

### QForm Forum. Berlin. 27-29 November 2017

This year QForm Forum will take place in Berlin on November 27-29. It will be the event where members of QForm team will present the most recent development of our simulation software while the users from the industry and universities will show the most interesting and informative examples of its implementation to different forming technologies.



Forum also will provide a unique opportunity of experience exchange and networking among the people from industrial and research background from many countries.

The key themes of QForm Forum are bulk forging, ring rolling and heat treatment simulation.

### QForm at Metal Expo Exhibition in Russia

Metal-Expo'2017, the 23d International Industrial Exhibition will take place on 14-17 November in Hall 75, VDNH, Moscow, Russia. QForm booth jointly with ESI Group and Oberste Beulmann - 1B78: «Simulation of technological processes».



We are glad to invite you to participate in mini seminars, master classes and presentations.

### Awarding the winners of Students Olympiad in Hot Bulk Forging Technologies 2017

First place QForm Olympiad winners Ms. Tatiana Borunova (Russia, Moscow Aviation Institute) and Mr. Nguyen Trung Thuc (Vietnam, Le Quy Don Technical University) were awarded with powerful laptops for simulations. All Olympiad participants got certificates of QForm specialists.



Awarding winners in Vietnam



Olympiad organizer in Poland awarding winners in AGH University



We are glad to invite students of mechanical engineering to take part in the International Students Olympiad in Hot Bulk Forging Technologies, which will take place in April, 2018 at universities around the world.

### QForm at 18th ADA user's conference in Japan



18th ADA user's conference took place in Tokyo, Japan on 7 July 2017. The event is organized by Applied Design Analysis Corporation (ADA), QForm representative in Japan.

This time Stanislav Kanevskiy (QForm Group) has presented two reports about QForm software. One report was about new features of QForm VX and Ring Rolling. Example of ring rolling from Kaltek, Korea attracted the biggest attention due to very specific technological process which can be simulated only in the new version of QForm Ring Rolling software due to new unique developments.

The second report was about new developments in QForm Extrusion and QExDD. Especially new whole billet length simulation task was considered based on the last ICEB 2017 test where the defect in the profile was detected thanks to this new type of simulation.

### EVENTS

#### 18 – 21 September 2017

12th International Conference on the Technology of Plasticity (ICTP 2017) in Cambridge, England

#### 25 October 2017

QForm at Heat Treat 2017 Conference in Columbus, Ohio, USA

#### 14 – 17 November 2017

Metal-Expo'2017, the 23rd International Industrial Exhibition in Hall 75, VDNkHa Moscow, Russia  
Our booth is 1B78

#### 27 – 29 November 2017

QForm Forum 2017 in Berlin, Germany

## International Forgemasters Meeting in Austria



IFM 2017 took place on 11-14 September 2017 at the Congress Graz in Graz, Austria. The conference is focused on the status and future development of the open die forging industry. More than 124 presentations were shown during the event.



Dr. Sergey Stebunov made presentation «Industrial Implementation of Ring and Wheel Rolling Simulation». Many forging, metallurgical specialists and producers of equipment took part in conference exhibition. Most important reports were about the recent trends and developments in heavy open die forging in Asian, European and North American countries.

## QForm in England. Presentation at ICTP 2017



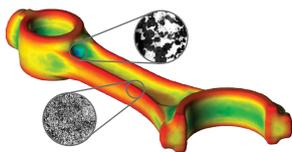
International Conference on the Technology of Plasticity is one of the biggest events in the field of metal forming science. This year it took place in Cambridge, England on 18-21 September.

Our paper at the conference was focused on simulation of elastic-plastic deformation in case of localised large strain zones surrounded by vast elastic areas that are typical for incremental metal forming processes in cold state. The problem becomes even more difficult due to limited plasticity because of damage accumulation. The developed approach has been used for the simulation of flow forming processes and has been compared with a rigid-visco-plastic model. The new model has been tested in comparison with experimental results and has proved its advantages and good accuracy.



Besides of the paper we also made presentation of our software, its fantastic capabilities and user-friendliness at our stand during the event.

## QForm at Heat Treat 2017 in Columbus, OH, USA



QForm VX 8.2 has got a completely new module for heat treatment simulation. It includes three different models of phase transformation (JMAK, Koistinen-Marbuge and Leblonde-Devauux) and a user can select the most appropriate one

depending on the task and available data.

New module has been successfully implemented to different industrial processes of quenching and tempering of steels, solution treatment and aging of aluminium alloys to predict final phase constitution, mechanical properties, possible distortion and residual stresses.

To help a user with accurate material data required for heat treatment simulation we have developed a special method. It will be presented at the conference Heat Treat 2017 in Columbus on 25 October at 11:40 as «An Inverse Method for Determining Steel Properties for Simulation of Phase Transformations During Quenching» (authors N. Biba, A. Shitikov, A. Alimov).



CIE LT Forge is a new QForm software user since 2017. It specializes in the production of forged and machined parts for automotive industry.

CIE LT Forge meets the requirements of the world's largest automotive industry companies and other manufactures. Highest quality requirements are met through all the continuous production process, starting from the purchase of raw material till the timely completion of product delivery to the customer.

## QForm New Users

### China

**Xingfa Aluminium** is a large-scale enterprise specializing in production of aluminium profiles

### Czech Republic

**Kovolit, a.s.** is one of the leading manufacturers of die forgings from non-ferrous metals in the Czech Republic

### Germany

**SURE TEC** specializes in producing brass forgings, bronze forgings, copper forgings and nickel silver forgings.

### India

**Fitwel Tools & Forgings Pvt. Ltd** is a manufacturer of forged components with capacity over 1.9 million forged parts per month

### Italy

**Luxottica Group** is a market leader in the design, manufacture and distribution of eyewear

### Lithuania

**CIE LT Forge** specializes in the production of forged and machined parts for automotive industry

### Russia

**SIAL's Casting-Extrusion Plant «Segal»** – is one of Russia's largest aluminium profile manufacturers

### Taiwan

**TEKTRO** has more than 30 years of experience manufacturing brake systems in the bicycle industry

### Vietnam

**Vietnam Precision Industrial No.1 Co., Ltd.** manufactures metal parts to various reputable companies including Honda, Ducati and Ford