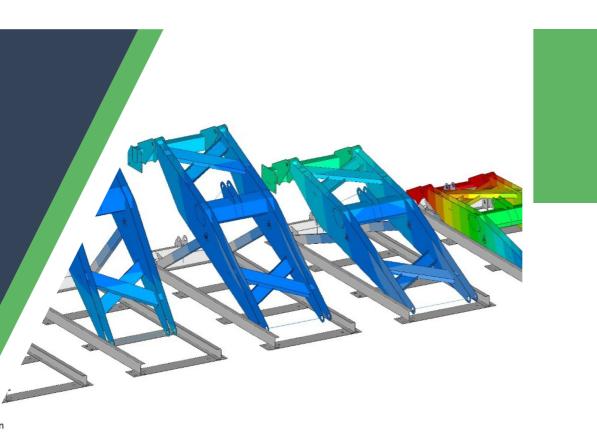


# Engineering and Design **STRENGTH CALCULATIONS**







## **ENGINEERING AND DESIGN**

## Mechanical engineering and design proficiency, with the technical calculations you need.

Our experienced industrial engineers design technically sound machines and production lines for you. We offer high-quality mechanical engineering and technical calculation services. With Makron, you always get great customer service and project management. Makron can also manufacture the machines and handle the full-scope of delivery. We choose the right employees, with the right expertise and know-how, to meet your needs. Our experts have the skills to take responsibility for the entire product development process, from idea to production.

## **STRENGTH CALCULATIONS**

Strength calculations are carried out to guarantee that the structures designed can withstand the strain they will be exposed to. Makron is on hand to offer assistance throughout the product lifecycle, from its design to repair and modernization. We calculate stresses and displacements, verify the structure's strength, design the changes required for the strengthening of the structure, and prepare the required reports. We perform high-quality strength calculations, using analytical and finite-element methods.

#### What Makron does

We offer strength calculations and analyses for a fixed fee and at hourly rates, depending on the project. We provide customer-oriented services for small and large projects alike. Since we work in collaboration with Makron's mechanical engineering team, you can order calculations and design as a single package. Get in touch for a discussion of how we can help you.

#### **Products & expertise**

- Static and dynamic strength calculations
- Seismic calculations
- FEM analyses
- Pressure vessel analysis
- Non-fixed load-lifting equipment analyses
- Structural optimization
- · Fatigue life evaluation for welded structures
- Consultation



### Contact



#### **VERNERI VÄISÄNEN** *Business Director, Engineering* Headquarters

+358 44 065 9510 verneri.vaisanen@makron.com Languages: EN, FI