Cimolai Technology chooses ANSYS

Cimolai Technology designs and produces special machines and plants for lifting, handling, transport and launching operations

Cimolai Technology Spa is located in Carmignano di Brenta - a few kilometers from Venice - in modern premises with a total area of 53'000 square meters.
In 2004, the Cimolai family, who founded and ran the Cimolai group - a world leader in steel construction - for nearly 60 years, decided to invest in new production fields. The key idea was to create a new production based on the solid foundation of the Cimolai group, the versatility of a young group of engineers with proven experience in specialized transport and lifting systems. Thus Cimolai Technology Spa was formed with the vitality of advanced technology and innovative potential. At the same time, it was founded on the strong and stable platform of design and production collaboration. Therefore Cimolai Technology Spa Special Equipment has become a worldwide partner for the study and optimization of any lifting, handling, transport or launching operation.

The company works closely with customers and is always ready to find the right solution for the specific field and application required. The customer can count on experienced staff in the design, electrical and hydraulic departments, capable of meeting the various needs. The considerable production capability, the group's synergy and state-of-the-art facility in Carmignano di Brenta - where all machines are pre-assembled and tested - enable short delivery times, always guaranteeing a 100% Italian-made machine which complies with the highest levels of quality. Furthermore, specialized assemblers are available, qualified to interact with the end-user. Not only do they assemble and commission the machines but they also guarantee a prompt global after-sale service.
Cimolai Technology Spa Special Equipment is UNI EN ISO 9001, ISO 14001 and BS-OHSAS 18001 certified. For the USA and Canada, the machines manufactured by the Company are UL certified. In addition, all of the machines comply with the terms and the provisions of EEC Directive 2006/42/CE and are marked "CE". Cimolai Technology Spa Special Equipment has also been certified by SOA Nord Alpi and is qualified to participate in Italian public tenders.

CIMOLAI Technology spa
Special Equipment

Taking into account all these activities, most of them requiring a tailor-made approach to the project to meet customer requests and specifications, but also complying with stringent regulations, it is essentials for Cimolai Technology to calculate and check all its metallic structures precisely and so in February 2016, the previous computation system was replaced by the new ANSYS WORKBENCH and SPACE CLAIM.

Fig. 1- Gantry cranes on rails installed on a floating dock

Fig. 2 - Mobile boat hauler for construction/refit yards

Eng. Giovanni Sabbini, who led the introduction of ANSYS into the project in the technical department, was interviewed five months after the software installation and he could satisfactorily affirm that: "the main benefit we have obtained, by adopting the ANSYS technology in the development of our products, has been that of simplifying and improving the iterative flow between design/project and computation/verification.

The cycle can be closed now more effortlessly and the necessary enhancement iterations are easily performed. Previously, the geometric modification and preparation used to cover the 80% of the total activity, while now it has been reduced up to the 40%, thus saving time and resources to be oriented to the real computation. The target we are focused on now is that of reducing the refined geometric preparation by up to 20%. The other great advantages we have achieved have been the quality and the velocity of the mesh that, together with new hardware installations, have allowed us to reach inconceivable overall velocities.
In substance, we can currently evaluate a saving in time for the whole calculation activity of more than the 50%.

Furthermore, the possibility of designing complete models, including bolted joints, has allowed us to quickly obtain an improved accuracy in the prediction of complex structures and therefore to avoid corrective measures during the executive phase. This element is particularly important since our structures are often unique and are assembled in the construction yard. An improved reliability in this sense enables to be faster and more precise in the prediction of delivery time, thus reducing unexpected events."

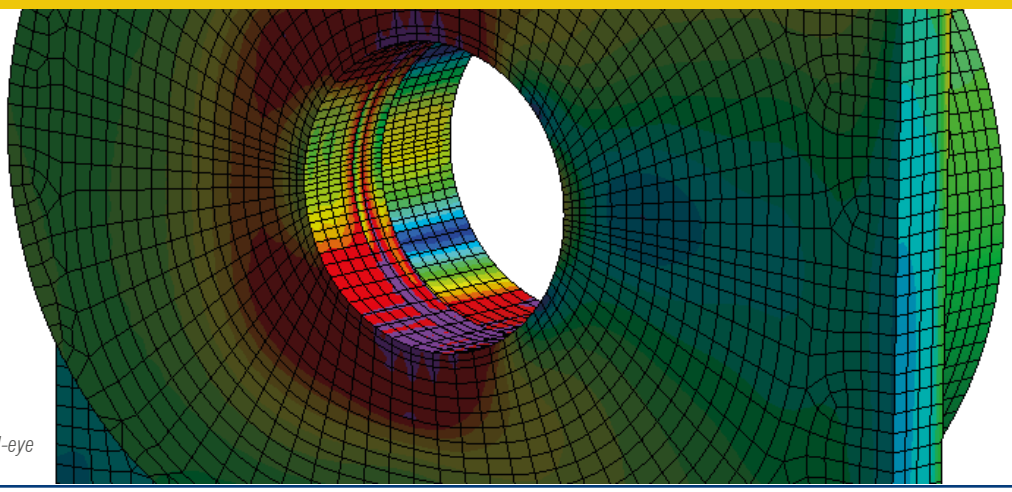

Fig. 3 - Detailed analysis of a pad-eye