizes this venue in collaboration with Forschungsgesellschaft Umformtechnik mbH (FGU / Stuttgart / Germany). For many years, the concept of conference has focused on an effective transfer of scientific results into value added chains of producing companies, which are quite active in forging and such dedicated market segments. The presented topics of selected papers of the conference therefore have to be evaluated in the context of current research activities in sheet metal forming, hot forming, and tool design in Europe, the United States, and Asia. Finally, contributions during the conference also intend to present strategic issues of more general topics in production of sheet metal components to external specialists and to figure out the recent state of the art on an international level.

Within the scope of this two-day conference, experts from both universities and industrial companies will present their papers. The topics presented include running investigations and projects being launched in several European and Asian sheet metal forming companies, suppliers of semi-finished products, press machine manufacturers and software vendors addressing their newest achievements. Thus, participants i.e. readers of proceedings respectively, can expect an adequate mix of practical-oriented and theoretical contributions and papers. Stimulated by several contributions supplied by partners of the hosting institute, this year special attention is paid to present and to publish modern practical solutions in sheet metal forming linked with new approaches to integrate sensors into forming equipment such as forming tools or presses in order to control process development during series production. Therefore, one session of the conference is dedicated to the topic “Digitalization in / of Production”.

Hopefully collection of released papers may meet the expectations of our regular guests and conference attendees to take as much as possible into their own day-to-day work. Unfortunately in 2020 it was not allowed to arrange international conferences because of further spread of the virus COVID-19 during spring and summer months, hopefully we will meet again in 2022.

I would like to thank all authors for contributing and feeling inspired to publish this proceedings at least electronically! I am sure that this collection of papers potentially being presented on May 12th-13th, 2020 in the Schwabenlandhalle in Fellbach / Germany will be dispatched widely and will be available to all international experts involved.

Sincerely yours,

A handwritten signature in blue ink that reads "M. Liewald". The signature is fluid and cursive, with a long horizontal stroke at the end.

Univ.-Prof. Dr.-Ing. Dr. h. c. Mathias Liewald MBA

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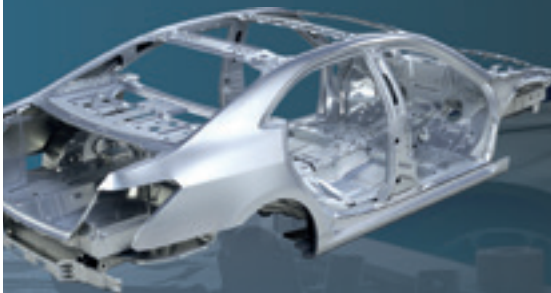
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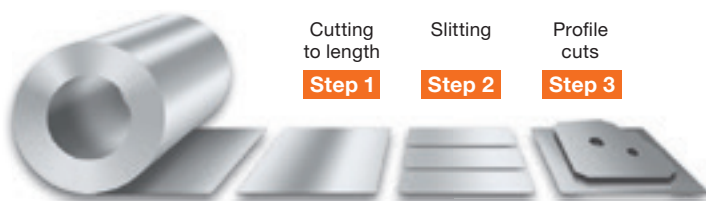
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